

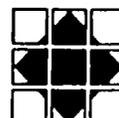
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May 1992

Submitted to the

Office of Health
Bureau for Research and Development
Agency for International Development



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Pragma Vision Technology

REACH II Midterm Evaluation was produced by Project ASSIST of the Pragma Corporation and submitted to Health Services Division of the Office of Health, Bureau for Research and Development, Agency for International Development under Project Number 936-5939.05, Contract Number DPE-5939-C-00-7003.

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PD-ABE-867
ISN 59745

**Midterm Evaluation
of
Technology and Resources for
Child Health
(REACH II)**

A.I.D. Project Number 936-5982

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Acknowledgments

The REACH II Midterm Review team appreciates the contributions of everyone who participated in this review.

Special thanks go to REACH II management and staff for preparing background material and thorough briefings, for their generosity in providing office space, and for their responsiveness in providing information and clarification in response to requests from team members.

The team thanks Dr. James J. Gibson, A.I.D. Cognizant Technical Officer for the REACH II project, for his generous and informative support.

The review was conducted between May 13, 1992, and June 5, 1992, in Washington, D.C., and Haiti at the request of the Office of Health, Bureau for Research and Development, Agency for International Development.

The review was coordinated by Project ASSIST of the Pragma Corporation with support from Devres, Inc. The report is submitted to A.I.D. under Project Number 936-5939.05, Contract Number DPE-5939-C-00-7003.

Acronyms

| | |
|--------------|---|
| A.I.D. | Agency for International Development |
| A.I.D./W | Agency for International Development/Washington, D.C. |
| ARI | Acute Respiratory Infections |
| CCCD | Combatting Childhood Communicable Diseases |
| CDC | Centers for Disease Control |
| CDD | Control of Diarrheal Diseases |
| CEIS | Computerized EPI Information System |
| COSAS | Coverage Survey Analysis System |
| CTO | Cognizant Technical Officer |
| DANIDA | Danish International Development Agency |
| EAG | External Advisory Group |
| EPI | Expanded Program on Immunization, as adopted by members of World Health Organization |
| EZ | Edmonston-Zagreb Measles Vaccine |
| GAG | Global Advisory Group (on EPI), an advisory group to WHO which meets annually |
| HCF | Health Care Financing |
| HEALTHCOM II | Communication and Marketing for Child Survival, Project number 936-5984 |
| IEC | Information, Education, and Communication |
| JSI | John Snow, Incorporated |
| KEPI | Kenya Expanded Program on Immunization |
| LOE | Level of Effort |
| MCH | Maternal and Child Health |
| MotherCare | Breastfeeding and Maternal and Neonatal Health, Subproject number 936-5966.01 |
| NGO | Non-governmental Organization |
| NNT | Neonatal Tetanus |
| PAHO | Pan-American Health Organization, regional office of WHO |
| PATH | Program for Appropriate Technology in Health |
| PHC | Primary Health Care |
| PHCW | Primary Health Care Worker |
| PRICOR | Primary Health Care Operations Research, Project number 936-5920, forerunner to Quality Assurance Project |
| PRITECH II | Technology for Primary Health Care II, Project number 936-5969 |
| QAP | Quality Assurance Project, Project number 936-5992 |

| | |
|------------------|--|
| REACH I | Resources for Child Health, Subproject of A.I.D. |
| REACH II | Project number 936-5927, implemented by JSI |
| SEATS | Technology and Resources for Child Health Project, |
| TAP | phase two, Project number 936-5982 |
| TCM | Family Planning Service Expansion and Technical |
| TT | Support, Project number 936-3048 |
| UNICEF | Technical Advisory Panel |
| USAID | Technical Consultative Meeting, an annual meeting of |
| WCARO | members of WHO |
| WHO | Tetanus Toxoid |
| WHO/AFRO | United Nations Children's Fund |
| WHO/SEARO | A.I.D. overseas mission in a U.S. aid recipient country |
| | UNICEF, West and Central Africa Regional Office |
| | World Health Organization |
| | World Health Organization/Africa Regional Office |
| | World Health Organization/South East Asia Regional |
| | Office |

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Forward

THIS MIDTERM REVIEW of the first four-year phase of the Technology and Resources for Child Health project covers 30 months of the 48 month contract between the Agency for International Development (A.I.D.) and John Snow, Incorporated (JSI). The review does not cover activities funded outside the contract, which include two annual grants of \$300,000 to WHO and 21 months of service to the Office of Health by a Technical Advisor in AIDS and Child Survival (TAACS) fellow.

The scope of work for this midterm review of the REACH II project called for comments and recommendations on a number of project-specific matters, six cross-cutting issues of interest to the A.I.D. Bureau for Research and Development, and the future direction of child survival projects managed by the Bureau for Research and Development's Office of Health.

The organization of the report is intended to minimize repetitious coverage of project activities—each of which might represent an issue of project design, an example of a technical or programmatic approach, a consequence of contracting and funding procedures or an illustration of a cross-cutting issue.

The Summary covers a number of issues that are not treated again in the body of the report. These include the overlap of REACH I and REACH II and, among the cross-cutting issues of interest to the Bureau for Research and Development, cost-sharing, buy-ins, and women in development. In addition, all summary comments on the Bureau's six cross-cutting issues are grouped together for the convenience of Office of Health readers.

Section II outlines the review team's recommendations for (a) the focus of the project from April 1992 to the end of the current contract in September 1993, (b) A.I.D. project management, and (c) options for the future of centrally managed A.I.D. child survival programs.

Section III discusses the formulation and evolution of project objectives and the project response.

Section IV covers the various aspects of project implementation, including work planning, technical strategies, programmatic strategies, collaboration with other donors, and attention to cross-cutting issues.

Section V reviews management issues related to A.I.D., the contractor and the subcontractors, and discusses the issue of technical oversight.

I. SUMMARY

THE TECHNOLOGY AND RESOURCES for Child Health project, number 936-5982, authorized as an \$18 million, eight-year project, is known as REACH II. A contract for implementation of the first four years of the project (1989 through 1993) was awarded to John Snow, Incorporated (JSI) in September 1989. This report reviews progress under the first two and one-half years of the REACH II contract, makes recommendations for project activities during the next year and one-half, and offers suggestions for future organization and management of projects in the A.I.D. Office of Health portfolio.

REACH II supports A.I.D.'s goal to reduce child deaths through simple, affordable, and evolving technologies. The purpose of the project is to strengthen selected host country capabilities to immunize children in the first five years of life and to provide technical assistance in primary health care technologies. A.I.D.'s intent, according to the Project Paper, was to assure that the Agency continues playing a major role in the international effort to avert vaccine-preventable morbidity and mortality. The Project Paper also indicates A.I.D.'s goal to provide a means to respond to requests for technical assistance in primary health care technologies not provided for in other Child Survival projects. A further intent was to make a start, with limited resources, in the case management of acute respiratory infections (ARI).

Overlap of Successive Projects

Implementation of the predecessor project, REACH I (1985-1990), also under contract to JSI, overlapped with the first year of REACH II. Staff time during this overlap was devoted mainly to the continuation of country-based activities begun under REACH I and completion of a series of six reports on the REACH I experience. Staff also marketed REACH II to A.I.D. offices and USAID missions, carried out short-term consultancies in response to requests and, in collaboration with A.I.D. and the World Health Organization (WHO), helped establish an approach to the problem of ARI.

The contractor, JSI, assigned a strong management team to both REACH projects and was able to benefit from the year of overlap and continuity in staff to launch REACH II work plans and activities. However, such an overlap creates special managerial challenges. For example, the first Director of REACH II was also simultaneously, at varying times in the first year, either the Deputy Director or Acting Director of REACH I. Due to the heavy demands for the project's services from the field, the Office of Health sees some advantages in planning, authorizing, and contracting for follow-on projects before the full completion of predecessor projects to respond to mission's needs. In instances such as this, however, when

the competitively successful bidder on the follow-on project is also the implementing firm for the predecessor project—and there is substantial funding remaining in the earlier project—A.I.D. should be aware of the risk that the second project is apt to get off to a slow start. A.I.D. must ensure that sufficient attention is given to launching new programs as well as to recording and transferring the lessons learned from the first phase of the project to the second phase.

One of the strengths of REACH II has been its ability to draw upon the experience of REACH I and other projects managed by JSI (for example, MotherCare, SEATS). In Morocco, for example, REACH II drew upon three studies of private sector involvement in health that were financed by other projects. Project activities in ARI in Morocco will include pilot efforts to involve private pharmacists. Building on the REACH I experience in improving immunization programs in urban Bangladesh, REACH II has proposed a program for Lagos, Nigeria, that will include private sector health practitioners, the reported source of 19 percent of measles immunizations in Lagos State.

Project Design and Structure

The Project Paper for the REACH II project does not specify how the project's impact on health status is to be measured. The contract with JSI for REACH II was not more explicit. In fact, the contract calls upon the firm itself, in consultation with its External Advisory Group (EAG), to establish progress indicators. The project has taken steps to define the technical areas in which it will be active (ARI, NNT, measles, polio, hepatitis B, logistics, information systems, health care financing, urban EPI) and to organize a framework to outline its objectives, but has not attempted to identify or establish either country-level or global level baselines against which to measure achievements.

Because project activities are discrete, and are usually performed in the context of greater involvement by other multilateral and bilateral donors, the impact indicators identified by the project have usually been qualitative and have tended to refer to process and outputs. The project has not tried to establish quantitative objectives on a global or country-level, but is establishing operationally oriented quantifiable targets for its newer initiatives in Nigeria, Morocco, and the Measles Initiative in Kenya¹.

The review team concluded that it would not be possible to describe the results of the project in terms of such global measures as coverage of immunization, the incidence of specific

¹ Announced as a major U.S. priority by President Bush at the World Summit for Children in September 1990, the Measles Initiative is a large-scale collaborative activity by three of A.I.D.'s (Office of Health, Bureau for Research and Development) central projects—REACH II, HEALTHCOM and Quality Assurance—to strengthen EPI systems in Africa that have lagged seriously in childhood immunization.

diseases, and morbidity and mortality averted, etc. This conclusion stemmed from the general nature of the objectives for the project set forth by A.I.D. and the inherent difficulty of attributing cause and effect in a multi-player international public health context. The team's review of project activities indicates that REACH II has performed well in the technical areas in which the project is involved.

Funds provided by USAID missions' buy-ins have financed a full-time presence in four child survival emphasis countries: in Haiti, a program coordinator/communication specialist and cold chain specialist; in Kenya, a communications specialist and administrative assistant; in the Philippines, a chief of party/EPI specialist; and in Yemen, a program manager and administrator. A second buy-in from USAID/Philippines financed work in cold chain logistics and health care financing. Funds from USAID/Nepal financed service delivery, data collection and analysis of the experience of a bilateral ARI project, and a buy-in from the Dominican Republic funded execution of an immunization coverage survey. Further buy-ins are now expected from Morocco and Nigeria.

Using funds transferred from regional bureaus, the project has provided assistance in four central Asian republics of the former Soviet Union and has analyzed the impact of Vitamin A supplementation on mortality in children in Nepal.

Assistance funded completely from the R&D/Health core budget has been provided in response to requests from ten countries with active USAID bilateral primary health care or child survival projects, and four countries without such projects.

Project Strengths

The strengths of REACH II have been demonstrated in its—

- world class leadership in:
 - policy and program development in acute respiratory infections,
 - EPI logistics,
 - development, modification, and installation of computer systems for management of immunization programs,
 - urban EPI,
 - immunization against hepatitis B and neonatal tetanus;
- ability to identify opportunities and develop program strategies within the very broad mandate of the project contract, and in its ability to respond to unanticipated requests, such as the Measles Initiative in

Africa and emergency technical assistance to four central Asian republics of the former Soviet Union;

- strong program management in a very uncertain environment of changing A.I.D. priorities, political instability in countries where the project is operating, and a lack of certainty over annual funding increments;
- delivery of high-quality, culturally sensitive services in response to AID-assisted country needs;
- contributions on behalf of the United States Government to global understanding of EPI and ARI issues through publications on:
 - ARI and Vitamin A studies in Nepal,
 - analysis of mortality effects of high titre measles vaccine in Haiti,
 - neonatal tetanus, and
 - maternal mortality from tetanus;
- effective cooperation and collaboration with other donors and interested parties in the field and through communication, workshops, and translation and dissemination of publications, including the well received manual, *EPI Essentials: A Guide for Program Officers*; and
- leadership in action on the unfinished EPI agenda: logistics, management, missed opportunities, urban programs, introduction of new technologies.

Midterm Review Team Concerns

The review team has several concerns about the project.

- Attention to the continuous self-evaluation called for by the contract has been overshadowed by day-to-day operational demands (though a degree of self assessment takes place at regular staff retreats, through the preparation of annual work plans, technical strategies and progress reports, through mutual consultation among members of the project's technical function groups, and by inviting world-recognized experts to participate in program reviews).

