

PD-ABI-342  
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**FINAL EVALUATION**  
of the  
**Breastfeeding and Maternal and Neonatal  
Health Sub-Project**

**MotherCare<sup>TM</sup>**

(936-5966.01)

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Prepared for:

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

August 1993

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**This final evaluation of the MotherCare sub-project was conducted under the auspices of the Office of Health, Bureau for Research and Development, Agency for International Development. The Evaluation was conducted by the Pragma Corporation under its Multisectoral Food and Nutrition IQC, Delivery Order No. PDC-5110-I-00-0087-07.**

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## **PREFACE**

This evaluation was carried out at the request of the Office of Health, Bureau for Research and Development (R&D/H), Agency for International Development (A.I.D.). It was coordinated by The Pragma Corporation through its Multisectoral Food and Nutrition IQC, Delivery Order No. PDC-5110-I-00-0087-07.

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## ACKNOWLEDGMENTS

The evaluation team wishes to thank the staff of the MotherCare Project for their excellent overview presentation of the project, their thoughtful preparation of materials for review, their willingness to accommodate the evaluation team by providing space to work within JSI's headquarters, and their preparation of customized information and financial reports in response to team members' numerous requests. All members of MotherCare's staff gave very generously of their time.

We would also like to acknowledge USAID responses from the field, staff of A.I.D./Washington who took time from their busy schedules to speak with us, and individuals in the field who were also generous with their time. (For a complete listing of individuals interviewed, please refer to Annex II.)

The efforts of The Pragma Corporation, who coordinated this evaluation, are also gratefully acknowledged.

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## ACRONYMS

ACNM	American College of Nurse Midwives
AIDS	Acquired Immune Deficiency Syndrome
ARI	acute respiratory infection
AVSC	Association for Voluntary Surgical Contraception
BMNH	Breastfeeding and Maternal and Neonatal Health Project
CTO	Cognizant Technical Officer
EPB	Wellstart's Expanded Promotion of Breastfeeding Program
GDS	gastric delivery system iron capsules
GYN	gynecology
Hgb	Hemoglobin
FIGO	International Federation of Obstetrics and Gynecology
IE&C	Information, Education, and Communication
JSI	John Snow, Incorporated
MOH	Ministry of Health
NCIH	National Council for International Health
NGO	non-governmental organization
OB	obstetrics
ODC	other direct cost
OYB	operating year budget

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<b>PAHO</b>	Pan American Health Organization
<b>PCS</b>	Population Communication Services
<b>PVO</b>	private voluntary organization
<b>REACH</b>	Resources for Child Health
<b>SEATS</b>	Family Planning Service Expansion and Technical Support Project
<b>SRS</b>	Sample Registration System
<b>STD</b>	sexually transmitted disease
<b>TA</b>	technical assistance
<b>TBA</b>	traditional birth attendant
<b>UNICEF</b>	United Nations Childrens Fund
<b>WHO</b>	World Health Organization

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## EXECUTIVE SUMMARY

### A. INTRODUCTION AND OVERVIEW

MotherCare, a sub-project of the Breastfeeding and Maternal and Neonatal Health (BMNH) Project, completes a first five-year phase of implementation on September 30, 1993.<sup>1</sup> The BMNH Project was designed by A.I.D. to address within the Agency's Child Survival Initiative two largely ignored areas: maternal health and nutrition (reproductive health) and neonatal health and nutrition. The goal of the BMNH Project is to improve the health and nutritional status and survival of women of reproductive age and their children.

The MotherCare sub-project has had the opportunity during this first phase of contract implementation to demonstrate the feasibility of providing a package of effective, appropriate maternal and neonatal care services and education to women and their infants in developing countries. To what extent has MotherCare advanced the field of maternal and neonatal health and nutrition? To what extent has the sub-project met the objectives articulated in the contract and in the BMNH Project Design Logical Evaluation Framework? What is the knowledge base at the end of Phase I of the sub-project<sup>2</sup> that provides critical information for Phase II?

This final evaluation of MotherCare satisfies A.I.D.'s requirement for an end of contract assessment of Phase I activities. It focuses on what has been accomplished as the result of the pioneering work that MotherCare has undertaken over the past five years and looks toward the future, i.e., what priority activities should be undertaken in Phase II.

### B. GOALS AND OBJECTIVES AND PROJECT TIME FRAME

The final evaluation team reached consensus that MotherCare has achieved, in part, its purpose level objectives as outlined in the Project Design Logical Evaluation Framework (see

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<sup>1</sup>Contract DPE-5966-Z-00-8083-00 was competitively awarded to John Snow, Inc. It is a \$13.5 million, cost-reimbursable contract that has been incrementally funded over a 54 month period (MotherCare lost six months of project implementation time due to a post-contract award protest and stop work order). The Health Services Division of the Agency for International Development's Office of Health within the Bureau for Research and Development has managed the contract.

<sup>2</sup>Hereinafter referred to as project.

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Figure 2, pg. 7-8)<sup>3</sup>. The team also concluded that some of MotherCare's projects<sup>4</sup> may have an impact on the overall goal of the project, i.e., a reduction in maternal and neonatal morbidities and mortality. However, key analyses of evaluative data for many of MotherCare's projects are still incomplete and we cannot answer this definitively.

All priority areas outlined in the contract work statement have received attention. Some aspects have appropriately become major foci in Phase I, i.e., maternal mortality prevention and maternity care system delivery have received priority emphasis. Areas that have received limited attention and could receive increased emphasis in Phase II include: maternal nutrition; neonatal health and nutrition; sexually transmitted diseases; malaria prophylaxis; and family planning.

Factors that have hindered MotherCare's ability to address all aspects identified in the work statement with equal attention include:

- limited staff size at the professional and administrative levels
- the degree of energy output and financial resources required to address the objective of developing a "package of services"
- the interests of countries (counterparts) and USAID missions
- family planning was receiving adequate attention from other A.I.D. centrally funded projects
- the shortened time frame of the project

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<sup>3</sup>While MotherCare carried out long-term demonstration and research projects in over five countries, the scope of these projects has been limited to the district or sub-district (community) level. To meet the first of the purpose level objectives described in the BMNH Project Design Logical Evaluation Framework, MotherCare will need to develop regional or national level programs in five to eight countries. This therefore will become a priority for Phase II of MotherCare. It is important to note that the Project Design Logical Evaluation Framework is for a ten-year project with two five-year contract implementation phases. Therefore, MotherCare's focus on demonstration projects at the district and sub-district levels has been appropriate for the first of two five-year contract implementation periods. In fact, it has been suggested by USAID/Guatemala that other centrally funded A.I.D. projects model their activities after MotherCare, i.e., developing and implementing a small-scale demonstration project that could potentially be scaled up. This points out the need for centrally funded projects to convince local authorities of the worthiness of an activity before suggesting that it be scaled up.

<sup>4</sup>MotherCare entered into over 30 subcontracts with local implementing agencies in eight countries to carry out research and demonstration projects.

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Factors that have in part contributed to the success of meeting the goals and objectives of the project include:

- the interest, skill-level, knowledge and commitment of project staff
- the careful development of high-quality activities
- sufficient up-front planning

Determining the cost of various interventions for their replicability represents a weak area and one that should receive priority emphasis in Phase II. While cost analyses were carried out in the Surabaya and Tanjungsari projects in Indonesia, they require further interpretive work before any conclusions can be drawn. In general, cost data were not provided by many of MotherCare's projects and were difficult to obtain. Yet, MotherCare realizes the importance of, and necessity for, cost information for policy dialogue with ministries and donors. Ministries need this data for informing policy, planning, and resource allocation decisions. It will be important that a strategy be developed in Phase II for collecting cost data.

The evaluation team, and many interviewees, believe that five years is an insufficient time to plan and complete implementation of demonstration project interventions, and to evaluate the impact of these interventions on health status and policy (though they acknowledge the constraints of the existing A.I.D. programming framework, i.e., five-year contract cycles). Results are now becoming available from some of MotherCare's demonstration projects, and thorough analysis and interpretation of intervention data, with accompanying publication, presentation and dissemination, alone, takes at least six months. Adding two years to the contract cycle, i.e., two seven-year contracts within a fourteen year project, may be a more realistic time frame.

## **C. PROJECT ACHIEVEMENTS**

### **1. THE BASIS FOR CONCLUSIONS**

A.I.D. provided the evaluation team with a comprehensive set of questions (scope of work) with which to evaluate MotherCare's achievements at the end of Phase I (see Annex I). Of greatest interest to A.I.D. is to learn what "new" information MotherCare has contributed to the field of maternal and neonatal health and nutrition that had not been known at the outset of the project, and what specific project activities are considered replicable and deserve "scaling up" to the regional/national levels in Phase II. Without the benefit of travel to the field and a longer time frame for conducting this evaluation, the team developed

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criteria for determining the effectiveness of interventions in order to answer A.I.D.'s questions.

There is always a genuine concern on the part of A.I.D. to learn what their investment has yielded in terms of new knowledge, lives saved, how things can be done better, and where their "comparative advantage" lays in a particular field. The emphasis in Phase I of MotherCare has been appropriately placed on demonstration<sup>5</sup> projects to provide A.I.D. with precisely this kind of information. Therefore, in advising A.I.D. on what seems to have worked the team focused heavily on the data emanating from the demonstration projects. Not all aspects of MotherCare's activities warranted critical scientific review. Yet all areas have been evaluated and their results collated to develop a composite picture of MotherCare's achievements.

The team derived its conclusions based on four methods of data collection:

1. Review of secondary data. (Reference Annex V.)
2. Conduct of interviews. (Reference Annex II.)
3. Analysis of field responses to a questionnaire (sent to USAIDs in Bolivia, Guatemala, Indonesia, Nigeria and Uganda). (Reference Annex IV.)
4. Critical review of methods and results from written documentation of the research and evaluation components of MotherCare's long-term research and demonstration projects. (See material contained in Table 4, pgs. 37-40, which is annotated in Annex VIII.)

This latter data collection method (#4) deserves elaboration here. First, with applied research of the type undertaken in the MotherCare demonstration projects (as in most public health research) the intent is to obtain knowledge that can be applied to solving a problem, like what kinds of maternity care systems have a demonstrable effect on reducing mortality or morbidity. Questions that can be answered include such things, as "What has worked?" "What is most useful?" "What combination of services works best?" "What information can we use to solve other service system problems?"

To answer questions like these, the epidemiologist on the evaluation team, reviewed the end-of-project reports from MotherCare's long-term research and demonstration projects, using

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<sup>5</sup>Discrete research projects and long-term, complex demonstration projects with research and evaluation components.

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the same scientific rigor that would be applied to any published material<sup>6</sup>. The social scientist on the evaluation team examined the training and IE&C components of each of the projects and provided her conclusions about these components to the epidemiologist to help complete the assessment.

Each project's study design, case ascertainment techniques, sampling, data collection methods, and analytic methods were analyzed for scientific soundness and for any potential biases that could affect the internal validity of the findings. The team looked for causal links between interventions and chosen outcomes on the basis of the reported strength of association in the data.

In the discrete research projects<sup>7</sup> analysis and results had to account for other variables that might explain the reported relationships. The manner and types of statistical techniques used for these analyses were judged.

For the large complex demonstration projects more emphasis was placed on internal than external validity, that is, more on the "believability" of the particular project's impact than on whether project findings can be generalized to other populations. Evaluation designs were assessed for their ability to moderate the classic evaluative research biases. Every evaluative research attempt in MotherCare suffered problems in implementation (not uncommon for applied research) and the effects of those changes are factored into the team's assessment of the findings. The evaluation team had only basic and preliminary data analyses available for review for most of the evaluative research studies; hence, most judgments about program effect must wait for complete and comprehensive analytic results.

The criterion of "consistency of findings" over several projects in different countries was also applied to the assessment since several demonstration projects used the same basic methods and approaches. Projects and project components are rated in Table 4 (pgs. 37-40) as "effective" or "ineffective", as appropriate, if several projects gave similar results.

Many aspects or components of the demonstration projects were evaluated on the basis of "disciplined inquiry" rather than strict scientific research criteria, i.e., specific components within projects were deemed a success or failure by the evaluation team, MotherCare project staff, technical advisors, etc. These judgments are "evaluations" rather than "evaluative

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<sup>6</sup>The epidemiologist also interviewed collaborators in the U.S. about study issues and results, especially probing for problems in study execution that might have invalidated the results.

<sup>7</sup>Kangaroo Mother Method (Ecuador); Gastric delivery system for iron capsules (Surabaya, Indonesia); TBA distribution of iron folate tablets (Indramayu, Indonesia); Bacterial Vaginosis (Indonesia); and Low Birth Weight (Indonesia).

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research" and therefore, provide a judgment of worth about a specific project component. In some cases, the team merely reflected the judgments of those who made them if clear reasons were stated for the judgment.

From these analyses, the following conclusions were reached regarding MotherCare's major contributions.

**2. MOTHCARE'S MAJOR CONTRIBUTIONS TO THE FIELD OF MATERNAL AND NEONATAL HEALTH AND NUTRITION: PROVEN STRATEGIES FOR "SCALING UP" TO REGIONAL / NATIONAL LEVELS**

MotherCare developed a number of general as well as specific approaches that have proven effective and are worthy of replication and "scaling up". Moreover, MotherCare learned a number of important lessons that will inform a second phase of project implementation. These approaches as well as lessons learned are described below.

**a. Major Contributions (General):**

- i. **MotherCare defined a set of four integrated technical components (inputs/outputs) for all long-term demonstration and research project activities:**
  - 1) Improving Services (services, training, equipment/supplies, physical plant improvements);
  - 2) Affecting Behaviors of family, community, providers (IE&C);
  - 3) Enhancing Policy (advocacy, policy, information dissemination, collaboration);
  - 4) Research (applied research, assessment methodologies, evaluation).Through its projects, MotherCare has demonstrated the importance of the interdependency of these major inputs/outputs; it has also provided the project with a useful framework to report on project activities. Using these four major inputs/outputs as categories of technical assistance, the evaluation team has summarized MotherCare's project activities over the past five years in a table (see Table 1, pg. 11).
- ii. **The MotherCare "Typology" has made an important contribution to the state-of-the-art.** In brief, it is a classification scheme for available health/medical care services in a geographic area, ordered along a continuum with three classical points: A - isolated; B - mixed, with public health infrastructure; and C - urban, public and private. MotherCare has used this typology with all of its projects; hence, it is beginning to "catch on" to other organizations, such as the World Bank, as a quick and easy way to characterize existing systems of health care. This framework should continue to be used and refined in Phase II.

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- iii. As a first step in designing service delivery projects, MotherCare carried out a "situational analysis" which included maternal and perinatal deaths case reviews, an assessment of the clinical services and the organization of the maternity care system, and identification of important actors in the system. This **"up front" health planning activity has been key** to the functioning of MotherCare's complex demonstration projects. The maternal and perinatal deaths case reviews proved very helpful to target intervention strategies in several settings.
- iv. MotherCare has addressed the **"system" of maternity care services from the home to the hospital** (Surabaya and Tanjungsari projects, Indonesia; Inquisivi, Bolivia project; Quetzaltenango, Guatemala project) and has demonstrated the feasibility and desirability of integrated programs. A majority of projects included the most relevant aspects to systematized maternity care, such as improving medical and traditional practices, setting standards, training, sensitization of providers, communicating and educating women/families, referral links, identification of danger signs, essential obstetric care, improved physical plants, equipment and supplies, IE&C activities. Family planning services, cervical cancer screening, a focus on anemia, STD screening and treatment, and instruction in the care of newborns were added to maternity services at some project sites. Several lessons were learned from these demonstration projects. For example,
- When women expressed a desire for family planning services along with improved labor and delivery care, providers, once informed of these findings, began to offer the services, even to the extent of complying with the women's wishes for privacy; these changes in service delivery resulted in a significant increase in the local contraceptive prevalence rate. In Cochabamba, Bolivia, a small private room was set up within the service building to accommodate the women seeking family planning services.
  - Changes in the utilization patterns of women occurred not just with operational system changes, e.g., number of physicians attending patients, number of hours clinic is open, but when providers changed their manner of service delivery after having been sensitized to the needs and opinions of women. These provider behavior changes stimulated immediate behavior changes in women, i.e., women began making appropriate use of services (Cochabamba, Bolivia; Quetzaltenango, Guatemala; Nairobi, Kenya projects). This interaction between women (community) and providers (service system) is a major contributing factor to utilization and compliance patterns.
  - Several different styles of maternity care service systems have had similar results. Each was based on a similar basic plan of care aimed at preventing

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maternal and early neonatal death: early detection, referral and appropriate management of women with signs and symptoms of complications, or "at high risk" of complications. So while "styles" must be suited to the local situation, the basic tenets of what makes a maternity care system work remain fundamentally the same, and represent an appropriate approach to maternity care around the world.

- As so few women use appropriate facilities for delivery in large parts of Africa/Asia, and use them inappropriately in Latin America, interventions need to focus not only on improving management of obstetric/neonatal complications, but on communicating directly with women about danger signs during labor and delivery and appropriate use of services when danger signs are recognized.
- v. Tools and guidelines developed by MotherCare (**the community auto-diagnosis, the situational analysis, verbal autopsy, maternal and perinatal deaths case review, etc.**) have helped planners to prioritize where they will concentrate their efforts and resources. Moreover, these tools provided planners with an impact measure to use in evaluating the effect of changes that are made. These assessment tools worked because they involved the community of potential users and the providers of services.
- vi. Given the types of service programs MotherCare has had in place it may be **more important to measure the pregnancy complications rate or other complications-based indicators**, such as percent of complications referred appropriately, **than to measure mortality rates**. Complications-based indicators were used by MotherCare in the Tanjungsari, Indonesia and Quetzaltenango, Guatemala projects. Such indicators appear to be process-oriented only, but if they are based on the causes of mortality and morbidity, then they can be used to examine "impact". This is important because as services are directed at the causes of mortality and successfully implemented, mortality will decrease, making mortality less feasible as an indicator of health impact. The current lack of epidemiological and medical knowledge precludes using the incidence of obstetric morbidity (e.g., pre-eclampsia, obstruction, etc.) as an impact indicator, and so, successful detection of complications and their appropriate handling becomes a substitute.
- vii. MotherCare has involved key stakeholders (including at the policy level) in the planning, design and implementation of project activities. This **"planning together" approach**, involving key people who will have impact on the operation of a maternity care system with the community, is an absolute necessity for

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sustainable projects. This method promotes ownership of the resulting interventions by respecting cultural values and traditional practices.

viii. **MotherCare has learned that a referral "system" implies more than treatment protocols.** Lessons learned in the implementation of obstetric complications identification and referral strategies include:

- Obstetric complications identification and referral strategies can be implemented on a community-wide basis if adequate attention is given to the content of the assessment of danger signs and the identification used to declare action modes.
- Community workers can learn to assess danger signs appropriately.
- Discussing danger signs during labor and delivery with women can frighten women and their families; therefore, continued education is needed to improve people's understanding of what it means to be diagnosed with complications and what actions can be taken.
- The site of referral must be acceptable and provide appropriate management of complications if a danger sign assessment strategy is to be successful.
- The line of referral for each group of danger signs must be clearly established.
- Early detection of mothers with danger signs allows more time for the mother and the family to prepare for possible referral.
- Two-way radio communication between the levels of health care (e.g., health center and referral hospital) helps the referral process.
- Transportation for emergencies is a key part of maternity care services.
- Costs of the care for obstetrical complications is a major barrier to seeking this care. Transportation costs are viewed as minor compared to the costs of cesarean sections.
- The desire to have a home birth is very strong in areas where this continues to be the primary site of delivery. Home conveys and provides warmth, family support and privacy--all factors that are highly valued and quite distinct from the coldness, lack of privacy, disrespect and often harsh

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attitudes found in hospitals and health centers. Creating a climate for a warmer and more respectful encounter between women and their families and providers through sensitization of all parties, is key to a successful safe motherhood program.

- ix. In extremely difficult settings with very limited resources and very isolated conditions, MotherCare showed successful methods to help the **community make decisions and prioritize problems and solutions**. The priorities selected by the communities may not be what health professionals might perceive as priorities; however, working with the community to understand its needs best can lead to the development of appropriate and sustainable activities.
- x. MotherCare experience validates the premise that for **quality of services to increase**, health workers must improve their knowledge and skills of obstetrical management and their attitudes toward clients, they must have adequate equipment and supplies, and health services must be efficiently and effectively managed. Transportation, ability to pay, and relationships between health service providers are among factors identified as potential barriers to referral systems and other changes aimed at improving services. Research on the nature of these barriers and potential ways of resolving them has been initiated under MotherCare Phase I and should continue under Phase II.
- xi. Norms and protocols of practice for physicians and other medical care providers, including midwives and TBAs, cannot be simply introduced with a "short training course". It is absolutely clear from MotherCare's project experiences that for real continued change in practice to take place and for a real effect on complication management, continued **supervision and follow-up training** are required.
- xii. In the long-term countries where MotherCare has worked, it is estimated that well over half of all childbirths occur at home and are attended by TBAs or family members. Recognizing that primary maternal health workers will continue well into the next decade to monitor pregnant women, assist at deliveries, and detect and treat, or appropriately refer, at-risk women, MotherCare has developed in Guatemala a **systematic and comprehensive approach to TBA training**, i.e., training in the recognition of danger signs and appropriate referral. Supportive activities to reinforce TBA preparation in Indonesia and Nigeria have also been provided. If this training and supervisory approach to TBA practice is shown effective in improved outcomes and referral (complete analysis of data from Phase I should answer this question), then it could become a model for training TBA's worldwide.

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- xiii. **MotherCare has reinforced the interdependence of qualitative and quantitative research**, where the results of one can help guide the development and focus of the other (e.g., Bolivia, Indonesia). The project's experience shows that it is particularly important to balance results of market research with an understanding of epidemiological research findings in order to have a more comprehensive picture of the needs of a community or population group.
  - xiv. Utilizing local in-country research agencies (universities and public and private organizations) to conduct research whenever possible ensures skills transfer and promotes synergistic results. An important by-product of the project's emphasis on behavioral research and a process-oriented IE&C component has been **local capacity building among counterparts**.
  - xv. The development and presentation of workshops with project teams to **link research findings with strategy development** for all IE&C activity has greatly enhanced overall project development as well as the monitoring of interventions (e.g., Bangladesh, Bolivia, Nigeria, Philippines).
  - xvi. The Technical Advisory Group Meetings, which included principal investigators and counterparts from MotherCare's field projects, provided a useful forum for sharing information/data and problem solving. Project supervision and maintenance of quality improves through "mutual evaluation" with these kinds of professional exchanges. This **unique TAG meeting format and agenda provides a useful model** for other centrally funded projects to consider, resources permitting.

**b. Major Contributions (Discrete Research)**

- i. **The Kangaroo Mother Method (KMM) study in Ecuador** shows effects on serious morbidity and cost of care: the amount of costly care decreased for the KMM infants in the post-neonatal period as a result of decreased serious illness in the KMM infants (especially of lower acute respiratory infections). The study showed that KMM infants were in the hospital longer than the comparison group infants initially, and that after discharge from the hospital there was increased utilization of preventive services by KMM mothers, but less rehospitalization of infants. The study took place in a "Baby Friendly" Hospital so the study could not assess the effect on breastfeeding practice nor on diarrhea or other diseases related to bottle feeding. If the desire is to assess the effect on breastfeeding and the illnesses resulting from non-breastfeeding, the study should be replicated in another type of hospital. Given the encouraging results, however, it would be useful to assess the KMM at the community level for low birth weight infants.

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- ii. **Iron-Folate Distribution, Indramayu, Indonesia:** When iron-folate tablet distribution was expanded from health centers to include community-based distributors (TBAs and kaders), who had continuously available supplies, the following indicators increased: the number of tablets taken per month by pregnant women; the total number of tablets taken during a pregnancy; and the percentage of pregnant women taking tablets.
  - iii. **Slow release iron study, Probolinggo, Indonesia:** The gastric delivery iron capsules did raise hemoglobin levels in anemic pregnant women.
  - iv. **Syphilis treatment, Nairobi, Kenya:** This IE&C enhanced project brought treatment levels for seropositive women to 85 percent from 9 percent and to 52 percent for partners. The potential for further implementation of the project approach in Nairobi clinics and elsewhere deserves full consideration.

### **3. POLICY ACHIEVEMENTS, LESSONS LEARNED, AND RECOMMENDATIONS**

#### **a. Enhancing Policy**

##### **i. Advocacy**

- 1). MotherCare central and field staff have been very effective advocates for maternal health, focusing on mortality prevention and the maternity care "system". Their efforts have been less focused on maternal nutrition and neonatal health and nutrition, areas which should receive greater emphasis in Phase II. Although responses from the field (USAID missions in all five long-term demonstration countries) were mixed regarding MotherCare's advocacy efforts, it is clear from reading the content of missions' complete responses, that MotherCare has been very successful in advocating for improvements in the maternal care system. (See II.B.3.a. and Annex IV.)
- 2). No one advocacy mechanism or "technique" used has been superior to another. It is probably the combination of techniques that has raised awareness of maternal health issues. Advocacy tools that could be used more prominently in Phase II include: 1) dissemination of project findings and cost-effectiveness data to policy makers; and 2) development of a comprehensive information dissemination strategy to ensure that publications are targeted and receiving widespread dissemination.

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## ii. Policy Enhancement

- 1). MotherCare has effectively articulated a definition of advocacy in a chapter entitled "Enhancing Policy Reform" that will be part of a supplement that the MotherCare Project is writing for the *International Journal of Gynecology and Obstetrics*. Advocacy or "policy dialogue" is described as the first point on a continuum toward policy change/reform or policy formulation. It is noted that the road toward policy reform is often long and involves backward and forward movements along the continuum; progress may even be halted if resources and attention are diverted.
- 2). MotherCare recognizes the role of its demonstration projects and other information sources in serving as a basis for advocacy, building support for policy formulation and providing a basis for influencing public opinion. At the end of Phase I, all of MotherCare's long-term demonstration projects lie midway on the continuum between advocacy and policy formulation.
- 3). Many of the changes that have occurred as a result of MotherCare's in-country interventions, such as training, have strengthened institutional capacity. MotherCare staff eloquently describe the convergence and coordination of inputs (e.g. supportive information and advocacy, policy formulation, training/enhanced institutional capacity, political will, human and financial resources) that are necessary to produce the output of a sustainable program or service. They further point out that achievements in one or more of these inputs would not be sufficient for program sustainability; they reinforce and depend on each other. Political will is cited as being of critical importance. There is ample evidence that MotherCare has emphasized a continuous dialogue and use of multiple communication channels with key constituent groups in its country projects. As noted elsewhere in this evaluation, integration and coordination are among the strengths of the MotherCare Project.
- 4). Of all of MotherCare's demonstration projects, the Uganda Life-Saving Skills Project is the most advanced along the policy enhancement continuum. Uganda's Ministry of Health has made a commitment to upgrade midwifery clinical skills over the next five years, allocating funds for this purpose and adopting the MotherCare model of training in life-saving skills. Moreover, the MOH has approved funds to establish a third training center in 1994 (the first two were established with MotherCare I funds). The Nursing and Midwifery Council of Uganda has accepted as policy an expanded role for midwives and has incorporated the revised protocols, developed through MotherCare, for country-wide distribution. This activity is clearly replicable on a larger scale, i.e.,

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national level. However, the cost-effectiveness of this model is not clear at the end of Phase I for its replicability in other countries.

- 5). The Principal Investigator of the Regionalization Project in Tanjungsari, Indonesia (a powerful, well-respected and charismatic leader) and her team have had numerous discussions with government officials throughout the life of the project. At the end of Phase I, it appears that the government has learned important lessons from the Tanjungsari maternal care model that will become part of their national level program on birthing huts. Also in Indonesia, the government has allocated funds to expand the community-based Safe Motherhood model implemented under Mother Care I in Surabaya, from the district to the provincial level (pop. 27 million). USAID/Indonesia has stated that the MotherCare demonstration projects have already served as successful models for many activities under the World Bank/Government of Indonesia Community Health and Nutrition III Project.
- 6). In Guatemala, the MOH has expressed interest in replicating some components of the Quetzaltenango model of maternal service into other districts of Quetzaltenango. Furthermore, the Mission has prepared a buy-in for MotherCare II, which requests technical assistance to "scale up" this successful intervention with a specific mandate to study the questions of replicability and sustainability.
- 7). In Bolivia, the Inquisivi "Warmi" project has come to the attention of the President, and other PVOs working in Bolivia are now interested in replicating the experience. Save the Children has decided to replicate the methodology in other zones with other funding. The "Warmi" Project has led directly to the initiation and implementation of literacy training and credit/savings programs for rural women. The Mission has expressed interest in buying into MotherCare II to assist the transition from small demonstration projects to national-level activities.
- 8). Save the Children has extended its work on maternal health to other field offices as a result of their work with MotherCare in Bolivia and Bangladesh.

### **iii. Information Dissemination**

- 1). MotherCare core and field staff have written extensively. Dissemination of information about maternal and neonatal health issues has been accomplished through a working paper series, journal articles, a newsletter entitled *MotherCare Matters*, training manuals, guides and conference proceedings. A major supplement to the *International Journal of Gynecology and Obstetrics* is planned and should make a very useful contribution to the state-of-the-art in maternal

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health. The quality of MotherCare's publications is excellent, but their impact is difficult for the evaluation team to assess because: (a) dissemination appears to have been ad hoc rather than systematic, (b) MotherCare has not determined an audience for their publications beyond the organizations with whom they work (appropriate targeting), and (c) there has been no evaluation of the existing readership. It is recommended that MotherCare develop a strategy to systematically disseminate technical, programmatic and cost information in Phase II. (See IV.D.2. pgs. 73-74, for a discussion of information dissemination methods to be considered in Phase II.)

#### **iv. Collaboration**

- 1). MotherCare has effectively collaborated at the central and field levels with central, bilateral and regional projects, ministries of health, NGOs/PVOs, professional associations, universities, other donors and organizations, and the private sector (see Table 3, pg. 30, for a listing by project of MotherCare's collaboration with other groups).
- 2). MotherCare's collaboration with, and funding from, outside organizations such as UNICEF, PAHO, WHO, the World Bank and SIDA, has enhanced A.I.D.'s role as a major global actor in the field of maternal and neonatal health and nutrition policy. This type of collaboration should be promoted and encouraged by A.I.D. Nevertheless, it is recommended that A.I.D. contractors/cooperating agencies/grantees, consider carefully the amount of time, energy, financial and staff resources necessary to undertake additional work for other donors, and carefully construct and agree upon the scope of work and level of effort required by staff and consultants.

#### **D. ADMINISTRATION AND FINANCE**

1. Communication between A.I.D. and the contractor is critical to moving a program forward; weekly meetings between the A.I.D. CTO and MotherCare project staff were adhered to in the second half of the project and contributed to a smooth working relationship. Continuity of the A.I.D. CTO, which MotherCare experienced throughout the Phase I contract, is beneficial to worldwide field support projects; projects such as MotherCare also require the technical and management guidance of a full-time CTO.
2. Prime/subcontractor relationships are inherently imbalanced, the prime wanting to maintain control and the subcontractor wanting autonomy. Primes should set the

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parameters of what they expect from the subcontractor at the outset. Clearly, two-way communication of expectations can help to reduce tensions.

3. It is both important and contractually necessary to inform A.I.D. about program plans and to report to A.I.D. progress in meeting the goals and objectives of a contract. However, the number of reports required of most contractors by A.I.D. is quite extensive, e.g., quarterly, semi-annual, annual, trip reports, etc. These reports are in addition to the technical reports produced by a project, which routinely receive fairly wide dissemination. While the technical reports, like journal articles, can advance the technical field, the contractually obligated documents, like progress reports, are likely to be shelved and not used. MotherCare has expressed that there has been inadequate feedback from A.I.D. on some of the annual workplans and semi-annual progress reports over the latter two years of the contract. This has been due in part to the lack of a full-time CTO at A.I.D. Moreover, the annual workplans have not proved to be useful management and tracking tools for the contractor, although they have proved useful to A.I.D. for monitoring purposes. Notwithstanding, the number of contractually required documents should be carefully reviewed and all reporting should be simplified.
4. There are no financial savings to A.I.D. in an administratively understaffed project. In the case of MotherCare, there was a heavy price to pay in terms of staff burn out and heavy reliance on outside casual labor to fulfill the contractual mandate. There is no substitute for direct hire staff in terms of continuity, institutional memory and cost savings. MotherCare will have by the end of Phase I, an unused level of effort balance of 462 person months.
5. While buy-ins have facilitated some of MotherCare's work, they are in general cumbersome. Some interviewees have suggested that buy-ins be eliminated altogether and replaced by OYB transfers.
6. It is critical that a contractor's accounting and financial management system be able to accommodate the specific financial reporting needs of a project. While MotherCare benefitted from its Deltek accounting system, the system's full capabilities were not exploited from contract start-up. Had MotherCare designed a customized program at contract start-up, much of the need to manually enter data to prepare customized reports for A.I.D. would have been eliminated. JSI has taken steps to improve this aspect of all of their projects.
7. The monthly vouchering and request for advance system that field projects have had to implement with host country subcontractors has been difficult for all parties

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involved. JSI's Field Accounting System and accompanying training program, developed since the mid-term evaluation, should help to ease these difficulties.

8. An automated system for calculating and reporting level of effort should be initiated at the outset of a contract; although not an A.I.D. requirement, it is also suggested that casual labor level of effort be computed to accurately portray actual level of effort expended during the life of the contract.

## E. FUTURE DIRECTIONS

All of the activities undertaken under Phase I of MotherCare have the potential for contributing to the state-of-the-art. This final evaluation report (Table 4) has highlighted the project activities and components that have worked, and have promise of working once the data are fully analyzed. Recommendations for next steps have been included. What this analysis suggests is that many of the activities could be "scaled up"<sup>8</sup> in Phase II. In fact, the mid-term evaluation team suggested that many of the interventions being tested through MotherCare could be "brought to scale" in a Phase II contract **IF** thoroughly documented and proven to be appropriate for replication, and the cost implications of the services and research clearly stated and deemed to be affordable. While the project findings may suggest replication or "scaling up" in the follow-on phase, their cost implications have not been documented by MotherCare in Phase I. This should become a priority area to pursue in Phase II. Other areas that should receive priority emphasis in Phase II include:

- full data analysis and publication of Phase I findings, as planned (see Table 2)
- implementation of the recommendations found in Table 4
- development of a comprehensive information dissemination strategy

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<sup>8</sup>At MotherCare's Final Technical Advisory Group (TAG) Meeting, held in May of 1993, the TAG suggested ways to scale up interventions, e.g., from district level to regional or national levels; from one state intervention to interventions in several states; from pregnant women to husbands and mothers-in-laws; etc. In addition, each principal investigator of MotherCare's long-term demonstration and research projects was asked to make recommendations for how their activities could be "scaled up" within the local context. These recommendations are found in the summary reports of MotherCare's projects. MotherCare's core staff have also given a great deal of thought to what "scaling up" means and will be publishing on this topic area. This groundwork, the recommendations made by the mid-term and final evaluation teams, particularly the final evaluation team's specific recommendations for what interventions should be "scaled up", and the responses from missions who have articulated as a goal the "scaling up" of interventions in a Phase II project (Bolivia, Guatemala), should guide MotherCare in its prioritization of activities for "scaling up" in MotherCare II.

- development of explicit peer review procedures for research
- "scaling up" of proven interventions
- attention to the neonate beyond the immediate newborn period to the first two to four weeks of age, providing education to the family on the signs and symptoms of the two biggest "killers" of children in this period, ARI, (especially lower respiratory infections) and sepsis, as well as addressing preventive care issues, informing about immunizations, optimal breastfeeding practices and growth and development measurements
- attention to maternal nutrition, noted as neglected earlier in Phase I

The final evaluation team concurs with the mid-term evaluation recommendation that the focus in Phase II should be on the prevention of maternal mortality and morbidity along with the prevention of perinatal and neonatal mortality and that the emphasis should remain on providing integrated services.

The mid-term evaluation suggested a course for future research priorities. These remain valid. However, through the conduct of this final evaluation, a number of other specific research activities were suggested for consideration under Phase II. They may appear small and isolated, but have answers to "practice" questions that would have a broad impact on maternity care delivery. Some examples include:

- improved handling of hemorrhage
- testing the "controlled cord traction" technique for delivery of the placenta and the use of ergometrine
- testing the usefulness of obstetric risk assessment (demographic risk versus early diagnosis of actual obstetric emergencies)
- determining the best set of community level indicators of women's health
- assessing:
  - maternity waiting homes versus birthing centers
  - the best way to manage STDs in the prenatal period
  - the effect of birth spacing on the mother versus the baby
  - the impact of general maternal undernutrition or specific micronutrient deficiencies on birth weight or maternal depletion

- adding a facility inventory to the situational analysis package (most of the people interviewed for this evaluation perceived that the "situational analysis package" contains the verbal autopsy and case review of maternal and perinatal deaths along with the process diagnosis, and an assessment of family behavior)
- cost-effectiveness issues
- selenium levels in mother's diets and their relation to retained placenta

In summary, Phase I of the MotherCare Project has, overall, been a very successful worldwide activity that has contributed to the state-of-the-art and enhanced A.I.D.'s reputation as a global leader in maternal health. There is every reason to anticipate that Phase II will effectively build on the accomplishments of Phase I as it attempts to "scale up" and respond to the operational and research issues raised in this evaluation.

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## I. BACKGROUND

Coinciding with the call to action issued at the jointly sponsored<sup>1</sup> 1987 Safe Motherhood Conference in Nairobi, Kenya, A.I.D. had already begun the process of reevaluating the scope of the Agency's Child Survival Initiative and recognized the need to go beyond immunizations and oral rehydration therapy, the "twin engines" of the Agency's program, to include two largely ignored areas: maternal health and nutrition (the reproductive period) and neonatal health and nutrition. The magnitude of the problems identified during the early 1980's was enormous: approximately 500,000 maternal deaths annually from causes related to pregnancy; over 50 million women suffering from complications during pregnancy, labor and delivery and the puerperium including hemorrhage, obstructed labor, toxemia, sepsis, prolapse and fistula; 7 million perinatal deaths associated with maternal complications, poor management techniques during labor and delivery, or poor maternal health and nutritional status; 21 million low birth weight babies, who are five times more likely to die of infectious diseases than normal birth weight babies.

