

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D.C. 20523

PROJECT PAPER

INDIA

CHILD SURVIVAL HEALTH SUPPORT

(386-0504)

JULY 3, 1986

UNCLASSIFIED

PROJECT DATA SHEET

1. TRANSACTION CODE

**A**  
A = Add  
C = Change  
D = Delete

Amendment Number

DOCUMENT CODE  
**3**

COUNTRY/ENTITY  
**INDIA**

3. PROJECT NUMBER  
**386-0504**

4. BUREAU/OFFICE  
**ANE**

5. PROJECT TITLE (maximum 40 characters)

**Child Survival Health Support**

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

7. ESTIMATED DATE OF OBLIGATION  
(Under "B" block, enter 1, 2, 3, or 4)

MM DD YY  
**09 31 09 11**

A. Initial FY **86**

B. Quarter **4**

C. Final FY **90**

B. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY <b>86</b>			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AD Appropriated Total	6,000	16,000	22,000	18,640	46,360	65,000
Grant	6,000	16,000	22,000	18,640	46,360	65,000
Loan	-	-	-	-	-	-
Other						
U.S.						
Host Country					142,900	142,900
Other Donors					83,800	83,800
<b>TOTALS</b>				18,640	273,060	291,700

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) CSF*	B510	510				6,000		6,000	-
(2) HE	B510	510				16,000		59,000	-
(3)									
(4)									
<b>TOTALS</b>						22,000**		65,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

**544 550 570**

11. SECONDARY PURPOSE CODE  
**520**

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code **BRW BUW**

B. Amount

13. PROJECT PURPOSE (maximum 400 characters)

To expand the proportion of children and women covered by specific child survival interventions and to improve the quality of these interventions delivered.

14. SCHEDULED EVALUATIONS

Interim **03 89** Mid **06 91** Final **06 91**

15. SOURCE/ORIGIN OF GOODS AND SERVICES

DDC  PI  Local  Other/Spec **935**

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of 8 page PP Amendments)

\* Child Survival Fund

\*\*Consists of, \$6 million from Child Survival Fund, \$6 million from Health Account, and \$10 million from the Integrated Rural Health and Population Project deobligation.

17. APPROVED BY

Signature

Owen Gyke  
Director

Date Signed

MM DD YY  
**01 31 86**

18. DATE DOCUMENT RECEIVED IN AID/M. OR FOR AID/M DOCUMENTS. DATE OF DISTRIBUTION

MM DD YY

ACTION MEMORANDUM FOR THE ADMINISTRATOR

Thru: ES  
Thru: AA/PPC  
From: AA/ANE, Charles W. Greenleaf  
Subject: Child Survival Health Support Project (386-0504)

Purpose: To authorize \$65 million of grant funds for the India Child Survival Health Support Project (386-0504).

Background: India has a population of more than 760 million people growing roughly at a rate of two percent per year. About 25 million children are born each year and there are currently over 100 million children under the age of five. More infants die annually in India than in any country in the world. Between 1975 and 1980, almost one fourth of the world's infant deaths were the deaths of Indian babies. Over that same period, India had almost three times the number of infant deaths as China, the country with the second highest number; and essentially the same number of infant deaths as the entire continent of Africa. No worldwide child survival program can be credible unless it has a positive impact on the situation in India. Analysis of available data and studies indicates that fifty to sixty percent of the infant and child deaths in India are caused by a small number of causes and interrelated conditions. Topping the list of causes are immunizable and diarrheal diseases. Recognizing this, the Government of India has launched ambitious programs for universal immunization and diarrheal disease management. The proposed Child

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Survival Health Support Project will strengthen and accelerate the implementation of those programs.

Summary Project Description: The project will support child survival activities in India. The interventions that form the central focus of the project are (A) immunization with vaccines for diphtheria, whooping cough, tetanus, polio, tuberculosis, and measles; and (B) oral rehydration therapy in both clinics and homes. A simultaneous development approach will be employed involving concurrent activities at the national, state, and sub-state levels. Private sector involvement will be maximized in such key areas as the promotion and sale of oral rehydration salts, and involvement of private practitioners in the immunization program.

Six separate but interrelated components will be supported under the project. They are as follows:

At the National Level

- Grants to UNICEF totaling \$25 million over four years to support the Government of India's Universal Immunization Program (UIP). UIP is a district-by-district approach whose target is near universal coverage of children under one and pregnant women by 1990.

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- Finance totaling \$15 million over four years to support the Government of India's Diarrheal Disease Management (i.e. ORT) Program. This program has only just been approved. The basic principles are established and are sound, but implementation plans remain to be developed. USAID technical staff will collaborate actively in the development of such plans each year.

At the State Level

- Finance totaling \$18 million over five years for four project states (Gujarat, Maharashtra, Himachal Pradesh, and Haryana) to support detailed state work plans in health training, communications, and surveillance systems. In each of these areas the focus will be on immunization and ORT and there will be active collaboration between the state government and USAID staff.

At the Sub-State Level

- Finance totaling \$2.55 million over five years to support a broad range of operational studies designed to improve the delivery and performance of the health service system, with particular reference to NIP and ORT. Two National Congresses on ORT will also be supported.

USAID Mission

- Finance totaling \$4 million for technical assistance inputs at all three levels to facilitate the policy dialogue, to transfer technical information, to assist in management oversight and to collaborate in generating and implementing new approaches.
  
- Finance totaling \$450,000 for short term participant training for state level officers.

FAA Section 612 (b)

When the development assistance program in India was re-established, it was determined that project local costs could be dollar funded rather than funded with U.S. owned excess rupees. PPC reaffirmed views on the matter at the annual CDSS and ABS reviews. In accordance with past practice, your signature on the attached authorization will provide the basis for certification authorizing the use of dollars as required under this section.

CONGRESSIONAL NOTIFICATION

A Congressional Notification was submitted to Congress on \_\_\_\_\_ advising AID's intention to obligate funds for this project in FY 1986. The waiting period expired \_\_\_\_\_.

RECOMMENDATION

That by signing the attached authorization, you authorize a \$65 million grant for the India Child Survival Support Project.

PROJECT AUTHORIZATION

INDIA

Child Survival Health Support

Project No. 386-0504

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Child Survival Health Support Project for the Government of India (Cooperating Country) involving planned obligations of not to exceed Sixty Five Million United States Dollars (\$65,000,000) in Grant funds over a five year period from the date of authorization in accordance with the A.I.D. OYB/Allotment process to assist in financing foreign exchange and local currency costs for the project. The planned life of project is five years from the date of the initial obligation.

2. The project is designed to assist the Cooperating Country (a) achieve a significant increase in coverage of children under age one with DPT, BCE, polio, and measles immunization and a significant increase in coverage of pregnant women with completed tetanus toxoid immunization and (b) achieve within a substantial proportion of families with young children a knowledge of and established use of oral rehydration therapy and continued feeding as a first line treatment of diarrhea in the home; and to support this with a national network of clinical oral rehydration centers.

3. The Project Agreement(s) which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with A.I.D. Regulations and Delegations of Authority shall be subject to the following essential terms, together with such other terms and conditions as A.I.D. may deem appropriate.

4. Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the Cooperating Country or the United States except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

Signature: \_\_\_\_\_

M. Peter McPherson

Administrator

\_\_\_\_\_

Date

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## I. PROJECT SUMMARY

### A. General

This five year project will provide \$65 million (\$33 million loan and \$32 million grant) in support of child survival activities in India.

The primary target groups for the project are children under two years of age, their mothers, and pregnant and lactating women. Two technically proven interventions form the central focus of the project:

- Immunization with the standard vaccines for diphtheria, whooping cough, tetanus, polio, TB and now measles; and
- Oral Rehydration Therapy (ORT) at both the clinical and home levels;

The project results from the confluence of five factors. They are:

- The importance of India to world child survival, because nearly one-fourth of the LDC child deaths occur in India;
- The nature of the problem - it is clear that immunizable and diarrheal diseases are major causes of child mortality in India, but immunization coverage is less than one-third, and use of ORT is very low;
- India's commitment to child survival, which is reflected in an approved national health policy, backed by increasing health budgets;
- The AID Child Survival Strategy with its "twin engines" of immunization and ORT; and,
- The new Mission Health Sector/Child Survival Strategy, with its emphasis on children under two and their mothers, critical interventions, mass coverage, policy engagement and a multi-institutional premise.

### B. Project Concepts

The project employs a simultaneous development approach, involving concurrent activities at the national, the state and the district level and below, to assure that the best available technologies are being used while new ones are being developed, tested and then rapidly spread. Working through the Indian Government's planning and budgeting processes at the national and state levels, the project is fully consistent with AID program sector assistance guidelines and/or performance disbursements practice as it is evolving, but it does not fit precisely into either of those assistance modes.

The project reaches beyond the Ministry of Health and seeks to maximize private sector involvement in such key areas as the promotion and sale of oral rehydration salts and mass communications, and by enlisting all private practitioners - including indigenous practitioners - in the immunization and oral rehydration programs.

India has a vast health infrastructure in place and largely staffed which functions with low utilization of services and disappointing results. An underlying objective of the project is to energize that system by focusing it on key interventions and by concentrating on the peripheral workers who are the backbone of the system.

### C. Project Content

The project consists of six separate but interrelated components. They are as follows:

#### At the National Level

- Grants to UNICEF totaling \$25 million over four years, to support the Government's Universal Immunization Program (UIP). UIP is a carefully designed and tested district-by-district approach whose target is near universal coverage of children under one and pregnant women by 1990. The project's support for UIP will be channeled through UNICEF because it has been the major participant and most important donor, and, as a result, has a strong voice in program design and execution. Mission technical staff will actively collaborate in that effort.
- Funds totaling \$15 million over four years for the Government's Diarrheal Disease Management (i.e. ORT) Program. This program has only just been approved. The basic principles are established and are sound, but implementation plans remain to be developed. Mission technical staff will collaborate actively in the development of such plans each year.

#### At the State Level

- Funds totaling \$18 million over five years for four project states (Gujarat, Maharashtra, Himachal Pradesh and Haryana) to support detailed annual work plans in health training, communications, and monitoring and information systems. In each of these areas the focus will be on immunization and ORT and there will be active collaboration with AID-supported technical staff.

#### At the District Level

- A total of \$2.55 million over five years to support a broad range of research and operational studies designed to improve the delivery and performance of the health service system, with particular reference to UIP and ORT. Two National Congresses on ORT will also be supported.

### USAID Mission

- A total of \$4 million for technical assistance inputs at all three levels to facilitate the policy dialogue, to transfer technical information, to assist in management oversight and to collaborate in generating and implementing new approaches.
- A total of \$450,000 for short term participant training for national and state level officers.

#### D. Project Costs

Total life of project costs are estimated to be \$291.7 million, of which AID will provide \$65 million (22%), the Government will provide \$142.9 million (49%) and other donors \$83.8 million (29%). India's program commitment to child survival reaches far beyond the project estimates contained herein. The Ministry of Health's MCH budget alone for the Seventh Five Year Plan exceeds \$750 million. ICDS, family planning and primary health operations push the budgeting commitment to world leadership in this critical area of concern.

#### E. Project Impact

By 1990 the two major programs which this project will support - UIP and ORT - should prevent an estimated 1.3 million infant and child deaths per year, and over the five years of the project the lives of some 1.9 million children will be saved.

### II. BACKGROUND AND RATIONALE

#### A. The Relevance of India to World Child Survival

India's size and the relative severity of the infant and child mortality problem in the country imply that no child survival effort can be truly worldwide if it does not include India, and worldwide success cannot be achieved, even on a relative scale, if it is not achieved in India. A few simple statistics clearly demonstrate this point. In relation to the developing world as a whole, India has an estimated:

- 25 million births a year, 20 percent of the LDC total;
- 2.4 million infant deaths a year, 23 percent of the LDC total, and nearly three times as many as the next highest country (China);
- 1.3 million deaths a year due to pertussis, neonatal tetanus and measles, 28 percent of the LDC total;
- 1.5 million child deaths a year due to diarrhea, 33 percent of the LDC total.

The potential pay-off from India's child survival effort is, therefore, extremely high. It is high in sheer numbers and their impact on potential worldwide success; and it is high in terms of the model that India might set for the countries where the other three fourths of the problem exists.

#### B. The Perceived Problem

Except for their magnitude, India's problems of infant and child mortality differ little from those of almost every other country in the developing world. The salient factors are as follows:

The population of more than 760 million is growing at roughly 2 percent per year and will reach one billion by the year 2000. The crude birth rate, now about 33/1000 population (the Registrar General's 1984 estimate is 33.8), has been slowly declining. About 25 million children are born each year and there are over 100 million children under age five.

The crude death rate is about 12 per 1000 population. Although children under age five comprise only 14 percent of the population, almost half of all deaths are in this age group, as compared to less than 3 percent in the U.S. Infant mortality declined from 200 deaths per 1000 live births in 1911 to approximately 114 today. There are also considerable variations in infant mortality between states, ranging from as high as 165 deaths/1000 live births in rural Uttar Pradesh, to as low as 27/1000 in urban Kerala.

Moreover, the death rate of children under five is inversely associated with age. Of the approximately 175 children per 1000 who will not live to reach age five, over one-half die before their first birthday, and of these, one-half die in the first month of life.

Urban/rural and sex differences in mortality remain pronounced. Child mortality for the age group 0-4 remains about 40 percent higher in rural than in urban areas, and female death rates continue higher than males. Although infant mortality has slowly declined, the same urban/rural and sex differences persist.

About 60-70 percent of all children under five years are affected by moderate or severe malnutrition as indicated by weight for age. However, substantial improvement in nutrition status has been documented in areas with intensive nutrition programs for mothers and children, such as the Integrated Child Development Services (ICDS) Scheme.

Analysis of available data and studies indicates that 50 to 60 percent of all child deaths are caused by a small number of causes and inter-related conditions. Some leading causes and contributing conditions of child deaths are:

- Diarrheal disease, and the dehydration it produces, accounts for 10 to 20 percent of child mortality. National data on diarrhea are not available, but longitudinal studies indicate that a child may suffer as many as three episodes of severe diarrhea a year, 10 percent may develop dehydration and .5 percent face death. Based on these estimates, 100 million children below five years of age may suffer from about 300 million episodes diarrhea a year, 30 million may suffer from dehydration and 1.5 million face death.
- Immunizable diseases, particularly measles and tetanus. Of these, deaths from complications of measles are a major portion of all deaths from diarrheal and respiratory diseases. Tetanus of the newborn, which kills infants in the first days or weeks of life, accounts for between 5 and 30 percent of infant deaths each year.
- Respiratory infections (i.e. pneumonias and related lower respiratory infections) account for between 10 and 25 percent of childhood deaths. As overall mortality rates fall, and especially as diarrheal deaths are reduced, respiratory infections will become the major single cause of infant and child death.
- Malnutrition, although not in itself a frequently recognized cause of death, is an underlying, interrelated condition in at least two thirds of infant and child deaths. Malnutrition in mothers is a common factor related to low birth weight. Malnourished children are also more vulnerable to the major diseases and at greater risk of dying from them.
- Low birth weight, afflicting 30 percent of all newborns and up to 50 percent of first borns, is both a major cause of death in the newborn and a major contributing factor to deaths from other causes in the first year of life.
- Short interval between births leads to a substantially increased risk of death of the infant. Children born more than one year after a previous sibling have almost twice the survival rate of those born less than one year after a previous child.
- Birth injuries, asphyxia, and septicemia take a serious toll of the newborn, accounting for 20 to 40 percent of infant deaths. Trained birth attendants, who could avert many of these fatalities, are not present at the majority of rural deliveries.
- Early age of mother at first pregnancy: 15 percent of children are born to mothers under age twenty, who, due to physiologic immaturity (late adolescence) have higher rates of low birth weight (50 percent vs. 30 percent), higher infant

mortality (1.5 times as great) and higher maternal mortality (2-3 times as great) as older women.

It is clear that major causes of child mortality are diarrheal disease and immunizable diseases - especially measles and tetanus - whose impact is interlinked and intensified by poor nutritional status and frequent, closely spaced child-bearing. There are proven technologies immediately available to deal with these problems: oral rehydration, immunization, growth monitoring and family planning spacing methods.

Although these technologies are recognized, their application in India is low. The use of oral rehydration therapy is limited, both in clinics, where intravenous feeding and the use of antibiotics is the norm, and in homes where knowledge is not widespread and practice is even less. The significance of measles as a child killer is at last becoming recognized, but only recently has measles vaccination been incorporated in the national UIP program; coverage is essentially zero. Coverage of other immunizations is also low - most estimates suggest less than one-third of children under one and pregnant women are completely immunized.

#### C. India's Commitment

In 1978, India became a signatory to the Alma Alta Declaration, thereby committing itself to achieving "Health for all by 2000 AD." In 1982 a more specific National Health Policy was adopted by both houses of Parliament. During the latter part of the Sixth Plan (1980-1985) and in the current Seventh Plan, health care programs have been restructured and reoriented towards this National Policy. The National Policy sets the following goals, among others, to be achieved by the year 1990, on completion of the Seventh Five Year Plan:

- A reduction of the infant mortality rate from 114/1000 to 87/1000.
- A reduction of the maternal mortality rate from 4.5/1000 to 2-3/1000 live births.
- A reduction in the prevalence of low birth weight from 30 percent of the children to 18 percent.
- A reduction of the crude birth rate from 33/1000 to 27/1000.

This commitment to improved health is not merely one of rhetoric or empty targets. It has been supported by dramatically increasing outlays for the health sector as well. Outlays for health and family welfare in the Seventh Plan increased 135 percent over the Sixth Plan; moreover, the increase in budget for MCH (which includes both the Expanded Program of Immunization (EPI) and ORT Programs) is 255 percent. The proportion of the total health and family welfare budget devoted to MCH has increased from 16 percent in the Sixth Plan to 27 percent in the Seventh Plan.

Of particular relevance to this project are the Seventh Plan objectives of making vaccination services available to all eligible women and children by 1990; the inclusion of immunization for measles in the immunization program; and the development of a national oral rehydration program.

#### D. Relationship to AID and Country Strategies

##### 1. The AID Strategy

The Administrator has recently issued an AID Child Survival Strategy. Implementation of that strategy includes the following elements:

- "Focus on ORT and immunization as twin engines;
- Support for (and coordination with) other important child survival interventions such as nutrition and birth spacing;
- Support for a results-oriented research program related to child survival;
- Special efforts focussed on a limited number of "emphasis countries;" (India is one of these emphasis countries), and
- Involvement of the private sector."

This proposed project is in direct consonance with these principles. The project will concentrate on a limited mix of proven technologies. By supporting Government programs it will affect the content and direction of these programs and assure national coverage of key child survival interventions. Working intensively in selected states it will assure development of relevant large scale managerial and implementation strategies for these programs. The project will continue to develop and refine effective, affordable and pragmatic approaches to improving child survival on a pilot basis through research and operational studies. It will seek to maximize private sector involvement in such key areas as the promotion and sale of oral rehydration salts and mass communications, and by enlisting all private practitioners - including indigenous practitioners - in the immunization and oral rehydration programs.

Growth monitoring, nutrition, breast feeding and birth spacing, which are an important part of the overall AID strategy, are not a part of this project. USAID's principal vehicle for assisting the Government in the promotion of birth spacing is already in place with the the Contraceptive and Social Marketing Project. In India, the major nutrition programs do not fall under the Ministry of Health, and therefore are not directly relevant for the development

of this Project. However, the Mission clearly wishes to support growth monitoring, and other nutrition-related interventions and has built these into the current Integrated Child Development Services (ICDS) Project. They will receive intensified attention in the forthcoming FY 1987-88 ICDS Expansion Project. These ICDS activities will also continue to rely fundamentally on PL 480 Title II foods.

## 2. Country Strategy

Building on existing projects, and particularly on the Integrated Rural Health and Population (IRHP) and ICDS projects, the Mission is developing a new Health Sector/Child Survival Strategy.

This project will be a major element in implementing this strategy, and it is in accord with the guiding principles of the strategy which are:

- A Child Survival Focus, to impact dramatically on early death and child morbidity in India, and as an innovative new approach to strengthening primary health delivery.
- A Targeted Approach, on children under the age of two. Not only because this is the most vulnerable and at-risk group in India and where most of the deaths occur, but also because child survival is probably the key measure of institutional progress as it is usually the last mortality to fall in any society.
- Limited, Critical Interventions since the health system cannot do all things equally well. Interventions will be prioritized by those epidemiologically determined conditions that contribute the largest proportion of deaths for which effective, affordable interventions exist: ORT, immunization, birth spacing, growth monitoring and support, and the use of vitamin A to reduce morbidity and mortality.
- Mass Coverage to assure a fundamental and structural change in the population's health status (i.e. herd immunity).
- National Engagement. Health goals, policies, strategies, and program guidelines are developed at the national level. Support for categorical programs are critically important to the advocacy of new ideas and technologies since these programs often finance and thereby dictate to a very great extent the direction of primary health operations.
- Key Implementation Strategies. Implementation and management responsibility rests with the states. A grip on underfunded and underconceptualized approaches such as training, communications, and surveillance can similarly determine the effectiveness of primary health operations.

- Innovation. The engagement of program and technology development systems to identify, test, promote and spread new technologies and program approaches can stimulate both national policy makers and state program managers.
- Catalytic Orientation. Opportunities for the rapid diffusion of new ideas and technologies into primary health operations need to be identified and explicitly programmed. The Indian planning and budgeting system is probably the single most important vehicle for spreading new ideas and program approaches.
- Pluralism. Systems beyond those managed and financed by the Ministry of Health will be included. And development assistance and PL 480 resources will be integrated.

