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MOTHERCARE

MotherCare Final Report

A

I. Project Synopsis

Project Title: MotherCare II

Location: La Paz, Bolivia

Contractor: John Snow Inc./MotherCare Project

Contract No.: HRN-5966-Q-00-3039-00

Budget: Contract Ceiling Price: \$ 2,587,574
Field Support:

Source of Funding: USAID/Washington
Field Support.

Completion Date: September 28, 1998

Key Personnel: Guillermo Seoane – Director
Verónica Kaune – IEC Coordinator
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Ramiro Eguiluz – Research Specialist
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Miguel Ugalde – Gyn/Ob Specialist
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Mauricio Handal – Programmer
Mario Soria – HIS Assistant/Cbba
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II. Executive Summary

a. Project Purpose

The MotherCare Project Goals will remain, to assist the National, District, and Municipal governments to decrease maternal and neonatal mortality and morbidity rates through strategies to improve both the quality of services at all levels and the access to and demand of services by the community.

b. Project Strategy

The MotherCare strategy consists in increasing knowledge among the community about danger signs and the availability of services. We are also striving to increase the quality and warmth of health care by following the Pathway to Maternal and Perinatal Survival.

c. Overview of the major interventions, including research

The Project's objectives also addressed issues of community access and demand. Specifically, the MotherCare/Bolivia interventions were:

1. To promote national policies which endorse the provision of sustainable quality at maternal and neonatal services.
 - * The high prevalence of seropositive women found through the syphilis study provides a model for promotion and implementation of National Policy for the elimination of maternal and congenital syphilis in Bolivia.
 - * The project carried out a cost study and discussed with the MOH, on the cost of services and family expenses to access the service package for mothers and newborns, which directly influence decision making on the part of the clients.
2. To strengthen institutional capacity at National, District, Municipal and Community levels to sustain quality services and community access to services.
 - * MotherCare/Bolivia developed Norms, Protocols, procedures and curriculum for training providers and evaluate their performance.
3. Promote community-based and facility-based IEC/C strategies to increase appropriate access to and demand for maternal and neonatal services.
 - * We conducted formative research, developed a feasible IEC/C strategy, and developed educational materials to evaluate the impact of the IEC/C strategy.
4. MotherCare/Bolivia informed National, District, and Municipal governments of project outcomes with recommendations for interventions to sustain the quality and access to health facilities.
 - * Community and Facility Baseline, produced a monitoring system, register books and municipal bulletin.

d. Project Outcomes

The MotherCare interventions are improving the quality of care at health facilities, thus promoting an increase in demand on the part of the population.

MC has promoted the creation of health policies that offer services with sustainable quality and warmth and strengthen institutional capacity nationwide and at the department and municipal levels. Likewise, through IEC/C strategies, it promoted an increase in the demand for service among the population.

It provided information to decision-makers with the purpose helping health planners at the national, district and municipal levels.

This strategy is translating in an increase in the utilization of maternal/neonatal services that added to the increase in the quality of care will result in the reduction of maternal and neonatal mortality and morbidity.

If the MotherCare strategy is successful and sustainable in Bolivia, there will be a proposal to the MOH to adopt it on a national scale.

III. Project Overview

To increase knowledge among the population, a communication strategy was developed parting from a qualitative study titled "Barriers and Enablers in the Care of Obstetric and Neonatal Complications". To increase the quality and warmth of services, the starting point was a Situation Analysis and a Training Needs Assessment for the development of protocols for care of women and newborns, an obstetric and neonatal procedures manual and a training curriculum for health personnel. The training of doctors, nurses and auxiliaries working in the Project's area of intervention has concluded.

The Study on Maternal and Congenital Syphilis has produced the creation of a National Plan for the Elimination of Syphilis in Bolivia.

A monitoring and evaluation system was developed to ascertain the effectiveness of the strategy, and to carry out a follow up to the Project there is supervision of the IEC/C activities, a continuous evaluation of the performance of the trained personnel. We are also using key indicators to monitor the Project, obtaining periodic reports of them. The evaluation is conducted through a cost study and two interviews, one before and the other at the conclusion of the Project.

Safe motherhood policies received our full support and we supported and promoted the use of the strategy and materials developed by MotherCare in the Strategic and Operative Plans and for drafting municipal and departmental budgets.

IV. Background

Costs

The Mother/Baby Package Study emerges as the project's answer to promote national policies. The goal was to strengthen the capabilities of policy makers, health planners, health providers and in the community, both at a regional and national levels in the MotherCare districts, regarding the management of maternal and neonatal mortality. In the field of costs, the idea was to carry out studies to identify priorities in the urban and periurban sectors.

Elimination of Congenital Syphilis in the Americas

In 1994, the XXIV Pan American Sanitary Conference called for the development of a regional action plan for the elimination of congenital syphilis.

In 1996, MotherCare and CDC Atlanta, proposed a protocol for syphilis assessment in Bolivia. A one-year study took place in seven maternity hospitals in MotherCare Districts.