Recognizing the seriousness of these and other issues A.I.D., in 1987, developed a ten-year maternal and neonatal health and nutrition project (See Figure 1), designed to improve the health, nutritional status and survival of women of reproductive age and their children in developing countries. Under this project authorization, a five-year (1988-1993), \$13.5 million, cost-reimbursable contract was awarded to John Snow, Inc. to implement the first sub-project (No. 936-5966.01), known as MotherCare. It is this sub-project that is the subject of this Final Evaluation. A grant to the World Health Organization (WHO), comprises the second sub-project under this project "umbrella" (No. 936-5966.02), which promotes operations research on maternal anthropometry, newborn thermal control and safe delivery kits. A third sub-project was added to the project authorization in 1991 (No. 936-5966.06), through an amendment, which modified the project title to Breastfeeding, Maternal and Neonatal Health (BMNH), and added a five-year (1991-1995), \$30 million, cost-reimbursable cooperative agreement, focused on breastfeeding.

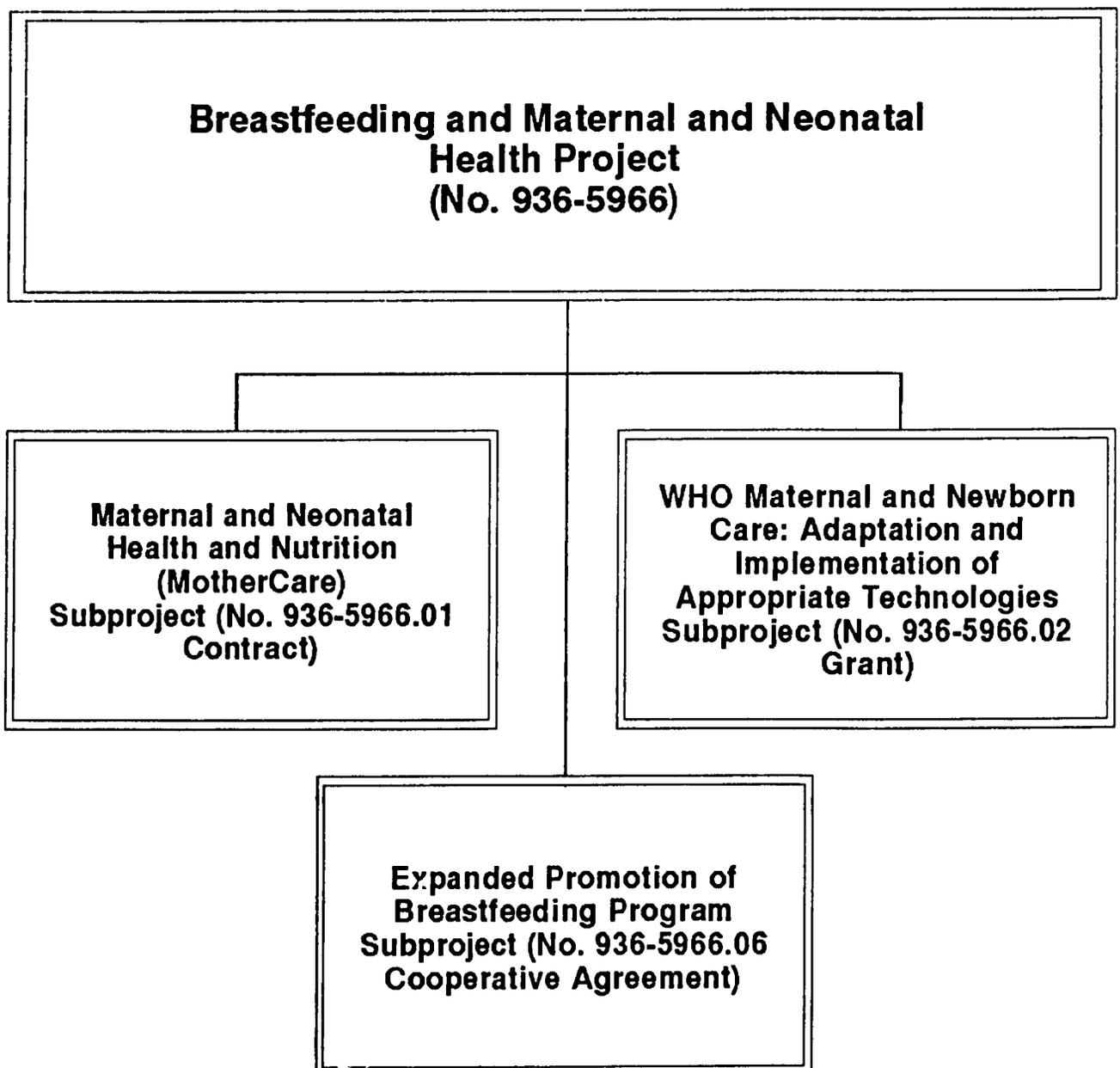
A mid-term evaluation of the MotherCare sub-project (hereinafter referred to as project) was completed in February 1992 and fulfilled A.I.D.'s requirement for a major external evaluation half-way through the five-year project cycle. That evaluation assessed MotherCare's progress up to that point in time, advised A.I.D. on any need to reorient priorities and strategies during the remainder of the contract period through September 1993, and provided guidance to A.I.D. on the content of follow-on maternal and neonatal health and nutrition activities. The mid-term evaluation included visits to three of the five long-

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<sup>1</sup>World Bank, World Health Organization, United Nations Development Programme, United Nations Population Fund.

# FIGURE 1

## COMPONENTS OF THE BREASTFEEDING AND MATERNAL AND NEONATAL HEALTH PROJECT



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term demonstration project countries (see Annex 3-Executive Summary of the Mid-Term Evaluation).

In general the mid-term found that MotherCare's inputs had real potential to be sustainable and replicable if a number of conditions were met over the remaining contract period, including: government counterparts being involved and informed throughout the project; project findings being clear (not overly technical), timely and widely disseminated; and cost implications of the services and research being clearly stated and deemed affordable. This final evaluation of MotherCare satisfies A.I.D.'s requirement for an end of contract assessment of Phase I activities.

## **A. OBJECTIVES OF THIS FINAL EVALUATION**

This evaluation 1) assesses the performance at the close of the MotherCare Contract for Phase I of the project; 2) advises A.I.D. on the problems and successes of the project that need to be considered in future activities, particularly with regard to sustainability and replicability, to the regional or national level, i.e., "scaling up"; and 3) provides guidance to A.I.D. on the content of follow-on Phase II maternal and neonatal health and nutrition activities to pursue over the next five years.

## **B. EVALUATION METHODOLOGY**

Four methods of data collection were used for this evaluation:

- 1) review of secondary data
- 2) conduct of interviews
- 3) analysis of field responses to a questionnaire<sup>2</sup> (See Annex IV for questionnaire and field responses)
- 4) critical review of methods and results from written documentation of the research and evaluation components of projects. (This applies to the material found on Table 4 and in Annex VIII)

A detailed scope of work, found as Annex I, was prepared by A.I.D. to assist the evaluation process, particularly to ensure appropriate depth, breadth and consistency of information sought. Interviews and document review were conducted in Washington, D.C. Field

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<sup>2</sup>A questionnaire was developed by R&D/H/HSD in consultation with the final evaluation team members and was sent to A.I.D. health, population and nutrition officers in all five of the missions where MotherCare has had long-term demonstration projects, including Bolivia, Guatemala, Indonesia, Nigeria and Uganda.

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perspective was obtained through several means: 1) telephone interviews to a number of individuals working in the field and familiar with MotherCare's in-country work; 2) questionnaires sent to USAIDs, and 3) end-of-project summaries prepared by the principal investigators of MotherCare's long-term projects. Briefing materials and a thorough presentation by MotherCare provided the team with important background information. Team members had complete access to all MotherCare reports, including end-of-project summary reports, trip reports, working papers, technical advisory group proceedings, articles, annual and semi-annual reports, contract documents, financial data, etc. (See Annex V for a complete list of documents reviewed.)

### **C. ORGANIZATION OF REPORT**

This report presents the results of the evaluation team's investigations. In addition to an Executive Summary, which precedes this background chapter (Chapter I), the report is divided into four additional chapters.

Chapter I. Background

Chapter II. Project Achievements

Chapter III. Administration and Finance

Chapter IV. Conclusions/Recommendations/Lessons Learned

Chapter V. Future Directions

Chapters II through V present the major findings of this evaluation and are responsive to A.I.D.'s scope of work. Chapter II provides an overall discussion and evaluation of MotherCare's technical components (inputs/outputs), i.e., Improving Services, Affecting Behaviors, Enhancing Policy, and Research. It also evaluates MotherCare's specific long-term demonstration and research projects and approaches. Chapter III considers management, contract deliverables and financial and level of effort issues. Chapter IV provides key conclusions/recommendations/lessons learned at the close of Phase I while Chapter V points to directions and priorities that should be pursued in Phase II.

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## II. PROJECT ACHIEVEMENTS

### A. GOALS AND OBJECTIVES

Contract DPE-5966-Z-00-8083-00 was awarded to John Snow, Inc. effective September 30, 1988. Due to a formal protest and stop work order, MotherCare's contract activities did not commence until March, 1989, hence the actual contract implementation period has been 54 rather than 60 months. The Health Services Division of A.I.D.'s Office of Health within the Bureau for Research and Development (R&D/H/HSD) manages the contract.

The goal of the project, as stated in the MotherCare contract between John Snow and A.I.D.<sup>3</sup> and in the Project Design Logical Evaluation Framework<sup>4</sup>, is to "improve the health, nutritional status and survival of women of reproductive age and their children in developing countries." The purpose is to "demonstrate the feasibility of providing a package of effective, appropriate maternal and neonatal care services and education to women and their infants in selected developing country settings."

Three implementation modes were outlined in the contract, including:

- 1) "Short-term technical and training assistance to USAIDs, MOHs, PVOs and others in maternal and neonatal health and nutrition, with an emphasis on the implementation and evaluation of different strategies to improve tetanus toxoid immunization coverage"<sup>5</sup>
- 2) "Intensive efforts in up to five countries to develop demonstration projects in maternal health (beginning with existing projects, where possible) and to assist in

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<sup>3</sup>Contract DPE-5966-Z-00-8083-00, Work Statement.

<sup>4</sup>The logical evaluation framework from the original project design (FY 1988 -- Maternal and Neonatal Health and Nutrition Project) was modified slightly to add breastfeeding indicators in an amendment to the project authorization in 1991. In general the goal and purpose level measurable indicators and the outputs and inputs have remained largely intact. (See Annex VI for original evaluation framework and Figure 2 for revised evaluation framework.)

<sup>5</sup>In the case of neonatal tetanus, an early MotherCare/REACH (Resources for Child Health) -- A.I.D.'s centrally funded project focusing on immunizations -- workshop determined that neonatal tetanus prevention through immunization of women should be handled by REACH and that MotherCare's role in this important area be focused on ensuring clean delivery and education about tetanus toxoid immunization as part of antenatal care. Therefore, what was to have been a major thrust of the MotherCare project (approximately 35% of contract resources) was transferred in part to REACH.

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the development of national or regional maternal health care programs, including increased coverage of tetanus toxoid immunization and prenatal care services"

- 3) "Applied research in a minimum of three countries to answer critical questions surrounding delivery of maternal and neonatal health and nutrition care"

A number of priority areas were outlined in the original contract work statement<sup>6</sup>. It was observed by the mid-term evaluation team that the majority of these priority areas were being addressed.

The final evaluation team has reached consensus that MotherCare, at the end of Phase I, has attained, in part<sup>7</sup>, the purpose level objectives described in the logical evaluation framework as measured by end-of-project status indicators (see Figure 2). Moreover, it is likely that some of MotherCare's projects may have an impact on the overall goal of the project, i.e., a reduction in maternal and neonatal morbidities and mortality; however, key analyses are still incomplete, so a definitive answer is not yet available.

All priority areas outlined in the contract work statement have received attention. Some aspects have appropriately become major foci in Phase I, i.e., maternal mortality prevention and maternity care system delivery have received priority emphasis. Areas that have received limited attention and could receive increased emphasis in Phase II include: maternal nutrition; neonatal health and nutrition; sexually transmitted diseases; malaria prophylaxis; and family planning.

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<sup>6</sup>1) Prevention of neonatal tetanus and other infections (including malaria prophylaxis and sexually transmitted diseases); 2) prevention and treatment of maternal malnutrition and anemia; 3) improvement of existing prenatal and perinatal care services; 4) coordination; 5) moving beyond the public health services system; 6) community education regarding the major problems of maternal health and resources available to help solve them; and 7) improving access to and utilization of child spacing services.

<sup>7</sup>While MotherCare carried out long-term demonstration and research projects in over five countries, the scope of these projects has been limited to the district or sub-district (community) levels. To meet the first of the purpose level objectives described in the BMNH Project Design Logical Evaluation Framework, MotherCare will need to develop regional or national level programs in five to eight countries. This therefore will become a priority for Phase II of MotherCare. It is important to note that the Project Design Logical Evaluation Framework is for a ten-year project with two five-year contract phases. Therefore, MotherCare's focus on demonstration projects at the district and sub-district levels has been appropriate for the first of two five-year contract implementation periods. In fact, it has been suggested by USAID/Guatemala that other centrally funded A.I.D. projects model their activities after MotherCare, i.e., developing and implementing a small-scale demonstration project that could potentially be scaled up. This points out the need for centrally funded projects to convince local authorities of the worthiness of an activity before suggesting that it be scaled up.

FIGURE 2

**BREASTFEEDING AND MATERNAL AND NEONATAL HEALTH  
LOGICAL EVALUATION FRAMEWORK  
936-5966**

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Goal:</b> 1 To improve the health and nutritional status of women and children in developing countries.</p>	<p>1.1 Reduction of maternal, neonatal and infant morbidity, mortality and malnutrition. Improved breastfeeding, prenatal and birthing practices.</p>	<p>1.1 National vital statistics, less data surveys.</p>	<p><b>Assumptions for achieving goal target:</b> 1.1 Selected health and nutrition strategies/intervention (including breastfeeding) are effective in changing practices and improving maternal and child health and nutritional status.</p>
<p><b>Purpose:</b> 1 To promote breastfeeding and demonstrate feasibility of providing a package of effective, appropriate maternal and neonatal health and nutrition services and education to women and their infants in selected developing country settings.</p>	<p><b>End of Project Status:</b> 1.1 National programs of maternal/neonatal care adopted in 5 of 8 project countries.  1.2 Successful, comprehensive national breastfeeding programs in 8-10 countries including: person of appropriate authority responsible for breastfeeding (BF); national BF steering committee; national BF policy with targets for improving BF practices and a system for monitoring-achievement of targets; set of appropriately designed interventions based on assessments; significant health budget allocations for BF; BF promotion integrated into overall health and development policies. 1.3 Improved monitoring and evaluation mechanisms established in all long-term county sites. 1.4 Results of research widely disseminated.</p>	<p>1.1 Project records, MOH reports.  1.2 Project Records, MOH reports and surveys.  1.3 Project records, MOH reports.  1.4 Project records, TAG reviews.</p>	<p><b>Purpose to goal:</b> 1.1 MOHs will commit resources and adjust policies to support programs of maternal/neonatal care. 1.2 Same as 1.1  1.3 Improved techniques and indicators will be available for monitoring and evaluation. 1.4 Cooperating Agency will have skills needed to identify and carry out relevant research projects.</p>

<p><b>Outputs:</b></p> <p>1 Increased coverage of women with interventions to prevent tetanus, prenatal care and safe delivery by trained attendants and with BF promotion interventions, i.e., IEC, mother support groups, maternity care and follow up by trained providers in health facilities with supportive BF policies.</p> <p>2. Health and other workers trained in BF and maternal/neonatal care; curricula developed/revised; health facilities policy reforms.</p> <p>3. Research projects in BF and maternal/neonatal health/nutrition implemented.</p>	<p><b>Magnitude of Outputs:</b></p> <p>1.1 Percent of reproductive-age women and newborns protected against tetanus via complete immunization or clean delivery; percent of pregnant women who received at least 3 prenatal care visits; percent of women delivered by a trained birth attendant; percent of women receiving BF counseling; number of functional mother support groups established for BF.</p> <p>2.1 Percent of health professionals trained. 2.2 Number of curricula developed/revised. 2.3 Percent of health facilities with reformed BF policies. (Site-specific targets to be developed for 1.1, 2.1, and 2.3)</p> <p>3.1 Number of research projects completed.</p> <p>3.2 Methodology for conducting rapid assessments of the BF situation and number of assessments completed. 3.3 Database on standardized BF indicators for tracking trends in BF practices in all long-term countries and across countries.</p>	<p>1.1 Design interview surveys, project records.</p> <p>2.1 Health worker, facility surveys, project records. (Same for 2.2 and 2.3)</p> <p>3.1 Project records.</p> <p>3.2 Project records</p> <p>3.3 Project records</p>	<p><b>Output to purpose:</b></p> <p>1.1 Relevant skills and expertise required to increase coverage with quality services will be mobilized by MOH and project staff and women will use services.</p> <p>2.1 Training will improve workers' skills and contribute to health facility reform and improved quality of care; improved curricula will contribute to better health professional knowledge attitudes and practices (KAP) and improved information given to women and their families. 3.1 Appropriate research questions and projects will be identified and carried out well.</p> <p>3.2 Improved techniques and indicators will be available for studying BF behavior.</p> <p>3.3 Technical expertise is available.</p>
<p><b>Inputs:</b></p> <p>1 Technical assistance, training, materials and equipment, partial salary support and support for interventions and research.</p> <p>2 Local governmental and non-governmental program resources.</p>	<p>1.1 See budget.</p>	<p>1.1 Project records and budget.</p> <p>2.1 Signatures and final evaluation.</p>	<p><b>Purpose to goal:</b></p> <p>1.1 AID child survival, family planning and food assistance will continue to be available in a timely, appropriate fashion.</p> <p>2.1 Contractor/recipient implementation mechanism able to meet broad interdisciplinary needs.</p>

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Factors that have hindered MotherCare's ability to address all aspects identified in the work statement with equal attention include:

- limited staff size at the professional and administrative levels
- the degree of energy output and financial resources required to address the objective of developing a "package of services"
- the interests of countries (counterparts) and USAID missions
- family planning was receiving adequate attention from other A.I.D. centrally funded projects
- the shortened time frame of the project (as mentioned above--54 months vs. 60 months)

Factors that have in part contributed to the success of meeting the goals and objectives of the project include:

- the interest, skill-level, knowledge and commitment of project staff
- the careful development of high-quality activities
- sufficient up-front planning

Determining the cost of various interventions for their replicability represents a weak area and one that should receive priority emphasis in Phase II. While cost analyses were carried out in the Surabaya and Tangjungsari projects in Indonesia, they require further interpretive work before any conclusions can be drawn. In general, cost data were not provided by many of MotherCare's projects and were difficult to obtain. Yet, MotherCare realizes the importance of, and necessity for, cost information for policy dialogue with ministries and donors. Ministries need this data for informing policy, planning, and resource allocation decisions. It will be important that a strategy be developed in Phase II for collecting cost data.

Over the course of the contract, MotherCare has defined a clear statement of four major integrated technical components (inputs/outputs) for all of its long-term activities. These include:

- **IMPROVING SERVICES** (Services, Training, Equipment/Supplies, Physical Plant Improvements)

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- **AFFECTING BEHAVIORS** of family, community, providers (Information, Education and Communication [IE&C])
  - **ENHANCING POLICY** (Advocacy, Policy, Information Dissemination, Collaboration)
  - **RESEARCH** (Applied Research, Assessment Methodologies, Evaluation)

These integrated inputs have resulted in significant project outputs, i.e., numbers of health professionals trained, number of curricula developed/revised; number of research activities completed; number of research findings disseminated; percent of women receiving prenatal care; percent of women delivered by trained birth attendants, etc. (See page 2 of Figure 2, Magnitude of Outputs and also Section II.C. Evaluation of Major Long-term Demonstration and Research Projects and Approaches.) For an overview of the components of all of MotherCare's project activities delivered through the three implementation modes refer to Table 1.

## **B. OVERALL EVALUATION OF MOTHERCARE'S TECHNICAL COMPONENTS ( INPUTS/OUTPUTS )**

All of MotherCare's long-term demonstration projects<sup>8</sup> (including long-term PVO projects) have included a package of integrated technical inputs/outputs (see Table 1). Each is elaborated in this section.

### **1. IMPROVING SERVICES**

#### **a. Services**

A key objective articulated in MotherCare's contract work statement was to develop an appropriate and effective package of services in various settings, from resource-poor to resource-rich. MotherCare accomplished this in several projects (see below), responding to complex sets of services and multiple issues. The general types of service interventions (packages) tested during Phase I include:

- Recognition of dangerous conditions and referral, emphasizing provider training (especially innovative training for birth attendants, both new and traditional) and

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<sup>8</sup>With the exception of Uganda.

Table 1

## COMPONENTS OF MOTHERCARE PROJECT ACTIVITIES

ACTIVITY	Improving Services*	Affecting Behaviors**	Enhancing Policy***	Research	Conferences/Seminars/Workshops	Breastfeeding Assessments	Miscellaneous Short-term Technical Assistance
<b>Long-term Demonstration Projects</b>							
Bolivia, Cochabamba							
Guatemala							
Indonesia, Tanjunsari, W. Java							
Probolinggo, E. Java							
Iron Folate Distribution - Indramayu							
Nigeria							
Uganda							
<b>Long-term PVO Projects</b>							
Bangladesh							
Bolivia, Inquisivi							
Sopacof							
<b>Research Projects</b>							
Burkina Faso - Anemia							
Ecuador - Kangaroo Care							
Indonesia - Bacterial Vaginosis							
Low Birth Weight							
Slow-Release Iron							
Kenya - Syphilis							
<b>Short-term Technical Assistance (Selected)</b>							
Bolivia							
Dominican Republic							
Ghana							
Peru					Prism Macro		
Philippines							
Uganda							
Congenital Syphilis Workshop							
ICDS Workshop						(Research)	
Maternal Anthropometry Workshop							
NIS Seminar							
Tetanus Workshop							
World Bank Safe Motherhood Programming Guidelines Workshop							
ICM Workshop							
<b>Short-term Technical Assistance (Other)****</b>							

**Footnotes (MotherCare Project Activities)**

- \* Services, training, some equipment/supplies, some physical plant improvements
- \*\* IE&C activities ranging from interpersonal communications to full-scale programs using mass media channels
- \*\*\* Policy dialogue ranging from local to national level
- \*\*\*\* Numerous activities were carried out in over 13 countries, including planning visits, proposal development, mini workshops, brainstorming sessions, evaluations, etc. (Chile, Cote d'Ivoire, Grenada, Guatemala, Haiti, India, Jamaica, Jordan, Mali, Nepal, Papua New Guinea, El Salvador, Thailand)

▨ = activity

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case management norms at medical facilities (Bangladesh; Inquisivi, Bolivia; Quetzaltenango, Guatemala; Tanjungsari, Indonesia; Nigeria; Uganda)

- Risk screening and referral, emphasizing a local prenatal risk scoring system for pregnancy, radio communication with referral sites, and subsidized transport (Surabaya, Indonesia)
- Recognition of complications and referral, emphasizing birthing huts, communication between referral sites, and education of community and providers (Tanjungsari, Indonesia)
- Improving the quality and appropriate utilization of existing services, emphasizing education about dangerous conditions and the need for proper maternity care in the community while sensitizing professional providers to women's preferences; including family planning services along with specific features of maternity care (e.g., privacy, family support during birth, squatting position) (Cochabamba, Bolivia)

Several projects have included upgrading the quality of care provided. Generally this was accomplished through training of providers at various levels in interpersonal and professional skills, and by establishing protocols of care (norms and guidelines) based on current knowledge. In some cases, assuring the continuous availability of supplies has improved utilization and coverage of services (e.g., Bolivia, Kenya, Nigeria).

Several projects emphasized integration of services such as STD and family planning services into the continuum of prenatal and postpartum care. In some cases (e.g., Inquisivi, Bolivia) the government system could not meet the increased demand for family planning services and MotherCare negotiated services through other agencies (in Inquisivi, with a local NGO). Pertaining to STD control, MotherCare's approach of considering all pregnant women, and not just the "highest risk" groups such as commercial sex workers, was very helpful because data from Kenya now exist upon which to strengthen integration of STDs into prenatal services.

In several projects MotherCare did not shy away from difficult circumstances, e.g., very rural, mostly illiterate population in Bolivia; in Indonesia, difficult geography for a maternity care referral system; community birth attendants in Guatemala. Since many of the world's childbearing women live in these circumstances, finding successful approaches to improving services for these populations is useful, essential and will make an important contribution to the state-of-the-art.

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MotherCare addressed maternal issues, but there was not enough emphasis on the issues surrounding the newborn, apart from the mother, as mentioned under section II.A. (Also see Chapter V: Future Directions.) The causes of death in the first month of life such as sepsis, respiratory infection, and prematurity are not being addressed sufficiently, although early, exclusive breastfeeding and hygiene in cord care are part of training for all birth attendants. These issues should be addressed in Phase II.

MotherCare successfully worked at the local level to improve recognition of problems and in some projects to improve the availability of transport to the next referral level. However, the costs of transport and of more sophisticated levels of care were not addressed in Phase I and need to be in Phase II.

### **b. Training**

MotherCare, Phase I, has developed a comprehensive approach to training at all levels, recognizing the interrelationships of training with IE&C, supervision, management and delivery of quality services. MotherCare's central and field staff and consultants are highly skilled professionals and have received superb ratings from the field on their technical performance. Their commitment and vision have been major factors in overall program development.

From the outset, MotherCare has considered provider training an integral part of all of its long-term project activities. The focus has been on improving the skills of midwives and birth attendants, traditional or otherwise (e.g., in the Andean region where there are no TBAs, a new cadre was selected by women's groups and trained).

MotherCare identified training as a key focal point in the essential skills of pregnancy monitoring and safe delivery and has provided support to various training strategies tailored to the requirements of individual countries.

### **i. TBA Training**

In the long-term countries where MotherCare has worked, it is estimated that well over half of all childbirths occur at home and are attended by TBAs or family members. Recognizing that it is critical for primary maternal health workers will continue well into the next decade to monitor pregnant women, assist at deliveries, and detect and treat, or appropriately refer at-risk women, MotherCare has developed in Guatemala a systematic and comprehensive approach to TBA training, i.e., training in the recognition of danger signs and appropriate referral. Supportive activities to reinforce TBA preparation in Indonesia and Nigeria have also been provided.

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In the Quetzaltenango, Guatemala Project, a systematic approach was utilized that included: assessing TBA training needs and skill levels; developing performance standards and competency measures; and developing a competency-based training program with carefully defined objectives, adult education methods, and evaluation tools. Instructional materials that address life-threatening complications, basic skills, and referral options were developed, field tested, and revised. A critical component in the Guatemala project has been the sensitization of health care providers at all levels (community health centers and district hospitals). Considerable attention has been given to preparing the health system providers to respond appropriately to the TBAs and their patients when referrals are made for potential complications. Feedback from USAID/Guatemala has been very positive regarding the perceived impact on the health care system providers.

The approach to training of TBAs in Indonesia has been to collaborate and reinforce the ongoing training and IE&C work in the projects in Tanjungsari and Indramayu. In the Regionalization of Perinatal Care Project in Tanjungsari, the approach to training was primarily to reinforce the previous risk approach study experiences through monthly meetings with the participants. In the iron and folate distribution study in Indramayu, regular training and follow-up supervision meetings have been held with TBAs as well. In addition, the Project has collaborated in offering refresher courses in management of complications, newborn care, and related areas utilizing adult teaching/learning techniques.

In Nigeria, the primary TBA training involvement of MotherCare has been to train TBAs in two targeted states with major focus on linkage and communication. An Interpersonal Communication Counseling Curriculum for TBAs has been designed and piloted in Osun and Bauchi States.

## **ii. Midwife Training**

The major focus for the long-term projects in Uganda and Nigeria has been on the training of midwives in life-saving skills. The MotherCare Project collaborated with the American College of Nurse-Midwives (ACNM) in the preparation of the Life-Saving Skills Manual for Midwives (1991) and this manual provides the basis for the midwife training. Reports from the USAID missions in both Nigeria and Uganda have been very positive regarding MotherCare's training activities to date, and the potential for improving service delivery is acknowledged. In Uganda, project activities were considered by both the USAID Mission and the MOH to be an integral part of the provision of family planning, STD and related services. Improvements in the practice of midwifery as the result of the life-saving skills training were cited by both the Uganda and Nigeria Missions as having been major project accomplishments.

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Interpersonal communication and counseling modules, as well as the protocols that have been developed for midwives by MotherCare, are of very high quality. All of the materials produced (protocols, curricular modules, teaching/learning tools and supervisory and evaluation checklists) have been carefully designed and refined. There has clearly been an emphasis on producing relevant and high-quality training materials in the MotherCare project.

## **2. AFFECTING BEHAVIORS**

Information, Education, and Communication (IE&C) is considered a core component interfacing with all project activities. MotherCare staff have demonstrated an appreciation of the interrelationship of IE&C with training and outreach to women at all levels. MotherCare views the role of well-designed IE&C as critical to improving health through advocacy, institution strengthening, program support and motivating/teaching health-promoting behaviors. The contractor's core staff have provided guidance and ongoing support to field personnel in each of these areas.

MotherCare, with assistance from the Manoff Group<sup>9</sup>, has recognized the importance of a comprehensive, process-oriented approach that includes formative research, information, education, and communication, as well as social marketing.

MotherCare has focused on the following as critical to a successful IE&C program:

- use of behavioral research methods to develop appropriate messages, monitor interventions and provide formative direction
- dissemination of messages through women's organizations, adult literacy programs and community groups
- involvement of service providers at all levels in all phases of the IE&C process

In all projects, an attempt has been made to explore the woman's perspective through formative/behavioral research. In particular, health beliefs and practices that influence critical personal and family decisions regarding nutrition, perception of problems during pregnancy, health service utilization, and accessibility to services have been examined. This information, along with an assessment of the health services and facilities, has provided the basis for formulating a plan for IE&C and social marketing interventions.

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<sup>9</sup>Manoff Group has had a subcontract with JSI to design and implement the overall communication strategy for the MotherCare project.

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In those countries with a focus primarily on training of either midwives or traditional birth attendants (Guatemala, Nigeria, Uganda), there clearly is a recognition of the potential role of IE&C coupled with good training, and, to a limited extent, IE&C activities have been developed and implemented; however, the approach has not been comprehensive.

The MotherCare IE&C coordinator is currently preparing a comprehensive final report on all project activities which includes a compilation of country profiles, evaluation results, lessons learned, and a description of formative research plans, question guides, and implementation strategies. In addition, the compilation will include an extensive list of examples of qualitative research questions to guide and improve future project design in maternal and neonatal health and nutrition. This report should contribute to the state-of-the-art and should receive wide dissemination.

The following country-specific findings highlight the process-oriented approach to IE&C development and implementation. These findings have provided important lessons (see IV.C., pgs. 70-72) and have clearly laid the groundwork for IE&C activities in Phase II.

- Nasirnagar Upazila Pilot Project, Save the Children, Bangladesh
- Reproductive Health Project, Cochabamba, Bolivia
- Project "Warmi", Inquisivi, Bolivia
- Improved Iron Folate Distribution, Indramayu, Indonesia
- Perinatal Regionalization Project, Tanjungsari, Indonesia
- Syphilis Control in Pregnancy, Kenya
- Maternal Health Care, Nigeria

**Nasirnagar Upazila Pilot Project, Save the Children, Bangladesh**

Both qualitative and quantitative research were conducted in the Nasirnagar Upazila Pilot Project. A good knowledge, attitudes, and practices (KAP) study provided baseline information. A workshop was held at the outset of the project to analyze the qualitative research; this process-oriented approach (i.e., involving team members in the process of defining what the findings mean for development of a communication strategy), underscored the need to conduct IE&C workshops in other countries and in this sense was precedent setting. Print materials for social workers were developed and used with pregnant women,

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their husbands and mothers-in-law to inform, motivate and promote behavior change that would enable women to prepare for a safer birth and pre- and postpartum experience.

**Reproductive Health Project, Cochabamba, Bolivia**

The overall IE&C strategy was well-designed and of good quality. Messages about maternal health promotion were presented in manageable segments over time, initially focusing on mass media, and then augmented and complemented by the development of a wide variety of IE&C materials over the past two years, including clinic-based flip charts and participatory print materials and activities. Five phases of promoting maternal health were designed to cover advocacy for maternal health care, pregnancy, delivery, post-natal care and family planning. Only the first three of the five planned phases were actually implemented due to time constraints.

**Project "Warmi", Inquisivi, Bolivia**

The Inquisivi project has made a significant contribution to the state-of-the-art with its development and strengthening of women's groups to identify local reproductive and perinatal health problems and to empower women to speak up concerning their needs through the autodiagnostico (self-diagnostic) method. A "planning together" approach provided the community (males and females) and the project staff with a framework for making services and interventions acceptable to the community. Educational materials were developed through this process. This method has promoted ownership of the resulting interventions by respecting cultural values and traditional practices.

**Social Marketing of Iron Folate Tablets, Indramayu, Indonesia**

This project tested the effectiveness of distributing iron folate tablets to pregnant women through TBAs, comparing this method to the government health-center-based system in place. To ensure that the demand for iron folate tablets could be met once the IE&C campaign was ongoing, the first phase of the project focused on ensuring adequate supply. The IE&C campaign was launched nine months later based on formative research, which consisted of both focus group discussions and in-depth interviews conducted with pregnant women, their husbands, elder female family members, TBAs, midwives and doctors. Formative research revealed that the lack of availability of iron tablets and minimal knowledge about the tablets were major obstacles to iron supplementation efforts. Based on the formative research findings, a multi-media plan was designed, carefully pretested and adapted, resulting in counseling flip charts, action cards, posters, banners, stickers, tin plates

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and balloons, radio advertisements, "Iron Tablet Awareness Days", and community meetings. Monitoring of the interventions included field observations, in-depth interviews and assessment of operations research survey data.

Overall, the process for IE&C was innovative and sound. Qualitative and quantitative research provided the basis for IE&C plans and interventions. A social marketing approach included concept testing, product re-packaging, placement, promotion and pricing. The messages were focused and well-designed.

### **Perinatal Regionalization Project, Tanjungsari, Indonesia**

The primary objectives of this project were to increase awareness of the importance of antenatal care, to recognize "at-risk" women, to provide appropriate maternal care services and to strengthen communication and information networks at the community and district levels, i.e., referral and transport, emphasizing the use of "birthing huts" or "polindes". A comprehensive IE&C strategy was developed based on formative research, and monitoring of interventions was accomplished through focus groups and observation. Monitoring revealed the need to change the structure and services of the huts as key to affecting client behavior.

### **Syphilis Control in Pregnancy, Kenya**

The formative research phase was labor intensive and took seven months from preparation through implementation to analysis and development of materials/messages. Interpersonal communication skills, counseling cards and leaflets were key to this project's promotion of proper screening, treatment, counseling and prevention of re-infection. Counseling of prenatal care providers focused on reducing "hostility" (perceived by clients) and on "values" issues associated with treating individuals with STDs. The IE&C strategy was effective based on end-of-project health seeking behaviors, and the approach deserves consideration in other settings.

### **Maternal Health Care, Nigeria**

Formative research showed that communities were basically unaware of available midwifery services. As the community became aware of services, the demand for these services was hindered by health care workers' poor interpersonal communication skills. Therefore the IE&C component included communications skills/counseling workshops for health care workers and employed a creative mix of mass media and community-based promotional activities to encourage among communities the use of clinics and midwifery services.

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### **3. ENHANCING POLICY**

#### **a. Advocacy**

MotherCare central and field staff have been very effective advocates for maternal health, focusing on mortality prevention and the maternity care "system". Their efforts have been less focused on maternal nutrition and neonatal health and nutrition, areas which should receive greater emphasis in Phase II. MotherCare has successfully employed several advocacy mechanisms, including:

- personal contact (artful dialogue and diplomacy) with USAID missions, government counterparts, researchers and other non-governmental and international organizations
- information exchange, collaboration and dissemination of technical updates, and formative research results, through
  - general meetings, policy meetings, workshops, seminars, conferences, short courses
  - publications (working papers, articles, book chapters, newsletter)
- involving stakeholders or constituents in problem assessment, planning and design
- using data for decision making (including cost data<sup>10</sup>)

Highlights of advocacy efforts include:

- Creation of core groups of individuals at the local level in all demonstration projects who are acting as advocates for the improvement of maternal health services
- Integration of maternal health with family planning, sexually transmitted diseases, and nutrition
- Involvement of key ministry of health officials in assessment and planning (Nigeria)

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<sup>10</sup>Cost analyses were carried out in the Surabaya and Tanjungsari projects in Indonesia but require further interpretive work (see Table 4). Determining the cost-effectiveness of interventions has been the weakest part of the MotherCare portfolio of activities in Phase I and will require emphasis in Phase II.