- The unique capabilities of REACH II subcontractors—in communication, and the research and testing of new technologies—have been underutilized.
- The project has been slow to begin seeking ways to engage the for-profit sector in its programs.
- Attention to health information, education, and communication has been limited, by direction of A.I.D.
- The intensity and breadth of activities proposed for the remainder of the contract may overextend REACH capabilities.
- REACH II must operate within an environment of competition with a number of other projects being carried out by firms whose work overlaps with that of REACH II. On occasion, the atmosphere of project competition (which to some degree is fostered by A.I.D.'s project oversight system) has discouraged collaboration.

Cross-cutting Issues

REACH II's response to cross-cutting issues of interest to A.I.D.'s Bureau for Research and Development has been mixed, but generally positive.

Cost Sharing. REACH II provides a leading example of co-funding with other donors in providing technical assistance. In most of the countries where REACH II is helping develop immunization programs, other multilateral and bilateral donors are also active. The REACH II contribution to, say, improvement in logistic management or cost analysis, is complementary and supplementary to existing programs. For example, in Kenya, a curriculum module prepared for the medical school by REACH II will be published by UNICEF. Another example is the Computerized EPI Information System, which was first designed by WHO, then adapted for global, regional and country-specific uses by REACH II.

Buy-ins. In contrast to REACH I, under which the provision for buy-ins from USAID missions was oversubscribed, REACH II, like some other current Office of Health projects, has suffered from diminishing mission interest in buy-ins.

General reasons for this situation include:

- the preference of missions to fund bilateral health projects that include a greater number of technical areas than those served by a single or double-purpose project;
- current policy requirements for concentration of mission programs in a small number of sectors that sometimes precludes attention to the health sector;
- the paucity of mission staff capable of developing and managing a portfolio of health projects; and
- the relatively recent tightening of requirements for negotiating buy-ins that severely complicates and delays the process.

Affecting this project also were the facts that:

- many USAID missions had already embarked on bilateral child survival or primary health projects through which they were offering assistance in immunization;
- in Africa, a regional project, Combatting Childhood Communicable Diseases, fulfilled the needs of a number of bilateral A.I.D. mission programs, and in Latin America, the A.I.D. regional grant to PAHO served the same purpose; and
- U.S. interventions in EPI were not in demand to the extent anticipated by the Project Paper in countries where other agencies—such as CDC, WHO (PAHO), and UNICEF—had already assisted the development of expanded programs on immunization.

Sustainability. The discrete and short-term nature of most project activities have not led REACH II into the systemic institution building that will ensure program- and country-wide sustainability. In the context of its specific activities, however, the project has consistently given attention to sustainability in, for example, developing information and monitoring systems for NGOs, promoting routine service delivery systems rather than one-shot immunization campaigns, helping explore sources of procurement at sustainable cost. Following the work of REACH I, financial sustainability has been an important theme for survey research, REACH II publications, and collaborative workshops for EPI managers. The project has also

given some attention to the social dimensions of demand for and commitment to immunization.

Women In Development. The issue of gender is mentioned in the Project Paper, which urges attention to women as planners and implementers of immunization programs and health policy (not merely as beneficiaries). However, A.I.D. did not require attention to gender in the contract with JSI and REACH II has not designed specific interventions to involve women as planners and implementors.

Peer Review. REACH II has made a practice of calling on experts to review drafts of technical papers and has invited technical specialists for day-long sessions to discuss theory and practice with project staff. The External Advisory Group called for under the contract, which met once in the first year of the project, reviewed cross-cutting issues in the control of diseases, but did not serve a technical review role. REACH II has now mobilized a Technical Advisory Panel (TAP) of medical specialists of world renown in EPI and ARI. The panel was to meet for the first time with project management in early June 1992.

Information Collection and Dissemination. The recording and dissemination of experience and lessons is a strong function in REACH II. Requirements for reporting are rigorous, and dissemination lists are continually revised and kept up to date. Two articles have appeared in prestigious medical journals and another is pending, as is the publication of a chapter written by REACH II on neonatal tetanus for a World Bank health sector priorities review.

II. Recommendations

This section covers—

- A. Recommendations for the project for the last 18 months of the current four-year contract,
- B. Recommendations to A.I.D. for current and future project management, and
- C. Broader recommendations to the Office of Health for its child survival projects during the period from 1992-2000.

A. REACH II Activities from April 1992 through September 1993

1. Recognizing the short time remaining in the present contract, the project should concentrate on activities that use the strengths of the staff and focus on the operational aspects of establishing and sustaining national and local EPI and ARI programs. The project should continue to encourage buy-ins and operational year budget transfers from USAID missions and regional bureaus, but should also expect to use core funds to support in-country activities.
2. REACH II should focus attention on activities for which the project has:
 - demonstrated technical capability, such as EPI logistics and management;
 - new or growing interest, such as ARI, hepatitis B, urban EPI, measles, involvement of the for-profit sector; and
 - opportunities to collaborate in areas of global concern, such as polio, measles, neonatal tetanus.
3. In order to cover commitments to the Measles Initiative in Africa, technical assistance in four central Asian republics of the former Soviet Union, and a number of other EPI and ARI activities, the project should add additional expertise (possibly on a contractual basis) in three areas:
 - case management in ARI,

- health promotion, and
 - health economics.
4. Project attention to communication, training, health care financing, sustainability, information management, and operations research should be continued, but only in direct support of major EPI and ARI field activities.
 - In all operations, attention is needed to develop, test, and utilize health education and communication strategies.
 - Targets of opportunity in operations research should be approached only if the results will lead to establishing and sustaining national EPI or ARI activities in which the project is already active. REACH II should also take full advantage of research support through the project's sub-contract with the Johns Hopkins University.
 5. Project management should involve the Technical Advisory Panel to provide intensive technical support to the project's programmatic areas.
 6. The project should continue its broad dissemination of experience and lessons.

B. A.I.D. Project Management

1. For future projects, A.I.D. should clearly specify objectives, identify progress indicators, and establish measurable targets of performance in the Project Paper and the implementing contracts.
 2. To promote greater cooperation in implementation of health programs, A.I.D. should explore ways to mitigate barriers to inter-contractor collaboration.
 3. To prevent misunderstandings, and avoid unnecessary adjustments to project activities, A.I.D. should clarify for its contractors the definitions that are applied to calculation of "level of effort" in contract operations.
-

4. A.I.D. should reconsider its practice of initiating a project with small increments of first-year funding, as this practice greatly inhibits the fulfillment of project objectives.
5. To enable forward planning and improve operational efficiency during the remainder of the current REACH II contract, A.I.D. should "forward-fund" the contract in fiscal year 1992.
6. To enhance the ability of the CTO for REACH II to focus on technical issues, A.I.D. should provide additional staff for project support.

C. Options for the Future of Centrally Managed A.I.D. Child Survival Programs

1. Background

During the 1980s, Child Survival was a favorite "child" of development agencies. Reduction in child morbidity and mortality became the rallying cry for international agencies, bilateral assistance organizations, non-governmental organizations, and country members of the World Health Organization (WHO). Targets for immunization of children in the first year of life were adopted, and in many instances they were met. Donors supporting programs in immunization and oral rehydration therapy (designated by A.I.D. as the "twin engines" of the push toward child survival) could report the success of their interventions both in terms of coverage and in child deaths averted. These successes attracted the attention and financial support of international agencies, the U.S. Congress, and legislative bodies in other donor countries.

The Expanded Program on Immunization (EPI) was announced in 1974, and the 1980s were marked by a global advocacy for child survival, with immunization as a priority. With the technical leadership of WHO, the political promotion, programmatic inputs and financial support of UNICEF, the active support of bilateral assistance agencies—including A.I.D.—and the commitment of private voluntary organizations like Rotary International (sponsor of the PolioPlus program), as well as their own resources, many developing countries were able to raise the level of immunization coverage to 80 percent by 1990.

But the successes in meeting targets for immunization coverage, often achieved by massive and aggressive donor-sponsored activities, masked the institutional and financial weaknesses that limit developing countries' ability to maintain sufficient coverage to control childhood diseases.

Another major issue became the structure of immunization programs during the 1980s. The experts in immunization established separate logistical, financial, and service delivery channels and established specifically identifiable administrative structures for immunization, as did the implementors of other specially targeted programs. Such "vertical" program structures could ensure short-term results, but they splintered the public health delivery systems of recipient countries. They drew human and financial resources away from less visible programs and failed to plan for eventual integration of their interventions into the broader systems.

2. The A.I.D. Response

The first REACH project (1986-1990) took its place among the priorities of the Office of Health of the then Bureau for Science and Technology (now the Bureau for Research and Development) of A.I.D. While the Technology for Primary Health Care (PRITECH) project was to concentrate on diarrheal diseases, the Communication and Marketing for Child Survival (HEALTHCOM) project on health communication, the Primary Health Care Operations Research (PRICOR) project on operations research, etc., REACH I was pointed toward immunization and health care financing. Later, a separate health care financing project, Health Financing and Sustainability (HFS), was established.

Appropriately, the approach of the REACH I project was not to rest on the laurels of short-term success, but to help establish permanent implementation mechanisms for all aspects of immunization programs, as well as to alert governments and donor agencies to issues of sustainability and cost. The project was also intended to be available for technical assistance related to program implementation. The proportion of the REACH I project set aside for in-country work financed from USAID mission budgets (through buy-ins drawing on a mission's operating year budget) was oversubscribed.

Through the subsequent project, REACH II, which began in fiscal year 1990, A.I.D. has continued the innovative services of REACH I and has added further initiatives. In this project, the reactive, shorter term technical assistance mode has predominated over longer term intensive country programs as USAID mission commitments to buy-ins have diminished.

3. How The Next Ten Years Will Be Different

Immunization, with attention to three global goals (polio eradication, neonatal tetanus elimination, and measles control) was designated by the World Summit for Children in 1990 as a priority health goal for the end of the present century.

Although child survival and primary health care continue as priorities for donor agencies, the next decade will be marked by increased competition for attention from Eastern Europe, the Newly Independent States of the former Soviet Union, AIDS, and attention to environmental issues.

Within A.I.D. itself, health programs must take their place among higher priorities defined in terms of democracy and governance, partnerships with U.S. businesses, and private sector development. A number of changes have also affected the ability of USAID missions to allocate increasingly scarce resources to health. These include:

- the policy to focus and concentrate assistance strategies on a limited number of sectors;
- the decline in mission staff with technical expertise in health;
- the increasing management burden on mission staff to oversee multiple contracts and technical experts; and
- the progressively more complex and restrictive mechanisms for accessing technical assistance through buy-ins.

The vertically organized programmatic initiatives in immunization, diarrheal diseases, acute respiratory infections, and vector borne illnesses owed their success in part to the concentrated attention they received, attention that may well have been essential during the period of development of expertise and the organization of logistics. However, recognition of the multiple and often overlapping causes of illness in children under age five—or in any target group—requires decentralized and integrated health delivery systems in country-specific contexts.

It will be increasingly important that issues of reproductive health and nutrition be integrated into the delivery of maternal and child health services. Birth spacing is now recognized as an important factor in child survival. Issues such as breastfeeding also impact on reproductive health and child survival. Some integration is in fact occurring at the service delivery level as health workers are called upon to provide a broad range of services needed by the client.

Thus, the goal of the Office of Health—to help countries become self-sufficient in providing cost-effective, preventive and curative health services—will still require technical support to the field, targeted research, and representation in global and other fora outside of A.I.D. But the goal should be sought through a more generalized, and less disease- or intervention-specific approach.

4. Suggested Strategies for Technical Assistance and Operations Research for the 1990s

Achievement of global and country-level health goals will require focused technical assistance designed to match the capacities of bilateral and international partners with country-specific needs. Moreover, successful technical assistance will require collaborative assessment at the country level of policy, strategies, goals, and resources needed.

There is a trend in those USAID mission programs that still include health among their strategic objectives to deal with health sector problems through a single technical assistance project (supported perhaps by a sector policy program grant). Therefore, the Office of Health should consider condensing its project portfolio into fewer management units, so that missions do not have to process multiple sets of documents to obtain services from central projects. The following types of project activity would be appropriate for the central portfolio:

1. One, a program offering data collection and analysis and policy development, covering such issues as disease surveillance, financing, sustainability, and the private sector role.
2. A second program designed to help country institutions plan, organize, and deliver sustainable preventive and curative services to meet the essential needs of mothers and children, one that would include health information systems, feedback from information to policy and action, social mobilization, and health education as well as assistance in training, logistics, and management. Technical expertise in such areas as immunization, diarrheal disease, acute respiratory infections, etc. would be available through this project.
3. A third program of research grants to promote applied and operations research and to identify effective techniques and systems that would not necessarily depend upon mission requests for assistance.

Thus, without diminishing the capacity of the Office of Health to assist in the most important arenas of mother and infant health, the central portfolio could provide a more integrated response to the combined needs of country health systems, could help reverse the trend toward vertical programs that address particular needs but are not sustainable in the long run, and could continue to make contributions to global health policy and program guidance.