### III. PROJECT DESCRIPTION

#### A. The Project as a Whole

##### 1. The Project Concept

The project rests on two overarching concepts:

- the introduction of child survival as a strategy for achieving dramatic declines in early death and child morbidity in India, and also as an approach for strengthening primary health care; and
- a redefinition of primary health to include organizations and systems beyond those of the traditionally defined public health system, and with a particular emphasis to the responsibility of households for health outcomes.

There are three principle new ideas included within the child survival concept that can importantly affect the prospects for dramatic declines in early death and a revitalization of the primary health system in India:

- A focus on the age group where 75 percent of early deaths occur - children under the age of two (indeed, for immunization under one). This is the age group least well served by the system, and this is the period when immunization must take place if it is to be effective. Mothers, and pregnant and lactating women are included because tetanus is a major perinatal killer that can only be stopped if the mother is immunized, and because children under two, and most especially children under one, can only be reached effectively through their mothers.

- Deployment of only a limited set of technologies. There are a handful of technologies, proven and already known in India, which can have an early and dramatic impact on both mortality and morbidity. It is clear that the public health agenda is crowded with hackneyed priorities, and the primary health system cannot do all things equally well. Oral rehydration and immunization are relatively simple, straight forward interventions which can be given real priority and put to work through the existing infrastructure. Once effectively incorporated, additional interventions can be identified, tested and included.
- The idea of mass coverage is critically important. The area project approach was premised on a linear sequence of research, pilot, demonstration, and wide-scale application. Reaching a critical mass over a compressed period was not part of the concept. Mass coverage is directly linked to mass (or herd) immunity which is important to assuring an epidemiologically significant change in the health status of the target population. This project assumes a simultaneous development approach to assure that the best available technologies are being used while new ones are being developed, tested and then employed.

More specific technical agendas for immunization and ORT programs, training, communications and surveillance are outlined further in the Project Paper.

Concern about program relevance, influence, and impact constantly vex the international development community in India where demographic, geographic, and resource scale are daunting. The project identifies points of engagement where one can realistically expect to be able to inject new ideas and technologies with prospect for wide-spread diffusion.

- Health goals, policies, strategies and program guidelines are developed at the national level. Immunization and ORT programs are critically important to the advocacy of new ideas and technologies since these programs finance and thereby dictate to a very great extent the direction of primary health operations.
- Implementation and management responsibility rests with the states. A grip on underfunded and underconceptualized approaches such as training, communications, and surveillance can similarly determine the effectiveness of primary health operations.
- The engagement of program and technology development systems to identify, test, promote, and spread new technologies and program approaches can stimulate and energize both national policy makers and state program managers.

The Indian planning and budgeting system is fundamental to the project concept. It is where goals and policies are first formulated and translated into strategies and programs, and it is where resources are then allocated in support of these policies and programs (resource allocation being the most fundamental expression of national priorities). The system is well developed, integrated and reaches to the most peripheral edges of primary health operations. It is susceptible to engagement and is the single most important vehicle for rapidly diffusing new ideas and technologies into primary health operations, and conversely, field reality back into policy and program directives.

This is not to rule out other opportunities or channels. The indigenous private practitioner and pharmacy remain to be exploited. Social marketing systems remain to be developed. The household has yet to assume its proper role at the center of a relevant primary health system. These opportunities will all be engaged in the project, indirectly directly through government budget subvention, or directly through the Research and Operational Studies component.

Two other points should be underscored. The project does not suggest that the locus of a child survival strategy should be upstream from the household, village or block. To the contrary, its premise is that primary health care systems have to focus increasingly on the peripheral reaches of the system. It is the argument of the project also, however, that donor influence is probably to be found further upstream and associated with the orientation and direction of policy, financial and management systems. Secondly, the project must be seen as part of a comprehensive strategy which already and increasingly encompasses other opportunities to affect birth spacing and nutrition goals.

In sum, the important premise to this proposed project is that a new approach, focused on a limited target group, employing only selected interventions but on a mass scale, working through established policy and diffusion systems in both the public and private sectors, can have a dramatic impact on child survival in India; and that a successful program reaching to the most vulnerable groups in society will, of necessity, have also had to impact favourably on the effectiveness of primary health care.

## 2. The Programming Concept

The strategy suggests a different orientation or posture for the Mission. Some of the implications are:

- A reorientation of Mission staff away from an intensive engagement with operations at the district block or village level to a more extensive engagement with health goals, policies, strategies, and program development at the national and state level;

- Identification of the Indian planning and budgeting system and cycle as the critical point for Mission engagement, and the adoption of a parallel program sector assistance mode;
- Recruitment of a high powered, internationally recognized, technical assistance team;
- Incorporation of a decentralized approach to program management (i.e. recognition of the role and responsibility of indigenous systems, both public and private; and a greater reliance on technical assistance as well as other organizations like UNICEF, in this instance, or CARE and WFP in the case of nutrition), and a real commitment to the art of donor diplomacy;
- Closer integration of regional bureau, central bureau, and development assistance and PL 480 resources; and
- A higher level of interaction and confidence between Washington and the Mission.

The Mission proposes that the project be authorized as program sector assistance pursuant to Handbook 1, part VIII, October 30, 1985. Our rationale is straight forward:

- The project is intended to have an epidemiologically significant impact on mortality and morbidity in India and at the same time improve the effectiveness of primary health care. It is the assumption of the project that the injection of new ideas and technologies into the primary health system, with an assurance of wide-spread diffusion, will relieve or over-ride long-standing policy constraints. The project is not specifically oriented to institutional or infrastructural constraints.
- A policy and technical agenda has been identified which can impact both the substantive orientation of primary health care as well as its implementation and management. The agenda is simply articulated but has the potential for affecting the myriad strands that constitute the totality of a primary health system.
- The engagement of the Indian planning and budget system at both the national and state levels offers the best opportunity to assure wide-spread diffusion of the policy and technical agenda. At the national level, technical programs will be the vehicle. Those programs are ideal for transmitting new criteria and guidelines for the administration of primary health operations since they constitute the major financial resource to primary health operations at the state level. At the state level itself, implementation and management systems have been identified as the vehicle. In most cases, training, communications and surveillance will be addressed

categorically for the first time pursuant to this project. Applying the same agenda to the technical as well as management side offers the possibility of reinforcing support on common themes.

- An annual workplan is proposed as the program event. The workplan will reflect the policy and technical agenda, can be appraised against immediately following planning and budgeting actions by the Government of India, and can be evaluated for performance in the subsequent planning and budgeting cycle. Engagement at this point and level puts project financing on a parallel track with the treatment of donor finances by the Government of India (i.e. in-budget transfers and support).
- Research and operational studies, technical assistance and participant training will be managed according to traditional AID project guidelines.
- The program sector assistance mode offers tremendous leverage to AID support. National engagement will permit the policy and technical dialogue to impact throughout India. State engagement will force states for the first time to consider wholistically approaches to training, communications and surveillance (management systems which can drive the implementation and administration of state-wide primary health operations). These two systems then become diffusion mechanisms for new ideas and technologies developed pursuant to the research and operational studies, technical assistance, participant training components of the project.
- Program and sector assistance is the appropriate mechanism for providing local currency support and brings AID program practice in India into line with AID guidelines.

### 3. The System Concept

Since independence India has been building a vast health infrastructure capable of reaching out to serve the health needs of the entire population. The area projects of the Sixth Plan (IRHP is one of these) brought the development of this health infrastructure largely to completion - a national delivery system is in place and to a large degree staffed. Regrettably, the system functions with low utilization of services and disappointing results. Experience in IRHP and other AID projects has identified problems and developed ways to overcome them that have been incorporated into this project. The problems and the proposed project responses are:

The Present System's Problems

The health care system attempts to embrace a wide range of interventions which together are simply too broad, ambitious and vague in concept.

Manpower training approaches have been comprehensive, didactic, inclusive and unfocused. Staff are unclear about their tasks and unguided in the most critical public health actions to pursue.

The present system offers services which are under utilized -- supply has outpaced demand.

Managers at all levels lack sound epidemiologically and program performance information as a basis for making resource allocations.

Resources in health continue to be largely consumed at the more central levels and large curative facilities claim the major part of health budgets.

Young children, particularly those under one year of age, and pregnant women receive inadequate attention under most service programs.

Project response

By focusing on a few key interventions with clear action at each level of the health system, the entire structure will be strengthened.

Inservice training will emphasize active learning experience to develop required skills needed to perform competently the tasks involved in child survival interventions. Particular attention will be devoted to communications skills.

Client-centered research will guide demand creation. Modern social marketing approaches to enhance popular awareness and demand for child survival interventions are clearly indicated.

By identifying key indicators of performance and using them in peripheral supervision as well as at higher levels to aggregate system performance, the management information system will become the tool for monitoring and decision-making.

Child survival calls for outreach to the most peripheral levels with resources invested largely in paramedical workers, community-based and preventive in focus.

Priority will be given in key intervention programs achieving high coverage among children and pregnant women, and the MIS which monitors their performance.

## B. Project Goal and Purpose

### 1. Goal

The goal of the project is a significant reduction of infant and child mortality through a reduction of deaths from immunizable diseases and their complications, and deaths from dehydration due to diarrhea.

### 2. Project Purpose

The project purpose is to expand the proportion of children and women covered by immunization and oral rehydration therapy, and to improve the quality of the delivery of these interventions.

More specific purposes within the project period are as follows:

- To achieve a significant increase in coverage of children under age one with DPT, BCG, polio, and measles immunization, and a significant increase in coverage of pregnant women with completed tetanus toxoid immunization.
- To achieve within a substantial proportion of the households with young children a knowledge of and established use of ORT and continued feeding as a first line treatment of diarrhea in the home; and to support this with a national network of clinical oral rehydration centers.

### 3. Expected Project Outputs

The most significant accomplishments which will result in whole, or in part, from this project include the following:

- An involvement at the national level with the India-wide immunization and oral rehydration programs. The consequent extended technical policy dialogue should expand USAID's participation in program planning and implementation nationwide.
- Extension of the Universal Immunization Program to all of India's 412 districts by 1990.
- Highly effective immunization coverage, based on careful enumeration and confirmed by coverage surveys, achieved in four target states. In these states the goal will be 85 percent coverage of all pregnant women and all children under age one.
- A national network of clinical rehydration training centers established and fully functioning in every district in each of the four project states.

- A national oral rehydration therapy program, which relies primarily on solutions prepared and administered in the home, complemented by access to packaged oral rehydration salts and clinical ORT care as required, in place.
- Oral rehydration therapy actually being used as the routine method of treatment for infant and child diarrhea in a significant percentage of the rural households in the four project states.
- The development and implementation of technically sound, effective state-wide field worker training, mass communication and management information plans in support of immunization and oral rehydration in each of the project states.
- Extension of research-based and tested field level worker training methodologies from the current IRHP Project pilot districts to state-wide utilization in the four project states.
- Research-based mass communication/demand creation programs functioning throughout each project state.
- State-wide management information systems, which concentrate on the accurate collection and analysis of a minimum number of key indicators, in place and being used to guide supervision and management decisions, and to monitor program effectiveness in the four project states.
- Improved field level coordination between the health system and the ICDS program. Nearly half of the villages in the four states will be served by ICDS anganwadi workers by the end of this proposed project.
- Incorporation of the findings of a significant number of operational research studies into implementation of State/-National EPI/ORT programs and development of technical and managerial aspects of further child survival interventions of high potential impact.

#### 4. Expected Project Inputs

##### National:

- A contribution to the National Universal Immunization Program, and
- Funding for the National Diarrheal Disease Management (ORT) Program;

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State:

- Funding through the Central Government earmarked for four states for the following activities:
  - Training of medical staff in ORT clinical training centers;
  - Training of all rural health and ICDS peripheral staff in ORT technology and communicating this to villagers;
  - Support for training of all district level staff in improved approaches to immunization - planning, implementation and monitoring;
  - Support for communications activities - marketing studies, multimedia campaigns by professional private agencies and interpersonal communications strategy planning;
  - Support for development of improved monitoring and information systems reaching from collection of accurate field data to its rapid processing and use at the district and state levels.

District:

- Support for research and a broad range of operational studies designed to improve the delivery and performance of the health service system with particular reference to UIP and ORT;

USAID Mission:

- Technical assistance inputs at all three levels to facilitate the policy dialogue and the transfer of technical information, to assist in management oversight and to collaborate in generating new approaches.
- Short term participant training for both national and state level officers.

5. Project Impact

It is not possible to forecast the goal level impact of the project alone, but it is possible to make reasonable estimates of the impact of the two major programs which it supports:

- If immunization coverage, which is now zero for measles and less than one third for other diseases, reaches a level of 60 to 75 percent by 1990 under UIP, there will be about 835,000 less infant and child deaths per year from the three major immunizable diseases.

<u>Disease</u>	<u>Number of infant child deaths per year</u>	
	<u>Present Estimate</u>	<u>1990 Forecast</u>
Tetanus	250,000	125,000
Pertussis	250,000	125,000
Measles	780,000	195,000
Total	<u>1,280,000</u>	<u>445,000</u>

- The use of oral rehydration therapy is now negligible. An ambitious but feasible target is for ORT to be used to treat half the 300 million cases of diarrhea in infants and children each year. If this level of use is achieved by 1990, and one accepts the WHO estimate of 60 percent effectiveness of the treatment, then the number of infant and child deaths due to diarrhea would be reduced from the present estimate of 1.5 million deaths per year to about 1 million - saving about 500,000 lives per year.

Thus, the two major programs which the project supports - UIP and ORT - are expected to prevent the deaths of some 1.3 million children a year by 1990. Over the five years of the project, the lives of an estimated 1.9 million children will be saved.

#### C. The National Immunization Program

##### 1. The Predecessor Program

The present national immunization program began in India in January 1978 with the launching of an Expanded Program on Immunization (EPI). The objective of EPI was to reduce the incidence of four vaccine preventable diseases (diphtheria, pertussis, tetanus and tuberculosis) by making immunization services available to all eligible children and pregnant women by 1990. By 1980 oral polio vaccine was fully integrated into the program. Measles vaccine was used for the first time in the program in 1985. The Government has also included typhoid vaccination and the immunization of school children with DT and TT as a part of EPI. Self sufficiency in vaccine production has also been an integral aim of the program.

EPI is a nation-wide program which seeks to achieve universal immunization coverage by utilizing regular government procedures operating through the national health infrastructure. It was an ambitious program with worthwhile goals but it lacked the focus and coherent micro-strategy that are essential to success. As early as 1981 the Government recognized that the target of near universal immunization by 1990 would not be achieved under EPI. Table III-I shows estimated coverage in 1978 and 1984, the mid point of the program. By 1984 coverage should have been approximately 50 percent, while in fact it was less than one third.

TABLE-III-1EPI - PERCENTAGE FULLY COVERED, UNDER ONES/PREGNANT WOMEN

<u>Year</u>	<u>Antigen</u>				
	<u>DPT-3</u>	<u>Polio-3</u>	<u>BCG</u>	<u>TT &amp; or Booster</u>	<u>Measles</u>
1978	24	05	9	22	-
1984	27	21	27	35	-
1990(Target)	85	85	85	100	85

Source: UNICEF Estimates

## 2. The Present Program

Having recognized the need for acceleration and expansion of immunization coverage, the Government constituted a special task force to prepare a project on EPI acceleration. In October 1985 the task force produced a report titled, "Towards Universal Immunization 1990", which set forth a district-based plan to accelerate immunization coverage. This Universal Immunization Program (UIP) has been approved by the Government and is in the process of implementation. The basic concept is to intensify coverage on a phased basis in selected districts to achieve and sustain universal coverage within each district. There are some 412 districts in India. They range in size from 500,000 to 4 million, with an average population of 1.8 million. Each district is divided into blocks, each block having a population of approximately 100,000.

UIP will be implemented in specifically identified districts and metropolitan areas in increasing numbers each year of the Seventh Five Year Plan until national coverage is achieved. At the same time, the EPI program will continue to operate in areas not covered by UIP. By the end of the plan, the two programs will converge and there will be one national program based on the UIP model.

The major differences between the UIP district approach and the regular EPI approach are that under EPI:

- The target groups are infants under one year of age and pregnant women.
- Detailed, district-specific, planning exercises are undertaken on the basis of which additional resources are provided.
- The strategy is to identify and register beneficiaries (village by village) and to actively reach them, predominantly through a combination of outreach operations and fixed centers.

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- Massive time bound schedules are prepared for training each and every worker. In 1985 it meant training nearly 2000 doctors and 20,000 para-medical workers.
- Active inter-sectoral coordination is stressed for optimal utilization of existing resources.
- Setting up of disease reduction targets and monthly follow up of program progress and feedback are included.
- Surveillance, monitoring, evaluation and maintenance of high coverage levels are important points in the planning process.
- A major emphasis is on demand creation.
- There is a strong political commitment for the program. (On the 19th November 1985 the Prime Minister of India dedicated the program to the memory of late Mrs. Indira Gandhi, and he reportedly is receiving regular reports of the program's progress.)

The number of persons to be covered by both UIP and EPI during the Seventh Plan period, based on the 1984/85 population, are shown in Table-III-2.

TABLE-III-2  
PROJECTED IMMUNIZATION COVERAGE 1989-90  
(in millions)

Target Group	Vaccine	1989/90 Coverage	
		Number	Percent
Pregnant Women	TT	23.9	100%
Infants	DPT, Polio, BCG, Measles	18.3	85%
School Children			
5 Years	DT, Typhoid		13.3
10 years	TT		9.4
16 years	TT		6.1

Source: The Immunization Program in India, DGHS Min. of Health & Family Welfare, Government of India, 1985, pg.59.

As is true of all health programs, although UIP is a national program, implementation is the responsibility of the states, operating in turn through the districts and ultimately the blocks. However, for UIP, responsibilities have been clearly defined for

each level - national, state, district and block. There is a coherent plan of action and there is less freedom of action at subordinate levels. Indeed the procedures to be followed at the block level in each UIP district are standardized for all participating districts. Three critical differences between this process and the execution of EPI are the baseline enumerations which identify the infants and women to be covered; the outreach operations, which take immunization services to the villages on a regular recurring or periodic basis; and the monitoring of coverage achieved in the target groups.

It is also important to note that UIP, while it is district-based and centered in the government health system, is not intended to be exclusively a government health system program. Rather, it seeks active involvement of other governmental and non-governmental sectors. It seeks support from private sector and public sector corporations, professional bodies like the India Medical Association, The Nursing Council, etc, for program planning, implementation and demand creation (e.g. District Collectors have been identified to act as focal coordination points for inter-sectoral coordination and coordination committees have been set up at all levels). The Indian Medical Council is being involved to train interns and medical students in UIP. Arrangements are being made to provide vaccines to private medical practitioners, including indigenous practitioners, to expand coverage.

### 3. Proposed AID Support

This project will support the national Universal Immunization Project through a series of annual grants to UNICEF over the remaining four years of the 7th Plan. The annual fund releases will be made under grant agreement which will be patterned on the August 1985 AID-UNICEF Central Grant Agreement "For Support of Child Survival Activities." Accounting and reporting requirements will be essentially the same as that in the Central Grant Agreement. Current projections are that the funds will be released to UNICEF in equal annual installments over the next four Indian Fiscal Years, IFY 1986/87-1989/90. (The Indian fiscal year is from April 1 to March 31). However, by mutual agreement between AID and UNICEF, the annual releases may be varied if fund requirements or project performance warrant.

There is a compelling reason for channeling the national immunization support funds through UNICEF. It has been the major participant and the most important donor to date for both the EPI and the new UIP programs, and as such it has a strong voice in program design and execution. It has an active technical working relationship with WHO. Its ability to influence national programs and to mobilize national leadership for them has been amply demonstrated. It has an efficient procurement system capable of supplying foreign exchange financed cold chain equipment and vaccines.

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It has an excellent technical staff in New Delhi and a network of state and zonal offices with over 300 staff who oversee program implementation. It would be redundant for USAID to attempt to operate in parallel to this capability, and under current staffing limitations, it would be impossible to duplicate even a part of it.

The Mission can be most effective in the national immunization program by working with and through UNICEF, and this process has already started. In recent months USAID and UNICEF staff have met several times a week to coordinate activities and share information, and USAID staff has begun to participate in regular monthly coordination meetings with UNICEF and WHO. With the U.S. contribution to the UIP proposed in this project, we would expect this participation to be expanded. This will allow for a substantial U.S. contribution to the technical aspects of the program, such as training, communications, and management information systems.

For example three courses on UIP planning and management are being organized by the Government of India with UNICEF collaboration during 1986. The courses are designed for senior state officers currently involved in planning, managing, supervising and allocating resources for UIP activities. A district micro-planning approach is being emphasized to strengthen management of the UIP Program at district level. UNICEF, USAID and WHO have collaborated on the development of the training modules and are assisting the GOI as resource personnel at the three 6-day workshops.

At the conclusion of the micro-planning workshops for senior technical staff, two-day meetings involving state and union territory health secretaries and senior officials of the Ministry of Health and Family Welfare are scheduled to discuss matters related to the Universal Immunization Program and the Diarrhea Management Program. Again, UNICEF, WHO and USAID staff will serve as resource personnel.

#### 4. Procurement of Equipment and Supplies

A small part of the UNICEF support for UIP goes for such things as training seminars and salary support for a limited number of government positions at the state and district levels. However, the bulk of the funds are used for UNICEF procurement of supplies and equipment ranging from immunization cards and training and information, education and communications materials to needles, syringes vaccines and cold chain equipment (the largest single category). Because of this large equipment and supplies component, the Mission carefully considered direct AID procurement as an alternative to a grant to UNICEF. This alternative was rejected for three principal reasons.

The first is the management problem referred to above. With the program spread over increasing numbers of districts each year, divided procurement would require extensive coordination; and UNICEF already has an effective procurement system which delivers supplies and equipment directly to designated consignees at the district level. All of the elements of logistics would be unnecessarily duplicated.