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- Design and participation in national policy workshops and development of action plans in Nigeria, Indonesia and Uganda
  - Design and participation in state-sponsored policy meetings in Oyo, Osun and Bauchi States, Nigeria
  - Dissemination of information (formative research findings, etc.) and materials developed in the demonstration projects to policy makers and others
  - Participation in national reproductive health subcommittees as in the Cochabamba, Bolivia project
  - Successful transformation of formative research findings into popularized and captivating media in Bolivia, Kenya, Nigeria, and the Philippines (e.g., comic books, posters, story boards, etc.)
  - Participation and presentation of technical information in numerous international and domestic fora, including:
    - WHO Working Groups on Reproductive Morbidity, Puerperal Sepsis, Neonatal Hypothermia
    - UNICEF Safe Motherhood Meeting for the Middle East and North Africa region
    - World Bank meeting on Safe Motherhood
    - 1992 World Health Assembly Technical Discussions on Women's Health
    - Women's Health Consultative Group for the World Bank's World Development Report (MotherCare prepared a box on safe motherhood that was used in the Report)
    - Teaching at George Washington University, Johns Hopkins University and University of Uppsala, Sweden
    - International Council of Midwives Regional Meeting on Curriculum Development and Plans of Action for Midwifery Associations of Africa
    - National Council for International Health Meetings, 1991 and 1993

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- World Congress of The International Federation of Obstetrics and Gynecology (FIGO), Singapore 1991
  - ICM Congress, Tokyo 1990 and Vancouver 1993
  - Perinasia Congress, Bandung 1991
  - numerous in-country pediatric and OB-GYN association meetings

No one advocacy mechanism or "technique" used has been superior to another. It is probably the combination or synergism of advocacy techniques that has raised awareness of maternal health issues. Advocacy tools that could be used more prominently in a Phase II project include: 1) dissemination of project findings and cost-effectiveness data to policy makers; and 2) development of a comprehensive information dissemination strategy to ensure that publications are targeted and receiving widespread dissemination.

Although responses from the field (USAID missions in all five long-term demonstration countries) were mixed regarding MotherCare's advocacy efforts (assessed from being strong to weak or not applicable)<sup>11</sup>, it is clear from reading the content of missions' complete responses, that MotherCare has been successful in advocating for improvements in the maternal care system.

The Deputy Director of MotherCare has effectively articulated a definition of advocacy in a chapter entitled "Enhancing Policy Reform" that will be part of a supplement that the MotherCare Project is writing for the *International Journal of Gynecology and Obstetrics*. Advocacy or "policy dialogue" is described as the first point on a continuum toward policy change/reform or policy formulation. It is noted that the road toward policy reform is often long and involves backward and forward movements along the continuum; progress may even be halted if resources and attention are diverted.

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<sup>11</sup> Assessments ranged from strong (Nigeria and Indonesia) to weak or not applicable (Guatemala, Bolivia, Uganda). In this latter category of countries missions stated that advocacy was not an articulated goal of the project. However, in the case of Guatemala, for instance, they did believe that MotherCare, through training and example, had created a group of professionals at the local level who could advocate for maternal health services improvements and also that advocacy could be an important emphasis area in Phase II activities. Bolivia stated that the IE&C campaigns, particularly the portions that appeared in the mass media, would be by default considered advocacy. In Uganda, although they did not identify advocacy as one of MotherCare's strengths, it is clear from the project results that MotherCare has been a successful advocate. In fact, a Ugandan counterpart has been left in place who will continue to develop Life-Saving Skills Training over the next year using the curricula developed by the project with the support of MOH PL480 funding. Uganda has actually moved furthest along the policy continuum (see section 3.b.).

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MotherCare recognizes the role of its demonstration projects and other information sources in serving as a basis for advocacy, building support for policy formulation and providing a basis for influencing public opinion. At the end of Phase I, all of MotherCare's long-term demonstration projects lie midway on the continuum between advocacy and policy formulation (see section b. below).

Many of the changes that have occurred as a result of MotherCare's in-country interventions, such as training, have strengthened institutional capacity. MotherCare staff eloquently describe the convergence and coordination of inputs (e.g. supportive information and advocacy, policy formulation, training/enhanced institutional capacity, political will, human and financial resources) that are necessary to produce the output of a sustainable program or service. They further point out that achievements in one or more of these inputs would not be sufficient for program sustainability; they reinforce and depend on each other. Political will is cited as being of unique importance. There is ample evidence that MotherCare has emphasized a continuous dialogue and use of multiple communication channels with key constituent groups in its country projects. As noted elsewhere in this evaluation, integration and coordination are among the strengths of the MotherCare Project.

MotherCare's current views and approaches on advocacy and sustainability remain consistent with those observed by the MotherCare mid-term evaluation team, and they are also consistent with those of Dr. Thomas Bossert, a noted authority on the subject of sustainable international health programs.

#### **b. Policy: Summary of Country Status in Achieving Policy Change**

Of all of MotherCare's demonstration projects, the Uganda Life Saving Skills Project is the furthest along the policy enhancement continuum. Uganda's Ministry of Health has made a commitment to upgrade midwifery clinical skills over the next five years and has allocated funds for this purpose. Moreover, the MOH has approved funds to establish a third training center in 1994 (the first two were established with MotherCare I funds). The Nursing and Midwifery Council of Uganda has accepted as policy an expanded role for midwives and has incorporated the revised protocols, developed through MotherCare, for country-wide distribution. The government has made a commitment to midwife training and has adopted the MotherCare model<sup>12</sup> of training in life-saving skills for both basic and in-service courses. This activity is clearly replicable on a larger scale, i.e., national level. However, the cost-effectiveness of this model is not clear at the end of Phase I for its replicability in other countries.

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<sup>12</sup>Developed by American College of Nurse Midwives, one of MotherCare's subcontractors.

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The Principal Investigator of the Regionalization Project in Tanjungsari, Indonesia (a powerful, well-respected and charismatic leader) and her team have had numerous discussions with government officials throughout the life of the project. At the end of Phase I, it appears that the government has learned important lessons from the Tanjungsari maternal care model that will become part of their national level program on birthing huts. Also in Indonesia, the government has allocated funds to expand the community-based Safe Motherhood model implemented under Mother Care I in Surabaya, from the district to the provincial level (pop. 27 million). USAID/Indonesia has stated that the MotherCare demonstration projects have already served as successful models for many activities under the World Bank/Government of Indonesia Community Health and Nutrition III Project.

In Nigeria, there is potential for policy change regarding midwifery at the state level. Should the political climate in Nigeria change, advocacy/policy dialogue should continue under Phase II activities. However, USAID/Nigeria is uncertain about future funding for maternal and neonatal health and nutrition project activities, though has provision for such activities in their new Nigeria Combatting Childhood Communicable Diseases Project.

In Guatemala, the MOH has expressed interest in replicating some components of the Quetzaltenango model of maternal service into other districts of Quetzaltenango. Furthermore, the Mission has prepared a buy-in for MotherCare II, which requests technical assistance to "scale up" this successful intervention with a specific mandate to study the questions of replicability and sustainability.

In Bolivia, the Inquisivi "Warmi" project has come to the attention of the President, and other PVOs working in Bolivia are now interested in replicating the experience. Save the Children has decided to replicate the methodology in other zones with other funding. The "Warmi" Project has led directly to the initiation and implementation of literacy training and credit/savings programs for rural women. It is theoretically possible to influence policy change through widespread adoption of this model by the PVO community. However, USAID/Bolivia stated in their response cable that "to graduate to a national level would entail a very different set of needs. To improve MCH conditions in Bolivia, this country desperately needs infrastructure, a functioning logistics system, trained professionals in place to provide services, national policies that facilitate improvement of MCH, to state a few examples." The Mission has expressed interest in buying into MotherCare II to assist the transition from small demonstration projects to national-level activities.

Save the Children has extended its work on maternal health to other field offices as a result of their work with MotherCare in Bolivia and Bangladesh.

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### c. Information Dissemination

MotherCare core and field staff have written extensively. Dissemination of information about maternal health issues has been accomplished through a working paper series (17 completed; and 8 planned for end-of-project dissemination), journal articles (8 completed; 18 finalized and ready for publishing or in draft, to be completed during Phase II); training manuals, guides, and assessment tools<sup>13</sup>; a newsletter: *MotherCare Matters*, (Volumes I & II produced in English, Spanish, French); conference proceedings (4). A number of central summary products are planned for end-of-project dissemination<sup>14</sup>. (See Table 2 for a comprehensive listing of all completed and planned publications, including numbers of copies currently available, whether Phase II dissemination is planned and the approximate printing costs.)

Most documents have been produced in English only which limits their utility in certain parts of the world. Translation of project technical materials into other languages (e.g, French, Spanish, Russian) should be considered in Phase II.

A major supplement to the *International Journal of Gynecology and Obstetrics* is planned and should make a very useful contribution to the state-of-the-art in maternal health. All of the demonstration projects have produced a project summary document; these too could receive wide dissemination, however, they are not "stand-alone" documents unless a working paper or research article is attached that describes the research project as actually carried out. If articles are not attached, it is difficult to ascertain from the summary report what was actually done. Summary reports vary considerably in quality and would require substantial editing prior to dissemination.

In general, much of what MotherCare has published makes a contribution to the state-of-the-art in the field of maternal health, although some of MotherCare's earlier working papers (particularly the bibliographies) are now outdated and superceded by newer information. It is not recommended that these be distributed under a Phase II project (reference Table 2 to see which documents are not recommended for reprinting).

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<sup>13</sup>Including the Nigeria Interpersonal Communication Skills Manual; TBA Training Manual: The Guatemala Experience; Life-Saving Skills Manual; Generic Protocols for Management of Obstetric Emergencies; practice guides; and assessment tools, e.g., Guide for Country Assessment of Breastfeeding Practices.

<sup>14</sup>All of these publications were not specified as contract deliverables and exceed therefore what was contractually required. Since they were not a specified component, but implied as part of advocacy, the production, editing and distribution of these documents has placed a heavy burden on central staff. Therefore, MotherCare has had to rely on outside editors and word processors to produce much of this work. (Refer to Chapter III: Administration and Finance, C.I.)

<b>MOTHERCARE'S INFORMATION DISSEMINATION COMPONENT</b>
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EXISTING WORKING PAPERS	Nos. Printed	Availability		Phase I Dissemination by 9/30/93	Phase II Dissemination		Pro- posed #	Approx. Cost
		Yes	No		Yes	No		
1. Eliminating Neonatal Tetanus: An Annotated Bibliography	500	X (182)				X		
2. Behavioral Determinants of Maternal Care Choices in Developing Countries	600		X		?		250	\$600
3. Early Infant Feeding in Haiti: A Synopsis and a Proposal	500	X (98)				X		
4. Interventions to Improve Maternal and Neonatal Health and Nutrition	700	X (89)				X		
5. Qualitative Assessment of Attitudes Affecting Childbirth Choices of Jamaican Women	500		X		X		500	\$2,400
6. Achieving Safe Motherhood with Limited Resources: A Case Study of Maternal Care	700	X (164)			X		250	\$300
7a. The Prevalence of Maternal Anemia in Developing Countries: An Annotated Bibliography	300		X		?		300	\$500
7b. Prevalence of Maternal Anemia in Developing Countries	300		X		?		300	\$500
8. Notes on an Appropriate Approach to Safe Motherhood	750	X (149)			X		250	\$300
9. Qualitative Research on Knowledge, Attitudes, and Practices Related to Women's Reproductive Health: Cochabamba, Bolivia	500		X		X		250	\$1,500
10. Maternal Mortality: Level, Trends and Determinants	500	X (179)			?		250	\$600
11. Lessons in Tetanus Elimination Revisited	300	X (57)				X		
12. Do Infants Under Six Months of Age Need Extra Iron?: A Probe	300	(xerox copies 65)			X		300	\$800
13. A Qualitative Investigation of Factors Influencing Use of Iron Folate Tablets by Pregnant Women in West Java: A Summary of Findings	300		X		X		300	\$800
14. Communicating Safe Motherhood: Using Communication to Improve Ma- ternal Health in the Developing World	300		X		X		300	\$650
15. Does Iron Supplementation Make a Difference?	300		X		X		300	\$700
16a. The "Autodiagnosis:" A Methodology to Facilitate Maternal & Neonatal Health Problem Identification and Prioritization in Women's Groups in Rural Bolivia	300	X (97)			X		300	\$2,050

MEETING PROCEEDINGS	Nos. Printed	Availability		Phase I Dissemination by 9/30/93	Phase II Dissemination		Pro- posed #	Approx. Cost
		Yes	No		Yes	No		
Neonatal Tetanus Elimination: Issues and Future Directions	REACH dissemt'd	X (28)				X		
Toward the Development of Safe Motherhood Program Guidelines	Wrld. Bnk. dissemt'd					X		
Women's Health at the Crossroads	NCIH dis- seminated	X (113)				X		
Women, Infants and STD's: Opportunities for Action in Developing Countries	1,300	X (177)				X	300	\$1,250
<b>ARTICLES</b>	<b>STATUS</b>							
Maternal anthropometry for prediction of pregnancy outcomes: Memorandum from a USAID/WHO/PAHO/MotherCare meeting—Anonym. Bull. of WHO'91	<b>ALL ARTICLES ARE ON HAND AND PHOTOCOPIED UPON REQUEST</b>							
Maternal Tetanus: Magnitude, Epidemiology and Potential Control Measures—Fauveau et al, Intl J of Gyn & Obst'93								
Maternal Tetanus: Magnitude, Epidemiology and Control of a Neglected Cause of Maternal Mortality—Fauveau et al, Reach/MC, 1992								
Women's Health at the Crossroads, excerpts from the Health of Women: A Global Perspective—Koblinsky et al, World Bank, 1992								
Programming for Safe Motherhood: A Guide to Action—Koblinsky et al, 1993								
Off to a rapid start: appraising maternal health and services—Campbell et al, 1993								
Midwives: Key rural health workers in maternity care—Kwast, Int J of G & Ob, 1992								
Delegation of Obstetric Care in Indonesia, Thouw, Int J of Gyn & Ob'92								
<b>PLANNED END OF PROJECT PRODUCTS</b>								
<b>WORKING PAPERS</b>								
Qualitative Research for the Social Marketing Component of the Perinatal Regionalization Project				X	X		250	\$2,000
Final Report on Low Birth Weight				X	X		250	\$2,000
Improved Iron Folate Distribution to Alleviate Maternal Anemia: Summary of Indramayu Project				X	X		250	\$2,000
Clinic-based Formative Research (Kenya)				X	X		250	\$2,000
Community-based Formative Research (Kenya)				X	X		250	\$2,000
Public Opinion Polls (POP) Formative Research Report (Nigeria)				X	X		250	\$2,000
POP Formative Research Literature Review				X	X		250	\$2,000
Use of Oxytocin and other Injections during Labor in Rural Municipalities of Guatemala				X	X		250	\$300

END OF PROJECT PRODUCTS (continued)	Nos. Printed	Availability		Phase I Dissemination by 9/30/93	Phase II Dissemination		Pro- posed #	Approx. Cost
		Yes	No		Yes	No		
<b>CENTRAL PRODUCTS</b>								
IEC Manual: MotherCare's Lessons Learned				X	X		250	\$3,500
TBA Training Manual: The Guatemala Experience				X	X		250	\$10,000
Protocols: The Guatemalan Experience -for management of principal obstetric and neonatal emergencies for community health centers -for management of principal neonatal complications for regional hospitals -for management of principal obstetric complications for regional hospitals				X	X		250 (x3)	\$3,500
Manual for PVO's: Documenting the Project Experience, Bolivia (L. Howard - Grabman et al)				X	X		500	\$10,000 (MC \$5,000 SCF\$5,000)
Assessment Tools				?	X		250	\$2,500
Training Materials (Nigeria Interpersonal Communication Skills Manual)				X	X		250	\$2,000
Breastfeeding Summaries; -Dominican Republic, Uganda, Bolivia, and Ghana				X	X		250 (x4)	\$2,400
Supplement to the International Journal of Gynecology and Obstetrics				X	X		2000	\$25,000
Generic Protocols for Management of Obstetric Emergencies (S.E. Miller, B. Kwast, C. Conroy)				X	X		250	\$5,600

ARTICLES	STATUS
Feasibility and Sustainability of Village-Based Maternity Services –M. Yusril; H.B. Sampurno (Indonesian Journal)	Draft available MotherCare II
Does the Provision of Maternal Services Closer to the People Improve Use of those Services?–J. Thouw et al (Int'l Journal. of Gynecology & Obsetrics)	Being finalized for publishing
An Integrated Village Maternity Service to Improve Referral Pattern and Perinatal Mortality in a Rural Area in W. Java –Alisjahbana et al (Health Planning & Policy)	Draft available MotherCare II
The Use of Risk-Based Approach to Screen and Refer by Community Volunteers to Reduce Poor Reproductive Outcome–Rochjati et al, (Ind. Jrnl.)	Draft not yet available MotherCare II
Final Report on Slow-Release Iron –Cook et al	Draft not yet available MotherCare II
Final Report on Bacterial Vaginosis	Preliminary Draft Available, MotherCare II
The Effectiveness of Increased Availability on the Ingestion of Prenatal Iron Folate Tablets in Two Subdistricts of Indramayu Regency, W. Java, Indonesia–P. Riono, B. Utomo, D. Leon	Finalized and ready for publishing
Social Marketing of Iron Tablets in Indramayu: The Role of TBA's in Improving Distribution–T. Budiono, C. Hessler–Radelet	Being finalized Article or working paper still a question?
Nutritional Status of Pregnant and Nonpregnant Women–Achadi et al; (Journal of Clinical Nutrition)	Finalized and ready for publishing
Utility of Sample Registration System for the Detection of Early Pregnancy & Studying Maternal Morbidity–B. Utomo et al	MotherCare reported that the article is finalized and ready for publishing. The evaluation team cites the need for clarification on sources of data on intrapartum events prior to publication of this article; the antenatal data come from women's reports, but the reported antenatal signs are measured against intrapartum events, making it look like a validity test with medical data. If the intrapartum events are also based on maternal reports, that needs to be made absolutely clear in the text. A statement is made in the methods that morbidity-related data come from the women, but the way the comparison with the intrapartum events is presented in the text can mislead the reader.
The Influence of Improved Quality of Reproductive Health Care on Use of Services–Bower et al	Draft not yet available MotherCare II
Summary of Pre and Post Intervention Surveys, Bolivia–CIAES	Draft not yet available MotherCare II
Evaluation of the Effects of the "Kangaroo Mother" Program/Neonatal Care of Low Birth Weight Newborns in the Isidro Ayora Maternity, Quito, Ecuador–N. Sloan et al	Preliminary Draft Available MotherCare II
The Timeliness and Appropriateness of TBA Referral of Obstetrical Cases to Hospital–O'Rourke	Preliminary Draft Available MotherCare II
Clinic-Based Formative Research: Kenya	Finalized and ready for publishing
Vital Registration System: Complications and Outcome of Pregnancy–B. Schieber et al	Needs further data analysis MotherCare II
Risk Factor Analysis of Peri-Neonatal Mortality in Rural Guatemala–O'Rourke (Int'l Journal of Epidemiology)	Final article submitted to PAHO Eulletin
A Medical Audit of First Week Neonatal Deaths in a Guatemala Hospital–B. Kwast, M. Mejia, B. Schieber	Needs further data analysis MotherCare II

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The quality of MotherCare's publications is excellent, but their impact is difficult for the evaluation team to assess. As described above, it is probably the combination of advocacy techniques used, including dissemination of printed material, that helps to raise awareness of problems, issues, and potential solutions. However, for a number of reasons, there is no way to measure the effectiveness nor the reach of MotherCare's publications. First, the dissemination of information has been rather ad hoc and not systematic (some individuals have suggested that a newsletter or publication is only as effective as its mailing list). Second, MotherCare has not determined an audience for their publications (appropriate targeting) beyond the organizations with whom they work, i.e., USAID Missions, A.I.D./Washington, relevant A.I.D. centrally funded projects, in-country staff and counterparts. And third, no evaluation of the existing readership has taken place<sup>15</sup>. There are a number of avenues that could be explored in Phase II for appropriate targeting and widespread dissemination of information (see Chapter IV.D.2. pgs. 73-74).

What is clear is that information in general is valuable to the field and that the world is sufficiently technologically advanced to provide the means with which to deliver information to the field. One individual who runs a resource center in Africa stated it well (paraphrased): Information is the electric current that keeps the individual lights (NGOs, PVOs) on. If the electric current is not kept going, the lights will go out all over the world.

It is thus imperative that under Phase II, MotherCare develop an information strategy that considers means to systematically disseminate technical, programmatic and cost information.

#### **d. Collaboration**

MotherCare has effectively collaborated at the central and field levels with central, bilateral and regional projects, ministries of health, NGOs/PVOs, professional associations, universities, other donors and organizations, and the private sector. (See Table 3 for a complete listing by project of MotherCare's collaboration with other groups.)

A particular success story of collaboration at the country level occurred in Bolivia, where the USAID health, population and nutrition officer purposefully set up task forces to ensure coordination and eliminate any duplication of effort among the various cooperating agencies and NGOs/PVOs working in reproductive health. Here, the mission assumed a very active role in ensuring collaboration; in general, given diminishing staff at the mission level, this model may be difficult to replicate.

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<sup>15</sup>Even groups whose only mandate is to produce a newsletter have difficulty targeting their publication, knowing precisely how their publication is used in the field, and who comprises their readership. Readership surveys routinely have low response rates. Anecdotal information from the field usually provides the most useful data on effectiveness.

Table 3

## MOTHERCARE COLLABORATION WITH OTHER GROUPS

ACTIVITY	A.I.D. Central Projects/R&D Bureau	A.I.D. Bilateral Projects	A.I.D. Regional Projects	MOH/(Nat'l/ District/ Subdistrict)	Private Sector (for profit)	NGOs/ PVOs	Professional Associations	Univer- sities	Other A.I.D. CA's	Other Donors
<b>Long-term Demonstration Projects</b>										
Bolivia, Cochabamba										
Guatemala										
Indonesia, Tanjunsari, W. Java										
Probolingo, E. Java										
Iron Folate Distribution -Indramayu										
Nigeria										
Uganda										
<b>Long-term PVO Projects</b>										
Bangladesh										
Bolivia, Inquisivi										
Sopacof										
<b>Research Projects</b>										
Burkina Faso-Anemia										
Ecuador-Kangaroo Care										
Indonesia-Bacterial Vaginosis										
Lowbirth Weight										
Slow-Release Iron										
Kenya-Syphilis										
<b>Short-term Technical Assistance (Selected)</b>										
Bolivia										
Dominican Republic										
Ghana										
Peru										
Philippines										
Uganda										
Congenital Syphilis Workshop										
ICDS Workshop										
Maternal Anthropometry Workshop										
NIS Seminar										
Tetanus Workshop										
World Bank Safe Motherhood Programming Guidelines Workshop										
ICM Workshop										

 = collaboration

Highlights of other success stories follow:

- **Collaboration with family planning projects and cooperating agencies at the field level**
  - **In Nigeria, where MotherCare has been funded through a buy-in under the Family Health Services bilateral (family planning project), the African-American Institute, an FHS subcontractor, has provided MotherCare an office without charge of rent. (The Nigeria buy-in does pay for local staff and other direct costs). The MotherCare Resident Advisor attends all of FHS project coordination meetings and presents updates of MotherCare's work. The mission has played an active role in ensuring collaboration between maternal health and family planning. MotherCare has worked with Population Communication Services (PCS), another FHS project cooperating agency and has been approached by the Association for Voluntary Surgical Contraception (AVSC) for future collaboration. The very fact that the Resident Advisor for MotherCare sits in the same office of one of the FHS Project's subcontractors, has "potentiated" the bringing together of maternal health with family planning.**
  - **In Uganda, the MotherCare Resident Advisor shared an office with the Family Planning Service Expansion and Technical Support (SEATS) advisor. Technical exchanges between the two projects occurred frequently as a result.**
  - **In the Philippines, where MotherCare's activities are funded through the family planning bilateral, the USAID mission has encouraged collaboration between health and family planning, particularly because there has been very little dialogue between family planning and health education, as they are two separate departments within the Department of Health. MotherCare has developed messages in the project that integrate family planning with maternal health.**
- **Coordination with central and regional nutrition projects, including Women and Infants Nutrition Support (WINS), Wellstart's Expanded Promotion of Breastfeeding (EPB) Program, and the LAC/Health and Nutrition Sustainability Project in the area of breastfeeding assessments. MotherCare's subcontractor, the Manoff Group, developed a breastfeeding assessment guide and MotherCare conducted joint assessments with other cooperating agencies in Uganda, Bolivia, Dominican Republic and Ghana. These early efforts laid the groundwork and provided the bridge for future breastfeeding work to be carried out under the**

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Breastfeeding and Maternal and Neonatal Health sub-project, Wellstart's EPB Program.

- Collaboration with and funding from groups outside of A.I.D., including:
  - World Bank, for development of Safe Motherhood Programming Guidelines
  - the Middle East/North African regional office of UNICEF, for the development of regional safe motherhood programming guidelines
  - the World Health Organization working groups on neonatal hypothermia, puerperal sepsis and reproductive morbidity
  - the Pan American Health Organization's (PAHO) workshop on maternal anthropometry
  - the Swedish International Development Authority (SIDA) for an implementation study on community-based approaches

The team believes that this latter category of collaborative activities has enhanced A.I.D.'s role as a major global actor in the field of maternal and neonatal health and nutrition policy. A health specialist<sup>16</sup> in the area of Safe Motherhood Programming for the World Bank, reported to the team that the work that A.I.D. is undertaking through MotherCare is making an important technical contribution to the maternal health field. It was also described by the World Bank representative that there are drawbacks to the way A.I.D. approaches maternal health, i.e., A.I.D. is not prepared to deal with the linkages to women's health like family planning/abortion (availability of safe abortion services, reproductive choice and contraception), women's education, violence against women (represents 6% of the burden of disease in the World Bank's burden of disease analysis), and nutrition.

When queried specifically about the success of MotherCare's collaboration with the World Bank on the development of safe motherhood programming guidelines, it was noted that the quality of technical assistance was excellent but the quantity of time offered to the Bank was inadequate, impacted by MotherCare's relationship with its primary client, A.I.D. It was described that MotherCare's first mission is, of course, to fulfill the objectives of their contract with A.I.D. The World Bank would definitely collaborate with an A.I.D. centrally funded project again, but suggested that any A.I.D. contractor/cooperating agency/grantee that makes a commitment for taking on additional funding and work for other donors, think

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<sup>16</sup>Former Chief of the Health Services Division of the Office of Health at A.I.D. and the early conceptualizer of the MotherCare project.

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through carefully the time and staff requirements necessitated by this arrangement, i.e., it probably will require hiring additional staff to successfully complete the assignment.

It is important that A.I.D. realize this fact--that many of the centrally funded projects are already stretched to their limit with relation to staff size vis-a-vis their A.I.D. mandate and number of project activities. Taking on additional work with other donors, particularly when the donor is often interested in obtaining the services and expertise of the Project Director, will have a definite impact on the day-to-day operations of the A.I.D. project. However, this type of collaboration should be promoted and encouraged by A.I.D. precisely because of the enormous benefits collaboration yields, i.e., technical influence is exerted globally; benefits of technical dissemination are multiplied; resources are significantly leveraged, etc. Nonetheless, it is recommended that A.I.D. contractors/cooperating agencies/grantees consider carefully the amount of time, energy and resources necessary to undertake the additional work, and construct an exacting scope of work document with the donor, setting precise parameters for the relationship, such as the amount of time necessary to fulfill the scope of work, the level of effort required of the project director, the number of drafts required, if the work entails the preparation of a report, etc.

#### **4. RESEARCH**

In Phase I, MotherCare has focused on two types of research:

- answering discrete research questions (i.e., Kangaroo Mother Method, Ecuador; gastric delivery system iron capsules, Surabaya, Indonesia; TBA distribution of iron folate tablets, Indramayu, Indonesia)
- implementing large, complex demonstration projects that contain programmatic and research questions

This latter category of research consumed more of MotherCare's energy and resources. MotherCare staff were well-prepared to address research issues, and their subcontractors have provided good technical assistance. Strict peer review procedures have not been adhered to under Phase I of MotherCare. Explicit peer review procedures for research should be instituted in Phase II.

The results of research activities, both discrete and as contained within the long-term demonstration projects, are discussed in II.C., Table 4.

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MotherCare also applied well-tested and useful assessment techniques, another area in which staff appear to have been qualified to provide technical assistance. Discrete assessment activities that were carried out during Phase I of the project include:

- assisting countries in conducting breastfeeding assessments (Bolivia, Dominican Republic, Ghana and Uganda) using an assessment guide developed by the Manoff Group, under a subcontract to MotherCare (JSI)
- assisting in the Philippines with the development of maternity care and women's morbidity sections of the Safe Motherhood questionnaire for the Demographic and Health Surveys by Macro International. The questionnaire will be used around the world to obtain data on morbidity prevalence and utilization of maternity care. The questionnaire was reviewed as part of the evaluation and a set of recommendations to improve it is attached as Annex VII

The research and evaluation components were used in some projects as part of the planning exercise. This is an appropriate way to approach research activities. If done with forethought, most data collection activities can gather data in a way that is useful for scientific evaluation as well as for project planning (e.g., in Guatemala and Bolivia, where MotherCare participated in the initial planning of the project, and in Bangladesh, where MotherCare fed into an existing project, but introduced maternal care as a new project). These examples are in contrast to the Tanjungsari project in Indonesia, where the evaluation used data from a previous project as its baseline and MotherCare became part of an existing program.

In most instances the MotherCare staff were fully aware of problems and were seeking solutions to them. In other instances evaluations were upset by local issues not under the direct control of MotherCare, time constraints or the limitations of the project. The MotherCare staff recognize the utility of good evaluation designs and have worked hard to maintain as much scientific rigor as possible. Of serious concern is when agencies interfere in the designs out of good intention, but nonetheless cause an otherwise useful evaluation design to become nearly useless, e.g., A.I.D. grant funding of a PVO to do a maternal health intervention in the planned control area for the MotherCare Quetzaltenango activities.

Evaluation of community projects is always a difficult task, and MotherCare projects have dealt with a number of complex community interventions. All of the evaluation plans have had difficulties. This is not uncommon however, for community-based evaluation designs.

The designs used in MotherCare projects varied according to the timing of the introduction of the evaluation and the focus of the project. The designs included:

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- quantitative pre- and post- knowledge, attitude, and practices surveys (no comparison area): Bangladesh; Cochabamba, Bolivia
  - pre- and post- case control study of perinatal and maternal deaths: Inquisivi, Bolivia; Guatemala
  - pre- and post- case review of perinatal/maternal deaths: Bangladesh (post-survey)
  - qualitative participatory evaluation: Inquisivi, Bolivia
  - longitudinal surveillance with intervention and control areas: Indramayu, Indonesia; Tangjungsari, Indonesia; Guatemala
  - pre- and post- study in intervention and control areas: Surabaya, Indonesia
  - facility reporting system: in several projects

It is not yet clear which type of evaluation design is "best" for the various settings in which MotherCare has worked: a discrete pre- post-design, or a longitudinal one?; general community-level data or sentinel clinics?; the handling of the comparison (control) area: when MUST it be included? The question of monitoring in the comparison area must be carefully considered, especially if data are collected by recall of events, since women in the intervention area may become more proficient at reporting all events while those in the comparison area remain poor "recallers". This will result in artificially higher outcome rates in the intervention area compared to the rates in the control area.

The data on process were more successfully obtained than those on impact (morbidity or mortality reduction). As far as we can ascertain, process data were not gathered from the control areas, only impact data. Questionnaires were the same for intervention and control areas in Tangjungsari and Guatemala.

### **C. EVALUATION OF MAJOR LONG - TERM DEMONSTRATION AND RESEARCH PROJECTS AND APPROACHES**

Based on an in-depth analysis (of summary reports and data available) of the major long-term demonstration and research projects undertaken during Phase I of MotherCare, Table 4 provides an overview of general and specific approaches and their outcomes and identifies areas needing further analysis and interpretation before conclusions can be drawn. It also recommends next steps that should be undertaken in Phase II of MotherCare. Each project or approach has been assigned a number; this number is used as a cross-reference to

project or approach has been assigned a number; this number is used as a cross-reference to a detailed note section pertaining to that project or approach (Annex VIII).

TABLE 4

**EVALUATION OF SELECTED COMPONENTS OF MAJOR LONG-TERM DEMONSTRATION AND RESEARCH PROJECTS AND APPROACHES**

DESCRIPTION NO. <sup>1</sup>	PROJECT, PROJECT COMPONENT OR APPROACH WITH DEMONSTRATED EFFECTIVENESS (" <i>IT WORKS</i> ")	RECOMMENDED NEXT STEP
<b>SERVICES<sup>2</sup></b>		
General - 14	MotherCare "typology"	Continue refinement
General - 15	The systems view of maternal health care services from home to hospital and integrated care (e.g., antenatal, STD, family planning, healthy newborn)	Continue implementation
General - 16	Health planning activities and situation analysis as first step in designing service projects	Disseminate "how to" guidelines and conduct workshops
General - 17	"Situation analysis" of maternal and perinatal problems: done in Guatemala, Bolivia, Bangladesh	Disseminate "how to" guidelines
General - 18	Sensitization of providers to opinions and preferences of women	Disseminate "how to" guidelines; continue to study different techniques for sensitization and increasing awareness
Bolivia, Inquisivi - 3	Inquisivi "Warmi" Project effect on maternal and neonatal mortality: raise awareness of need for care and referral, emphasizing local provider training and strengthening referral links	Appears to be effective; may be most effective in rural settings only but potential for other settings should be studied; more interpretive work necessary
Guatemala, Quetzaltenango - 5	Norms, protocols and guidelines for practice	Disseminate "how to" guidelines
Guatemala - 5	Training health post/center personnel in detection and management of OB and neonatal emergencies	Disseminate protocols developed

<sup>1</sup>Each project, project component or approach has been assigned a number that is keyed to a note section found as Annex VIII.

<sup>2</sup>Services includes training and IE&C components.

Guatemala - 5	Training of physicians at hospital level in OB and neonatal emergencies	Appears to be effective; continue with updating and in-service education
Guatemala - 5	TBAs trained as trainers by nurses utilizing adult teaching/learning strategies	Disseminate "how to" guidelines that are contained within the Training Manual for TBA Trainers
Kenya - 12	Syphilis control in pregnancy with IE&C: included counseling training to support messages for audiences focused on service provider, woman and her partner	Appears to be effective; disseminate guidelines and counseling modules; data analysis is incomplete and should be completed
Bolivia, Cochabamba - 2	IE&C campaigns	Appears to be effective; assess possibilities for replication to other areas; produce and distribute guidelines
Indonesia, Tangjungsari - 10	IE&C components for community and staff	Appears to reflect good qualitative research; distribute lessons learned on qualitative monitoring
<b>ASSESSMENT</b>		
Bangladesh - 1	Postnatal survey for monitoring delivery practices	Appears to be effective; disseminate "how to" guidelines
Bolivia, Cochabamba - 2	Effect of local qualitative research on attitudes and practices of medical professionals (to be more humane) after being sensitized to the findings	Disseminate guidelines for conducting research and applying it
Bolivia, Inquisivi - 3	Autodiagnosis technique to obtain community participation in health problem definition	Appears to be effective; disseminate "how to" guidelines
Bolivia, Inquisivi - 3	Women's groups identifying and prioritizing maternal and neonatal problems; preparing an action plan; assisting in implementation and evaluation of program	Appears to be effective; disseminate "how to" guidelines; need to determine the parameters of usefulness
Indonesia, Indramayu - 7	Sample reg. system for picking up pregnancies "early" and for identifying reported pregnancy morbidity and use of services	Examine feasibility on a larger scale; compare reported to actual use and diagnosis
Indonesia, Tangjungsari - 10	Maternal and perinatal audits as a tool to improve quality of care	Appears to be effective; disseminate "how to" guidelines
<b>RESEARCH<sup>3</sup></b>		
Ecuador - 4	Kangaroo Mother Method	Conduct confirmatory research for breastfeeding effect

<sup>3</sup>Research includes IE&C component

Indonesia, Probolinggo - 6	TBA distribution and supply with taking iron-folate tablets	Conduct research on hemoglobin levels
Indonesia, Indramayu - 6	Communication campaign on taking iron-folate tablets	Conduct confirmatory research on type of messages for areas with improved distribution already occurring; investigate long range effect
<b>DESCRIPTION NO.</b>	<b>INEFFECTIVE PROJECT, PROJECT COMPONENT OR APPROACH ("IT DOESN'T WORK")</b>	<b>RECOMMENDED NEXT STEP</b>
<b>ASSESSMENT</b>		
Indonesia, Tangsari - 10	Tangsari health services reporting system	Too complex; needs to be simplified
Bolivia, Inquisivi - 3	For men, autodiagnosis technique as developed for women	Determine best technique for men; study various approaches with women and men (jointly)
<b>DESCRIPTION NO.</b>	<b>PROJECT, PROJECT COMPONENT OR APPROACH INCONCLUSIVE ("WE DON'T KNOW YET WHETHER IT WORKS")</b>	<b>RECOMMENDED NEXT STEP</b>
<b>SERVICES</b>		
Bangladesh - 1	Nasiragar project effect on maternal and neonatal mortality or morbidity: recognize danger and refer, emphasizing provider training and management norms, as well as IE&C	Data collection incomplete; need to see at the end of intervention period
Guatemala - 4	Quetzaltenango Project effect on maternal and neonatal mortality: recognize danger and refer, emphasizing provider training and management norms	Appears to be effective; data analysis incomplete; more interpretive work necessary; continue to assess training effectiveness and long range skill retention
Indonesia, Surabaya - 8	Surabaya service system effect on maternal and perinatal mortality: risk and refer, emphasizing risk scoring and subsidized transport	Appears to be effective; data analysis incomplete; might need confirmatory research before scaling up
Indonesia, Tangsari - 10	Tangsari service system effect on maternal and perinatal mortality: recognize and refer, emphasizing birthing hut system	Appears to be effective; more interpretive work necessary; need to evaluate ascertainment of outcomes very carefully before scaling up
Bolivia, Cochabamba - 2	Improved quality and availability of services, increased utilization	Continue along this line; explore replicability to other areas of country

Guatemala - 4	TBA training approach using adult participatory methods and based on local OB and neonatal emergencies	Appears to be effective; disseminate "how to" guidelines; data analysis should be completed; continue to assess various participatory teaching/learning methods and retention of skills and knowledge
Uganda, Nigeria - 13	Effect of life-saving skills midwife training handling complications and preventing death	Confirmatory research to help "justify" the cost and long range training benefits; assess skill retention
Indonesia, Surabaya - 8	Predictive antenatal risk scoring	More interpretive work necessary; system appears to work; disseminate "how to" guidelines
Indonesia, Surabaya - 8	Subsidized transport of high-risk women and OB emergencies	More interpretive work necessary; system appears to work
Indonesia, Surabaya - 8	Organized network for timely referral to appropriate care	More interpretive work necessary
Indonesia, Tanjungsari - 10	Birthing huts as a staging place for risky births	Appears to be effective; more interpretive work necessary
<b>ASSESSMENT</b>		
Guatemala - 4	Vital Events Reporting System approach for longitudinal surveillance of OB and neonatal outcomes	Disseminate guidelines for doing it; data analysis incomplete
Indonesia, Surabaya - 8	Community-based maternal and perinatal mortality follow up to improve care	Was carried out; more interpretive work necessary; disseminate "how to" guidelines
<b>RESEARCH</b>		
Indonesia, Surabaya - 9	Gastric Delivery System (GDS) iron capsules	Should be able to get an answer with further analysis
Indonesia, Surabaya - 8	Cost analysis of system	Was carried out; more interpretive work necessary
Indonesia, Tanjungsari - 10	Cost analysis of birthing hut approach	More interpretive work necessary
Indonesia - 11	Bacterial vaginosis and low birth weight	Data analysis incomplete

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### III. ADMINISTRATION AND FINANCE

#### A. MANAGEMENT

In February 1992, the mid-term evaluation team made several recommendations to A.I.D. and JSI regarding the management of Mothercare (see Mid-Term Evaluation Executive Summary, Annex III). Most of these recommendations have been implemented by A.I.D. and MotherCare since that time and have helped to contribute to an exceptionally well run and managed contract, particularly given the notable administrative understaffing of MotherCare and the part-time nature of the A.I.D. Cognizant Technical Officer (CTO) over the last two years<sup>17</sup>. Highlights of management improvements include:

- A.I.D.'s oversight of MotherCare has focused on technical aspects of the contract with an appropriate level of attention paid to administrative and financial issues
- MotherCare refined their management and administrative procedures, including financial tracking procedures, and has kept the A.I.D. Cognizant Technical Officer (CTO) well informed; MotherCare "knows the client," i.e., what A.I.D. wants and how they want it, which, in part, has contributed to a successful relationship between A.I.D. and MotherCare project staff
- Weekly meetings between the A.I.D. Cognizant Technical Officer (CTO) and MotherCare were instituted and held regularly; these meetings have also contributed to a successful and smooth relationship between A.I.D. and MotherCare project staff; MotherCare believes that receiving A.I.D. feedback on a regular basis is critical to moving project activities forward
- The project has been more adequately staffed professionally during the second half (see examples below). However, they have continued to be understaffed

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<sup>17</sup>During the first two- and one-half years, MotherCare benefitted from the technical and management guidance of a nearly full-time CTO at A.I.D. However, during the past two years, the A.I.D. CTO has had to take on additional responsibilities (CTO of the Expanded Promotion of Breastfeeding Cooperative Agreement and Acting Chief, Health Services Division, Office of Health). Due therefore to the increased workload of the CTO, A.I.D. has been unable to provide the technical and management oversight that it would like to. The contractor has benefitted from one continuous CTO throughout the life of the contract as well as assistance from an A.I.D. Office of Health Child Survival Fellow over the past two years. Nonetheless, A.I.D. should consider the benefits of a full-time CTO to manage large, worldwide, centrally funded projects.

