



RESOURCES FOR

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**REACH
ANNUAL PROGRESS REPORT**

FOR THE PERIOD

**OCTOBER 1, 1989 -
SEPTEMBER 30, 1990**

**The Resources for Child Health (REACH) Project
1100 Wilson Blvd., Ninth Floor
Arlington, VA 22209**

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I. OVERVIEW

In September 1989, the U.S. Agency for International Development awarded the Resources for Child Health Project II (REACH II) to John Snow, Inc., (JSI), Project Number 936-5982, Contract Number DPE-5982-Z-00-9034-00. This four year contract focuses on strengthening national capabilities to immunize infants and women of child-bearing age, and provides technical assistance in selected areas of primary health care (PHC), notably childhood pneumonia (acute respiratory infections-ARI) control programs. JSI's experience in managing and implementing the REACH I Project (1985 - 1990) has led to a smooth transition to REACH II. Technical and administrative project staff were in place, and additional advisors for new project components were hired. Strong monitoring systems were existing so field activities could be easily implemented.

A retreat was held in early November 1989 to identify the priority activities for year one of REACH II and a preliminary plan of action was drafted. Discussion meetings were held with A.I.D. bureaus and a worldwide cable was sent to USAID Missions to inform them of the new project mandate and to stimulate interest in REACH II assistance.

This first annual progress report documents REACH II project activities for the period of October 1, 1989 through September 30, 1990. It should be noted that due to an overlapping year of operation with the predecessor project, REACH I, the magnitude of project activities does not reflect the amount of work actually performed by REACH Staff.

II. AFRICA

BENIN

Technical Group on Immunization (TGI) Meeting

REACH Senior Technical Officer Rebecca Fields represented REACH at the Fifth Meeting of the Technical Group on Immunization in Cotonou, Benin from August 20-23, 1990. The audience consisted of WHO and UNICEF country-level EPI staff from Benin, Togo, The Gambia, and Angola. A number of invited observers from other agencies were also present.

Sessions were held on several topics, including sustainability, information systems, measles, neonatal tetanus, polio eradication, and the recommendations from the previous TGI meetings as well as the 1989 WHO/EPI Global Advisory Group. Each session consisted of presentations and discussion followed by the development of recommendations on the technical subject.

CAMEROON

Meeting with the Director of the Department of Family and Mental Health in Cameroon

REACH Senior Technical Officers Rebecca Fields, Mark Grabowsky and Robert Steinglass met in Washington, DC with Dr. David Awasim of the Cameroon Ministry of Public Health to research possible areas of collaboration. Operations research, use of Edmonston-Zagreb (EZ) measles vaccine and the development of a national Acute Respiratory Infections (ARI) control program were some of the topics discussed. REACH provided Dr. Awasim with a package of relevant materials and will follow up on discussions at the hepatitis B meeting in February 1991.

Upcoming International Conference on Hepatitis B

REACH Senior Technical Officers Rebecca Fields and Robert Steinglass will attend the International Conference for Control of Hepatitis B in the Developing World. The conference will be held from February 27 to March 1, 1991 in Yaounde, Cameroon. Mr. Steinglass is preparing a presentation on Logistics and Cold Chain Requirements based upon the experience gained in the Philippines on integrating hepatitis B vaccine into the national EPI.

KENYA

REACH II Technical Assistance to Kenya

USAID/Kenya has provided REACH II with a buy-in for assistance from the period of October 1990 through September 1992. The buy-in calls for the continued presence of the Kenya Communications Advisor, Grace Kabui Kagundu, as well as Kenya Administrative Assistant, Josephine Ndotu Kariuki. Short-term technical assistance will include performing operations research studies, cost benefit analysis, and a neonatal tetanus study; the computerized EPI information system will be maintained, an accelerated disease control workshop will be planned and delivered, and REACH will assist in the national coverage surveys, and participation in a comprehensive EPI review.

In September, 1990 Senior Technical Officer Mary Carnell travelled to Kenya to continue work on the Medical School Students' Manual on EPI, which should be completed for printing within the next year.