The three proposed areas of activity are so closely related as to suggest that they might be combined into a single mega-project, though such a step would raise issues of contracting and

management. If the span of management of a project threatens to be too broad, it could be subdivided on the basis of geographic location, or perhaps in accordance with the development status of recipient countries (that is, according to the ability of a country to define its needs and the degree of intensity of in-country presence required).

A.I.D. has recognized that global goals, such as 80 percent coverage by immunization, eradication of polio, etc., have been important in galvanizing global commitment and direction. Yet global goals do not always address national realities and nationally determined priorities. Therefore, the objectives of the central projects, individually and as a group, should be defined in terms of country-specific targets, such as:

- improved capacity to plan, implement, monitor, and evaluate health programs;
- quantitative changes in health status; and
- the degree of sustainability in terms of a country's capacity to support program inputs and outcomes.

It is always easier to define the objectives of central programs in terms of technical expertise provided or responsiveness to requests from missions, and more difficult to identify the role of a central project in meeting country-level targets. Recognizing that a certain lack of precision will be inevitable in setting objectives for many central projects, the review team offers the following criteria to be invoked in assessing the need for and effectiveness of technical assistance:

- Need is identified through collaborative assessment at country level.
- Assistance is designed to facilitate achievement of well-defined national health goals within the context of a national plan and in concert with NGOs and bilateral and multilateral partners.
- Assistance is of high technical quality, as assessed by peer review in the United States and overseas.
- Assistance is delivered in a timely, professional, and culturally sensitive manner.
- Continuity in technical assistance is promoted through on-sight placement of full-time technical professionals in host country institutions and use of the same personnel for repeated short-term visits in specific technical areas.

- **Assistance is organized to minimize the management load on the host country and USAID mission.**
- **Attention is given to modifying policies and regulations when those structures are inhibiting the sustainability of interventions in the health system.**

III. REACH II Project Objectives

A. Initial Formulation

REACH II, like REACH I, was formulated to fulfill A.I.D.'s policy to reduce infant and early childhood morbidity and mortality by increasing the numbers of children covered by immunization. Strategically the second project was intended to assure the Agency's continuing major role in the international effort to avert the currently estimated more than three million annual vaccine-preventable deaths. The purpose of the eight-year project was to strengthen selected host country capabilities to immunize children under five years of age and to provide technical assistance in primary health care technologies. A subordinate purpose was to serve as a means for providing technical assistance in primary health care technologies not provided for in other projects. In other words, the project was to have a flexible response capability. One new area of attention, ARI (acute respiratory infections, especially childhood pneumonia), was identified for "limited" attention.

Both the Project Paper and the contract between A.I.D. and John Snow, Inc., for the first four years of the project specify a number of "programmatic areas" in which the project was expected to be active. These include:

- sustainability, through strengthening of public sector immunization, promoting private sector involvement, focusing on the quality of immunization services, and creating demand through marketing and communication;
- financing and cost analysis, including cost-benefit analyses of alternative immunization delivery strategies and methodologies for estimating recurrent costs; and
- development of computerized information systems to monitor, on a continuous basis, program quality and disease control.

B. Evolution of Project Design

The REACH II project design called for concentrated attention on immunization, a flexible response to global and USAID mission needs, and "limited" attention to ARI. Very broadly, it suggested long-term expertise in four to six countries, short-term assistance in up to 25 countries, and operations research in up to ten countries. The Project Paper did not, however, offer any explanation of its expectations from long-term or short-term interventions

or from operations research. Beyond specific interventions, the design expected the project to enable A.I.D. to keep its seat at the international table on matters of immunization. And, in more general terms, it called for attention to cross-cutting issues such as sustainability and cost recovery.

A number of factors shaped the project in its first two-and-one-half years: changing A.I.D. priorities and guidance, the constraints of A.I.D.'s incremental funding system—combined with the earmarking of funds for special purposes—and the low level of mission buy-ins.

The role of the project in communication was limited by an A.I.D. stipulation in contract negotiation that project staff would not include a full-time communication specialist.

During the first two years, in which A.I.D. developed a strategy for involvement in ARI, project attention to ARI was limited to assistance in formulating this strategy and, under a buy-in from the mission in Nepal, a study of the effectiveness of community-based treatment of childhood pneumonia. During the third year, the project expanded its ARI activities to additional countries.

In 1991, the Office of Health assigned to REACH II and to two other projects the implementation of the Administrator's Measles Initiative for Africa. Also in 1991, funds were made available specifically for immunization in urban settings in Africa. In 1992, the project launched the Emergency Immunization Initiative in four central Asian republics of the former Soviet Union.

Following a request from REACH II for changes in the structure of project elements and funding, a contract amendment of May 1992 reduced the requirement for funding from buy-ins from 40 percent of the total budget to just over 20 percent in order to permit the use of core funds for long-term in-country work, as for ARI in Morocco and the Philippines and urban EPI in Nigeria.

C. Breadth of Project Design

Indicators of success, as recorded in the A.I.D. logical framework, are more appropriate for reporting the intensity of project activity and project outputs than for measurement of impact. The contract with John Snow, Inc., followed the same vague path, basically holding the contractor responsible for outputs. The outputs listed encompass the strengthening of a number of national EPI programs (in specified areas of activity) and the establishment of management information systems in a smaller set of countries. Specific outputs, such as greater private sector involvement in immunization programs, or well-trained host country staff, or progress in achieving the goal of polio eradication, are listed illustratively with no

indication of the magnitude expected. Indeed, the contractor was expected to identify and measure the impact of outputs in consultation with its External Advisory Group.

REACH II has prepared two frameworks to describe its goals to reduce morbidity and mortality among children under five years of age, one for vaccine-preventable diseases and one for ARI control, specifically pneumonia. These two frameworks identify objectives, technical emphases, project inputs, and impact indicators. However, the frameworks do not quantify measures or prioritize objectives.

The frameworks are supplemented by a Technical Mission Statement that sets forth the purpose and priorities for action on measles, neonatal tetanus, polio, hepatitis B, urban immunization, monitoring and disease surveillance, health financing and economics, and acute respiratory infections.

Despite the lack of guidance as to progress indicators, the review team found the contractor to be dedicated and capable in mobilizing technical expertise, contributing to the state of the art, moving forward in areas in which A.I.D. has a comparative advantage, responding to short-term requests, and managing its few intensive in-country programs. The team hopes that, in the future, the project managers will continue systematically to develop indicators of progress in the context of specific country interventions, as they have done for upcoming REACH II programs in Morocco and Nigeria.

Performance under the contract is evaluated in the following sections in terms of the approaches undertaken by the project, implementation of specific interventions, and project management.

D. In-country Operations

1. Country-intensive Activity

The REACH II contract specified that intensive efforts should be developed in not less than four to six countries. These efforts could include a long-term resident advisor and were to be directed at strengthening national or regional immunization and primary health care technology programs. Beyond this brief description, the contract offers very little guidance concerning the real nature of country-intensive activities. Reach II has identified seven countries in which the project has or will have "long-term intensive activities." Budgetary projections suggest that a substantial increase in spending on long-term assistance is to take place over the remaining portion of the contract. Long-term assistance from January 1992 to the end of the project is projected to increase by 250 percent over the amount expended previously. (This projection stems primarily from estimates of efforts required for the

Measles Initiative, the Nigerian Urban EPI Program, the proposed assistance to four central Asian republics of the former Soviet Union, and the ARI program in Morocco.)

Evaluation of the long-term intensive activities presents a problem of definition. Since the nature of these activities was never detailed contractually, it is difficult to conduct a contract-based assessment to measure the contractor's performance.

It is important to note that there were structural impediments to the development of truly meaningful long-term activities. The low level of funding—a lack of buy-ins and delays in core incremental funding—limited the placement of long-term staff in countries. Also, some missions resisted the creation of full-time resident staff positions.

In only two countries were there resident managers. And in only one of those countries, Haiti, does the position seem to offer the real possibility of developing truly long-term activities. That situation, however, is complicated by tremendous political and economic instability. Moreover, the buy-in from Haiti does not provide funds for the resident advisor to use for support of local activities relevant to his collaboration with the NGOs and other organizations working in immunization. In Kenya, where the mission buy-in did not include a resident program manager, the mission and its partners collaborating in immunization now recognize that the program would have benefitted from such additional attention.

Another factor affecting the involvement of the project in long-term intensive activities lay in the nature of project activities. In today's world, EPI is perhaps least amenable to long-term centrally managed A.I.D. involvement because of the existence of a large number of players in this area and the relatively well established nature of most national EPI programs. On the other hand, ARI appears to be much more suitable to long-term intensive activities because it is relatively new and there are fewer organizations working in this field. The level of development in the country also is an important consideration in the establishment of long-term efforts. For EPI, the least developed countries appear to be more appropriate targets for intensive activities, as many have not yet approached the target of 80 percent coverage in a sustainable manner. In more developed settings, assistance appears to be more appropriately offered through a series of short-term consultancies designed to enhance an already existing base of country commitment and institutional capacity. For ARI, a more developed country effort is appropriate as the tenets of WHO's case management approach are tested. If success cannot be achieved in those countries, there will be little need to move ARI activities as presently conceived to the poorer countries.

The contractor has fulfilled the specifications within the contract (see Table 1). However, those specifications failed to model how long-term assistance should be designed or to provide the programmatic structures that would allow it to be fully developed and evaluated.

Table 1

REACH II, Project 932-5982
Country Programs Wholly or Partially Financed by Buy-Ins or OYB Transfers
(U.S. Fiscal Years)

| Country | Immunizations | | | | | | | | | ARI | | | | OR |
|-----------------|---------------|-------|-------|--------|----------|-------|---------|------------|------------|----------|----------|------------|------------|---------|
| | Measles | NNT | Polio | Hep. B | Urb. EPI | Monit | Finance | Comunicatn | Pri. Sect. | Planning | Training | Comunicatn | Pri. Sect. | |
| <i>Achieved</i> | | | | | | | | | | | | | | |
| Nepal | | | | | | | | | | 91-92 | 91-92 | 91-92 | 91-92 | ARI '91 |
| <i>Ongoing</i> | | | | | | | | | | | | | | |
| Haiti | 92 | 91 | | | | 90-92 | | 90-92 | 90-92 | 91 | | | 91 | EPI '91 |
| Kenya | 91-92 | 91-92 | 91-92 | | | 91-92 | 92 | 91-92 | | | | | | |
| Philippines | | | 91 | 91 | | 91-92 | 91-92 | | | 91-92 | 91-92 | | | EPI |
| Yemen | | | | | | 90-92 | | | | | | | | |
| former USSR | 92 | 92 | 92 | | | | | | | | | | | |
| <i>Planned</i> | | | | | | | | | | | | | | |
| Morocco | | | | | | | | | | 91-93 | 92-93 | 92-93 | 92-93 | |
| Nigeria | | | | | 92-93 | | | 92-93 | 91-93 | | | | | |

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2. Flexible Response

A critical element in the success of the REACH II project has been its ability to respond flexibly in a number of technical assistance areas. Though this may appear at times as a lack of focus, the review team concluded that the diversity of response that REACH II offers is a strength and not a weakness.

REACH II has provided specialized short-term assistance to 16 countries, including several to which it has also made a long-term commitment (see Table 2). The content of this assistance appears to cover all contractual areas of responsibility. An important factor with regard to short-term and long-term assistance is the ability of the contractor to match the level of its assistance to the level of development in the country requesting help. REACH II assistance seems to have been most in demand when it directly addresses a specific technical or operational issue. Less developed countries require more intensive long-term assistance to build capacity, while more developed countries usually have an established capacity, but require specific technical refinements of that capacity in order to achieve their health programming objectives.

It is conceivable that a project such as REACH II could create a ranking of countries based on an assessment of indigenous capacity and use this ranking to tailor the type of assistance that would satisfy specific country needs. Certainly the buy-in problem and delays in core funding are a hindrance to this pro-active style of determining the type of assistance to be recommended, but the concept could still be useful with respect to the structuring of short-term assistance. This suggestion is presented not as a criticism of the contractor's performance, but more as a thought about how to further enhance that performance. The review team's opinion is that the short-term assistance provided by REACH II has been of very good quality and has made substantial contributions to the positive development of EPI and ARI programs worldwide.