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administratively<sup>18</sup> and this has placed a significant strain on existing project staff to perform the specified level of effort

- At the time of the mid-term, MotherCare had just filled a long-held vacancy for the Women's Health Advisor position; filling this key senior-level position has made a significant technical contribution to the project
  - A full-time Spanish-speaking professional was hired for MotherCare/Washington to backstop MotherCare projects in Latin America; this professional proved invaluable as a technical and administrative backstop to all of MotherCare's work in this region (although when she vacated her position six months ago, the vacancy was not filled)
  - A full-time professional was hired to work in Cochabamba, Bolivia to oversee project activities in-country
  - A full-time project coordinator and administrative assistant were hired to oversee project activities in Nigeria<sup>19</sup>
- MotherCare consultants continued to be of high quality and were categorically rated as technically superior by USAID missions
  - Monthly project reporting (not an A.I.D. contractual requirement, but required by the Health Services Division of the Office of Health), which had consumed valuable time and proved to be "busy work" of no particular value to the project, was discontinued
  - The earlier tension that existed between JSI and its subcontractors eased somewhat during the second half of Phase I, due in part to the fact that country projects were fully operational and subcontractors had discrete technical tasks to

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<sup>18</sup>A fax from a former health, population, nutrition officer of USAID/Kampala described the lack of administrative assistance in the Uganda program as a major obstacle....in the follow-on project the contractor should budget more funds for field administrative support...as this was an important element that was not sufficiently included in the budget or staffing of the MotherCare Project field office support." (See Annex IV for full response.)

<sup>19</sup>Nigeria was added as the anticipated fifth long-term demonstration country through an OYB transfer.

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be carried out in relation to the country projects' goals and objectives<sup>20</sup>; it was also due in part to the subcontractors unhappily resigning themselves to the relationship disparity (unequal balance of power) and financial parameters of the relationship set due to budgetary constraints, (i.e., a withdrawal of earlier financial commitments based on the funding [core/buy-in] realities)

- A.I.D., in its design of Phase II of MotherCare, ensured a more realistic staffing pattern, i.e., technical and administrative, and discouraged a large consortium

## **B. CONTRACT DELIVERABLES**

A number of deliverables were specified in JSI's contract (work statement) with A.I.D. They are a mix of contract reports, activities and levels of effort. Table 5 provides a summary of deliverables completed under Phase I of MotherCare. A thorough discussion of the goals and objectives for the MotherCare contract and the extent to which they have been achieved at the end of Phase I is found in II.A., pgs. 5-10.

The number of contract-required reports has been extensive. MotherCare thought that the annual work plan in particular would serve as an important management planning and tracking tool. While it is admitted that these reports have proved to be good overview documents, their use as planning tools for the contractor has been limited. A.I.D. however, has found them to be useful monitoring tools. Some MotherCare staff commented that A.I.D. feedback for some reports has been inadequate (reference footnote 17). For instance, as noted on Table 5, Annual Work Plan No. 4 has never been approved by A.I.D. However, this lack of A.I.D. response is due in part to the heavy additional workload of the CTO, beyond MotherCare, over the past two years.

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<sup>20</sup>Tensions have not been entirely eliminated. What became clear by interviewing JSI and subcontractor staff is that prime/subcontractor relationships are by their nature fundamentally imbalanced. From the prime's perspective, they are the responsible/accountable party; consequently they wish to have control of all aspects of the contract and believe that the relationship with subs should be task or activity driven. Since the contract is incrementally funded with a core ceiling and a buy-in obligation/target, they believe that it should be made clear from the outset that no financial guarantees can be offered to the subcontractors. In addition, they believe that key positions or key contract areas like research and evaluation should remain with the prime. Subcontractors believe, however, that they have been hired for their particular expertise and that they should be given autonomy to carry out their mandate and not be micro-managed. They also point out the difficulty of making commitments, i.e., hiring staff, incurring overhead expenses, etc., without firm financial commitments from the prime.

**Table 5**  
**MotherCare Contract Deliverables**

<b>Deliverables</b>	<b>Contractual Requirement</b>	<b>Completed as of 6/93</b>	<b>Balance</b>
<b>Project Reports:</b>			
● Annual Workplans	5	4	1 <sup>21</sup>
● Semi-Annual Progress Reports	10	7 (6 monthly + 1 quarterly)	2 <sup>22</sup>
● Final Project Report	1		1
● Trip Reports	all trips	154	n/a
● Quarterly Expenditure Reports	20	--	2 <sup>23</sup>
● Monthly Progress Reports	n/a	19	27 <sup>24</sup>
<b>Long Term Country Programs</b>	5	5	
<b>Applied Research</b>	3	6	
<b>Country Proposals</b>	5	16	
<b>Short Term TA</b>	1078 person months (unlimited countries)	712 person months (26 countries)	366 person months
<b>Tag Meetings</b>	4	3	1 <sup>25</sup>
<b>Significant Accomplishments</b> (not contract deliverables)			
● Working Paper Series	n/a	25	
● Books, Manuals, Articles, Guides	n/a	5	
● Project Reports	n/a	16	
● Conference Proceedings	n/a	4	
● Newsletter, <i>MotherCare Matters</i>	n/a	Current mailing list total: 1,787 (8/93) English Vol.1; No. 1; 2/3; 4 Vol.2; No. 1; 2/3; 4 Vol.3; No. 1/2 Spanish Vol.1; No. 1; 2/3; 4 Vol.2; No. 1 French Vol.1; No. 1; 2/3; 4 Vol.2; No. 1	

21 No A.I.D. grant approval on Workplan 4. Workplan 5 not submitted because project time reduced by six months.

22 The remaining two semi-annual progress reports are contained within the Final Report.

23 Dispensed with early in the project per agreement of A.I.D. CTO as expenditure reports accompany monthly vouchers, proved adequate.

24 Instituted monthly progress reporting system per A.I.D. CTO direction in December 1989. Completed through June 1991. Reporting has been cumbersome and duplicative. Suggest waiving need for monthly reports. Requires resolution.

25 A.I.D. waived requirement for 4th TAG.

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It is recommended that in a follow-on project, A.I.D. carefully consider the contract documents that are most useful for monitoring purposes and that they work in concert with a Phase II contractor to reduce reporting requirements and to streamline report formats.

## **C. FINANCIAL AND LEVEL OF EFFORT CONSIDERATIONS**

### **1. ANALYSIS OF PROJECT EXPENDITURES**

MotherCare is a \$13.5 million, cost-reimbursable contract, that is being incrementally funded over a 54 month period<sup>26</sup>. To date, the contract has been amended 18 times. All contract amendments have authorized funding; none has contained language that modified MotherCare's objectives or scope of work. The original A.I.D. project design called for a 40 percent buy-in target, i.e., 40 percent of funds to be obtained via buy-ins. However, early in the project, a revised buy-in target of approximately 33 percent was agreed upon between MotherCare and the A.I.D. CTO, stemming from actual buy-in history at that point in the project.

Of a total projected budget of \$13.5<sup>27</sup> million, MotherCare has had to work with a core ceiling of \$9.1 million. The remainder was to have come from buy-ins and OYB transfers. At the mid-point of the project, MotherCare had expended 60 percent of its obligations or \$5.4 of \$8.8 million. They had a pipeline of \$3.4 million and a remaining contractual authority of \$4.7 million, leaving an unexpended balance of 60 percent of the total contract amount of \$13.5 million. Therefore, it was determined that MotherCare would need to increase its monthly expenditure rate by 40 percent to approximately \$386,000 per month to expend its remaining pipeline and contractual authority. Table 6 shows the average monthly expenditure rate by fiscal year.

As demonstrated in Table 6, MotherCare has been successful in increasing its average monthly "burn" rate by 50 percent<sup>28</sup>. Also, at the mid-point, it was determined that MotherCare had met approximately 46 percent of its target buy-in level of \$4.4 million.

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<sup>26</sup>As noted previously, MotherCare lost six months of project implementation time due to a post-contract award protest and stop work order.

<sup>27</sup>Actual total obligations of the projected \$13,522,526 equals \$13,432,044.

<sup>28</sup>The average monthly expenditure rate from year three to five (through 6/93) increased by 39 percent; the July and August, 1993 vouchers have each exceeded \$500,000, driving the monthly expenditure rate increase up rather precipitously to 50 percent.

Table 6

**Average Monthly Expenditure Rate by Fiscal Year**

FY'89	FY'90	FY'91	FY'92	FY'93 (through 8/93)
\$76,422	\$129,443	\$213,559	\$291,549	\$351,552

As of 7/31/93 MotherCare had expended \$11.4 million. Disallowed costs<sup>29</sup> represent \$139,083. The August, 1993 voucher totals \$584,883<sup>30</sup>, leaving a projected expenditure balance of \$1,116,599 for the month of September<sup>31</sup>. Total actual and projected expenditures equal \$12,996,635 leaving a projected unused balance of \$435,409 of the \$13,432,044 obligated. (Table 7).

Table 7

**Financial Summary**

Description	Amount
Expenditures as of July 31, 1993	\$11,434,237
Disallowed Costs as through 7/31/93	139,083
August 1993 expenses (subject to adjustment)	584,883
September 1993 expenses (projected; subject to revision)	1,116,599
<b>TOTAL MOTHERCARE EXPENDITURES (actual and projected)</b>	<b>12,996,635</b>
<b>TOTAL OBLIGATION AMOUNT</b>	<b>13,432,044</b>
<b>TOTAL PROJECTED UNUSED BALANCE</b>	<b>435,409</b>

<sup>29</sup>A.I.D. disallowance of person months in excess of what was originally bid by JSI.

<sup>30</sup>Total is subject to revision based on subcontractor bills.

<sup>31</sup>Some of projected expenditures for the month of September include: ACNM (3 months) at approximately \$165,000; Population Council (6 months) at \$175,000; the Manoff Group (3 months) at \$145,000; Save the Children Federation at \$55,000; Columbia University (2 months) at \$15,000; end-of-project central products printing at \$70,000; end-of-project working papers' printing at \$25,000; editors/writers for end-of-project products at \$55,000; JSI overhead at \$43,000; JSI salaries and fringe at \$62,000; outside services at \$18,000; other direct costs at \$50,000; JSI consultants at \$48,000; and JSI consultant travel at \$61,000.

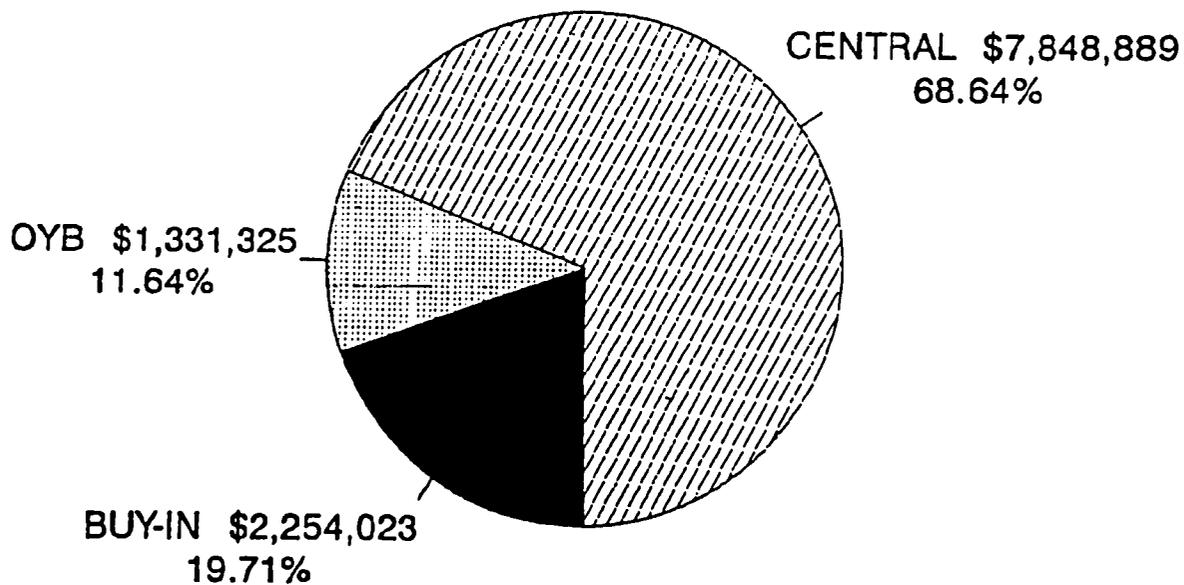
Not having the core and buy-in attributions for the August and September vouchers available for analysis handicaps a final reporting of the actual end-of-project core/buy-in split. It appears however, from Figure 3, (vouchered expenditures through July 31, 1993) coupled with an analysis of the projected expenditures, that MotherCare will have come very close to meeting its buy-in obligation/target. Figures 4 through 6 provide a picture of MotherCare's project activities by funding source (total funding available, not expended).

Table 8 reports the actual and projected expenditures through 9/30/93 according to the line items in the contract budget<sup>32</sup>. As reported in the mid-term evaluation, much of the field activity as well as allowances are embedded in the subcontracts line, but this kind of budget presentation does not disaggregate the costs to show how funds were spent programmatically. Tables 9 and 10 were created to do that. Table 9 presents funding information by implementation mode, i.e., long-term demonstration projects, research, and short-term technical assistance, and by funding source, i.e., core, buy-in and OYBs. Table 10 expresses this same information as a percent, i.e., percent of core, buy-in and OYB.

Figure 3

## MOTHERCARE VOUCHERED EXPENDITURES

As of July 31, 1993: \$11,434,237



<sup>32</sup>JSI has had total line item flexibility with the exception of the salary and fringe benefits lines. Since these were overrun by 39% at the mid-point of the project, they were amended accordingly.

Figure 4

# FUNDS FROM CENTRAL FUNDS

\$9,140,700 (68% OF OVERALL FUNDING)

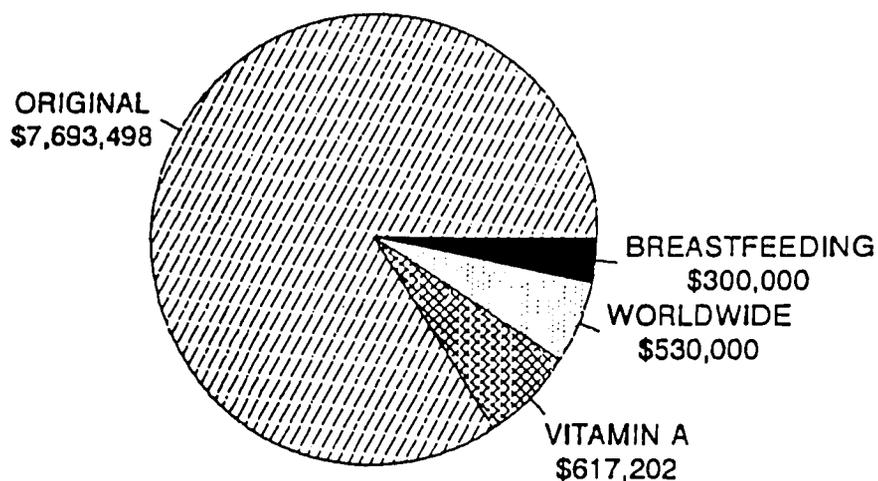


Figure 5

# FUNDS FROM BUY-INS

\$2,625,344 (20% OF OVERALL FUNDING)

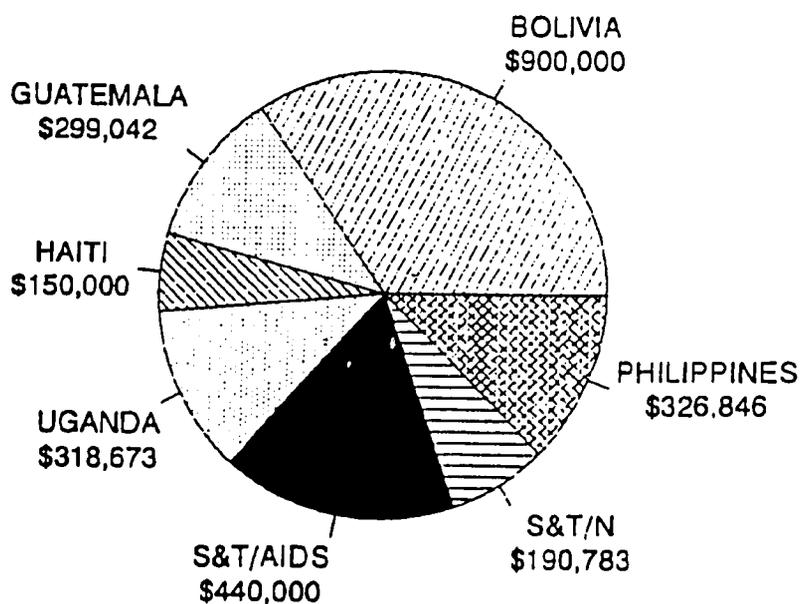
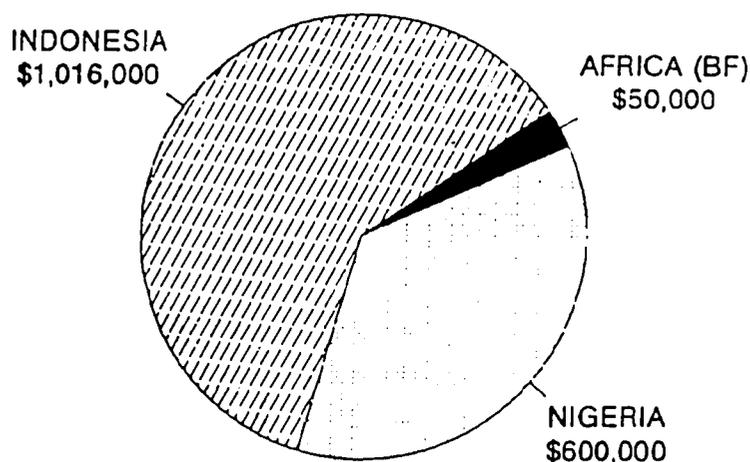


Figure 6

# FUNDS FROM OYB TRANSFERS

\$1,666,000 (12% OF OVERALL FUNDING)



**Table 8**  
Expenditures by Line Item

MOTHERCARE PROJECT									
CATEGORIES	AMENDED APPROVED BUDGET	COSTS BILLED THRU 7/31/93	DISALLOWED COSTS THRU 7/31/93	ADJUSTED COSTS THRU 7/31/93	ACTUAL & PROJ EXPENDITURES 8/1/93 THRU 9/30/93	ADJUSTED BUDGET	ACTUAL OBLIGATION	PROJECT BALANCE REMAINING	
JSI SALARY & BENEFITS	1,652,291	1,473,320	(73,772)	1,399,547	83,775	1,483,322	1,652,291	168,969	
JSI CONSULTANTS	922,350	281,147	(5,526)	275,621	35,321	310,942	400,000	89,058	
TRAVEL/PER DIEM	1,994,529	1,149,481	(1,936)	1,147,545	72,150	1,259,695	1,265,700	6,005	
ALLOWANCES	169,123	9,100	(391)	8,709	0	8,709	9,000	291	
FIELD OFFICE SUPPORT	1,366,562	306,750	0	306,750	305,855	612,605	615,000	2,395	
COMMODITY/EQUIPMENT	361,247	213,149	0	213,149	1,719	214,868	215,200	332	
ODC	535,865	868,422	0	868,422	306,862	1,175,284	1,180,000	4,716	
DOM	862,104	1,031,319	(51,642)	979,677	21,542	1,001,219	1,002,374	1,155	
SUBCONTRACTS	5,138,455	5,621,770	(630)	5,621,140	808,815	6,429,955	6,575,862	145,907	
<b>SUB-TOTAL</b>	<b>13,002,526</b>	<b>10,994,458</b>	<b>(133,897)</b>	<b>10,860,561</b>	<b>1,636,039</b>	<b>12,496,600</b>	<b>12,915,427</b>	<b>418,827</b>	
FEE	520,000	439,778	(5,186)	434,592	65,442	500,034	516,617	16,583	
<b>SUB-TOTAL</b>	<b>13,522,526</b>	<b>11,434,237</b>	<b>(139,083)</b>	<b>11,295,154</b>	<b>1,701,481</b>	<b>12,996,635</b>	<b>13,432,044</b>	<b>435,409</b>	
MAITI DE-OBLIGATION								(5,409)	
<b>TOTAL</b>	<b>13,522,526</b>	<b>11,434,237</b>	<b>(139,083)</b>	<b>11,295,154</b>	<b>1,701,481</b>	<b>12,996,635</b>	<b>13,432,044</b>	<b>430,000</b>	

(1) Maity de-obligation: funds to be de-obligated after final MotherCare closeout due to activity suspension for political reasons.

**FINAL EVALUATION OF MOTHERCARE**

A summary of both tables is presented below, as Summary Table 9 and Summary Table 10.

**Summary Table 9**

**Funding by Implementation Mode**

(In millions)

Implementation Mode	Core Funds	Buy-In Funds	OYB Funds	TOTAL
General Activities	3.2	.05		3.25
Long-Term Projects	2.8	1.6	1.2	5.6
Research Projects	.6	.3	.1	1.0
Short-Term TA	1.2	.3	.05	1.55
<b>TOTAL</b>	<b>7.8</b>	<b>2.25</b>	<b>1.35</b>	<b>11.4</b>

**Summary Table 10**

**Funding by Source (%)**

Implementation Mode	Core Funds	Buy-In Funds	OYB Funds	TOTAL
General Activities	98	2	0	100
Long-Term Projects	50	29	21	100
Research Projects	61	28	11	100
Short-Term TA	79	18	3	100

MOTHELCARE  
CUMULATIVE VOUCHERED EXPENDITURES  
AS OF JULY 31, 1993

Description	C U R R E N T V O U C H E R E D E X P E N S E S			
	Core Vouchered @ 7/31/93	Buy-In Vouchered @ 7/31/93	OYB Trans Vouchered @ 7/31/93	Total Expenditure Vouchered @ 7/31/93
Total General	3,244,834	52,862	0	3,297,696
L O N G - T E R M P R O J E C T				
D E M O N S T R A T I O N				
Guatemala				
Guatemala Development	445,101 32,667	401,436	0	846,537 32,667
Total Guatemala	477,768	401,436	0	879,204
Uganda				
Uganda Development	194,169 118,602	317,635	0	511,804 118,602
Total Uganda	312,771	317,635	0	630,406
Nigeria				
Nigeria Development	102,287 46,973	0	426,025 46,309	528,312 93,283
Total Nigeria	149,261	0	472,334	621,595
Indonesia				
Region	248,550			
Health Cost Eff Surv	4,813		281,404	529,954
Indramayu	405,837	111,081	21,132	25,944
Safe Mother	2,131		137,648	654,566
Pilot Study	178,869		254,593	256,723
				178,869
Total Indonesia	840,198	111,081	694,776	1,646,056
Bolivia				
Cochabamba Field	378,837	754,974		1,133,812
SOPACOP	14,464	57,082		71,545
Development	71,474			71,474
Bolivia Total	464,775	812,056	0	1,276,831
Total LT Demonstration Projects	2,244,774	1,642,208	1,167,110	5,054,092

Table 9

----- PVO PROJECTS -----				
Bolivia SCF Inquisivi	353,378	17,471		370,849
Bangladesh				
Bangladesh	170,360	0	0	170,360
Development	42,865			42,865
Total Bangladesh	213,225	0	0	213,225
Total LT PVO Projects	566,603	17,471	0	584,074
TOTAL LONG TERM PROJECTS	2,811,377	1,659,679	1,167,110	5,638,167
=====				
R E S E A R C H P R O J E C T S				
-----				
Ecuador				
Ecuador	321,632	0	0	321,632
Ecuador study	37,179			37,179
Total Ecuador	358,811	0	0	358,811
Indonesia				
LBW	147,372		6,058	153,431
BV	58,255		98,171	156,426
Slow Rel Iron/Univ Of Kansas				0
Slow Rel Iron	25,379	29,702	9,986	65,068
Total Indonesia	231,007	29,702	114,215	374,924
Burkino Faso	6,035			6,035
Kenya	9,354	249,313	0	258,667
TOTAL RESEARCH PROJECTS	605,207	279,016	114,215	998,438
=====				
S H O R T - T E R M P R O J E C T S				
-----				
SHORT-TERM TA				
Philippines				
Philippines	0	87,857	0	87,857
Philippines Development	0	34,013		34,013
Total Philippines	0	121,870	0	121,870
Peru/Prism	48,149	0	0	48,149
Breast Feeding Assessments				
Bolivia	25,461			25,461
Dominican Republic	30,562			30,562

Uganda	166,197		7,758	173,955
Chana	4,765		42,241	47,006
Other	111,550			111,550
<b>Total Breastfeeding</b>	<b>338,535</b>	<b>0</b>	<b>50,000</b>	<b>388,535</b>
<b>Total Short Term TA</b>	<b>386,685</b>	<b>121,870</b>	<b>50,000</b>	<b>558,554</b>
<b>SHORT-TERM WORKSHOPS</b>				
<b>TAGS</b>				
TAG 1	45,271			45,271
TAG 2	115,317			115,317
TAG 3	37,781	57,529		95,310
<b>Total TAGS</b>	<b>198,369</b>	<b>57,529</b>	<b>0</b>	<b>255,898</b>
<b>Other Workshops</b>				
Maternal Anthrop wksp	19,760			19,760
Maternal Measurement	71,403			71,403
STD/AIDS-Congen Syph wksp	0	51,149		51,149
STD Development/general	18,810	25,227		44,037
NCIH 1991	20,849			20,849
India wksp	9,301			9,301
India LBW wksp	40,774			40,774
Burkino-Faso wksp	26,208			26,208
Brainstorming wksp	11,321			11,321
NIS MOH / Alma Alta	49,491			49,491
Midterm Evaluation	17,443			17,443
Other ST TA	317,056	6,692		323,748
<b>Total Other Workshops</b>	<b>602,417</b>	<b>83,067</b>	<b>0</b>	<b>685,485</b>
<b>Total Workshops</b>	<b>800,786</b>	<b>140,596</b>	<b>0</b>	<b>941,382</b>
<b>TOTAL SHORT TERM PROJECTS</b>	<b>1,187,471</b>	<b>262,466</b>	<b>50,000</b>	<b>1,499,936</b>
<b>TOTAL</b>	<b>7,848,889</b>	<b>2,254,023</b>	<b>1,331,325</b>	<b>11,434,237</b>
Disallowed costs to 4/93	(127,615)			(127,615)
<b>Adjusted Total</b>	<b>7,721,274</b>	<b>2,254,023</b>	<b>1,331,325</b>	<b>11,306,622</b>

file name: currentexp.wk1

MOTHERCARE  
VOUCHERED EXPENDITURES  
PERCENTAGES BY FUNDING SOURCE  
AS OF JULY 31, 1993

Description	Total CORE	Total BUY- IN	Total OYB	TOTAL VOUCHERED EXPEND
<b>GENERAL</b>	\$3,244,834	\$52,862	\$0	3,297,696
	98.40%	1.60%	0.00%	
<b>LONG - TERM PROJECTS</b>				
----- DEMONSTRATION -----				
Total Guatemala	\$477,768	\$401,536	\$0	879,304
	54.33%	45.67%	0.00%	
Total Uganda	\$312,771	\$317,635	\$0	630,406
	49.61%	50.39%	0.00%	
Nigeria				
Total Nigeria	149,261	0	472,334	621,595
	24.01%	0.00%	75.99%	
Total Indonesia	\$840,198	\$111,081	\$694,776	1,646,056
	51.04%	6.75%	42.21%	
Bolivia				
Bolivia Total	\$464,775	\$812,056	\$0	1,276,831
	36.40%	63.60%	0.00%	
Total LT Demonstration Projects	\$2,244,774	\$1,642,208	\$1,167,110	5,054,092
	44.41%	32.49%	23.09%	
----- PVO PROJECTS -----				
Bolivia SCF Inquisivi	\$353,378	\$17,471	\$0	370,849
	95.29%	4.71%	0.00%	
Total Bangladesh	\$213,225	\$0	\$0	213,225
	100.00%	0.00%	0.00%	
Total LT PVO Projects	\$566,603	\$17,471	\$0	584,074
	97.01%	2.99%	0.00%	
<b>TOTAL LONG TERM PROJECTS</b>	\$2,811,377	\$1,659,679	\$1,167,110	5,638,167
	49.86%	29.44%	20.70%	
=====				
<b>RESEARCH PROJECTS</b>				
Total Ecuador	\$358,811	\$0	\$0	358,811
	100.00%	0.00%	0.00%	

Table 10

Total Indonesia	\$231,007 61.61%	\$29,702 7.92%	\$114,215 30.46%	374,924
Burkino Faso	\$6,035 100.00%	\$0 0.00%	\$0 0.00%	6,035
Kenya	\$9,354 3.62%	\$249,313 96.38%	\$0 0.00%	258,667
<b>TOTAL RESEARCH PROJECTS</b>	<b>\$605,207 60.62%</b>	<b>\$279,016 27.95%</b>	<b>\$114,215 11.44%</b>	<b>998,438 100%</b>
<b>SHORT-TERM PROJECTS</b>				
<b>SHORT-TERM TA</b>				
Total Philippines	0 0.00%	121,870 100.00%	0 0.00%	121,870
Peru/Prism	48,149 100.00%	0 0.00%	0 0.00%	48,149
Total Breastfeeding	338,535 87.13%	0 0.00%	50,000 12.87%	388,535
Total Short Term TA	386,685 69.23%	121,870 21.82%	50,000 8.95%	558,554
<b>SHORT-TERM WORKSHOPS</b>				
<b>TAGS</b>				
Total TAGS	198,369.08 77.52%	57,528.75 22.48%	0.00 0.00%	255,898
Other Workshops				
Maternal Anthrop wksp	19,760	0	0	19,760
Maternal Measurement	71,403	0	0	71,403
STD/AIDS-Congen Syph wksp	0	51,149	0	51,149
STD Development/general	18,810	25,227	0	44,037
NCIH 1991	20,849	0	0	20,849
India wksp	9,301	0	0	9,301
India LBW wksp	40,774	0	0	40,774
Burkino-Faso wksp	26,208	0	0	26,208
Brainstorming wksp	11,321	0	0	11,321
NIS MOH / Alma Alta	49,491	0	0	49,491
Midterm Evaluation	17,443	0	0	17,443
Other ST TA	317,056	6,692	0	323,748
Total Other Workshops	602,417 87.88%	83,067 12.12%	0 0.00%	685,485
Total Workshops	800,786 85.06%	140,596 14.94%	0 0.00%	941,382

TOTAL SHORT TERM PROJECTS

1,187,471	262,466	50,000	1,499,936
79.17%	17.50%	3.33%	

TOTAL

7,848,889	2,254,023	1,331,325	11,434,237
68.64%	19.71%	11.64%	

Table 11 shows the amount of funding received from outside sources. For a discussion about how funding from outside sources impacts the project's efficiency, please reference II.B.3.d., pgs. 32-33.

**Table 11**  
**Other Funding Sources**

Funding Source	Amount
World Bank	\$55,045
UNICEF	\$9,316
SIDA	\$29,448
<b>TOTAL OTHER FUNDING</b>	<b>\$93,809</b>

As noted by the mid-term evaluation, in addition to receiving outside funding, MotherCare has also received a number of in-kind and cash contributions. Many of these contributions, e.g., office space in Nigeria free of rent charge, have assisted in containing local costs.

Overall, MotherCare appears to have achieved effective and efficient use of resources. There appear to be no clear areas of wasting and costs were carefully monitored during the second half of the project. It does deserve note that the Other Direct Costs (ODC) line, as mentioned during the mid-term evaluation, remains overspent, by 62 percent through 7/31/93, with a projected overspending of 119 percent by 9/30/93. The mid-term evaluation noted that the sub-line items most contributing to this cost overrun were communication, reproduction, rent and outside services. A spreadsheet analysis of ODCs was not completed during this final evaluation; however, it is assumed that this pattern continued. Contract savings would have probably resulted from MotherCare hiring additional staff rather than drawing so heavily on outside services for completion of its work. Certainly in terms of continuity and institutional memory, having direct hire, long-term staff versus short-term, temporary staff is desirable and more time efficient. Moreover, the overall level of effort expended by MotherCare is underreported because this category of labor was not required by the contract to be captured. Level of effort expenditure is more fully explained in the following section.

## 2. LEVEL OF EFFORT ANALYSIS

Table 12 presents the expenditure of person months through July 31, 1993 and the projected level of effort for the months of August and September, 1993. (A thorough breakdown of level of effort by core, field and subcontractor staff, and consultants is found as Annex IX.) It appears that by the end of the contract, MotherCare will have an unused level of effort balance of 462 person months. In part, the unused balance in the staff line is explained by prolonged staff position vacancies. Overall, the unused level of effort balance is also explained by the record-keeping practices, i.e., as mentioned above, quite a significant amount of casual labor has been hired during the life of the contract and level of effort information has not been captured for this category of labor.

In general, MotherCare has successfully expended its financial resources and level of effort.

Table 12

### Level of Effort Analysis (person months, rounded)

	Contract Ceiling	Actual Spent thru 7/93	Projected Need thru end of Project	Difference Remaining (9/30/93)
Staff (JSI & subs)	653	472	26	155
Consultants (Short-term TA)	1,078	738	33	307
Subtotal		1,210	59	
<b>TOTAL</b>	1,731		1,269	462

## 3. FINANCIAL MANAGEMENT AND REPORTING

MotherCare has steadily improved its financial planning and monitoring capacity since the mid-term evaluation. But they are also fully aware that their financial and level of effort tracking systems could use further improvement. They, in addition to other JSI Washington projects, are currently under-utilizing their financial software system (the Deltek accounting

system). As a result, a decision has been made at the corporate level to bring in Deltek programmers to provide technical assistance to all JSI projects to improve financial reporting. In the case of a Phase II project, should JSI be the successful bidder, MotherCare would be able to take advantage of this technical assistance. To date, two basic features of the Deltek system have not been exploited: 1) the WBS or work breakdown structure, that allows the user to tailor financial reporting to individual contract needs; and 2) the Query Writer, which writes specialized programs to generate reports tailored to contract needs. A customized program would also allow MotherCare to automate those portions of financial reporting and tracking that are currently done manually.

To streamline field financial reports with JSI's accounting system, JSI has developed a Field Accounting System separate from Deltek, which is fully operational. The system provides a consistent format for field accounting as well as information about A.I.D. regulations, allowables/disallowables, etc. The system is able to convert foreign currency from the field financial reports into dollars and generates a report for Deltek; this report is then entered into the Deltek system. JSI provided two Field Accounting System training courses for JSI program associates and key field staff last year and has plans for future training sessions in fiscal year 1994.

