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NUTRITION
TECHNICAL
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# Enhancing Child Survival Impact of PL480 Title II Program in India

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## 1. EXECUTIVE SUMMARY

One of USAID/India's five strategic objectives is (SO3) "Improved Child Survival and Nutrition". This SO seeks to reduce the high levels of child mortality and malnutrition in the country. Although results from current activities under the SO have been encouraging, the high rates of mortality and malnutrition are compelling reasons for USAID to further invigorate the SO. Therefore, USAID proposed exploring options for a) enhancing the child survival impact of the current activities under the SO and b) expanding USAID/India's child survival efforts beyond existing activities.

The principal activity under the SO is the $90 million PL480 Title II program implemented by CARE and CRS. CARE/India's Integrated Nutrition and Health Program (INHP) and CRS/India's Safe Motherhood and Child Survival (SMCS) program reach over 7 million poor women and children at the greatest risk of mortality, morbidity and malnutrition in rural and remote tribal areas.

The purpose of the review was to examine the potential of the Title II program to enhance Child Survival and to suggest practical means of strengthening the Child Survival impact of this large program. The review, a joint effort of Title II partners, USAID/W, USAID/India, and cooperating agencies - FANTA and MOST - was a rapid, collaborative process that included field visits to INHP and SMCS sites, meetings with key partners and stakeholders, and document review. The team looked at the major killers of young children in the target states, considered proven interventions, and examined the possibilities for enhancing child survival given current PVO roles, INHP and SMCS program structures, strategies, interventions, outreach, strengths and opportunities. An important consideration was the fact that these programs are approaching the end of their five-year program cycle and are following up on the recommendations of the recently concluded mid-term reviews.

The team concluded that USAID/India and their Title II partners have an opportunity to enhance child survival by building on the existing strong and extensive platform of the Title II Program.

- The outreach of these programs is enormous and offers USAID invaluable ready access to a large number of "at-risk" women and children. CARE's INHP operates in 7 States and reaches about 7 million children and pregnant women in over 103,000 villages with targeted supplementary food and selected health services. CRS's SMCS operates in 3,000 villages in 15 States and reaches over 206,000 children under-3 and pregnant and lactating mothers with targeted supplementary food, nutrition and preventive health services.
- Both programs are clearly child survival programs promoting a number of key child survival services such as immunizations, antenatal care, and appropriate infant feeding practices. These programs are largely using food-aid as the primary tool to impact child survival.
- Both programs have strong elements of community ownership and participation. Thus, they offer a potential for enabling communities to be directly engaged in Child Survival and to adopt it as their objective.

The team also agreed that there is considerable scope for improving the quality and coverage of ongoing interventions within the Title II program and for phasing in other critical child survival

interventions to reduce the persistent and unacceptably high levels of infant mortality in the target states. The team recommends that USAID use this platform to further reduce infant and child mortality and consider providing additional resources and technical assistance in the specific areas identified.

**Recommendations:**

The interventions identified by this team to help USAID and the Title II partners achieve measurable progress and real impact in child survival are grouped into two broad categories: a) those to be implemented in the short term, i.e. the next 3-5 years, and b) those to be considered over the medium term, i.e. the next 5-7 years. Though these programs are being implemented over several states of the country, it was agreed that the focus of this exercise would be limited to three priority states of UP, MP, and Rajasthan. Since these programs are promoting interventions that can be implemented at the community level by community-level Anganwadi workers (AWWs), auxiliary nurse midwives (ANMs), village health workers (VHWs), traditional birth attendants (TBAs), community groups, and the families themselves, only community-based interventions in the following technical areas were considered:

- Strengthening routine immunization coverage and delivery
- Improving coverage of vitamin A supplementation program per GOI policies
- Reducing neonatal mortality - antenatal care, safe delivery, birth planning, and newborn care are critical areas for new or expanded initiatives
- Promoting infant feeding practices

**RECOMMENDATIONS FOR USAID**

**1. Immunizations**

The overall immunization system in the target states needs strengthening. USAID should support PVO efforts through the Title II program to enhance immunization rates in the Title II program areas. In addition, USAID should consider developing a strategy for supporting routine immunizations with the GOI/state governments.

**2. Vitamin A supplementation of children under five**

Support PVO efforts to improve vitamin A supplementation coverage of children. To complement these efforts on the supply and logistics front, USAID should conduct a situational analysis of the supply and demand issues at all levels of government with respect to the distribution of Vitamin A and perhaps, IFA, ORS, and other supplies in UP. If necessary, provide expertise to strengthen systems. This effort will need to be expanded to other states to support PVO efforts in those states.

**3. Information sharing**

USAID should assure coordination among mission projects working in child survival. This includes sharing information, technical assistance and complementary support.

**4. Collaboration on Infant Feeding**

Use the interagency nutrition platform to arrive at a consensus on infant feeding approach and messages for both breastfeeding and complementary feeding.
Collaborate with the World Bank and other partners in Andhra Pradesh to focus more attention on improving infant feeding through behavior change.

**5. Explore options for improving Child Survival in Urban slums**

Conduct a desk review of available studies on urban slums to arrive at a sound analysis of the child survival problems and needs in urban slums. Based on the above, consider developing and testing a model for boosting child survival in urban slums, possibly in a CARE-supported urban project.

**RECOMMENDATIONS FOR CARE**

**In the short term:**

**1. Improve immunization coverage with a particular focus on UP.**

Coverage rates of fully immunized children 12 to 23 months are currently 32% in CARE-assisted areas. These rates could be increased up to 50-60% over a 3-year period through a combination of two levels of action - better routine immunization program management at State, District and Block levels and continued community involvement to ensure maximum coverage.

CARE should consider the following options to increase coverage rates of children and pregnant women in CARE-assisted blocks:

- In Demonstration Sites, extend the reach of the program to ensure full coverage of all pregnant women and children for immunization services (and not just those enrolled in the ration program);
- accelerate replication of Demonstration Sites to reach a larger proportion of the population;
- accelerate introduction of basic Nutrition and Health Days and move toward community managed health and nutrition activities to reach a larger proportion of the population;
- a mix of the above options.

Alternate staffing plans may be required, e.g. more field officers and technical staff such as immunization operations officers or nutrition officers at state/zonal/district level. Additional resources will be required for immunization operations officers, additional field officers, and possibly technical support from CDC/Atlanta or other technical organizations for advocacy and planning will be required. A more complete assessment of the level of resources will be established upon further development of the concept.

2. **Enhance child survival impact through supporting UP government's bi-annual nutrition months with a focus on improving vitamin A status of children.**

Current coverage of vitamin A supplementation in UP is only 7%. If coverage can be improved to 40%, a 10% reduction in child mortality can be anticipated. The specific activities to be considered are:

- Improve coverage of Vitamin A supplementation of children (explore extending coverage to under 5s) in all 84 CARE-assisted blocks in UP. This will be done through promoting routine six-monthly distribution, according to GOI policy and through support to UP government's Nutrition months.
- Promote dietary diversification and infant feeding behaviors in all Demonstration Sites in the CARE/UP program.
- Continue to work with CRS and other partners including Linkages, UNICEF and the WB on BCC strategies for infant feeding.

Technical assistance to design and implement vitamin A distribution through the routine periodic approach is required. As the activity is developed, additional technical staff at the state level may be required. Furthermore, USAID will need to provide additional support in strengthening supply and logistics issues.

3. **Test feasibility and effectiveness of a model using community-based approaches to reduce neonatal and maternal mortality**.

In view of the critical need to improve neonatal and perinatal survival, it is recommended that CARE develop and test the feasibility of an enhanced Child Survival model within the INHP that will include community-based interventions to promote: 1) safe delivery including Safe Delivery Kits (SDKs), 2) birth planning and, 3) newborn care. Since this is not an ongoing intervention under the INHP, it is suggested that this be taken up on an operations research basis. If found feasible and effective, replication in the longer term can be undertaken. An adaptation of CARE's ongoing Maternal and Infant Survival Project (MISP) could be considered.

Resources for developing and conducting the OR will be required. Technical cooperation with the PRIME Community Partnership Safe Motherhood Project is recommended.

**Potential activities to enhance child survival in the medium term:**

1. Further increase immunization coverage rates of under-ones and pregnant women in CARE-assisted blocks in 3 target States based on the experience in UP in the first year.

2. Expand the biannual nutrition month to address Vitamin A distribution and nutrition and health behavior change to CARE-assisted blocks in 3 target states.

3. Based on learnings from the ORs under the INHP, implement a Child Survival plus package. In addition to the 4 INHP program components (TSF, ANC, immunization, and infant feeding),

this model would include: safe birthing, birth planning and safe delivery kits; community level newborn care; community-based IMCI/community-based integrated approaches to child care (ARI, DDM/ORT, deworming, nutrition, anemia, and malaria); nutrition education and periodic distribution of vitamin A; and perhaps birth spacing and post-natal care.

4. Collaborate with the World Bank in AP to experiment with the Behavior Change approach and an exit strategy.

**RECOMMENDATIONS FOR CRS**

**In the short term:**

1. **Expand Vitamin A routine six-monthly distribution to young children in CRS-assisted communities in UP.**

This will be done through promoting routine six-monthly Vitamin A supplementation of children under 5 in all CRS program areas, according to GOI policy and through support to UP government's Nutrition months.

As in the case of the CARE program, technical support and additional resources for implementing the six-monthly distribution approach and USAID support for strengthening supply and logistics will be required.

2. **Implement, test, and document CRS's new core training team approach to effectuate behavior change.**

With the objective of improving effectiveness of the Village Health Workers (VHW) training, CRS is adopting a "core training team" strategy after some experience with the cascading training model. The systematic development and testing of this model is critical to understand key issues such as a mechanism for assessment of training needs, the frequency of training, training quality, and a mechanism for follow-up support and supervision. It is recommended that this concept be tested and evaluated with a Counterpart in Orissa in two clusters, one tribal and one non-tribal. This could include addressing some other critical training needs/identified weaknesses such as building capacities of CRS, OP, and CP staffs in Behavior Change/Communications (BCC), assessing and improving the training curriculum with respect to Care and Feeding of Sick Children, and examining the need for appropriate IEC materials.