Table 2
REACH II, Project 932-5982
Short-Term Assistance By Country As of March 1992

| Country | Immunizations | | | | | | | | | | ARI | | | |
|-------------|---------------|-----|-------|--------|----------|--------|----------|---------|-------|-------------|----------|----------|-------|-------------|
| | Measles | NNT | Polio | Hep. B | Urb. EPI | Monit. | Logistic | Finance | Comm. | Priv. Sect. | Planning | Training | Comm. | Priv. Sect. |
| Bangladesh | | | | | X | X | X | | X | X | | | | |
| Bolivia | | X | | | X | | | | X | X | | | | |
| Burk. Faso | X | | | | | X | | | | | | | | |
| Cambodia | | | | | | X | X | | | | | | | |
| Cameroon | | | | X | | | | | | | X | | | |
| Dom. Rep. | | | | | | X | | | | | | | | |
| El Salvador | | | | | | | | | | | | | | |
| former USSR | | | | | | X | X | | | | X | X | X | X |
| India | | | X | | | X | X | X | | | | | | |
| Madagascar | | | | | | X | | | | | | | | |
| Morocco | | | | | | | | | | | | | | |
| Niger | X | | | | | X | | | | | X | X | X | X |
| Nigeria | | X | X | | | X | | | | | | X | | |
| PNG | | | | | | X | X | | | | | | | |
| Rwanda | | | | | | | X | | | | | X | | |
| | | | | | | | | | | | | | | |

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IV. Project Implementation

A. Work Plan

The first year of the REACH II project was an overlap year with REACH I. As a consequence that year more closely resembled year five of REACH I than year one of REACH II. The first year's work plan attempts to establish an agenda for REACH II. It is clear that much of the proposed work was designed to complete the unfinished agenda and draw down the uncommitted funds of REACH I.

In the future, A.I.D. may wish to give greater consideration to the impact that overlap periods have on project implementation. Impact in this instance included the low level of funding provided for REACH II in the first year of operations, and consequent limitation on project activity. The second year of activity better represents the contractor's response to the direction that REACH II was obligated to pursue under its contract.

The second-year work plan is well prepared and reflects the careful consideration that project staff gave to their activities, though it shares the limitation of many early work plans in not linking activities with programmatic objectives. In the work plan covering the period of January to December of 1992 this deficiency is addressed. This plan directly links activities with objectives. However, the format is somewhat unclear and the coding used to identify objectives is difficult to interpret. Another drawback to the work plan is that it does not provide information concerning the amount of budgeted funds, nor the level of effort, a particular activity will consume. It is therefore difficult to grasp the scale of any particular activity in relation to other activities.

B. Technical Strategies

1. Acute Respiratory Infections (ARI)

ARI is not a new public health problem, but it is one that has traditionally been ignored in primary health care (PHC) program development. Many people perceive that ARIs are biologically very complex, and believe that the diagnosis of pneumonia is difficult and technically demanding. It has been asserted that diagnosis and treatment cannot be carried out in an average PHC system. REACH has bravely encouraged movement away from control of ARI in general toward the control of pneumonia, which represents the principal cause of mortality among children.

REACH II has taken the lead worldwide in ARI. The project began or contributed to ARI programs in seven countries, helped formulate ARI policy for A.I.D., and participated in

international meetings with WHO, UNICEF, and others to focus attention on the global needs for ARI prevention and control.

The project is developing, with WHO, a set of ARI control indicators as well as guidelines for integrating these control indicators into existing health information systems. REACH II has been able to use its ARI expertise to illustrate the comparative costs of different treatment protocols for pneumonia.

REACH II recognizes the key role of training for front-line health providers in all aspects of ARI control. Plans are underway to develop and field test training materials in Morocco and the Philippines. Community outreach and communication activities (to teach and motivate mothers and other caregivers to recognize signs of pneumonia and take appropriate action) are regarded by REACH II as critical strategies for ARI control.

The challenge for the future will be the establishment of appropriate case management protocols in health facilities where they also have the appropriate pharmaceuticals. Additional challenges for ARI control program development include:

- effective community interventions for prevention of ARI,
- early detection, and
- appropriate treatment of pneumonia by caregivers.

The REACH II project is well placed to provide the technical assistance to help many countries develop coherent ARI control strategies within their PHC system.

2. Expanded Programs on Immunization (EPI)

REACH II has provided technical assistance to improve performance and sustainability of national EPIs in Haiti, Kenya, the Philippines, and Yemen. Following on the success of REACH I, REACH II's work has concentrated largely on:

- EPI management information systems,
- cold chain maintenance,
- logistics, and
- communication.

Work on two new initiatives is currently underway, concentrating on controlling measles and strengthening immunization activities in urban areas.

a. Measles

In 1990, measles deaths were estimated at approximately one million worldwide. Measles immunization rates are the lowest of all antigens in most countries.

As the last disease covered in the EPI series and the most life-threatening of the vaccine-preventable diseases, measles has been targeted to receive particular attention by REACH II through the A.I.D.-funded Measles Initiative.

Announced as a major U.S. priority by President Bush at the World Summit for Children in September 1990, the Measles Initiative is being implemented in Africa by REACH II in collaboration with two other centrally funded R&D Health projects, HEALTHCOM and the Quality Assurance Project.

Pilot measles control programs are being initiated in Burkina Faso, Kenya, and Niger. Immunization coverage surveys, baseline assessments, and analyses of health worker and community knowledge and practices are being conducted. Interventions will be designed for local planning, EPI communications training, and management. The results of the pilot interventions will be disseminated at a series of national-level seminars and workshops. A REACH II-sponsored national measles control workshop has been conducted in Kenya to involve local program managers in the development of national policy and implementation strategies.

In addition, REACH II has been involved in important clinical research on the use of high titre measles vaccine in Haiti through its Johns Hopkins University sub-contract. Work in Yemen as well as the Philippines and Haiti in the improvement of cold chain and EPI information systems also contributes to measles reduction.

Through its role in the Measles Initiative, REACH II hopes to move beyond attention to a single disease. REACH II will work to strengthen the overall EPI and address broader issues of sustainability and program management.

REACH II's support of a Measles Workshop for provincial and district-level personnel in Kenya merits commendation.

b. Neonatal Tetanus (NNT)

Neonatal tetanus (NNT) is a major cause of mortality in newborns. Tetanus is also increasingly recognized as an important factor in maternal mortality. Coverage rates with tetanus toxoid (TT) vaccine remain low.

In 1990, REACH II and the R&D/Health centrally managed MotherCare project co-sponsored an international workshop on NNT control. REACH II staff participated with WHO/AFRO in a multi-country planning exercise for NNT and polio control. REACH staff also contributed the chapter on tetanus for the World Bank's Health Sector Priorities Review.

REACH II has provided short-term technical assistance to the EPIs of Bolivia, Indonesia, Kenya, and the Philippines in the areas of policy discussion, problem definition, and the design of pilot immunization and surveillance activities.

Future activities should include testing of the new WHO strategy for identifying high-risk districts within countries. This strategy was developed in part through REACH assistance to Kenya's EPI (KEPI). In Kenya, REACH II helped:

- identify the magnitude of the NNT problem;
- inform and educate decision makers; and
- analyze Demographic and Health Survey project (DHS) data to see if they could be used to help identify high risk districts.

REACH also designed and funded a NNT serologic study to determine the levels of protection of women—and thus their newborns—against tetanus.

c. Polio

REACH II activities have focused on both immunization and surveillance (improved methods for identifying polio cases and targeting high risk groups for vaccination). REACH II participated in the development of country-specific plans of action through collaboration with WHO/AFRO.

REACH support for training in Kenya has included:

- developing training materials;
- conducting training for district personnel; and
- advising on the modification of their information systems in order to improve notification and response.

An Immunization Manual for Medical Students and Physicians has recently been completed by KEPI with collaboration from REACH II staff.

REACH II should continue to explore ways to include the private sector in the move for global polio eradication, as in collaboration with the PolioPlus program of Rotary International in areas of surveillance and other polio-specific program support.

REACH II should continue to provide assistance within the context of strengthening a general EPI program.

d. Hepatitis B

Through its subcontract with Program for Appropriate Technology in Health (PATH), REACH II is collaborating with the International Hepatitis B Task Force, which is charged with formulating policy and facilitating the coordination of government, donor agency, and manufacturer resources in combatting hepatitis B.

REACH helped the Department of Health in the Philippines develop a plan for the procurement and nationwide introduction of hepatitis B vaccine. The technical assistance provided was of high quality and was appreciated by local EPI staff and management. The Philippines program is regarded as a model for other countries.

REACH should continue to provide assistance to interested countries on the integration of hepatitis B vaccine into the EPI.

e. Urban EPI

Low coverage rates and the easy transmission of diseases in cities have prompted growing interest in the problems of urban EPI. As vaccination programs mature, attention is being focused on fine tuning of activities to focus on areas where coverage remains low and disease incidence unacceptably high. REACH has been a leader in the development of urban EPI activities.

REACH II has completed two planning missions to Nigeria for an urban EPI demonstration project. Plans call for the project to be underway by mid-1992 to benefit the 12 local government areas that make up the urban area of Lagos State and to promote interest among donors and state and local governments throughout Nigeria.

In Bangladesh, REACH II has built on the work of REACH I by providing technical assistance for the development of a national action plan, implementation of national and urban coverage surveys, and training in the use of information management software. Planning has also begun for a regional workshop on urban EPI.

EPI activities tailored to the specific needs of urban areas will be of increasing importance to national programs. REACH II should continue to develop its unique capabilities in urban EPI and market the strategy to national program managers, decision makers, other donors, and interested parties through better documentation and demonstration projects.

C. Programmatic Strategies

1. Training

REACH II staff demonstrate an understanding of the importance of continuous health care provider training in their technical work. They also see the need to publish and widely disseminate relevant findings and new information regarding technical interventions and approaches that have cross-national applicability. Attention to health providers outside the public health system is exemplified by REACH's contribution to an *Immunization Manual for Medical Students and Physicians*, to be printed and distributed by UNICEF in Kenya.

Particularly noteworthy among REACH II accomplishments in short-term training are:

Coverage survey indicators and training. REACH has developed a set of 11 key performance indicators that can be derived from immunization coverage surveys using the Coverage Survey Analysis System (COSAS) software. In the summer of 1991, the project developed and conducted a training course on the use of COSAS data that was attended by program managers from around the world. Course materials were subsequently used by EPICENTRE for training of Medecins sans Frontieres (a French worldwide medical relief organization) personnel and requests for similar training have been received from UNICEF and WHO/AFRO.

EPI data for decision-making training. The most recent REACH II information systems training course was conducted in January 1992 for WHO/SEARO program managers. This course, which combined use of COSAS and the Computerized EPI Information System (CEIS), focused on the use of both coverage survey and routine service data for program management. A modified version of the course was also presented in Kenya.

Disease surveillance training. REACH II is currently providing assistance to the Kenya EPI (KEPI) for improved surveillance of vaccine-preventable diseases, particularly polio, NNT, and measles. In May 1992, a very successful disease control and surveillance training course was carried out for district managers with REACH II technical assistance. REACH II has provided technical assistance and training to the EPIs of Bangladesh, Kenya, and the Philippines to improve their monitoring and/or surveillance capabilities. Technical assistance will continue to these countries, as well as to Burkina Faso, Niger, Nigeria, and the four central Asian republics of the former Soviet Union. Training will emphasize improvement of routine disease reporting systems, adoption of more sophisticated disease surveillance systems as immunization coverage increases, and training in disease surveillance procedures.

A summary list of additional training conducted under REACH II is included in Annex B.

In Yemen, where REACH II provides project management for the Accelerated Cooperation for Child Survival (ACCS) project, the longer-term focus of REACH technical assistance has been on development of Health Training Centers and training of primary health care workers. Results of a March 1992 review indicated that a total of 166 primary health care workers (PHCW), including 39 female PHCWs, have been trained. However, the stated objectives of the training have only been partially achieved. The review recommended more systematic selection of PHCWs, inclusion of both preventive and curative activities and complete MCH services at Health Training Centers, and attention to ensure that training is practical and competency-based.

2. Information, Education, and Communication

The approach of REACH II to education and communication is stated as a project principle as follows:

"Communication is not an independent activity but one component that must work in tandem with other program elements. Communication activities should form a part of a comprehensive strategy that also incorporates improving the quality, accessibility, and convenience of health services. Raising the technical and interpersonal capabilities of health workers plays an essential role in all such strategies."

REACH II has incorporated its understanding of health communication and the findings of several activities of REACH I (such as research on cultural perceptions of disease and immunization among segments of the populations of Bangladesh and Bolivia), in its development of EPI strategies. As mentioned previously, in Kenya, for example, the senior project staff person is a Kenyan dedicated to social mobilization and communication; and a REACH II resident advisor in Haiti has played a major role in planning and overseeing promotional activities for immunization as well as in developing strategies to disseminate immunization messages.

Short-term communication support activities include:

- A study on the acceptability of EPI was conducted among slum dwellers in Dhaka, Bangladesh, to determine the major factors in mothers' use of immunization services.

- In the Department of Santa Cruz, Bolivia, a REACH II communication specialist and an epidemiologist worked with local health officials to devise a comprehensive strategy and work plan for the elimination of neonatal tetanus as a public health problem.

International technical and donor agencies and national governments are beginning to organize national programs to reduce the significant mortality caused by pneumonia and other acute respiratory infections. REACH II is focusing on communication efforts to teach and motivate parents as well as health workers to:

- recognize signs of pneumonia;
- take appropriate action;
- comply with health workers' advice regarding (1) administering the full course of antibiotics, (2) seeking referral care, or (3) providing appropriate home care; and
- recognize danger signs and return to the health system if any occur.