MALAWI

Meeting for (EPI) Managers in Anglophone Africa

REACH Senior Technical Officers Rebecca Fields and Mark Grabowsky attended the "Meeting for Expanded Program on Immunization (EPI) Managers" in Anglophone Africa held July 16-21, 1990 in Blantyre, Malawi. The meeting, organized by Save the Children Fund (U.K.) in collaboration with the World Health Organization (WHO), provided updates on different technical areas, such as neonatal tetanus elimination, measles reduction goals and WHO's concept of district level planning. National plans of action for polio eradication were prepared for the 18 countries attending the meeting.

REACH staff made a presentation on "The Needs and Benefits of a Computerized EPI Information System (CEIS) in Africa," emphasizing the benefits offered by CEIS at the national and provincial level, as an aid to gather and disseminate immunization information.

A major area of discussion was the need for a balance between achieving short and medium-term goals (such as polio eradication by the year 2000) and sustaining and strengthening EPI efforts; other topics included difficulties faced by EPI due to the increased presence of the Acquired Immune Deficiency Syndrome (AIDS) in this region, improved disease surveillance techniques and the role of the Rotary PolioPlus Program as a full partner in the polio eradication initiative.

SWAZILAND

CCCD Consultative 5th Annual Meeting

REACH Senior Technical Officer Rebecca Fields attended the 5th Annual Consultative Meeting of the Africa Child Survival Initiative - Combatting Communicable Childhood Diseases (ACSI-CCCD) Project. Technical presentations on EPI, malaria, and diarrheal disease control were combined with workshops on neonatal tetanus, measles and missed opportunities for immunization. In addition to these topics, a forum discussion of the CCCD follow-on project was conducted.

TOGO

Regional Meetings on Polio and NNT in Francophone Africa

Plans are under way for REACH Senior Technical Officer Mary Harvey to attend, as an observer, the Sahelian Countries Regional Meeting on Polio and Neonatal Tetanus in Togo, November 11-17, 1990.

III. LATIN AMERICA AND CARIBBEAN

DOMINICAN REPUBLIC

REACH II Technical Assistance to the Dominican Republic

The REACH Project received a buy-in from by USAID/Santo Domingo to assist in assessing the EPI coverage achieved after the November 1990 vaccination campaign and to evaluate the cold chain and determine its future needs. REACH staff will help determine the actual timing of the coverage survey, develop data collection forms, identify and train collaborators that will take part in the survey, conduct the survey, and analyze the results.

REACH Senior Technical Officer Robert Steinglass travelled to the Dominican Republic in September 1990 to attend an Interagency Coordinating Committee Meeting with participants from the Ministry of Health, Pan American Health Organization, UNICEF and USAID. He helped plan for the series of vaccination coverage surveys in coordination with other donors.

HAITI

Fact Finding Trip and Long-Term Technical Buy-in

REACH Senior Technical Officer Dr. Mary Carnell travelled to Haiti from May 5-11, 1990 to meet with USAID/Port-au-Prince and the Haiti National EPI Director and his staff to assess the possibilities for continued REACH assistance in EPI and Communications.

Following this visit, USAID developed a buy-in for REACH which includes two long-term advisors, the first in EPI management and the second in cold chain logistics. Work will continue in both the national and NGO sectors for immunization to include short-term assistance in:

- defining strategies to decrease neonatal tetanus;
- communications for routine delivery of EPI services
- performing and cost-benefit studies
- operations research
- developing for the control of a pilot project in acute respiratory infections, and
- program evaluation and monitoring.

Final Evaluation of World Vision/Haiti Child Survival Project

REACH Senior Technical Officer Mary Harvey participated in the final evaluation of the World Vision Relief and Development Project (funded by the FVA/PVC), which is located on the island of La Gonave, Haiti. The evaluation team consisted of one representative from the USAID mission, the Ministry's Bureau of Nutrition, and the Centre Haitian de l'Enfance.

The evaluation took place from August 26 through September 8, 1990. The following methods were used to evaluate the program:

1. Results from the survey conducted in August, 1990 were analyzed and compared to results of a similar survey conducted for the mid-term evaluation.
2. Review of the progress made in implementing recommendations from the mid-term evaluation was performed.
3. Information from structured interviews with the staff of the World Vision/Haiti Child Survival Project, other non-governmental organizations and health centers, project-trained health agents, members of health committees, and most importantly the mothers.