1997, the study results were the first baseline on the syphilis situation in Bolivia. The World Health Organization, the Pan-American Health Organization, the MOH and MotherCare/Bolivia developed a plan for eliminating congenital syphilis at the national level.

1998, a new government and a new National Strategic Health Program transforms the Plan of Elimination of maternal and congenital syphilis into a sub-program under the Basic Health Insurance that provides free medical care during pregnancy delivery and to children under five years old.

Health Information System

The support to the National Information Health System and the development and validation of an evaluation/monitoring system constitutes one of the activities in this component. MotherCare's activities were directed towards the design of tools, and validation of methodologies for the evaluation and follow up of health programs aimed at mothers and newborns to make them useful and sustainable for the National Health System.

During the first two years, efforts were directed towards the definition of objectives and indicators to measure their achievement; and towards the design of tools to collect, process and analyze the information regarding the existing status in the Project's areas of intervention. A monitoring system was developed, based on a limited number of key indicators to measure coverage and quality of care.

To obtain quality information for monitoring maternal/perinatal programs, we set the strategy of reinforcing the National Health Information System's weak points discovered during the Situation Analysis and Baseline Studies. Tools were designed (books) for the registration, consolidation and quality control of the information. A curriculum was also designed and self-training books for working with these tools. The evaluation of the performance in the training received was done by measuring the results achieved, i.e. increase in the quality of information measured by comparing the registered information with the information handed in to the central level.

Training and Supervision

One of the primary interventions is the "Training Strategy", for the identification and timely referral maternal and perinatal complications by the health personnel at the first and second levels of care.

Parallel to the Training Needs Assessment Study, MotherCare proposed the development of tools and standardization, that in the Pathway to Maternal and Perinatal Survival, support and compliment the health provider in his/her objective of providing proper care to pregnant women and children. The method aims to improve services by preparing health personnel in timely diagnosis, thus improving timely referral and looking to change attitudes regarding care with quality and warmth.

It was important to define the role of health personnel regarding essential obstetric and primary perinatal care at the different levels of attention.

The barriers between the community and health services, as well as how to overcome them, allowed the definition of the objectives and content of the training process.

Anemia

The improvement of the nutrition status of women is a fundamental part of the program, focusing on the control of iron deficiency during the pregnancy and post partum periods. IEC/C materials were developed on anemia and management of iron folate pills. A quantitative study on the prevalence of anemia and risk factors was also conducted in the MotherCare/OMNI districts, having been found, among other things, that anemia mainly affects more than half of pregnant women and that only 1% of these receive the minimum recommended dosage of iron supplement.

MotherCare assistance on this topic consisted in: (1) improvement in the quality of service through training of health and institutional personnel on anemia and interpersonal communication; (2) training of midwives, RPSs and health promoters at a community level in health facilities with adequate material for their level; (3) improvement of the referral of prenatal controls through the use of IEC/C materials by the community health personnel; (4) introduction of higher sensibility and change of attitudes in health providers by sharing information and the implementation of IEC, and (5) introduction of policies to support the initiatives and recommendations presented by MotherCare.

To measure the success of these efforts, the monitoring and evaluation systems in the community were reinforced to obtain the information generated on coverage of women with no access to health facilities. This was achieved by developing the appropriate registration tools, monitoring guides and forms that allow the analysis of information, at a local level for decision making.

Changes will be measured by determining the increase in the number of pregnant women, and women breast feeding, that receive iron supplement, and other indicators like the variation in the percentage of women that receive the minimum recommended dosage of iron folate pills, by an increase in the consumption of these pills and changes in the Hb levels and reduction of anemia prevalence as an impact indicator.

IEC/C

MotherCare showed the importance of developing community based materials and strategies but also showed the need to develop a bigger campaign to not only reach the community, but the whole maternal/neonatal health system. Thus, MotherCare/Bolivia decided to conduct a larger scale project taking into account a very sound and serious methodology which will assist in the development and implementation of a systematic IEC/C Campaign.

Formative research was conducted in all parts of the system. "The Health Services Situational Analysis" as well as the "Training Needs Assessment" helped to determine the type of IEC/C capabilities and level of interpersonal communication and counseling (IPC/C) knowledge in health providers. These studies helped in the development of the Obstetrical and Neonatal Complications Protocol, which became a national norm, and the IPC/C Health Providers Curriculum. Moreover, the "Validity of Obstetrical and Neonatal terms in the Community's Terms", and the "Community and Health Providers Diagnosis: Barriers and Enablers in Obstetrical and Neonatal Care", assisted greatly in the development of questionnaires, tools and guides, and in the development of the Safe Motherhood IEC/C Strategy. All the above mentioned studies helped MotherCare/Bolivia see the need to incorporate two additional components: The Culturally Sensitive Mother/Child - Friendly Health Services Component and the Community Involvement Component.