The second reason is that some equipment is not manufactured in the U.S. or India. The most notable examples are the walk-in coolers with emergency power backup produced in Finland, and the ice lined refrigerators which are manufactured in Sweden, and which have proven to be essential in a country where prolonged power outages are a way of life, particularly in the rural areas.

The third, and most important reason is standardization. Equipment maintenance is a long standing problem, which the program continues to try to resolve. It would be compounded if different types and manufacture of equipment were introduced into the system. Similarly, equipment standardization facilitates standardization of training modules and materials, and training is a cornerstone of the system.

Also relevant is the fact that UNICEF, on its own volition, and with strong support from the Government, continues to seek to maximize procurement in India. This is not a passive process. Private manufacturers are actively sought out and encouraged to produce items not now made in country, or to raise quality to acceptable levels. As a result, in 1985 over 40 percent of UNICEF procurement was in-country, and this percentage is expected to increase over the life of the project. Overseas procurement will continue to be used only when the item is not produced in India, or where the quality of the Indian product is not acceptable.

#### 5. Vaccine Production:

India currently is self-sufficient in the production of DPT, DT, TT, typhoid and BCG vaccines. Production capacity, over half of which is in the private sector, is adequate to meet requirements for these vaccines through the life of this project, except for DPT. If 85 percent immunization coverage is achieved by 1990, current and presently planned capacity for DPT will be 6 million doses short of requirements. This shortfall will have to be met by further increases in production capacity - probably in the private sector - or by imports.

Oral polio vaccine is about to be produced to India for the first time. The Haffkine Institute has received WHO approval for its vaccine and will undertake field trials before entering into full scale production and distribution.

Measles vaccine is not now produced in India and is being imported for the UIP by UNICEF. AID has been encouraging the privately owned Serum Institute at Poona, which currently imports measles vaccine, mostly for sale in the private sector, to produce measles vaccine, and an AID private enterprise loan to support this is currently under active consideration. This project will support this effort. In conjunction with the proposed AID grant, UNICEF has agreed to procure a locally made, WHO approved, vaccine if the price CIF Bombay is no more than 15 percent above the lowest foreign bidder. This would give the Serum Institute, or any other local manufacturer, the financial incentive of the 15 percent price differential plus an almost equal freight differential. This should be an adequate incentive to stimulate local production.

#### 6. Fund Releases

The key event for the purposes of AID fund releases will be the approval by the Government of an annual implementation plan for the succeeding year. These are national plans that are shared with the donors, although not technically approved by them. It is the process of active collaboration between the various government levels and the donors that ensures that the plans meet program criteria; and that each succeeding year's plan is based on experience in the preceding fiscal year and is designed to attempt to resolve problems that have been identified during that year. This process has already been utilized by UNICEF to good effect.

Although the annual plans are not subject to formal donor approval, fund releases to UNICEF will require a formal determination within the Mission on past performance and plan adequacy. This determination will be in the form of an Action Memorandum from the Office of Health and Nutrition to the Mission Director. This memorandum will:

- Assess performance in the current and prior years, against the approved government plans for those years. This assessment will include an identification of major problems and will document actions underway to solve them.
- Assess the approved plan for the coming year against plan criteria and in light of the assessment of present and past performance.
- Recommend release of funds for the coming year.

It is theoretically possible that the assessment could find past performance or the upcoming plan so short of requirements that a fund release would have to be withheld or postponed. However, in the case of UIP this possibility is more theoretical than real. UIP is an established program. Its overall targets are very ambitious, and performance may fall somewhat short of them. Even if it does, the increases in immunization coverage that will be achieved will more than justify the program's cost and effort.

## 7. Plan Approval Criteria

Separate USAID criteria for approval of the plans of the Universal Immunization Program are not necessary. UIP is an established program that has been developed through extensive consultations between the Government and UNICEF and WHO. More recently, Mission technical staff have begun to take an active part in this process. However, the criteria against which UIP was developed will continue to provide a benchmark for measuring the evolution of the project. These include:

- Targeting children under one and pregnant women
- Careful enumeration of the target population, as a basis for:
  - Detailed action plans
  - Requirements for equipment, supplies and vaccines.
  - Staff requirements
- Adequacy of budget support.
- Adequacy of staff and supporting infrastructure.
- Adequacy of training - content, duration, materials, coverage.
- Provision for communications, information and education, ideally based on studies of knowledge, attitudes and practices.
- Provision for monitoring and evaluation.

### D. The National Oral Rehydration Therapy Program

#### 1. The Approved Program

In May of this year the Government approved inclusion in the current Seventh Plan of an outline of a national oral rehydration therapy program, titled "Management of Diarrheal Diseases Amongst Children Through Promotion of Oral Rehydration Therapy." Developed out of field trials in India and neighboring countries experienced in large scale use of ORT, the program calls for a three tiered approach with each component reinforcing the other. The three tiers are:

- Training of households to use home made oral rehydration solutions for all episodes of diarrhea, and knowledge of appropriate indicators for reference to a health worker for the 10 percent of cases needing oral rehydration salts (ORS) packets.

- Provision of ORS packets through both public health system and the market place with particular emphasis on reaching the half million private practitioners largely through commercial outreach and ORS promotion, marketing and sales.
- Skill training in clinical management of severe diarrhea for all institution based doctors to assure not only proper clinical care in the estimated 1 percent of diarrhea cases with life threatening disease, but also to achieve a high degree of confidence and support by doctors in the overall national ORT strategy.

## 2. The Basis for the Program

The details of the current strategy derive from extensive experience in introducing ORT in India through various programs and projects over the past 10 years. They include:

- The Training Needs and Communications Needs Assessments carried out under the IRHP project and the consequent development of training materials for the Health and Family Welfare Training Centers (HFWTCS) and various innovative sub-projects.
- The PD&S funded pilot ORT programs managed by CARE.
- Baseline surveys and market research carried out under the ICDS project.
- Phase 1 of a national market survey on knowledge, attitudes and practices in diarrhea management by the Indian Market Research Bureau (IMRB) for UNICEF.
- Five years of training at the National Institute for Cholera and Enteric Diseases, using WHO Senior Management and Supervisory Level Training Courses. Over 500 health professionals have been trained in ORT Program Management.
- Projects by numerous private voluntary organizations who are demonstrating village based home ORT on a rising scale.
- Eight ORT Clinical Training Centers at institutes all over India to provide hands-on professional experience in proper clinical case management using WHO designed ORT protocols.
- Twenty two WHO-sponsored sample surveys covering 300,000 children to establish current knowledge and use of ORT and measure diarrhea morbidity and mortality.
- Inclusion of training and ORS packets in medicine supplies of 350,000 health guides;
- Inclusion of ORS Training for all 130,000 functioning anganwadis (the front line ICDS workers) in India;

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- Over 40 private pharmaceutical firms that now produce, market, promote and distribute ORS in India, largely through chemist shops located in larger towns and cities.
- Extensive publication in Indian professional journals and major symposia/workshops have documented experience and effectiveness of ORT in Indian clinical settings.

### 3. The Current Strategy

The detail of the current strategy has evolved from these and other experiences. It includes:

Household outreach: As presently outlined, the major training thrust of the program is to be carried out through the following structures:

- The ORT program will be implemented by the States/Union Territories within the broad framework of the guidelines to be provided by the Ministry of Health and Family Welfare which will coordinate and monitor the programs in the different states, compile data, provide necessary feed-back and financial and other assistance.
- Cooperation and active involvement of other departments such as Education, Social Welfare, Sanitation and Water Supply and Voluntary Organizations will be sought and encouraged.
- At the state level, the program will be organized by the state ORT program officers who will be provided with a research officer to coordinate and monitor all the activities.
- At the district level, monitoring and supervision of the program will be carried out by the District Health Officer.
- At the Primary Health Center (PHC) level, the medical officers will provide necessary guidance, education and support to the paramedical and voluntary workers.
- The training faculty of the Health and Family Welfare Training Centers (HFWTCs) will be involved in providing training to the medical officers of the PHCs, supervisors of the multi-purpose workers and multipurpose workers.
- Multi purpose workers will train the voluntary workers at the sub-center level. The voluntary workers to be trained will include 3 to 5 village health guides, 3 to 5 trained birth attendants, 3 to 5 anganwadi workers and 5 primary school teachers at each subcenter.

- At the village level the message will be carried to every village home - i.e. to mothers by the village health guides as well as anganwadi workers. Every village health guide and anganwadi worker will be responsible for training 100 mothers each.
- In the urban areas the message will be communicated to the mothers and households through existing mass media like radio, television, printed materials, press advertisements etc.

#### Government ORS Promotion and Distribution:

ORS packets have been supplied to hospitals, PHCs, sub-centers and health guides for several years. The central government through the Indian Drugs and Pharmaceuticals Limited has produced over 20 million packets per year. Another 20-25 million packets are produced and marketed through the commercial sector.

The 1986 - 87 National Diarrhea Control Program allocates Rs. 2.8 million of Rs.40 million or 7 percent for packets. These will be provided specially to those areas where the intensive house to house ORT training is going on to insure proper ORS back-up.

#### Private Sector Promotion:

Field surveys show extremely high penetration of commercial ORS products reaching to but not beyond chemist shops and pharmacies in the towns and smallest cities. There is a rising awareness of ORS amongst the roughly 400,000 rural practitioners (traditional Indian systems of medicine, registered non-degree practitioners, and self proclaimed healers) thanks to commercial promotion of these products. However, limited availability of outlets beyond towns and the relatively low profit offered by the low price of ORS has limited the impact of this network.

Building on the extensive Indian Market Research Bureau (IMRB) national market survey, commissioned by UNICEF, the program will engage the commercial sector in an enlarged ORS promotion and outreach effort. This will encourage each producer of ORS packets to use more scientific and appealing approaches to promotion among professionals, develop point of sales promotional material, and establish incentives for outreach into traditional retail markets located in villages. Approaches used will include:

- Assistance in market assessment and design of promotional materials.
- Assistance in organising professional promotional gatherings at small block level towns (speakers, luncheon costs etc.).

- Assistance in locating and using retail distribution channels reaching villages (point of sales displays, initial stocks - same network as used now for aspirin, Vicks, antacids etc.)

It is envisioned that progressively ORS commercial sales will overtake and substantially reduce government supply needs, as some 50-80 percent of rural people use private practitioners when seeking professional care for diarrhea.

#### Medical Doctors in Health Institutions:

The national Diarrhea Disease Management Plan recognizes the important role played by doctors, especially those in government and private referral institutions, in both the lifesaving effect of proper clinical case management and their influence on the clinical practice of other doctors, practitioners of Indian systems of medicine, and the general public. The project, therefore, supports expansion of the initial network of Clinical ORT training centers (now 8 funded by WHO) to include all 106 Medical Colleges and, in addition, District Hospitals in those Districts where the outreach ORT efforts are being conducted. Ultimately each such hospital should have an oral rehydration treatment clinic which is capable of providing training for district level medical officers, private practitioners and other medical personnel in its catchment area. The training will be practical, hands-on, treatment of cases of diarrheal dehydration. Each graduate will be required to treat 20 such cases before securing certification.

This network will assure life saving treatment in the one percent of cases requiring skilled clinical management and assure positive attitude towards ORT and a role model of institutional doctors supporting ORT at all levels.

#### 4. Proposed AID Support

The project will support India's national Diarrhea Disease Management (ORT) Program. The procedure for release of funds each year will generally follow that set forth for UIP above, but it must be recognized that the ORT program is in a much different state of development. The approved plan is only an outline plan which sets forth the basic concepts of the program. It contains much less detail than Towards Universal Immunization contained when it was issued.

This lack of detail is less a problem than an opportunity. The details will have to be developed as a part of the process of preparing annual implementation plans. Mission technical staff, in collaboration with UNICEF and WHO, will participate actively with the Government. As with UIP, these will be national GOI plans that will be shared with the Mission and other donors, but will not technically be subject to donor approval. It is the plan preparation process that is the key.

Once an annual implementation plan has been approved, the office of Health and Nutrition will prepare an Action Memorandum for the Mission Director, recommending for or against release of funds in support of that plan. In the first year the Action Memorandum will analyze the plan in terms of available experience, and against the criteria set forth below. In succeeding years the Action Memorandum will also assess current and past performance against previously approved plans. This assessment will identify major problems and will document actions underway to solve them.

Release of funds for each fiscal year will require an Action Memorandum approved by the Mission Director and receipt of satisfactory evidence from the Government that funds in support of the plan have been budgeted and released to the implementing agencies. The ensuing AID fund releases will constitute final disbursements for the purposes of this project. (Funds will be released quarterly or more frequently if required.)

Since the fund releases for a given year will be final disbursements, there will be no direct recourse with regard to them except for the standard project agreement refund provisions. Recourse against inadequate expenditures or unacceptable performance of any year's implementation plan will come in the decision to provide funding in the succeeding year, and the ultimate recourse will be a decision to defer further funding. Because of the interactive processes involved in the preparation and execution of the annual implementation plans, the Mission does not expect this to happen. But it is an available alternative, and the Action Memorandum provides a formal means for determining whether or not such an action is justified.

##### 5. Plan Criteria

Assessment of the potential effectiveness and adequacy of annual ORT implementation plans will be based on a determination of the extent to which they provide for the following:

###### Home Level Training

- Training of trainers - curriculum, course materials, objectives, measures of competency.
- Adequacy of staff numbers to do the job based on a realistic detailed plan.
- Training of peripheral workers - task analysis, objectives, learning experiences, training materials, competency measures used.
- District implementation plan: design of a standard district package showing how to assess training needs at all levels:

- Train all needed manpower
- Supervise and oversee training
- Monitor training at all levels
- Monitor use of ORT

#### ORS Promotion

- Assessment of actual need for and use of ORS packets at each level of public health system - supply to be adjusted accordingly.
- Involvement of ORS firms in the marketing effort. This may include: meetings, market research, promotional materials, promotional meetings, field surveys and assessment.
- Involvement of professional societies and other non-government means of contacting health practitioners to promote use of ORS and better diarrhea management.

#### Professional Training in Clinical Case Management

- Development of operational norms of clinical ORT training units.
- Development of methods to measure impact on the practises of the trainees.
- Involvement of professional societies in promotion training and certification of doctors.
- Support for meetings, publications and research projects on ORT by doctors.

General - Adequacy of funding in support of the above.

#### E. State Level Activities

##### 1. The Project States

The IRHP project was designed to cover only 14 districts of 87 in five target states. With the decision to support state-wide programs, management prudence and staffing limitations dictate that this number be reduced to four states. The four states proposed have been those most actively involved in the USAID IRHP and ICDS projects. They have enough diversity to make them valuable from a national demonstration point of view. Together they have a total population of 126 million, predominantly rural, residing in 73 districts and served by 1,990 Primary Health Centers. A brief characterization of each state follows:

Maharashtra with a population of almost 70 million is the largest project state. It is second in the country in per capita income and many of its indicators characterize it as one

of the most advanced states in India, with infant mortality at about 70 and contraceptive prevalence at about 45 percent. However, state statistics are skewed by the high urban population and there are still a large number of poor rural districts which show all the indicators of the poorest areas of the country.

Gujarat with almost 40 million people is one of the most progressive states in the country, but it has strongly contrasting indicators between the rural and urban populations. Parts of Gujarat are extremely poor and the level of infant mortality has been unusually high for such an advanced state. It is the only major state in which the Department of Health and Family Welfare serves as the nodal point for implementation of ICDS. It has an energetic population and a very strong tradition of voluntarism.

Himachal Pradesh has shown enthusiasm, interest and determination in planning and implementing the IRHP Project. Several innovative activities, such as ORT training centers, ORS production, and expanded measles immunization are currently under implementation. The small size of the state, with only 4.4 million people, makes state-wide implementation and evaluation much more manageable. Infant mortality remains significantly high at 92, logistical problems are typical of many isolated rural areas and the challenge of managing, monitoring and guiding child survival efforts is typical of much of India.

Haryana with a population of 14 million also has a high rural infant mortality rate, a much lower urban infant mortality rate and a fertility rate that is above the national average. For the first three years of the IRHP project period, Haryana's performance was slow. However, during the fourth year an active Secretary of Health was assigned who completely reorganized the project. Within a year activities moved quickly ahead. The state has shown interest in a number of innovative activities and has undertaken a community-based nurse midwife training program. If the state can maintain continuity of health leadership there is good potential for the effective implementation of child survival activities.

This project may be amended in FY 1987 to add Ministry of Health and Family Welfare state level components to parallel ICDS state programs, provided that USAID can identify the means for managing the proposed expansion.

## 2. Background

The national level ORT and Immunization programs which AID will support under this project are activities which will be primarily implemented by the states through their health

delivery system under the guidance and funding of the center. To assure that the state level health implementing systems operate to their fullest potential in delivering the key child survival interventions, USAID's support at the state level will focus on strengthening training, communications and monitoring and information systems.

In developing support for these three major components, the strategy is not simply implementation of ORT and immunization as two isolated health interventions, but rather the use of these proven technologies as the focal points to establish an effective, high coverage system leading to improved child health, and developing a rural primary health care delivery capacity which has a community-based orientation to service delivery, and which is capable of delivering any technically sound intervention on a wide scale.

### 3. Proposed Activities

The specific detail for activities under the state level component will be developed during the first and subsequent annual work plans. However, based on previous experience and discussions with states, the following outline indicates the range of activities that will be covered under each of the major elements:

#### Training Activities

Manpower is the essence of health care. Well trained and confident in the technologies, and with the communications skills to transfer them to the communities most in need, health personnel can, in a very real sense, determine the success of child survival efforts. Numerous surveys, and particularly the IRHP Project Training Needs Assessment, have reiterated the problem of low levels of skills and motivation among the most peripheral front line workers: village guides, anganwadi workers, auxiliary nurse midwives and their immediate supervisors. Yet, numerous pilot and demonstration activities in India have dramatically shown results of improved training. The Training Needs Assessment (TNA) revealed unacceptably low levels of knowledge and skills among these workers. Less than half achieved even minimal standards, particularly in key child survival activities such as diarrheal disease management, immunization, care of the newborn and nutrition. Based on the assessment's findings, state training centers, with USAID collaboration, developed training modules to address the identified gaps. These modules are being used for state inservice training programs and will be the starting point for further improvement under this project.

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Traditionally, training of peripheral workers follows a rigid lecture approach. New approaches make the learning process an active one - first defining needed skills, then determining precise objectives for learning, then creating active learning environments to assimilate skills and finally measuring the attainment of these objectives. Training is focussed, yet tailored to the needs and learning patterns of the individual. The process of learning is interactive and fosters better communication later with clients. Well prepared trainers and learners manuals, and intensive trainer training have been the vehicles for effective training activities.

This project will emphasize this approach to training, demonstrating the effect on both competency and attitudes as well as impact in the community served. Project activities to achieve this will include:

- Training of trainers in specific educational technologies: needs assessment, competency based training methods, module preparation, training evaluation. Such courses will be for the staff of the major training institutions at the state level. As experience from the "Training and Visit" approach now being implemented in some health related areas becomes available, the T&V System also could be integrated into the training technologies courses.
- Workshops on planning and management of training programs for senior training officers.
- Training for trainers in specific child survival technologies and their implementation, to be organized for:
  - Regional Health and Family Welfare Training Center staff
  - State Health Directorate training staff
  - District training staff or training team
  - District level ICDS staff
  - PHC level trainers, including ICDS managers
- Development of a comprehensive, phased plan to train all peripheral workers in key child survival program interventions and provide continuous inservice upgrading;
- Development of a mechanism, identifying specific responsibilities, for control of quality and content of training program at all levels down to the village, i.e. from state training institutions to district to PHC to subcenter to village.
- Training materials development which would include:
  - Preparation of specific guides for training materials development;

- Preparation and dissemination of training guides for trainers at each training level, and training modules for each worker level;
- Review, modification and amplification of existing modules based on the IRHP Training Needs Assessment.
- Identification of Non-Government Organizations and other private sector groups who have demonstrated skills and experience and who could assist in aspects of this overall training effort; arrange for their participation.

Communications/Marketing/Demand Creation Activities.

The key to good health in any society is related almost entirely to attitudes and behaviors - behaviors with respect to cleanliness, feeding patterns and the use of existing services such as UIP.

Particularly in preventive medicine, the major goal is to change behaviors to embrace healthy life styles and activities. Thus communicating information, knowledge and attitude is the major job of health workers, and ineffective communications is often the root cause of program failure. Workers are culturally aloof and often approach villagers ineffectively. This holds true not only for highly educated health professionals but also for paramedical workers, who themselves often communicate both verbally and non verbally in an ineffective or even negative way. This is the major reason for the popularity of traditional healers. They are culturally attuned, client-oriented, and invariably communicate effectively with their patients.

Experience in the health sector in AID funded programs throughout the world has shown some dramatic results from the use of modern communication approaches. In Honduras, Egypt and Gambia, major changes in approach to the care of the child with diarrheal disease have been accomplished. In Indonesia, in a single decade the use of family spacing methods increased from less than 10 percent to over 60 percent of all couples. In Colombia and Turkey mass communication campaigns supported by house to house motivation has resulted in doubling and tripling of immunization rates.

In short, a modern approach to communications in health has proven to be one of the major socio-technological breakthroughs of the last two decades, and mobilising community action and social concern is possible through effective integrated communication strategies. The key steps in such a strategy are as follows:

First, any program must start where the community is to find out their ideas, their practices and their ways of communicating about a situation or problem. Only by understanding the community's perceptions and motives can effective communication

strategy be devised and the information and behaviors we seek to modify or reinforce must be consistent with the identified cultural norms.

Second, all messages, approaches and materials must be carefully pretested to assure that their impact is the expected one and that they are understandable as well as attractive.