Technical support as well as additional funding for the systematic assessment on core training approach is required.

3. **Redefine the antenatal care (ANC) package to be more effective and assess feasibility of including safe delivery kits in CRS-assisted communities.**

There is some concern that the current ANC package may not be effective at preparing women for a safe delivery or identifying danger signs. It is recommended that:

- the current ANC package be redefined to identify and include the critical elements required at the community level;
- the potential and feasibility of using Safe Delivery Kits (SDK) in the SMCS program be explored;
- the redefined package including SDKs be tested in a sub-set of well-performing sites.

Technical support for ANC definition and study on SDKs will be required.

**Potential additional activities to enhance child survival in the medium term:**

1. Further expansion of routine six-monthly Vitamin A distribution to other states.

2. Improving infant feeding practices through continued efforts to improve BCC capacity (better training and support to VHWs and other change agents). Plan and implement a scaled up infant feeding intervention through the SMCS infrastructure.

3. Review infant feeding and diarrhea disease management experience in DAP I, particularly with other partners. Develop training and BCC materials on prevention and home management of diarrhea.

4. Reduce neonatal and maternal mortality through phasing in a redefined ANC package, including birth planning, within the SMCS program

## 2. BACKGROUND AND PURPOSE OF REVIEW

### Child Survival Situation in Target Areas

Despite progress in recent years, infant and under-five mortality in India remains high (see Table I) and is actually rising in certain states. The data for neonatal mortality indicates a significant proportion of deaths in the first year occur during the first month of infants' lives. Multiple causes account for neonatal mortality, which is often linked to maternal health and to nutritional status and care such as birth asphyxia, sepsis, and low birth weight. Infants and children in India, as in many developing countries, die from a combination of undernutrition and infectious diseases. The leading killers are diarrhea, acute respiratory infections especially pneumonia, measles, and other vaccine preventable diseases like neonatal tetanus. Child spacing, one of the most effective child survival interventions is not widely practiced throughout India. The table below shows some important child survival indicators for both the country as a whole and for USAID's focus states. The table illustrates that more needs to be done to extend and improve services for pregnant women and young children. For example, only 42% of India's children under one are fully vaccinated, and the coverage rates in USAID's focus states are even lower.

**TABLE I: Selected child survival indicators for India and USAID focus states**

| Indicator | National | Uttar Pradesh | Madhya Pradesh | Rajasthan |
|---|---|---|---|---|
| Infant Mortality | 68 | 87 | 86 | 80 |
| Neonatal Mortality | 49 | 64 | 68 | 48 |
| Under 5 Mortality | 105 | 123 | 137 | 115 |
| Children (12-23 Mos.) Fully Immunized | 42% | 21% | 22% | 17% |
| Women Receiving 2 or More Doses of Tetanus Toxoid | 67% | 51% | 55% | 52% |
| Moderate & Severe Anemia (Women) | 52% | 49% | 54% | 48.5% |
| Moderate & Severe Anemia (Children < 35 Mos.) | 74% | 82% | 75% | 74% |
| Women Received IFA for 3 or More Months | 47.5% | 21% | 38% | 31% |
| Women Received ANC from Health Professional | 59.5% | 31% | 51% | 39% |
| Children with diarrhea in last two weeks | 19% | 23% | 23% | 20% |
| Total Fertility Rate, Women 15-49 Years | 2.85 | 3.99 | 3.31 | 3.78 |
| Children <3 underweight | 46.7% | 52% | 55% | 51% |
| Timely complementary feeding of infants | 33.5% | 17% | 27% | 17.5% |

Source: GOI: National Family Health Survey (NFHS), 1999.
(Neonatal Mortality from *Perinatal Mortality: listing of available information*, Maternal Health and Safe Motherhood Programme, WHO Geneva, 1996.)

## USAID Child Survival Activities

One of USAID/India's strategic objectives is (SO3) "Improved Child Survival and Nutrition in Selected Areas of India". This SO seeks to reduce the high levels of child mortality and malnutrition in the country. Currently, the principal activity under the SO is the PL480 Title II program, managed by CARE and CRS, which integrates food aid and health care. The Program for Advancement of Commercial Technology/Child and Reproductive Health (PACT/CRH) supports the SO by engaging the commercial sector in marketing and distribution of child survival products and services such as ORS, vaccines and micronutrients.

Programs under USAID/India's Strategic Objective 2, Reduced Fertility and Improved Reproductive Health in North India and SO 7, Reduced Transmission and Mitigated Impact of Infectious Diseases, also include some child survival elements. The large reproductive health program, IFPS in Uttar Pradesh, where some Title II resources are also targeted, aims to improve access to quality reproductive health services and generate demand for these. Key child survival interventions supported under the IFPS program are birth spacing, TBA training, childhood immunizations, TT immunizations for pregnant women, and IFA supplementation for pregnant women. SO7 activities include eradication of polio and other vaccine preventable diseases and infectious disease surveillance.

BHR/PVC Child Survival grants are supporting four CS projects, two of them complementing the Title II program. The Mission is utilizing the technical expertise of the USAID/W centrally funded Linkages Project to complement Title II activities through promoting behavior change related to infant feeding practices.

## Title II Programs

The Title II program in India is implemented by CARE under its Integrated Nutrition and Health Program (INHP) and CRS Safe Motherhood and Child Survival (SMSC) program. INHP of CARE-India works within the mandate and scope of the GOI Department of Women and Child Development/Integrated Child Development Services (ICDS) whereas the CRS SMCS is implemented through an extensive network of 600 non-governmental local partner agencies and largely targets scheduled caste and scheduled tribe populations. The activities are funded by PL480 Title II with approximately $80 million annually in processed commodities of which approximately $5 million in local currency is generated to support technical enhancements. An additional $2 million is provided by USAID 202 (e) program for technical support. These programs operate on five-year cycles and are currently in their 1996-2001 cycle. They reach over 7 million poor women and children at the greatest risk of mortality, morbidity and malnutrition in rural and remote tribal areas. The Title II program is succeeding in integrating food aid with complementary health care services provided through the Government of India (GOI) and non-governmental organizations (NGOs). INHP and SMCS directly contribute to improving the outreach of key child survival interventions such as immunization, promotion of exclusive and immediate breastfeeding, and anemia control.

INHP operates in 7 States, supports 103,712 Anganwadi Centers (AWCs) in 854 Blocks and reaches 7 million children aged 0-6 years and pregnant and lactating women with targeted supplementary food and selected health services. The INHP uses ICDS criteria to target pregnant and lactating women below the poverty line, and CARE has further identified under-twos as a priority group for take-home rations. The focus on under-twos complements the early childhood development focus on the 3 to 6 year old group which is the major beneficiary of on-site feeding of a small Title II snack. (Children aged 2 to 3 years also receive take-home rations.)

Inputs to INHP are primarily Title II food (fortified Corn Soy Blend and vegetable oil) valued at about $67 million with a total cash budget of $5.8 million of which $1.8 million is GOI contribution. USG cash resources include $0.5 million from 202(e) grants and $3.4 million from monetization of refined vegetable oil.

SMCS promotes healthy behavior on the part of beneficiaries and establishes linkages with Government service providers. Approximately 40% of implementing partners operate private health facilities. The program operates in 3,000 villages in 15 States, and reaches 206,500 children 0-3 years of age and pregnant and lactating mothers with targeted supplementary food and health and nutrition preventive services.

Inputs to SMCS are primarily Title II food (fortified Corn Soy Blend, Bulgur Wheat, and vegetable oil) with a $3.2 million strengthening grant. CRS brings in $2.1 million additional resources to meet its India program expenditures.

Following the USAID food aid policy guidance to use food aid more effectively, the CARE and CRS programs have evolved from mere food distribution programs to programs that strategically combine supplementary food with ancillary health and nutrition education services at the village level such as immunization coverage, vitamin A supplementation for children, antenatal care with IFA distribution, counseling and nutrition education. Recent mid-term reviews (MTRs) of these progams indicate that the strategy to promote synergy between food and health care is working effectively. Initial results from the programs, especially CARE's, which is fully integrated with the GOI's ICDS effort, are encouraging. The MTRs have pointed out areas that require strengthening to improve impact. USAID believes that the Title II program, because of its existing interventions and its vast network and outreach, has significant implications for child survival. The program offers a potential platform for implementing activities with strong impacts on child survival.

**Purpose of Review**

The purpose of this review, the first in a series of analyses/design exercises, is to identify practical means of enhancing the impact of child survival and maternal health investments in current PL480 Title II activities under SO3. The team was composed of representatives of Title II partners, USAID/W, USAID/India, and cooperating agencies FANTA and MOST. This was a rapid, collaborative process that included field visits to INHP and SMCS sites, meetings with key partners and stakeholders, and a document review. Although within the Title II program CARE works in 7 states and CRS in 15, USAID requested that the review concentrate on the high-risk states of Uttar Pradesh (UP), Madhya Pradesh (MP), and Rajasthan.

(SO3) "Improved Child Survival and Nutrition in Selected Areas of India" seeks to reduce the high levels of child mortality and malnutrition in the country. Although results from current activities under the SO have been encouraging, the high rates of mortality and malnutrition are compelling reasons for USAID to further invigorate the SO. This includes exploring options for a) enhancing the child survival impact of the current activities under the SO and b) expanding USAID/India's child survival efforts beyond existing activities.

The two Title II partners CARE and CRS are in the process of developing their Development Activity Proposal (DAP) for the next five-year cycle (FY 2002-2006). This exercise was also designed to contribute to the DAP development process as well as to the overall process of strengthening SO3 and development of the Mission's CS strategy.

**Geographic Targeting**

Given the size and geographic dispersion of the Title II program, it was decided that this exercise would generally focus on three states – Uttar Pradesh, Madhya Pradesh and Rajasthan – though not to the exclusion of considering options in other states should there be compelling reasons and opportunities. The choice of states was guided by considerations such as relative Child Survival needs, USAID priority states for the health sector, existing USAID presence, and the priorities and presence of other donors.