All the mentioned components were directed to mobilize the whole maternal/neonatal health system, i.e. the community, health providers and decision-makers. It is important to mention that audiences actively participated in the development, validation, and implementation of these components. Their suggestions and recommendations were always considered.

V. Project Strategy and Objectives

Syphilis

Contribute to the planning and development of an intervention strategy to decrease maternal syphilis and prevent congenital syphilis in Bolivia, as one of the more effective strategies for the reduction of perinatal mortality.

Improving quality of STD health services (syphilis early detection and treatment, IEC/C, technical in-service training, field supervision)

Promoting and supporting policy formulation at the national level, and community mobilization

Health Information Systems

The first stage of the process concludes with the 1996 Work Plan where the strategy is determined, the components defined, the objectives set and the input and output indicators of the Project defined.

A detailed list was developed of each of the Project's component's objectives and activities, as well as a selection of the indicators to measure their achievement. This process concludes with

the 1997 Work Plan. With the list as a starting point, evaluation and monitoring systems were developed and the tools to obtain the necessary information, unavailable until then, were designed.

The 1998 Work Plan goes deeper into budgetary aspects and highlights the products to be presented until the closing date of the Project.

Situation Analysis

The Situation Analysis provided the information about all aspects of the Project when it began. Although it did not cover all the facilities implicated, it provided an evaluation of the training received by health personnel, their knowledge and skills, including IEC/C, a study on the availability of services at health facilities, an evaluation of the existing materials and medicines available.

Community Baseline

With the purpose of using the information on the initial situation in the Project's area of intervention a survey form was developed, over 80 surveyors and supervisors were trained, and information was collected from 5 800 homes. The information collected was stored in a data bank. In 1997 the data bank was sorted and the tabulation and analysis of the data initiated. The final review, conclusions, recommendations, publication and presentation of the Baseline was conducted in August 1998.

Even though the preliminary results of the Situation Analysis indicated that women hardly recognized any health complications that they may have experienced, it was decided to maintain the original questions to measure the prevalence of these complications.

A curriculum was developed, learning texts and an evaluation methodology for training: first for the 7 responsables and then for the 76 interviewers and supervisors that collected information in the 5 districts of the study.

Health Facilities Baseline

This is a study based on health facilities aimed at completing and updating the information collected for the Situation Analysis. Information was obtained from 100 of the 118 health facilities, excluding all health posts. The list of health personnel was used to program the training courses conducted by the Project. The classification of all health facilities according to their case management capabilities and the study on their structure and on their work with the NHIS have served as inputs for other Project studies and activities. A simplified version of the information collected in this study has been included in the monitoring system.

Monitoring System

The definition of key indicators to follow up on activities related to maternal/perinatal is the starting point for the monitoring system.

At the end of 1997, the number of indicators is reduced to 9 and the ones to be used at each level of facility are selected. During 1998 4 more indicators are included at the request of USAID. The data gathering tools are adapted to this change. Of the 13 indicators, seven can be obtained from the monthly information generated by the NHIS and six would be obtained through a complimentary report that will eventually be integrated in the National Health Information System. The list of these indicators, classified by source, client and level of use can be seen in the attachments.

Information was collected for establishing indicators from January 1996 until June 1998.

Training and Supervision

Two TOT courses were carried out for trainers, specialists and nurses in second level care facilities in Cochabamba and La Paz; and 12 training courses for doctors, nurses and auxiliaries, public health facility personnel in the Project's intervention areas, in the management of obstetric and perinatal complications.

Two workshops were also carried out about the management of the curriculum. During this period MotherCare signed agreement with the Faculties of Medicine and Nursing at the Universidad Mayor de San Andres in La Paz, and Universidad Mayor de San Simon in Cochabamba to implement the curriculum in the rotational training of interns.

Training Centers

Two training centers were set up in third level facilities, Women's Hospital in La Paz, and German Urquidi Maternity in Cochabamba. These centers are equipped with training areas for practical learning, and audio-visual equipment to practice clinical skills through simulated cases, role playing, dramatizations and other methods.

Training Results

A total of 291 health personnel were trained. Sixty five percent of that total were nursing auxiliaries. Knowledge after training shows an increase in 30%.

IEC/C

This strategy stated: " Strengthen institutional capacity at the national and regional levels to sustain quality maternal and neonatal services and community based IEC/C activities". Furthermore 8 outputs were proposed. The following were the basis of the IEC/C Component: strengthen maternal/neonatal curriculum, strengthen capacity to carry out IEC/C strategies and development of materials in the districts, improve the acceptability of maternal and neonatal health services by increasing the interpersonal and counseling skills of doctors, nurses and nursing auxiliaries, and inform women and families about appropriate self-care practices and danger signs of complications in pregnancy and the appropriate actions to follow. The IEC/C Component followed the methodology mentioned and established the following objectives:

General Objectives

- Develop IEC/C indicators
- Conduct a Community and Health Providers Diagnosis
- Establish supervision, monitoring and evaluation systems
- Participate in regional and national committees and sub-committees
- Strengthen capacity of at least one government and one private sector institution to carry out formative research as well as material development
- Exchange materials with other agencies
- Develop IEC/C Communications and counseling skills component
- Design, develop and conduct IEC/C campaigns: Interactive Educational Materials and Radio Campaign
- Identify and work with a local media production firm to develop an IEC/C campaign in Spanish, Aymara and Quechua

VI. Project Interventions

Costs

a. - Inputs

b. - Outputs

c. - Indicators

| Inputs | Outputs | Indicator |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Use of the National Health Norm for Maternal and Newborn care in the Cost Study. | 35 interviews conducted | Nº of interviews conducted |
| Data processing for the Cost Study with a database developed by the WHO | Information processed from data gathered at 35 health facilities | Quantity of processed information |
| Analysis of the Study was conducted with infrastructure data from the PROISS, price information from UNICEF and WHO for equipment and inputs, as well as. | Information from 35 health facilities analyzed | Nº of health facilities with analyzed information |
| Comments made by MotherCare/Washington and the WHO were considered in the interpretation of the Study | Publication of Cost Study on the Mother/Baby Package | |
| Several economy books consulted before choosing the methodology to conduct the Cost Study. | Selection of the methodology | Advantages and limitations of the methodology used |
| Analysis of the Project's budgets and expenditures from 1995 to 1998. | Assessment of expenditures during the life of the project | Number of budgets used |
| Excel work sheet | Precise knowledge about expenditures per type of activity | Nº of activities carried out |
| Activities were determined by MotherCare/Washington | Detailed expenditures according to the Project's priority activities. Final presentation of a Costs System for the Project | Number of priority activities |

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|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Basic salary sheets for an NGO and for a municipality Work in conjunction with the MC/B team to calculate optimum costs of each activity | Definition of per activity costs for any organization (NGO, Municipality) interested in implementing said activities | No. of municipalities and NGOs that decide to implement these activities |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|

Syphilis

| INPUTS | OUTPUTS | INDICATORS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Establishing the baseline Implement the Syphilis Seroprevalence Study in 7 in 7 Hospitals in Bolivia | Maternal and congenital risk factors and seroprevalence study Bolivia 1996 -1997 MotherCare districts | 4.3% of syphilis in pregnant women 26% of stillbirths from pregnant women with syphilis 15 % congenital syphilis |
| Maternal and congenital Syphilis elimination plan for Bolivia Aply Legal - technical norms elaborated: Document : Plan Nacional para la eliminación de la sífilis materna y congénita en Bolivia | Dissemination and application of norms - MotherCare districts | % of health services that apply the norms and the plan during 1998 and by Nov. 1999 in 18 municipalities. |
| Development - Adaptation of the Syphilis Training Manual - "to the Bolivian situation Prevencción y Control de la Sifilis Materna y Congénita" | Use of manual for training and reference of health providers. Manual Translated, adapted, validated and printed | 2000 manuals printed and distributed |
| Train health providers in case management of maternal and congenital syphilis | Increase knowledge Training of health providers of prenatal health services Improve practices and behaviors in health providers | % of health providers trained 60 % or more at evaluation time. |
| Training in the RPR technique to health providers and to laboratory personnel All laboratories with trained personnel. RPR reagents available. | All laboratories capable to perform RPR with high quality, and giving prompt, precise and valid results. | Number of tests performed % of concordance with reference or quality control lab. |

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Implementation of the elimination plan of maternal and congenital syphilis All pregnant women will have access to prenatal care where 95% of them will be detected for syphilis at the first prenatal visit.</p> <p>All the seropositive pregnant women treated</p> <p>All infants from seropositive mothers treated for congenital syphilis</p> <p>All sexual partners of seropositive women with counseling and treatment</p> | <p>Implementation of the National plan in health services of MotherCare districts</p> <p>Continuous RPR testing to all pregnant women at first prenatal control.</p> <p>Treatment available for pregnant women, newborns and sexual partners.</p> <p>Effective use of counseling materials in health services</p> | <p>% of women with syphilis tests during their prenatal controls</p> <p>% of pregnant women who test positive and have received treatment for syphilis</p> <p>Number of all patients with syphilis detected in health facilities</p> <p>% of all patients who received treatment</p> <p>% of detected newborns that receive treatment</p> <p>% of treated newborns that receive the complete treatment</p> <p>% of detected syphilis patients whose spouse or partners were treated</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Health Information System