Third, consistency is critical. All workers must give the same message. If hospital workers are using drugs and intravenous therapy for diarrheal disease, the message to use ORT at home is not a credible one. Consistency across the entire sector goes a long way to convincing people, and messages from different sources become mutually reinforcing.

Fourth, mass media should be viewed as a reinforcing strategy, as a means of backing up and making credible the person to person messages.

Finally, it is critical to monitor the effect of these messages to modify and restructure them in the form of an ongoing dialogue. This element of listening, restructuring and response in message design is an often neglected yet critical part of the ongoing dialogue with the community. It has been shown in many studies to be the most important part of the communication strategy.

Specific communications activities will include:

- Involvement of private sector marketing/advertising agencies in promoting child survival interventions through marketing studies and multi-media programs, and in developing a specific plan for interpersonal communications through the peripheral workers/volunteer networks.
  - Development, production and distribution of communications materials for publicizing and promoting key intervention programs; development of communications guides for workers as they interact with the community, including messages on key interventions.
  - Development and inclusion of interpersonal communication techniques and modules in all field level worker training programs to enhance the workers ability to deliver key child survival messages.
  - Support for educational activities of the Mahila Mandal (Women's groups) and other village level influence groups.
  - Development of a plan for evaluating the variety of communications activities undertaken.
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### Monitoring and Information Systems

Epidemiology involves the application of scientific methods and statistical reasoning to the problems of diseases and health care in populations as small as the villages served by sub-centers, or as large as the nation as a whole. The use of epidemiological concepts and methods is essential for estimating the burden of illness experienced in a community; for identifying environmental, behavioral and occupational health hazards; for establishing the efficacy of preventive, diagnostic and therapeutic measures; and for assessing the relative impact and cost effectiveness of different mixes of resources and services in improving the health status of the population.

With the current Biomedical Research Support Project, USAID is supporting the expansion and development of the epidemiological capability in India, both through support for epidemiology training at the national level, and by strengthening the network of state laboratory systems which will provide the diagnostic back up for the epidemiological system. This is the first major level of epidemiological need that has been addressed.

The emphasis on child survival is in itself the result of an epidemiological approach to health, as it has identified and focussed attention on groups with the greatest need and who have been least served. Epidemiology has been the mechanism which made this possible. However, without continual generation and analysis of information about the varied disease priorities of underserved population, and of equal importance, concerning the management and efficacy of intervention programs to address these needs, it is unlikely that the results of these priority interventions and policies can be effectively assessed and adjusted. This, therefore, defines the second major level of effort in the epidemiological system: development of effective monitoring and information systems. Proven, low-cost technologies are available to deal with major causes of child morbidity and mortality, but they will only be effective if there is a continuing monitoring capability to assess trends and changes over time, particularly relating to the results and impact of these programs.

This project will improve management information systems for use in planning, implementation, monitoring and evaluation of public health programs, particularly those related to child survival. The steps towards improvement are as follows:

Each program area will identify key indicators and how to measure them. Indicators chosen will be checked for sensitivity, validity and relevance. They will be carefully selected for inclusion in a limited number of registers to be used at the periphery and for regular and easy summary on monthly reporting forms. Training will develop not only the understanding and competency to use such registers and forms but also an

understanding of the significance of the chosen indicators. Particular attention will be given to graphic display of selected information so that everyone knows and sees the progress of programs. Supervision activities will be oriented around a review of key indicators, and rewards will be based on accomplishments with program coverage as the key element of all indicators.

Information will be rapidly aggregated and disseminated for management decisions in such areas as the need for supplies, logistic support, additional supervisory attention, supplementary manpower, as well as for praise and discipline of staff. Particular attention will be given to feedback of the aggregated data to all concerned so that they feel a part of an integrated system and see how their performance compares with others within the system. This is itself a key motivating tool.

Finally, the information system will be used to evaluate and replan state and district level activities on an annual basis, making the monitoring and information system truly the nervous system guiding and redirecting the public health programs.

The activities to be undertaken are as follows:

- Computerize the Universal Immunization Program reporting system in selected UIP districts of each project state. Microcomputers will be installed at both the district and state levels, and software developed for the already established UIP information system. District and state level staff will be trained to operate the computerized system.
  - As the national ORT program gets underway (probably beginning in UIP districts), elements of the diarrhea/ORT reporting systems will be added to the computerized MIS.
  - As the utility of the computerized system is demonstrated, the pilot MIS will gradually be expanded and incorporated into a statewide MIS.
  - As a second initial step in strengthening state level information systems, available and operating systems will be assessed, streamlined, and made more useful by rapid processing and reduced turn-around time, and more efficient distribution of the available data. This will be facilitated by assisting the states in computerizing their MIS using micro computers and packaged data base management systems. Several states, such as Gujarat and Maharashtra, are already in the process of computerization.
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- A third major step will be to improve the quality of data which is currently collected by redesigning reporting forms, defining indicators and preparing simple graphic display formats for direct field use of collected data for self monitoring at the periphery. Only by increasing the appreciation and appetite for good data by field workers, as well as managers, can major improvements be expected.
- Over the project life, the states will then identify more appropriate set of indicators related to diarrhea, ORT, immunizable diseases, to more effectively monitor the ongoing program activities and their outcomes.

#### 4. Proposed AID Support

AID support for the state level component of the project will be in the form of support for agreed implementation or work plans for each state covering training, communications and the monitoring and information system. The amount of support provided in any given year will depend on the scope of the work plans for that year and the budget resources required to implement them. However, at a minimum, the support for each state for each year will provide for the salaries and associated administrative costs for the Child Survival Office which will be established in each state. These offices are described in more detail under Section V, Implementation Plan below.

Once the annual work plans for a state have been approved by the state, the Office of Health and Nutrition will prepare an Action Memorandum for the Mission Director, recommending for or against release of funds in support of them. In the first year the Action Memoranda will analyze the plans in terms of available experience, and against the criteria set forth below. In succeeding years the Action Memoranda will also assess current and past performance against previously approved plans. This assessment will include identification of major problems and will document actions underway to solve them.

Release of funds to a given state for each fiscal year will require an Action Memorandum approved by the Director and receipt of satisfactory evidence from the Government that funds in support of the plan have been budgeted and released to the state. The ensuing AID fund releases will constitute final disbursements for the purposes of this project. (Funds will be released quarterly, or more frequently if required).

Since the fund releases for a given year will be final disbursements, there will be no direct recourse with regard to them, except for the standard project agreement refund provisions. Recourse against inadequate expenditures or unacceptable performance of any year's work plans will come in the decision to provide budgetary support in the succeeding year, and the ultimate recourse will be a decision to defer budgetary support

in a succeeding year. Because of the interaction involved in the preparation and execution of the annual implementation plans, the Mission does not expect this to happen. But it is an available alternative, and the Action Memoranda process provides a formal means for determining whether or not such an action is justified.

Beginning in the third project year, the Action Memoranda will also address recurring costs and how they will be met when the project ends.

#### 5. Plan Criteria

The following criteria will be used to evaluate the state work plans each year:

##### General

- Adequacy of budget support.
- Adequacy of evaluation components of the plans.

##### Training

- Use of training needs assessments, competency based training and training evaluation.
- The development of a comprehensive phased schedule to train all peripheral workers.
- Adequacy of the mechanism for control of quality and content of training materials and modules, and means for continually updating them.
- Extent of inclusion of interpersonal communication techniques training.

##### Communications

- The use of communications needs assessments as a basis for communications activities.
- Adequacy of the development, production and distribution of communication materials.
- The development of communications guides for workers.
- Extent of involvement of private sector marketing and advertising agencies.
- Support for and use of village level influence groups.

### Monitoring and Evaluation

- Adequacy of child survival data.
- Need for, and utility of, data to be collected.
- Useability, and use, of data for decision making.
- Quality and reliability of data collection.
- Appropriateness of data processing and feed back procedures.
- Display of data.
- Usefulness of data for supervisors.

### F. Innovative Studies, Field Testing and Demonstration

#### 1. The Need

Virtually all public health programs in India have grown out of smaller pilot and demonstration activities. Recent examples include the UIP which grew out of demonstration immunization activities in three chosen districts in the early 1980s; the national ORT program, which has been evolving out of the variety of field experience discussed above. The respiratory disease problem has been studied on a pilot scale at Chandigarh by Dr. Vijay Kumar and is now leading to larger demonstration areas to show the practicality, affordability and impact of early treatment of respiratory symptoms in young children. The application of the training and visit system so widely credited with effectiveness of the green revolution is being studied in several states through the Communication and Marketing Project. In nutrition the MODE firm is testing numerous growth chart designs for understanding and impact in the field prior to the use in the larger ICDS scheme. The VIDX project will test the effectiveness as well as implementation difficulties for such vaccines as the pneumococcus and malaria.

The second major reason for the use of innovative studies and demonstrations is the need to engage India's intellectual resources in the challenge of child survival. While the government is clearly leading the way, an important role can and must be played by non-governmental organizations involved in health - by the medical colleges, by various research institutions involved in health throughout the country, by specialized institutions such as management, child welfare and epidemiology and by the private professional societies. Studies and demonstrations involving these groups will achieve their engagement in the national program and assure its extension far beyond the reach of the existing government health system.

## 2. Past Experience

Both of the Mission's current large projects - the IRHP and ICDS projects - have had substantial budget components for innovative studies/operations research. In both projects, these funds have been underutilized. This has been a result of a number of factors:

- Innovative studies, field tests and demonstrations have not normally been part of service programs - there has not been a clear recognition of the need for them;
- Shortages of appropriate staff and lack of capability to prepare good proposals and to implement and carefully document the results of studies;
- In the case of IRHP, a lack of government budget funds specifically allocated for technical assistance to develop and implement such studies; and
- Administrative restrictions on contracting with outside agencies and reluctance to seek outside consultants.

On the other hand, it is clear that when technical assistance has been provided to states, they have been able to carry out successful innovative studies. Notable examples are the Training and Communications Needs Assessments, and the Pilot Measles Immunization Program carried out in several of the IRHP states.

## 3. Proposed Changes

Recognizing the constraints experienced in both the IRHP and ICDS projects, but also the compelling need for such studies, a series of implementation steps have been proposed to avert or address problems previously experienced. These are:-

- Identify and outline a detailed list of studies that should be done, in priority order;
- Assure that several study proposals are part of each project state's annual work plan;
- Organize workshops for state planners of studies to provide them technical skills in developing good proposals and planning implementation;
- Hold annual reviews and planning exercises so that specific studies can be incorporated into the work plan and budget proposals submitted for the GOI/state budget approval process;

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- Make technical consultants available to help develop proposals, identify agencies that could carry them out, and assist in actual study implementation;
- As study results become available, present them in seminars and incorporate them into annual reviews of progress;
- Establish in each of the project states a formal mechanism for review and approvals, as set forth below;
- Establish with the Government a separate mechanism for review and approval of innovative studies, field tests and demonstrations in states other than the project states; and
- Stimulate innovative studies in ORT through an Indian Congress of Oral Rehydration Therapy.

Because of the emphasis and interest that will be created in the project states, it is expected that a majority of the studies, tests and demonstration activities will take place in those states. To stimulate and oversee the process, each project state will be required to establish a Technical Review Committee which will review and assess proposals based on a preselected set of criteria. This key committee will be chaired by the State Director of Health Services, and the other members will be:

- The State Child Survival Project Coordinator;
- One of two other State Program Officers as appropriate;
- A representative of the GOI;
- An established state level research figure, for example, a faculty member from an Institute of Management or Medical College;
- A USAID representative and/or consultant;
- Other temporary members as required, such as a district health officer who may be preparing a study.

The establishment of the Technical Review Committee will be a primary item in the first year work plan. Given the list of suggested studies which are part of the project paper, it will be up to the states to select two or three of these, or others of high priority for implementation under each state's first annual work plan. Once a study topic is chosen, then a detailed proposal will be prepared by the individual/agency/institution that is designated the investigator. This could be a block or district health officer, a medical college department or faculty member or a private research individual/agency. The State Child

survival Coordinator and his staff, as well as USAID staff and technical consultants will provide assistance as needed to assure that proposals are technically sound and properly organized, and if necessary to help identify an appropriate individual/institution to implement the study.

Each draft proposal will be reviewed and approved by the Technical Review Committee, after any suggested changes, or revisions have been made. When approved, it will be sent on to the State Child Survival Project Planning Group for final approval and a determination of who will contract for the subproject.

Although a majority of the studies will be in the project states, some studies, tests and demonstration activities of importance to the project will be generated by organizations or individuals in other states. A separate review and approval mechanism, patterned after the technical review committees, will be established to review and assess these proposals. The exact form of this mechanism will be determined in negotiations with the Government as a part of the project implementation process.

#### 4. Proposed Projects

##### Potential Studies, Tests and Demonstrations:

The innovative studies, field tests and demonstrations in this project will serve several purposes:

- To test both the technical and managerial aspects of newer research findings in appropriate field settings: (e.g. treatment of acute respiratory infections with antibiotics and presumptive treatment in the village.)
- To test operational ways of doing things more efficiently (e.g. the use of video for training and eventual inclusion in mass media.)
- To demonstrate the impact of a new approach to a well defined problem, (e.g. tetanus toxoid for all women in a district to demonstrate the impact of this single intervention on infant mortality.);
- To develop the commitment and involvement of a broader group of technical leaders (e.g. Indian Medical Association, Pediatrics Society, Association of Ayurvedic doctors involved in ORT through small research activities and demonstration treatment units.); and
- To scale up the results of smaller studies or demonstrations, (e.g. ICDS low birth weight research to be carried out on a large district trial, pilot ORT Clinical Training Centers, family folder based information systems.

A list of other possible studies that could be carried out under this component are:

1. An assessment of the quality of home available ORT solutions: a review of various fluids available in the homes in different regions/states, and careful assessment of their electrolyte contents and appropriateness as rehydrants.
2. The testing of various immunization field strategies: to include, for example, seasonal "pulsing" delivery mechanism; variation of immunization timings, e.g. early morning, late evening; greater emphasis on mobile immunization points where population is disbursed; and a measurement of their impact on immunization coverage.
3. Trial of total tetanus toxoid coverage for adult females: coverage of all adult women in a selected area will increase the probability each woman will be protected during future pregnancy. Comparison of TT 2 coverage levels achieved and incidence of neonatal tetanus in offspring will be compared between adult women groups immunized and those only immunized during pregnancy.
4. Testing of field worker incentives and targetting systems for both UIP and ORT: testing of reward systems for workers based on confirmed coverage achievements for immunization and ORT.
5. Careful studies of the morbidity and mortality impact of improved immunization and ORT coverage, by establishing reporting centers.
6. Pilot studies on field control of mortality from acute respiratory disease in infancy, to include testing use of appropriate, inexpensive antibiotics by paramedic workers who have been trained to recognize key symptoms indicating treatment.
7. Studies of Vitamin A in reduction of childhood morbidity and mortality; building on preliminary findings from Indonesia; testing the impact of widespread administration of Vitamin A megadoses on morbidity and mortality of young children in selected areas.
8. Effects of local diet and additional feeding in nutritional status following diarrhea; testing of various local food preparations, frequency of feeding on immediate post diarrhea catchup growth, as measured by weight gain.
9. Introduction of ORS through village shops and local practitioners. Private sector firms will be encouraged to

test market ORS in village shops, making it more accessible and widely available beyond the current reach only as far as small towns.

10. Chronic diarrhea, its antecedents, management and prevention; prospective study of children in a high risk community, following dietary habits, etiological factors and various treatments with the objective of developing appropriate clinical management modalities.
11. Testing community based training for female health workers emphasizing child survival interventions; pilot training program in a village setting (non institutional), focusing on building key child survival skills and interpersonal communications capability.
12. A project with the Indian Space Research Organization to develop video and print materials for child survival training for workers and for village motivation. The materials will be in Gujarati.
13. Testing of indigenous media (e.g. puppet shows) as a means for communicating immunization and ORT messages accompanied by research to test the impact of the performances on villager behavior;
14. A series of operational studies to be done in the clinical ORT training units focussing on various aspects of diarrhea and various treatment modes; study of various antibiotics, anti-diarrheal drugs, continued breast feeding, etc. on diarrheal outcomes.

#### National Congresses on ORT

A further example of how a coordinated approach to studies and demonstrations can contribute to the national child survival effort can be seen in the proposed Indian National Congress on ORT (INCORT) which this project will support. A carefully planned strategy involving an opening Congress to raise awareness and interest, funding of studies and demonstrations in ORT, and a follow up Congress to discuss the results, provides a sound strategy for widely increasing the commitment to ORT in the medical, paramedical and related sectors in India.

This project will provide only part of the financial support for the two INCORTS. The Mission expects that international agencies and other donors will provide part of the support, just as they did for the parent international conferences.

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Because of the publicity that will surround it, and the interest it will create, the first INCORT is expected to generate a number of proposals for specific studies in ORT. These studies are likely to be smaller in scope than the field tests and demonstrations in the project states, and they will be spread across India. A separate review, approval and management mechanism will be established, in agreement with the Government, to handle these studies. This mechanism may include the use of a block grant to an Indian institution to approve and arrange studies up to a given size, or to serve as a secretariat to a technical review committee or other agreed approval mechanism.

#### 5. Proposed AID Support

In addition to the funding provided for the two INCORTs, this component of the project will fully fund all subprojects approved by the Technical Review Committees. When the projects are conducted or contracted for by a state government, the AID funding will be in the form of reimbursement for sub-project costs incurred. There also will be some sub-projects which will be contracted for and paid for directly by AID; and a block grant mechanism may be used for the innovative studies in ORT generated by the first INCORT.

#### G. Technical Assistance and Participant Training

##### 1. Technical Assistance

The proposed project is but one component of the Mission's Child Survival Strategy. The Child Survival Strategy is multisectoral in focus and encompasses health, family planning, nutrition and supplementary feeding activities. Although current activities are implemented through different projects and utilize separate funding mechanisms, we are trying to achieve a high level of integration of all USAID - assisted Child Survival activities.

The scope of India's Child Survival problems and the growing portfolio of USAID-assisted activities require that USAID expand its technical competence in the disciplines which are crucial to the success of all USAID-assisted Child Survival activities, regardless of funding source. These disciplines include training, communications, social marketing, management information systems, operations research and evaluation, ORT and UIP. Staffing limitations preclude the expansion of either U.S. or Indian direct hire staff. Additionally, the technical competencies we are seeking are in short supply within AID. Instead, we must recruit the best and brightest technical resources from U.S. and Indian institutions. USAID intends to combine the currently separate offices of Health and Nutrition; Population; and Food for Development into a single office, to give sharper focus to child survival concerns. To the maximum extent permissible under AID regulations, USAID intends to integrate technical consultants, both U.S. and Indian, with career USAID staff in a single office. Our intent is to obtain consultants

of demonstrated technical achievement, and we do not intend to limit the scope of their activities to a single project, but rather to utilize their technical specializations on the full range of USAID-financed activities. The scopes of work for the consultants will reflect the multisectoral nature of their assignments.

USAID proposes to utilize Child Survival Health Support funds to procure 518 person months of U.S. and Indian technical assistance for Child Survival activities. The proposed skills and duration of assignments are as follows:

1 U.S. Child Survival Physician (ORT&EPI)	50 months
1 U.S. Training Methodologies Specialist	50 months
1 U.S. Operations Research and Evaluation Specialist	24 months
1 U.S. Social Marketing Specialist	24 months
1 Indian Social Marketing Specialist	48 months
1 Indian Management Information Specialist	48 months
3 Indian State Field Coordinators @48 months	192 months
U.S. short-term consultants	40 months
Indian short-term consultants	<u>90 months</u>
	<u>566 months</u>

There are at least 8 options for procuring the services of U.S. technical consultants. These include:

- Issue a RFP and competitively select the best proposal;
- Buy into central contracts managed by AID's Science and Technology Bureau;
- Obtain short-term consultants through U.S. IQC firms;
- Enter into personal service contracts with qualified individuals;
- Grant funds to a U.S. PVO or international agency active in India for technical staff enhancement;
- Enter into a PASA with U.S. Public Health Service;
- Establish JCC or IPA positions; or
- Utilize any combination of the above.

USAID has utilized a variety of mechanisms to procure required technical assistance in the past. The John Snow Public Health Group was selected through limited small business competition to provide project-specific technical assistance to the ICDS Project. JSI provides a resident Management Information Specialist and a Resident Training/Health Education Specialist. Manoff International, a sub-contractor to JSI, provides short-term consultancies in social

marketing on a continuing basis. The contract with JSI is scheduled to terminate in February 1987. USAID has obtained a Communications Specialist through a buy-in to the centrally funded Johns Hopkins Population Communications Program, but funding will be exhausted in September 1986. USAID has bought into the central PRITECH contract to obtain the full time services of Public Health Advisor and a Senior Technical Advisor from Management Sciences for Health. Their funding will be exhausted in May and October 1987 respectively. The JCC Population Specialist position has assured funding for the next two years. Technical assistance requirements for the bilateral Biomedical Research Support Project will be met by seconding personnel from the U.S. Centers for Disease Control to WHO. U.S. short-term consultants have been furnished through centrally-funded contracts, often facilitated by buy-ins with PD&S funds.

Indian consultants have usually been obtained through PD&S-funded USAID contracts or Purchase Orders. On occasion, Indian consultants who do international consultancies have been funded by AID Washington contracts.

It is apparent that the technical assistance required to implement the Mission's Child Survival Strategy will not be available through existing mechanisms. USAID, after careful consideration of the pros and cons of each of the potential funding mechanisms, concludes that U.S. technical assistance should be procured through the issuance of a RFP and competitive selection of the best proposal. Indian technical assistance will be obtained through USAID contracts and Purchase Orders.