REACH II can and should emphasize the key role of health education and health promotion in every technical area. REACH II should continuously monitor the efficacy of any training or IEC activity as well as the degree to which training and IEC needs are being met in each technical area in which it is active. Further, a concentrated effort is required to develop, test, and utilize appropriate health education and communication strategies, particularly for the ARI program, which is in a pivotal position to develop a sound training and IEC component that can be replicated or adapted cross-nationally.

Additional skills should be brought to REACH II through its subcontract with the Manoff Group to develop appropriate work in health promotion in conjunction with interventions in Kenya, Morocco, Nigeria and Philippines. Important areas for focus include:

- school health and child-to-child communication;
- community health promotion, including education of mothers; and
- training of health workers.

3. Information Management

REACH I and REACH II have developed and introduced computerized software programs for EPI management, surveillance, and quality control. Under REACH II, major activities have included training EPI managers to use data from the coverage survey analysis system (COSAS) and the computerized EPI information system (CEIS) for decision making.

The computerized tools have generally been well received and are considered to be an important contribution to the improvement of sustainable immunization programs. More time should perhaps have been spent in the development of a more systematic approach to information management. This has particularly been the case with CEIS. The process of data collection, analysis, and information use have been driven by the existence of a tool rather than the process creating the need for a tool. Now that the existence of CEIS has highlighted the need for the process of data collection, analysis, and information use, REACH II should spend more time on providing assistance to develop that process.

4. Operations Research

The REACH II contract specifies that the "contractor shall conduct operational research as part of the provisions of technical assistance." The research was to relate directly to solving specific problems hindering program operations and to provide information on the performance of program innovations. The research was to be conducted in "approximately five countries" and was to address such topics as:

- studies of missed opportunities
- cold chain evaluation
- introduction of new technologies
- introduction of new strategies
- development of improved:
 - survey tools
 - attitude and practice assessments
 - communications and marketing activities

The project has conducted research, operational studies and experience reviews in a number of areas (the project's list is attached as Annex C). In introduction of new technology, significant and notable work was completed on hepatitis B immunization in Philippines, as was work on new strategies in case management of childhood pneumonia and Vitamin A supplementation in Nepal. The study of long-term safety of the EZ measles vaccine² in Haiti represented a foray into basic research but was eminently relevant to the project's dedication to immunization.

Well directed and well formulated operations research could be a valuable addition to current work on measles and pending efforts in Morocco and Nigeria. Operations research offers the potential to provide critical insights into operational issues that threaten program sustainability and to make these insights available to others through publications in professional journals.

²Strain of measles vaccine proposed to be used in high titre and administered earlier than the standard nine months of age; recent studies have suggested it may be dangerous and thus it is no longer being used.

The effectiveness of operations research can be assured by the development of rigorous research methodologies and the formulation of critical research questions. Expertise in research is accessible to the project through the sub-contract with The Johns Hopkins University and the newly formed Technical Advisory Panel (TAP). The review team recommends that REACH II take full advantage of this expertise to direct future operations research to the major program initiatives of the next 18 months of the project (i.e., urban EPI in Nigeria, measles in Africa, ARI in Morocco).

5. Contribution to Global Fora

REACH II is considered a valuable contributor to the international public health community in the areas of EPI policy, logistics and management, and ARI control. REACH II contributes to the global state-of-the-art in EPI and ARI through the publication of articles in professional journals and active participation in international meetings, workshops, and symposia. Annex D identifies publications and papers presented on technical topics.

At the country level, REACH II has provided important complementary assistance to programs receiving resources from other donor agencies cooperating effectively, for example, with DANIDA and UNICEF in Kenya and with UNICEF and PAHO in Haiti. Often a discrete REACH II contribution in a particular technical area has been pivotal for ensuring program success.

REACH II contributions to the development of COSAS and CEIS have been invaluable to WHO in its global support to EPI as well as individual disease-specific activities. NGOs such as Rotary International (sponsor of the PolioPlus program) have also appreciated the technical assistance from REACH II, which has helped to further refine and develop their program interventions.

REACH II is recognized justifiably for the contributions its highly regarded staff have made to the body of technical knowledge and expertise on EPI and ARI.

6. Dissemination of Lessons and Research Findings

Initially, REACH II developed a strategy for dissemination of lessons learned from REACH I. The continuing strategy to disseminate both positive and negative lessons learned in REACH II activities advances global awareness of ARI and EPI, supports EPI planners and managers with relevant technical information, and increases donor and public awareness of EPI and ARI.

The REACH II publications list (*REACH Annotated Reports*) most recently issued in January 1992, provides a summary of each publication available. Since the beginning of REACH II,

reports have been distributed to 7,500 readers. Approximately two-thirds are sent to people and organizations in the developing world, including medical personnel, government officials, and schools and training facilities. REACH II reports are also made available at public health conferences and technical meetings.

Six technical assessment reports, prepared at the end of REACH I and during the beginning of REACH II, that describe REACH activities and lessons learned in key technical areas (NNT, CEIS, missed opportunities to immunize, communications/behavioral issues, costs and financing, and urban EPI) are widely disseminated.

REACH II also distributes *EPI Essentials: A Guide for Program Officers*, a manual for public health workers prepared under REACH I. Since its first printing in 1989, over 2,000 copies have been distributed. This guide has become a fundamental source of information for immunization programs throughout the world. This publication has received wide acceptance and praise; major child health organizations such as UNICEF and Medecins sans Frontieres have ordered the book in large quantities for their local offices. In order to accommodate this great demand and to reach a wider audience, REACH II has recently translated *EPI Essentials* into French.

Annex D lists REACH II's key publications and those presentations that have been subjected to peer review.

D. Collaboration with Other Donors

REACH collaboration with the major multilateral health organizations, WHO and UNICEF, is excellent and fruitful for all parties, as examples described above have illustrated. Coordination and collaboration in EPI with PAHO, however, has been limited, except in Haiti. Collaboration with PAHO in EPI, which hit extremely low levels during REACH I, has improved somewhat, but REACH II work in Latin America is still inhibited by the dominant presence of PAHO in the region. Collaboration with PAHO in ARI, in contrast, has been productive.

E. Attention to Cross-cutting Issues

1. Sustainability

REACH I and REACH II have researched issues of sustainability of expanded immunization programs in the context of the global rush to meet established coverage targets set for 1990. It has become apparent that the achievements of the mega-campaigns of immunization cannot be maintained without institutional and managerial capacity and stable stocks of vaccines and

equipment. Following on the substantial work on sustainability of immunization programs by REACH I, REACH II has published an "Overview of Issues in the Sustainability of EPI" and has written an article accepted for publication by *Health Policy & Planning*, which discusses the implications of an immunization sustainability study conducted for and funded by the A.I.D. Bureau of Program and Policy Coordination. Sustainability of EPI was also a key focus of a REACH/UNICEF workshop held in francophone Africa for EPI managers.

Each of the projected continuing REACH II interventions is designed to foster institutional, managerial, and technical capacity to carry them on after the period of donor support. In Nigeria, for example, the project plan for an urban immunization program was designed in collaboration with local public health staff to define roles and responsibilities, develop location-specific delivery strategies, and mobilize the local community and the private sector. Management training will be an early element of the program. Plans for Morocco and the central Asian republics are similarly grounded in attention to sustainability.

The earlier country activities of the project were less broad in their attention to sustainability, due in part to the circumstances controlling the REACH intervention. In Yemen, where the project trains primary health care workers for work in a decentralized delivery system, it is not clear how the workers trained, or the Health Training Centers they have attended, are to be integrated into national or governorate health delivery systems. In Kenya, REACH II interventions in EPI were designed to fill gaps in major assistance programs of UNICEF and DANIDA. The project does finance a full-time staff person who specializes in social mobilization and has helped install the Computerized EPI Information System (CEIS) to monitor progress. However, analysis of the impact of the communication work, which began in 1991, requires continuing attention, and the steps needed to move from CEIS data to institutionalized capability to use the data for management decisions have only begun.

To the extent that REACH II activities in countries are limited in scope and short term in nature, major new findings in sustainability will be limited. Plans for future activities are concentrated on country-specific assessments to help EPI managers plan for the financial futures of their programs, especially recurrent costs and commodity procurement. One such assessment has recently been completed in Kenya; another is planned for Philippines in late 1992. REACH intends to draw upon these and other country experiences to engage global interest in moving the dialogue on sustainability of EPI and primary health care beyond the theoretical into the applied realm.

2. Health Care Financing

Following the spin-off of health care financing from REACH I to the newer Health Financing and Sustainability (HFS) project, the mandate for issues of cost and financing under REACH II was reduced from a primary element of the project to an important aspect of immunization and ARI programs.

REACH II has completed a 79-country survey on cost recovery mechanisms begun under REACH I. The survey demonstrates that the results of cost recovery efforts are varied and widespread and that people and communities are willing to pay and otherwise contribute resources to immunization services. It suggests that there may be a greater possibility than previously thought to capitalize on the willingness to pay for health services that people consider valuable, including immunizations. The in-depth country case studies that might follow up on these findings have not been carried out under REACH II, but project-specific analyses of costs of alternative delivery systems have been carried out in Kenya and India. Fulfilling its role in global advocacy, REACH II presented a paper on financial sustainability at the Global Advisory Group (GAG) on EPI in 1990. The REACH/UNICEF workshop for EPI managers in francophone Africa focused on financing issues and financial sustainability.

A recent REACH II paper concludes that the most fruitful efforts for the project will be to assure that financing issues are covered in all country-level activities instead of seeking to persuade missions to fund field research studies. Attention at the country level would focus on strategic financial planning, engaging the private sector in program planning, and helping procure affordable supplies of vaccine and equipment (as the project did in guiding the bid process by the Philippine Ministry of Health for procurement of vaccines at affordable cost). In view of the existence of another project focused on financial sustainability issues—the HFS project—the review team believes this approach to be appropriate for the remainder of REACH II.

3. Private Sector Involvement

REACH is charged with seeking ways to expand the role of the private sector in paying for and providing immunization and pneumonia control services. The project has been actively involved with NGOs, especially in Haiti and to a lesser degree in El Salvador. It has also become familiar with A.I.D.-funded Rotary projects in India and Nigeria and has prepared a concept paper on the role of the private sector, and organizations like Rotary, in disease surveillance. As yet, however, REACH II commitment to the issue of private sector participation has been tentative.

Involvement of for-profit firms as service providers is an arena well known to John Snow, Inc., from its implementation of the Enterprise Program in family planning services and its

experience in social marketing of oral rehydration salts in Egypt. The project is now committed to finding ways to fit the private sector into ongoing programs during the last 18 months of the present contract. As soon as the urban EPI program for Lagos State is financed, project implementors will begin a series of meetings with business leaders to gain their interest and participation, and with private sector health providers to discuss expansion of their involvement in immunization. A major part of this initiative should include an assessment of quality of the 19 percent of measles vaccinations already provided for by the private sector.

In the Philippines, the project proposes to approach agencies that were active participants in the Enterprise Program and invite their participation in pneumonia diagnosis and treatment. In Morocco, where John Snow, Inc., has conducted three different studies of private sector expansion in health care, the ARI program of REACH II, which is pending government approval, will approach private pharmacists to promote social marketing of co-trimoxazole, the antibiotic favored for treatment of childhood pneumonia.

V. Project Management

A. Management by A.I.D.

In the management of health projects, the role expected of the cognizant technical officer (CTO) is an issue for all parties—the Office of Health, the contractor, and the CTC. As staff personnel offer differing skills, it is not always possible to find in a CTO a combination of strengths: managerial capacity; in-depth technical expertise; experience in management of A.I.D. programs, and ability to prepare and process A.I.D. documents. From the point of view of its experience, the REACH II contractor emphasizes the need for a strong manager with the ability to serve as a project advocate within A.I.D. The Office of Health, on the other hand, stresses the need for a mix of managerial strength, technical oversight, and leadership. The CTO must deal with the tension between his or her role in servicing the project as a manager (which requires frequent and detailed attention to financial and other oversight as well as identification of constraints imposed by provisions of the contract) and technically guiding the project by helping it play its part in improving the prospect for survival of the world's children.

The review team observed that the excessive management burden on the CTO does limit technical collaboration between the CTO and the project. The team recommends that AID provide the CTO with sufficient staff support to administer the details of the project, so that the focus can be on assisting the project in its technical direction and international role. The team is confident the contractor can benefit from such leadership from A.I.D. without detriment to its day-to-day operations.

A broader concern of the team lies in the apparent competition among contractors, and among CTOs on behalf of the projects they manage. A.I.D. has acted on occasion, it seems, to preserve the territory of one or another contractor, rather than to promote cross-fertilization and collaboration. An example is the limitation placed on REACH II attention to health communication following the start of the HEALTHCOM II project. An exception is the recent determination of the Office of Health to assign responsibility for the Measles Initiative in Africa to three of their projects, and to ensure effective collaboration among the them for successful program implementation.