| INPUTS | OUTPUTS | INDICATORS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Analysis of the different Project components, reviews of the general and specific objectives and identification of the process and result indicators</p> | <p>General and specific objectives and process and result indicators of the different Project components</p> | <p>General and specific objectives of the Project's different components defined in measurable way and process and result indicators selected</p> |
| <p>Design of the community Baseline Study, of the data collection tools, of the curriculum, texts and training of the data collection personnel. Fieldwork, review and data entry; analysis of the information; editing and presentation of the final report</p> | <p>Protocol for the Baseline Study, questionnaire. 80 interviewers/supervisors trained, 6,026 completed interviews. Clean data on 2,198 women (complications and utilization of services), 2,345 men and women (knowledge) 175 blood samples</p> | <p>Final report on the Community Baseline presented and published</p> |
| <p>Design of the Health Facility Baseline Study, of the data collection tools, of the curriculum, texts and training of the data collection personnel. Fieldwork, review and data entry; analysis of the information; editing and presentation of the final report</p> | <p>Protocol for the Health Facility Baseline Study, questionnaire. 100 health facilities studied out of 117. Tabulation of the data obtained from the 100 facilities</p> | <p>Final report on the Community Baseline presented</p> |

| INPUTS | OUTPUTS | INDICATORS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Selection of key indicators for monitoring the Project, design of forms and instructions for collecting information, organization of a computer databank to monitor the Project, collection of data in the Project's area of intervention and of the control district, review and entry of the collected data, analysis of the information, editing of the final report with information detailed per municipality | 13 indicators selected (9 MotherCare and 4 USAID), model of the Extra Quarterly Report on Maternal and Perinatal Health. Computer program for monitoring the Project. Data collected from Jan. 1996 until Jun. 1998 in 154 health facilities. Information from the 108 health facilities checked and entered in the databank. Information tabulated and analyzed on 18 municipalities (Municipal Bulletins) | Indicators selected and data collection tools and computer program designed. % of health facilities for which there is total information for monitoring (Jan. 1996 - Jun. 1998). 100% of data checked and entered in the databank. 100% of municipalities with monitoring reports |
| Design for a methodology for quality control of the information generated by the NHIS, organization of a computer databank for quality control, data collection for quality control of the information at the health facilities in the Project's area of intervention and at one control district, analysis of the information, editing of the final report with municipal detail | Methodology for quality control of the information, computer program for quality control of the NHIS information. Data collected from Jan. 1996 until Jun. 1997 in 108 health facilities. Information from the 108 health facilities checked and entered in the databank. Information tabulated and analyzed on 18 municipalities (Municipal Bulletins) | Methodology, data collection tools and computer program designed. % of health facilities with information of the quality of the NHIS reports (Jan. '96 - Jun. '97). % of data checked and entered in the databank. 100 % of municipalities with reports on the quality control of the NHIS reports |
| Diagnosis on the structure and working of the NHIS. Design of seven books for data registry and processing. Distribution of the books to the facilities in the Project's area of intervention and control district. | List of deficiencies in the NHIS. Seven registry books designed. 154 health facilities in the area of intervention and in the control district that have and use the registry books. | Diagnosis on the structure and working of the NHIS has been conducted. 100% of registry books have been designed. 100% of the facilities have and use the registry books. |
| Design of a curriculum for training in data registry. Design and editing of self-training guides for data registry. Design of an evaluation system. Initial evaluation of all the personnel in the Project's area of intervention and in the control district. Distribution of the self-training guides to all the personnel in the Project's area of intervention and control district | Training curriculum for data registry. Self-training guides for data registry. Evaluation system. 250 health providers have conducted the initial evaluation. 250 health providers have the Guide for data registry | Training curriculum, self-training guides for data registry and evaluation system designed. 100% of health providers have conducted the initial evaluation. 100% of health providers have the Guide for data registry. |
| Graphic design of the bulletin. Writing and edition of the articles for the first issue of the bulletin. Distribution of the first issue of the bulletin to municipalities, prefectures, health authorities, NGOs and others in the Project's area of intervention | Outline of the bulletin. First issue of the bulletin. 2,000 issues of the Municipal Bulletin distributed. | Graphic design of the bulletin completed and first issues printed. 100% of distribution list that has the bulletin |

Training and Supervision

Process Results

| INPUTS | OUTPUTS | INDICATORS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Courses to be conducted on obstetric and perinatal complications | 2 TOT courses conducted. | TOT courses carried out |
| University medicine academic department members from La Paz and CBBA invited to participate Health personnel of the 5 districts in Cochabamba y 2 districts in La Paz to be trained | 12 training courses conducted on maternal and perinatal complications. | Courses carried out for health providers |
| Proposal for development of protocols for care of maternal and perinatal complications; procedure manuals and training curriculum | Trainers trained for training in the management of obstetric and perinatal complications 291 health providers trained (doctors, nurses and auxiliaries) | Trainers trained according to the manuals and care procedures Providers trained according to manuals and care procedures |
| Proposal for the implementation of training Centers at third level facilities in LP and CBBA. | Norma Boliviana de Salud NB-SNS-02-96 Volume 1. and Manuals printed 1000 Manuals printed 1000 Books Printed 2 Training centers created and implemented at third level hospitals (Women's Hospital in LP, and Germán Urquidi Maternity Hospital in CBBA) | Protocols developed for care of obstetric and perinatal complications in the 1° and 2° levels of care Procedures Manual developed for essential obstetric care Training curriculum developed for trainers and health providers Organization of 2 regional training centers |