Unfortunately, MotherCare has had to continue to deal with monthly field reports from their subcontractors (30 subcontracts at the time of the mid-term evaluation; 36 subcontracts in total by the end of the contract) and provide monthly advances to over a dozen subcontractors. People in the field have continued to complain about this situation and MotherCare has found it cumbersome. At the time of the mid-term, MotherCare was intending to explore with the A.I.D. Contracts Office the possibility of a quarterly advance system. It was explored with A.I.D. Contracts and MotherCare was advised that a one-month advance is the maximum allowed. Moreover, JSI headquarters itself has instituted a company-wide policy that no advances shall exceed one month's cash needs. The JSI-developed Field Accounting System and the training they are willing to offer corporate and field staff, as well as a customized Deltek program, should diminish some of the problems engendered by this monthly reporting and advance system.

In general, MotherCare staff and JSI corporate staff feel that buy-ins are an administrative "nightmare". Some individuals have suggested that A.I.D. should eliminate the buy-in mechanism altogether and do everything through OYB transfers. The Deltek accounting system does track buy-in activity with ease, but in general buy-ins are described as cumbersome.

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## **IV. CONCLUSIONS / RECOMMENDATIONS / LESSONS LEARNED**

MotherCare's experience in implementing complex long-term projects as well as discrete and programmatic research has yielded a number of important lessons that provide useful data to inform Phase II activities. Conclusions/recommendations/lessons learned are presented according to the four major integrated technical components (inputs/outputs), preceded by a set of general lessons learned.

### **A. GENERAL**

#### **1. PROJECT TIME FRAME**

- Five years (in the case of MotherCare, 54 vs. 60 months) represents an insufficient time to plan and complete implementation of project interventions, and to evaluate the impact of these interventions on health status and policy. The team is aware, however, that the five-year contracting cycle for A.I.D. projects is inflexible and that A.I.D. itself is aware of the constraints that this time frame poses. In the opinion of some interviewees programs probably need at least three years of an intervention before one can begin to determine the impact or sustainability of services. Adding two years to the contract cycle, i.e., two seven-year contracts within a fourteen-year project, may be a more realistic time frame.
- Thorough analysis and interpretation of data from interventions, with accompanying publication, presentation and dissemination of findings, takes at least six months. Large expenditures of resources on a project that does not result in the opportunity to properly disseminate results and lessons learned is a less than optimal situation, since progress results from sharing lessons learned and building upon the experiences of others.

#### **2. INFORMATION EXCHANGE**

- Periodically providing progress reports on field work to local groups of providers and policy makers increases the receptivity of the providers and policy makers to new strategies and approaches. An iterative process appears to have a larger effect with less resistance than waiting until the end of the project to announce all of the findings.

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- MotherCare has used the experiences of other projects in its portfolio to support or advise newer projects. Local project investigators found it very useful to visit other project sites (e.g., Guatemala and Indonesia) and to take the experiences of one project to another (e.g., ACNM built on Ghana experience in Uganda and on Ghana and Uganda experience in Nigeria).
  - MotherCare has implemented a unique Technical Advisory Group (TAG) meeting format and agenda that provides a useful model for other projects to consider. Bringing in their principal investigators from MotherCare field projects to the TAG provided a useful forum for sharing information/data and problem solving. While it is a more expensive option<sup>33</sup>, it is worth pursuing, if resources permit.

### **3. FOCUS**

- In a project like MotherCare program staff need to decide whether the focus will be on replicable, prototypical models of care or whether the program will take advantage of interesting situations/projects which may or may not be replicable. In other words, should the project focus resources on repetitive research in every part of the globe or should it invest in a promising technique, like the Sample Registration System (SRS) in Indonesia. The long-term outcomes on models of service delivery can be impacted by the mix of projects taken into a program. Some interviewees felt that the intent should be on developing replicable, prototypical models, i.e., "improving the mousetrap" rather than trying innovative things.

### **4. FUNDING/COST-EFFECTIVENESS**

- Cost-effectiveness analysis of interventions has been the weakest part of the MotherCare portfolio. Data are difficult to obtain, but are necessary for policy dialogue with ministries and donors. Ministries need these data to inform policy, planning and resource allocation decisions.
- There is a risk associated with any interruption in core or buy-in funding for country programs, especially if there are ongoing projects that will become part of MotherCare, Phase II. These projects can be damaged or lost if there is a hiatus between MotherCare, Phase I and the follow-on phase.

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<sup>33</sup>Approximately \$100,000+ per meeting.

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## 5. METHODOLOGY

- The MotherCare "typology" has contributed to the state-of-the-art, providing a quick and easy way to characterize existing systems of care. A future use of this typology should be to make suggestions at the end of MotherCare I for general approaches to improving the system of maternity care in each setting, emphasizing that these approaches by typology are "points on the continuum." From the work done so far, MotherCare staff and investigators should be able to offer ideas of what works or doesn't in a setting, and what the next steps should be.
- The MotherCare projects have usually engaged in health planning activities and carried out "situational analysis" as the first step in designing some of the service delivery projects. Maternal and perinatal deaths case reviews, assessment of clinical services and the organization of the maternity care system, and identification of important actors in the system have been key to the functioning of the complex demonstration projects. The maternal and perinatal deaths case reviews proved very helpful to target intervention strategies in several settings.

## B. IMPROVING SERVICES

### 1. SERVICES

#### a. Basic Requirements

- MotherCare has had several large demonstration projects that addressed the system of maternity care services from the home to the hospital (Indonesia x 2, Bolivia and Guatemala) as well as addressing services, other than labor and delivery, that were needed. Maternity care should be addressed in this comprehensive way. MotherCare projects have demonstrated the feasibility and desirability of integrated programs.
- MotherCare, Phase II should continue to assess the effects of shifts in referral patterns obtained in MotherCare, Phase I in some of the projects, so that longer term lessons are learned. For example, where positive changes have occurred, what factors have caused these shifts and can they be maintained over time. Where experiences have been less positive, the evaluation team recommends that rather than consider the attempt at increasing referrals a failure, project staff and counterparts should try to determine the principal barriers to successful completion of the referral and consider options for removing the barriers. For

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example, in Indonesia women were reluctant to use the birthing huts because they didn't want to pay for services. Better understanding of the reasons for this and other barriers can enable projects to fine-tune their interventions.

- For quality of care to improve health workers must expand their knowledge and skills and respond more appropriately to clients. They also must have adequate equipment and supplies and health services must be efficiently and effectively managed<sup>34</sup>.
- Some projects suggested that improved interpersonal communication and counseling skills can, by themselves, result in more women utilizing formal services (Bolivia, Guatemala, Kenya, Nigeria).
- When local practitioners have the skills (through training and with adequate support) they are called upon by the women to provide care.
- Transportation for emergencies is a key part of maternity care services, and resources must be expended to publicize the availability of transportation services to the community in general and to the target population of women in particular.

**b. Local Participation and "Ownership"**

- Planning for service programs that include involvement of local stakeholders takes longer than if the local policy and decision makers are not involved. However MotherCare experience (e.g., Guatemala, Uganda) demonstrates that participation by these people can save time during the project when difficulties arise. Also from the point of view of sustainability, the participation of local stakeholders is crucial.
- It is best to work within the existing system to improve it before proposing larger changes in the system. For example, there are no nurse midwives in Guatemala, but rather than beginning by recommending the creation of a new type of health worker, it is better to improve the system that currently exists. In this way recognition of the need for the new type of health worker may arise within the system itself and thus be more sustainable and acceptable.

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<sup>34</sup>Adequate attention to the availability of supplies promotes improved coverage and utilization of services, both medicinal services such as provision of antibiotics, iron and contraceptives, and measurement services such as taking blood pressure and weighing.

- Local levels of care, such as the birthing hut, must be "owned" by the community, and the community must understand the purpose of these levels of care. Education and communication strategies are key to this, as well as supervision strategies to support the concept while it is new to the providers of care.

**c. Risk Assessment and Referral**

- Lessons learned in the implementation of obstetric complications identification and referral strategies include:
  - Obstetric complications identification and referral strategies can be implemented on a community-wide basis if adequate attention is given to the content of the assessment of danger signs and the identification used to declare action modes.
  - Community workers can learn to assess danger signs appropriately.
  - Discussing danger signs during labor and delivery with women can frighten women and their families; therefore, continued education is needed to improve people's understanding of what it means to be diagnosed with complications and what actions can be taken.
  - The site of referral must be acceptable and provide appropriate management of complications if a danger sign assessment strategy is to be successful.
  - The line of referral for each group of danger signs must be clearly established.
  - Early detection of mothers with danger signs allows more time for the mother and the family to prepare for possible referral.
  - Two-way radio communication between the levels of health care (e.g., health center and referral hospital) helps the referral process.
  - Transportation for emergencies is a key part of maternity care services.
  - Costs of the care for obstetrical complications is a major barrier to seeking this care. Transportation costs are viewed as minor compared to the costs of cesarean sections.

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- The desire to have a home birth is very strong in areas where this continues to be the primary site of delivery. Home conveys and provides warmth, family support and privacy--all factors that are highly valued and quite distinct from the coldness, lack of privacy, disrespect and often harsh attitudes found in hospitals and health centers. Creating a climate for a warmer and more respectful encounter between women and their families and providers through sensitization of all parties, is key to a successful safe motherhood program.
  - The role of intermediate steps in the referral process, such as the birthing huts in Tanjungsari, Indonesia, or health centers in Inquisivi, Bolivia, must be clearly understood by health providers and the community for them to function properly in the system.
  - The idea of referral is threatening to some providers because it may appear to the client that the provider is incompetent. Likewise, it can be threatening for the next level of care provider who may not be adequately prepared to handle the referral, either because of lack of knowledge or equipment or both. Referral is also threatening to the woman who when labelled high-risk, may automatically seek care at the highest and most sophisticated level. For the referral system to work all levels must participate in deciding on "norms" for referral, and the community and providers need education about the referral process.
  - Appropriate training of providers and the community can increase the number of cases arriving at referral centers, but the referral centers must be prepared to treat the increase with appropriate obstetric case management. All levels of care must be involved in improving case management, or the system will break down.

**d. Integration of Services**

- Other issues related to reproductive health need to be included in projects. Of course, there is still the danger that too many services being implemented at once will overwhelm the abilities of local project staff to successfully implement the changes in the maternity care service. It may be better to begin with the intention of improving the maternity care system, and be willing to incorporate other activities such as STD care and family planning as the staff, government, and women allow.
- Newborn care should be an integral part of the maternal-neonatal services that are introduced.

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## 2. **TRAINING**

### a. **Competency-Based, Skill-Building Approach**

- MotherCare has emphasized competency-based in-service training, focusing on skill building and translating knowledge into appropriate action. The project has utilized adult teaching/learning techniques in all training to date (for both midwives and TBAs), and has emphasized a three-pronged approach combining training, counseling and IE&C wherever possible.
- The project has also recognized the importance of careful follow-up and monitoring and assessment of skill retention over time, and continuing education and refresher training have been considered in all training plans.
- The TBA training in Guatemala includes protocols, norms, and excellent teaching/learning strategies, methods and materials. It has developed concrete, skill-based and relevant training in response to careful needs assessment. The focus on preparing the health system for referrals by TBAs along with proper training of TBAs has reinforced the awareness that training cannot be an isolated event. If this training and supervisory approach to TBA practice is shown to be effective in improved outcomes and referral, then it could become a model for training TBAs worldwide.

### b. **Use of the ACNM Life-Saving Skills Manual for Midwives and Other Tools**

- The Life-Saving Skills Manual for Midwives is very good and reflects careful preparation and presentation. It has been developed and field tested in such a way that continuous revision and adaptation are possible. Training of midwives in Uganda and Nigeria, utilizing the manual, has been of high quality by all reports (from Mission representatives as well as observers and participants).
- A comprehensive Teacher's (Trainer's) Guide for use with the ACNM Manual would be appropriate and should be considered at the earliest possible date.
- Counseling and interpersonal skill training as well as community health and planning should be incorporated into the basic life-saving skills training.
- There is more evidence in Uganda than in Nigeria that the training of midwives will be sustained over time because the Life-Saving Skills content has been incorporated into the basic training curriculum. At present, the country situation in Nigeria makes it difficult to assess whether Life-saving Skills will be

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incorporated into the basic training. During 1988-89, the Council of Nurses in Nigeria revised the curriculum, thus the possibility for further revision to integrate new offerings is less likely.

- To the extent possible, the WHO Safe Motherhood Education Modules<sup>35</sup>, recently developed and revised by WHO, should be utilized as a resource for the project. It is important to continue building upon (rather than duplicating) work done by others in maternal health.

**c. Training-of-Trainers**

- Training-of-trainers is essential before undertaking any type of concentrated or comprehensive training effort. It is necessary that those who do the training (at all levels) understand the rationale for competency-based training that responds to actual needs in the field.
- Trainers of TBAs should receive specific training in adult teaching/learning techniques for non-literate persons. Those who transmit the information must be able to gain the trust and respect of the trainees; how the knowledge is transmitted is as important as the knowledge itself.
- Priority should be given to the continuation of preparing and offering appropriate assistance to midwife training. Tutors and supervisors must be trained in order for life-saving skills to be fully integrated into curricula.
- Technical assistance should be provided to country programs on training-of-trainers to include:
  - training needs assessments and data analysis
  - rationale for competency-based training
  - basics of curriculum development including measurable objectives, content, methodology, evaluation and follow-up strategies
  - participatory adult teaching/learning techniques

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<sup>35</sup>This WHO Educational Package includes eight modules: The first focuses on the community. Number two focuses on prevention. Number's three through seven focus on the treatment of postpartum hemorrhage, obstructed labor, puerperal infection, eclampsia and abortion; and number four focuses on follow-up. Each module contains: Session Notes for Tutor; Learner's Session Notes; visual aids; teaching aids; and offprints of required texts.

- All training activities should be planned conjointly with the IE&C strategy in order to strengthen the potential impact of the work at the individual, community and health care system levels.
- MotherCare should continue to lay the groundwork, prepare, and offer technical assistance in midwife training. MotherCare should continue to train tutors and supervisors in order for life-saving skills to be fully integrated into basic curricula and to sustain the expanded role of the midwife in clinical practice.

**d. Follow-Up and Coordination**

- In Phase II of MotherCare, training activities should continue to be carefully planned and responsive to the actual needs of the participants and health delivery system.
- All midwife training should continue to be competency-based, with careful attention given to the implementation of monitoring and supervision as well as assessment of skill-retention over time. The project should ensure that provision is made for continuing education and refresher training at the country level. Midwife training should be augmented by carefully planned IE&C so as to produce a synergistic effect with increased community and provider awareness of improved maternal health practices.
- TBA training should continue to be concrete, skill-based and relevant to the perceived needs of TBAs. Follow-up meetings in the health districts or areas are essential in order to keep the teaching/learning relationship intact, reinforce management, and provide feedback to TBAs in order to improve their practice. TBA training should be streamlined to address major concerns first, so that TBAs are not overloaded with too much information.
- Training of health care providers, midwives, TBAs and others cannot be done in isolation. It is very important to prepare the system to respond appropriately to the individuals being trained whenever possible. In particular, training of TBAs must be combined with preparing health care providers to receive referrals from TBAs and to sensitize them to the contributions that appropriately trained TBAs can make.
- Follow-up, monitoring and supervision are critical elements in any training plan, and attention must be given to evaluating skill retention and to providing continuing education.

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- The utilization of long- versus short-term advisors/consultants should be carefully assessed periodically during the life of a project. Careful planning and a clear rationale for the activities and inputs of advisors is essential to program success and long range benefits from any training.

## **C. AFFECTING BEHAVIORS**

### **1. BEHAVIORAL RESEARCH**

- MotherCare's formative/behavioral research methods and strategies (which have included, but have not been limited to, focus group discussions, in-depth interviews, and concept testing) have contributed to improved study design in that each project activity has built upon the lessons learned from the qualitative research of previous activities.
- Emphasis has been given to collecting and interpreting information about the behavior of pregnant women as well as the behavior of their significant others (spouses, community leaders, mothers-in-law, other family members). Attitudes and beliefs and behaviors of service providers have been studied also, and this has been considered a vital part of the behavioral research approach during the MotherCare project.
- The project has used qualitative behavioral research results not only to design IE&C, but also to monitor interventions and provide formative direction. Research plans and questions from each country (along with technical assistance from the U.S. and in-country technical assistance) have been used as guides for refining the behavioral research methodologies for other countries. Thus, MotherCare has built upon lessons learned in the field.
- Skills workshops that focus on methods of obtaining and interpreting qualitative research are essential and should be offered more systematically to all who will be involved in project implementation. At the outset, research should involve policy makers and key service providers so as to ultimately facilitate the application of research findings for the improvement of service delivery.
- Focus group discussions and in-depth interviews are most effective if used as a package, with focus group discussions informing topic/question selection for in-depth interviews.

- MotherCare has reinforced the interdependence of qualitative and quantitative research, where the results of one can help guide the development and focus of the other (e.g., Bangladesh, Philippines).
- The project's experience shows that it is particularly important to balance results of market research with an understanding of epidemiological research findings in order to have a more comprehensive picture of the needs of a community or population group (e.g., Bangladesh, Bolivia, Philippines).
- Utilizing local in-country research agencies (universities and public and private organizations) to conduct research whenever possible ensures skills transfer and promotes synergistic results. An important by-product of the project's emphasis on behavioral research and a process-oriented IE&C component has been local capacity building among counterparts.
- MotherCare should consider the establishment and training of a core group within each country project on the process and skills of behavioral/formative research (ie. research planning, questionnaire development, conduct of interviews, focus group discussions, analysis, writing, and findings presentation). This core group could provide the consistency in technical assistance that is necessary for a successful project and help ensure the application of research findings into action/implementation in the field.

## **2. MEASURING COST EFFECTIVENESS**

- To date, no standard methods of testing cost-effectiveness of IE&C have been developed. Although IE&C is a critical component of the composite of interventions and influences that ultimately affect behavior, it is difficult to single out its specific cost-effectiveness. The timing of IE&C activity with other interventions has been recognized as a critical factor to be considered along with the scope and sequence of IE&C.
- There is a need for MotherCare to define, and A.I.D. to agree upon, the terms and parameters for assessing cost-effectiveness vis-a-vis IE&C. It would be advisable for MotherCare to link with other A.I.D. projects providing IE&C services who are also currently grappling with the issue of cost effectiveness, so as to learn from common experiences, and to identify effective and appropriate tools for measuring it.

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### **3. INTEGRATION OF IE&C WITH OTHER PROJECT COMPONENTS**

- MotherCare experience has validated the premise that formative research is the foundation upon which most project strategies should be based. The project has further shown that behavioral research is not only applicable to development of communication strategies, but also as a guide to strengthening service delivery, policy, training, and other project components (e.g., Bangladesh, Bolivia, Nigeria, Philippines).
- Workshops with project teams to link research findings with strategy development for all IE&C activity have greatly enhanced overall project development as well as the monitoring of interventions (e.g., Bangladesh, Bolivia, Nigeria, Philippines).
- MotherCare has demonstrated that IE&C is not the only intervention needed to affect behavior change, and that when IE&C is coupled with training of service providers, policymakers, and others the potential impact is multiplied (e.g., Bangladesh, Bolivia, Indonesia, Nigeria, Philippines).

#### **D. ENHANCING POLICY**

##### **1. ADVOCACY AND POLICY**

- MotherCare central and field staff have been very effective advocates for maternal health, focusing on mortality prevention and the maternity care "system". Their efforts have been less focused on maternal nutrition and neonatal health and nutrition, areas which should receive greater emphasis in Phase II. Although responses from the field (USAID missions in all five long-term demonstration countries) were mixed regarding MotherCare's advocacy efforts, it is clear from reading the content of missions' complete responses, that MotherCare has been very successful in advocating for improvements in the maternal care system. (See II.B.3.a., pgs. 19-22 and Annex IV.)
- MotherCare has successfully employed several advocacy mechanisms. No one technique used has been superior to another; instead techniques have worked in concert with one another to raise awareness of maternal health issues. Advocacy

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tools that could be used more prominently in Phase II include: 1) dissemination of findings and cost-effectiveness data to policy makers; and 2) development of a comprehensive information dissemination strategy to ensure that publications are targeted and receiving widespread dissemination.

- MotherCare has recognized the role of its demonstration projects and other information sources in serving as a basis for advocacy, building support for policy formulation and providing a basis for influencing public opinion. At the end of Phase I, all of MotherCare's long-term demonstration projects lie midway on the continuum between advocacy and policy formulation, Uganda being the furthest along the continuum.

## **2. INFORMATION DISSEMINATION**

- MotherCare core and field staff have written extensively and the quality of publications is excellent. However, information has not been disseminated systematically. It is thus imperative that under Phase II, an information strategy be developed that considers means to systematically disseminate technical, programmatic and cost information to the field. The following ideas should be explored:
  - Linking with in-country resource centers (that have received technical assistance from APHA's Clearinghouse on Infant Feeding and Maternal Nutrition) like AMREF in Kenya, IBFAN in Swaziland, Safe Motherhood/Uganda, and The Commonwealth Regional Health Community Secretariat located in Arusha, Tanzania. The coordinator of this latter group has links with 13 focal libraries throughout Southern and Eastern Africa that are collecting relevant research and disseminating information on reproductive health.
  - Developing special inserts/supplements or entire issues devoted to maternal and neonatal health and nutrition for inclusion to more widely and systematically disseminated newsletters, such as *Mothers and Children* (40,000), *Dialogue on Diarrhoea* (350,000 in 10 languages; actual readership estimated to be 2 million), *ARI News* and *AIDS Action*.

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- Exploring alternative modes of dissemination to print media and workshops/conferences, like the development of slide sets, videos or the use of interactive media, like electronic mail, and teleconferencing. Many organizations all over the world are using communication hubs like INTERNET (Institute for Global Communication), GEONET, ECONET, ISIS (Chile). Some groups are now developing electronic newsletters. Using interactive forms of communication can allow MotherCare to send through electronic mail, for instance, drafts of technical papers to researchers at various universities throughout the world for comment; this may represent an avenue for peer review. These electronic means provide unlimited access to universities. Some agencies are helping many institutions throughout Africa to hook up to these global networks at no charge.
  - Translating project technical materials into other languages, e.g., French, Spanish, Russian.
  - *MotherCare Matters* has been a useful technical update on maternal health issues. Its readership has grown to approximately 1800 subscribers. An examination of the mailing list revealed that individuals from 107 countries are receiving the newsletter; at least 26 of those countries are developed countries, such as the U.S., Sweden, Italy, Canada, New Zealand, Australia, Netherlands, etc. Many of the individuals in developed countries who are receiving the newsletter are in the field of international development. The list of individuals receiving the newsletter in the U.S. is extensive. However, a quick glance at the individuals receiving the newsletter at A.I.D. reveals a fair number of inaccuracies. It is recommended that A.I.D. review this list in collaboration with MotherCare staff in Phase II, prior to further dissemination of technical materials, including the newsletter.
  - As the end of Phase I approaches, MotherCare is planning to disseminate quite a number of working papers and central products by September 30, 1993 (see Table 2). In addition, a number of articles are being prepared for journals. It appears that project staff may need more time to finalize all of the materials planned for end-of-project dissemination. The time table should be carefully reviewed with the A.I.D. CTO so that there is clarity on what can and cannot be accomplished and how much work may be shifted to Phase II. A small extension of time (no-cost extension) to the existing contract may need consideration.

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### 3. COLLABORATION

- MotherCare has effectively collaborated at the central and field levels with central, bilateral and regional projects, ministries of health, NGOs/PVOs, professional associations, universities and other donors and organizations and the private sector (Table 3).
- The USAID mission in Bolivia assumed a very active role in ensuring collaboration among the various cooperating agencies and NGOs/PVOs working in maternal health and nutrition; this represents an interesting model for collaboration.
- MotherCare has successfully collaborated with family planning projects and cooperating agencies in the field (Nigeria, Uganda, Philippines).
- MotherCare's collaboration with, and funding from, outside organizations such as UNICEF, WHO, PAHO, SIDA and the World Bank has enhanced A.I.D.'s role as a major global actor in the field of maternal and neonatal health and nutrition policy.
- In asking that central projects leverage A.I.D.'s investment in a particular technical field by catalyzing the commitment and investment of other donors/organizations in the same field, A.I.D. and the contractor/cooperating agency/grantee should fully appreciate what work load impact this commitment has on project staff, particularly when the donor is often interested in obtaining the services and expertise of the Project Director. Realizing that A.I.D. is the primary client, and that many centrally funded projects are understaffed and already stretched to the limit in fulfilling their contractual mandate, contractors, et al should weigh carefully the amount of time, energy and other resources necessary to undertake work for other donors. In addition, A.I.D. must be willing to accept the constraints this may pose and be flexible to accommodate this additional work. In the case of MotherCare's work with outside agencies, the CTO was accommodating; nonetheless the extra work did place stress on core staff. An important lesson learned for MotherCare is that more time should be spent up front in planning the scope of work and level of effort prior to undertaking the task.

It is very important to point out that this type of collaboration should be promoted and encouraged by A.I.D. precisely because of the enormous benefits collaboration with other international organizations yields, i.e., technical influence is exerted globally; benefits of technical dissemination are multiplied;

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resources are significantly leveraged, etc. Nevertheless, it is recommended that A.I.D. contractors/cooperating agencies/grantees consider carefully the amount of time, energy and resources necessary to undertake the additional work (will probably require hiring additional staff), and must carefully construct an exacting scope of work document with the donor, setting such parameters as the amount of time necessary to complete the scope of work, the level of effort required of the Project Director, the number of drafts required, if the work entails the preparation of a report, etc.

#### **E. RESEARCH, ASSESSMENT METHODOLOGIES AND EVALUATION**

- Country project staff need technical assistance from professionals with expertise in particular areas, such as epidemiology, to be able to execute research properly. Country project staff will not have expertise in every technical area, and thus will require this specialized technical assistance intermittently.
- Appropriate applied research techniques, such as the maternal and perinatal deaths case reviews and verbal autopsy approaches, proved very useful to all the projects, as they gave a clear focus to the other project service components.
- Reporting systems must be kept simple so that providers do not spend all of their time filling out forms.
- In sites with evaluation or research components projects need experienced and knowledgeable people who can emphasize the need for quality control and help deal with problems that arise in data collection or handling. Field supervision is often omitted, but resources need to be allocated to cover this type of quality control in the evaluation component; otherwise the quality of data may not be good enough for decision-making. "Quick and dirty" research in a setting with very limited resources is a poor substitute for quality research and should be avoided. MotherCare did avoid this type of research, however, project staff qualified to oversee research were often overloaded. Thus, the effect of too many projects on skilled people is almost equivalent to not having skilled research people at all.
- If the project lacks sufficient research expertise on staff there must be a consultant qualified to advise the staff. Otherwise, errors may be made in decisions about the research.

- A proper assessment of effect can only be made after a sufficient implementation period.
- Given the types of service programs MotherCare has had in place it may be more important to measure the pregnancy complications rate or other complications-based indicators, such as percent of complications referred appropriately, than to measure mortality rates. Such indicators appear to be process-oriented only, but if they are based on the causes of mortality and morbidity, then they can be used to examine "impact". This is important because as services are directed at the causes of mortality and successfully implemented, mortality will decrease, making mortality less feasible as an indicator of health impact. The current lack of epidemiological and medical knowledge precludes using the incidence of obstetric morbidity (e.g., pre-eclampsia, obstruction, etc.) as an impact indicator, and so, successful detection of complications and their appropriate handling becomes a substitute.
- More work is needed on the validity of information gathered about maternity care use (prenatal care use, etc. and problems in pregnancy or labor and delivery), i.e., how valid are the questions themselves for getting the right answers. This is not to suggest that Phase II of MotherCare take on this task. However, the fact that no one seems to be doing anything in this area is problematic and MotherCare has suffered from the lack of knowledge in this area in Phase I. There was a lot of work done on utilization data for medical care before the National Health Institutional Survey (NHIS) in the 1950's, but nothing since. It was assumed that the Demographic and Health Surveys (DHS) Project was doing some validity work, i.e., ethnographic research to improve questions about prenatal care, etc., but it is clear from the MACRO questionnaire (Annex VII) that this is not the case. It is recommended that A.I.D. perhaps use their Maternal and Newborn Care grant with WHO for work to be done in this area. It would make an important global contribution to the state-of-the-art.

## **F. ADMINISTRATION AND FINANCE**

### **1. MANAGEMENT**

- Communication between A.I.D. and the contractor is critical to moving a program forward; weekly meetings between the A.I.D. CTO and MotherCare project staff were regularly adhered to in the second half of the project, which contributed to a smooth working relationship. Continuity of the A.I.D. CTO, as experienced over the five-year contract, is beneficial to worldwide field support

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projects; projects such as MotherCare also require the technical and management guidance of a full-time CTO.

- Prime/subcontractor relationships are inherently imbalanced, the prime wanting to maintain control and the subcontractor wanting autonomy. Primes should set the parameters of what they expect from the subcontractor at the outset. Clearly, two-way communication of expectations can help to reduce tensions.

## **2. CONTRACT DELIVERABLES**

- It is both important and contractually necessary to inform A.I.D. about program plans and to report to A.I.D. progress in meeting the goals and objectives of a contract. However, the number of reports required of most contractors by A.I.D. is quite extensive, e.g., quarterly, semi-annual, annual, trip reports, etc. These reports are in addition to the technical reports produced by a project, which routinely receive fairly wide dissemination. While the technical reports, like journal articles, can advance the field of maternal health, the contractually obligated documents, like progress reports, are likely to be shelved and not used. MotherCare has expressed that there has been inadequate feedback from A.I.D. on some of the annual workplans and semi-annual progress reports over the latter two years of the contract. This has been due in part to the lack of a full-time CTO at A.I.D. Moreover, the annual workplans have not proved to be useful management and tracking tools for the contractor, although they have proved useful to A.I.D. for monitoring purposes. Notwithstanding, the number of contractually required documents should be carefully reviewed and all reporting should be simplified.

## **3. FINANCIAL AND LEVEL OF EFFORT CONSIDERATIONS**

- There are no financial savings to A.I.D. in an administratively understaffed project. In the case of MotherCare, there was a heavy price to pay in terms of staff burn out and heavy reliance on outside casual labor to fulfill the contractual mandate. There is no substitute for direct hire staff in terms of continuity, institutional memory and cost savings.
- While buy-ins have facilitated some of MotherCare's work, they are in general cumbersome. Some interviewees have suggested that buy-ins be eliminated altogether and replaced by OYB transfers.

- It is critical that a contractor's accounting and financial management system be able to accommodate the specific financial reporting needs of a project. While MotherCare benefitted from its Deltek accounting system, the system's full capabilities were not exploited from contract start-up. Had MotherCare designed a customized program at contract start-up, much of the need to manually enter data to prepare customized reports for A.I.D. would have been eliminated. JSI has taken steps to improve this aspect of all of their projects.
- The monthly vouchering and request for advance system that field projects have had to implement with host country subcontractors has been difficult for all parties involved. JSI's Field Accounting System and accompanying training program, developed since the mid-term evaluation, should help to ease these difficulties.
- An automated system for calculating and reporting level of effort should be initiated at the outset of a contract; although not an A.I.D. requirement, it is also suggested that casual labor level of effort be computed to accurately portray actual level of effort expended during the life of the contract.

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## V. FUTURE DIRECTIONS

All of the activities undertaken under Phase I of MotherCare have the potential for contributing to the state-of-the-art. This final evaluation report (Table 4) has highlighted the project activities and components that have worked, and have promise of working once the data are fully analyzed. Recommendations for next steps have been included. What this analysis suggests is that many of the activities could be "scaled up"<sup>36</sup> in Phase II. In fact, the mid-term evaluation team suggested that many of the interventions being tested through MotherCare could be "brought to scale" in a Phase II contract IF thoroughly documented and proven to be appropriate for replication, and the cost implications of the services and research were clearly stated and deemed to be affordable. While the project findings may suggest replication or "scaling up" in the follow-on phase, their cost implications have not been documented by MotherCare in Phase I. This should be a priority area to pursue in Phase II. Other areas that should receive priority emphasis in Phase II include:

- full data analysis and publication of Phase I findings, as planned (see Table 2)
- implementation of the recommendations found in Table 4
- development of a comprehensive information dissemination strategy
- development of explicit peer review procedures for research
- "scaling up" of proven interventions
- attention to the neonate beyond the immediate newborn period to the first two to four weeks, providing education to the family on the signs and symptoms of the two biggest "killers" of children in this period, ARI (especially lower respiratory infections) and sepsis, as well as addressing preventive care issues, informing

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<sup>36</sup>At MotherCare's Final Technical Advisory Group (TAG) Meeting, held in May of 1993, the TAG suggested ways to scale up interventions, e.g., from district level to regional or national levels; from one state intervention to interventions in several states; from pregnant women to husbands and mothers-in-laws; etc. In addition, each principal investigator of MotherCare's long-term demonstration and research projects was asked to make recommendations for how their activities could be "scaled up" within the local context. These recommendations are found in the summary reports of MotherCare's projects. MotherCare's core staff have also given a great deal of thought to what "scaling up" means and will be publishing on this topic area. This groundwork, the recommendations made by the mid-term and final evaluation teams, particularly the final evaluation team's specific recommendations for what interventions should be "scaled up", and the responses from missions who have articulated as a goal the "scaling up" of interventions in a Phase II project (Bolivia, Guatemala), should guide MotherCare in its prioritization of activities for "scaling up" in MotherCare II.

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about immunizations, optimal breastfeeding practices and growth and development measurements

- attention to maternal nutrition, noted as neglected earlier in Phase I

The final evaluation team concurs with the mid-term evaluation recommendation that the focus in Phase II should be on the prevention of maternal mortality and morbidity along with the prevention of perinatal and neonatal mortality and that the emphasis should remain on providing integrated services. WHO refers to this kind of care as "global care".

The mid-term evaluation suggested a course for future research priorities. These remain valid. However, through the conduct of this final evaluation, a number of other specific research activities were suggested for consideration in Phase II. They may appear small and isolated, but have answers to "practice" questions that would have a broad impact on maternity care delivery. Some examples include:

- improved handling of hemorrhage
- testing the "controlled cord traction" technique for delivery of the placenta and the use of ergometrine
- testing the usefulness of obstetric risk assessment (demographic risk versus early diagnosis of actual obstetric emergencies)
- determining the best set of community level indicators of women's health
- assessing:
  - maternity waiting homes versus birthing centers
  - the best way to manage STDs in the prenatal period
  - the effect of birth spacing on the mother versus the baby
  - the impact of general maternal undernutrition or specific micronutrient deficiencies on birth weight and maternal depletion
- adding a facility inventory to the situational analysis package (most of the people interviewed for this evaluation perceived that the "situational analysis package" contains the verbal autopsy and case review of maternal and perinatal deaths along with the process diagnosis, and an assessment of family behavior)
- cost-effectiveness issues

- selenium levels in mothers' diets and their relation to retained placenta

# Annex I

## Breastfeeding and Maternal and Neonatal Health Project (936-5966)

### Maternal and Neonatal Health and Nutrition Subproject 1989 - 1993

#### Final Evaluation Scope of Work

##### A. Purpose of the Evaluation

The purpose of the evaluation is threefold: 1) to assess performance at the close of the MotherCare Contract for Phase I of the subproject, 2) to advise on problems and successes of the subproject that need to be considered in future activities, particularly with regard to replicability, sustainability to regional or national level and scaling up, and 3) to provide guidance to AID on the content of follow-on Phase II maternal and neonatal health and nutrition activities to pursue over the next five years.

##### B. Proposed Timing

Proposed dates are August 2-25, 1993, with August 25-September 8, 1993 for finalization of all components of the evaluation and of the written report and Project Evaluation Summary (PES) by the Team Leader. Specific background documents describing each of the contract's major outputs will be made available to evaluation team members. It is anticipated that all services for the evaluation will be performed in the Washington, D.C. metropolitan area by extensive interviews and review of written documents. No travel to the field is envisioned.

##### C. Team Composition and Qualifications

Nutrition/Health Education and Communications Expert- Team Leader: 30 days. Qualifications: Education and experience in nutrition, health education, project evaluation, and logistics. Excellent writing skills required.

Child Survival Expert- 21 days. Qualifications: Education and professional experience in maternal and neonatal health, epidemiology. Experience in project evaluation.

**Child Survival Expert- 26 days. Qualifications: Education and experience in behavioral science, assessment of community information, education and communications (IEC) interventions, maternal and child health and nutrition, and project evaluation. Should have clinical nursing experience in health training preferably maternal and child health.**

**D. Project Achievements and Lessons/Questions:**

**The following general questions should be addressed as major themes throughout the evaluation:**

- 1. Has MotherCare attained the goals, purposes and outputs specified in the Breastfeeding and Maternal and Neonatal Health Project Paper Logical Framework? What were the problems which hindered attainment of goals, purposes or outputs, and what were the factors which contributed to the success of contract activities?**
- 2. What are the major final contract accomplishments or outputs which contribute to the worldwide state of the art in maternal and neonatal health and nutrition? What are the plans for dissemination of MotherCare's findings and outputs, and to what extent will dissemination be accomplished by the end of the contract September 30, 1993?**
- 3. Are the small-scale, intensive demonstration activities sustainable, and likely to be replicated at regional or national levels? As a result of MotherCare's Phase I work with governments and policy makers at the national level, what opportunities will there be for national Maternal and neonatal health and nutrition programs as part of A.I.D. follow-on activities in specific countries? Has there been institutionalization of MotherCare efforts by governments or policymakers? What activities need to be instituted in Phase II to ensure sustainable and replicable programs?**
- 4. What are the generalizable lessons learned across countries that should guide implementation of A.I.D. Assistance for comprehensive, maternal and neonatal health and nutrition programs in Phase II at the regional or national level? What has been the implicit cost of interventions tested by MotherCare on Improving maternal and neonatal health and nutrition? What research on impact which commenced in Phase I remains to be completed in Phase II? What can be said about the quality of research conducted in Phase I?**
- 5. Considering end of contract findings on impact and cost, lessons learned, and recommendations for follow-on assistance by A.I.D. from the Midterm Evaluation, what additional approaches can be developed for Phase II activities? How can activities be made**

more cost effective for regional/national programs? What further interventive trials are needed in Phase II?