## 2. Participant Training

The project will fund short-term training and observation tours for those state officials involved in the design, implementation and evaluation of project activities in the project states. Participants will be drawn from the following state-level categories:

- State Child Survival Project Offices;
- State Program Officers for UIP, ORT, Training, Communications and Monitoring and Information Systems;
- Senior Health and Family Welfare Department and Secretariat officials;
- Key district-level health officials involved in project--assisted UIP and ORT activities;
- Health and Family Welfare Training Center staff;
- Medical college personnel involved in clinical diarrhea disease management training centers; and
- Participating PVO staff.

Participant training and observation tours will generally be 1-4 weeks duration. Only those personnel with demonstrable responsibilities for project activities will be eligible for training under this project. National level officers associated with the UIP and ORT programs will also be eligible where appropriate. USAID has other mechanisms to fund non-project related health and family welfare training.

The average duration of participant training/ observation tours will be three weeks and the average cost per participant will be \$5625. The cost for 20 participants per state would be \$5625 x 20 participants x 4 states or a total of \$450,000.

#### IV. Cost Estimate and Financial Plan

Total project costs are shown in Table IV-1, by project element and by source of funds. Of the life of project total costs of \$291.7 million, the table shows that \$65 million (22%) will be met by AID, \$142.9 million (49%) by the Government of India and \$83.8 million (29%) by other donors. However, both total costs and the Government's contribution are understated in Table IV-1 by the amount the Government will actually contribute in support of state level activities. This contribution will consist primarily of salary costs (salaries during training, for example), and it will be substantial. But it cannot be calculated in the absence of detailed implementation and work plans for the activities.

Of the AID contribution of \$65 million, \$46.4 million (71%) is for local costs. This is mainly a reflection of the fact that the majority of the total project costs (approximately 78%) are local costs.

Table IV-2 shows project costs by year, by element and by source of funds. Total costs and the AID contribution both peak in the third and fourth years of the project, primarily because UIP costs peak in those years. This, in turn, reflects the fact that half of the new districts will be added in those two years.

Annual costs for state level activities are shown in Table IV-2 as being equal over the life of the project. In practice, the amounts for each year will be determined by the state implementation plans for that year, and thus may vary from year to year.

TABLE IV-1  
SUMMARY COST ESTIMATES - BY PROJECT COMPONENT

COMPONENT	GRANT			LOAN			U.S. TOTAL			OOI	OTHER DONORS	TOTAL
	LC	FX	TOTAL	LC	FX	TOTAL	LC	FX	TOTAL			
Universal Immunization*	10,000	15,000	25,000	-	-	-	10,000	15,000	25,000	109,900	74,800	209,700
National ORT Program	-	-	-	15,000	-	15,000	15,000	-	15,000	33,000	9,000	57,000
State Level Activities	-	-	-	18,000	-	18,000	18,000	-	18,000	**	-	18,000
Innovative Studies Field Tests, & Demonstrations	2,550	-	2,550	-	-	-	2,550	-	2,550	-	-	2,550
Technical Assistance***	810	3,190	4,000	-	-	-	810	3,190	4,000	-	-	4,000
Participant Training	-	450	450	-	-	-	-	450	450	-	-	450
TOTAL	13,360	18,640	32,000	33,000	-	33,000	46,360	18,440	65,000	142,900	83,800	291,700

\* Incremental costs only

\*\* Not available

\*\*\* Includes evaluation

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TABLE IV-2  
ESTIMATED PROJECT COSTS - BY COMPONENT - BY FISCAL YEAR  
(\$ 000)

<u>COMPONENT</u>	<u>FISCAL YEAR</u>					<u>TOTAL</u>
	1987	1988	1989	1990	1991	
<u>AID TOTAL</u>						
<u>Universal</u>						
Immunization	6250	6250	6250	6250	-	25000
Oral Rehydration Therapy	-	3000	4000	4000	4000	15000
State Level Activities	3600	3600	3600	3600	3600	18000
Innovative Studies	450	525	525	525	525	2550
Technical Assistance	500	1000	840	830	830	4000
Participant Training	-	150	150	150	-	450
Sub Total	10800	14525	15365	15355	8955	65000
<u>GOI TOTAL</u>						
<u>Universal</u>						
Immunization	15720	14720	19740	20420	39300	109900
Oral Rehydration Therapy	1330	3240	7650	9390	11390	33000
Sub Total	17050	17960	27390	29810	50690	142900
<u>OTHER DONORS - TOTAL</u>						
<u>Universal</u>						
Immunization	7530	15530	24310	27430	-	74800
Oral Rehydration Therapy	2000	2000	2500	2500	-	9000
Sub Total	9530	17530	26810	29930	-	83800
<u>PROJECT - TOTAL</u>						
<u>Universal</u>						
Immunization	29500	36500	50300	54100	39300	209700
Oral Rehydration Therapy	3330	8740	14150	15390	15390	57000
State Level Activities	3000	3000	3000	3000	3000	15000
Innovative Studies	450	525	525	525	525	2550
Technical Assistance	500	1000	840	830	830	4000
Participant Training	-	150	150	150	-	450
<u>GRAND TOTAL</u>	36780	49915	68965	73995	59015	288700

## V. IMPLEMENTATION PLAN

### A. The Indian Planning and Budgetary Process

#### General

The Indian Constitution has assigned certain responsibilities and powers to the Center and State Governments. The States' responsibilities include the development of irrigation, power, education, health, family planning, cooperatives, rural development, slum improvement and forests. In addition, their local functions include public order, courts and police. The Center is mainly responsible for defence, external affairs, foreign trade, railways, industries, currency, posts and telegraphs and heavy industry. There are also certain concurrent responsibilities such as planning, monopolies, labor disputes and social security.

To discharge these responsibilities, the Center and the State Governments are assigned certain revenue powers, but the States have been assigned more expenditure responsibilities than they can finance through their own revenue sources. Thus, they depend heavily on Central assistance which is channeled to the States under several forms of revenue sharing provided for in the constitution.

Under its federal structure, India follows a decentralized planning and budgeting process for its development activities. Both the Center and the States prepare Five-Year Plans for programs to be implemented in the various development sectors. The Central Plans focus on activities of national importance. They are proposed and formulated by the concerned Central Ministry, approved by the Planning Commission and financed largely by the Center. These Central activities are implemented by the concerned ministry either directly or through a state. The UIP and the Diarrheal Disease Management (ORT) Programs are both centrally sponsored activities which are funded entirely by the Center, but are implemented by the states.

The state plans include centrally sponsored activities as well as programs that are of concern to them. State projects are implemented by the states and financed through their own budgetary resources supplemented by Central assistance. The state level activities and the innovative studies elements of this project are programs of concern to the states involved, that will be financed as foreign-aided projects. Matching assistance for foreign-aided projects was introduced in 1975-76 as an inducement for States to identify projects that would be eligible for World Bank or other donor assistance. Under the present arrangement for "additionality", the States receive additional Central assistance to the extent of 70 percent of the foreign aid disbursed for their projects.

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to the GOI by the external agency. The remaining 30 percent is retained by the Center for various reasons, such as to cover service charges, exchange rate fluctuation risks for repayment liability of the GOI, and the grants already provided to the states.

#### Annual Plan and Budgets

All the approved Central and State programs are combined and included in a consolidated Five-year Plan for the nation. In addition, each State has its separate approved Five-Year Plan. These documents then form the basis for the annual initiation and implementation of approved programs depending upon the amount of resources available. The resource position is determined for each budget year, and annual plans are prepared by the Center and the States. This annual planning exercise begins in August-September each year, and annual plan outlays are finalized by January in consultation with the Planning Commission. The budgets are then developed and presented for legislative approval in February-March. The flow chart (Chart V-1) diagrammatically explains the planning and budget process and its time span.

Key implementation dates, or time periods for the various elements of the project can be identified from Chart V-1. For UIP and the ORT program, the critical period is November to January, when state plans are received and reviewed and consolidated central plans are prepared. During this period the annual meetings to review accomplishments and discuss the implementation plans for the coming year will be held with the Government. The budget approval period - February/March - is also critical to the UIP and ORT elements. Direct Mission involvement will be limited, although AID fund releases for ORT will require satisfactory evidence that adequate funds have been budgeted and released by the Government.

There are several critical time periods for State Level Activities and Innovative Studies. The most important is the period October-November when the State plan proposals are developed and revised. Early in October the state Child Survival Planning Groups will meet to develop plan proposals for training, communications and monitoring and information systems. Through November, the groups will meet again, as necessary, to revise or modify the plans. Mission technical staff will be actively involved in the process. Mission staff will also be involved, but less actively, in the subsequent periods of final plan approval and budget preparation. The involvement at this stage will be limited to that necessary to ensure that plans are not vitiated and that adequate funds are budgeted.

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Chart V-1  
FLOW CHART ON STATE PLANNING AND BUDGET PROCESS

September	Planning Commission Issues Guidelines	1. State Depts. Develop Plan Proposals
October	First Round State Planning Exercise Begins	2. Proposals Reviewed by State Planning Dept. 3. Departmental Plans Cut Down to Match Resources 4. Revised Plan Outlays Allocated to Depts.
	State Resource Position Finalized by Planning Commission	1. State Planning & Finance Secys Discuss Resource Position and Size of Plan with Planning Commission 2. Final Agreement Reached on Resources and Annual Plan Size
October/November	Revised Plan Proposals Developed by State	1. Depts. Revise Proposals Per Allocation 2. Planning Dept. Reviews Revised Proposals 3. Consolidated Plan Prepared
November to January	Draft Plan Presented to Planning Commission	1. State Depts. & Central Ministries Discuss Plan 2. Planning Commission Forms Working Groups 3. Working Groups Make Recommendations 4. Planning Commission Completes Review
	Consolidated Plans for Centrally Sponsored Schemes Prepared	
	State Annual Plan Finalized	1. State Depts. Revise Outlay Proposals 2. Planning Dept. Prepares Final Draft Plan 3. Draft Plan Reviewed and Approved by State Cabinet 4. Final Plan Prepared 5. Approved Plan Allocations Notified to Depts.
February/March	State Budget Developed and Approved	1. State Depts. Prepare Detailed Budget Estimates 2. Finance Dept. Finalizes Consolidated Budget 3. Budget Presented To Legislature 4. Legislature Grants Approval
IFY (March-April)	Funds Appropriated	1. Legislature Passes Appropriation Bill 2. State Acquires Spending Authority 3. Finance Dept. Issues Authorization to Depts. 4. Depts. Incur Expenditure
IFY (March-April)	GOI Releases Plan Assistance	
	- Normal	1. Monthly Installments (Prorata) For First 10 Months 2. Reconciliation in Feb./March Based on Actual Costs Plus Projections for Last Two Months 3. Final Adjustments Made or Balance Released
	- Additionality (Foreign Aid)	1. 70 % of Actual Aid Disbursements Released Quarterly 2. If No Disbursement, 70% of State Claims Accepted by DEA Released Provisionally 3. Provisional Release Adjusted in Next IFY

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### Fund Release

The approved plan assistance, including that for Centrally sponsored activities, is released by the Center to the States in monthly installments. This is done on a pro-rata basis for the first 10 months. Thereafter, a reconciliation is made in February/March each year by relating actual expenditures to the amounts released to date and making projections of expenditures for the last quarter of the Indian fiscal year. Based on these actual expenditures and projections, the GOI releases the last installment or makes necessary adjustment in the approved outlays for that year.

For foreign aid, all loan and grant disbursements are received by the Center which then transfers appropriate amounts to the concerned states. These funds are released quarterly on the basis of reimbursements actually received from the foreign agencies by the GOI. However, when no reimbursements are received during a period, the release is not made quarterly. In such cases, the GOI releases provisional amounts in March of each year on the basis of State claims submitted and accepted by it. Such provisional releases are adjusted in the first quarter of the next fiscal year. Thus, in the case of foreign-aided projects, the states must first meet the expenditures from their own resources and then claim reimbursement from the Center under the foreign aid "Additionality" concept.

### B. Universal Immunization

The schedules for implementation of UIP are shown in Tables V-1 and V-2.

TABLE V-1  
PHASING OF UIP BY DISTRICT

<u>Year</u> <u>(IFY)</u>	<u>No. of new districts</u>	<u>Cumulative districts for</u> <u>Universal Immunization</u>
1985/86	30	30
1986/87	60	90
1987/88	90	180
1988/89	120	300
1989/90	120	420

Source : Government Plan

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TABLE V-2  
PHASING OF UIP IN MAJOR URBAN AREAS

<u>Year</u>	<u>No. of Urban Areas Covered</u>	
	<u>New</u>	<u>Cummulative Total</u>
1985/86	-	-
1986/87	10	10
1987/88	10	20
1988/89	8	28
1989/90	0	28

Source: Government Plan.

The first 30 districts were selected in 1985 and the program is in the process of being implemented in those districts. The second set of 60 districts were selected in the 1st quarter of this year, and procurement and other preparatory actions are underway for those districts, with full scale implementation scheduled to begin in the fall.

Selection of the UIP districts is the responsibility of the states, following established criteria and subject to final approval by the Ministry of Health and Family Welfare (MOHFW). Principal criteria for selection of the initial districts were as follows:

- Districts with good past EPI coverage.
- Districts with good infrastructure, including major cold chain equipment.
- Districts with donor-funded area projects, such as the AID IRHP Project. (This criterion will be less important in the future).

Detailed annual implementation schedules are prepared each year for UIP. It is not necessary to reproduce these schedules here, and the schedules will change year by year as the project evolves. As noted above, the key planning dates for the purposes of this element of the project is the period November to January of each year, when the implementation plan for the succeeding fiscal year is approved by the Government.

#### C. Oral Rehydration Therapy

Participation in the preparation of annual implementation plans is the basic purpose of this project element. It is not possible to forecast here the detailed sequence of events that will comprise those plans but the critical implementation event and date is the Government development and approval in the period November to January each year of the succeeding year's plan.

While these detailed events cannot be forecast now, there are some critical program or program-related events that can be forecast for the first project year. They are:

Household Outreach:

- Phase II of the oral rehydration market and home practices research being conducted by the Indian Market Research Bureau for UNICEF. 4th quarter 1986.
- Training of trainers from the Health and Family Welfare Training Centers. 4th quarter 1986.
- First series of field training for front line workers. 1st and 2nd quarters of 1987.

ORS Promotion and Distribution

- Meeting of ORS manufacturers. 4th quarter of 1986.
- Market research on the sale and promotion of ORS. 4th quarter of 1986, 1st quarter of 1987.
- Field trials of ORS promotion campaigns directed at practitioners. 2nd quarter 1987.
- Practitioner meetings to promote the use of oral rehydration therapy. 3rd quarter of 1987.

Professional Training in Clinical Case Management

- First 8 training units fully functioning and following similar protocols. 3rd quarter of 1986.
- Involvement of the India Pediatrics Society with site rights to 8 centers, joint meetings and preparation of guidelines for running a clinical ORI unit. 4th quarter of 1986.
- Start of second set of training units (an estimated 16-20 units). 2nd quarter of 1987.
- Start of clinical training for government doctors. 4th quarter of 1987.

D. State Level Activities

1. The Implementation Mechanism

This project includes a planned mix of program activities: UIP and ORT funded at the national level; the functional activities of training, communications and MIS funded at the state level; and

innovative studies and field tests and demonstrations. However, responsibility for implementation of all of these activities falls under the state Health and Family Welfare system. Within this system, each of these component activities is managed by a different unit, although there is some overlap. Because of the diversity of the activities and the division of labor in implementation, there will be a critical need for several coordinating mechanisms within the state Health Services Directorates. The mechanisms proposed are as follows:

- Establishment of a Child Survival Project Office within the Directorate of Health Services, headed by a Child Survival Project Coordinator (who should be a Joint Director level officer) with a core technical and managerial staff. The Child Survival Project Coordinator will be responsible for coordinating the wide range of activities that are planned in each state. He/she will monitor progress in each of the components and will be the focal point of contact with the GOI and USAID. The Child Survival Project Coordinator should at the very least have on his staff: a Project Planning Officer, an experienced Research Officer, and a communications specialist.
- Establishment of a state Child Survival Project Planning Group, which will be the key unit in organizing the annual reviews and developing the annual work and implementation plans. The Planning Group will be chaired by the Secretary of Health or his designee, and its members would consist of the Director of Health Services, the relevant program officers (eg. Training, Communications, ORT, EPI etc.) other relevant members from other ministries, such as Finance; and USAID and its consultants.

## 2. Implementation Schedule

The detailed schedule of implementation events for each state each year will be an integral part of the work plans for that year. They cannot be forecast here. However, from an overall point of view the key implementation dates will be the approval of work plans for the succeeding year - in the period October-November. The other key date will be the release of funds in support of the plans at the beginning of each fiscal year.

## E. Innovative Studies

There will be two major implementation events during the first year of the project. The first, which is really three separate events, is the establishment of the Technical Review Committee in each project state. The second major event will be the first INCORT.

Planning for this conference will take place during the first half of the first project year, and by the end of the second quarter of that year a contract will be let for the administrative management of the conference. The conference itself will take place during the second half of the first project year.

During the first project year, the implementation target for this component of the project will be the approval and start of at least three innovative studies, field tests or demonstrations in of the project states. In succeeding years the target will be a minimum of five new activities per year.

## VI. Monitoring Plan

### A. General

India has in place one of the largest and most effective continuing systems for monitoring child survival: the national Sample Registration Scheme (SRS). This continuous sample survey measures births and deaths throughout the year in over 6,000 sample villages throughout India and provides data on key indicators aggregated at the state level. In depth data is periodically obtained on causes of death and other parameters such as nutritional status. SRS provides a basic continuing mechanism for monitoring improvement in child survival status of all age groups.

The January, 1986 meeting in New Delhi on "Monitoring Child Survival" established a dialogue on various strategies for monitoring progress in child survival in India. It includes the national nutritional monitoring network, routine state health statistics gathered through health institutions, and specific programs, such as the Universal Immunization Program, which have their own information systems.

Large ORT baseline surveys of over 250,000 children have been conducted during 1985 with the help of WHO. The data from these surveys established baseline use of ORS, knowledge of ORS and some basic information about the use of ORT in the home. Mortality data from these surveys are widely viewed as unreliable and could not be considered a valid baseline. Mortality will be monitored in fixed institutions to provide ongoing trends on the importance of diarrhea in overall child mortality and verified by the SRS mentioned above.

### B. Universal Immunization and ORT

#### 1. Monitoring Methodology

There will be four principal means of measuring project performance for both the UIP and ORT project elements:

- The internal program monitoring and evaluation systems,
- Regular formal and informal consultations,
- Field visits by Mission technical staff, and
- Special surveys.

Regular reporting for purposes of monitoring and evaluation is an integral part of UIP. This system will be the principal means of monitoring program performance. The process begins with cluster surveys which establish past EPI coverage in each new UIP district. These surveys are a part of the micro-planning course for UIP, and serve to:

- Establish baseline coverage levels,
- Expose trainees to village level interviews with mothers and village workers as a precursor to the household enumeration surveys, and
- Demonstrate how single survey techniques can be used to check and verify routine service statistics and data.

The surveys are conducted using a field methodology developed by WHO and the Centers for Disease Control. By choosing clusters or groups of children to survey, rather than truly random samples requiring logistically impossible surveys spread over the entire population, accurate estimates of program coverage can be obtained with relatively modest field expense. The surveys determine vaccination coverage of each type of vaccine with a 95 percent confidence of  $\pm 10$  percent. (e.g. if a cluster survey indicates that 70% of children have been fully immunized with the 6 antigens, there is 95% certainty that actual coverage is in the range of 60-80%). Similar cluster surveys will be used to introduce and monitor the ORT program with similar certainty for recent diarrhea history and use of ORT/ORS.

The regular reporting systems are built up from the block level and provide monthly data on program coverage. The UIP monthly reporting system provides four categories of data. They are:

- Surveillance: Reported cases and deaths by disease. (This data will necessarily be incomplete. Most cases of measles, for example, never come to the attention of the health system and deaths are frequently attributed to other causes.)
- Immunization performance: Number of beneficiaries vaccinated, by type of beneficiary and antigen. As an example of how the UIP program is evolving, this reporting is currently being revised to separate reporting of immunization of children under one and children one year and older.

- Vaccine supply: Including beginning and ending stocks and consumption during the month, by vaccine.
- Refrigerator status: Number on hand and number working.

At least annually program reports will provide information on other key areas of program implementation, including:

- Equipment availability and status,
- Vaccine supplies,
- Training courses, by type, and
- Number of persons trained.

In the cases of UIP, UNICEF has developed a computer analysis program designed to utilize the extensive data from the UIP monitoring and evaluation system. The program has built in discrepancy routines, such as a comparison of second round DPT coverage in a block to identify cases where second dose coverage exceeds the first dose coverage for that area. In addition to the analysis available from that program, the Mission will have access to the evaluation reports prepared by UNICEF based on reporting from the field and field visits of its central staff.

The ORT reporting system will provide monthly data on such key indicators as:

- ORS packets - stocks and consumption,
- Number of mothers contacted and taught ORT,
- Number of field workers trained, and
- Number of clinical dehydration cases treated with ORS.

Regularly scheduled meetings with the Government to evaluate progress and plan future implementation will be an important tool for monitoring project progress. Quarterly meetings with MOHFW staff responsible for both technical and administrative decisions on UIP and ORT will be held. The agendas will include:

- A review of technical issues related to implementation: coverage schedules, training content and methods, supervision, monitoring, and reporting.
- A review of implementation progress: state and district plans, fund releases, delivery of equipment and supplies, reporting of performance.
- Periodic evaluation: plans for monitoring independent evaluation, surveys etc.

Minutes of these meetings, approved by both Government and AID and other participants will comprise a record of policy dialogue, technical modification and continuing evaluation of project implementation.

Once a year an annual review of UIP and ORT accomplishments and the implementation plans for the coming year will be held. This will include consideration of budgetary support to assure adequate funding.