The REACH II project is charged to work in areas such as health communication, operations research, health care financing and has done research on Vitamin A supplementation. At the same time, other A.I.D. contractors are managing programs that focus primarily on these same areas. For REACH II to properly fulfill its contractual obligations it is necessary that the project incorporate elements of communication, operations research, and financing issues into its work in EPI and ARI. The process would be greatly facilitated if better coordinating mechanisms were in place to promote more collaborative and cooperative exchanges among

various A.I.D. contractors. Not only would the work of the REACH II project benefit from collaboration, but the activities of the other projects would be greatly enhanced by greater access to the resources available within the REACH II project.

The review team strongly encourages A.I.D. to explore mechanisms by which this type of inter-contractor coordination and collaboration can be promoted. The Measles Initiative in Africa represents an attempt to formally create collaborative relationships, but the team feels that a great deal more can be done with existing projects to promote collaboration without without such an elaborate special effort.

B. Management by John Snow, Inc.

1. Overall Management

The overall management of REACH II by John Snow, Inc., has been excellent. The fact that the REACH II project is working in some very unstable countries has presented the managerial staff with programming conditions involving a very high level of uncertainty. In spite of this, management staff have been able to maintain the organizational flexibility that is required to ensure the development of effective and appropriate programs. The review team was impressed with the project manager's ability to anticipate potential problem areas and develop sound contingency plans.

2. Project Staffing

The original core technical staff emphasized EPI and health care financing because these were the central programmatic areas during the overlap period with REACH I. An ARI coordinator was not brought on staff until the third quarter of 1990, at the time that A.I.D. was preparing its policy on ARI. In the third quarter of 1992 the only remaining health care financing (HCF) staff will leave the project, placing the future of HCF activities in some doubt. EPI remains well staffed for the last two years of the project with minimal staff in the areas of ARI, health care financing and sustainability, and health communications.

This staffing pattern requires that individuals accept responsibilities in more than one field in order to cover the project's technical areas. While this helps to broaden staff competency and unify project activities, the potential exists for inadequate representation of key areas of contractual responsibility. The concept and practice of promoting staff responsibility in primary and secondary areas is to be applauded. However, some additional staff appear to be warranted.

Of particular concern to the review team were the areas of health care financing, ARI, and health promotion. Needed skills could be obtained by recruiting new full- or part-time staff members or through greater use of REACH II subcontractors.

Regarding the overall staff capabilities, concerns were raised by several of the individuals interviewed during this review. Some commented that senior positions should be filled by individuals with more formal training and more international recognition in their particular areas of expertise. While this is always desired, it may be unrealistic to expect a contractor to be able to attract such individuals to a project that is time-limited and does not provide the prestigious exposure that the larger international organizations and universities offer.

A review of staff qualifications and expertise suggests that the REACH II project is particularly strong in the area of operational development and weakest in the area of research. Given the strong operational background of many of the staff, it is not surprising to note that the project functions at its best when addressing EPI and ARI operational issues. Given A.I.D.'s interest in intensive in-country efforts and responsiveness to mission requests, such a concentration seems appropriate. The general consensus of the review team is that the REACH II staff has defined a very important role for itself and that the staff is well capable of successfully fulfilling that role.

Overall, the review team was impressed with the commitment and dedication that REACH II staff bring to this project. There are very good working relationships within the organization and the channels of communication are well formed and promote a very high level of input. The staff bring an energetic and yet pragmatic orientation to their work that is evident in the positive comments received from many target-country counterparts and USAID mission officers.

3. Level of Effort

The level of effort (LOE) specified in the contract provides some potential constraints to the management of the project. The initial ceiling on LOE was 1,188 person months. The project has requested—and expects to receive—an additional 60 person months to account for work within four central Asian republics of the former Soviet Union.

The overall LOE expenditure rate will increase during the remaining 18 months of the project to reflect the planned increase in activities and the increased budgetary allocations. As the Morocco ARI, the Measles Initiative for Africa, and the Nigeria. Urban EPI programs become fully operational, the level of effort allocated to intensive site advisors will increase substantially. These activities will also draw on the LOE allocated to short-term technical assistance. Current projections indicate that the LOE ceiling will be adequate to permit the execution of all planned activities (see Table 3).

A problem arose in Nepal regarding which persons should be counted against the contractual level of effort. The continuity of the ARI research effort was in question when it appeared that field support staff (for example, enumerators, village health workers) were to be counted toward level of effort. Inclusion of such staff would have absorbed such a substantial amount of the project's LOE that it would have been impossible to continue the research activity. The problem seemed to center on interpretation of the rules governing LOE calculation. This particular problem has now been resolved, but better guidance concerning calculation management of LOE should be given at the project's start.

Table 3

REACH II, Project 932-5982³

**Level of Effort Expressed as Average Person Months Available per Month
for Selected Time Periods by Staff Category
(actual and projected)**

| Staff Category | 10/89 - 9/93 48 months | 10/89 - 9/90 12 months | 10/90 - 9/91 12 months | 10/91 - 3/92 6 months | 4/92 - 9/93 18 months (projected) |
|---|---------------------------|---------------------------|---------------------------|--------------------------|---|
| Total* | 24.75 | 4.40 | 26.55 | 31.32 | 34.94 |
| Intensive Site Advisors | 5.71 | 0.00 | 6.11 | 3.32 | 10.07 |
| Short-term Technical Expertise | 8.21 | 1.74 | 6.91 | 15.74 | 10.88 |
| Director, Deputy, and Technical Directors | 1.83 | 0.47 | 1.56 | 1.66 | 2.98 |
| Technical Core Staff | 6.73 | 1.11 | 8.84 | 7.36 | 8.86 |

* The staffing categories listed do not add to the total as some administrative support categories are not included.

Note: The LOE ceiling for the 48 months of the contract, as represented in this table is 1,188 person months. This does not include 60 additional person months requested by REACH II to cover activities in four central Asian republics of the former Soviet Union.

³ Table 3 shows that the average LOE for the life of the project is 24.75 person months per month. Due to the overlap with REACH I, the utilization of LOE during the first year of operations was substantially less than the projection (averaging 4.4 person months per month). Since that time, however, LOE utilization has been increasing. Since REACH II is a labor intensive effort, the increased burn rate for program expenditures must be matched with an increased burn rate of LOE. The projection for the next 18 months is that LOE will reach a level of 34.94 person months per month. The primary increase will be in intensive site advisors. Project management is aware of this matter and has demonstrated that the LOE burn rate will not be a constraint for the project.

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C. Project Funding

The original budget for the first four-year REACH II contract was \$12.5 million, of which 60 percent was to be committed from central funding and 40 percent from mission buy-ins. Buy-ins have fallen significantly short of the anticipated level. The short-fall has been addressed by a contract amendment in 1992 to raise the ceiling on central funding and OYB transfers. Additionally, the project budget has been increased by just over \$500,000 with an earmark of about half that amount for work in four central Asian republics of the former Soviet Union. This brings the total budget ceiling to \$13 million, of which approximately 21 percent will be from mission buy-ins.

Of the \$13 million total budget, approximately two-thirds is to be expended in the last 21 months of the contract (see Table 4).

Table 4

REACH II, Project 932-5982
Actual and Projected Budget Expenditures by Activity Category
(monthly burn rate)

| Activity Category | 10/1/89 -12/31/91 (27 Months) Actual | 1/1/92 - 9/30/93 (21 months) Projected | Total project (48 Months) |
|---|--|--|---------------------------------------|
| Short-term Technical Asst. | 1,183,515 (43,834) | 2,575,500 (122,643) | 3,759,015 (78,313) |
| Long-Term Technical Asst. | 1,489,273 (55,158) | 3,734,000 (177,810) | 5,223,273 (108,818) |
| Technical Development, Global Mtgs & Collab. | 1,430,149 (52,968) | 872,000 (41,524) | 2,302,149 (47,961) |
| Fixed Costs | 302,234 (11,194) | 894,000 (42,571) | 1,196,234 (24,922) |
| Former USSR | 0 (0) | 561,000 (26,714) | 561,000 (11,688) |
| Total | 4,405,171 (163,154) | 8,636,500 (411,262) | 13,041,671 (271,701) |

Note: The rate of expenditures during the first 27 months of the project is distorted by very low spending charged against REACH II during FY 90, the overlap year with REACH I. More representative spending for the REACH II project occurred in FY 91 when the overall monthly burn rate was \$247,093.

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The project has expended \$4.4 million as of January 1992 and expects to spend an additional \$8.6 million by September 1993. This will require an increase in the expenditure rate, as reflected in the monthly burn rate. That rate will need to increase to an average of \$411,000 per month during the last 21 months of the project. For comparison, the monthly burn rate for FY 1991 was \$247,000. This increase reflects a much more intensive commitment to long-term and short-term assistance. The most noticeable budgetary increases are from programmatic developments in the Measles Initiative for Africa, Urban EPI in Nigeria, the four central Asian republics of the former Soviet Union, Haiti, and Morocco.

Although the accelerated rate of expenditure is significant, there is adequate programmatic planning to support the substantial increase in spending. Accomplishing the remaining work will require REACH II and A.I.D. to pay careful attention to funding. The team recommends that A.I.D. fully fund the contract in FY 1992 to best allow for the timely completion of all activities.

A serious hindrance to the REACH II project was the fact that it was severely under-funded in the first year of operations and constrained by slowness in commitment of funds in subsequent years. The initial constraint in funds impeded REACH II efforts to market the project to USAID missions and generate needed buy-ins and delayed placement of initial staff overseas as well as the development of many important project activities. As delays in receipt of funding commitments continued, not only for buy-ins but also core funds, project management was constrained to take a conservative approach to its commitments to project activities. The initial lack of funds is one reason why the last 18 months of the contract period are so heavily burdened with activity. The first year of marketing and program development in a project such as REACH II is critical to the successful implementation of the entire project. To fail to fund the start of a project at full operational levels inhibits its growth and makes the rest of the project a catch-up period. The review team strongly urges A.I.D. to carefully consider the consequences of how it allocates project funds in future contracts.

D. Use of Subcontractors

The REACH II project has three subcontractors:

Program for Appropriate Technology in Health (PATH)
The Johns Hopkins University (JHU) School of International Health
The Manoff Group, Incorporated

The anticipated levels of effort with each subcontractor were:

PATH — 130 person months
JHU — 134 person months
Manoff — 14 person months

All subcontractors expressed some frustration over the degree to which they had been called upon—or not called upon—by the prime contractor. The primary approach of JSI to the subcontractors has been to bring representatives of the subcontractor's onto the REACH II project staff. Though such a move brings general skills to the project (a part-time JHU representative in the early part of the project brought research skills), it appears to do little to incorporate the broader expertise of the subcontractors into the activities of the project as a whole.

The expertise that the subcontractors offer to the project is important to the contract-specified scope of work. The exclusion of the subcontractors from playing a significant role in the project concerns the team. Provisions should be made to better access the services these organizations offer. In the case of JHU, REACH II should avail itself of the University's research skills in its operations research activities. With regard to PATH and Manoff, the project activities should draw more extensively from the technological and health promotion expertise that the firms can offer.

E. Technical Oversight

Technical oversight has been a problem area for the REACH II project. For approximately the first 15 months of the project, the position of technical director was combined with that of deputy director and filled by Dr. Pierre Claquin. When Dr. Claquin left the project, the position remained vacant for approximately one year. An extensive search was conducted to locate a replacement but no suitable candidate was found.

There was also a significant failure of the External Advisory Group (EAG) to fulfill its contractual purpose. The EAG met only once and was unable to fulfill its role to "provide expert review of contract activities and make recommendations for improvements." Such a situation is apparently not uncommon, as EAG meetings have progressively changed their role from one of active technical discussion and advice to one of more passive information sharing. Although the potential technical input of an EAG is invaluable, it has been difficult to identify technical experts who have sufficient understanding of A.I.D. and are available to offer direction to a project consistent with its goals.

The REACH II project has taken three major steps to correct the problem. The first was to organize subject-oriented technical working groups, to include recognized experts from outside the project. Such working groups have been convened on measles, polio, tetanus, urban EPI, ARI, surveillance, and health care financing.

Secondly, in March 1992, an amendment to the contract was proposed to A.I.D. in which a technical advisory panel (TAP) would be substituted for the non-functional EAG. The contract amendment states that "the TAP will consist of three internationally recognized public health specialists—an immunization specialist, an ARI specialist and a health planning specialist." The panel is to meet every 4 to 6 weeks for 1 to 2 days and will address:

- planning and implementation of activities
- quality and timeliness of work
- peer review of activities
- direction of future activities
- review of semi-annual and annual activity reports, lessons learned, and annual work plans
- final evaluation of the project

Additionally, panel members may be involved in writing working papers, representing the contractor and A.I.D. at major scientific meetings, and assessing the performance of field work and other technical missions. As of the date of this review (May 1992), two official members had been appointed to the TAP, Francois Marc LaForce, M.D., and Marc C. Steinhoff, M.D. Additionally, one ex-officio member, Nils M.P. Daulaire, M.D., a senior consultant to REACH II, has been requested to participate. The first TAP meeting is scheduled for early June 1992.