6. Did the project fulfill the expectations of missions and regional bureaus and host country governments?

7. Has the management of the contract and subcontracts by MotherCare been effective? What suggestions can be made to A.I.D. for future management of similar worldwide field support controls?

#### **E. Technical Questions:**

##### **1. Advocacy, Policy and Information Dissemination**

- a. Which advocacy techniques should be used in follow-on activities? What changes in advocacy techniques are needed for Phase II.
- b. What has been the quality and impact of MotherCare information dissemination efforts? What further should be done in Phase II.
- c. What has been the quality and effect of MotherCare's collaboration with other groups/donors who work in maternal and neonatal health and nutrition? Other R&D projects? USAID bilateral projects and Regional projects?

##### **2. Maternal and Neonatal Health and Nutrition Services.**

This category includes recognition of and response to problems, quality of care during pregnancy, delivery, and postpartum, and referral systems.

- a. Has MotherCare developed appropriate, effective package of services in all types of countries and settings as outlined in the typology?
- b. Has MotherCare adequately addressed the poor nutritional status of women during pregnancy?
- c. Has the project developed replicable models for strengthening first referral capabilities and management of obstetric emergencies at hospitals?
- d. Has MotherCare developed cost effective activities which can be institutionalized in countries where activities have been initiated?

##### **3. Communication and Social Marketing including Behavioral Research**

- a. Have MotherCare's behavioral research methodologies contributed to improved study design in future projects.

- Which methods are superior either singly or as a package?
  - What are lessons learned regarding behavioral research-- execution, replicability and application to service delivery problems.
- b. How successful overall has behavioral research been in aiding the development of social marketing/communication strategies?
  - c. Has IEC been successfully employed in affecting desired behavior changes.
  - d. What methods to test cost-effectiveness of IEC have been developed? Are the methods and materials used affordable by governments?

#### 4. Applied Research and Assessment Methodologies

- a. What is the technical quality and global relevance of MotherCare's maternal and neonatal health and nutrition research? What should AID' future research priorities be in these fields?
- b. What has been the extent of peer review of research and were the peer review mechanisms documented?
- c. Since the midterm evaluation, were specific activities undertaken to build consensus around controversial or unproven interventions for improving maternal and neonatal health and nutrition--either new studies, literature reviews or workshops?

#### 5. Training

- a. Have efforts been made to further facilitate the use of modern training techniques in projects (i.e. Tangjungsari and Surabaya)?
- b. Has Life-Saving Skills training been incorporated into the basic training curriculum for midwives (in Nigeria and Uganda)? How should midwife training be approached in the future? Are methods devised for training affordable, replicable?
- c. What lessons have been learned from the training of TBAs in MotherCare country programs which should be incorporated into Phase II. How should the training of TBAs be approached in the future?

#### 6. Evaluation

- a. Have the impact evaluation components in the MotherCare long term demonstration projects been adequately designed and implemented to permit proper analysis of findings prior to the end of MotherCare? What are the most significant findings?
- b. What key evaluation indicators appropriate for global use were developed during Phase I of the MotherCare contract?

## 7. Reaching Women

Has MotherCare developed strategies to address underlying problems of gender asymmetry which negatively affect women's health and nutrition and block women's access to and utilization of maternal health care?

## F. Administrative Questions

### 1. Management

#### a. AID

What has been the quality and quantity of A.I.D. oversight of MotherCare?

#### b. JSI

i. Has the project had sufficient core staff and consultants to perform the specified level of effort? Has the organizational structure been well suited to the demands of the contract? What impact has turnover and vacancy of key positions had on implementation of project activities?

ii. Which aspects of the Phase I MotherCare relationships between MotherCare/Washington and JSI headquarters, RD/E, MotherCare field staff, and USAID Missions were most productive?

iii. What are the significant aspects of the relationships between the prime contractor (JSI) and subcontractors which positively or negatively affected performance of the MotherCare contract. How should prime contractor and subcontractor relationships be approached in the future?

### 2. Contractual Requirements, Project Deliverables, Outputs

a. Has MotherCare satisfactorily met the targets for contract deliverables? If so, what general approaches have contributed to the success, and if not, what lessons have been learned for future activities?

### 3. Financial and Level of Effort Considerations

- a. Has the contract achieved the most effective and efficient use of resources?
- b. Have outside parties provided sufficient resources to MotherCare? Can efficiency and impact of this contribution be assessed?
- c. Which components of the financial reporting system should be implemented in future activities? Which should be eliminated? How could future financial reporting be improved in Phase II?
- d. What are the successes and failures of the buy-in approach which contribute to lessons learned for future maternal and neonatal health and nutrition project activities?
- e. Has MotherCare succeeded in expending the necessary funds to meet the ceiling for central funds and buy-ins without exceeding the overall contract budget ceiling?
- f. What has been the general contribution of local subcontract with in-country institutions to impeding or expediting MotherCare's operations? What systems have proven effective in meeting the AID requirement that advances not exceed one month?
- g. Will MotherCare expend the total level of effort for the contract? In general, has the project successfully expended financial resources and level of effort, so that by project end resources will be fully used?

#### **G. Reporting Requirements**

1. Are the current contract reporting requirements adequate for future maternal and neonatal health and nutrition project activities? Which reports have proven most useful? Which reports should be eliminated in the future?
2. What reporting methods could be employed in the future which would be both informative and more cost effective in terms of level of effort required?

## **Annex II**

### **List of Individuals Interviewed**

#### ***Washington, D.C., A.I.D.:***

<b>Mary Ann Anderson</b>	<b>Cognizant Technical Officer (CTO), MotherCare Project and Acting Chief, Health Services Division, Office of Health, Bureau for Research and Development (R&amp;D/H/HSD)</b>
<b>Sue Anthony</b>	<b>Nutrition Advisor, Office of Nutrition, Bureau for Research and Development</b>
<b>Alfred Bartlett</b>	<b>Technical Advisor for AIDS and Child Survival (TAACS), R&amp;D/H/HSD</b>
<b>Robert Clay</b>	<b>Deputy Director, Office of Health, Bureau for Research and Development</b>
<b>Sam Kahn</b>	<b>Senior Nutrition Advisor, Office of Nutrition, Bureau for Research and Development</b>
<b>Nancy Stark</b>	<b>Johns Hopkins University Child Survival Fellow, Office of Health, Bureau for Research and Development</b>
<b>Ionna Trilivas</b>	<b>AIDS Division, Office of Health, Bureau for Research and Development</b>
<b>Bob Wrin</b>	<b>Acting Director, Office of Health, Bureau for Research and Development</b>

***USAID Staff:***

Sigrid Anderson*	Office of Health and Human Resources (HHR), USAID/Bolivia
Eugene Chiavaroli*	AID Affairs Office, USAID/Nigeria
Joan LaRosa*	REDSO/Nairobi Former HPN, USAID/Kampala
Jayne Lyons	OH&E, USAID/Guatemala
Jennifer Macias*	HHR Office, USAID/Bolivia
Elba Mercado*	HHR Office, USAID/Bolivia
David Puckett	GDO, USAID/Kampala
Barbara Spaid*	Chief, HIRD/H, USAID/Jakarta

***MotherCare Central Staff:***

Colleen Conroy	Deputy Director
Patricia Daunas-Chopivsky	Program Associate
Mary King	Program Administrator
Marjorie Koblinsky	Project Director
Barbara Kwast	Women's Health Advisor
Bernadine Skowronski	Program Assistant
Kim Winnard	IE&C Coordinator for MotherCare, The Manoff Group

\* *Asterisked names responded to a questionnaire and were not interviewed.*

***MotherCare Field Staff:***

Bill Bower	Bolivia Project Manager, Cochabamba, Bolivia
Sandra Buffington	Resident Advisor, CNM ACNM, Uganda
Lisa Howard-Grabman	Co-Director, Save the Children, Bolivia Field Office Representative
Barbara Schieber, MD, MA	Principal Investigator, INCAP, of the MotherCare Project on Maternal and Peri- Neonatal Health in Quetzaltenango, Guatemala

***John Snow, Inc. Washington Staff:***

Roy Brunson	Finance Director
Dick Moore	Vice President

***Subcontractors:***

Marcia Griffiths	President, The Manoff Group
Katherine Kaye	Epidemiologist, Save the Children Federation
Margaret Marshall	Certified Nurse-Midwife, American College of Nurse Midwives, (ACNM)
Nancy Sloan	Research Coordinator, The Population Council

***World Bank:***

Susan Stout

Consultant, The World Bank

Anne Tinker

Health Specialist, Population and Human Resources, The World Bank

***Other:***

Deborah Bender

School of Public Health, University of North Carolina

Gayle Gibbons

Director, American Public Health Association Clearinghouse on Infant Feeding and Maternal Nutrition

John McWilliams

International Science and Technology Institute (ISTI)

Barbara Parker

Consultant, The World Bank

Elizabeth Preble

AIDSCAP

Pamela Putney

Certified Nurse-Midwife, Advisor to PROSALUD, and MotherCare consultant

Carrie Hessler-Radelet

MotherCare Consultant

Charles Teller

The Pragma Corporation  
Director, Food and Nutrition Division

# Executive Summary

## General Comments

The evaluation team's report is based on a five-week investigation of programmatic and technical documents, interviews with individuals familiar with maternal and neonatal health and nutrition problems and MotherCare's work, and visits to MotherCare's major field sites.

The team is impressed with MotherCare's progress in the overall areas of:

- raising awareness of the problems and magnitude of maternal and neonatal health and nutrition;
- filling in gaps in the state-of-the-art, particularly regarding specific interventions;
- acting as a catalyst for the formulation of maternal and neonatal health and nutrition policy worldwide;
- linking maternal health with perinatal and neonatal health;
- examining all levels of care and their linkages;
- linking qualitative and quantitative research to services; and
- appreciating the importance of behavioral determinants of pregnancy outcomes, and of communication and social marketing as a necessary program component for behavior change.

Specific products and accomplishments noted by the team are detailed in Section II.A. The selection of countries and program activities within countries has been compatible with the project's goals, objectives, and overall technical vision despite pressures (a 40 percent buy-in requirement) to serve at times merely as a funding mechanism for USAID or A.I.D./Washington priorities that may conflict with MotherCare's own priorities and contractual limitations. MotherCare's work with the Technical Advisory Group (TAG), and

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its establishment of effective and appropriate criteria have contributed to the country and program activity selection process.

Efforts to ensure sustainability and replication have been adequate.

MotherCare's work with organizations outside A.I.D., such as the World Bank, UNICEF, and WHO, will extend the reach of A.I.D.'s health policy influence in the field of maternal and neonatal health and nutrition.

The team recognizes the long time frame required for a project like MotherCare, which: (a) is a demonstration in nature, and (b) relies on buy-in funds for its financial viability.<sup>1</sup> Given these constraints, and the team's concern that project objectives are achieved in the remaining one and-a-half years, the team encourages A.I.D. to ensure that MotherCare is adequately staffed and funded. The team suggests that A.I.D. consider extending the contract and its funding until the level of effort and funding ceiling is reached, or ensure that a follow-on activity overlaps with the existing contract.

The team recommends that A.I.D. avoid a lapse between MotherCare and a follow-on activity. Such a gap could interrupt the important momentum that MotherCare has established in encouraging USAID missions both to recognize the importance of maternal and neonatal health and nutrition, and to buy into centrally funded maternal and neonatal health services.

The team encourages MotherCare to avoid embarking on new, technical-, staff-, and management-intensive projects for the remainder of the contract. When considering the feasibility of accepting new project activities that are considered essential to reaching MotherCare's goals within the remaining contract period, or that are necessary for reaching the buy-in ceiling, the impact of these proposed activities on staff time and existing activities should be carefully assessed.

We believe that during the remaining contract period, MotherCare's highest priority should be to analyze, document, and disseminate project findings and associated cost information. The team considers this analysis as a necessary step for converting MotherCare activities from

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<sup>1</sup> Buy-in funds are USAID mission monies obligated to a centrally-managed A.I.D. project to subscribe to the services of that project.

small to large scale; the analyses' outcomes will determine which activities are replicable on a larger scale.

Regarding a follow-on activity, prevention of maternal mortality and morbidity should continue to be emphasized, along with the prevention of perinatal and neonatal mortality. MotherCare should continue testing and improving the impact-effectiveness of community-based intervention strategies that address maternal and neonatal health. These strategies should be "brought to scale" where possible.

## **Technical Issues**

### ***Advocacy, Policy, and Information Dissemination***

MotherCare has advocated the project's goals through negotiations by staff, well-designed field projects, and numerous high quality publications. Documents have been widely, if not always systematically, distributed.

While MotherCare has set the stage for gaining the attention of policymakers, there still remain a number of key individuals in-country who are not aware of MotherCare project activities. For example, in Indonesia where MotherCare has three ongoing projects, some staff members of other donor organizations were not aware of MotherCare's activities.

### ***Maternal and Neonatal Health and Nutrition Services***

MotherCare works with the local health care delivery system, adapting to its structure while introducing a broad range of services for the care of mothers and newborns. MotherCare's adaptability has led to improved local service provision and is expected to improve prospects for sustainability. MotherCare may therefore need to add staff in some countries to strengthen its visibility.

MotherCare offers an appropriate mix of services and regards referral of women with complications to be key. MotherCare has worked with all levels of care, from the primary to

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the tertiary. Services are being made more culturally appropriate through the activities of MotherCare.

By the time the project ends, MotherCare will be in a position to accumulate and document very practical and useful information about intervention impact. MotherCare took the lead in preparing a very useful document called *Programming for Safe Motherhood* (draft, February 1992) that addresses issues in building a useful service system. *Programming for Safe Motherhood*, together with the valuable intervention data to be acquired, could form the basis of a practical guidebook that lays out the framework of the system of maternity care. This guidebook should also discuss the minimum health care service infrastructure needed to detect, treat, and prevent maternal and neonatal mortality.

MotherCare should continue providing a broad range of service components, including family planning and nutrition, training and norm building.

### ***Behavioral Research, Communication, and Outreach to Women***

From the beginning MotherCare has recognized the impact of behavior on pregnancy outcomes and has demonstrated a commitment to improving both the "demand" and the "supply" aspects of the health consumer-provider interface. However, its projects have varied considerably in terms of the level of time and resources that have been allocated to behavioral research and social marketing. As a result, some communication initiatives are now beginning to achieve positive results, while others are behind schedule and will need additional inputs.

The Tanjungsari Project in Indonesia is behind others on the introduction of communication and social marketing. Technical assistance will be required if behavioral research and social marketing are to be adequately carried out.

The Bolivia projects, on the other hand, are contributing to the state-of-the-art. Bolivia project advancements should be documented in one or more working papers that identify the elements of success, lessons learned, and offer suggestions for replication elsewhere.

It is clear from assessment reports and from a brainstorming session hosted by MotherCare that reaching women through women's groups and organizations is a promising approach. Except in Bolivia's Inquisivi Project and Bangladesh's Save the Children Project, where

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women's groups are the primary channels for information flowing to and from the project, the potential of this approach has not been realized. We hope that planned MotherCare activities in Africa will feature women's groups as focal points of empowerment for improving maternal and neonatal health and nutrition.

### ***Applied Research and Assessment Methodologies***

The applied research being supported by the project is exploring and analyzing issues that are critical if substantial reductions are to be achieved in maternal and neonatal mortality in the next decade. The interventions necessary for effectively reducing maternal mortality to low levels are complex and diverse. It is particularly notable that MotherCare has, in a short time, established an applied research component of technically sound projects focusing on relatively few high-priority issues of global significance. This is especially laudable in view of A.I.D.'s procedural requirements for the approval of funding for subcontracts. These research topics have been selected according to the broad framework outlined in the 1990 TAG meeting. MotherCare project management has also demonstrated the ability to recognize competent researchers; the project has taken advantage of opportunities to encourage relevant research.

The team believes that MotherCare's highest priority for the remaining one and-a-half years is to complete current studies already receiving project support. No additional major research activities should be started during the remaining MotherCare contract period. Planning should begin for dissemination of the results of the applied research.

The team recommends that A.I.D.'s future priorities in maternal and neonatal health and nutrition research should build upon the experience and comparative advantage that MotherCare has established in certain research areas. The highest priority should continue to be the evaluation of innovative techniques for providing adequate and appropriate care during pregnancy and labor to reduce maternal and neonatal mortality and morbidity.

Evaluation support should be considered as part of the important transition of MotherCare activities from small to large scale. Similarly, there are advantages to pursuing further research on the prevention and improved management of pregnancy-related anemia.

## **Training**

Training in essential midwifery and obstetric skills is an important activity in several of the projects supported by MotherCare. Most of these training activities use modern training techniques. However, efforts should be made to further facilitate the use of these techniques in the Tanjungsari and Surabaya projects.

The *Life-Saving Skills Manual for Midwives* is an excellent document deserving broad promotion and dissemination. In the Nigeria and Uganda projects, every opportunity should be taken to encourage the incorporation of life-saving skills into the basic midwives training curriculum. The protocols and norms for obstetrical care developed in the Quetzaltenango, Guatemala, project will probably be appropriate for use in other Latin America maternal health programs.

## **Evaluation**

MotherCare has designed technically sound evaluation studies for most of its projects. These studies should provide the kind of data about intervention impact that is needed in the field of public health. Multiple impact indicators and measures of change are included.

MotherCare's projects are under time constraints. They must have their interventions in place now, so that at least one year can pass before the post-intervention data collection occurs.

MotherCare needs to monitor the evaluation components of each project carefully so that there is sufficient time to analyze findings properly before the project ends.

MotherCare is encouraged to "hold a steady hand on the wheel" and maintain a quality research approach to the intervention evaluations during the life of the contract.

## **Project Management**

Many aspects of MotherCare's contract cause strains at many levels, including the five-year project duration, which the team feels is too short for a project of this nature.

The A.I.D. cognizant technical officer's (CTO) strong personal commitment to the MotherCare project, combined with the CTO's technical expertise, academic credentials, experience, and professional stature in the fields of maternal health and nutrition have been very valuable to MotherCare. The CTO has been an effective advocate for MotherCare, both within A.I.D. and in other professional circles. However, the team found administrative oversight to be too close, particularly with respect to the editing of internal A.I.D.-MotherCare documentation.

Reporting mechanisms were generally adhered to and were usually useful.

## **Project Financial Status and Financial Management**

Spending shortfalls have occurred, in large part, as a result of the need for time-consuming field advocacy to secure buy-ins. However, there are indications that implementation, and hence project spending, is accelerating.

The team recommends that an amendment be issued to the existing budget to accommodate expected overruns in the salary line item. A new budget for remaining central resources should be drawn up by MotherCare, and MotherCare's workplans for the second and third years of the project should be endorsed by A.I.D.

The buy-in mechanism has facilitated some MotherCare project activities, but has also proved cumbersome. The team recommends that A.I.D. reconsider the core/buy-in funding ratio in the follow-on activity.

The team recommends that MotherCare keep subcontractor budgets up-to-date, increase financial planning and monitoring capacity with additional staff, monitor other direct costs

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more closely, maintain Washington office rent at a stable level, and resolve the existing dispute between A.I.D./Washington and JSI on monthly administrative staff disallowances. The team suggests that A.I.D. reexamine and investigate the feasibility of a monthly advance system (with A.I.D.'s Offices of Procurement and Financial Management) to host country subcontractors.

## **Annex IV**

### **Evaluation Questionnaire and Field Responses**

To: Sigrid Anderson@HHR.EXE@LAPAZ  
Kenneth Farr@HIRD@JAKARTA,  
Jayne Lyons@HEO@GUATEMALA  
Patricia OConnor@HEO@GUATEMALA  
David Puckett@GDO@KAMPALA  
Jennifer Macias@HHR.EXE@LAPAZ

Cc:  
Bcc:  
From: Mary Ann Anderson@R+D.H@AIDW  
Subject: Final Evaluation for MotherCare  
Date: Wednesday, August 11, 1993 16:46:32 EDT  
Attach:  
Certify: N  
Forwarded by:

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The Office of Health (RD/H/HSD) will conduct the final evaluation of the MotherCare Contract under the Breastfeeding and Maternal and Neonatal Health Project (936-5966) from August 13-September 8, 1993. We would like to include as part of the evaluation, input from the Missions in the 5 countries in which MotherCare has had long term demonstration projects since the evaluation team will not be travelling to the field. Specifically, we would like your comments on the following:

1. Rate overall quality and success of the project activities.
2. Discuss strengths and weaknesses of the MotherCare performance in the areas of (1) advocacy for maternal and neonatal health and nutrition, (2) policy development in maternal care, (3) service delivery programs, (4) training, (5) Information, Education and Communication (IEC), (6) applied research work, (7) program evaluation, (8) and administration/finance/management/logistics. Please address the items from the above list which apply to your project.
3. Did MotherCare projects attain their goals and objectives? Please explain.
4. How did the project activities fit into the Mission's health, population and nutrition strategy in general and specifically, with maternal and neonatal health and nutrition needs of the host country?
5. How would you characterize the working relationship between Mission staff and MotherCare project staff and collaborators? Did MotherCare staff maintain sufficient communication with Mission personnel? What was the overall professional caliber of MotherCare staff and consultants?
6. How would you characterize the relationship between host government (MOH) and MotherCare staff and consultants, if known?
7. If the MotherCare project worked with local organizations, NGOs, other donors, other A.I.D. projects, please describe the success of this collaboration.
8. Did you find MotherCare reports--trip reports, working papers, research results, and the newsletter, MotherCare Matters-- helpful? If not, why not? What kinds of reports would be helpful in future activities?

9. Phase II (9/93-9/98) of the RD/H Maternal and Neonatal Health and Nutrition Project will focus on scaling up from small demonstration projects to comprehensive national and regional level programs. Have the activities during Phase I of MotherCare set the stage for expansion in Phase II? What are the prospects for replicability and sustainability of the activities carried out by MotherCare?
9. Does the Mission want to continue maternal and neonatal health and nutrition activities with assistance from the RD/H project into Phase II? If so, what are the Mission's specific interests?

We would welcome your comments on the above or any additional comments you might have. It has been our pleasure to provide field support and collaborate with you on these activities. Could you please send comments to me by August 20 in order to reach AID/W before the evaluation team starts writing their report and disbands. We appreciate your time in providing valuable input on the performance of MotherCare.

Thanks and best regards.

## MEMORANDUM

To: Mary Ann Anderson, R&D/H  
CTO, MotherCare

From: USAID/Bolivia, HHR Office  
Sigrid Anderson  
Eiba Mercado  
Jennifer Macias

Subject: MotherCare Final Evaluation

Date: August 23, 1993

In response to your E-mail, dated 8/11/93 we submit the following comments:

1. The overall quality of the project was very high. In particular, the quality of the technical assistance and field support to the services, IEC and training components was outstanding. We have some indicators of project success, such as change in knowledge due to the mass media campaigns and the institutional strengthening of a local research group, however, it is too early to assess project impact.

2. (1) and (2) are not particularly applicable; these areas were not detailed in the Bolivia buy-ins, although there have been policy-related activities. The IEC campaigns, particularly the portions that appeared in the mass media, would by default be considered advocacy for maternal and neonatal health and nutrition. A poster was designed to improve policy-makers' awareness of MCH issues. Additionally, project staff made a concerted effort to involve the local Ministry of Health (MOH) in project activities.

(3) The focus of the project in the Cochabamba area was to improve service delivery programs. This component has been successful, to a degree, by strengthening four small NGOs chosen for attention by the project. The number of women using these facilities has increased, especially family planning visits. However the coverage of these NGOs in the Cochabamba area is unclear thus questioning the impact that these particular NGOs have in the area.

(4) Training has been an important component within the project. The presence of Bill Bower, the resident advisor particularly strong in training, reinforced the need for and encouraged interest in training. Currently a strong cadre of trainers knowledgeable in MCH and family planning exist in the area.

(5) IEC was also a critical element of the project. The diverse IEC materials produced for the prenatal care and safe birth components were very creative and received praise beyond the Cochabamba region. Sonia Restrepo gained considerable respect for her technical monitoring and contributions. Training in the materials' use accompanied their introduction. It is unfortunate that lack of time prevented completion of the post-partum and family planning elements or allowed for an evaluation specific to the IEC materials.

(6) The applied research work provided the foundation for the above service, training and IEC activities. The baseline quantitative and

qualitative studies, in particular, provided a wealth of insight crucial for accurately planning activities. Again, due to time constraints, however, the final quantitative study indicates mixed results. It is too early to tell if the project has made any impact on practices in the region. One success of the project has been the institutionalization of research capability within a local NGO due to the skill and long hours contributed by Mary McInerney.

(7) N/A.

(8) Due to the lack of maturity of most Bolivian NGOs this area remains weak, though due to no lack of guidance from the MotherCare staff.

3. Given the short project time, MotherCare met immediate research, service, IEC and training objectives. Mechanisms are in place for continued improvement in maternal and neonatal health, however it is too early to judge impact indicators such as changes in maternal and neonatal health.

4. USAID/Bolivia chose to direct Reproductive Health Services (RHS) Project funds (via three buy-ins) to the MotherCare project specifically because the MotherCare objectives met the child survival and reproductive health needs of Bolivia.

5. Communication between the HHR technical office and MotherCare staff was excellent. The HHR office holds regular monthly meetings with all CAs involved in reproductive health in Bolivia. The MotherCare Resident Advisors, especially Lisa Howard-Grabman, attended and provided advice and collaboration with HHR and these CAs. Additionally, MotherCare staff participated in three technical subcommittees of the bilateral RHS project, Services, IEC and training.

6. MotherCare staff went out of its way to cultivate good relations with the local unit of the MOH. For legal and bureaucratic reasons this was absolutely necessary to develop government support for the project. However, in order to further project goals and objectives MOH involvement is necessary to strengthen referral networks with secondary hospitals, advocate for public services in peri-urban areas, and further the inclusion of family planning within public services.

7. MotherCare staff worked diligently with four local NGOs to improve services. The project provided equipment, introduced management practices, trained staff in a variety of topics, and reinforced quality of care concerns. MotherCare staff played an important role as facilitator, encouraging communication among the NGOs and between them and the MOH and between MotherCare and other CA activities in Bolivia.

8. Several documents were particularly useful: the publication of the qualitative research in the Cochabamba region, the quantitative baseline report, and the Autodiagnosis Working Paper based on activities in the Inquisivi region.

9. USAID/Bolivia is struggling with this question as well. The two demonstration activities in Bolivia developed services, training and IEC activities based on community level needs identified via different mechanisms early in the pilot projects. Not enough time has elapsed to evaluate the impact of either project and determine the prospects for replicability for other regions or sustainability in the focus areas. Initial findings

indicate that the peri-urban module may be replicable in other peri-urban areas. In addition, other NGOs working in rural Bolivia have expressed interest in the Inquisivi module developed by Save The Children. But to graduate to a national level would entail a very different set of needs. To improve MCH conditions in Bolivia, this country desperately needs infrastructure, a functioning logistics system, trained professionals in place to provide services, national policies that facilitate the improvement of MCH to state a few examples.

10. USAID/Bolivia is very interested in seeing MotherCare activities continue in Bolivia. The mission may contemplate a buy-in FY 94 to assist the transition from small demonstration projects to national level activities.

S 2 - 9-93 THU 10:45 USAID-GUATEMALA

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OH&E: JLYONS  
OH&E: PO'CONNOR  
AID

AMEMBASSY GUATEMALA  
SECSTATE WASHDC

AIDAC

FOR: RD/HEALTH: M.A.ANDERSON/N.S'TARK

E.O. 12356: N/A  
SUBJECT: HEALTH: MOTHERCARE EVALUATION

REF: 1) E-MAIL 08-11-93 2) FAX 08-17-93

THE MISSION OFFERS THE FOLLOWING COMMENTS IN RELATION TO  
THE SUBJECT E-MAIL:

1. THE OVERALL QUALITY AND SUCCESS OF THE PROJECT IN GUATEMALA WAS EXTREMELY HIGH, THE INTERVENTIONS WERE SUCCESSFUL.
2. (1) ADVOCACY FOR MATERNAL AND NEONATAL HEALTH AND NUTRITION: THIS WAS ONE OF THE WEAKEST AREAS OF THE MOTHERCARE PROJECT HERE IN GUATEMALA, BUT, IT WAS NOT INCLUDED IN THE DESIGN. NOW, THAT THE INTERVENTION HAS BEEN SUCCESSFULLY INTRODUCED, ADVOCACY CAN BECOME A MAJOR ACTIVITY IN THE FOLLOW ON AGREEMENT. WHAT THE MOTHERCARE PROJECT DID DO THROUGH TRAINING AND EXAMPLE, WAS TO CREATE A CORE GROUP OF PROFESSIONALS AT THE LOCAL LEVEL WHO ARE ACTING AS ADVOCATES FOR THE IMPROVEMENT OF MATERNAL HEALTH SERVICES. THE LOCAL COORDINATOR'S LEADERSHIP WAS INSTRUMENTAL IN DEVELOPING THIS CORE GROUP. (2) POLICY DEVELOPMENT IN MATERNAL CARE: THE MOTHERCARE PROJECT BROUGHT EXCELLENT PROFESSIONALS TO GUATEMALA TO ASSIST THE LOCAL HEALTH AREA AND HOSPITAL OFFICIALS IN THE REWORKING OF CLINICAL PROTOCOLS AND HOSPITALS NORMS THAT HAVE BEEN PUT INTO PRACTICE AND THAT HAVE HAD A VERY POSITIVE EFFECT ON MATERNAL HEALTH. AT THE NATIONAL LEVEL, THE PROJECT HAS THE POTENTIAL TO SERVE AS A MODEL TO REORIENT MIDWIFERY TRAINING AND REFERRAL. (3) SERVICE DELIVERY PROGRAMS: THE MOTHERCARE PROJECT HAS CHANGED THE DELIVERY OF MATERNAL AND NEONATAL HEALTH SERVICES WITHIN THE LOCAL HOSPITAL.

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MIDWIVES ARE MORE LIKELY TO REFER THEIR CLIENTS TO THE HOSPITAL AND THE REFERRAL IS MORE LIKELY TO BE TIMELY.

DUE TO THE MOTHERCARE PROJECT, THE CLIENT IS MORE LIKELY TO RECEIVE APPROPRIATE CARE AT THE HOSPITAL. SCARE RESOURCES HAVE BEEN REALLOCATED TO IMPROVE THE MATERNITY SERVICE AT THE HOSPITAL DUE TO THE ATTENTION THAT THE PROJECT HAS FOCUSED ON THIS AREA. (4) TRAINING: THE GUATEMALAN PROJECT HAD A MAJOR TRAINING COMPONENT. THE PROJECT IMPROVED THE TRAINING OF MIDWIVES BY USING RESEARCH TO DISCOVER THE MAJOR CAUSES OF MATERNAL MORTALITY AND THEN TO TEACH INTERVENTIONS TO ADDRESS THESE FACTORS. THE PROJECT TRAINED MOH HEALTH PROVIDERS TO TRAIN MIDWIVES USING ADULT EDUCATION PRINCIPALS. PROFESSIONAL EDUCATION WAS ALSO PROVIDED THROUGH ON THE JOB TRAINING BY MOTHERCARE CONSULTANTS TO HOSPITAL STAFF. THIS RESULTED IN THE DEVELOPMENT OF A CORE GROUP OF CONCERNED PROFESSIONALS WHO HAVE HAD A STRONG IMPACT IN IMPROVING THE MATERNAL-NEONATAL HEALTH CARE BOTH IN THE HOSPITAL AND IN THE HEALTH AREA. (5) INFORMATION, EDUCATION AND COMMUNICATION: THE PROJECT HAS PRODUCED TRAINING MANUALS AND VARIOUS TECHNICAL REPORTS THAT HAVE THE POTENTIAL TO BE USED EXTENSIVELY BOTH IN COUNTRY AND ABROAD. THIS HAS BEEN ONE OF THE MOST SUCCESSFUL ACTIVITIES OF THE PROJECT. (6) APPLIED RESEARCH WORK: THE ENTIRE PROJECT WAS DESIGNED AS APPLIED RESEARCH. THE RESEARCH DESIGN WAS RIGOROUS AND INCREASED THE EXPENSE OF THE INTERVENTION. THE RESULTS CLEARLY SHOW THE IMPACT OF THE INTERVENTIONS. THE CAREFUL MONITORING AND THE HIGH QUALITY OF THE DATA SPEAK WELL FOR THE DESIGN AND THE IMPLEMENTATION OF THE RESEARCH. (7) PROGRAM EVALUATION: THE PROJECT WAS CLOSELY MONITORED BY THE CENTRAL LEVEL AND THE MISSION PARTICIPATED IN THE MID-TERM EVALUATION. IN GENERAL, THE PROJECT WAS VERY WELL SUPERVISED AND THE EVALUATIONS WERE TIMELY AND WELL DONE. (8) ADMINISTRATION/FINANCE/MANAGEMENT: THE MISSION DID NOT EXPERIENCE ANY PROBLEMS IN THIS AREA.

3. THE MOTHERCARE PROJECT DID ATTAIN ITS GOALS AND OBJECTIVES. IT INTRODUCED A NEW METHODOLOGY TO TRAIN AND SUPERVISE MIDWIVES IN SELECTED HEALTH DISTRICTS.

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THROUGH THIS NEW METHODOLOGY THE PROJECT INCREASED THE MIDWIFE'S KNOWLEDGE ABOUT THE RISK EVENTS THAT CAUSE MATERNAL-NEONATAL DEATH. THEY WERE ABLE TO INCREASE APPROPRIATE REFERRAL BY MIDWIVES TO THE HIGHER LEVELS OF THE HEALTH CARE SYSTEM. IT IMPROVED THE OUTCOMES OF MATERNITY-NEONATAL HOSPITAL CARE IN THE REGIONAL HOSPITAL AND DEVELOPED A CORE GROUP OF PROFESSIONALS WHO CAN NOW SERVE AS MATERNAL HEALTH ADVOCATES.

4. THE PROJECT ACTIVITIES FIT WELL INTO THE MISSION'S STRATEGIC OBJECTIVE OF QUOTE SMALLER, HEALTHIER FAMILIES UNQUOTE. THE PROJECT DESIGN GREW OUT OF WORK THE MISSION WAS SUPPORTING AND THE MISSION HAD DIRECT INVOLVEMENT IN THE RESEARCH DESIGN AND PROJECT OBJECTIVES. THE GUATEMALAN MINISTRY OF HEALTH (MOH) HAS ADOPTED THE REDUCTION OF MATERNAL MORTALITY AS ONE OF ITS HEALTH PRIORITIES FOR THE PERIOD 1992-1996. MOTHERCARE PROVIDED LIMITED SUPPORT DIRECTLY TO THE MOH TO CARRY OUT THE LANDMARK STUDY OF MATERNAL MORTALITY THAT INFLUENCED THIS POLICY.
5. THE WORKING RELATIONSHIP BETWEEN MOTHERCARE PROJECT STAFF AND COLLABORATORS HAS BEEN EXCELLENT. COMMUNICATION WAS SUFFICIENT. THE OVERALL PROFESSIONAL CALIBER OF THE MOTHERCARE STAFF AND CONSULTANTS WAS SUPERIOR.
6. THE RELATIONSHIP BETWEEN THE HOST GOVERNMENT AND THE MOTHERCARE STAFF AND CONSULTANTS WAS EXCELLENT.
7. THE PROJECT DID NOT CARRY OUT MUCH FORMAL WORK WITH LOCAL ORGANIZATIONS, BUT THE PROJECT COORDINATOR COLLABORATED IN MANY APPROPRIATE EVENTS THAT ADDRESSED WOMENS' HEALTH. SHE HAS BEEN HIGHLY VISIBLE AND BROUGHT THE ISSUE OF MATERNAL HEALTH TO THE ATTENTION OF VARIOUS PROFESSIONAL ORGANIZATIONS IN GUATEMALA.
8. THE TRIP REPORTS ALWAYS SEEMED TO TAKE A LONG TIME TO ARRIVE AND OFTEN WERE NOT IN SPANISH, WHICH MADE IT HARD TO SHARE WITH COUNTERPARTS. HOWEVER, THE QUALITY OF THE REPORTS WAS HIGH AND THEY WERE ALWAYS VERY COMPLETE. A SHORT, EXECUTIVE SUMMARY IN SPANISH WOULD BE VERY

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HELPFUL, ESPECIALLY FOR CONSULTANT REPORTS.

9. THE MISSION HAS PREPARED A BUY-IN FOR THE MOTHERCARE FOLLOW ON PROJECT THAT REQUESTS TA TO SCALE UP THIS SUCCESSFUL INTERVENTION. THROUGH THIS BUY-IN THE MISSION WISHES TO STUDY THE QUESTIONS OF REPLICABILITY AND SUSTAINABILITY.

10. AS STATED ABOVE, THE MISSION HAS REQUESTED TA FROM THE FOLLOW ON PROJECT. MCAFEE//



**UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT  
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**DATE:** September 9, 1993  
**FROM:** Barbara Spald, Chief, HIRD/H  
**SUBJECT:** Mothercare activities.  
**TO:** Mary Ann Anderson  
**OFFICE/COMPAN** R&D/Health  
**ADDRESS:** AID/Washington  
**FACSIMILE NO.:** (703) 875-4686

**NO. OF PAGES (incl. cover page):** 3  
**Ext.:** 2403

**MESSAGE**

The following comments are in response to your fax of August 11.

1) Overall quality and success of project activities was quite good. Three particularly useful/successful activities which resulted in policy changes/national impact were the East Java pilot project (operational and costing components), the Bacterial Vaginosis Study and the Tanjungsari Project.