These formal meetings will be supported by informal, but regular, monthly meetings of the technical staffs of UNICEF, WHO and USAID. The primary purpose of these meetings is to identify technical problems and ways to resolve them.

Mission technical staff will be continuing to travel extensively to observe and report on program implementation in the field.

The special studies component of this project will include special evaluation studies to assess program effectiveness in terms of impact as well as coverage, and special monitoring and evaluation studies are an integral part of the present program. As examples, there are two evaluations related to immunization activities that are at the planning stage. The first is a review of the Universal Immunization Program and is tentatively scheduled to take place during August-October 1986. An evaluation team will review UIP activities in three districts representing high, medium and low UIP coverage. The second evaluation will assess the effectiveness of training for UIP Managers conducted by the National Institute of Communicable Diseases.

## 2. Tracking Data for UIP

Taken together these methods of monitoring will enable the Mission to report, at least annually, the following immunization data requested in State 098765, Child Survival, Tracking Global and Agency Progress (see annex G for details of the data requested.)

- Tier 1: All tier 1 data will be available from district plans and UNICEF reports.
- Tier 2: All tier 2 data will be available by district from the monthly UIP reports, with disease incidence less accurate than the other data.
- Tier 3: Cost per protected child can be calculated on the basis of program costs and presumed impact based on standard epidemiologic factors.

- Infant and child mortality rates will be available from the national Sample Registration Scheme, but disease specific mortality rates will not be available.
- State wide estimates of nutritional status will be available from the sample survey of the National Nutrition Monitoring Bureau.

### 3. Tracking Data for ORT

Taken together the methods of monitoring should enable the Mission to report the following ORT data requested in State 099765 (Annex G).

- Tier 1: All tier 1 data should be available from implementation plans and the internal program monitoring system.
- Tier 2: All tier 2 data should be available from the internal program monitoring system, or on a sample basis from reports from sentinel Primary Health Units (1 per district), sentinel dispensaries (1 or 2 per district) and district hospitals.
- Tier 3: Costs per treated episode can be estimated on the basis of program costs and number of episodes treated estimated from program reports.
- Infant and child mortality rates will be available from the National Sample Registration Scheme. Sample estimates of mortality due to dehydration will be available from the sentinel reports.
- State wide estimates of nutritional status will be available from the sample survey of the National Nutrition Monitoring Bureau.

### 4. State Level Activities

There will be five principal means of monitoring project performance in this component.

- Quarterly and annual reviews of progress in the annual implementation plans;
- The state monitoring and information system;
- Regular formal and informal consultations,
- Field visits by Mission technical staff, and
- Special surveys.

The primary tool for project monitoring will be the annual state implementation or work implementation plans for training communications, and the monitoring and information system. By definition these plans will be a calendar of activities showing what is to be done over the year, how and by whom it will be done. These plans will outline a series of activities leading to the project objectives for each component. The extent to which each component is close to the plan outline is the best indication for monitoring progress.

An annual review will formally and systematically assess progress of implementation in greater depth, assembling a wider range of data and including a broader selection of participants. The outcome of this review will provide the GOI and USAID with a comprehensive status report, which will also be the basis for the next year's planning. It will include a measurement of progress against stated plan objectives as well as an analysis of why any objectives might not be met, with proposed improvements.

Initially, the state work plans will provide for special ad hoc reporting for the purpose of monitoring progress against the plans. However in the latter years of the project this ad hoc reporting will be supplanted by improved regular reporting under the state monitoring and information systems that will be developed as a part of this project.

This reporting will be a primary management tool for the Child Survival Project Coordinator and his/her staff. It will also be the principal agenda topic for quarterly meetings of the Child Survival Project Planning Group. In addition to monitoring progress, these meetings will provide a forum for the resolution of problems which involve more than one organizational unit within the state Ministry of Health and Family Welfare, or involve coordination between that Ministry and other elements of the state government.

These formal meetings will be supported by frequent informal meetings between Mission staff and the Child Survival Project Coordinators in each state which will be primarily for the purposes of reviewing progress and identifying problems or bottlenecks and seeking solutions to them. In these meetings Mission staff will draw on insights to project performance gained through travel to observe project implementation in the field.

The special studies component of this project will also include special evaluation studies to assess project effectiveness in terms of impact as well as coverage.

#### D. Innovative Studies

There will be two principal means of monitoring the subprojects which will comprise this component of the project.

The first means is through regularly scheduled meetings of the Technical Review Committees in each state. In addition to the review of new proposals, the agenda for these meetings will include a review of status reports on all outstanding subprojects.

The second means will be status reporting which will be a part of the protocol for each subproject. Each protocol will provide for appropriate progress reporting on the study, test or demonstration covered by the protocol.

## VII. Summary of Analyses

### A. Technical Analysis

The technical Analysis (Annex E) concludes that from an overall point of view, the project is technically and socially sound. The analysis then goes on to examine feasibility issues with regard to each of the project components. The major conclusions are that:

- the operational feasibility of the UIP has been developed during the past few years in smaller district level operational tasks. The UIP strategy will build a sustainable system utilizing infrastructure already in place, and has been known to be more effective than alternative approaches.
- the ORT strategy draws on experience in India and elsewhere.
- the ORT strategy includes the three elements that have been shown by elsewhere to be essential to success. Moreover, a recent nationwide market survey has shown a greater potential receptivity for home ORT practices than was previously thought to exist.
- the proposed state level activities build on the experience in the states under the existing IRHF and ICDS projects. This experience has demonstrated the feasibility of the activities proposed.
- the massive size of India requires the careful development of new programs, and a tremendous array of experience and capacity for the conduct of field tasks, demonstrations and innovated studies exists in both the public and private sectors.
- Women will play a major part in the project, both as beneficiaries (the mothers) and the critical peripheral workers, some 90 percent of whom are women.

### B. Financial Analysis

The financial analysis examines the potential total costs of the UIP and ORT programs. While approved cost estimates will not cover the total costs of these two programs, the shortfall is not great and it is almost certain to be made up by plan amendment or by drawing on

other health and family welfare funds.

Recurring costs are not expected to be a problem in the UIP and ORT programs, because these costs will be built into the government's budget by the end of the project, and because they represent only 5 percent of the annual funding for health and family welfare. Recurring costs will not be as great a problem in the state level activities component as would appear on the surface, but a means should be found to deal with them during project implementation.

### C. Economic Analysis

An economic analysis has not been prepared for this project. A classic cost-benefit analysis is problematic at best for a health project such as this, where savings must be based primarily on deaths averted. This is compounded by the fact that disease specific death rate data are only estimates and precise total cost estimates are not available. The justification for this project, like for the A.I.D. Child Survival Strategy as a whole, is humanitarian rather than economic.

## VIII. CONDITIONS AND COVENANTS

### A. Conditions Precedent to First Disbursement

Prior to the first disbursement of the Assistance, or to the issuance by A.I.D. of documentation pursuant to which such disbursement will be made, the Cooperating Country will, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

- a) An opinion of counsel acceptable to A.I.D. that the Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Cooperating Country and that it constitutes a valid and legally binding obligation of the Cooperating Country in accordance with all of its terms; and
- b) A statement of the names of the persons holding or acting in the office of the Cooperating Country and a specimen signature of each person specified in such statement.

### B. Conditions Precedent to Disbursement Under State Level Activities (Maharashtra, Gujarat Himachal Pradesh and Haryana)

Prior to any disbursement under the Assistance for State Level Activities or to the issuance by A.I.D. of documentation pursuant to which such disbursements will be made, the Cooperating Country will, except as the parties may otherwise agree in writing, furnish to A.I.D. for each project state:

- a) Documentation supporting the establishment of (i) Child Survival Project Planning Group and (ii) Child Survival Project Office;

- b) An annual implementation plan covering training, communications and the monitoring and information system.

### C. COVENANT

In addition to the standard evaluation covenant, following covenants are considered essential to achieving program goals and objectives:

1. Under the A.I.D. grant to UNICEF for UIP, UNICEF will carry out the monitoring and evaluation of UIP in accordance with its normal procedures and furnish the results to A.I.D. at least once a year.
2. The GOI and state authorities will carry out the monitoring and evaluation of the ORT Program and State Level Activities in a manner satisfactory to A.I.D. and furnish the results to A.I.D. at least once a year.
3. The Cooperating Country will ensure adequate budget provisions in the Central Government budget as well as in the states budgets to carry out the activities which may be listed in the annual implementation plans.

## IX. Evaluation Plan

### A. The National Programs

This project proposes to make its financial contribution to the National Universal Immunization Program through a grant to UNICEF. UNICEF, WHO, the European Economic Community, Denmark and other donor organizations are likely to provide assistance to the UIP. Plans for the financing of the National Diarrhea Disease Control Program are still in the formative stage, but it is likely that UNICEF, WHO and other donors will provide assistance.

It makes little sense for each donor to embark on separate evaluation arrangements. Instead, the Mission proposes to work with the GOI and the donors to each national program in developing common evaluation arrangements to meet the needs of all parties.

Other special evaluations may be scheduled as required, but there will be as a minimum, mid-term and final evaluations of each national program.

The terms of reference and composition of evaluation teams for the mid-term and final evaluations will be worked out in consultation with the GOI and other donors. The mid-term evaluations should assess progress towards achievement of UIP and National Diarrhea Disease Control Program objectives and ascertain whether implementation is on track. Constraints to the achievement of program objectives should be identified and mid-course corrections proposed to deal with the deficiencies noted. The emphasis should be on

coverage of intended beneficiaries and changes required to achieve high coverage. The evaluation should consider both supply and demand factors. In view of the need to sustain program efforts beyond the life of this project, the evaluations should examine the cost effectiveness of approaches and recurring cost implications.

The final evaluation should assess impact of the national programs at the goal as well as the purpose level. The ultimate goal is to reduce infant and child mortality. The final evaluation should not only assess levels of coverage and reasons underlying achievements, but should measure impact on child survival. The final evaluation should also make detailed recommendations for sustained, effective and affordable programs into the 21st century and identify unmet needs for possible donor financing. The financial implications of recommended courses of action should be clearly spelled out.

#### B. State Level Programs/Studies, Field Tests and Demonstrations

AID, the participating state governments and the GOI will plan the mid-term and final evaluation of AID-assisted activities at the state level and below. The mid-term evaluation will consider but not be limited to:

- Progress towards effective, technically sound training, communications and management information systems in support of immunization, oral rehydration and birth spacing in the target states.
- Changes in knowledge, attitude and practice regarding EPI, ORT and child spacing leading to high coverage of target beneficiaries.
- Adequacy of mechanisms for developing workplans, disbursing funds, and developing, approving, implementing studies, field, tests and demonstrations.
- Recommended mid-course corrections to deal with noted deficiencies.
- Lessons learned from AID-assisted activities which should be brought to the attention to state and GOI policy makers.
- Effectiveness of coordination between the health and IQDS systems and recommendations to better coverage their child survival activities.
- Adequacy of resources available at the state level and financial implications.

The final evaluation should address concerns which were addressed during the mid-term evaluation. It should also measure impact of state-level child survival activities on infant and child mortality.

It should estimate the recurring financial expenditures for USAID financed activities, which if they are to continue beyond the life of the project, must be provided for in state and national budgets. Finally, the evaluation should make recommendations to AID, the state governments and the GOI for follow-on child survival activities.

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AIDAC

E.O. 12356: N/A

TAGS: N/A

SUBJECT: CHILD SURVIVAL HEALTH SUPPORT 386-2524 PID  
ANPAC GUIDANCE FOR PP PREPARATION

1. ANPAC MET ON APRIL 25 TO REVIEW AND APPROVE SUBJECT PID IN MEETING CHAIRED BY DAA/ANE. MISSION WAS REPRESENTED BY DIRECTOR, DEPUTY DIRECTOR, CHIEF OF PROJECT DEVELOPMENT AND PRITECH CONSULTANT JON RONDF. MISSION SHOULD PROCEED WITH PP PREPARATION BEARING IN MIND THE FOLLOWING ISSUES DISCUSSED BY ANPAC:

(A). DISBURSEMENT PROCEDURES: USAID HAS PROPOSED SHIFTING TO A DISBURSEMENT MODE WHICH FOCUSES ON POLICY AND PROGRAM OBJECTIVES, RATHER THAN ON INPUTS AND OUTPUTS. IN DOING SO, USAID HOPES BOTH TO SIMPLIFY PROJECT MANAGEMENT AND FOCUS INCREASED ATTENTION ON THE PURPOSE-LEVEL OBJECTIVES OF THE PROJECT. ALTHOUGH THE DETAILS OF THE DISBURSEMENT PROCEDURES HAVE YET TO BE DEFINED, USAID EXPECTS TO PROVIDE THIS SUPPORT ON THE BASIS OF MUTUALLY AGREED UPON NATIONAL AND STATE LEVEL ACTION PLANS.

AID/W IS SYMPATHETIC TO USAID'S DESIRE TO SHIFT TO SOME

FORM OF PERFORMANCE-BASED DISBURSEMENTS. IN DESIGNING SUCH A SYSTEM, HOWEVER, THE FOLLOWING ISSUES SHOULD BE ADDRESSED:

-- (I) CRITERIA USED TO JUDGE BOTH NATIONAL AND STATE-LEVEL PLANS MUST BE CLEARLY DEFINED. A SCHEDULE FOR PREPARING, REVIEWING AND APPROVING SUCH PLANS, CONSISTENT WITH THE GOI'S PLANNING AND BUDGET CYCLE, SHOULD BE INCLUDED IN THE PP. USAID SHOULD ALSO EXPLAIN HOW PROGRESS WILL BE REVIEWED, AND WHAT CRITERIA WILL BE USED TO DETERMINE WHETHER SUBSEQUENT DISBURSEMENTS WILL BE MADE.

-- (II) IN ORDER TO SATISFY AID'S NEED TO KNOW THAT PROGRAMS WE ARE SUPPORTING ARE HAVING THE INTENDED EFFECT, CERTAIN BASIC INFORMATION WILL BE REQUIRED. ALTHOUGH USAID IS IN THE BEST POSITION TO MAKE THE JUDGEMENT REGARDING THE SPECIFIC DATA NEEDED, THE

FOLLOWING LIST IS PRESENTED FOR ILLUSTRATIVE PURPOSES:

----ORAL REHYDRATION THERAPY (ORT) - BASELINE AND SUBSEQUENT MEASURES OF ACCESS, KNOWLEDGE, SKILL IN PREPARING, AND ACTUAL USE OF ORT IN TREATING DEHYDRATION. CHANGES IN FEEDING PRACTICES DURING AND AFTER BOUTS OF DIARRHEA WHICH HAVE RESULTED FROM THE PROGRAM.

----IMMUNIZATIONS - MEASURES OF ACCESS AND EFFECTIVE COVERAGE, PARTICULARLY FOR MEASLES AND TETANUS TOXOID.

----TRAINING AND COMMUNICATIONS - MEASURES OF EXTENT TO WHICH PURPOSE-LEVEL TRAINING AND COMMUNICATIONS OBJECTIVES (E.G., EVIDENCE OF CHANGES IN TEACHING METHODOLOGIES AND CURRICULA USED) HAVE BEEN MET. A LIST OF SUGGESTED MINIMUM INDICATORS FOR MONITORING AND REPORT PURPOSES HAS BEEN PREPARED BY THE CHILD SURVIVAL TASK FORCE. A COPY WAS GIVEN TO JON ROHDE.

(111). THE PP SHOULD CLEARLY INDICATE THAT THIS NEW DISBURSEMENT MODE IS CONSISTENT WITH THE AID PROGRAM SECTOR ASSISTANCE GUIDANCE (STATE 2469204, 30 AUGUST 1983). THE TEXT OF THE PID INDICATES THAT THIS IS WHAT USAID HAS IN MIND, BUT THE TITLE AND FACE SHEET SUGGEST THAT IT WILL BE HANDLED AS A PROJECT UNDER THE PROJECT ASSISTANCE GUIDELINES.

USAID MIGHT ALSO WANT TO REFER TO THE H. MORRIS DRAFT CABLE ON "PERFORMANCE DISBURSEMENT," WHICH THE MISSION

DIRECTOR HAS RECEIVED. NOTE ESPECIALLY THE NEED TO DISCUSS: (A) TIMING OF DISBURSEMENT IN RELATION TO CASH MANAGEMENT PRINCIPLES; (B) PLAN OF IMPLEMENTATION, INCLUDING THE MANNER IN WHICH PROCUREMENT RULES, MONITORING, AND REFUND SANCTIONS WILL BE APPLIED; AND (C) MONITORING, AUDIT, AND REFUND RIGHTS. USAID WILL WANT CONTROLLER PARTICIPATION WITH REGARD TO TIMING OF DISBURSEMENTS IN RELATION TO CASH MANAGEMENT PRINCIPLES.

(E). GRANT TO UNICEF: THE PID PROPOSES TO GRANT UNICEF \$25 MILLION TO SUPPORT A RECENTLY-LAUNCHED UNIVERSAL IMMUNIZATION PROGRAM (UIP). WHILE THE PID DOES NOT SPECIFY HOW THESE FUNDS WILL BE USED, IT IS LIKELY THAT A PORTION WILL FINANCE VACCINES AND COLD CHAIN EQUIPMENT. PROJECT HISTORY WOULD INDICATE A HIGH PROBABILITY THAT THE SOURCE/ORIGIN OF THESE COMMODITIES WOULD BE FRANCE. THE PP SHOULD EXPLAIN WHY USAID COULD NOT PROCURE THE VACCINES AND COLD CHAIN EQUIPMENT FROM U.S. OR INDIAN SOURCES AND IF NEED BE DONATE THEM TO UNICEF. IN ANY CASE, USAID WILL NEED TO ASSURE THAT AID-FUNDED PROCUREMENTS DO NOT INVOLVE PROSCRIBED

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COMMODITIES OR SOURCE- ORIGIN OUTSIDE CODE 935. THE PP WILL ALSO NEED TO STATE HOW OUR BUDGETARY CONTRIBUTION WILL BE GIVEN ADEQUATE RECOGNITION AND WHAT QUALITATIVE CONTRIBUTION USAID WILL BE MAKING TO UNICEF'S OVERALL EPI PROGRAM. WE HAVE POUCHED THE UNICEF-AID CHILD SURVIVAL GRANT AGREEMENT.

(C). HEALTH SECTOR/CHILD SURVIVAL STRATEGY: WE UNDERSTAND THAT THE MISSION WILL PREPARE AND SUBMIT A REVISED HEALTH SECTOR/CHILD SURVIVAL STRATEGY CONCURRENTLY WITH THE PP. STRATEGY SHOULD ADDRESS TITLE II LINKAGES. PER PARA. 1-J. BELOW.

(D). PROJECT IMPACT: GIVEN THE ADMINISTRATOR'S INTEREST IN ORT AND EXPANDED IMMUNIZATION PROGRAMS, THE PP SHOULD DISCUSS THE PROGRAM'S PROBABLE NEAR-TERM IMPACT, TO THE EXTENT POSSIBLE, ON CHILD SURVIVAL AS WELL AS THE OBJECTIVES OF PROGRAM EXPANSION AND INSTITUTIONAL DEVELOPMENT. MEASURABLE IMPACT IS ALSO EXPECTED TO BE OF INTEREST OUTSIDE AID, E.G. ON THE HILL.

(F). GROWTH MONITORING: THE RELATIONSHIPS BETWEEN IMMUNIZATION, ORT, BIRTH SPACING AND NUTRITION, PARTICULARLY GROWTH MONITORING, ARE CLEAR AND ARE EXPRESSED IN THE PROBLEM/SITUATION ANALYSIS OF THE PID, BUT NO SPECIFIC REFERENCE IS MADE TO GROWTH MONITORING IN THE PROJECT DESCRIPTION. THE PP SHOULD CLEARLY DESCRIBE HOW GROWTH MONITORING WILL BE CARRIED OUT, AND

HOW THIS PROJECT RELATES TO IT. THE PP SHOULD ALSO PROVIDE A CLEAR DESCRIPTION OF THE EXPECTED CONTRIBUTION TO PROMOTING BIRTH SPACING.

(F). ORGANIZATIONAL ARRANGEMENTS: THE PROPOSED PROJECT WILL INTERACT WITH NATIONAL, STATE AND LOCAL GOVERNMENTS. THE PP SHOULD DESCRIBE IN SOME DETAIL HOW THESE ENTITIES WILL WORK TOGETHER. WHAT WILL BE THE SPECIFIC ROLE OF EACH OF THESE ENTITIES IN PROGRAM/PROJECT IMPLEMENTATION? OF PARTICULAR IMPORTANCE IS THE STRATEGY FOR DIRECTLY REACHING THE INDIVIDUAL HOUSEHOLLS WITH EFFECTIVE ORT AND CHILD-SPACING INFORMATION. PP SHOULD ALSO SPECIFY HOW USAID EXPECTS TO MANAGE/MONITOR PROJECT ACTIVITIES; AND HOW MISSION WILL RELY UPON UNICEF, GOI OR STATE GOVERNMENTS..

(G). LONG-TERM VIABILITY - RECURRENT COSTS: THE PID DOES NOT SHOW ANY HOST COUNTRY CONTRIBUTION, MAKES MENTION OF FUNDING UP TO 100 PER CENT OF THE BUDGETARY COSTS TO THE STATES FOR TRAINING AND DOES NOT DISCUSS RECURRENT COSTS. THE PP DESIGN TEAM SHOULD INCLUDE A PERSON SKILLED IN FINANCIAL ANALYSIS WHO COULD ASSESS THE PROJECT'S RECURRENT COSTS. THE PP SHOULD PRESENT A PHASED PLAN FOR THE GRADUAL ASSUMPTION OF THESE COSTS BY THE GOI AND THE STATE GOVERNMENTS.