The team suggested an additional focus on improving child survival in urban slums because of the high infant and child mortality rates in urban slums. Some studies indicate large differentials between the infant and child mortality rates in slums and in non-slum urban areas.

Thus far, the Title II program emphasis has been on improving health and nutrition of women and children in remote rural and tribal areas, though the CARE Title II program supports the ICDS in 38 peri-urban blocks, which is about 4% of the overall program. However, developing and testing a peri-urban model to improve child survival in urban slums would be meaningful for assessing child survival needs in slums. This experience would also contribute to the Mission's overall Child Survival strategy.

## 3. TECHNICAL AND FEASIBILITY ANALYSIS

### A. Analytical Process

The review team analyzed and identified approaches and intervention strategies to help Title II partners achieve measurable progress and real impact in child survival.

An analytical framework started with a list of the major killers of children and mothers in India. All established Child Survival interventions as well as the current CARE and CRS activities for each target age group were analyzed for the likely impact on neonatal, infant and child mortality in the short term and the medium term.

Maternal health and adolescent health were included in the analysis because of their impact on neonatal survival. The team then analyzed the feasibility of the various interventions against significant factors, including the limitations of the FFP 'platform', CARE and CRS strategies, governmental and NGO partnerships, adequacy of institutional linkages, supply-logistical considerations, and technical/managerial capacities of CARE, CRS, and their partners.

Based upon this critical analysis, the team determined the feasibility of an enhanced strategy or of possible modifications to the existing strategy and approaches and identified critical areas and interventions specific to each program where enhanced USAID-financed inputs could improve child survival impact. This included identification and prioritization of activities to be undertaken that will show measurable impact on child survival in the next 3-5 years as well as in the medium term. The feasibility of undertaking these interventions on a program-wide basis as opposed to in a specific geographic area was among the practical issues considered.

The team also identified critical areas for operations research or piloting within the Title II program to test cost-effective, sustainable approaches and models for child survival within the context of the Indian food aid program.

Strategies to improve the environment for child survival programs at the State or District level as well as within communities were considered, e.g., the introduction of management by objective as a strategy to stimulate community action and increased involvement of women's groups for health initiatives.

Although the efficacy of most interventions to reduce infant, child, and neonatal mortality is documented, some operations research is needed to test feasibility and fine tune approaches for communities in different Indian states and regions. For example, it is clear from growth patterns that more attention is needed to improve infant feeding practices in target states. The recommended feeding practices are well known, i.e., exclusive breastfeeding starting immediately after birth and continuing for 6 months, followed by appropriate complementary feeding starting at six months. The ages at which different messages should be directed are also known. The exact messages and approach to change mothers' and other caregivers' behaviors with respect to breastfeeding and complementary feeding need to be refined. Also, some new and potentially powerful refinements of maternal and child health programs are currently being tested in India, which can be considered for future replication within the extensive infrastructure with which the Title II partners work. For example,

Home Based Life Saving Skills are being taught to birth attendants (both professional and family members) in one pilot test.

This review focused on practical opportunities to improve child survival impact through proven technologies and approaches that can be applied at the community level. The Title II CS program is implemented through community level health workers (AWWs,VHWs, TBAs, ANMs) and community members/groups. Therefore, only interventions appropriate to this level were considered. For example, birth planning and provision of safe birthing kits for home births are included while emergency obstetrical care at referral facilities is not.

The technical areas considered for expansion of measurable child survival impact within the Title II program are: a) neonatal and maternal health (including adolescent girls) and b) infant and child health. For descriptions of recommended interventions and discussion of the rationale behind them, refer to Annex A.

The scope of work included preparation of an action plan defining the additional inputs needed over time and indicating financial and implementation mechanisms. Draft action plans for expanded CARE initiatives are included in Annex C.

## B. Current USAID/India Title II Program

Both CARE and CRS are in the midst of a process leading to enhancements in their programs. The essence of these changes is the effort to link health services more closely to the supplementary nutrition programs that have been operated by both organizations for decades. Following its mid-term evaluation, CARE shifted from its strategy of creation of model high impact blocks for replication to a strategy of creation of demonstration villages throughout its project area, which will serve as models for other villages. Since block boundaries were impervious to replication (due to separate administrative structures, staff, distances, etc.), creating model sites throughout the area will offer a better chance of facilitating organic diffusion. CRS is shifting its focus from a center-based program to a community-based program.

Given the size and geographical dispersion of the two programs, the implementation of these transitions is fully occupying the staffs of the respective organizations. Therefore, their capacity in the short run to make additional major modifications to their programs with existing staff is limited. In the next DAP cycle (to start October 1, 2001), the potential for change is greater. Both the size and the mix of skills of their respective staffs can be modified to better suit agreed upon modifications in their programs.

### *CARE*

CARE has recently celebrated 50 years in India. They have built credibility with the GOI. A midterm evaluation of this huge program documented several successful strategies for significantly improving the health and nutritional status of women and children, and also suggested some modifications to the original three-pronged approach.

CARE's role is to support the supplementary feeding component of the GOI's ICDS network of AWCs. CARE promotes linkages between the AWC and the basic health service providers, usually ANM or other primary health care staff. CARE field staff and NGO partners mobilize community groups to support the AWW-ANM team and to address other community health issues. Targeted food supplementation is used as an incentive to attract mothers and children to the AWC for health and nutrition services. CARE provides capacity building for District, Block, and local level personnel and actively works with local authorities to resolve bottlenecks to successful program implementation.

Four prioritized interventions are implemented in the INHP:
targeted food supplementation for women and children; antenatal care (ANC) for pregnant women consisting of iron and folic acid (IFA) supplementation and tetanus toxoid injections; and immunization for children. Promotion of improved infant feeding (colostrum, exclusive breast feeding for 6 months and timely complementary feeding) is the fourth intervention in AWCs that are designated as Demonstration Sites. Demonstration Sites are AWCs that meet the following criteria:

1. Regularly provides early childhood care.
2. Regularly provides food for both children and pregnant and lactating women.
3. Regularly provides basic health care services through ANM visits to the AWC.
4. Has community support and involvement.

Demonstration Sites conduct regular monthly Nutrition and Health Days. CARE is collaborating with State, Block, and District officials to promote replication of Demonstration Sites in a phased manner through a recently defined replication strategy.

CARE's advantages in terms of its present program are:

a) Credibility and long term association with Government of the India. The CARE staff and NGO partners are committed and highly skilled at working with the community and the relevant levels of government for implementation.

b) Systems structure (finance, administration, office set-up, etc.) at national, state, district and block levels, and experience with managing child survival interventions.

c) Committed, capable and efficient staff at various levels of program, including CARE/Atlanta, CARE/India, and state offices.

d) Linkages with national as well as international technical resources and expertise.

Limiting factors include:

a) Field staff knowledge of the technical and strategic aspects of child survival interventions is not up-to-date and their skills in behavioral change techniques are poor. More importantly, if behavior change becomes a focus for child survival in DAP II, the CARE staff and their counterparts will need capacity building in the latest behavior change techniques.

b) The number of staff given the geographic area covered by the program. CARE's current staff is fully occupied implementing the strategy of replication now in force.

c) CARE staff is committed to the ICDS program, a program that includes components beyond child survival. Reorientation may be needed if measurable impact in child survival becomes a primary objective of CARE's inputs to the ICDS program.

***CRS***

The CRS program is mainly targeting populations that lack or have insufficient government health and social services. Accessing these populations is difficult. CRS's role is to provide food aid and help build the capacity of partner NGOs to implement effective child survival programs. CRS provides training for field workers, supervisors and health workers of these partners.

CRS counterpart organizations are community-based organizations and thus work from within beneficiary communities. The program is managed by operating partners with assistance from village health workers, women's groups, and village health committees. CRS and its collaborating partners also promote linkages with GOI health services in the areas where they exist.

CRS/India's role in working with local NGOs in different parts of India contributes to the strengthening of local civil society organizations. CRS believes that health is a primary development challenge and needs to be viewed from a holistic perspective.

The current SMCS service package includes targeted supplementary feeding, growth monitoring, immunization education and linkages, Vitamin A distribution, infant feeding promotion, ANC, and diarrhea management. SMCS uses PL480 Title II commodities as an incentive to attract mothers and children for health education sessions and other health services.

Capacities of CRS Program

While CRS has competence in child survival at the central level, the skills of their counterparts regarding health vary considerably. Some 40% of CRS' counterparts are active in the curative health arena leaving 60% with either little health experience or preventive care experience only.

The CRS program is dispersed across 15 States in remote areas where government services are unavailable or insufficient. Access to their sites is difficult. Accordingly, diffusion of new components to their program has been slow, and the quality of services and total coverage in areas with inaccessible and marginalized populations are variable.

It should be noted that developing partnerships with local organizations and improving their capacities is a long process. The needs and strengths of local partners vary, as do strategies to reach inaccessible and marginalized populations.

Many CRS counterparts are involved in different development projects and view health as one of their development activities. For the majority, the term child survival is subsumed

under health or mother and child health, and no distinction is made between child survival and other health issues and services. A major effort to reorient CRS counterpart agencies' understanding of child survival may be needed along with awareness of the need to measure the impact of their child survival efforts. This orientation should also address the issue of total coverage of a village as opposed to coverage of food recipients only in order to better understand impact at the overall village level.

Efforts are continuing on better mapping of geographic boundaries of target communities and simplification of MIS.

### C. Opportunities

Through field visits, interviews with key partners, and review of MTEs and other documentation, this team found that both INHP and SMCS as currently implemented are child survival programs in which scope exists for enhancing the impact on infant and child health with the current set of priority interventions. USAID/India and its Title II partners have an opportunity to enhance child survival by building on this strong and extensive platform.