2) Strengths and weaknesses of Mothercare performance.

- a) Mothercare has been a strong advocate for maternal and neonatal health and nutrition, using data gathered from the various project activities to garner support and generate interest. Regrettably the Project was not able to hold a national seminar as planned to present all the Indonesia data and important successes to the GOI policy makers.
- b) Mothercare has worked with GOI policy makers to formulate appropriate policies for maternal and neonatal health based on project experience and lessons learned.
- c) Service Delivery - Mothercare activities provided services in West Java, Jakarta, East Java and Surabaya. The services provided ranged from informational and educational activities aimed at mothers-to-be to very comprehensive antenatal care services and provision of emergency obstetric services.
- d) Training - All Mothercare activities included substantial training components which were particularly beneficial in the Tanjungsari, Indramayu and East Java Pilot Projects. Additionally, a great deal of training was involved in helping the research institutions develop their capacity to carry out the research.
- e) I.E.C. - Almost all Mothercare activities in Tanjungsari, East Java and Indramayu had large IEC components. One benefit of the Mothercare activities was the opportunity to strengthen institutional capacity in the various research centers in IEC activities. A weak point regarding IEC was the



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- 2 -

constant changing of the consultants who provided TA, which sometimes led to confusion.

- f) Applied research work - Most of the Mothercare activities in Indonesia could be classified as applied research. The aims of the pilot projects as well as the focused activities in Indramayu were to use recently acquired knowledge on maternal and perinatal health needs and translate these into operational projects that decreased maternal and perinatal morbidity and mortality.
  - g) Program evaluation - All Mothercare activities had an evaluation component built in to them from the start. Tanjungsari and East Java activities had process and impact evaluation activities, and Indramayu had process evaluation as a component.
  - h) Administration/finance/management/logistics - The administration and management of this centrally managed project was complex and challenging. Local coordination (given the diversity of approaches, personalities of the researchers and cross-program coordination) was essential and was greatly facilitated by Mothercare local and U.S.A. staff in coordination with Mission and local counterpart staff.
- 3) The Mothercare projects successfully defined appropriate mixtures of cost-effective services which can reduce maternal and perinatal mortality and defined the burden of reproductive tract infections in pregnancy in selected populations.
- 4) The Mothercare project provided the Mission an opportunity to be responsive to priority Agency and GOI concerns during a time that bilateral funds were unavailable. The Mothercare project contributed to the Mission's strategic objective of improving public and private sector provision of basic services in maternal, neonatal health and nutrition.
- 5) In general, the working relationships between Mission staff and Mothercare staff were productive and very positive. Occasional problems that arose were simple miscommunications and minor misunderstandings. The most serious problems arose in the second and third years of the project when several consultants failed to keep the Mission fully informed about activities and began a new series of activities which had not been agreed upon with the Mission. This caused serious problems with the Indonesian investigators and threatened to stop all activities. When the problem was communicated by the Mission to Mothercare staff, a concerted effort was made to constructively deal with the situation, and the difficulties with the Indonesian institutions were overcome.



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- 3 -

- 6) With the exceptions noted above, the relationships between host government and Mothercare staff and consultants were positive, and very constructive. In general, Mothercare staff were sensitive to cultural differences and GOI counterpart concerns.
- 7) Mothercare projects made extensive use of local organizations in successfully carrying out activities. For example, the Tanjungsari project worked mainly through the locally organized traditional birth attendants. The East Java Project worked through the local women's organization (PKK). While management intensive (Mothercare and Mission), the benefits in terms of strengthening and improving local organizations is significant. Mothercare involvement with other donor organizations was limited.
- 8) We found the Mothercare reports to be extremely helpful. Also, the Technical Advisory Group served as a valuable communication forum on operational and policy issues. This view was shared by Mission staff and our Indonesian counterparts alike.
- 9) The Mothercare pilot activities have already served as successful models for many activities under the World Bank/GOI Community Health and Nutrition III Project.
- 10) The Mission is in the process of reviewing all centrally-funded health project activities in terms of the Mission's strategic objectives and the current health portfolio. We should be better able to answer this question by late September.



United States Agency for International Development  
LAGOS

T E L E P A X

TO: Mary Ann Anderson  
AID/R&D/H  
SA-18, Room 1200

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DATE: August 31, 1993

NUMBER OF PAGES: 3

SUBJECT: Final Evaluation for MotherCare

USAID/Nigeria is pleased to contribute to the final evaluation of the MotherCare project in Nigeria.

The following are our comments regarding MotherCare activities in the last 18 months:

1. Overall, quality and success of the project activities has been good. While there were problems in getting things to move in Oyo State at the onset of the project, there has been tremendous progress in mothercare activities in the state.
2. Strengths and Weaknesses in -
  - a. Advocacy - this has been strong in the areas of maternal and neonatal health. Advocacy in maternal and neonatal nutrition has been weak. This may not be unconnected with the subtle focus on this issue in the project document.
  - b. Policy development in maternal care - the project has been very strong in this area. The project has involved key policy makers (government officials and relevant professional bodies such as Society for Ob/Gyn of Nigeria (SOGON) and Nursing and Midwifery Council of Nigeria) in MotherCare activities.

- c. **Service delivery** - this aspect of the Mothercare project has been successful. Reports reaching us indicate that the quality of maternal and neonatal care in the two pilot states has improved tremendously. The level achieved need to be sustained and improved through continuous monitoring and supervision.
  - d. **Training** - this component has been excellently executed and well received.
  - e. **IEC** - efforts in this area have largely been directed at formative research and campaigns.
  - f. **Applied research work** - this aspect of the project has not been strong. The project has largely focused of formative research.
3. **MotherCare project in Nigeria attained its objectives.** The three broad objectives of the project, (1) to gain consensus and endorsement of the key Nigerians for project strategies and interventions; (2) to increase awareness of problems that may arise during pregnancy among women and their families through IEC campaigns; and (3) to improve the quality of care of mothers and neonates through knowledge and skills upgrade, have largely been met through the areas identified in #2 above.
- MotherCare has not been able to establish the foundation for a comprehensive national breastfeeding strategy.
4. **MotherCare project in Nigeria focused on two of mission's priorities, that is, reduction of maternal morbidity and mortality and improving the health of children .** This project meets host country needs in that it addresses the potential threats to the health and nutritional status of the infants and reduces the cause of maternal death.
  5. **The relationship between this mission and MotherCare has been excellent.** MotherCare in-country representative and US staff regularly communicate with mission regarding project activities. The caliber of MotherCare staff and consultants is highly rated.
  6. **MotherCare has been able to collaborate with National Association of NGOs (NANGO), Africare, UNICEF, NANNM, SOGON and Nursing and Midwifery Council of Nigeria in the implementation of project activities.** Representatives of these bodies have been appointed as members of the Policy Advisory Committee and Technical Advisory Committee.

7. MotherCare reports have been helpful in monitoring project activities and in keeping abreast of other MotherCare activities.
8. Given the level of efforts and achievement in the project, program interventions in maternal and neonatal health and nutrition have greater prospects of being replicated and sustained in other states of Nigeria.
9. Mission is uncertain of continuing with maternal and neonatal health and nutrition activities in the future based on cuts in funding. However, with increased funding, mission will be interested in building on what has been established.

To: Mary Ann Anderson@R+D.H@AIDW  
Cc: Jay Anderson@GDO@KAMPALA  
Bcc:  
From: David Puckett@GDO@KAMPALA  
Subject: re: Final Evaluation for MotherCare  
Date: Friday, August 20, 1993 8:11:37 EDT  
Attach:  
Certify: N  
Forwarded by: Mary Ann Anderson@R+D.H@AIDW

-----  
Comments by: Mary Ann Anderson@R+D.H@AIDW  
Forwarded to: Nancy Stark  
Comments:

Can you get a copy of this to evaluation team.

----- [Original Message] -----

1. The MotherCare Project in Uganda was an unqualified success in all regards. The resident advisor, Sandy Buffington, did a superior job, impressing USAID and the MOH with her quiet, competent professionalism.
2. Training and service delivery were the main concerns in Uganda. An initial baseline survey was conducted to assess maternal and neonatal services. This survey included 105 midwives; site evaluations at three training sites, 14 midwifery schools and 100 maternity sites; observations at seven hospitals; and interviews at the central, district and health center levels. During the life of project (July 1991 - September 1993), twenty-six training programs were conducted, providing training for 17 LSS trainers, 160 midwives and 20 midwifery tutors. The 14 day training sessions included midwives from the private and public sectors in roughly equal numbers. Another 530 maternity staff were given partograph training and 50 supervisors of LSS midwives received LSS orientation.
3. Project objectives called for the training of 80 midwives in LSS and, as can be seen in #2 above, the number of midwives trained was doubled; the objective of training 16 LSS trainers was exceeded, as 17 were trained. Partograph training of maternity staff was not included in the objectives, but is considered a valuable addition. Other objectives of performing a baseline assessment and increasing awareness were fully met.
4. Project activities were considered by the mission to be an integral part of the provision of FP, STD and related services that were/are badly needed in Uganda. The MOH views these activities as critical to the service delivery system and has placed a priority on reducing maternal mortality from the estimated 500/ to 330/100,000.
5. The Uganda resident advisor is not only a highly skilled professional midwife, but also an absolute delight to work with. She kept the mission well informed of activities and potential problem areas, but was resourceful and adept at resolving issues. Mission staff often relied on her technical skills and knowledge. Consultants were also professional and apparently well-qualified.
6. The resident advisor also developed a very effective relationship with MOH staff which holds her in high regard.

7. Excellent relationships on all fronts.

8. Project reports, papers etc. were always timely, informative and adequately filled the need. Mothercare Matters is well done, but frankly there is little time for reading the stacks of materials that are sent to the field.

9. MotherCare has left a Ugandan counterpart in place who will continue to conduct LSS training over the next year using curricula developed by the project with the support of MOH PL480 funding. The midwife who will continue the training is competent, responsible and reliable. We are optimistic that the activities will be sustainable.

10. The new, USAID reproductive health project, DISH, is now being finalized and calls for integrated training in reproductive health for a large number of nurses and midwives. Since the project has not yet been finalized or approved, it is premature to comment on continued involvement with MC Phase II.

USAID Kampala greatly appreciates the services and company of Sandy Buffington over the past two years. Even though she left only two days ago, we already miss her...and Buff too. Regards.

P.S. Mary Ann, Jay hasn't actually seen this. He is deeply buried in the DISH PP and in the interest of getting this to you today, I sent it on. When he sees this, he might want to revise or add something, OK?

To: Mary Ann Anderson@R+D.H@AIDW  
Cc:  
Bcc:  
From: Joan LaRosa@REDSO.PHD@NAIROBI  
Subject: re: Final Evaluation for MotherCare  
Date: Thursday, September 16, 1993 0:15:31 EDT  
Attach:  
Certify: N  
Forwarded by:

-----  
Thanks for sending D.Puckett's comments on MotherCare in Uganda. I think they are right on. The DISH project will build on the training program that was started by MC. In addition to the PL480 money, UNFPA is also supporting the expansion of LSS training in UNFPA project districts.

It was a very successful program but I would like to add a couple comments about administration. This was the biggest hassle of the project. Sandy was often very frustrated because she was spending so much of her professional midwifery time doing and re-doing administrative paperwork. The project should have funded an administrative position from the very beginning to deal with JSI, the Ugandan Government and USAID paperwork. In addition to Sandy's working 80-100 hours/week, Buff also helped with the administration of the project, as did the two volunteers--Heather and Tom.

I found ACNM to be more responsive than JSI. It was very difficult to have to deal with both. There were a couple times when the only way we could get JSI to be facilitative was to have me e-mail you and you get them to approve. (Remember the struggle we had getting TA to put the up-dated midwives manual in final?)

Sandy managed the finances exceedingly well. By having things locally made (from aprons to fetoscopes) she not only kept the costs down, but also increased project's sustainability because replacements are available locally at a reasonable cost. She thought the savings would be used to finance more training. Instead, however, they were transferred back to Washington and used to support another MC activity that was over budget. Too bad for Uganda.

In the follow-on project the contractor should budget more funds for field administrative support. It's 100 times more difficult to do anything in Africa than it is in the States. In Uganda you can't just call someone on the phone and give them a message. If they have a phone, it probably doesn't work. You have to have your message hand carried to the person's office. If you want an appointment, you have to go to the office to make it. A good administrative assistant can make a big difference in how efficiently an office is run. I feel that this was an important element that was not sufficiently included in the budget or staffing of the MC project field office support.

I feel better now that I have that out of my system. We all know that the bureaucracy is the toughest part of implementing any project and the host country government factor is ten times more significant than the USG (AID/W and USAID).

Keep me posted on the new project. Glad to hear that the work in Rwanda and Uganda are influencing AID/W programming. Best regards. jl

## **Annex V**

### **List of Documents Reviewed**

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- Contract Scope of Work for MotherCare, Phase I.**
- Dasvarma, Gouranga (Population Council, Jakarta).** Improved iron-folate distribution to alleviate maternal anemia. An operations research in two sub-districts of Indramayu Regency, West Java, Indonesia. April, 1992.
- Final Project Report. Cochabamba Reproductive Health Project. August, 1993.**
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- Final Report. Bangladesh, Save the Children/MotherCare Project. August, 1993.**
- Final Report. Kangaroo Motherhood Method Program. Neonatal care of low birthweight newborns in the Isidro Ayora Maternity. Quito, Ecuador. 1993.**
- Final Report. Regionalization of perinatal health care, a pilot study in Tanjungsari, West Java, Indonesia. August, 1993.**
- Final Report. The Quetzaltenango Maternal and Neonatal Health Project. Institute of Nutrition of Central America and Panama (INCAP/OPS). Barbara Schieber. Guatemala. August, 1993.**

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**Griffiths, Marcia, Moore, M. and Favin, M., Communicating Safe Motherhood: Using Communication to Improve Maternal Health in the Developing World, Working Paper 14, November, 1991.**

**Hadyana, Sukandar. Appendix 3. Report of sweeping of demographic events in Cisalak and Tanjungsari subdistricts, 1992-1993. Attached to the Final Report of the Tanjungsari Project. August, 1993.**

**Interpersonal Communication and Counseling Curriculum for TBAs.**

**Interpersonal Communication and Counseling Curriculum for Midwives, Nigeria.**

**Koblinsky, Marjorie, Tinker, A., Daly, P. Programming for Safe Motherhood, A Guide to Action. (Paper submitted for publication, 1993).**

**Koblinsky, Marge. Indonesia Trip Report #10. MotherCare. March 1-13, 1993.**

**Kwast, B. Data tables from the West Java Project as presented at a MotherCare briefing for the evaluation team. August, 1993.**

**Kwast, B.E. Indonesia Trip Report #11. July 5-23, 1993.**

**Marshall, Margaret and Buffington, S.T. Lifesaving Skills Manual for Midwives, American College of Nurse Midwives, 1991.**

**Maternal Mortality: Levels, Trends and Determinants, Working Paper 10, November, 1991.**

**Mid-Term Evaluation of MotherCare.**

**Midwives Handbook and Guide to Practice, Uganda, 1993.**

***MotherCare Matters* (Volumes 1,#1 - Volume 3, #1/2), June, 1990 to April-May, 1993.**

**MotherCare Final Evaluation Briefing Packet. August, 1993.**

- Preventing Congenital Syphilis. Facilitators Guild, University of Nairobi, College of Health Sciences, Department of Medical Microbiology.**
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- Qualitative Research on Knowledge, Attitudes and Practices Related to Women's Reproductive Health. Cochabamba, Bolivia. Working Paper 9. July, 1991.**
- Riono, Pandu, Utomo, B., Leon, D., Sloan, N. The effectiveness of increased availability on the ingestion of prenatal iron-folate tablets in two subdistricts on Indramayu regency, West Java, Indonesia. August, 1993.**
- Rohrer, Rebecca. The Quetzaltenango Maternal and Neonatal Health Project, 1988-93: The Effect of Training Community Health Service Personnel in the Normal Care of Pregnant Women and the Detection and Management of Antenatal Obstetric Complications. Summer, 1993.**
- Sanchez, E., Howard-Grabman, L., Rogers, D.L., Bartlett, A. Researching women's health problems using epidemiological and participatory methods to plan the Inquisivi MotherCare project. August, 1993.**
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- Schieber, O'Rourke, K., Rodriguez, C., Bartlett, A. Risk factor analysis of peri-neonatal mortality in rural Guatemala. Draft manuscript dated April 21, 1993.**
- Schieber, Barbara and Delgado, H. An Intervention to Reduce Maternal and Neonatal Mortality, Quetzaltenango Maternal and Neonatal Health Project, Institute of Nutrition of Central America and Panama. Guatemala, 1993 (English and Spanish).**
- Scope of Work from the Request for Proposal for MotherCare Phase II.**
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- The "Autodiagnosis": A Methodology to Facilitate Maternal and Neonatal Health Problems Identification and Prioritization in Women's Groups in Rural Bolivia, Working Paper: 16 A, March, 1993**
- Thouw, J., Drs. Sutedia and Hadyana Sukandar. Does the provision of maternity services closer to the people improve use of those services. Manuscript with Final Report from Tanjungsari Project. August, 1993.**

**Tinker, Anne and Koblinsky, M., Making Motherhood Safe, World Bank discussion Papers. May, 1993.**

**Utomo, B., Phillips, J., Riono, P., Dasvarma, G., Leon, D. The utility of the sample registration system for the detection of early pregnancy and studying maternal morbidity. Indramayu. Appendix 5 of the Final Report. Draft dated 22 March, 1993. Manuscript seen in August, 1993.**

**Yusril, M., Sampurno, H.B. Feasibility and sustainability of village-based maternity services (from a government official's point of view). Manuscript with Final Report from Tanjungsari Project. August, 1993.**

# Annex E: Logframe

AID 1990-98 (1-72)

## PROJECT DESIGN SUMMARY LOGICAL FRAMEWORK

Project Title & Number: Maternal and Neonatal Health and Nutrition 936-5966

Line of Project:  
From FY 88 to FY 93  
Total U.S. Funding 15,000,000  
Date Prepared: 3-3-88

Annex VI

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><b>Program or Sector Goal:</b> The broader objective to which this project contributes:</p> <ol style="list-style-type: none"> <li>To improve the health and nutritional status of women and children in developing countries.</li> </ol>	<p><b>Measures of Goal Achievement:</b></p> <ol style="list-style-type: none"> <li>Reduction of maternal and neonatal morbidity, mortality and malnutrition.</li> </ol>	<ol style="list-style-type: none"> <li>National Vital Statistics</li> </ol>	<p><b>Assumptions for achieving goal target:</b></p> <ol style="list-style-type: none"> <li>Selected health and nutrition strategies/intervention are effective in improving maternal and child health status.</li> </ol>
<p><b>Project Purpose:</b></p> <ol style="list-style-type: none"> <li>To demonstrate the feasibility of providing a package of effective, appropriate maternal and neonatal care services and education to women and their infants in selected developing country settings.</li> </ol>	<p><b>Conditions that will indicate purpose has been achieved: End of project status.</b></p> <ol style="list-style-type: none"> <li>National programs of maternal care adapted in 3 of 5 proj. countries.</li> <li>A set of appropriate maternal care interventions being implemented in all project sites.</li> <li>Increased knowledge regarding the process of pregnancy &amp; birth, demonstrated by women &amp; the community.</li> <li>Results of key research questions available for dissemination.</li> </ol>	<ol style="list-style-type: none"> <li>Project records, MOH reports;</li> <li>Project records, MOH reports; project evaluations.</li> <li>KAP surveys.</li> <li>Project records, TAG reviews.</li> </ol>	<p><b>Assumptions for achieving purpose:</b></p> <ol style="list-style-type: none"> <li>MOHs will commit resources &amp; adjust policies to support programs of mat. care.</li> <li>Needed resources can be mobilized for improving/developing maternal/neonatal care services.</li> <li>Family's and mothers' maternal care knowledge &amp; practices can be changed through info/communication approaches.</li> <li>Contractor will have the skills needed to identify and carry out relevant research projects.</li> </ol>
<p><b>Outputs:</b></p> <ol style="list-style-type: none"> <li>Provision of increased coverage of women in project areas with tetanus toxoid immunization.</li> <li>Provision of increased coverage of pregnant women with antenatal care and delivery by trained birth attendants.</li> <li>Prov. of tech. &amp; training asst. to MOH &amp; other interested agencies re. toxoid immu. &amp; other mat./neont. care intervent.</li> <li>Design &amp; conduct of research proj. in maternal/neonatal health &amp; nutrition.</li> </ol>	<p><b>Magnitude of Output:</b></p> <ol style="list-style-type: none"> <li>% of women of child-bearing age in proj. areas who have had tetanus toxoid immunization.</li> <li>% of preg. women in proj. areas who recvd at least 3 prenatal care visits; % whose deliveries were attended by a trained birth attend.</li> <li>No. of tech. &amp; training asst. visits provided.</li> <li>No. of research proj. completed. (Specific targets to be developed for each site for 1. &amp; 2.)</li> </ol>	<ol style="list-style-type: none"> <li>and 2. Health interview surveys, project records.</li> <li>and 4. Project records.</li> </ol>	<p><b>Assumptions for achieving outputs:</b></p> <ol style="list-style-type: none"> <li>&amp; 2. Relevant skills &amp; expertise required to increase coverage with quality services will be mobilized by MOH and project staff.</li> <li>Personnel with appropriate skills will be available to provide technical and training assistance.</li> <li>Appropriate research questions and projects must be identified.</li> </ol>
<p><b>Inputs:</b></p> <ol style="list-style-type: none"> <li>Technical, training and research skills of contractor and consultants.</li> <li>Selected commodities (drugs, delivery kits, educational materials)</li> <li>Local governmental and nongovernmental program resources.</li> </ol>	<p><b>Implementation Target (Type and Quantity)</b></p> <ol style="list-style-type: none"> <li>See budget</li> </ol>	<ol style="list-style-type: none"> <li>Contractor accounting records.</li> <li>Annual project reviews.</li> <li>Midterm and final evaluation.</li> </ol>	<p><b>Assumptions for providing inputs:</b></p> <ol style="list-style-type: none"> <li>AID child survival, family planning and food assistance will continue to be available in a timely appropriate fashion.</li> <li>Contractor implementation mechanism able to meet broad interdisciplinary needs.</li> </ol>

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## Annex VII

### Remarks About the Macro International Questionnaire<sup>1</sup> Safe Motherhood Survey

by Dr. Beatrice Selwyn

- **General format looks very good.**
- **Questions need to be re-ordered.** Most survey research says that one should begin questions on issues that are the major intent of the survey, in this case, questions on pregnancy and health. Instead, this survey begins right off with questions about the woman's education (could be okay as ice breaker), then on to marital status, income, etc. In many instances this approach leads to increased refusal rates, since you have said you are there to talk about health and you talk about income instead. Experience demonstrates that women become immediately suspicious of interviewers, thinking they are government workers. These days surveyors put these types of "threatening" questions at the end, or at least later in the interview. This survey questionnaire should start off with question number 120, for example.
- **QUESTION #305 could be a problem.** Asking the question this way is likely to elicit poor information. (In my experience, it does among Colombians, Mexicans, and Texans.) It works better to give the woman some idea of what you mean by "antenatal care". That is a medical professional's term. One needs to give a hint as well as use the medical jargon term, e.g., "That is, did you see someone about your pregnancy? To check how it was going?" In the USA we add, "not counting the visit you made to find out you were pregnant," since in some places women make visits just to get the pregnancy diagnosed and then do not come back for "real" antenatal care until they are eight months or have a problem.
- **QUESTION #306:** This is a quasi-open, we-already-know-the-answer type of question which tries to get at reasons women make decisions. The "other" space doesn't make up for the lack of information this kind of question misses. One has to really buy into the "something is better than nothing" mentality to use this kind of "reason" question. In spite of justifications for using this kind of closed reason question it may be better to get nothing than to claim to know the "reason women do not act" after using this kind of prefabricated list. It is true that asking an open question is tricky, and coding the responses is almost anthropological work, but the richness of the information is worth it, at least

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<sup>1</sup>Of April 1993.

from my experience. In several cases, the overall four major classifications were similar to some showed here, but the list of actual answers from the people were so informative that the administrators and providers insisted we include the full list in the final report.

**QUESTION #307:** In the Philippines the HBMR that was being used was the WHO prototype with space for three pregnancies. Is that no longer true? Anywhere where a card for more than one pregnancy is being used, this question means losing information.

- **QUESTION #311:** The classic medical professional, birth certificate question, that doesn't always find out what you want to know. People forget that when providers use this question they will either probe to get at what they really want to know, or they don't really need specific numbers of visits, just an idea that the woman had some antenatal care. Medical professionals don't need the same kind of specific response here that researchers do. This may be the classic way, but it is not the best way to get the information. The University of Texas, Houston, School of Public Health (UTSPH) is now trying to determine the best way. Interesting answers to this question include "when they told me", or "all that my doctor told me to", or you get the schedule followed (if a woman gives you her schedule, then you have to know the gestational age at delivery to figure out the number of visits), or the woman may tell you "9 or 10". How prepared are the interviewers to probe for the answer, or to calculate the number of visits from a schedule the woman gives? The preparers of the questionnaire did NOT commit the all time great sin: that of precategorizing the answers. It is very good that they left an open answer.
- **Question # ?\_\*\*\*:** Visits in each trimester. Again the classic Western medical approach to pregnancy. The trimester system is rooted in the deeply ingrained reverence for the number three in those who began this system of pregnancy "timing" and had Celtic roots. Then with physiological and anatomical knowledge the "three parts" of pregnancy were justified medically. BUT --- how do women deal with pregnancy events? Maybe they use "when they show" or quickening or something else as event markers in pregnancy, especially the many women who have not been taught about trimesters. This question has had problems in border hispanic populations. If they went to a medical professional who could speak their language and could successfully communicate with them, the women could report back the months or trimester. Otherwise, the interviewer had to be able to probe knowledgeably to get the information. Medical professionals tend to forget that these points (like pregnancy trimesters) we know so well, are all learned behavior. These questions need ethnographical work to clarify their validity and reliability. There may be a "woman's way" of describing pregnancy events that sort of "comes naturally" all over the world.

**<sup>2</sup>Since public health research is like quantum physics--just by observing the phenomenon you change it--the way the question is asked affects the results that are obtained. The users of the data generated by this questionnaire should be aware of the problems it has when interpreting the data (this is always true). It is my belief that the "standard" prenatal care questions need ethnographical work with epidemiological testing thereafter to verify their usefulness.**

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**<sup>2</sup>Did not have time to provide further comment on questionnaire.**

## **Annex VIII**

### **Notes to Table 4**

1. Bangladesh - Nasirnagar Upazila Pilot Project, Save the Children: The project was based in a resource-poor area and concentrated on case management training for community-based providers (TBAs and nurse midwives generally), including detection and management of the more frequently occurring complications, education of providers and women plus their husbands and mothers-in-law, and improving referral of women when needed. The referral portion of the service package resulted in establishing a fund for women to use when they need it, improving TBA knowledge of referral sites and vice versa, and equipping and supplying a key point along the referral chain (for example, the local nurse midwife). MotherCare built upon an already existing monitoring system; the portion of the system that MotherCare found most useful was the postnatal survey.

Sustainability may be problematic since the project is supplying medical and contraceptive material in its area, as the government system is too unreliable for the test of the intervention. Investigators are aware of this.

As the project has not yet had a full course of its intervention strategies, the final evaluation has not been done. The evaluation design is a pre- and post- intervention knowledge and practice survey, plus regular monitoring of activities in the community and at each service site. There is no comparison area. Impact indicators will be hematocrit and weight for gestation, as well as morbidity and mortality in the future (numbers of cases will be small).

Very few data are available to judge the success of this project. The investigators have carried out an interim survey and have found that some indicators are changing appropriately, although at the mid-term there is improved knowledge without accompanying changes in practice. Modifications are possible, and the investigators appear to be using the information to realign the interventions in accord with the mid-term findings.

2. Bolivia, Cochabamba Reproductive Health Project: This project was directed at improving the quality and utilization of existing services, and emphasizing education about dangerous conditions and the need for proper maternity care in the community, while sensitizing professional providers to women's preferences, including family planning services along with maternity care. A large number of physicians and services exist in Cochabamba, but appropriate utilization by women was less than expected and mortality rates were higher than the number of services would suggest. The project focused on IE&C activities to gather information from the community and service providers, and then to provide education to providers, and to educate women and their families in the community through mass communication activities about maternity care and family planning. The impact of these activities has not yet been fully assessed, as the IE&C campaigns did not have enough time

to be fully implemented (some topics were not yet produced at the time of project end), and the post-survey data analysis is not complete. Time and resources should be given to complete a full and careful assessment of the effects of the IE&C campaigns on the utilization of services.

There were no plans to directly assess the impact on maternal and neonatal mortality, the logic being that if utilization improved and care improved in the medical facilities, lives would be saved. Utilization data have been collected and these should be thoroughly analyzed and reported. An ecological approach to maternal and neonatal mortality can be taken, i.e. to look at the city-wide rates after one or two more years. That is outside the project picture of MotherCare I, but should be undertaken through MotherCare II or another A.I.D. mechanism.

In addition, the project assisted facilities, equipment, and personnel to improve their "mother friendliness" and this resulted in increased use of services by women. NGO staff had initiated their own assessments of their local community and its reproductive needs with the assistance and training of MotherCare staff.

Pre-intervention assessments and local assessments of women in the community had shown a desire for more family planning services to be offered together with the maternity care being provided. This was done in a number of sites, with provisions for women's privacy. Continued and sufficient supply of contraceptives enhanced utilization of family planning services by the local women.

Evaluation of the project consists of a pre- and post- IE&C intervention survey and of facility reports of utilization. Since the program was directed at the entire community, two different samples of women were drawn from the community, rather than using the same women as "before" and "after" respondents. The early qualitative research that was done in Cochabamba had an impact on how the IE&C was designed, and on the training of professional staff. The mid-term evaluation noted that many providers were very surprised at the perceptions and responses of women. Most providers responded with a positive attitude to change the way they treated women after learning the results of the qualitative research. Due to the lack of time during MotherCare I the entire set of information obtained throughout the project requires more in-depth study, inter-relation, and interpretation to give a complete picture of the effects of the various components on utilization, practice and policy.

There is a useful set of "lessons learned" and recommendations for the next use of the project components in the final report.

3. Bolivia, Inquisivi - "Warmi" Health Project, Save the Children: This project was based in an isolated and resource-poor rural area. It concentrated on forming women's groups, determining problems and plan interventions, training local birth attendants, and

establishing clear referral links with more sophisticated care. From the women's groups family planning services emerged as a high priority desire for the community, and these services were included in the package provided in the project. There were training aspects and IE&C components in the project which are discussed in those sections.

As part of the assessment activities an "autodiagnosis" technique was developed and used by community women in establishing priorities. A "planning together" approach provided the community (males and females) and the project staff with a framework for making services and interventions acceptable to the community.

In the evaluation a pre-post intervention inquiry into deaths (maternal and perinatal) was conducted using a case-control design. The inquiry ascertained the probable cause of death through a verbal autopsy, the social/environmental factors surrounding the death, and the barriers to care that occurred. The pre-intervention data proved useful to the investigators and community in targeting the most common causes of death. The analysis of the pre- and post- data is rudimentary in the project's final report, and needs to be prepared in such a way that a reader can see the differences between the pre-study cases and controls compared to the differences between the post-study cases and controls. There should be more in the analysis besides simply comparing pre-cases to post-cases and pre-controls to post-controls. For the evaluation interpretation the question is "did the differences between the two groups change over time?" It is possible that even with the interventions the case subject families represent a more difficult part of the community to reach.

There does appear to have been a reduction in mortality during the project period, from 117/1000 births in the 1988-90 period to 43.8/1000 births in the 1991-93 period (RR=2.68, 95% C.I. of 1.79, 4.02). Not knowing very much about where the data come from (this evaluator assumes the figures came from the health information system in the community) nor about potential biases in reporting and such, it is difficult to draw a definitive conclusion. The project investigators need to prepare a formal write-up of these data that incorporates the timing of the interventions so that readers can better interpret the potential impact and timing of the interventions.

One manuscript describing the process, that by Sanchez, E. et al., contains a good basic description of the process. Unfortunately the causes of maternal mortality (9 cases) and a description of them are left out completely in this paper. Only the peri-neonatal mortality is presented. Maternal death data could be added to the top of Table 1 to complete the picture. It would be very helpful to have the whole picture, as the most severe outcome is that the mother dies (severe because the adult female is even more resilient than the newborn). This paper illustrates the usefulness of the group of controls in the case-control design. The dead infants and their surviving controls share many conditions of life and practice. The controls help point out the characteristics that distinguish those who survived from those who did not. The "table" showing only data from controls is not very useful without some type of explanatory text. Why show only control data? What conclusions can we draw from this? Very little, unless all of the things listed are not part of commonly

accepted protocols of quality care. Without some explanation, this type of data display can be harmful. For example, it shows that in 69% of the survivors (controls) the cord was cut with a pottery shard. One conclusion which might be drawn is that this is not a harmful practice, when medical professionals know that this practice can lead to infection. Either the case data should be displayed along with the control data, or it must be stated that here is a list of common practices that do not meet globally agreed upon norms of safe birth.

A health information system was included in the project, although very little about it is detailed in the project's final report. The functioning of the Women's Health Card is also not discussed; for example, how well did it assist in identifying women with complications?

4. Ecuador, Kangaroo Mother Method (KMM): The study population was infants weighing < 2,000 gm. at birth, in Quito (high altitude), and born in a hospital. The study shows effects on morbidity and cost of care: amount of costly care decreased for KMM in the post-neonatal period as a result of decreased serious illness in KMM (especially on lower acute respiratory infection). It showed that KMM infants were in the hospital longer than the comparison group infants initially, and that after discharge from the hospital there was increased utilization of preventive services by the KMM mothers, but less rehospitalization of KMM infants. Since the study was of survivors, there is no possibility to assess the effect on mortality. The study was restricted to exclusively breastfed infants (due to the choice of the hospital conducting the research), so the study could not assess the effect on breastfeeding practice, nor on diarrhea or other diseases related to bottle feeding. This type of randomized controlled trial will always have the problem of an "unmasked" intervention, i.e., providers know who the KMM infants and families are, which can bias their behavior towards the mothers and infants (i.e., they probably demonstrate more supportive behavior towards the KMM families, which may encourage mothers and families to bring the KMM infants into care more often and earlier than the non-KMM infants). The suggestion is to replicate the study if the desire is to assess these other issues (effect on breastfeeding and the illnesses resulting from non-breastfeeding).

5. Guatemala, INCAP - Quetzaltenango Maternal and Neonatal Health Project: This project was directed at recognition of dangerous conditions & referral, emphasizing provider training (especially innovative TBA training) & case management norms (network levels of services).

The project carried out its activities despite local difficulties. It is too early in data analysis to be able to say that there was an effect in lowering maternal or peri-neonatal mortality rates in the area. It is also probably too soon after project initiation to be able to see the full impact of the training and changes in referral patterns. Time and resources must be given for proper analysis and interpretation of the full set of data collected in this project. Only the most basic analyses have been performed. The investigators are clear that all levels

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of care must be included in any true attempt to lower mortality from OB and peri-neonatal complications.

There were clearly observed effects on practices and the physical plants of the services after providers (at all levels relevant to treating obstetric and neonatal emergencies) were trained. The implementation of norms, protocols and supervisory activities changed practices of health post and center personnel, and also of physicians in the hospitals. The issue now will be to see how sustainable the changes are. The investigators make it very clear that without continued supervision at this stage, the changes may weaken. The project clearly identified (again in the history of medical care) what is needed to improve professional management (meaning M.D. care) of complicated cases, the elements being norms, protocols, guidelines, training and supervision. Mortality in the hospital appears to have been reduced after the implementation of norms and training, but the findings deserve more detailed analysis. Referrals appear to have increased with more sensitive treatment of TBAs and patients by institution staff--this too deserves more detailed analysis.

Of special importance is an assessment of the longer term changes in TBA practice from the innovative training approach taken in this project. There appears to be an immediate effect of increased referrals by TBAs to the hospital. This needs further analysis to assess the appropriateness of the referrals and the manner of handling complications by the TBAs. If this training and supervisory approach to TBA practice is shown effective in improved outcomes and referral, then it could become a model for training TBAs worldwide.

The Vital Events Reporting System approach for longitudinal surveillance of OB & neonatal outcomes used in this project needs to be assessed for resource use and effectiveness. The investigators are already aware of changes that could be made in the system as used, and in ways that the system can be modified for long-term use. Both of these assessments should be used to modify the written guidelines that will be prepared for dissemination. Since the investigators are aware of problems in the currently functioning system (always a positive outcome of having tried it), these defects should not be included in the published guidelines, but the revised proposed approach should be included. Let us build on what they have learned, not perpetuate the problems.

Important lessons learned and suggestions for future work are provided in the project's final report.

The evaluation design in this project used intervention and control areas plus a longitudinal surveillance system which provides pre- and post- implementation data. The major problems in the design were the interference of other projects in the control area necessitating the inclusion of another control, although project time and resources did not permit as complete an assessment of that area as in the previous control area. The earliest assessment of existing mortality and complications in both areas was delayed greatly because local MOH workers were assigned to work in the cholera epidemic. The effect of all of

these events on the evaluation design has not been fully explored, and so more analysis and interpretation is needed.

6. Indonesia - Improved iron-folate tablet distribution to alleviate maternal anemia in two subdistricts of the Indramayu Regency (research): The following indicators increased after TBAs and kaders (village volunteers) became distributors of iron-folate tablets and had continuously available supplies:

- the average number of tablets taken per month by pregnant women
- the total number of tablets taken during a pregnancy
- the percentage of pregnant women taking tablets.

The indicators also increased with the communication campaign. The six month communication campaign did not have an extra effect on the TBA/kader distribution area (the intervention area) beyond what the new distribution methods had accomplished.

The total number of tablets taken during pregnancy did not reach the level expected by the MOH. Hemoglobin levels were not done on women due to field problems with the testing equipment.