REACH II Short-Term Technical Assistance to Haiti

The Government of Haiti requested REACH/Haiti to provide short-term technical assistance in program management to EPI/Haiti. From August 27 to October 5, 1990, management consultant Harry Godfrey assisted in the decentralization of EPI/Haiti's operations by helping district and peripheral level health service personnel plan and strengthen local management of EPI services.

REACH staff worked with the Ministry of Health, UNICEF, PAHO and USAID in preparing a communal EPI planning guide to be used by each commune and a district planning guide to be used by 15 districts.

IV. ASIA/NEAR EAST

EGYPT

WHO EPI Global Advisory Meeting

REACH staff were requested to prepare two papers on sustainability for presentation at the WHO EPI Global Advisory Meeting Group in Cairo, Egypt, October 14-18, 1990. The first paper, An Overview of EPI Sustainability Issues, was drafted by REACH Deputy Director Pierre Claquin. It provides an introduction to some of the major issues pertaining to the sustainability of EPI and outlines significant issues involved in political, social, financial and technical sustainability.

The second paper, The Financial Sustainability of EPI, was prepared by REACH Senior Health Management Associate Laurence Day. It outlines factors which affect the financial sustainability of EPI. Major premises of the paper are that the approaches taken by donor and technical agencies have tremendous influence on the cost of EPI, and that a strategy which takes financial considerations into account must be included in the broader EPI strategies to ensure the sustainability of a strong and effective EPI at all levels.

INDIA

Cost-Effectiveness Study in Vellore

REACH continues to assist the Christian Medical College and Hospital (CMCH) of Vellore, India, in performing cost and cost-effectiveness studies of alternative polio control methods using different polio vaccines. Over the past two years in the REACH I Project, REACH technical staff advised and trained CMCH staff on performing cost studies and interpreting the data to make effective management decisions. In November, REACH II is supporting a visit to the REACH office in Washington by the principle investigator of the CMCH North Arcot Polio Control Project. During this visit the data collected from the 1990 surveys will be analyzed.

PHILIPPINES

Fact Finding Trip to the Philippines

REACH Senior Technical Officer Dr. Mary Carnell travelled to the Philippines from September 29 to October 11, 1990 to meet with USAID/Manila staff and Philippines Department of Health staff to assess the possibilities for continued REACH assistance in the Philippines. Areas of particular interest discussed during her visit were ARI and hepatitis B.

REACH, with its subcontractor PATH, are active in assisting The Philippines to begin nationwide vaccination of neonates against hepatitis B. Short-term assistance to provide critical inputs to the new national ARI program is envisioned, as well as continued short-term assistance in EPI after the REACH long-term advisor completes his assignment in December, 1990.

YEMEN

REACH II Technical Assistance to Yemen

USAID/Sana'a provided buy-in funds for REACH II Project assistance for the period October 1990 through September 1991. This assistance covers continuing operation of the REACH component of the Accelerated Cooperation for Child Survival (ACCS) Project.

In October 1990 two health training centers (HTCs) were opened in Al Shaghadirah and Aflah Al-Sham, Sadaah Governorate. These, along with the previous opening of two HTCs in the Hajjah and two in the Mareb governorate under REACH I, fulfil a long-term obligation of the ACCS Project. Training of trainer/supervisors assigned to the HTCs began in June 1990 under REACH I. Follow-up and evaluation of first year training activities is planned under REACH II.

Other technical assistance during the course of the year will include consultant visits by an economist, a cold chain specialist, an EPI specialist and a community mobilization specialist. Workshops are planned for the following topics: EPI maintenance phase (cold chain, COSAS) planning and management; health care management (administration and supervision of local health training centers); and, evaluation of first year training activities.