The outreach of these programs is enormous. There would be no way of reaching so many rural and remote women and children without this platform. The team agrees that the selected interventions are the most practical ones for the environment in which they are implemented and that CARE and CRS should continue focussing on these interventions to achieve child survival impact.

There is considerable scope to improve the coverage rates and quality of the current program. The quality of care, particularly counseling, varies from site to site. Both CARE and CRS are engaged in strengthening the services.

Both organizations provide an enabling environment for a linkage between the creation of demand for services and the stimulus for provision of those services. CARE and CRS have the opportunity to improve supplies of inputs to meet the expanding demand and should continue to use their considerable leverage in this area.

More can be done to reduce the unacceptably high levels of infant mortality in the target states. There is great concern about neonatal mortality that now comprises 50-60% of the infant mortality in areas covered by INHP and SMCS. These newborn deaths are related to poor maternal care, and the two issues must be addressed together. Antenatal care, safe delivery, and newborn care are critical areas for new or expanded initiatives. Immunization coverage rates for young children are low, and it is agreed that routine vaccinations need urgent attention. Communication and counseling skills of community-level personnel need to be improved. This is particularly crucial to efforts to change inadequate infant feeding practices.

Both Title II partners are desirous of adding other child survival interventions to their ongoing programs in a phased manner. It may be prudent for the organizations to enhance emphasis on certain specific components (e.g., immunization, Vitamin A) in the present program and to try additional components as part of operations research.

In order to increase the outreach and coverage of community services and more significantly lower infant and child mortality, CARE and CRS should continue the conversion from enrollment-based to population-based programs.

There are willing partners in all target states, but the enabling environment in UP is especially favorable for starting expanded health and nutrition initiatives.

The current CARE strategy of creating demonstration sites and replicating them through catalytic efforts and diffusion has potential to lead to attainment of sustainable child survival impact.

Currently CARE's program is food rich and cash poor. The differential in resource levels in other "official" USAID Child Survival Projects and the INHP are enormous. Additional resources would contribute to faster scale-up, increased emphasis on certain critical components, and addition of new interventions.

CRS is engaged in dialogue with its NGO partners concerning beneficiary targeting. Currently many SMCS village programs are focussed on a subset of the community that receives supplementary rations. It is agreed that extending the outreach of health and nutrition education and other health services to the entire community would increase the child survival impact of SMCS significantly. There are constraints to achieving this, primarily intra-community social barriers as well as administrative limitations of operating partners.

CRS has recently developed a standardized training curriculum to be used by NGO partners in training VHWs. This curriculum includes most of the key interventions and uses a behavior change/communications approach. Implementation of the curriculum is just beginning and the timing is right to assess it during this DAP cycle for future revision and wider application in the next cycle.

### D. Potential Constraints

The speed with which program impact on child survival can be accelerated will depend on the GOI, notably with respect to supplies, staffing of ANMs, and other resource and service provision issues. These programs are large in scale, and it is difficult to ensure quality services while rapidly increasing program components.

The size and geographical dispersion of the program areas inhibit the rapid dissemination and adaptation of new program initiatives.

## 4. RECOMMENDATIONS

One strategy for accelerating the transformation of a supplementary feeding program into a child survival program is to introduce child survival as an explicit objective of the program. One means to accomplish this is to develop community-based monitoring systems to measure child survival impact and coverage levels of a few of the interventions deemed essential to enhance child survival. If a community can "see" the impacts of its efforts in terms of reduced child deaths, it is more likely to continue to invest time and resources into those efforts. In many CARE and CRS sites, the communities are involved in mapping exercises that identify households with children under two and pregnant/nursing mothers. If this mapping exercise were extended to include the recording of births and deaths over time, the village could directly monitor child survival. Moreover, to enable the community to make coverage of vaccination and/or vitamin A into an objective, the community could record who has and who has not received the service. In areas where literacy is low, this might require some innovative approaches to record keeping.

The management information systems initially put in place to assist both projects with monitoring and evaluation (M&E) need to be simplified. Interviews during field visits established that the village health workers in the CRS program, and the AWW, ANM and ANM supervisors in the CARE program, all still have too much paperwork and record keeping to deal with. This limits the time and energy devoted to service delivery and supervision. Some ANM supervisors never visit the field because of all the record keeping they must attend to. The movement toward simplifying the system, which has included the recent development by CARE with MSH technical assistance of a new, more simplified system, should continue. See Annex F for a fuller discussion of this point.

Since the program cycle ends in September 2001, it is proposed that no new interventions be added at this time. It is recommended that CARE and CRS staff continues efforts to deepen existing program activities and improve the quality of technical interventions and community mobilization in already functioning areas. It is suggested that the organizations test, on an operations research level, the feasibility of incorporating other key child survival interventions that are currently not part of the program and develop effective models for potential scale-up in the medium term.

### RECOMMENDATIONS FOR CARE

RECOMMENDED ACTIVITIES TO ENHANCE CHILD SURVIVAL IN THE SHORT TERM

**1. Improve immunization coverage with a particular focus on UP**.

Coverage rates of fully immunized children 12 to 23 months are currently 32% in CARE-assisted areas. These rates could be increased up to 50-60% over a 3-year period through a combination of two levels of action: 1) Better routine immunization program management at State, District and Block levels, and 2) continued community involvement to ensure support to the ANM. Measles vaccination is the lowest antigen, yet measles is the top killer among immunizable diseases. Raising coverage of measles vaccination along with other routine vaccines can yield significant pay off in terms of child survival.

Some options to increase coverage rates of fully immunized under ones and pregnant women in CARE-assisted blocks in selected states are: raise immunization coverage rates in villages with ongoing Nutrition and Health Days in the Demonstration Sites. Efforts are needed to extend the reach of the program to a) ensure full coverage of all pregnant women and children in the community for immunization services (not just those enrolled in the ration program); b) accelerate replication of demonstration sites to reach a larger proportion of the population; c) accelerate introduction of basic Nutrition and Health Days and move toward community managed health and nutrition activities to reach a larger proportion of the population; and d) a mix of the above options.

In addition to continued dialogue and facilitation of ANM and PHC convergence with AWC/community to increase coverage of routine vaccinations, the following is suggested if additional resources become available:

1. More field officers' time could be assigned to focus on strengthening routine immunization. Based on findings of the recently concluded study to determine optimal use of field officer time, CARE should consider if additional field officers are required.

2. The overall immunization system in the target states needs strengthening. An operations officer should be provided at state level to assist state, district and block level officials with routine immunization program planning and management in target states. This person would work intensively on supply, logistics, cold chain, and personnel issues with both MOHFW and ICDS.

Boost social mapping to encourage community involvement in immunization program management. This will contribute to reaching all eligible children in the community and enable the community to make vaccination coverage into an objective. The system could be extended to enable the community to record who has and who has not received the service. In areas where literacy is low, this might require some innovative approaches to record keeping.

See Annex C for more detail on CARE's plan for "Enhancing Child Survival Impact Through Immunization over 3 Years, Draft May 00".

Likely impact: Increased percentage of under 2s completely immunized. The target is to improve coverage from the current 24% to 55% in CARE-assisted blocks in UP.

Resources needed: It is anticipated that funding for operations officers, additional field officers, possibly technical support from CDC/Atlanta or other technical organizations for advocacy and planning will be required. A more complete assessment of the level of resources required will be established upon further development of the concept.

**2. Enhance health and nutritional impact through more effective nutrition education and through support for 6-monthly Nutrition Days in UP.**

Specific activities include:

Increase coverage of Vitamin A supplementation for children aged 0 to 5 in all 84 CARE-assisted blocks of UP. This will be done through promoting routine six-monthly distribution, according to GOI policy and UP government's Nutrition months.

Likely impact: Increased proportion of children receiving vitamin A supplementation. Strong impact is expected because political will and leadership exist in UP on this issue and because interventions are appropriate to need and GOI policies. Coverage can be measured in terms of proportion of children 13 to 59 months that have received a high dose Vitamin A supplement within 6 months preceding the survey. Current coverage is only 7%. If coverage can be improved to 40 %, a 10% reduction in child mortality can be anticipated. Impact on child nutrition may also be measured in annual changes in cohorts of children 12 to 18 months underweight for age.

Resources needed: Technical assistance to design and implement vitamin A distribution through the routine periodic approach.

Promotion of dietary diversification and appropriate infant feeding behaviors in all demonstration sites in the UP program, especially through improved communication and counseling activities and greater focus on frequency, consistency, amounts, and feeding during and after illness. Use the nutrition counseling messages in the (MC) package.

Continue to work with CRS and other partners including Linkages, UNICEF and the WB on BCC strategies for infant feeding.

USAID will need to provide support in strengthening supply and logistics issues. Nutrition officers are needed in all zones of selected states, as is field level capacity building.

**3. Conduct operations research to test feasibility of community-based approaches to reduction of neonatal and maternal mortality**.

(Although several OR activities are already in the CARE plan, neonatal care and safe delivery are not included in CARE's planned OR. However, with funding from CIDA, CARE is presently conducting OR on community-based maternal and neonatal care in MP.)

This OR would be based on experiences from CARE's Maternal and Infant Survival Project (MISP) in MP and would include further development and adaptation of the MISP perinatal package.

Two phases will be implemented: 1. Promoting birth planning and 2. Promoting community newborn care.

Likely impact: Given that about 75% of births are taking place at home, it can be expected that the impact of such an intervention would be significant, if effective community-based neonatal care is

adopted by households. The operations research would establish a model for replication in other CARE-assisted areas.

Resources needed: Staff for conducting OR. Technical cooperation with the PRIME Community Partnership Safe Motherhood Project.

RECOMMENDED ADDITIONAL ACTIVITIES TO ENHANCE CHILD SURVIVAL IN THE MEDIUM TERM, 2002-6 DAP

*Technical Approaches*

1. **Further increase immunization coverage rates of under-ones and pregnant women in CARE-assisted blocks in 3 target states based on the experience in UP in the first year.**

Likely impact: This is likely to significantly improve immunization coverage in target states.

Resources needed: Funding for additional staff.