(H). PRIVATE SECTOR: THE PID PROVIDES LITTLE DISCUSSION OF THE ROLE OF THE PRIVATE SECTOR IN THE DEVELOPMENT AND

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IMPLEMENTATION OF THE PROJECT. THE PP SHOULD DESCRIBE LINKAGES WITH PRE/BUREAU-FINANCED SERUM INSTITUTE OF INDIA PROJECT. UNDER WHICH THE SII WILL EVENTUALLY SUPPLY MEASLES VACCINE TO THE GOI. PP DESIGN SHOULD MAXIMIZE THE ROLE OF THE PRIVATE SECTOR, PERHAPS IN PROVIDING VACCINES, COLD CHAIN EQUIPMENT AND VACCINE PACKETS. THE PP ALSO SHOULD CLEARLY DESCRIBE THE PRIVATE SECTOR'S ROLE IN TRAINING, RESEARCH, AND ACTUAL SERVICE DELIVERY. THE OBJECTIVE OF PRIVATE SECTOR INVOLVEMENT SHOULD BE TO EXTEND THE REACH OF PROJECT SERVICES, AND CREATE A BASIS FOR SELF-SUSTAINING CHILD SURVIVAL ACTIVITIES.

(I). PROJECT DESIGN EFFORT: THE PID PROPOSES THAT THE PROJECT DESIGN TEAM CONSIST OF ONE PROJECT DESIGN SPECIALIST FOR SIX WEEKS IN MAY AND JUNE. WHILE PERSONS WITH STRONG TECHNICAL SKILLS ARE PRESENT IN THE MISSION, IT IS UNCLEAR WHETHER THEY WILL HAVE THE TIME TO DEVOTE TO THIS INTENSIVE DESIGN EFFORT. IT MAY BE HELPFUL TO SUPPLEMENT THE DESIGN SPECIALIST WITH A PERSON KNOWLEDGEABLE ABOUT AID DOCUMENTATION REQUIREMENTS AND CHILD SURVIVAL ISSUES. AS INDICATED EARLIER, THE PP SHOULD ADDRESS THE ISSUE OF RECURRENT COSTS, CALLING UPON OUTSIDE CONSULTANT SERVICES IF NECESSARY.

(J). TITLE II: WHAT DOES THE MISSION FORESEE AS THE ROLE OF TITLE II IN SUPPORT OF USAID'S CHILD SURVIVAL INITIATIVES. IN PARTICULAR, HOW CAN THESE RESOURCES BE MORE EFFECTIVELY PROGRAMMED TO FURTHER STRENGTHEN ICDS EFFORTS?

2. THE MISSION IS COMMENDED FOR THE PREPARATION OF AN EXCELLENT PID. WE LOOK FORWARD TO THE REVIEW OF THE PP.

SHULTZ

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#3359

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PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project  
From FY 86 to FY 89  
Total U.S. Funding \$65 million  
Date prepared June 1986

Project Title & Number: Child Survival Health Support  
Project 386-0476

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><u>Program or Sector Goal: The broader objective to which this project contributes: (A-1)</u> The goal of the project is a significant reduction of infant and child mortality through a reduction of deaths from immunizable diseases and their complications, and deaths from dehydration due to diarrhea.</p>	<p><u>Measures of Goal Achievement: (A-2)</u> 1) Significant reduction of overall infant mortality rate. 2) Significant reduction of child deaths from inter immunizable diseases (measles, tetanus and pertussis). 3) 30% reduction in child deaths from dehydration due to diarrhea.</p>	<p><u>(A-3)</u> 1) Data on infant mortality from National Sample Registration Scheme. 2) Data on mortality from immunizable diseases may be available from sample survey 3) Reports from sentinel centers on change in % of child diarrhea cases resulting in death.</p>	<p><u>Assumptions for Achieving Goal Targets</u> That high immunization coverage of pregnant women and children will lead to reduced mortality from the immunizable diseases, That early and effective use of ORT in diarrhea will reduce the number of children dying from dehydration, and That a significant proportion of the children who are protected by immunization and ORT will not die from other causes.</p>
<p><u>Project purposes: (B-1)</u> The project purpose is to expand the proportion of children and women covered by immunization and oral rehydration therapy, and to improve the quality of the delivery of these interventions.</p>	<p><u>Conditions that will indicate purpose has been achieved: End of project status: (B-2)</u> 1) 85% of pregnant women and children under age one fully immunized. 2) ORT known and practiced in 50% of the rural homes.</p>	<p><u>(B-3)</u> 1) Monitoring data and coverage surveys under UIP. 2) Data from ORT coverage surveys.</p>	<p><u>Assumptions for achieving Purpose (B-4)</u> That expansion in UIP to all districts will lead to high immunization coverage, and that expansion of the ORT program to all districts will result in a significant increase in the home knowledge and practice of ORT.</p>

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><u>Project outputs: (C-1)</u></p> <ol style="list-style-type: none"> <li>1) Districts covered by UIP.</li> <li>2) Districts covered by the DRT program.</li> <li>3) Clinical oral rehydration training centers established.</li> <li>4) Workers trained.</li> <li>5) Competency, and needs based training methods and materials developed and in use.</li> <li>6) Client oriented market research and communications strategies.</li> <li>7) Modification of state MIS and development of new child survival indicators.</li> <li>8) Innovative studies, tests and demonstrations.</li> <li>9) Participants trained.</li> </ol>	<p><u>Magnitude of outputs: (C-2)</u></p> <ol style="list-style-type: none"> <li>1) 412 districts covered by UIP.</li> <li>2) 412 districts covered by DRT program.</li> <li>3) 106 medical college and 73 district centers established.</li> <li>4) 90% of peripheral workers (ANMs, dais, etc) trained in four project states.</li> <li>5) Competency based methods and materials in use in regional training institutions and district training programs in four project states.</li> <li>6) Market research completed and client oriented communications strategies implemented in four states.</li> <li>7) Modified MIS with new indicators in use in all four project states.</li> <li>8) 24 innovative studies, tests or demonstration completed.</li> <li>9) 80 participants trained.</li> </ol>	<p><u>(C-3)</u></p> <ol style="list-style-type: none"> <li>1) Data from UIP annual reports.</li> <li>2-3) Data from DRT annual reports.</li> <li>4-7) Data from annual state reviews and from state MIS.</li> <li>8-9) Project reports.</li> </ol>	<p><u>Assumptions for achieving outputs (C-4)</u></p> <p>That the Indian UIP is capable of reaching 412 districts with the necessary technical, financial and commodity resources,</p> <p>That the Indian Diarrheal Disease Management Program is capable of reaching 412 districts with the necessary technical and financial resources,</p> <p>That training of outreach workers, communications programs, and surveillance systems can have a significant impact on the acceptance of immunization and DRT, and</p> <p>That the GOI and states will simplify procedures to facilitate use of outside professional marketing and communications resources.</p>

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p><u>Project Inputs: (D-1)</u></p> <p>1) A contribution to the national Universal Immunization Program.</p> <p>2) Funding at the national level for the National Diarrheal Disease Management (DDM) Program.</p> <p>3) Fund transfers through the Central Government earmarked for four states to fund training, communications activities and development of improved monitoring and information systems.</p> <p>4) Support for a broad range of operational studies,</p> <p>5) Technical assistance inputs at all three levels to facilitate the policy dialogue and the transfer of technical information,</p> <p>6) Short term participant training for state level officers.</p>	<p><u>Implementation target (Type and Quantity)</u></p> <p>(D-2) See financial plan.</p>	<p>Not applicable. (D-3)</p>	<p><u>Assumptions for providing inputs (D-4)</u></p> <p>That approved AID funding will be made available in a timely manner.</p>

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NONPROJECT ASSISTANCE CHECKLIST

The criteria listed in Part A are applicable generally to FAA funds, and should be used irrespective of the program's funding source. In Part B a distinction is made between the criteria applicable to Economic Support Fund assistance and the criteria applicable to Development Assistance. Selection of the criteria will depend on the funding source for the program.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP-TO-DATE? YES.

HAS STANDARD ITEM CHECKLIST BEEN REVIEWED? YES.

A. GENERAL CRITERIA FOR PROJECT

1. FY 1985 Continuing Resolution Sec 525; FAA Sec. 634A.

Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project.

A Congressional Notification will be forwarded prior to the initial obligation of funds.

2. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

Not Applicable.

3. FAA Sec. 209. Is assistance more efficiently and effectively given through regional or multilateral organizations? If so, why is assistance not so given? Information and conclusion whether assistance will encourage regional development programs.

This activity will be supported jointly by AID and other donors. Of the total AID assistance, \$25 million will be provided through UNICEF. The assistance will not be concerned with regional development programs.

4. FAA Sec. 601(a). Information and conclusions whether assistance will encourage efforts of the country to:  
(a) increase the flow of international trade; (b) foster private

(a) Not Applicable.

(b) The project will promote private sector initiatives in the production of vaccines and medical supplies.

initiative and competition;  
(c) encourage development and use  
of cooperatives, credit unions, and  
savings and loan associations; (d)  
discourage monopolistic practices;  
(e) improve technical efficiency of  
industry, agriculture and commerce and  
(f) strengthen free labor unions.

(c) Not Applicable.

(d) Not Applicable.

(e) Not Applicable.

(f) Not Applicable.

5. FAA Sec. 601(b). Information and conclusion on how assistance will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

U.S. technical assistance will mostly be provided through contracts with private sector.

6. FAA Sec. 612(b); Sec. 636(h); FY 1985 Continuing Resolution Sec. 507 Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars

The Government of India will finance about 49 percent of all costs. The Development Coordinating Committee determined in 1977 that local costs could be dollar financed in India rather than funded with U.S.- owned rupees. This policy decision has been subsequently ratified through the approval of ABS's and individual projects.

7. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and if so, what arrangements have been made for its release?

U.S. owned rupees are being used for various U.S. Government agencies' programs and for administrative support. Effective Oct. 1, 1985, India's designation was changed from an excess currency to a near-excess currency country.

8. FAA Sec. 601(e). Will the assistance utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

YES.

9. FAA 121(d). If assistance is being furnished under the Sahel Development Program, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of A.I.D. funds?

Not Applicable.

10. FY 1985 Continuing Resolution Sec. 536. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?

NO.

B. FUNDING CRITERIA FOR NONPROJECT ASSISTANCE

1. Nonproject Criteria For Economic Support Fund

Not Applicable.

2. Nonproject Criteria For Development Assistance

a. FAA Sec. 102(a); 111, 113, 281(a)  
Extent to which activity will (a.) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b.) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c.) support the self-help efforts of developing countries; (d.) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e.) utilize and encourage regional cooperation by developing countries?

(a.) By focusing on the delivery of key child survival interventions, this program will seek to reduce the incidence of infant and child mortality, particularly among the poor.

(b.) Not Applicable.

(c) This program entirely supports Indian self help by building up support personnel, demonstration and delivery capabilities of the health system.

(d.) Women, along with children under two years of age, are the targeted beneficiaries of the project.

(e.) Not Applicable.

b. FAA Sec. 103, 103A, 104, 105, 106, 107

Is assistance being made available: [104] for population planning under sec. 104 (b) or health under sec. 104 (c); if so, extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems and other modes of community research.

This program fits the criteria for section 104 funds.

c. FAA SEC. 118 (c) and (d). Does the assistance comply with the environmental procedures set forth in AID Regulation 16? Does the assistance take into consideration the problem of the destruction of tropical forests?

The assistance complies with the environmental procedures. The destruction of tropical forests is not applicable in this case.

d. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase or productive capacities and self-sustaining economic growth?

YES.

e. FAA Sec. 281(b). Describe extent to which activity recognizes the particular needs, desires and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental and political processes essential to self-government.

India has a very high incidence of infant deaths which is a cause for serious concern. The GOI has recently restructured its health care programs some of whose objectives are to make vaccination services available to all eligible women and children by 1990; to include measles immunization in the immunization program; and to develop a national oral rehydration program. This program is in direct consonance to these objectives and will also address other related issues of manpower and institutional development through training, research and improved delivery of health care benefits.

STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? YES.
  
2. FAA Sec. 604(a) Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him? All procurement will be from the U.S. or India unless otherwise agreed.
  
3. FAA Sec. 604 (d). If the co-operating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company? The country does not so discriminate.
  
4. FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.) Not Applicable.

5. FAA Sec. 604(g). Will construction or engineering services be procured from firms of countries which receive direct economic assistance under the FAA and which are otherwise eligible under Code 941, but which have attained a competitive capability in international markets in one of these areas? Do these countries permit United States firms to compete for construction or engineering services financed from assistance programs of these countries?

Not Applicable.

6. FAA Sec. 603. Is the shipping excluded from compliance with requirement in Section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates?

Shipping is not excluded from compliance with Section 901(b).

7. FAA Sec. 621 If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Technical assistance will be furnished by private enterprise on a contract basis to the maximum extent practicable.

8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

YES.

9. FY 1985 Continuing Resolution Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

YES.

B. Construction

1. FAA Sec. 601(d). If capital (e.g. construction) project, will U.S. engineering and professional services be used?

Not Applicable.

2. FAA Sec. 611(c) If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

Not Applicable.

3. FAA Sec. 620(k) If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP)?

Not Applicable.

C. Other Restrictions

1. FAA Sec. 122(b) If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?

Not applicable. This will be a grant-funded program.

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2. FAA Sec. 301(d) If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? Not Applicable.
3. FAA Sec. 620(h) Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? YES.
4. Will arrangements preclude use of financing:
- a. FAA Sec. 104(f); FY 1985 Continuing Resolution Sec. 527
- (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (1) YES.
- (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (2) YES.
- (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (3) YES.
- (4) to lobby for abortion? (4) YES.
- b. FAA Sec. 488. To reimburse persons, in the form of cash payments, whose illicit drug crops are eradicated? YES.
- c. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? YES.

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- d. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? YES.
- e. FAA Sec. 662. For CIA activities? YES.
- f. FAA Sec. 636(1). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? YES.
- g. FY 1985 Continuing Resolution, Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel? YES.
- h. FY 1985 Continuing Resolution, Sec. 505. To pay U.N. assessments, arrearages or dues? Yes.
- i. FY 1985 Continuing Resolution, Sec. 506. To carry out provisions of FAA Section 209(d) (Transfer of FAA funds to multilateral organizations for lending)? YES.
- j. FY 1985 Continuing Resolution, Sec. 510. To finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields? YES.
- k. FY 1985 Continuing Resolution, Sec. 511. Will assistance be provided for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? Such assistance will not be provided.
- l. FY 1985 Continuing Resolution, Sec. 516. To be used for publicity or propaganda purposes within U.S. not authorized by Congress? Such purposes will not be financed.

Annex D

The Borrower/Grantee request for assistance will be received before the loan and grant agreements are signed.

TECHNICAL ANALYSISA. GENERAL

A technical evaluation in the sense prescribed in AID Handbook 3, that is whether the project "is consistent with the body of knowledge about possible solutions to a given problem existing within the professional community" is not required here. The fundamental technical soundness of programs of immunization and oral rehydration is clearly established and has led to their selection as the "twin engines" of AID's overall child survival strategy.

Nor is fundamental social soundness an issue. The social soundness analysis for the IRHP project concluded the following: "It can be said that the delivery system of health care and family planning services as presently designed and in operation is consistent with prevailing norms and practices and that we see no serious obstacles to the ability of the proposed project to provide effective health care and family planning services in rural India." Experience under the IRHP and ICDS projects has confirmed this judgement. While social constraints, such as the limited participation of women, must be taken into account in the planning and design of project activities, they are not insurmountable.

Rather, what is involved from a technical standpoint is a series of subordinate feasibility issues that have technical aspects but are as much questions of social and administrative feasibility as they are technical per se. These issues are assessed in the succeeding sections of this analysis.

B. IMMUNIZATION

The technical efficacy of the vaccines in use in the Indian UIP Program need not be reviewed here. All vaccines used in the program are produced following international procedures and are periodically certified by W.H.O. No vaccine will be purchased for the program which had not received continuing technical scrutiny to conform to international quality standards.

It is notable that for the first time in India the EPI has introduced the principle of "One needle - one syringe per injection" thereby dramatically increasing use of properly sterilized instruments and providing an adequate supply of both injection and sterilization equipment in the periphery to

assure proper sterilization of all parenteral injections. Thus, UPI is serving to lead the health system towards substantially improved procedures not only in immunization but in all practices related to parenteral injections.

With standardization of cold chain equipment and the use of specially designed icelined refrigerators, engineered to withstand wide variations in electrical power and frequent power failure or interruption, the technical quality of cold chain and thereby vaccine conservation is optimized through this project. All refrigeration equipment is carefully chosen to assure effective operation in the Indian rural environment and designed to withstand the rigors of both climatic and electrical uncertainties found there.

Operational feasibility of UIP has been developed during the past five years in smaller district level operational trials as reported in the 1985 UNICEF's State of the World's Children Report. These trials demonstrated the feasibility of detailed operational planning at the district level. Choosing the district as the operational and managerial unit enables implementation and monitoring to be carried out with adequate detail and care to assure the high coverage levels envisioned in the project goals. Ninety five percent DPT, BCG and polio coverages were achieved in Bidar district during 1983 and levels approaching 90 percent coverage were achieved in the large municipal Delhi Union Territory. These high levels of coverage of target beneficiaries are made possible by the program focus on infants less than 12 months of age. The focused age group is desirable for three reasons:

- 1) Protection is provided early in life prior to exposure to these diseases thereby avoiding vaccine failures simply because of prior illness;
- 2) Age specific case fatality rates are invariably higher in younger age groups. Maximum mortality impact is found when the younger child is protected from illness;
- 3) By focusing on newborns and infants in the first year of life, the community and workers see a narrow time window in which to accomplish their tasks and therefore place all efforts to reach this relatively small segment of the population.

Enumeration of eligibles and registration of ongoing births has proved to be a critical step in assuring program coverage. Previous efforts in EPI have looked only at number of

immunizations given and never attempted to enumerate the target population by establishing clearly the denominator or clientele, not only in total numbers, but also by identifying precisely where they live and when they receive necessary immunizations. Enumeration house to house has been shown to be the most effective means of assuring high participation and has been carried out by existing health service personnel as part of their routine home visiting activity. The development of a Village Register for immunization is both consistent with job descriptions of existing field staff and provides additional incentives for house to house coverage and contact for these workers.

The rural immunization strategy is built upon the extensive public health network reaching into each village through 400,000 village health volunteers supported by paramedical workers (ANMs) at subcenters supplied and supervised from the block Primary Health Center and with overall management from the district. Urban areas, some 25 percent of India, will require a different strategy mobilizing private practitioners through the Indian Medical Association as a proven means of contacting a majority of urban dwellers. In 1979, only one year after the initiation of EPI in India, a National Random Sample Survey covering over 4 million population showed attainment of 85 percent to 90 percent small pox vaccination in urban areas, with BCG 50 percent to 60 percent, DPT 35 percent to 40 percent. In contrast, the rural attainment for DPT was only 6-8 percent, BCG 20 percent to 25 percent and polio less than 5 percent. The clear government policy to involve some 300,000 licensed doctors, through their professional societies, particularly Indian Medical Association, in the urban immunization program by the provision of free vaccines in exchange for regular reporting will provide immunization services to millions of urban infants and mothers.

Alternative approaches to immunization have been considered. The EPI in India, a national program since 1978, has reached levels estimated at only 20 to 30 percent of rural children. Analysis shows that immunization has largely been clinic based and occurs on a limited numbers of days. The age range for children to receive vaccines is far too broad providing both health worker and mother with the false impression that they have years in which to immunize each child. Cold chain has been remarkably weak and it is likely that large amounts of vaccine have actually been ineffective when finally injected into a child. Poor staff training and motivation plus establishment of very low targets in EPI have all contributed to low performance.

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Campaigns involving one or several days of major public mobilization supported by all public health employees to immunize large proportions of target children have become popular in numerous countries in recent years. Small scale efforts with this type of approach have been tried in India, with fleeting success: Madras with polio vaccine and rural areas of AID-IRHP projects with measles vaccine are examples. The effort to achieve widespread social mobilization and involvement in single campaign activities of this kind appear unlikely. In any case, even the most optimistic admit that campaign strategies are simply not sustainable as a means of providing continued high level immunization coverage.

Single antigen strategies have been tried in the past, most notably with small pox where by the late 1970s numerous surveys showed children immunized in rural areas at 70 to 90 percent, in urban areas consistently above 85 percent of all young children had received small pox. At the same time, DPT and Polio were less than 10 percent in rural areas and rarely exceeded 30 percent in the urban areas. The city of Madras had some success with control of polio through a mass campaign and IRHP through innovative efforts in Maharashtra has demonstrated high coverage measles vaccination can occur in the rural setting. More recent efforts to immunize in the city of Simla prior to the measles season was nowhere nearly as successful, only an estimated 20 percent of target children were covered in a well supported public campaign in 1986. Single antigen campaigns or programs are not sustainable and simply confuse the public with respect to the requirement for repeated immunization of their child and the importance of routine immunization activities to cover all six EPI diseases.

The UIP strategy builds a sustainable system utilizing the infrastructure already in place and actually strengthening that infrastructure to achieve a higher level of coverage. The district, large enough to be a significant population, has administrative and management staff capable of mounting the logistic support, training, supervision and monitoring necessary, to assure a sustainable and effective effort. UIP in India, now in its second year, is being extended from 30 to 90 districts, an area roughly comparable to the population of the United States. Coverage in the first 30 districts has already reached levels over 60 percent of infants fully immunized. In some districts it has exceeded 80 or 85 percent. The technical feasibility of UIP is clearly established. It remains now to expand this program to the entire nation.