The third step taken to deal with the issue of technical oversight was to promote Mr. Robert Steinglass to the position of Technical Director in April 1992. Mr. Steinglass has had extensive experience with EPI and ARI activities and the review team was very impressed with his competency. He has been with the REACH II project since its inception and will provide continuity to the project's technical activities. Additionally, the project has held a number of day-long meetings with highly respected technical experts who have been able to provide a great deal of guidance to the staff.

The long-term impact of technical oversight problems is difficult to gauge. The REACH II project has assembled a fine staff and they have demonstrated strengths in identifying and addressing new areas of concern regarding EPI and ARI. Nevertheless, the lapse of time without a technical director and the failings of the EAG are significant and can have serious impact on the implementation of a technical support program like REACH.

A.I.D. needs to fully consider the inherent problems in recruiting highly qualified technical staff to time-limited projects such as REACH II, as well as the utility of requiring a large advisory group.

Annex A**Persons Interviewed****Agency for International Development
Washington, D.C.**

| | |
|---|--|
| Bureau for Research and Development (R&D) | Richard E. Bissell A.I.D. Assistant Administrator |
| R&D/Health | Ann Van Dusen Director |
| R&D/Health/Health Services Division | Robert Clay Division Chief |
| | Mary Ann Anderson Deputy Chief |
| | Holly Fluty Public Health Advisor |
| | Jerry Gibson REACH II Cognizant Technical Officer |
| | James R. Heiby Medical Officer |
| R&D/Health/Applied Research | Pamela Johnson Division Chief |
| | Caryn Miller Health Specialist |
| | James D. Shepperd Public Health Physician, Medical Officer |

**AFR/Applied Research and Technical
Services/Health and Human Services**

**Hope Sukin
Division Chief**

**Laurie Ackerman
TAACS Advisor**

**LAC/Development Resources/Health, Population,
Nutrition**

**Carol Dabbs
HPN Officer**

**Agency for International Development
Overseas Missions**

USAID/Yemen

**Charles Habis
HPN Officer/Mission Director**

**John Wiles
(former USAID/Yemen)**

**USAID/Kenya
(by telephone)**

**Constance Johnson
Health/Population Development
Officer**

**USAID/Philippines
(by telephone)**

**Patricia Moser
Health Development Officer**

USAID/Haiti

**David Eckerson
General Development Officer**

**Michelle Gedeon
Health Staff, USAID**

**USAID/Morocco
(by telephone)**

**Joyce Holfeld
Chief, Office of Population and
Human Resources**

**REACH II Project Staff
Washington, D.C.**

**Richard Moore
Director**

**Pat Taylor
Deputy Director**

**Diane Hedgecock
former REACH II Project Director**

**Robert Steinglass
Technical Director**

**Robert Weierbach
ARI Coordinator**

Technical Officers

**David Boyd
Mary Harvey
Allison Percy
Rebecca Fields
Ken Olivola**

Information Technical Officer

Mike Favin

**REACH II Project Staff
Overseas**

**Kenya
(by phone)**

**Grace Kagundu
KEPI**

Yemen

**Noel Brown
Chief of Party,
Accelerated Cooperation for Child
Survival Project**

Person's interviewed during
the Midterm Evaluation's Haiti
site visit

Luca Spinelli Barrile
REACH II Coordinator

Reginald Boulos
Executive Director,
Centre pour le Developpement et la
Sante

Daniel Henrys
Assistant Director, IHE
(former Minister of Health)

Juan-Antonio Lopez-Penela
UNICEF/Haiti Representative

Sergio Guimaraes
UNICEF Communication Specialist

Xavier Leus
WHO/PAHO Representative

Yanick Gelin
REACH/Haiti

Salvador Garcia
WHO/PAHO EPI Specialist

REACH II Overseas Cooperating Agencies

Ministry of Health, Kenya
(by telephone)
Health

Dr. Muu
Director, Division of Family

Danish International Development
Agency (DANIDA)
(by telephone)

Per Milde
Management Advisor to KEPI

UNICEF/Kenya
(by telephone)

David Alnwick

Ministry of Health, Philippines
(by telephone)

Maritel Costelas, Maternal and
Child Health
Dr. Cruz, EPI

REACH II Project Subcontracting Organizations

Program for Appropriate
Technology in Health (PATH)

Vivian Tsu
James Maynard

The Johns Hopkins University

Marc Steinhoff
Neil Halsey

Manoff Group

Marcia Griffiths
Mike Favin

Multilateral Organizations

UNICEF/New York

Terrill Hill

Rotary PolioPlus

John Wahlund

WHO/Geneva

Robert Kim-Farley
James Cheyne
Francois Gasse
Nick Cohen

WHO/South East Asia Regional Office

Imam Mochny

Annex B

Project-sponsored Workshops and Training Programs

Long-Term

Haiti - Cold chain training and training health workers in district-level planning

Kenya - Measles, implementation planning, EPI health care workers

Kenya - District-level training in social mobilization, monitoring/surveillance training, coverage surveys

Yemen - Training of primary health care workers (male and female)

Short-Term

Washington, D.C. - COSAS Workshop

Dakar, Senegal - REACH, UNICEF Financing & Sustainability Workshop for African EPI Managers

Papua New Guinea - Stocks and Logistics Module Field Test (trained health staff)

India - SEARO/WHO Region, COSAS/CEIS Monitoring Surveillance Workshop

El Salvador - ARI Workshop, training in planning and communication development

Cambodia - Cold chain management

Morocco - ARI workplan development

**Bangladesh - Coverage Survey, training
in surveillance/monitoring**

**Newly Independent States (former Soviet Union) -
Cold Chain Logistics**

Rwanda - ARI Program Manager's Course

**Dominican Republic - Training for
Coverage Surveys**

Philippines - Cold Chain Management

**Burundi - EPI Manager's Courses, training in
workplan development State-of-the-Art Training for Health**

**Togo - EPI Manager's Courses, training in
workplan development State-of-the-Art Training for Health**

**Washington, D.C. - Neonatal Tetanus Elimination
Training (co-sponsored with MotherCare)**

Annex C

Project List of Research Activities

| | |
|---|-----------|
| Child to Child Program: Kenya | 1989-1992 |
| ARI and Vitamin A: Jumla, Nepal | 1989-1991 |
| Cost effectiveness study of alternative polio vaccines: India | 1989-1992 |
| Exploration of whether single CEIS can meet generic needs | 1989-1992 |
| Coverage Surveys (including KAP): Kenya, Niger, Burkina Faso, Bangladesh, Haiti | 1989-1992 |
| Field testing COSAS | 1989-1992 |
| Tetanus Review for World Bank Health Sector Priorities Review | 1990 |
| Cold chain evaluations and assessments: Philippines Cambodia, NIS | 1990-1992 |
| Cost recovery review | 1991 |
| Introduction of hepatitis B in the Philippines | 1991 |
| DHS data review for identification of high risk districts for NNT: Kenya | 1991 |
| High titer measles study: Haiti | 1991-1992 |
| Manpower study: Yemen | 1991-1992 |
| Field testing stocks and logistics software module | 1991 |
| TT serology study: Kenya | 1992 |
| Maternal tetanus review | 1992 |

| | |
|--|-------------|
| Measles paper, "Defining the Doable" | 1992 |
| Cost study (research of costs): Kenya | 1992 |
| Health facilities assessments: Kenya, Niger, Burkina Faso | 1992 |

Annex D

Project Publications and Presentations on Technical Aspects of EPI and ARI

REACH II publishes a list of all project reports prepared under the current and predecessor (REACH I) project. The latest, dated January 1992, is available from—

REACH II
1616 North Fort Meyer Drive
11th Floor
Arlington, VA 22209

REACH II staff have made technical presentations at international meetings and conferences and have written a number of articles that have been published or accepted for publication in technical journals. Some key contributions include:

Neonatal Tetanus

- "Tetanus," a chapter in the forthcoming book *Disease Control Priorities in Developing Countries* (Oxford University Press for the World Bank).
- *Development et Sante 92* (April 1991) published "La Lutte Contre le Tetanos Neonatal," written by the REACH Acting Technical Director, and originally published in *Mothers and Children*.
- "Neonatal Tetanus Mortality in Coastal Kenya: A Community Survey," awaiting acceptance for publication.
- REACH staff and consultants are finalizing a comprehensive study for publication on the magnitude of post-partum and post-abortal tetanus and their epidemiological characteristics ("Maternal Tetanus: Magnitude, Epidemiology, and Potential Control Measures").
- Maternal Mortality Due to Tetanus: Magnitude of the Problem and Potential Control Measures (presented at the annual National Conference on International Health (NCIH) meeting, Washington, D.C., 1991). Accepted for publication by *International Journal of Gynecology and Obstetrics*.
- Neonatal Tetanus and Its Control (presented at the A.I.D. State-of-the-Art Course, Arlington, VA, June 1990).

- **Neonatal Tetanus Prevention: A Cost-Effective Imperative** (presented at the annual American Public Health Association (APHA) meeting, Atlanta, GA, November 1991).

Communications/Social Marketing

- REACH and MotherCare prepared an article on social mobilization for elimination of neonatal tetanus in the Artibonite Valley in Haiti. Awaiting acceptance for publication.
- An article in progress describing the findings and recommendations of a REACH-sponsored anthropological study on beliefs and attitudes toward NNT and immunization in three cultural areas of Bolivia. Awaiting acceptance for publication.

Measles

- An article "Issues for Achieving the 1995 Measles Targets in Developing Countries" was written by REACH staff and the REACH subcontractor, The Johns Hopkins University. A condensed version analyzes how the interplay of coverage levels, vaccine efficacy, and case fatality rate affect the feasibility of reaching international measles control goals.
- **Measles: The Silent Disaster** (background paper for the World Summit on Children, New York, July 1990).

ARI

- Pandey, M. R., and N.M.P. Daulaire, E. S. Starbuck, R. M. Houston, K. McPherson. 1991. Reduction in total under-five mortality in western Nepal through community-based antimicrobial treatment of pneumonia. *The Lancet*. 338:993-97.
- Daulaire, N. M. P., E. S. Starbuck, R. M. Houston, M. S. Church, T. A. Stukel, M. R. Pandey. 1992. Childhood mortality after a high dose of vitamin A in a high-risk population. *The Brit. Med. Journal*. 304:207-10
- REACH Activities in ARI Control (presented at A.I.D.'s ARI Technical Orientation Meeting, Arlington, VA, July 1991).

- **The Role of Peripheral Health Workers in Providing Standard ARI Case Management (presented at International Conference for Collaboration on the Control of Acute Respiratory Infections (ICCARI), Washington, D.C., December 1991).**

Monitoring and Surveillance/Management Information

- **The Needs and Benefits of a Computerized EPI Information System (CEIS) presented at the WHO/AFRO EPI Managers Meeting, Malawi, July 1990).**
- **Monitoring Quality of Immunization Programs (presented at the HSCM meeting, October 1990).**
- **REACH Assessment of CEIS (presented at WHO annual GAG (Global Advisory Group) meeting on CEIS, 1990).**
- **Tool for EPI Monitoring and Surveillance (presented at the UNICEF/WHO Technical Group on Immunization (TGI) meeting, Cotonou, Benin, 1990).**
- **Introduction to Coverage Survey Techniques and Uses (A.I.D.-sponsored State-of-the-Art Course, Arlington, VA, July 1991).**
- **Computerized EPI Information Systems and Disease Surveillance (A.I.D. State-of-the-Art Course, Arlington, VA, July 1991).**
- **COSAS: More Juice from the Coverage Survey Squeeze (presented at the annual APHA meeting, Atlanta, GA, November 1991).**

New Technologies/Hepatitis B

- **The SOLOSHOT Syringe: Multiple Partner Cooperation to Address a Major Health Risk (presented at the NCIH annual meeting, Washington, D.C., June 1990).**
- **Results of the Pakistan Trials for SOLOSHOT (presented at the annual APHA meeting, New York, October 1990).**

- **Stocks and Logistics Module WHO EPI Technical Network (TECHNET) meeting, Casablanca, Morocco 1991).**
- **Field Evaluation of a Non-Reusable Syringe (presented at the First International Conference on Self-Destructing Syringes, 1991).**
- **Toward an Ideal Hepatitis B Vaccine Format (presented at the International Hepatitis B Conference, 1991).**
- **Adding Hepatitis B Vaccine to the EPI: Some Practical Considerations (presented at the International Hepatitis B Conference, 1991).**

Financing/Sustainability

- **An Overview of EPI Sustainability Issues and Financial Sustainability of EPI (two papers presented at the WHO/EPI GAG, Cairo, Egypt, 1990).**
- **The Impact of Health Financing Policy Reform on Women's Access to Primary and Preventive Health Services (presented at the NCIH annual meeting, Washington, D.C., June 1991).**
- **Prevention Strategies via Vaccines: Issues of Cost and Effectiveness (presented at the Seminar on Child Health Priorities for the 1990s, Baltimore, MD, June 1991).**
- **(1) Costs of EPI and Financing Needs: Experience and Trends at the Regional Level, (2) Cost Analysis and Strategies for Reducing Costs and Increasing Efficiency, (3) Strategies for Financing and Sustainability of EPI (papers presented at UNICEF/WCARO meeting, Dakar, Senegal, November 1991).**

Urban EPI

- **Strengthening EPI in Urban Areas: The REACH Experience (presented at the APHA annual meeting, Atlanta, GA, November 1991).**
- **"Background Paper for Urban Health Discussion (an urban point of view)," presented at the A.I.D. Urban Health Workshop, Washington, D.C., 1991.**

Annex E

Scope of Work Midterm Evaluation of REACH II Technology and Resources for Child Health, Phase II A.I.D. Project Number 936-5982

The charge to the Evaluation Team is to address the following questions, and to provide in the evaluation report:

- a) Empirical findings of the review, with supporting evidence
- b) Conclusions based on your interpretation of these findings
- c) Recommendations linked to the above.