2. **Expand the nutritional impact approach to address nutrition and health behavior change/communication and biannual Vitamin A distribution to young children in CARE-assisted blocks in 3 target states.**

This would be based on a review of the experience in UP with dietary diversification, infant feeding, and Vitamin A supplementation.

Likely impact: Increased proportion of children 13 to 59 months receiving Vitamin A supplements. If coverage can be increased by 33%, a 10% reduction in child mortality can be anticipated. Impact can be measured by the proportion of children who have received a high dose Vitamin A supplement within 6 months preceding the survey. Impact on child nutrition may also be measured in annual changes in cohorts of children 12 to 18 months underweight for age.

Resources needed: Technical assistance for assessment of experience and perhaps for scale-up plan. Staff for coordinating with GOUP for biannual Nutrition Day approach. Capacity building resources.

3. **Implement community-based approaches to reduce neonatal, infant, child and maternal mortality**

Define and implement an enhanced child survival package based on experience in operations research. Additional areas of focus will include: a) the 4 INHP program components –TSF, ANC, immunization of under-ones, and infant feeding; b) safe birthing, birth planning and safe delivery kits; c) community level newborn care; d) community based IMCI/community based integrated approaches to child care (ARI, DDM/ORT, deworming, nutrition, anemia, and malaria); e) nutrition education and periodic distribution of Vitamin A; and perhaps f) birth spacing and postnatal care.

Likely impact: Widespread and effective application of this more complete child survival package through the huge infrastructure of ICDS would likely have greater impact on child survival than any other option. It would address most of the causes of neonatal, infant and child mortality that are amenable to community-level intervention.

Resources needed: Technical support for design of training curriculum and practitioners manual. Additional staff and capacity building resources. Perhaps additional funds for trainers and supervisors.

*Strategic Approaches*

1. Consider increasing the focus on strategic and advocacy levels to have wider impact, especially working on institutional strengthening and convergence between ICDS and MOH.

2. Strengthen collaboration with World Bank, UNICEF, WHO, Linkages and other major stakeholders in child Survival activities (e.g. collaborate with the World Bank in AP to focus on improved infant feeding behaviors and to improve AWW training nationally).

3. Consider the possibility of different state strategies based on the context and encouragement of innovations. Consider experimenting with alternate staffing plans (e.g., technical staff such as immunization operational officers, nutrition officers at state, zonal, or district levels, or staff with specific skills in capacity building, advocacy, networking, partnerships, M&E, etc.).

4. Continue and expand efforts to replicate "demonstration sites" in all ICDS blocks while also focussing on the quality of care at the site.

5. Experiment with different models of exit strategies and document lessons learned.

6. Consider negotiating with GOI partners increasing CARE's role in supply management to facilitate availability of key commodities (Vitamin A, IFA, vaccines, safe delivery kits and other supplies on which INHP priority interventions are dependent) at point of delivery.

7. Continue efforts to improve the MIS and to better use information to make informed decisions, including using the information for advocacy with GOI officials.

8. As recommended in the MTR, there is tremendous scope for expanding the involvement of the many active women's groups in health promotion activities. These groups can be used to mobilize and organize children for monthly immunization sessions, provide mother-to-mother support for breastfeeding, participate in social mapping and tracking of program progress, etc. CARE has experience in this from its other sector programs in India and other countries, and other PVOs possess expertise in combining micro-credit groups with health activities.

9. Define quality of care standards and institute in service delivery. Definition and use of quality standards, coupled with supportive supervision to promote their application, can greatly enhance the impact of services.

Likely impact: Greater sustainability of program and gains in infant and child survival.

Resources needed: Enhanced budget to cover costs of more technical/specialized personnel. Promoting greater involvement of women's groups would require additional staff.

## RECOMMENDATIONS FOR CRS

RECOMMENDED ACTIVITIES TO ENHANCE CHILD SURVIVAL IN THE SHORT TERM

As with CARE, to take advantage of the UP policy proposal to distribute Vitamin A to all children 6 months through 5 years every 6 months, the team recommends:

1. **Expand routine, six-monthly distribution of Vitamin A to young children in CRS-assisted communities in UP, according to GOI policy.**

CRS would work with USAID, CARE, and other partners in this effort. The role of CRS and its partners will principally be advocacy in their communities and development and application of a tracking system for Vitamin A coverage that follows GOI policy and reports on agreed upon standard indicators.

Likely impact: Increased proportion of children 13 to 59 months receiving Vitamin A supplements. If coverage can be increased by 33%, a 10% reduction in child mortality can be anticipated. Impact can be measured by the proportion of children who have received a high dose Vitamin A supplement within 6 months preceding the survey.

Resources needed: Technical support for Vitamin A supply study in collaboration with other partners.

2. **Implement, test, and document CRS's new core training team approach to change health behavior in target communities.**

With the objective of improving effectiveness of the Village Health Workers (VHW) training, CRS is adopting a "core training team" strategy after some experience with the cascading training model. The "core training team" – comprised of partner staff, a resource person from a local NGO training institution, and sometimes a VHW or supervisor – will be responsible for periodic on-going training and follow-up support. Systematic development and testing of this model is required to understand key issues such as a mechanism for assessment of training needs, the frequency of training, training quality, and a mechanism for follow-up support and supervision. It is recommended that this concept be tested with a Counterpart in Orissa in two clusters, one tribal and one non-tribal.

Systematically develop, test, and document the core training team concept. Augment VHW training in one geographic area using CRS's core training team approach. Focus on improvements in capacity of OPs and VHWs to implement 2 key interventions that require behavior changes, i.e., infant feeding and diarrhea disease management. Test with a proven counterpart's VHWs in areas with high probability of success.

Strengthen capacities of CRS, OP, and CP staffs in Behavior Change/Communications (BCC) tools and techniques.

Assess and improve the section of the curriculum on care and feeding of sick and recovering children.

VHWs do not have sufficient materials for their health education, counseling, and home visits. Review, obtain/adapt and produce IEC materials for VHW use in BCC efforts on infant feeding and other health and nutrition topics. CRS should collaborate with an interagency committee to ensure consistency of messages for both breastfeeding and complementary feeding.

Likely Impact: Improved infant feeding and other nutritional practices leading to reductions in underweight children. Should be measured in annual changes in cohorts of children 12 to 18 months underweight for age.

Resources: The new training manual and USAID-provided TA. PVOs should work together to review existing infant feeding materials and work together to obtain and adapt them in multiple languages. Technical support for systematic assessment on core training approach.

**3. Redefine the antenatal care (ANC) package to make it more effective and assess the feasibility of including safe delivery kits as an intervention in CRS-assisted communities.**

There is some concern that ANC visits as currently conceived are not effective in preparing women for safe deliveries or in identifying danger signs.

Redefine the current ANC package with technical support. Clarify what the complete ANC and post-natal visits should include for both implementation and monitoring purposes. Include family involvement in birth planning. Identify barriers. Determine why women are not having ANC check-ups. Develop pictorial cards about danger signs, etc. for mothers to keep. Assess the feasibility of providing safe delivery kits (SDKs) (supply, acquisition, distribution). Test redefined ANC package and materials in a subset of well-performing sites.

Likely Impact: Increased use of SDKs and increased frequency of effective ANC visits. To be measured in terms of proportion of deliveries in which SDKs are used and in terms of the proportion of pregnant women participating in more effective ANC visits and having birth plans that identify the referral site, transportation, danger signs, and family agreement to seek care.

Resources: Technical support for ANC definition and study on SDKs.

RECOMMENDED ADDITIONAL ACTIVITIES TO ENHANCE CHILD SURVIVAL IN THE MEDIUM TERM, 2002-6 DAP

*Technical Approaches*

**1. Further expansion of routine six-monthly Vitamin A distribution**

Explore Vitamin A expansion in other states where CRS is working where GOI/state authorities may replicate the UP experience.

Likely impact: Increased proportion of children 13 to 59 months receiving Vitamin A supplements. If coverage can be increased by 33%, a 10% reduction in child mortality can be anticipated. Impact can be measured by the proportion of children who have received a high dose Vitamin A supplement within 6 months preceding the survey.

Resources: Technical support to assess previous efforts and plan for expansion.

**2. Improve infant feeding practices**

Continue efforts to improve BCC capacity through better training and support to VHWs and other change agents. Continue to strengthen training of VHWs in BCC through the core training team approach.

Review infant feeding and diarrhea disease management experience in DAP I, particularly with other partners. Plan and implement a scaled-up infant feeding intervention through the SMCS infrastructure.

Likely Impact: Improved infant feeding leading to reductions in underweight children. Should be measured in annual changes in cohorts of children 12 to 18 months underweight for age.

Resources: Technical support and possibly additional financial support for training and materials.

**3. Reduce neonatal and maternal mortality:**

Phase in redefined ANC including birth planning within the SMCS program. Phase-in should use the core training approach moving from counterpart to counterpart.

Likely impact: Impact likely to be strong in the remote areas where CRS and its partners work. Increased use of SDKs and increased frequency of effective ANC visits. To be measured in terms of proportion of deliveries in which SDKs are used and in terms of the proportion of pregnant women participating in more effective ANC visits and having birth plans that identify the referral site, transportation, danger signs, and family agreement to seek care.

Resources: Technical support may be continued for this activity.

### 4. Diarrhea Management

Diarrhea is still a leading cause of death for young children in India. Programs around the world have demonstrated the efficacy of teaching home-based care for diarrhea; it saves lives and doesn't cost much.

Develop training and BCC materials on prevention and home management of diarrhea. Improve the knowledge and practices of VHWs and families in home-based diarrhea management: ORS, home based fluids, and continued breast feeding and complementary feeding.

Likely impact: Improved diarrhea management. Strong impact on child survival expected. To be measured in % of children 0-3 having diarrhea in past 2 weeks whose caretaker used oral rehydration therapy including ORS and other appropriate home-available fluids.

Resources: Technical and financial support for operations research, training materials, BCC, and training.