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### C. ORAL REHYDRATION THERAPY

Effectiveness of ORT when introduced and used properly in public health programs has been widely publicized and discussed, particularly in AID documents. The success of this program requires early proper use of effective fluid therapy in the home at the onset of diarrhea as well as timely referral for children with more severe disease who must receive proper therapy from health workers at higher levels, for mortality to be effectively reduced. The technical necessity of this two-pronged approach has been dramatically shown in experience in other countries.

BRAC in Bangladesh mounted a successful house to house training program, the largest of its kind in the world. Unfortunately, lack of support of medical practitioners, both modern and traditional in that country has led to a relatively modest impact on deaths.

Earlier experience of USAID in Menoufia in Egypt showed that in spite of house to house distribution of ORS packets and instruction in their use when doctors were not involved and supportive, mortality rates were unchanged.

Recently the successful mass media effort in Gambia which introduced household rehydration to almost 90 percent of rural Gambian mothers also fell short of its potential due to lack of an effort to involve the formal health system in promoting the use of ORT.

Experience in Indonesia has shown in spite of formal retraining of medical doctors and support by professional societies, particularly the Indonesian Pediatric Society, of oral rehydration, that acceptance of the technology is restricted almost entirely to teaching in hospitals and the practice of young specialists. It has not penetrated either the public health system nor the public in general.

Successful reduction in mortality in the University Hospital in Port-au-Prince in Haiti, showed one of the most dramatic declines in diarrhea mortality associated with the introduction of ORT. This success unfortunately was not accompanied by similar mortality reductions in rural district hospitals where doctors clung to more traditional and less effective ways of managing diarrheal disease.

Where early home rehydration and professional retraining and clinical experience in ORT have been simultaneously implemented, most notably in Egypt and Honduras, a dramatic fall in mortality has been seen. The India ORT strategy embraces both of these principles.

ORT clinical training units will be established in all medical colleges initially for experiential training of college staff and students as well as to serve as model referral units for district hospitals in the region. Eight such model units are currently functioning in India and have shown their effect not only on mortality and hospitalization rates, but also on the practices of doctors trained in their units. During the course of this project, similar units will be established in each of the district hospitals, over 400 in number, where between 50 and 200 patients per day are present with the complaint of diarrhea. This level of case load is necessary for active training experience and is the reason that all doctors will be brought to the district level for clinical experience rather than attempting to establish ORT units more peripherally at health centers and dispensaries. Some 25,000 government doctors, between 50 to 100 doctors per center, will be trained in each clinical ORT teaching unit per year. This allows a week long experience in groups of two or three at a time giving major responsibility and extensive experience in case management. The 300,000 licensed qualified allopaths will be offered opportunities for experience in the same settings in subsequent years at the rate of two or three per center per week; more than 50,000 per year will be trained.

The second major element of the ORT strategy is outreach to practitioners in the rural areas. A large nationwide market survey of 140 villages and a thousand mothers shows that local practitioners usually of traditional Indian medicine: Ayurveda, Unani, Homeopathy, are by and large the first contact between mother and professionals for the more severe or prolonged cases of diarrhea. Practitioners, some 400,000 in number preferentially located in rural areas, are reached predominantly through drug supply houses and other distribution networks attempting to sell pharmaceutical and health related products. An example of the pervasiveness of this system is illustrated by ELECTRAL, a commercial ORT product produced by a Bombay firm, which is known in more than 90 percent of villages and by virtually 100 percent of rural practitioners contacted. It is more well known than the government supplied ORS packet available not only in health facilities but also through every one of the 400,000 health guides in the country. The ability of the private marketing sector to reach this vast cadre of private practitioners is impressive and will be the key element of the ORS phase of the ORT strategy.

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The technical feasibility of introducing Oral Rehydration in Indian households has long been questioned both by health professionals as well as others. Illiterate mothers have been characterized as withholding both fluid and food during diarrhea, making a message to provide fluid largely unacceptable. Careful investigation on a nationwide market survey has fortunately proven this opinion incorrect. Throughout the country independent surveys in 35 ethnic and geographical areas stratified to be representative of major divisions of India, have shown a universal acceptance of the concept of replacing fluid and willingness to use household fluids in response to diarrhea. Thus, the household rehydration message will build on existing cultural beliefs and practices. In addition, although the normal foods may be reduced or withheld, the same survey has shown broad receptivity to the idea of special soft easily digested rice based foods in diarrhea, thereby facilitating the acceptance of the food messages in the oral therapy strategy. Efforts to reach each household will be dependent upon the outreach of special ORT trainers who, in contrast to the normal trickle down lecture approach, will demonstrate effectiveness of active training methods introduced at the subcenter level. All village based staff, mostly village volunteers, traditional birth attendants, as well as the subcenter paramedical worker will be trained in home ORT techniques and particularly in the methods for training and motivating mothers. The feasibility of this approach has been demonstrated in three districts by CARE India. Over 70 percent of rural mothers were reached and more than 50 percent used home ORT for their children.

The use of incentives to pay for number of mothers trained, verified by sampling techniques at the household level, will assure that the skills have been assimilated. Based upon the Brac experience, similar incentive approaches will be tried in India. Precise details of the training activities, supervision and monitoring will be worked out through operational trials, in a number of districts in the early part of the project. However, the feasibility of training mothers in the villages and their responsiveness to the desired behavior has been well demonstrated.

#### D. STATE LEVEL ACTIVITIES

Statelevel activities in child survival build upon experience in the IRHP Project where in the same states, a major part of the AID input has been through the Health and Family Welfare Training Centers in conducting a training needs assessment and the modification of curriculum and training methodologies to

better accomplish the skill objectives of training of all levels of health staff.

Similarly, AID experience has amply demonstrated the feasibility of use of private sector market research firms in the development of the baseline behavior pattern for the ORT program, and to establish feeding and health seeking practices within the ICDS project. Results of these market investigations have been fed into program plans and have substantially influenced communication materials: posters, radio, television etc. Mass media approaches have been shown to have high outreach and impact, particularly in urban but also in rural settings of India, and are an important means of influencing health related behavior in the child survival project.

Experience in IRHP and ICDS Projects has shown state level receptivity to streamlining and focusing of information systems to better manage ongoing programs. The experience is complemented by the current UNICEF/WHO involvement with the national MIS for UIP which is already being computerized on locally manufactured microcomputers. The feasibility of increased use and feedback of management information has been amply demonstrated and it remains for this child survival project to implement improved management through improved information system on a broader scale.

The technical feasibility for computerization of both hardware and software has been well demonstrated by the ICDS project in which management information system development is an integral part. Both Indian hardware and related software have proven to be appropriate and affordable systems.

#### E. INNOVATIVE AND DEMONSTRATION STUDIES

The massive size of India makes obvious the necessity of careful development of new programs on an operational scale that is both effective and affordable. There exists in India, both in the public as well as private sector, a tremendous array of experience and capacity related to conducting of effective well controlled field trials, demonstrations, innovative studies and operational research. Through both Government and a large number of private institutions, voluntary agencies and commercial firms, many of the innovative programs which have eventually become part of the Indian government health programs in family planning and nutrition have evolved from smaller demonstrations. The technical

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feasibility of carrying out scientifically valid, operationally sound, well managed innovative studies is well demonstrated both through previous AID projects such as ICDS, IRHP as well as the experience of other agencies, World Bank, UNICEF, DANIDA, CARE and a host of private volunteer groups and commercial firms throughout India. The technical feasibility of designing and conducting effective field studies seems obvious in the large array of published articles in Indian and international professional journals and a major contribution that these organizations have made to the understanding of both the scientific backgrounds and the managerial implementation of interventions in child survival, health and nutrition. Technical feasibility of innovative studies would seem assured under this program.

F. The Role of Women

This project requires a substantial involvement of women. They are the primary targets of both the UIP program (for themselves and for their infant children) and of the major home use dimension of the ORT program. Also, the primary training and implementation focus of both UIP and ORT is an peripheral workers - village health guides, dais, anganwadi workers and primary health care workers, - some 90 percent of whom are women.

FINANCIAL ANALYSISA. Universal Immunization

There are three separate estimates of the cost of universal immunization in India. They have been prepared with different methodologies and cover different ranges of costs. There is substantial overlap among them, but they cannot be completely reconciled with each other because of the different methodologies involved. The first of these is an estimate of the total costs of the Expanded Program of Immunization (EPI) and the Universal Immunization Program (UIP) over the five years of the 7th plan. These estimates are shown in table F-1 below. They were calculated on the basis of overall average cost estimates developed at the Bellagio conference. These are:

- US \$5 per child immunized at low coverage in the first year, and
- US \$3 per child immunized at high coverage in each subsequent year.
- US \$3.50 per pregnant women immunized at low coverage in the first year, and
- US \$3 per pregnant women immunized at high coverage in each subsequent year.

The cost estimates in Table F-1 are useful only as indicators of the true total cost of universal immunization in India. But they have limited utility for the purpose of this analysis of project costs, because they include substantial - certainly more than 50 percent - sunk costs of the Indian health establishment. Foremost among these are the salaries of personnel throughout the health system who will administer immunization in conjunction with their other duties. Because the estimates in Table F-1 contain such a large element of sunk costs they are four times as great as the Government's estimate of the incremental costs of UIP.

TABLE F-1

Total Costs of Universal Immunization in India  
(Million US \$)

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>Total</u>
EPI	103	87	71	46	14	321
UIP	17	43	79	124	166	429
Total	<u>120</u>	<u>130</u>	<u>150</u>	<u>170</u>	<u>180</u>	<u>750</u>

Source: UNICEF Estimates.

The second set of cost estimates covers the cost of supplying all districts with the inputs supplied by UNICEF for the first 30 UIP districts. These estimates are shown in Table F-2. They have been calculated on the basis of US \$216,000 per district in the first year and US \$26,000 per district in each subsequent year. These estimates have an implicit allowance for inflation, since local costs were calculated on the basis of Rupees 10 per US dollar. However, they do not include the recent substantial increase in the price of measles vaccine, which would add \$6,000 per district per year if it holds true. The cost estimates in Table F-2 are wholly subsumed in the overall cost estimates in Table F-1 above, and in the government's estimate of incremental costs, which are discussed below. The primary utility of the estimates in Table F-2 is as a measure of the donor assistance required by the Government for support of UIP during the 7th plan. Of the total of \$105.8 million, UNICEF has pledged \$26.8 million. This project would provide an additional \$25 million, and the balance is expected to become available from other donors, including the European Economic Community, Canada and Denmark.

Table F-2

Incremental Costs of UIP-UNICEF Type of Support  
(US \$ millions)

Year	New Districts Covered	Cum. Total Districts Covered	Costs By Year					Total
			1st	2nd	3rd	4th	5th	
1985	30	30	6.0	.78	.78	.78	.78	9.12
1986	60	90	-	13.00	1.56	1.56	1.56	17.68
1987	90	180	-	-	19.44	2.30	2.30	24.04
1988	120	300	-	-	-	25.92	3.10	29.02
1989	120	420	-	-	-	-	25.92	25.92
	Total		<u>6.0</u>	<u>13.78</u>	<u>21.78</u>	<u>30.56</u>	<u>33.66</u>	<u>105.80</u>

Source: UNICEF Estimates.

The best available estimates of the total direct incremental costs of UIP are those contained in the Government's planning document, "Towards Universal Immunization". Those costs are summarized in Table F-3.

Table F-3Estimated Expenditures for UIP, By Indian Fiscal Year  
(US \$ millions)

	<u>Total</u>	<u>1985/86</u>	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u>
Non-recurring	59.8	4.9	9.8	11.7	18.6	14.8
Recurring	<u>131.0</u>	<u>15.4</u>	<u>19.7</u>	<u>24.9</u>	<u>31.7</u>	<u>39.3</u>
Total	<u>190.8</u>	<u>20.3</u>	<u>29.5</u>	<u>36.5</u>	<u>50.3</u>	<u>54.1</u>

Source: Towards Universal Immunization.

The non-recurring costs in Table F-3 have been built up from specific item requirements for equipment, with a modest (approximately 6 percent) allowance for inflation. They include all of the equipment costs included in the UNICEF estimates in Table F-2.

The recurring costs shown in Table F-3 have been developed by category, as shown in Table F-4. They include the equipment and supplies, such as syringes and needles, supplied by UNICEF, but do not include minor amounts spent directly by UNICEF, primarily for training. The recurring costs in Table F-4 are almost certainly understated, primarily in the categories of training, which is not included and communications. Evidence of the latter can be found in the fact that posters alone for the 60 new districts in 1986/87 consumed 70 percent of the total expenditures estimated for health education materials for this year. However, even if the estimate for communications is doubled and an equal amount is provided for training, recurring costs would only increase by 10 percent over the 5 years of the 7th plan. Given the strong political support for UIP, the amount is almost certain to be made available either from the regular MOHFW budget for those categories, or by plan amendment.

#### E. Oral Rehydration

The approved plan for diarrhea disease management is an outline plan, and does not contain detailed costs estimates for the remaining four years of the 7th plan. However, the approved plan includes a total of \$20.8 million for the direct costs of the ORT program over the next four years. In addition, the Ministry has indicated that it can make an additional amount of from \$12.5 million to \$16.7 million available for the ORT program from its regular budgets for training and communications, and the regular budget already includes an estimated \$8.3 million for pre-packaged oral rehydration salts over the four years.

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Table F-4  
TOTAL DIRECT INCREMENTAL COSTS OF UIP  
 (U.S. \$million)

	<u>Total</u>	<u>1985-86</u>	<u>1986-87</u>	<u>1987-88</u>	<u>1988-89</u>	<u>1989-90</u>
Vaccines	68.4	8.3	10.4	13.0	16.3	20.3
Syringes and Needles	27.4	3.3	4.2	5.2	6.5	8.2
Immunization Cards	8.5	1.5	1.6	1.8	1.8	1.9
POL Vans Vehicles	2.9	0.2	0.4	0.7	0.8	0.9
Maintenance allow- ance mopeds	3.6	-	0.3	0.6	1.3	1.5
Maintenance repairs Cold Chain	3.4	0.2	0.3	0.5	1.0	1.3
Health Education material	4.1	0.5	0.6	0.8	1.0	1.3
Monitoring and evaluation	2.3	0.3	0.3	0.4	0.6	0.7
Contingency	2.3	0.3	0.3	0.4	0.6	0.7
Incentives	2.3	0.3	0.3	0.4	0.6	0.7
Salaries	5.8	0.7	0.9	1.1	1.4	1.8
Total	<u>131.0</u>	<u>15.4</u>	<u>19.7</u>	<u>24.9</u>	<u>31.7</u>	<u>39.3</u>

Source: Towards Universal Immunization.

Because the implementation details remain to be worked out and because there are a number of outstanding policy issues to be resolved, it is not possible to assess the adequacy of the available funds for ORT for the remainder of the 7th plan. However, more detailed costing that was prepared by the Mission and UNICEF for a full five year program indicated a total cost of \$50 million. The budgeted availability of \$41.6 to \$45.8 million compares favourably with this estimate, especially when one allows for the fact that we are already well into the first scheduled year of the program and implementation has not started yet. Indeed, a detailed implementation plan for the year remains to be prepared.

It should be emphasized that the costs discussed above are four year costs, while this project will support the national ORT program over a five year period. Thus, the project's share of total costs will be less than would appear from a comparison of project costs and the approved 7th plan totals.

#### C. Recurring Costs

The recurring costs of UIP for 1989/90 are estimated by the Government at \$39.3 million. Allowing an additional 10 percent for training and communications would bring this annual requirement to \$43.2 million.

Many of the costs of the ORT program are one-time costs such as the training of all peripheral workers. Unlike UIP, where new children must be immunized in the first year, once ORT is known and used it will be a part of the normal practice and culture, the costs to sustain it will be less than the costs to install it. However, this maintenance level will not be reached in the early years of the 8th plan. If one assumes a reasonably phased expansion to reach all districts by 1989/90, then 37 percent of the 7th plan costs, or \$7.8 million will be incurred in the final year and this level is likely to continue into the 8th plan.

Thus a total of approximately \$51 million will be required in the first year of the 8th plan for the costs of the UIP and ORT programs. These amounts will have already been included in the regular budgets for health and family welfare in 1989/90 and thus are built into the base for 1990/91. Moreover the total of \$51 million represents only 5 percent of the average total annual allocation for health and family welfare in the 7th plan. It seems evident that India will be able to meet the recurring costs of the UIP and ORT programs in the years after support from this project ends.

Recurring costs for state level activities cannot be calculated until detailed state implementation plans for training, communications and MIS have been prepared. However, recurring costs for these activities will be less of a problem than would appear from the fact that the project will fund the total costs of implementation plans. The majority of the costs under this project component will be non-recurring costs. In training this will include such one time events as the preparation and publication of course materials and training of existing peripheral workers. Once an MIS system is designed, hardware bought and the system installed, operating costs will be very low. Much of the work of operating the systems will be done by already existing staff. Non-recurring costs are less in the area of communications, where radios and TV messages must be repeated, posters replaced etc.

Although recurring costs for state level activities will not be great, some provision must be made in the project to insure that these costs will continue to be met after the project ends.

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Extract from State 099765

6. The indicators for annual reporting have been simplified and clarified as follows:

ALL PROJECTS

Total population covered by project  
 No. children 0-60 mos. covered by project  
 Estimated no. annual live births

ORT

TIER 1: Resources budgeted  
 Annual estimated expenditures  
 No. ORS packets imported and locally produced by the project, by size  
 Cost per packet to project  
 Price per packet to the consumer  
 No. health workers trained to teach ORT  
 Total no. of health workers in project area  
 No. service units and distribution points with ORS on hand (Public and private sector)  
 Total no. of service units and distribution points in project area.

TIER 2: Tier 1 plus the following -  
 No and % of health workers demonstrating ORT knowledge and skills  
 No. and % individuals with knowledge of ORT  
 No. and % children (0-60 mos.) ever given ORT  
 No. and % children (0-60 mos.) with diarrhea in last two weeks given ORT  
 No. and % children 0-60 mos. with severe dehydration per year

TIER 3: Tiers 1 and 2 plus the following -  
 Cost per treated episode  
 Cost per death averted  
 Mortality rate, 0-12 mos. and 13-60 mos.  
 Mortality due to (or associated with) severe dehydration among children 0-12 mos. and 13-60 mos.  
 % children 0-12 mos. and 13-60 mos. less than 60% weight for age

IMMUNIZATION

TIER 1: Resources budgeted  
 Annual estimated expenditures  
 No. vaccine doses imported and locally produced by the project, by type  
 No. of health workers trained to teach about or give immunizations  
 Total no. of health workers in project area  
 No. service units with an adequate supply of appropriate vaccines  
 No. service units with effective cold chain  
 Total no. of service units in project area

TIER 2: Tier 1 plus the following -  
 No. and % of children at 12 mos. who have received Polio 1, Polio 3, Measles, BCG, DPT 1, 3 and All immunizations  
 No. and % of children under 12 mos. who have received Polio 1, Polio 3, Measles, BCG, DPT 1, 3 and All immunizations  
 No. and % of children 12-24 mos. who have received Polio 1, Polio 3, Measles, BCG, DPT 1, 3 and All immunizations  
 No. and % of children under 5 who have received Polio 1, Polio 3, Measles, BCG, DPT 1, 3 and All immunizations  
 Immunization status (type) by age of child (mos.)  
 No. and % of women of reproductive age who have received two doses of TT  
 No. cases of neonatal tetanus per year  
 No. cases of measles per year  
 No. cases of polio per year

TIER 3: Tiers 1 and 2 plus the following -  
 Cost per protected child  
 Cost per death averted  
 Mortality rate among children 0-12 mos. and 13-60 mos.  
 Disease - specific mortality, morbidity rates (NNT, tetanus, polio and measles) among children 0-12 mos. and 13-60 mos.  
 % children 0-12 mos. and 13-60 mos. less than 60% weight for age

NUTRITION

## TIER 1: Resources budgeted

Annual estimated expenditures

No. health workers trained to teach infant and child feeding practices

Total no. of health workers in projected area

No. service units providing growth monitoring services

Total no. of service units in project area

No. children enrolled in growth monitoring

No. of children (0-12 mos. and 13-60 mos.) weighed in last three mos.

## TIER 2: Tier 1 plus the following -

No. and % workers demonstrating growth monitoring and nutrition counseling skills

No. and % children breastfed at birth

No. and % children breastfed at 6 mos.

No. and % children breastfeeding and eating semi-solids at 6 mos.

No. and % children identified as malnourished (less than 80% weight for age)

No. and % children identified as severely malnourished (less than 60% weight for age)

No. and % children with edema

## TIER 3: Tiers 1 and 2 plus the following -

Cost per child monitored

Cost per death averted

Mortality rate among children 0-12 mos. and 13-60 mos.

Mortality rate among children 0-12 mos. and 13-60 mos. due to or associated with malnutrition

Morbidity and mortality associated with Vitamin A deficiency among children 0-60 mos.

7. All projects in emphasis countries (see refitel) with significant child survival activity are required to report annually; such reports being due by October 31 of each year. The minimum set of indicators required are TIER 1 indicators. Large (greater than \$1 million) projects also must report TIER 2 indicators. Other projects are encouraged to report TIER 2 indicators as their capabilities develop. TIER 3 has been renamed "special studies" to reflect its

focus on program impact and cost-effectiveness studies. In general, TIER 3 activities should be limited to those projects having a research capability. However, all projects carrying out research of broader interest are encouraged to share their results. Also, please note that the basic data which are collected to generate these child survival indicators must be available in electronic (i.e., tape or diskette) or other suitable form for purposes of comparative analysis.

8. In addition to reporting on indicators included in this cable, Missions are encouraged to provide their Bureaus, on a periodic basis, with descriptive or anecdotal information about child survival activities and projects (e.g., success stories, special days, proclamations, etc.) to be used for speeches, testimonies, briefing materials, and other similar purposes.