V. TECHNICAL ISSUES

ACUTE RESPIRATORY INFECTIONS (ARI)

During its first year the REACH II Project laid the foundation for development and support of ARI activities in A.I.D.-supported health programs. The principal thrust of this year's activities was in assisting the Bureau of Science and Technology, Office of Health (S&T/H), in the development of an ARI strategy statement and in the establishment of coordination mechanisms between ARI activities which would be supported by A.I.D. and those supported by other donors, principally WHO and UNICEF. In addition, work was begun on compiling a set of technical and human resources to be used in future technical assistance in ARI.

Meetings were held between the REACH CTO, REACH senior technical staff and senior officials of the WHO ARI Programme in Geneva in December 1989 and again in Washington, D.C. in September 1990, and with UNICEF staff in New York in January 1990. Preliminary mechanisms were established for technical coordination with these donor agencies to assure mutually supportive input and maximum coverage of national ARI programs. The REACH ARI Technical Advisor also participated in a joint WHO-UNICEF conference on the household management of ARI and diarrhea.

Meetings and discussions were held with the A.I.D. Regional Bureaus to review REACH's mandate as A.I.D.'s leading technical project for ARI program development and support. Preliminary data were assembled from various national ARI programs to serve as the basis for technical input starting in the second year of the REACH II Project, and a technical literature database was established.

REACH II technical staff received briefings on essential elements of ARI programming, and arrangements were made with WHO for in-depth training of REACH core staff in the ARI Program Manager's Course. In addition, REACH technical support of ARI field activities were initiated through a buy-in from A/NE to support investigations into the impact of Vitamin A supplementation on ARI morbidity and mortality in a research project in Jumla, Nepal.

FINANCING AND SUSTAINABILITY

Study of Cost Recovery Mechanisms for EPI

REACH is conducting a study of the worldwide experience in cost recovery for immunization. The overall goal of this study is to provide useful information to EPI managers and donor organizations regarding cost recovery for immunization and to support the development of appropriate, sustainable financing strategies. Specific objectives include: to describe and classify the range of experience worldwide, to assess the potential of the various cost recovery strategies for sustainability, to identify gaps in knowledge about the effectiveness of cost recovery mechanisms in use, and to identify schemes for further analysis and evaluation.

Data collection began in June, 1990 in the Africa region. With the help of UNICEF, telexes were sent to each African country requesting descriptions of all cost recovery experience for immunization or primary health care, either at the national or local level. A draft of the Africa regional report was completed in August and is currently under revision. PAHO assisted with data collection for the Latin America and Caribbean region. A draft report for this region is currently being assembled. The assistance of UNICEF is being sought to solicit information from countries in Asia, the Near East, and North Africa. Data collection should be complete by November, and a final report is anticipated by the end of December, 1990.

Vitamin A Study

Discussions were held with Dr. N. Cohen of WHO/Geneva in February 1990 to gain the perspective of WHO EPI on the nature and scope of a study on the incremental cost of adding Vitamin A supplementation to the EPI. At Dr. Cohen's request, REACH drafted a preliminary issues paper on this topic and continues to work with WHO on financing issues related to Vitamin A. REACH staff also attended the "Vitamin A Update" at PAHO in February.

CEIS (Computerized EPI Information System)

Second Annual Global Meeting on CEIS

REACH assisted in the Second Annual Global Meeting on Computerized EPI Information Systems (CEIS) in Geneva, Switzerland, July 31 - August 2, 1990. The meeting was jointly sponsored by WHO and A.I.D. CEIS is a software system that captures immunization program data and provides EPI managers with reports and graphs which summarize program activity, the incidence of target diseases, program financing and training.

This meeting provided an opportunity for technical consultants in EPI management, systems analysts and national EPI managers to discuss their experience in CEIS and make recommendations for next year's activities. REACH staff made presentations on the project's long involvement in CEIS, and on the development of a fully generic CEIS system that can shift the emphasis from providing EPI managers with computer programming training to assisting them in the development of information systems, analysis of data and program management. Major recommendations made at the meeting included: developing a generic version of CEIS which can be installed in each country without custom modifying the program code; providing increased technical support for improving manual information systems; and training peripheral managers to collect and analyze their own data.