| INPUTS | OUTPUTS | INDICATORS |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 101 persons supervised in the management of obstetric and perinatal complications | <p>15 % that practice more than 80 % of clinical procedures 72 % that practice between 60 and 80 % of clinical procedures 13 % that practice less than 60 % of clinical procedures</p> <p>Of a total of 96 health facilities, 33 (34 %) were supervised. Of those, 21 (64 %) treat maternal complications according to the norm and 12 facilities (36 %) don't comply with all the norms for treatment.</p> <p>Out of 16 cases of neonatal complications, 9 corresponded to the death of the fetus Hence, the indicator does not apply. Of the remaining 7, 5 were treated according to the norm and in 2 the norm wasn't applied.</p> <p>96 facilities were organized in 13 networks of maternal and perinatal care around 4 district hospitals with surgical capabilities. 100 % of them comply with 5 of the 8 essential obstetric care activities. 61 % have the anesthesia and neonatal care capabilities (0%) have transfusion capabilities.</p> <p>None</p> | <p>% of trained personnel that apply the procedures learned during training</p> <p>% of maternal complications treated according to the protocols</p> <p>% of neonatal complications treated according to the protocols</p> <p>% of health facilities that provide essential obstetric care</p> <p>% of health facilities that have the capability and provide care with all the necessary supplies for the management of obstetric and perinatal complications according to the protocols and established procedures</p> |

Anemia

| INPUTS | OUTPUTS | INDICATORS |
|------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No. of health personnel that require reinforced knowledge about anemia | 100 health workers re-trained on anemia | <p>90 % of health personnel trained on anemia 50 % of the trained personnel that practice adequate counseling on anemia and the use of iron pills. 32 % of pregnant women that indicate having received some iron pills at health facilities. 13 % of pregnant women that indicate having received 90 iron pills at health facilities. 80 % of pregnant women that indicate having taken all the iron pills they received (30, 60, 90) 11 % of pregnant women that indicate having taken the complete dose of 90 pills. 95 % of health facilities that keep updated registers on iron supplementation. 100 % of health facilities that send monthly reports on supplementation with iron pills</p> |

| INPUTS | OUTPUTS | INDICATORS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No. of health promoters that require training on anemia and management of iron pills to cover 45% of pregnant women that have no access to health facilities | 200 community health promoters trained on anemia during pregnancy and management of iron pills | 35 % of existing health promoters trained (by districts) 15 % of health promoters that practice adequate counseling on anemia and distribute iron pills to pregnant women. 5 % of pregnant women that indicate having received some iron pills (30, 60, 90) from the community health promoters. 4 % of pregnant women that indicate having taken 30, 60 or 90 iron pills received from health promoters. 5 % of health promoters that hand out the monitoring manual on a monthly basis to health facilities. |
| Promotion of policies necessary to improve the current coverage of supplementation with iron pills. | Recommendations to improve coverage of supplementation with iron pills Give continuity and extend the impact of the actions conducted by MC by strengthening institutional capabilities | 65 % of health facilities of the Project's area of intervention that practice the recommendations and implemented pilot strategies in the health districts (distribution of 90 pills without the need for the client to assist to 3 prenatal controls at health facilities, and distribution of iron pills on by the community personnel to women that do not assist to prenatal control) 97 % the health facilities that have on hand, at any given time, enough iron pills to cover their target population for another month. Average No. of breaks in the supply of iron pills (1 break) No. of documents created within the Project and presented to the MOH (3 documents) No. of documents accepted and ratified by the MOH (1 document) No. of documents distributed by the MOH.(none) No. of activities conducted in conjunction with other organizations (4 activities with OMNI) No. of activities conducted in conjunction with other organizations, with shared costs (4 with OMNI) |
| INPUTS | OUTPUTS | INDICATORS |
| No. of IEC/C materials necessary to improve the demand of iron pills in the community and to create consciousness in the health personnel | Development of IEC materials for community and institutional health personnel | 95 % of health facilities in the Project's area of intervention that adequately display the anemia poster directed to health personnel 15 % of pregnant women that indicate having received adequate counseling on anemia and iron pills. 70 % of health personnel that can repeat the central message of the poster 35 % of health promoters in the community that have received the IEC materials (manual, diagrams, poster, calendars) 15 % of health promoters that practice adequate counseling on anemia and on how to take the iron pills 10 % of pregnant women that have seen the counseling diagrams 99 % of pregnant women that have received the calendar and know how to use it 40 % of pregnant women that know how to properly use the calendar 75 % of pregnant women visited by health promoters that can mention 1 important reason for taking the iron pills |