*Strategic Approaches*

1. Implement a population-based approach to increase coverage of SMCS interventions.
2. Review the targeting strategy of the CRS program to extend the selected child survival services to the entire village, i.e. from a beneficiary-based program to a village based program. For example, immunization coverage can be measured by population-based rates instead of by beneficiary-based rates. Extend social mapping through women's groups and/or VHWs. (Club with CARE's social mapping technical support and experience.)
3. Obtain a commitment of CPs and OPs to channel CS services throughout the community and not just to enrolled beneficiaries.
4. As recommended in the MTR, there is tremendous scope for expanding the involvement of the many active women's groups in health promotion activities. These groups can be used to mobilize and organize children for monthly immunization sessions, provide mother-to-mother support for breast feeding, participate in social mapping and tracking of program progress, etc.
5. Define quality of care standards and institute in service delivery.

## RECOMMENDATIONS FOR USAID

### 1. Immunizations

The overall immunization system in the target states needs strengthening. USAID should develop a strategy for supporting routine immunizations with the GOI/state governments. This will be in addition to supporting PVO efforts through the Title II program.

Appoint an operations officer at state level to assist state, district and block level officials with routine immunization program planning and management in target states. This person would work intensively on supply, logistics, cold chain, and personnel issues with both MOHFW and ICDS. This technical advisor could be provided through CARE or through another Mission mechanism such as a PASA with CDC.

**2. Vitamin A**

Determine if a situational analysis has been done of the supply and demand issues at all levels of government with respect to the distribution of Vitamin A, IFA, ORS, and other supplies. If not, conduct analyses in target states beginning in UP. Provide expertise to strengthen systems if appropriate through field support to RPM, MOST, and BASICS. This effort will need to be expanded to other states to support PVO efforts in other target states.

**3. Information sharing**

USAID is in a good position to assure coordination among mission projects working in health and child survival. This includes convening meetings to share information, providing technical assistance to groups of projects, and complementary support.

**4. Infant Feeding Collaboration**

Use the interagency nutrition platform to arrive at consensus on infant feeding approach. Agree on consistent infant feeding messages for both breastfeeding and complementary feeding. This includes training for health providers and behavioral messages for families.

Collaborate with the WB and other partners in the conceptualization of the AP experiment to focus more attention on improving infant feeding behaviors in conjunction with improved GM and GP. Evaluate the impact of the infant feeding model on nutrition status and mortality of target group

**5. Targeting**

Conduct a desk review of available studies on urban slums. This will be undertaken with the objective of arriving at a sound analysis of the child survival problems and needs in urban slums. Based on the above, consider developing and testing a model for boosting child survival in urban slums-possibly in a CARE-supported urban project.

## 5. NEXT STEPS

In consultation with USAID, CARE and CRS will begin to explore and preliminarily flesh out the ideas proposed in the recommendations for new and/or accelerated child survival initiatives.

Assuming USAID/Title II partner agreement in principle on any new/expanded initiative, USAID will provide the necessary support to CARE and CRS to complete the proposals.

USAID will seek to support implementation of any approved enhanced initiatives by providing funding and/or technical support.

**ANNEXES**

Annex A: Interventions to Enhance Child Survival and Maternal Health Impact within the Title II Program

Annex B: INHP Statistics

Annex C: Enhanced CS Impact in INHP, Draft May 2000
Enhancing Child Survival Impact in CARE UP's Program Through Immunization Over 3 Years, Draft May 2000

Annex D: Characteristics Associated with Deficiencies in Vitamin A, Iron, and Iodine

Annex E: Expected Results Measurements for Micronutrient Interventions

Annex F: Monitoring and Evaluation and Use of Surveys

## Annex A: Interventions to Enhance Child Survival and Maternal Health Impact within the Title II Program

Neonatal and Maternal Health (including adolescent girls)

SHORT TERM

1. Introduce/expand household preventive newborn care

Community-based newborn care includes keeping the baby dry and warm, cleaning the airways, hygienic cord care, putting the baby to the breast as soon as possible after birth, and recognizing and seeking care for danger signs. Application of these simple but important actions by birth attendants, VHWs, or family members, along with ensuring a safe and clean delivery, can reduce neonatal mortality significantly.

2. Strengthen community-level birth planning, safe delivery, and postnatal care

Because a woman's health is intertwined with that of her fetus and newborn, many of the causes of maternal death and ill-health also influence the health and survival of the infant. The majority of births in Title II target areas occur at home with either a family member or traditional birth attendant assisting the mother. Greater use of simple, low-cost prevention and treatment interventions can save the lives of women and their infants. These interventions include planning for a clean and safe home birth, provision of a safe birthing kit, ensuring that dangerous complications are recognized and acted upon, adequate post-partum care, and having a referral plan for emergencies that covers transport, payment, and location of referral site. The majority of deaths due to hemorrhage, sepsis, obstructed labor, eclampsia and unsafe abortion can be averted with application of known technologies. Improved maternal health will have a significant impact on newborn health as well.

3. Reduce micronutrient deficiencies in pregnant and lactating women

Micronutrient malnutrition is a serious threat to the health and productivity of more than 200 million people in India. Because of their high prevalence and close association with morbidity and mortality, the deficiencies of greatest public health significance are vitamin A, iron, and iodine. (Refer to Annex D for details of deficiencies.) Vitamin A deficiency is a major cause of child blindness and is associated with increased morbidity and mortality in preschool children; it may also be associated with maternal mortality. Iron deficiency during pregnancy has severe consequences for both the mother and the newborn infant and lowers the work productivity of others.

Promotion of improved maternal nutrition includes attention to overall quantity and quality of the diet of pregnant and lactating women and iron/folate supplementation to reduce anemia.

LONGER TERM

1. Strengthen links to emergency obstetric care in referral sites

Many women live far from sources of adequate obstetric care. Families and birth attendants need to be aware of the warning signs of complications and must act quickly to get women in need to health facilities. To deal with the most serious complications, a facility should be able to provide most or all of the elements of "essential obstetric care", which include the ability to perform surgery and provide anesthesia, blood transfusions, management of problem pregnancies, and special care for newborns. This care requires adequately trained professional staff, logistical support to ensure supplies are available when needed. Standard protocols for managing complicated deliveries can guide and coordinate the actions of health professionals. Locating such facilities and developing referral links between community-based health workers and the professionals in these centers/hospitals is one important action appropriate for the INHP and SMCS.

2. Expand birth spacing

Improving access to family planning is essential to improving child survival. Babies born less than two years apart are twice as likely to die in the first year as those born after an interval of at least two years. By spacing births at least two years apart, family planning can prevent an average of one in four infant deaths.

Family planning can prevent many maternal deaths by helping women prevent unintended pregnancies and by reducing their exposure to the risks involved in pregnancy and childbirth. Locating such facilities and developing referral links between community-based health workers and the professionals in these centers/hospitals is one important action appropriate for the INHP and SMCS.

3. Educate adolescents on key health and nutrition matters and implement anemia control programs for in-school and out-of-school girls

Young girls are often responsible for care of younger siblings within the household. Girls in India, especially in poorer areas where female illiteracy is high, marry and bear children at young ages. Preparing adolescent girls for their roles as mothers is important to ensure their health and that of household members. Adolescence is an ideal time to supplement girls with iron to prevent/control anemia. Many models exist in India for reaching teenage girls both in school as well as out of school. These can be studied for appropriate adaptation into Title II programs.

Infant and Child Health

SHORT TERM

1. Improve infant feeding practices and growth monitoring/growth promotion practices:

Malnutrition increases a child's risk of dying from many diseases, most prominently measles, pneumonia, and diarrhea. Programs to prevent malnutrition can reduce mortality from several diseases simultaneously. Efforts to promote even modest nutritional improvements such as small changes in complementary feeding behavior will have a beneficial impact over time. The effectiveness of child survival programs is increased by interventions that include the prevention of mild and moderate malnutrition. The largest reductions in child deaths are likely to be achieved by targeting populations with the highest rates of child mortality and simultaneously improving both health and nutritional status of children.

These program implications suggest that actions to promote positive behavior changes should be included in community child survival programs operating in both the CARE- and CRS-assisted sites. In India it is generally agreed that infant feeding – immediate and exclusive breastfeeding and appropriate and adequate complementary feeding practices – is the critical place to start. There is a clear pattern of growth faltering that begins around 6-7 months of age due to inadequate feeding behaviors. There is need to focus more resources on promotion of appropriate infant and young child feeding practices from birth through the first two years of life.

2. Reduce micronutrient deficiencies:

As mentioned above, deficiencies in Vitamin A, iron, and iodine threaten the health of many infants and young children in India. Vitamin A deficiency is a major cause of child blindness and is associated with increased morbidity and mortality in preschool children; it may also be associated with maternal mortality. Iron deficiency during pregnancy has severe consequences for both the mother and the newborn infant and lowers the work productivity of others. Iodine deficiency retards physical and mental growth and development in infants and young children and increases the risk of neonatal death. Micronutrient malnutrition has severe implications for the social and economic development of individuals, communities, and the country.

Deficiencies of greatest public health significance and their implications:

*Vitamin A*

Child blindness
Increased morbidity and mortality in preschool children
Maternal mortality

*Iron*

Severe consequences for both the mother and the newborn infant
Lower work productivity

*Iodine*

Retardation of physical/mental growth and development in infants and young children

Increased risk of neonatal death

Refer to Annex D for further details of these deficiencies.

3. Increase immunization coverage rates

Routine immunization coverage rates within India are low and even lower in the states in which Title II is operating. CARE and CRS have made progress within INHP and SMCS in linking the community to the ANM, who provides most of the routine vaccinations through regular health and nutrition days. The coverage rates for children 12 to 23 months is significantly better in the CARE- and CRS-assisted communities. Several options exist to further increase coverage including assignment of "operations officers" at the state level in each target state to work with state, district, and block officials and other partners (such as CARE and CRS and other donors) to improve the planning and management of routine immunization programs. CARE and CRS could also increase staffing devoted to this element of the program.