Development of Generic CEIS Software

REACH sponsored the completion of a generic CEIS software which can be installed and made country-specific without modifying the codes of the computer program. Making the CEIS country specific includes being able to translate the menus, report titles and contents into any language and specifying the exact contents of any report. The generic CEIS can also prepare a wider variety of more sophisticated reports summarizing immunization coverage, and graphically display these summaries using Harvard Graphics software.

The generic CEIS was developed in response to the widespread recognition that the initial version of the package was too limited in its report capabilities and that it required reprogramming at each site installed. Furthermore, too little time is always available to train personnel to use the reports for program management.

CEIS Core Group Meeting

REACH sponsored a meeting of CEIS programmers in Washington from September 24-26, 1990. The meeting was designed to review the recent REACH experience with a generic version of CEIS in Kenya, PAHO's experience with CEIS programs in Latin America, and EPICENTRE's experience with CEIS in Africa.

Other topics discussed were outstanding key design issues for the generic CEIS program, a review of possible software options for the package, the final outline for user interface and future responsibilities of participants in the development of a generic CEIS. Further work is under way to incorporate modifications suggested by the CEIS Core Group into reports and outputs produced by a stocks and logistics module, and to make alterations for the module's integration into the generic CEIS program.

Stocks and Logistics Module

With the agreement of WHO/Geneva, REACH is currently developing a computer software package to assist national stock and logistic managers monitor vaccine and syringe usage and better estimate supply needs.

The software is designed either to be included with the other modules currently in CEIS or to stand alone. The module will process and track purchase orders to international suppliers as well as orders for supplies from the field. The module will also help managers use first the stock that will expire soonest, complete physical inventories and forecast supply needs at the national level.

After completion, the module will be sent to the field and WHO for review by field users and technical experts. Their suggestions will be included in a final version that should be available by the end of 1990.

MEASLES

Assistance in Preparing A.I.D. Measles Paper

S&T/H requested REACH to present a paper showing the current status of measles and measles control in developing countries with some suggestions as to how A.I.D. might contribute to future control of this disease. The paper was presented to S&T/H in July, 1990 with the title, "Measles-the Silent Disaster," it was used by A.I.D. as they planned for the World Summit on Children at United Nations headquarters in September, 1990.

A summary of the epidemiology of measles in children and an understanding of how this disease interacts with other major childhood illnesses is outlined in the paper. It also presents a current understanding of the effect of immunization programs on child survival. The effectiveness of current vaccines and it explores the rationale for developing alternative measles vaccines.

VI. MEETINGS

First Meeting of the REACH External Advisory Group

The first meeting of the REACH External Advisory Group (EAG) was held on June 6 and 7, 1990. The format for the first day of the meeting was intended to inform EAG members of REACH's history and the program priorities that have emerged from its experience, as well as the A.I.D. contractual terms under which the current contract operates.

Participants were divided into concurrent working groups to discuss the control of diseases of key concern, and, in a later session, the cross-cutting issues of surveillance and monitoring, and financing and sustainability. EAG members acted as rapporteurs to present findings back to the plenary and lead discussion, including one on the role of operations research. During the following half-day session, REACH and A.I.D. staff provided a project overview to an audience of participants and observers, and EAG members presented the highlights of the previous day's discussions.

The key findings of the meeting reflected the concern and involvement of EAG members. They advocated that REACH II increase its activity in the broad area of disease control rather than restricting itself strictly to vaccination. At the same time, the EAG noted with concern that with the current funding structure of REACH II, the project cannot achieve its mandate of carrying out the research and activities required to develop, refine, evaluate, implement, and disseminate effective methods of disease control. The EAG strongly recommended that alternative sources or mechanisms for funding be sought to supplement the existing funding structure, so that REACH II can realize its potential to contribute to the reduction of vaccine-preventable diseases.

WHO/Geneva Collaborative Meetings

From December 18-20, 1989, members of REACH II staff, the A.I.D. Cognizant Technical Officer, and WHO/EPI staff met to discuss areas of potential collaboration given the focus of the REACH II Project. WHO/EPI staff identified many areas where REACH could be of assistance, such as:

1. Performing knowledge, attitudes and practices (KAP) surveys in the Eastern Mediterranean Region to analyze why some programs are successful and why others are not; and to bring recommendations for action.
2. Providing assistance in developing materials for the social marketing of tetanus toxoid and generating donor interest at country level.