IEC/C

| INPUT | OUTPUT | INDICATOR |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FOR THE COMMUNITY | FOR THE COMMUNITY | FOR THE COMMUNITY |
| <ul style="list-style-type: none"> - According to formative research, the community, i.e. pregnant women, husbands/partners, their mothers, and mothers-in-law have low recognition of obstetrical and neonatal complications | <ul style="list-style-type: none"> - Community, i.e. pregnant women, husbands/partners, their mothers, and mothers-in-law that are in the 5 MotherCare health districts increment their recognition of obstetrical and neonatal complications | <p>Percentage or number of pregnant women/women's husbands/partners that can cite/identify signs of hemorrhage, pre-eclampsia, eclampsia, mal presentation, puerperal sepsis, premature/low birth, respiratory infections, eye and umbilical chord infections in a new born</p> |
| <ul style="list-style-type: none"> - Formative research demonstrated that majority of community members know where health services are. However, the majority mentioned that they did not have an access plan to reach those services on time and felt discriminated against for being from other culture. Finally, felt badly treated. | <ul style="list-style-type: none"> - Community members have an Obstetrical and Neonatal Emergency Access Plan to go to health services - Health Services improve quality of care - Health Services become more culturally sensitive | <p>% Of women/men that know the health facilities available per 100 women/men of reproductive age; that access health services for antenatal, delivery and post partum care</p> <p>% Of pregnant women and husbands/partners who showed or mentioned to have an Access Plan in case of obstetrical/neonatal complication</p> |
| <ul style="list-style-type: none"> - Community members/husbands indicate that pregnant women decide what to do in case of a complication during pregnancy, delivery, immediate post-partum and newborn. However, husbands indicate that even though the decision lies in their hands they consult the community members | <ul style="list-style-type: none"> - Pregnant Women and Husbands decide to go to health services IMMEDIATELY when an obstetrical and neonatal complication arises. | <p>Percentage of pregnant women /women and their husbands/partners that decide and demonstrate the intention to go to a Health Service immediately when a obstetrical or neonatal complication arises</p> |
| <ul style="list-style-type: none"> - Community members indicate that they do not feel well treated at the health services. They also indicate that health services are not culturally sensitive | <p>Health Services improved quality of care and incorporate 5 community delivery practices to become more culturally sensitive</p> | <p>Percentage of pregnant women satisfied with health services care and the level of communication with the provider, that reported that health services incorporated the following 5 community delivery practices: privacy, presence of husbands/companion in delivery, keep women warm, select delivery position (squatting) and placenta return, that received counseling during pregnancy, /delivery/post partum or newborn period per 100 pregnant women who received care</p> <p>Percentage of women/husbands that will have their next baby in the health service, that will recommend the health service to other pregnant women</p> |

| INPUT | OUTPUT | INDICATOR |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>FOR THE COMMUNITY</p> <p>- Community members and Health providers indicate that do not count with safe motherhood educational material</p> | <p>FOR THE COMMUNITY</p> <p>- Interactive Educational material as well as a radio campaign developed, pre-tested, distributed, monitored and evaluated for community members, health providers and decision makers</p> | <p>FOR THE COMMUNITY</p> <p>Percentage of Pregnant women that received the Access Plan and the Rights flyer, that show the rights posters, the list of questions flyer, antenatal care sign, IPPC poster, flipchart per 100 pregnant women that received care</p> <p>Percentage of pregnant women/women's husbands/partners that heard the radio soap opera/ radio series per 100 men in reproductive age</p> <p>Percentage of community members interviewed that indicate that they have the educational material per 100 community members interviewed</p> |
| <p>FOR HEALTH PROVIDERS</p> | <p>FOR HEALTH PROVIDERS</p> | <p>FOR HEALTH PROVIDERS</p> |
| <p>Health Services do not provider culturally sensitive or quality of care services</p> | <ul style="list-style-type: none"> - 30 Health Services Equipped to implement the "Culturally Sensitive Mother/Child Friendly Health Care". - Health providers of 113 Health Services trained on how to be more culturally sensitive and mother/child friendly - 5 community practices adopted by health services: presence of husband/partner in delivery, presence of TBA/companion in delivery, keep women warm at all times, tell women she can delivery in squatting position (select delivery position), return placenta and privacy. | <p>Percentage of health facilities that adopted 5 community's delivery practices per 100 MC's health facilities</p> |
| <p>- Health providers' attitude towards IPCC is that it is not necessary and it takes time</p> | <ul style="list-style-type: none"> - 24 health providers trained as IPC/C trainers (TOT) -291 health providers trained in IPCC skills in La Paz and Cochabamba 1 refresher course conducted to trainers 50% of health providers visited for "training supervision" IPC/C Curriculum developed for Health providers. IPC/C Curriculum developed for Nurse Auxiliaries (ETS) | <p>Percentage of health providers who apply IPC/C skills (according to the protocol and training) per 100 health providers</p> |