LONGER TERM

1. Introduce/Expand community level IMCI – community-based integrated approaches to child care (ARI, DDM/ORT, measles, deworming, nutrition, anemia, and malaria)

Integrated management of childhood illness (IMCI) or community-based integrated approaches to child health as PVOs prefer to term it, tackles the five leading causes of child deaths: diarrhea, pneumonia, measles, malaria and malnutrition. Treatment guidelines cover the most common potentially fatal conditions. The health worker assesses every child for non-specific danger signs, four main symptoms, nutritional status, and immunization status. The community-based health worker is taught to classify each child's illness according to whether the child needs referral, specific medical treatment and advice, or simple advice on home management. CARE is interested in testing this approach in a few smoothly operating demonstration sites and studying its feasibility for scaling up into the wider ICDS system.

## Annex B: INHP Statistics

| INHP Statistics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Estimates as of May 2000)** | | | | | | | | |
| | Andhra Pradesh | Bihar | Madhya Pradesh | Orissa | Rajasthan | Uttar Pradesh | West Bengal | All State |
| No. of Districts | 12 | 24 | 23 | 11 | 16 | 12 | 13 | 111 |
| No. of Blocks | 98 | 157 | 146 | 133 | 88 | 125 | 119 | 866 |
| No. of AWCs | 13245 | 15324 | 19480 | 12889 | 12257 | 12803 | 17714 | 103712 |
| Demo sites (estimate of AWCs) | 435 | 1397 | 3723 | 184 | 1786 | 900 | 2216 | 10641 |
| | 3% | 9% | 19% | 1% | 15% | 7% | 13% | 10% |
| NHD (estimate of AWCs) | 2604 | 3847 | 8805 | 535 | 1789 | 3968 | 477 | 22025 |
| | 20% | 25% | 45% | 4% | 15% | 31% | 3% | 21% |
| Beneficiaries for | | | | | | | | |
| Targetted Supplementary Feeding | 787000 | 886000 | 982000 | 1216000 | 644000 | 1087000 | 1093000 | 6695000 |
| INHP FO | 16 | 23 | 25 | 23 | 14 | 15 | 24 | 140 |
| Blocks per FO | 6 | 7 | 6 | 6 | 6 | 8 | 5 | 6 |
| AWCs per FO | 828 | 666 | 779 | 560 | 876 | 854 | 738 | 741 |
| INHP FCs | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 19 |
| | | | | | | | | |
| Estimates of Population under CARE AWCs | | | | | | | | |
| | Andhra Pradesh | Bihar | Madhya Pradesh | Orissa | Rajasthan | Uttar Pradesh | West Bengal | All State |
| Children U2 | 662250 | 766200 | 974000 | 644450 | 612850 | 640150 | 885700 | 5185600 |
| Children 2-6 years | 1125825 | 1302540 | 1655800 | 1095565 | 1041845 | 1088255 | 1505690 | 8815520 |
| P/L women | 596025 | 689580 | 876600 | 580005 | 551565 | 576135 | 797130 | 4667040 |
| Women 15-45 yrs | 2913900 | 3371280 | 4285600 | 2835580 | 2696540 | 2816660 | 3897080 | 22816640 |
| | | | | | | | | |
| Assumptions: | | | Rural | Urban | Total | | | |
| AWC population is 1000 | | | | | | | | |
| Children < 1 are | | | 2.80% | 2.30% | 2.70% | | | |
| Children 1-4 years are | | | 10.30% | 8.50% | 9.80% | | | |
| Women 15-45 years are | | | 22% | 24% | 23% | (Source: NFHS 1992-93) | | |

Pregnant / Lactating women are 4.5% of population
Children U2 are 5% of population
Annual Pregnancy rate is 3%
% of pregnant women in a population at a given time is 2.3%
Lactating women are 1.5% of population

| Eligible for food | Av. In Popln. | Eligible (40%) | Quotas |
|---|---|---|---|
| Preg | 23 | 9 | 8 |
| Lact | 15 | 6 | 8 |
| Children U3 | 70 | 28 | 28 |
| Children 3-6 | 80 | 32 | 40 |

**Annex C: Enhanced CS Impact in INHP DRAFT - May 2000**

[OPERATIONS RESEARCH IN TWO ICDS SECTORS (IN 2 SEPARATE FO AREAS) IN MP OVER 2 YEARS]

| **Problem** | **Objective** | **Activities** | **Indicators** | **Inputs** | **Assumptions** |
|---|---|---|---|---|---|
| Need to improve quality of demonstration sites<br><br>Poor community-based perinatal and newborn care:<br>-Unsafe deli-very/tetanus<br>- Inadequate referral/aware-ness of danger signs<br>- Lack of access to funds & transport<br>- Poor newborn care (bathing)<br>- Delayed breast feeding | Greater reduction in child mortality, especially neonatal mortality | *Phase I- Promoting birth planning*<br><br>*Phase-II Promoting community newborn care*<br><br>Capacity building of staff, NGO, counter parts<br><br>Advocacy<br><br>Further develop and adapt the MISP perinatal package (birth planning & newborn care) to (I) a low intensity model & (ii) a moderate intensity model<br><br>Assist GOMP with supply management | % of pregnant women in the 3rd trimester in the birth plan<br><br>% of newborns delivered using safe delivery kit<br><br>% of infants who are breast fed early (6-8 hours)<br><br>% of TT coverage among pregnant women<br><br>[Other practices such as cord care and warmth could also be studied] | 1 Project coordinator<br><br>Capacity Building of staff, counter parts (including<br><br>ANM,AW W & TBA)<br><br>Behavior change communica-tion strategy & IEC package<br><br>Safe delivery kits (?) | SDKs available<br><br>Govt. of MP support |

**Annex C: Enhancing Child Survival Impact of CARE UP's Program Through Immunization Over 3 Years DRAFT - May 2000**

| Problems | Goals | Strategy | Process Indicators | Outcome Indicator | Resources required |
|---|---|---|---|---|---|
| Poor routine immunization rates (24% in the CARE UP area)<br><br>Existence of unreached pockets in villages, and inadequate identification of the unreached by service providers<br><br>Inadequate awareness among the community about the importance of routine immunization<br><br>Incomplete clarity about protocol for immunization practices among service providers<br><br>Low motivation level of service providers | Increased immunization coverage among <2s in INHP blocks through NH Days in UP | • Effective use of Resource and Social Mapping at the AWC level as a tool to reach the unreached.<br>• Promoting convergence among community ICDS & Health to enhance the reach of immunization services (all levels)<br>• Capacity building of Health & ICDS functionaries esp. in<br>- Participatory Rural Appraisal<br>- Importance of enhancing immunization coverage<br>- Protocol for administration of vaccines<br>- Behavior change communication<br>• Community awareness through local & folk media, pictorial aids, behavior change communication (including messages that both polio vaccination and routine immunization are equally important)<br>• Promoting community ownership of child survival interventions | % of AWCs (either AWW or community) using a social map for monitoring immunization coverage<br><br>% of N&H Days with community involvement<br><br>Number of blocks that have an advocacy meeting with immunization coverage as an agenda item | Increased % of < 2s completely immunized (target 55%) | Human resources:<br>• State immunization coordinator -1<br>• FOs – 5<br>• PA -1<br>• AA - 1<br><br>Consultants/agency for capacity building on PRA & BCC<br><br>Development of communication material<br><br>Travel |

CARE UP has taken initial steps in this direction and held a series of capacity building sessions for all field staff on PRA. They also have identified an agency which can be collaborated with for this activity. CARE's relationship with the Dept. Of Health and Family Welfare, Govt. of UP is good and can be used as a platform for advocacy.
The need to accelerate improvement in immunization coverage cannot be overemphasized for UP with current coverage at 24% in CARE blocks.

## Annex D: Characteristics Associated with Vitamin A, Iron, and Iodine deficiencies

| VITMAIN A | IRON | IODINE |
|---|---|---|
| **Magnitude and distribution of deficiencies in India** | | |
| Clusters by household, community, and geographic location<br>8 million preschool children at-risk<br>25-50% of severely deficient children become blind and more than 50% of these die within months of losing their sight | Widespread and most common nutritional deficiency<br>Affects 50% of women in their 3rd trimester of pregnancy<br>If severe, may be associated with 50% of – and the main cause in 20% of – maternal deaths<br>20-40% of children are anemic | Clusters by geographic location<br>Over 167 million people at-risk<br>At least 54 million have evidence of goiter or other overt consequence of deficiency<br>More than 2 million are cretins<br>More than 6.5 million have mild neurological disorders |
| **Food Sources** | | |
| Preformed vitamin A (retinol) in some animal products, notably liver and milk<br>Beta-carotene and other carotenoids in plant material, particularly green leafy vegetables and yellow vegetables and fruits<br>Carotenoids converted into vitamin A in the body but activity is much less than for retinol<br>More than 80% in food comes from plant sources<br>Colostrum and early milk are rich and readily absorbable sources for newborn infants | Heme iron in meat – 25-35% absorbed<br>In all plant food as non heme iron – 2-20% absorbed<br>Bioavailability of non heme iron can be enhanced through eating vitamin C-rich foods, protein, and heme iron<br>Bioavailability may be improved by limiting the amount of iron absorption inhibitors consumed at meals, for example, phytates in wheat and other cereals; tannins in tea<br>For infants below 6 months old, breast milk is the most important source of iron. | Commonly available in the soil and universally in sea water<br>Food grown on iodine replete soils provide sufficient iodine to meet daily requirements |

| VITAMIN A | IRON | IODINE |
|---|---|---|
| | **Consequences of Deficiency** | |
| Plays a vital role in vision and growth<br>Deficiency among children 6 mo - 6 yrs old increases risk of mortality<br>Increases risk of complications and deaths from measles<br>More prone to severe diarrhea<br>Deficiency in pregnant women can result in severe xerophthalmia in utero, increases vulnerability of newborn infants to infection and death<br>Adverse effects on fertility | In infants and children - growth retardation and delayed mental and behavioral development<br>In pregnant women, associated with low birth weight and prematurity, linked to perinatal mortality<br>Severe maternal deficiency may cause reduced iron storage in the fetus and newborn infant, predisposing them to iron deficiency anemia<br>Severe iron deficiency in pregnancy increases risk of maternal mortality in childbirth<br>Among the population at large, causes diminished learning ability, decreased work capacity, and increased susceptibility to infection | Impaired growth and development<br>Goiter<br>Hypothyroidism<br>Mental retardation<br>Increased morbidity<br>Severe deficiency in women results in reproductive failure and a high risk of giving birth to cretins |
| | **Causes of deficiency** | |
| Inadequate dietary intakes<br>Increased requirements due to pregnancy and lactation<br>Losses from bacterial and parasitic diseases<br>Social and cultural factors may preclude consumption of foods rich in vitamin A by young children<br>Diets low in fat limit absorption | Inadequate dietary intakes<br>Poor bioavailability of dietary iron due to presence of iron absorption inhibitors in food<br>Increased iron requirements due to pregnancy or losses from infectious and parasitic diseases | Consumption of animal products and crops grown on iodine deficient soils<br>In some areas deficiency exacerbated by consumption of goitrogen-containing foods that interfere with utilization |