These questions should be reviewed by the Evaluation Team, who will have a chance to discuss them with the REACH II CTO before they are put in final form.

The Scope of Work includes both a number of project-specific questions, and also two kinds of generic questions, one about implications of the review findings for all of R&D/H's child survival projects, and a group of R&D/H cross-cutting evaluation issues. Some of the latter have been incorporated in the body of the SOW, and the rest appear at the end.

It is important to remember that promotion and development of the new field of ARI control is 20% of the project's effort. Thus many of the questions stated below should be considered *twice*: once for EPI program activities, and once for ARI activities.

I. Project Design, Goals and Objectives

- A. Was the original project design responsive to the stated problems in EPI and ARI control? That is, did the contract steer the contractor in the right direction to solve the identified problems?
- B. Considering the experience of the project to date, was the original strategy of the project appropriate? Was it flexible enough to meet changing conditions?

- C. Were verifiable indicators stipulated, or has the project been able to develop and use these? Have these changed since the beginning of the project?
- D. How realistic were:
 - 1. The time periods for the project's deliverables?
 - 2. The budget, and the expected sources of funding?
 - 3. The levels of effort for the different components of the project strategy?
- E. Is the demand from missions consistent with the projections made in the project's design? Are level of effort ceilings being met sooner or later than expected?

To what extent should core funds be used to conduct technical assistance that a mission seeks but cannot pay for, or to complement or finish buy-in funded TA (e.g. Kenya or Philippines)?

II. Project Effectiveness

For the country programs, and for each of the technical areas in which the project has been active, in addition to long-term intensive effort in at least 4-6 countries (in the revised contract).

- 1. Sustainability
- 2. Health information systems including computerized information managing systems
- 3. Financing and cost analysis
- 4. EPI target disease control, including measles control, neonatal tetanus elimination, and polio eradication
- 5. Rapid-response technical assistance
- 6. Technical assistance to support ongoing ARI programs

The following questions should be addressed:

- A. **ACTIVITY TO DATE AND PROJECT DELIVERABLES:** Are the project deliverables, as modified, being met?

-
- B. EXPECTATIONS:** Is the project meeting the expectation of missions, host governments, AID/R&D/H, regional bureaus, and others? Do these expectations correspond to the project goals?
- C. ACTIVITY SELECTION:** Has the process of selecting activities and project sites been planned and rational, or ad-hoc without a theme? Has a plan, or criteria for selecting activities been developed? Are the annual work plans appropriate and useful for directing the choice of activities? Have they been reviewed and modified as conditions changed? What objectives/strategies/activities are missing or under-represented?
- D. GENERAL EFFECTIVENESS:** To what extent are the original or modified objectives being realized? How has the project adapted to the rapidly changing EPI and ARI environment, and has it been able to solve or mitigate constraints to meeting objectives and the general goals? Given project resources and constraints, has performance been better, equal to, or less than expected? (Please address each of the major primary health system technical activity areas in considering this question: EPI and ARI program management/supervision, financing, communication, logistics/cold chain, immunization delivery quality, ARI case management quality, training, information systems/surveillance, promoting sustainability, integration of services.)
- E. IMPLEMENTATION OF TECHNICAL ASSISTANCE:** Has the project TA been a) responsive to requests, b) of high quality, c) timely, and d) integrated over time in countries where multiple visits were made?
- F. BALANCE OF SHORT-TERM VS. LONG-TERM TA:** Has there been the right balance of short-term TA vs. long-term country programs with resident advisors in place? To the extent that varying conditions between countries can be taken into account, which has been more effective given the expenditure? What were the main constraints to the project in doing each? What factors have influenced the number of buy-ins to REACH?
- G. BALANCE OF IN-COUNTRY VS. GLOBAL VS. WASHINGTON ACTIVITY:** Was the balance between activity in countries, in global meetings and planning, and in the Washington headquarters appropriate?
-

III. PROJECT MANAGEMENT

Does the REACH II management structure facilitate the achievement of project goals and objectives?

- A. **THE WORKPLAN:** Are project activities proceeding according to the workplan and on time except for uncontrollable constraints?
- B. **STAFFING:** Is staffing adequate in terms of technical ability and numbers, to achieve the objectives and respond rapidly? Have the vacancies in senior project staff affected the project? Is the present TAP an effective solution to the difficulty in finding a technical director?
- C. **POLICIES AND PROCEDURES:** Are mechanisms, policies and procedures in place to carry out activities efficiently with high quality? How have the subcontractor relationships contributed to project implementation?
- D. **RELATIONSHIP WITH FIELD ADVISORS:** Are relationships between REACH/Washington and the resident advisors effective? Is there sufficient communication and control between them? Consider the perspectives of REACH HQ, R&D/H, the REACH field staff, and the USAID Missions.
- E. **REPORTING SYSTEMS:** Is the financial reporting system effective? Are cost estimates accurate? Are the A.I.D. reporting requirements (as modified) appropriate? Is REACH able to meet them?
- F. **FINANCES:** Is the financial pipeline appropriate? Have some budget activity categories been over-spent relative to others, and if so was it appropriate?
- G. **RESPONSE TO MISSIONS:** Is REACH responding appropriately to mission and AID/W requests? Are requests often modified at mission or REACH request, and do these modifications meet requestors' needs, or respond to resource limitations? Do the REACH mechanisms for handling buy-ins help or hinder response?

- H. **THE TECHNICAL ADVISORY PANEL:** Was the recent change from an External Advisory Group to a Technical Advisory Panel well-advised? Can it fulfill the need for external review of the REACH project's activities? How can A.I.D. best ensure technical peer review of activities in the project?

IV. A.I.D. OVERSIGHT OF PROJECT IMPLEMENTATION

- A. Has A.I.D. guidance on the content and execution of the project been sufficient in amount, quality, and continuity? Is there the right balance between a laissez-faire attitude and micro-management?
- B. Is it assisting appropriately with communications with missions and regional bureaus?
- C. Has it been effective in promoting the cooperation and coordination of EPI and ARI work with other contractors?

V. COLLABORATION BETWEEN REACH AND THE LARGER EPI AND ARI EFFORTS

- A. Has REACH worked closely with and supported:
- host country governments
 - local PVOs
 - other donors
 - other A.I.D. projects
 - WHO
 - UNICEF
 - other organizations in these areas?
- B. Has REACH contributed to the global development of technical understanding of EPI disease and ARI control, and to the global plan for control of these problems?

VI. ISSUES OF CONCERN TO ALL R&D BUREAU PROJECTS

The team should ensure that the cross-cutting evaluation issues discussed in the attachment (R&D Cross-Cutting Evaluation Themes) are covered by the evaluation.

VII. FUTURE DIRECTIONS

The Team should make recommendations on the objectives and activities of REACH for the remaining 18 months of the contract. In addition, the Team should consider the current status of child survival and child health programs worldwide, and should provide comments on the technical content and organization of the A.I.D. central project(s) that follow REACH, to address the most pressing expected needs in these areas, taking into account the other major players in international development. Specific questions to be addressed include:

- What should be the balance between concentration on new interventions such as ARI control in children vs. continued support and increased sustainability of EPI and the other classic child survival programs?
- What should be the balance between public sector vs. PVO vs. for-profit private sector assistance?
- "Selective primary health care," and in particular in-country EPI's, have been described as being the well-managed "backbone" systems on which other primary health care interventions could be built. That is, EPI has been thought of as the locomotive that could pull the train of cost-effective primary health care. To what extent has this happened?
- Another way to look at the above-mentioned question would be: How fast, and in what circumstances, should integration between EPI, ARI control, and other PHC activities be encouraged?
- What should be the balance between REACH's working on in-country implementation of EPI/ARI activities, vs. global policy and technical development?
- What should be the balance between implementation and operations research in EPI and ARI?

- Was the one-year overlap between REACH I and REACH II about the right amount of time? In general, how much overlap between successive projects of this type is desirable?
- A major problem with many public primary health care programs in the developing world (and occasionally in the USA) has been relative under-utilization and a preference for other providers, e.g. PVO clinics, private doctors, and traditional healers. For example, less than 20% of serious diarrheal episodes in India that are seen by a health provider, are cared for in public facilities. What can future technical assistance do to make public systems more attractive and effective?
- It has been shown by REACH in a simple economic analysis that many poorer countries will not be able to afford to pay for the cost of their EPI in the foreseeable future. Yet immunization is probably one of the most cost-effective interventions that can be made in child health care. How can future technical and other A.I.D. assistance be structured to promote health systems that have the best chance of becoming self-sustaining eventually?

Scope of Work, Part II
Cross-cutting Issues of Interest
to the Bureau for Research and Development

Original A.I.D. document follows.

Attachment 3

S&T Cross-Cutting Evaluation Themes

1. Cost-sharing. S&T projects are rarely financed by S&T alone. We frequently depend on the financial and substantive participation of other parts of AID through buy-ins (which are the subject of topic 2). S&T also usually assumes participation of other non-A.I.D. organizations, which we call cost-sharing. In the context of evaluation, we need to examine this "non-A.I.D." participation. Cost-sharing is an important factor which contributes to project success. We should logically encourage cost-sharing as a means of mobilizing resources for our project objectives.

-- Is cost-sharing considered a part of the original project design? If not, should it have been?

-- Do project implementation instruments reflect requirements for cost-sharing? Did cost-sharing from the contractor, grantee or project participants have an effect, positive or negative, on the project?

-- Have outside parties provided resources for the project? Can we assess the efficacy and impact of this contribution if any?

2. Buy-ins. For many S&T projects, a substantial amount of a project's financing comes through buy-ins. We can conservatively estimate that the total buy-in contribution to S&T projects is in excess of \$300 million. The use of this mechanism to support a major part of S&T efforts is becoming institutionalized and consequently essential to our oversight and accountability function.

-- Is there a buy-in component under the project? If yes, is that buy-in component described in project design? Is there a process for tracking activities financed through the buy-ins? Are there mechanisms in place to measure the substantive effects of buy-ins?

-- Have the buy-ins made a positive contribution to the project? Have the buy-ins complemented the S&T-funded portion of the project and enhanced the overall effect of the project?

-- Has the project changed its focus as a result of the buy-ins? Have project objectives changed to incorporate the buy-ins? Is achievement of the project's original objectives dependent or independent of the buy-ins? In what way?

- What are the attributes of buy-in experiences which have worked well, e.g., attributes of success? Similarly, what has not worked well?
- 3. Sustainability. Institutionalization of S&T-supported interventions is critical to longer-term sustainability.
 - How is sustainability addressed by our project? Is sustainability addressed directly in project design? Is capacity building a part of the project? Is there verifiable progress on institutionalization from project efforts to date?
 - Does the project take into account the financial and institutional requirements to continue operation of the project activities after A.I.D. funding is terminated?
 - Can we assess the extent to which the project target audience is motivated to ensure long term sustainability?
- 4. Women in Development. Gender considerations are implicit in most A.I.D. projects. Agency policy is to emphasize and support the active participation and substantive contributions of women in the development process. As a result, project designs have been considerably improved in respect to language application and use. However, this has created a need for oversight of gender-related effects and issues.
 - Were gender issues discussed in the PP?
 - Were gender issues taken into account during project implementation?
 - Can project impact be disaggregated by gender? Do project data reflect gender considerations?
- 5. Peer Review. All projects having a cumulative cost over \$100,000 for research must have a peer review plan as part of the PP. For projects having a research component costing less than \$100,000 the Office Director may determine if peer review is needed.
 - If research is a major part of the project, does it have a peer review plan?
 - What is the extent of peer review under the project as implemented to date? Are peer review mechanisms documented? Has practice followed the agreed approach? Have peer review mechanisms met, in substance, the Bureau and Agency objective set forth in the guidance?



6. Information Collection and Dissemination. Dissemination of findings should be an important part of S&T projects. Project components addressing information collection and dissemination are often critical to project success.
- Are the collection and dissemination of information identifiable components of the project? Were these components planned in the PP?
 - Does the project support a reference library or "data base"? What are the project's mechanisms for dissemination? Are project data being disseminated?
 - Has the project had an ascertained effect attributed to dissemination?