This project was added onto the longitudinal project on sample registration systems.

Involved parties included the Population Council, MotherCare, USAID/Jakarta and Indonesian institutions.

Study design: pre-post experimental design with control such that the experimental area received the improved distribution and supply component while the control went along as before, and then the IE&C was introduced into both areas so that the experimental area now had both IE&C and improved distribution, while the control had only IE&C. IE&C did not run as long as originally planned because it began later than expected.

Sample sizes: could not be sure what the final was for each area and analytic component from material reviewed.

Data collection, handling: appears adequate.

Drafts of two articles were reviewed. The methods sections and analytic approaches are similar. Some issues were unclear.

The following comments are offered:

- Make clear who the study subjects are, i.e., women followed through 42 days postpartum or just until delivery. Both end points are implied. If the

postpartum period was not included in the analysis for these papers, don't tell us about it.

- "Fourth" is misspelled in both paper in the sentence "Assuming identification of pregnancy" in the methods section.
- Why are there 442 women in the pretest analysis and only 126 in the post-test analysis (Table 1 of the Budiono et al. manuscript)? If the sample size was 131 from each subdistrict, was is not used?
- If all the calculations on average number of tablets taken were based on the number of tablets taken in the week prior to the interview (as explained in Budiono et al.), why wasn't the "number of tablets taken in the week prior" used in the analysis? Why inflate all the amounts to be a month? It misleads readers of both articles if readers are not clearly told the source of the data on number of tablets (as this is lacking in the Riono et al. manuscript). Some readers will think that tablet intake was actually measured over one whole month. Research into these "inflationary" measures in other topic areas of public health has shown that sometimes what happens in a shorter period of time is not what happens over a longer period of time. It is unclear why this inflationary activity was undertaken, and it is not justified in the manuscripts.
- Need to make clear for the first table of results in both articles on the number of tablets taken, if "non-takers" were in or out of the groups analyzed. It would be best to include that fact when the Models are explained initially. The reader has to wait until Model 4 to get some hint.
- Including the names of the places in the intervention and control areas is okay but on those tables there should also be a reminder for readers of which is the "intervention" area and which is the "control" area. For greater clarity, it should say "TBA distribution" and "Clinic distribution" on the tables where the comparisons are made. The place names are meaningful to the investigators but not to the general reader.

7. Indonesia, Indramayu - the sample registration system (SRS) for the detection of early pregnancy and studying maternal morbidity. This aspect of the Indramayu project was directed at identifying pregnancies as early as possible. Most pregnancies were identified at three to four months of pregnancy, no earlier. The following conclusions can be drawn from the experience:

- The SRS identified more pregnancies earlier than the key-informant approach.

- The system obtained prevalence of selected reported morbidity in pregnancy, and compared those signs to reported occurrence of edema, convulsions and hemorrhage in the intrapartum time. We don't know what a medical diagnosis of these conditions would have been, and that would be a good next step.
- The system does permit the linkage of perceived morbidity and utilization of the medical/health system.
- The SRS did not identify all pregnancies; however it did pick up 86% of them. The reason for the failures need to be reviewed.
- Using this kind of project to determine the validity of asking questions about health conditions and use of services should be explored.

8. Indonesia, East Java Safe Motherhood Study, Surabaya: This project was mainly directed at risk screening & referral, emphasizing a local risk scoring system & subsidized transport (network levels of services).

This project built on a previous pilot study testing a risk screening tool appropriate to the project area and the use of local community health workers for the work. The main goal of the project was to reduce maternal and perinatal (< 28 day) mortality. There were many parts to this project. Intervention has been in place only about one year--not long enough to realize the full impact, nor to be able to evaluate the project's impact on mortality. Basic data analysis has been conducted and recorded, but it is too early for full integration of the findings from all the parts of the project.

The "intervention" in this project is a community-based risk assessment of pregnant women by kaders (local community health workers) that refers women to the safest level of care for their delivery, and a subsidized transport system. As part of the system of risk communication a color code was put on the woman's door to inform the TBA of the appropriate birthing place and attendant. Radios were used to inform referral sites of in-coming women. Part of the project was to improve coordination between TBAs, midwives, other health personnel, and all health services. The project built on existing staff and services in the area. Medical audits were made of maternal and perinatal deaths occurring during the project to determine the events associated with the death (both medical and social). Some IE&C was done, and community women were educated at home about risk factors and referral.

The official full intervention ran barely one year before the post-survey was done. This is time for a few women to have their pregnancy affected by the system but very few women would have had their entire pregnancy affected by the complete service. As compliance with referral is a behavior, the time was too short to have a major impact on community behavior. Therefore, a valid assessment of the system's effect on mortality

cannot be made as there was no clear indication of the mortality in the control area presented in the final report. The pre-study survey findings show the intervention area reports higher mortality rates for both mothers and infants than the control area, and the findings from the risk system in the intervention area show an increase in perinatal mortality but not in maternal mortality. The various issues of bias need to be tested and their possible effects on the findings need to be addressed (for example, whether all deaths were counted, e.g., the number of deaths reported in the pre-survey could have been less than in the risk scoring system because of a reporting bias; there is also a question of why there are 3,400 fewer births reported on the risk scoring system than were counted in the pre-survey. Is there something special (healthier, less healthy?) about the missing births?). There were 36% fewer deliveries accounted for in the risk scoring system than in the pre-survey, and 22% fewer deaths counted in the risk scoring system. Why are there more deliveries missing than deaths?

The official final report has some very useful sections in it. It remained unclear how many deaths, etc. were from each of the districts, and from the intervention and the control districts. The report would be much clearer if in Appendix I.2 there was an indication of how many women followed-up in each district, or was the death follow-up carried out only in the intervention district?

Evaluation design: intervention and control areas with pre- and post- assessments done. The two areas appear similar in risk status on the pre-survey except for a higher prevalence of very-high-risk women in the intervention area.

- Predictive antenatal risk scoring: Nearly 84% of pregnant women participated. Important lessons were learned, but women are fearful of being placed into a high-risk group and ethnographic work is needed (as well as more time) to discover the best way of educating women and their families. Risk alone was not sufficient to convince many high-risk women to seek childbirth care from someone other than a TBA. High-risk and very-high-risk women continued to deliver with a TBA in attendance. Women receive more services from the TBA postpartum, as well as culturally relevant ceremonies. Further analytic work can be done on the sensitivity and specificity of the current risk scoring system.
- Subsidized transport of high-risk women and OB emergencies: Probably works, but apparently the message about the existing system of reimbursement had not yet reached the women long enough to develop general community awareness of its availability. The investigators feel that willingness to be referred is low, principally because the cost of hospitalization is high.
- Organized network for timely referral to appropriate care: The radio, forms, and transport appear to improve coordination, as does informing and training all levels of care involved with the new system.

- **Community-based maternal & perinatal mortality follow-up to improve care:** Despite various difficulties these follow-ups have been carried out, including gathering information from all providers involved in the case. At the time of the final report, basic analysis was done on 13 of 18 maternal deaths and on 218 out of 254 perinatal deaths. These findings need to be integrated more fully into the overall product of the project. It is doubtful that the project staff and people they work with have had time yet to process the findings of these follow-ups nor to make changes in the system.
- **Cost analysis of Surabaya system:** Most of the data are from surveys of women recalling expenditures, plus information on charges and costs from health/medical services. The data from the intervention area have received preliminary analysis and write up. The data deserve careful interpretation and integration into the rest of the data analysis that has occurred in this project, so that conclusions can be drawn on the basis of the entire set of information.
- **Surabaya service system effect on maternal & perinatal mortality:** The data provided in the final report make it difficult to draw a conclusion about the effect on mortality in the intervention and control areas. Appendix III.11 contains mortality data from the intervention area only. Using these data one can look at percentage of deliveries done by each birth attendant compared to the percentage of deaths occurring:

	Percentage of Births	Percentage of Deaths		
		Births	Stillbirth	END
TBA	72.8	76.4	85.1	80.3
Midwife	7.5	7.9	4.4	6.3
Polindes	1.8	3.6	---	2.0
H. Center	7.8	7.1	6.1	6.7
Hospital	4.9	2.9	0.9	2.0
Pvt. Clinic	5.1	2.1	3.5	2.7
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

TBAs account for a somewhat higher percentage of deaths than they do of births. This could be due to poorer care, but it could also be due to a "failure" of the referral system, in which women who are having trouble do not get to other services and the TBA attends the delivery in an emergency. Similarly, the hospital accounts for a lower percentage of deaths than of births, whereas "polindes" have the opposite pattern. Until more complete explanations from various analyses are available, one cannot sort out the possible explanations, some of which would indicate a success of the intervention, while others would indicate a failure.

Further analysis is especially necessary in light of the analysis of death rates from the intervention area according to birth attendant:

Birth Attendant	Death Rate per 1000 deliveries		
	Stillbirth	END	PND
TBA	24.7	22.4	47.1
Midwife	24.6	11.2*	35.8
Polindes	45.9*	---	---
H. Center	21.5	15.1*	36.6
Hospital	13.6*	1 death	16.9*
Pvt. Clinic	9.8*	13.1*	23.0*
TOTAL	23.5	19.2	42.7

\* = Small number of deaths (< 10 deaths)

Data based on Appendix III.11

The death rates by type (stillbirth or an early neonatal death-END) appear to differ for a provider, but only the TBA had big enough numbers to create a "stable" rate for both categories, making comments on type of death difficult to judge. The TBA has the highest rate of PND of all providers. Without something to which these findings can be compared (either the control area data or the pre-survey data), one cannot judge whether the program of "risk and refer" has had any impact on death rates by birth attendant. It is possible that although the TBA still has a higher death rate than other birth attendants, it is less than before and the rates for other providers have increased (which is what the program was attempting to do, short of lowering the overall death rate). One early effect of referral would be to see the death rates increase in the referral sites as the highest risk women are sent there for delivery. More analysis is needed.

It is reported that this project has had a positive impact in Indonesia on interest to repeat it in other areas. The project is perceived to be grounded in reality and, therefore, a way of addressing problems that exist in Indonesia.

9. Indonesia, Surabaya - Study of the acceptance of a slow-release iron capsule in pregnant and non-pregnant women (research) (GDS = gastric delivery system iron capsules).  
Project with University of Kansas.

Research questions and their answers as determined from the available documentation:

1. Does GDS raise Hgb levels in
  - a. Anemic pregnant women as well as standard ferrous sulfate tablets? Yes, it seems.
  - b. Anemic non-pregnant women using GDS capsules compared to anemic non-pregnant women?
  - c. Taking standard ferrous sulfate tablets? Yes? Needs verification.
  - d. Taking placebo without iron? Yes? Needs verification.
2. Are the GDS capsules better tolerated than the standard ferrous sulfate tablets? Yes? Needs verification.
3. Is compliance better in
  - a. Anemic pregnant women as well as standard ferrous sulfate tablets? Not clear.
  - b. Anemic non-pregnant women using GDS capsules compared to anemic non-pregnant women?
  - c. Taking standard ferrous sulfate tablets? Not clear.
  - d. Taking placebo without iron? Not clear.

There were difficulties in carrying out this study. However, once analysis is done on the blood samples and the field methods are clearly understood, then a decision can be made on the validity of the results.

Measures: hemoglobin, ferritin, transferrin.

Study groups: two studies: one of pregnant anemic women, one of non-pregnant anemic women.

10. Indonesia - Tangjungsari, West Java - A pilot study of a Perinatal Regionalization Network: NOTE: This evaluator<sup>1</sup> did not have time to do a careful analysis of the large amount of data contained in the paper by Alisjahbana et al. These findings deserve interpretative review taking into account the methods used for their collection and perhaps more complex analytic techniques (stratified analysis).

This project has many aspects, with its primary features being: recognition of risky situations and referral, emphasizing the use of community-based birthing huts or ("polindes" - a stage between the home and the health center that were to be staffed with a nurse midwife), communication between referral sites (radio and ambulance), and education of community and providers. The project also made use of problem-based learning and perinatal audits for the continuing education of providers from TBA to physician in the hospital. This project had many activities, and none of the research staff was able to spend full time on any aspect of it. The intent was to work within existing structures as much as possible to increase the probability of sustainability. The statements of lessons learned and recommendations coming from the investigators are very useful (see the project's final report).

Two studies to collect cost data were done and there is a paper examining cost data (Yusril and Sampurno). Not all of the data were seen by this evaluator, but results in the final report suggest that the cost of using the birthing huts is a problem for the women. The women appear to be saying by their lack of use of the birthing huts that they would rather stay home where it costs nothing to deliver a baby and where they encounter the same chance of referral to a higher level of care for an obstetrical emergency as they would if they used the birthing hut, which costs money. The investigators acknowledge these facts and propose they be considered in future decisions about birthing huts. There are suggestions of how to approach a solution to this problem in the recommendations of the project's final report. The investigators make clear a concern about the expensive nature of some parts of the program, and show concern for preparation of a system that is sustainable in the local context. Because of their experience with the current interventions they should be in a good position to suggest modifications to and deletions from the system. This evaluator did not obtain a clear idea from the supplied information about the actual cost of the set up and maintenance of the system of birthing huts compared to what existed before.

The investigators feel that training of all levels of providers involved in the system is absolutely necessary for the system of referral to function, and for the various levels of the system to support one another to prevent overt competition for patients, or worse, the lack of referral from a lower level to a higher level ("higher" in the sense of caring for cases that require more expensive training, equipment and supplies). The problem-based learning approach worked very well, especially with TBAs, and the maternal and perinatal audits proved to be an excellent method of continuing education and of improving provider respect

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<sup>1</sup>Dr. Selwyn

for one another (the audits involved all levels of providers concerned in the care of the mother or child). This is very good, as too often the audits are done, but only the physicians get to hear about the cases.

A basic innovation in the project was the preparation of birthing huts with communication (radios) and ambulance transport to the next level of care. Birthing huts were thought of as a place for the "new" midwives to practice in the community. However, it seems that for them to be affective, TBAs and mothers have to see the midwives as able to handle emergencies that the TBA will not handle. So far, it seems from the reports, that this is not the case. The birthing huts and the midwives are seen as a place to obtain antenatal care, and this is very good. In that way the midwives can screen women for delivery at home with a TBA and can work together with the TBA in this way.

Data in the project's final report show increased referral to birthing huts but the question of the appropriateness of these referrals and of the care provided needs to be assessed. There is still a problem of compliance of women being referred from the birthing hut to the next higher level of care (some of the reasons for the latter are addressed in the cost analysis part). Women went to the birthing hut when referred by the TBA. The data do not permit a clear conclusion about the effect of birthing huts on maternal or perinatal mortality, nor on the appropriateness of their handling of complications. Given the experimental nature of the birthing huts, more has been learned about how to manage them and about the need to garner community support and to educate the community on using birthing huts. The community did not always understand that a birthing hut is not necessarily a place for emergency care but is meant to serve as an alternative to home, especially for women in remote locations, as the hut is close to a road and has radio communication in the event of a severe complication developing.

The investigators are well aware of the need for more IE&C. The overall intervention did not run long enough to be able to overcome obstacles during this pilot phase and still be able to see the effect of a fully functioning system. The system does appear to have merit, though, and the investigators have learned much from it.

The evaluation design was that of intervention and control areas, with longitudinal data collection of pregnant women. Continuous monitoring of pregnant women was done, but women were not interviewed as far into the postpartum period as originally planned (probably due to the overwhelming amount of work it all takes). "Sweeps" (cross-sectional rounds of the households to identify pregnant women and their events) were done to verify the continuous monitoring data. The introduction of intervention activities varied over the first year of the project which makes it difficult in any sweep until the last to evaluate all interventions in place. By the time the first sweep was carried out in June, 1992, some ambulances and birthing huts had been introduced. By the time of the second sweep in December, 1992, the rest of the interventions, except for social marketing, were in place (risk scoring, radios, and perinatal audits). The June sweep is used as the "baseline" data. The third sweep of July, 1993, provides the "post" intervention data. Clearly there has not

been enough time to properly analyze and interpret all of the information obtained in this project, and this needs to be done. Preliminary findings of the differences in each sweep between the intervention and control areas such as those in Attachment 1 require careful thought to interpret.

A problem with the intervention and control design is that it assumes that both areas are approximately similar. In this project the intervention area has been used for research for a long time, and reporting of troublesome events (like perinatal death) appears more open and total than in the control area. When retrospective reporting of deaths is used in the evaluation, then the issue of differential reporting bias must be carefully assessed, as differential reporting can make the evaluation be positive or negative, depending on the direction of the bias. The control area must be assessed for the effect of "learning" to report over the course of the project, thus making it look like the PMR is much lower to start with and increases dramatically over the course of the project in the control area.

There were also definitional problems pertaining to births versus miscarriages.

The MotherCare staff are to be commended for the quality of the time they spent with this project to get the sweep data cleaned up and to set the record straight about what had and had not been done. Hard decisions were made based on quantitative assessment of biases that occurred in the data collection activities, some of which were unavoidable given the historical differences in the use of the intervention area and the control area. This experience certainly points out the difficulties of working with familiar areas as intervention areas and unfamiliar areas as control areas. Some of the classic evaluation threats to validity certainly played a clear role in this study.

The manuscripts seen by this evaluator need to be edited and to have the analytic information reviewed carefully. The use and interpretation of the data must receive careful consideration before sending for publication.

11. Indonesia - Bacterial Vaginosis: Data not available at the time of the evaluation.

12. Kenya, Nairobi - Congenital syphilis prevention in Nairobi City Commission Public Health Clinics: This is essentially a project focused on syphilis control in pregnancy to prevent cases of congenital syphilis. The MotherCare portion of this project is mostly focused on the IE&C component. There were few findings in the project's final report to assess the success or failure of the project, although it appears to be very successful in the short run.

Given the suggestion in the text of the failure of improved supplies and logistics alone to increase the syphilis diagnosis and treatment rates for women and their partners, the IE&C components need careful and full evaluation. The previous operational changes had resulted

in only 9% of women receiving treatment who were found positive for syphilis. This is terrible. Of course, it would be even worse for partners. The IE&C enhanced project apparently brought treatment levels for positive women to 85% and for partners it was 52%. This is a fantastic increase. The potential for further implementation of the project approach in Nairobi and elsewhere deserves full consideration.

13. Uganda and Nigeria - Life-Saving Skills Training for Midwives: This project is based on approaches already proven to save maternal lives in Europe and the USA. It works when the practice of the skills occurs. Perhaps a "process" evaluation would be most helpful--after the program has had a chance to run. Then the impact of the midwives handling complications, on lives saved, could be measured.

14. General - The "MotherCare typology": This is the classification scheme for available health/medical care services in a geographic area ordered along a continuum with three classical points: A - where services are generally not available and people are isolated from more sophisticated services, B - where there is a "range" of services, but there are still problems of availability and appropriateness, and C - the more classic urban area setting with all levels of care available, but quality and appropriate use are important issues. MotherCare has been using this typology with its projects; hence, it is beginning to "catch on" as a quick and easy way to characterize existing systems of care. A future use of this typology should be to make suggestions at the end of MotherCare I for general approaches to improving the system of maternity care in each setting, emphasizing that these are "points on the continuum". From the work done so far, MotherCare staff and investigators should be able to give some ideas of what works or doesn't in a setting, and what the next steps should be.

15. General - The systems view and integrated care - MotherCare: MotherCare had several large demonstration projects that addressed the system of maternity care services from home to hospital (Indonesia X 2, Bolivia, Guatemala), as well as addressing services other than labor and delivery that were needed. Maternity care should be addressed in this way.

These projects have actually been able to document outcome and process impacts (or will be able to, once all the data are available and analyzed). Not everything that was tried worked; on the other hand, various things done during the project were not formally evaluated objectively, but clearly had an impact on how services were delivered, as observed by changes made in physical plants, services offered, and so on. For example, in several sites women expressed a desire for family planning services along with the improved labor and delivery care, and providers, once informed of the findings of the surveys, began to offer the services--even to the extent of complying with the wishes of the women to have this done in private (in Cochabamba, Bolivia, a small private room was set up within the service building to accommodate the women seeking family planning services). Family planning

services, cervical cancer screening, a focus on anemia, STD screening and treatment, and instruction in the care of newborns were all added to maternity services at different sites.

Most projects included the most relevant aspects to systematized maternity care, such as improving medical and traditional practices, setting standards, training, sensitization of providers, communicating and educating women/families, referral links, identification of danger signs, essential obstetric care, improving physical plants, equipment and supplies, IE&C activities, and so on. Several projects had extensive health planning activities before changes were made.

MotherCare projects have demonstrated that integrated programs can be carried out.

16 and 17. Health Planning and Situation Analysis: The MotherCare projects usually engaged in health planning activities and carried out "situational analysis" as the first step in designing some of the service projects. The assessment of clinical services, maternal and perinatal death case reviews, the organization of the maternity care system, and identification of important actors in the system has been key to the functioning of the complex demonstration projects. The maternal and perinatal death case reviews proved very helpful to target intervention strategies in several settings.

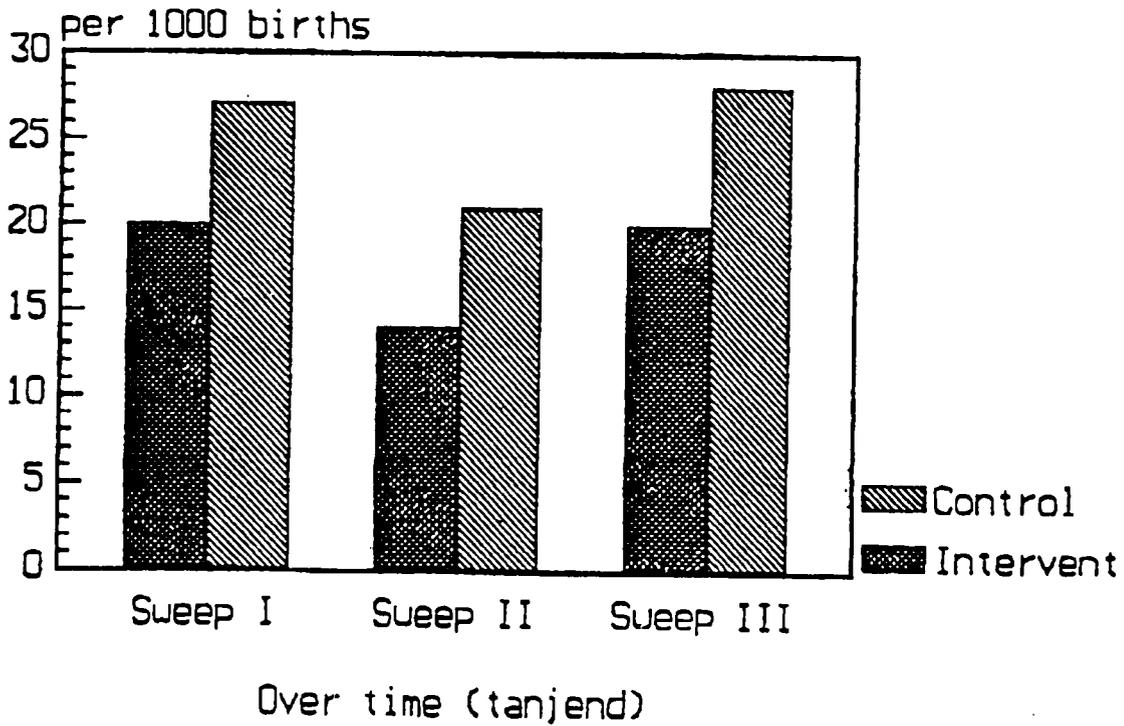
18. General - Sensitization of providers to opinions and preferences of women: Qualitative research has proven very helpful in the process of improving the quality of care available to women. To be most effective the local providers must participate in the work. In several demonstration projects the planning aspects included interviewing women and providers regarding their opinions, attitudes and beliefs about each other. Imparting this information in a timely manner, especially when the providers had participated in formulating the issues to be addressed in the interviews, changed the way services were delivered. In Bolivia, it resulted in changes in the physical structure of the services, and in both Bolivia and Guatemala it influenced the way women were treated when they came to the services. Service use increased.

In Guatemala similar sensitization occurred between formal medical staff and TBAs.

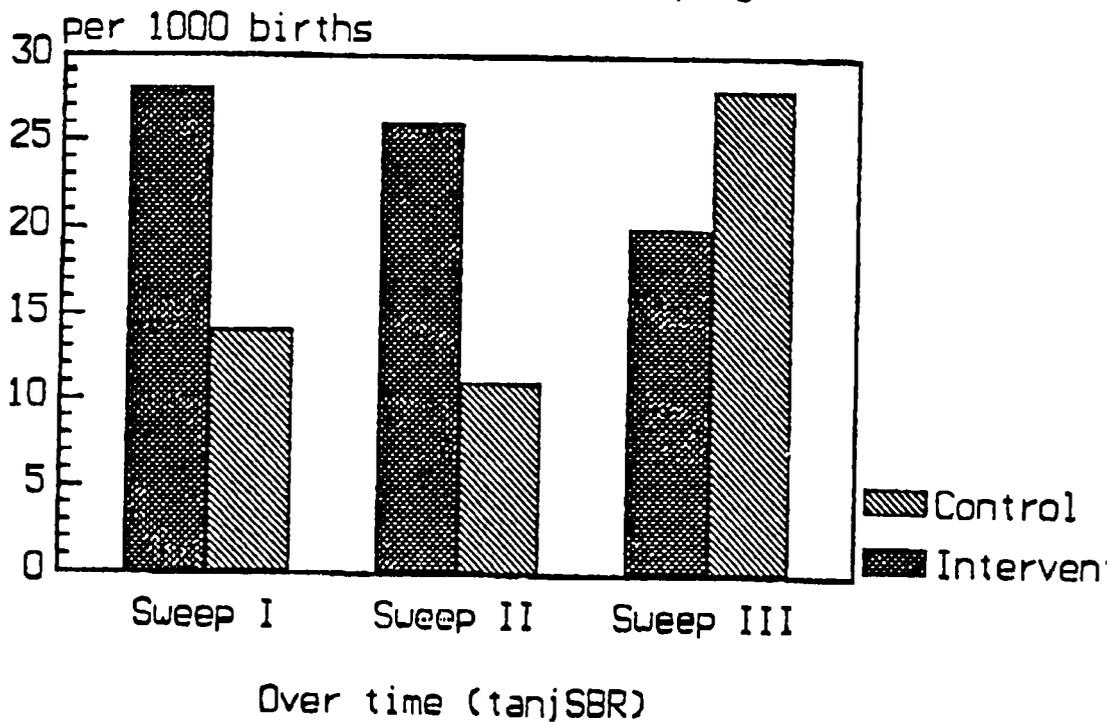
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## **Attachment 1**

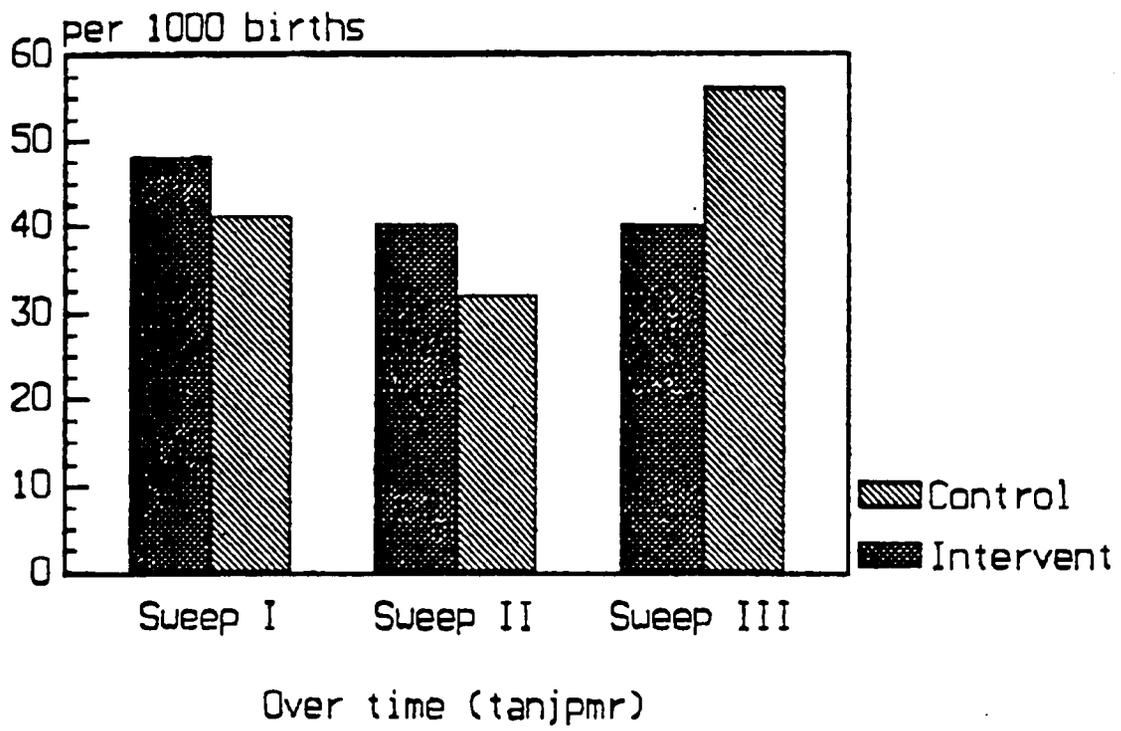
EARLY NEONATAL DEATH RATE, INDONESIA  
REGIONALIZATION PROJECT, Tanjungsari



STILLBIRTH RATIO, INDONESIA,  
REGIONALIZATION PROJECT, Tanjungsari



PERINATAL MORTALITY RATE, INDONESIA  
REGIONALIZATION PROJECT, Tanjungsari



MOTHECARE PERSON MONTH  
FROM PROJECT START UP THRU SEPTEMBER 1993

	POSITION	NAME	APPROVED CONTRACT	ACTUAL PERSON MO SPENT			ACTUAL SPENT FY 92	ACTUAL ACCRUED		TOTAL FY 93	TOTAL PM FY 89-93
				FY 89	DURING FY 90	FY 91		SPENT FY 93	estm.		
JSI	PROJECT DIR.	M. KOBLINSKY, LAMSTEIN	60	7.50	10.68	10.66	10.07	8.85	1.95	10.80	49.71
	DEPUTY DIR.	COLLEEN CONROY	60	4.44	10.98	11.11	10.97	8.38	1.95	10.33	0.00
	WOMAN HEALTH	KWAST					8.10	8.62	1.95	10.57	47.83
	L/T COORD.	PAT TAYLOR	60	2.13	10.87	10.11	3.09	0.00	1.95	1.95	0.00
	FINANCE MGR.	all 4 acct. staff Brunson, Ellwood, Powell, Heptinstall Van den Bosche, Friedman, Shala, Pennay	15	2.07	4.69	5.38	4.65	3.80	1.95	5.75	18.67
	ADMINISTRATOR	VONGKITBUNCHA, KING KREUTZER	60	7.00	11.30	11.03	11.02	9.41	1.95	11.36	0.00
		JSI central staff Lee, Scott, Lazzaro Shala, Cylky Van de Mortel, Haynes, Mazzochi		2.50	4.82	6.18	6.26	4.28	1.95	6.23	22.54
	SHORT TERM TA	M. MONTERESSO	60	3.71	9.43	8.79		0		0.00	0.00
	PROGRAM ASST*	A. HELVESTON P. DAUNAS M. KING	*	0.00	5.00	10.53	3.12 7.45 5.22	0.00 8.82 2.94	0 1.95 0	0.00 10.77 2.94	21.93
	SECRETARY	A. HELVESTON T. DANIEL B. BANERJEE B. SKOWRONSKI	60	4.58 0.00	6.00 5.73				0 0 0	0.00 0.00 0.00	0.00
						2.50	8.77	8.69	1.95	10.64	19.41
	MANOFF	COMM. ADVISOR	M. MOORE K. WINNARD(start 10/91)	60	5.14	9.60	3.68			0.00	0.00
								11.02	9.03	1.95	10.98
	SCF	TETANUS/MED ADVISOR	G. BERGGREN, W. SLUSSER	30	1.43	2.05	0	0.00			0.00
		L. GALVAO					0.11	0.00		0.00	3.48
							2.86	5.13	0	5.13	6.60
	WOMAN HEALTH	U. SHA	60	5.38	2.16		v.11			0.00	0.00
POP. COUNCIL	SR. RESEARCH	B. WINIKOFF (ACCRUED 10-12/90)	38	2.23	4.24 (0.84)	2.09	1.75 v13	2.06	1	3.06	13.37
	APPLIED RESEA	N.SLOAN (ACCRUED 10-12/90)	60	0.00	12.99 (2.65)	7.56	9.23 v13	7.28	5.21	12.49	0.00
									0.00	42.27	
									0.00	(2.65)	
										0.00	

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MOTHERCARE PERSON MONTH  
FROM PROJECT START UP THRU SEPTEMBER 1993

	POSITION	NAME	APPROVED CONTRACT	ACTUAL PERSON MO SPENT DURING FY 89	FY 90	FY 91	ACTUAL SPENT FY 92	ACTUAL ACCRUED SPENT FY 93 estm.	TOTAL FY 93	TOTAL PM FY 89-93
CEDPA	COMM. TRAININ ADVISOR	C. CARP, W. PRESSMAN	30	2.43	7.12	0 7.96	1.00	0.00	0.00	9.55 8.96
		TOTAL CORE	653	50.54	114.17	113.32	106.55	87.29 25.71	113.00	497.58
<b>CONSULTANTS</b> *****										
			1078							
JSI	CONSULTANTS	Bartlett, Najarro, Trott, Fauveau, Putney Bocaletti, Armstrong, Church, Coreil, Daunas, Gay, Kaye Rodriquez, Searle, Hammer Mejia, Shah, Melnick Campbell, Monteresso Burns, Rolin, Jo Hansell		1.86	14.34	13.41	28.60	15.05 7.5	22.55	80.76 0.00 0.00 0.00 0.00 0.00 0.00 0.00
	Regional Staff	Rosenthal, Percy, Daulaire, Day, Loo.				4.75		0	0.00	4.75 0.00 0.00
	RA. ADVISOR	L. H. Grabman		0.10	6.02	7.50	5.91	1.11 0	1.11	20.64 0.00
POP. COUNCIL	CONSULTANTS, AND REGIONAL STAFF	Castle, Edel, Rosso, Del Aguila, Phillips, Leon, Stern, Gour, Jain Lukran, Bhataraya, Talbert, Pinto, etc. (Accrued 10-12/90)		2.47	21.17	19.28 (6.40) Adj. FY9	22.35 v.13	11.22 8.7	19.92	85.19 (6.40) 0.00 0.00 0.00 0.00 (4.65)
					(4.65)			0		
MANOFF	CONSULTANTS, AND REGIONAL STAFF	Favin Griffiths McInerney Others: Pollard, Brems, Horner, Abraham, Trott, Maynard-Tucker, Lynn, Restrepo-Estrada, Elder Ven den Bossche, Moore, Hessler-Radelet, Acquah, Steel, Seiden, De Chavez, Alvarez Horner, Acquah, Accra Radelet, Carlin, Mukasa		0.13 0.56	4.09 4.10	3.93 5.32 2.41 15.41	0.62 4.33 11.10 23.06 v.38	0.00 3.32 6.22 27.35 4	0.50 4.52 6.22 31.35	9.27 18.83 19.73 69.82 0.00 0.00 0.00 0.00 0.00 0.00 0.00

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A1..Q8

MOTHERCARE PERSON MONTH  
FROM PROJECT START UP THRU SEPTEMBER 1993

	POSITION	NAME	APPROVED CONTRACT	ACTUAL PERSON MO SPENT DURING			ACTUAL SPENT FY 92	ACTUAL ACCRUED SPENT FY 93		TOTAL FY 93	TOTAL PM FY 89-93
				FY 89	FY 90	FY 91		FY 93	estm.		
		Co-ordinator									0.00
UGANDA	"	RA (Buffington see ACNM)									0.00
BANGLADESH	"	Dr. K Kaye (SR) Dr. A.Hussain (PI) Dr. N.Khatun (MD)			2.83		21.50	21.50		21.50	45.83
											0.00
ECUADOR	"	DR. Leon			3.30		4.08	4.20		4.20	11.58
											0.00
CHI	"	2 Reserchers			18.28		0	0		0.00	18.28
											0.00
ENFE PD	"	PD: Dr. Ed Castillo				ADJ.FY90 1.50	4.80	4.67	0.4	5.07	11.37
											0.00
PROMEFA	"	PD: Dr. Nino de Guzman					4.8	4.67	1.73	6.40	11.20
											0.00
COMBASE	"	PD: Dr. Valasquez					4.8	4.67	1.73	6.40	11.20
											0.00
ME.DI.CO	"	PD: Dr. Quiroga					4.8	4.67	1.73	6.40	11.20
											0.00
CPCCM	"	PD: Dr. Marquez Prog.-Co: Dr. Ledezma					0	0	0	0.00	0.00
											0.00
B.V.	"	PI: Dr. Wikngosastro Dr. Sumapow			10.50		4.2	6.75		6.75	21.45
											0.00
IRON	"	PI: Dr. Poeji 10 & 9mos					0.9	0.9		0.90	1.80
											0.00
NIGERIA	"	Proj. Co-ord: L.Payne Admin: U. Nnanta					7 5	8 8		8.00 8.00	15.00 13.00
											0.00
MAT. MOTAL (SURABAYA)	"	PI: Dr Poeji 20 & 12 mos					0.64	2.16		2.16	2.80
											0.00
STD KENYA	"	M. Temmerman or F. Jenniskins 20 & time					0.8	0.8		0.80	1.60
											0.00
		TOTAL PM FOR SUB-PROJECT	0.00	0.00	15.00	96.11	124.24	118.07	5.59	123.66	359.01
		GRAND TOTAL PM	1,731.00	58.46	188.29	290.16	361.59	311.31	58.7	370.01	1,268.51

file name:MCPJTOTPM  
9/16/93

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