3. Creating an algorithm which documents the economic impact of new technologies on the costs and affordability of EPI.
4. Developing a computerized module for monitoring the flow of vaccines and commodities.
5. Continuing the assistance to promoting CEIS activities and training.

The meetings also focused on strengthening the collaboration between REACH and WHO. It was agreed that reports will be shared and whenever possible REACH staff and consultants will hold in-country briefings with the WHO representative.

Financing Meetings with WHO/Geneva

A visit was made to WHO/EPI in Geneva in December, 1989 to discuss areas of collaboration on financing and cost analysis of national immunization programs. REACH II subsequently received an official request from WHO to draft a working paper on financing of immunization programs for the 1990 WHO EPI Global Advisory Group Meeting.

REACH worked closely with WHO on the development of the 3rd symposium on costing and financing of EPI at the International Children's Center (CIE). This third meeting brought together country EPI managers to share their experiences and needs in cost-effectiveness studies. Sessions were held on how the results of such studies could be used as effective management tools.

REACH-UNICEF Collaborative Meeting

On January 5, 1990, members of REACH II and UNICEF staff met to discuss possible areas of collaboration. REACH staff provided a brief introduction to the REACH II mandate and gave an overview of the REACH I Project work. REACH II assistance to UNICEF in selected countries in performing the universal childhood immunization (UCI) country reviews was discussed. The importance of mutually sharing reports and other documentation was emphasized.

Participation in the Neonatal Tetanus (NNT) Elimination Consensus Group Meeting

REACH II Senior Technical Officer, Robert Steinglass, participated as rapporteur in the Neonatal Tetanus Elimination Consensus Group Meeting sponsored by WHO in Geneva, September 19-21, 1990. The WHO decision to establish such a group was an outcome of the REACH I/MotherCare-sponsored meeting in Alexandria, Va. in January 1990 on Neonatal Tetanus Elimination: Issues and Future Directions. In the area of neonatal tetanus surveillance, an important recommendation was that, by 1992, all affected countries should identify areas of high priority for NNT control. Factors to consider include recorded or estimated incidence, size of unprotected populations exposed to high risk, and operational feasibility of interventions. The Consensus Group recommended that clean delivery "process" and "outcome" indicators continue to be discussed by the MCH and EPI units of WHO. The group also proposed a new indicator to monitor tetanus toxoid coverage through routine reports. The recommendations of the group were submitted to the WHO EPI Global Advisory Group Meeting in Cairo in October 1990.

A.I.D. Bureau Meetings

In December 1989, a series of meetings with the regional bureaus of A.I.D. and with the FVA/PVC bureau took place to introduce the new REACH II Project and ascertain from A.I.D./Washington of possible areas of assistance.

Health Care Financing Group Meeting

The REACH project organized a discussion group on May 10, 1990 to consider the financial and economic sustainability of national immunization programs and suggest directions for further work in this area. The audience included health economists and policy makers from A.I.D., the World Bank and PAHO.

Participants discussed the problems which arise from considering sustainability and financing for a single EPI intervention when this activity is often an integrated part of a health system. Participants at the meeting also pointed out that sustainability should focus on improvements in health status, which are the goal of all health efforts, and that donors and local EPI managers should devote more attention to the financial and economic implications of their decisions to employ any given strategy.

The meeting noted that EPI officials often tend to focus on controlling or eliminating disease without regard to cost; this can be detrimental because it ignores the scarcity of resources and the availability or existence of other investments that may yield greater benefit. In all cases, health projects or programs should be assessed based on their anticipated costs and benefits in order to make the most rational and effective use of resources.