## Annex E: Expected Results Measurements for Micronutrient Interventions

| ACTIVITY | RESULTS MEASUREMENT |
|---|---|
| **Coalition, consensus building, and research for policy dialogue and formulation** | |
| Creation of the India Micronutrients+ (IMN+) | Functioning IMN+<br># meetings<br>Increased commitment to strategies to improve vitamin A and anemia |
| Disseminate USAID-funded technical information (research findings, reports from Global project, IVACG, and INACG) and in-depth reports on NFHS nutrition data and on new technologies (genetic modification, food fortification, food processing/preservation) | Information used in policy discussions |
| Explore providing *post partum* vitamin A supplements | GOI position paper on *post partum* vitamin A supplementation |
| Determine efficacy and effectiveness of prenatal multiple MN supplements on maternal health and neonatal outcomes | GOI position paper on use of prenatal multiple MN supplements |
| Develop national-level strategy to reduce prevalence of moderate-mild malnutrition including complementary feeding and MN supplementation | GOI position paper on complementary feeding and MN supplementation in infants and young children |
| Budget analysis for procuring vitamin A and IFA under the existing program as well as an expanded program that includes post-partum vitamin A supplementation. | Procurement procedures changed and implemented<br>Increased supply |
| Calculating the public health benefits and cost-effectiveness of new approaches to controlling vitamin A and iron deficiencies | Cost-benefit of supplementation established<br>Increased supply and coverage |

**Expanding access to micronutrients**

| | |
|---|---|
| Commercialize micronutrient supplements to targeted markets below Class C outlets | Higher sales volumes of supplements to target markets in a specified number of outlets<br>Increased coverage |
| Develop and disseminate up-to-date information for private sector health care providers and outlets below Class C areas | Increased number of prescriptions/recommendations from target providers<br>Increased stockage in target outlets<br>Increased coverage |

**Improving coverage of micronutrient programs in the public health sector**

| | |
|---|---|
| Develop plan for and implement guidelines for conducting a situation analysis for the supply and demand for MN-related supplements in selected Districts/States | District/State level implementation of a situation analysis of the supply and demand for MN supplements<br>State level action to improve procurement, distribution, training to |
| GOI implements biannual vitamin A days in selected CARE areas | Increased coverage |
| Generate community-based supplies of micronutrients | Increased coverage |
| Translate the results of formative research into value-based strategies for sustainable community and household behavior | Behavior change strategy developed and implemented<br>Coverage increased and sustained |
| Identify and strategically address the non-knowledge-based barriers to changing child feeding and MN supplementation | Behavior change strategy developed and implemented<br>Coverage increased and sustained |

**Annex F: Monitoring and Evaluation and Use of Surveys**

The Strategy team agrees with the conclusions of the MTRs (see Final Report: Mid-Term Review of the CARE-India PL-480 Title II-supported Integrated Nutrition and Health Program (INHP), CARE India, 26 June 1999, and Anu Bhardwaj, Health Sector Report, CRS/India, Mid-Term Review, December 1999, 35p with appendices) that the management information systems (MIS) initially put in place to assist both projects with monitoring and evaluation (M&E) need to be simplified. Interviews during field visits supported the view that the village health workers (VHW) in the CRS program, and the AWW, ANM and ANM supervisors in the CARE program, all still have too much paperwork and record keeping to deal with. This limits the time and energy devoted to service delivery and supervision. Some ANM supervisors never visit the field because of the quantity of record keeping they must attend to. The movement toward simplifying the system, which has included the recent development by CARE with MSH technical assistance of a new, more simplified system, should continue. (See Procedures Manual for CARE INHP Monitoring System, Ver 1.0, March 2000, CARE, India, HMIS Unit., 41p.)

Efforts to use the data collected to provide feedback to village-level workers and the communities where they work need to be continued, as do efforts to use data for decision-making at higher levels. CARE noted the need to develop mechanisms for use of data, particularly to engage government and other partners in using data to improve program directions and impact. The team observed promising innovations in this area including social mapping, which indicates families in castes that have been difficult to reach, and those families located in distant, peripheral areas which will require special efforts to be included in the program.

In order to obtain the few impact indicators needed by USAID for its R4 reporting, and to reduce data collection efforts by both CARE and CRS, in the next DAP yearly surveys might be carried out by outside, specialized groups on a contract basis. This would also help assure independent, objective evaluations, and not distract program staff from essential service delivery activities and field level M&E. Survey design and sampling should receive careful attention to avoid overly complicated designs leading to results difficult to interpret, which appeared to be a problem in the baseline and midterm surveys conducted for CARE. (See "Integrated Nutrition and Health Project: Achieving Impact through Partnership, Mid-Term Survey summary Report," CARE India, January 2000, 17p.)

In addition to well-designed yearly surveys, short, simple, mini-surveys could be used when necessary to test hypotheses related to program functioning when decisions need to be made concerning program directions. For example, CARE believes that efforts to improve immunization in their intensive areas are currently having an important impact, and coverage rates are well above the over 30 percent indicated by the MIS overall. Immunization coverage in these intensive areas may be as high as 60-80 percent of the target population. A mini-survey, perhaps using a simple one-page matrix form, might be conducted to validate this hypothesis. If the presumed good results are confirmed, the program might decide to scale up the approach in order to improve immunization coverage overall. In some cases, for example in the Sangini ("female companion") reproductive health project area which the team visited in Sitapur District,

the MIS data already being collected could be reviewed to test hypotheses about types of

intervention – for example, the acceptability of social marketing of safe delivery kits – without requiring additional data collection. The experimental operations research approach of this project offers many opportunities for hypothesis testing and data for decision-making activities.

## REFERENCES


1. Final Report: Mid-Term Review of the CARE-India PL-480 Title II-supported Integrated Nutrition and Health Program (INHP). June, 1999
2. CARE-India Integrated Nutrition and Health Programme, Midterm Evaluation Report, November, 1999 Foundation for Research in Health Systems
3. Bhardwaj, Anu et al. CRS/India Mid-term Review, Health Sector Report, December, 1999
4. National Family Health Survey (NFHS), 1999
5. Integrated Child Development Services, Department of Women and Child Development, Ministry of Human Resource Development, Government of India, 2000
6. CRS India Program, PL-480 Title II, Development Activity Proposal 1997-2001.May, 1996
7. CARE-India, Development Activity Proposal October 1, 1996-September 30, 2001, May 1996
8. Newborn Care in South-East Asia Region: Current Status and Priorities, WHO Collaborating
9. Centre for Training and Research in Newborn Care, Neonatal Division, Department of Pediatrics,
10. All India Institute of Medical Sciences, New Delhi, India, November, 1998
11. Manual for Integrated Management of Childhood Illness, WHO and UNICEF
12. Community Based Approaches to Child Health: BASICS Experience to Date, BASICS, 1998

**ACRONYMS**

| | |
|---|---|
| ANC | Antenatal Care |
| ANM | Auxiliary Nurse Midwife |
| ARI | Acute Respiratory Infection |
| AWC | *Anganwadi* Center |
| AWW | *Anganwadi* Worker |
| BCC | Behavior Change and Communication |
| BHR/PVC | Bureau of Humanitarian Relief/Private Voluntary Cooperation |
| CDC | Centers for Disease Control |
| CP | Counterpart |
| CRS | Catholic Relief Services |
| CS | Child Survival |
| DAP | Development Activity Proposal |
| DDM | Diarrhea Disease Management |
| FANTA | Food and Nutrition Technical Assistance Project |
| FY | Fiscal Year |
| GOI | Government of India |
| ICDS | Integrated Child Development Services |
| IFA | Iron Folic Acid |
| IMCI | Integrated Management of Childhood Illness |
| IMR | Infant Mortality Rate |
| INHP | Integrated Nutrition and Health Program |
| M&E | Monitoring and Evaluation |
| MIS | Management Information System |
| MMR | Maternal Mortality Ratio |
| MOHFW | Ministry of Health and Family Welfare |
| MOST | USAID Micronutrient Program |
| MP | Madhya Pradesh |
| MTE | Mid-Term Evaluation |
| MTR | Mid-Term Review |
| NGO | Non-governmental Organization |
| OP | Operating Partner |
| ORT | Oral Rehydration Therapy |
| OR | Operations Research |
| PACT/CRH | Program for the Advancement of Commercial Technology/ Child and Reproductive Health |
| PVO | Private Voluntary Organization |
| SMCS | Safe Motherhood and Child Survival Program |
| SO | Strategic Objective |
| TBA | Traditional Birth Attendant |
| TSF | Targeted Supplementary Feeding |
| TT | Tetanus Toxoid |
| UNICEF | United Nations Children's Fund |
| UP | Uttar Pradesh |
| USAID | United States Agency for International Development |

| | |
|---|---|
| USG | United States Government |
| VHW | Village Health Worker |
| WB | World Bank |
| WHO | World Health Organization |

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