Meeting with the Bureau for Refugee Programs

S&T/H and REACH met with the Department of State, Bureau for Refugee Programs (BRP) on May 15, 1990 to discuss immunization services in refugee settings. Vaccine preventable diseases, particularly measles, are frequently the leading cause of child deaths in refugee settings. The experience of BRP has revealed that the need for immunization is most urgent in the early stages of a refugee situation, and varies as the situation stabilizes. Lack of coordination between the multiple agencies and donors, lack of technical support and shortage of supplies are often impediments to providing immunization services in refugee settings. At the meeting REACH staff provided a brief review of their global EPI activities; strong technical support for all facets of immunization is available and could address the urgent needs of refugees. REACH will continue to explore refugee health needs and the potential role and mechanisms to provide technical assistance in immunization.

Sixth International Pertussis Symposium

The Sixth International Pertussis Symposium held at the National Institute of Health September 26-28, 1990 was attended by Senior Technical Officer Mark Grabowsky. This symposium had two underlying public health objectives:

- developing a laboratory and epidemiologic basis for testing the currently existing acellular pertussis vaccines; and
- bringing the full range of biochemical techniques to bear on developing antigens for the next generation of pertussis vaccines.

DNA sequencing, site directed mutagenesis, protein conformational studies, expression of bordetella genes in vectors are all proceeding at full speed.

The outcome will be a large and definitive study of cellular versus several candidate acellular pertussis vaccines, which will be funded and supervised by the U.S. Public Health Service. There are only two or three sites in the world which can do such a study - Sweden, Germany or Senegal. It is expected that such a study will start next year and take three years to complete. There is an informal target of using these results to license an acellular vaccine in the U.S. by 1995.

Participant in the UNICEF Technology Introduction Panel (TIP)

On January 20, 1990, REACH Senior Technical Officer, Robert Steinglass, participated in the semi-annual UNICEF TIP meeting. The panel was formed to suggest and test new innovative technologies for promoting primary health care activities. Selected designs are then identified for field testing. A second meeting was held in Washington in June, 1990, and attended by REACH Senior Technical Officers Robert Steinglass and Rebecca Fields.

REACH II Participation as Members/Observers of Other A.I.D. Centrally Funded Projects' External Advisory Groups

REACH II staff participated in the External Advisory Groups for the HEALTHCOM and Health, Financing and Sustainability (HFS) Projects.

Collaborative Meetings with HEALTHCOM, PRICOR, AND PRISM

From the period of September, 1989 to March, 1990 REACH II staff held meetings with other A.I.D. centrally funded projects to discuss mutual areas of interest. The new components to the REACH II Project, operations research and communications/social mobilization for EPI and ARI, warranted these meetings to gain knowledge from past experiences and to outline areas of joint development.

ISTI/HHS Technical Meetings

REACH II staff met with International Science and Technology Institute (ISTI) and the Department of Health and Human Services (HHS) to discuss the immunization coverage figures that should be used for the Child Survival Report to Congress. Representatives from WHO and UNICEF also attended the meeting.

Meeting with Representatives from Japan

The REACH II A.I.D. Bureau of Science and Technology, Office of Health (S&T/H) Project Officer and REACH II staff met with representatives from the Japanese government to introduce the project mandate and to identify areas of mutual interest and complementary benefit.

APHA Conference

The annual conference of the American Public Health Association was held in New York, September 21-25, 1990 with the theme of progress towards the U.S. health objectives. REACH presented a poster session on the results of the Pakistan trials for SOLOSHOT™, a non-reusable syringe, conducted under REACH I.

Participation in the Health Professionals Associations Meeting

On June 15, 1990 Senior Technical Officers Mark Grabowsky and Mary Carnell attended a one day workshop entitled "Health Professional Associations and Their Role in Promoting Child Survival." Dr. Carnell acted as facilitator for the lessons learned in EPI working group while Dr. Grabowsky took part in the group discussing the role of medical associations may play in future ARI activities.

Health Sector Council Meeting (HSCM)

At the HSCM meeting held in Arlington, VA, October 4, 1990, Senior Technical Officer Mark Grabowsky gave a presentation on the work of REACH in monitoring quality of immunization programs. The findings were based on the use of COSAS survey analysis software to analyze develop an "immunization profile" for immunization programs. Using this software, which was developed by REACH in collaboration with others, it is possible to measure health worker performance with respect to missed opportunities for immunization, age distribution of antigens given, appropriateness of intervals and other parameters.