| INPUT | OUTPUT | INDICATOR |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FOR HEALTH PROVIDERS | FOR HEALTH PROVIDERS | FOR HEALTH PROVIDERS |
| Health services are perceived as being able to solve health problems. In addition, they are perceived as rude, cold, discriminative, disrespectful of community's customs and culture. | - Health services provide quality health care by being more sensitive to community's culture and customs and by applying IPC/C skills. | <p>Percentage of health providers trained in IPC/C who achieve 60% or more points in their final evaluation, that apply the IPC/C skills learned, providers that explain procedures to pregnant women per 100 trained providers</p> <p>Percentage of MC health services that are Culturally Sensitive and Mother/Child Friendly services per 100 health services</p> |
| - Safe Motherhood Educational Material and Radio Campaign in-existent at health services | <ul style="list-style-type: none"> - 12 Interactive Educational Material developed, pretested, distributed. - Radio Campaign developed, distributed and disseminated (5 publicity spots, 1 song, 1 radio soap opera summary, 20 husband's spots, 60 radio soap opera "A Destiny's Diary" episodes) - Campaign developed and implemented for community members, health providers and decision-makers at 5 MC health districts. - Audience Study Conducted - Impact Evaluation conducted. - All materials were developed with the community as well as with the health providers. Focus groups and in-depth interviews were conducted. | Percentage of health facility that displayed the four posters, that display the flipchart in the antenatal care office per 100 health facilities |

COMMUNITY INVOLVEMENT COMPONENT

| INPUT | OUTPUT | INDICATOR |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> - Community does not have a plan to reduce maternal and neonatal mortality. - Community does not have an Emergency Access Plan to Health Services when obstetrical and neonatal complications arise | <ul style="list-style-type: none"> - 4 interns trained in safe motherhood strategy - 4 communities contacted to implement community mobilization strategy (2 urban and 2 rural) - 14 sessions on safe motherhood implemented per community - 4 local Safe Motherhood Committees established - 8 community people trained as facilitators - 4 IEC/C Strategy materials and radio delivered | <ul style="list-style-type: none"> % Of interns trained in using the MC-IEC/ C Safe Motherhood Strategy per 4 interns % Of rural and peri-urban communities contacted per 4 rural and peri-urban communities % Of safe motherhood community committees established per 4 committees % Of communities facilitators trained per 8 facilitators % Of facilitators that participate in safe motherhood workshops per 112 workshops provided % Of safe motherhood working groups formed (mothers/husbands) per 8 groups % Of radio campaign aired in workshops per 112 meetings |

VII. Lessons Learned

Costs

1. The importance of incorporating a Costs Department in health projects lies in the possibility that these have to better and more efficiently assign resources according to priorities and budget.
2. Health projects are just recently incorporating economic logic in their work. One of the objectives of this incorporation is to have on hand more tools for decision making, specifically regarding which activities can be carried out and to know their impact according to the money invested. In the case of Bolivia, the cost study on the Mother/Baby Package conducted by MotherCare served to demonstrate how to incorporate economic theory in the health sector. This study also served as a political tool for decision making, and to provide information to the MOH on costs per intervention within a maternal/neonatal health package. Since this work coincided with the health reform implemented by the Bolivian Government, the MOH used the methodology developed in the study to get new cost estimates for the National Mother/Child Insurance.
3. The development of a cost system for MotherCare implies having control over the budget that may serve as a tool for defining objectives, demand results and set policies. Decisions previously taken on instinct may now be based on objective facts, accounting history, on the study of critical routes that allow to decide on the shortest and most efficient course to follow for any project.
4. On the pathway to maternal and perinatal survival the results regarding costs will influence the decision to seek care and on the people's access to proper medical care. Knowing the cost of a specific service or whether it's free of charge will have bearing on the decision to go or not to a health facility as well as in the people's access, since the clients have to spend not only in direct costs for care, but also in indirect costs like transport to the facility.

Syphilis in women with live births Significant Risk Factors

1. Development of a national strategy for prevention, control and treatment of congenital syphilis including:
 - The development of national guidelines**
 - A national training plan focusing RPR for diagnosis, adequate treatment, monitoring and evaluation**
2. Congenital syphilis is a serious but preventable condition which could be eliminated in Bolivia by utilizing existing health services under the "Mother and Child - Basic Health Insurance" strategy

What is needed

- a) Increase access to prenatal care
- b) RPR in ANC first visit
- c) Screening counseling and treatment

To have an impact on

- a) Cure 11,180 women - treat partners/year
- b) Reduce 8,218 poor pregnancy outcomes/year
3. To implement a decentralized maternal/congenital syphilis control program requires identification and commitment of health decision-makers and health providers. This is very difficult to reach when there are different public health and personal priorities.
4. Syphilis is a condition considered, so far, not as a priority for the public health sector compared with Malaria or Chagas disease.
5. The best advocacy strategies must be in place.
6. It is essential that government health officials are charged with the responsibility of directing the syphilis prevention and control program
7. It is important to have the participation and support of other agencies / organizations involved with Mother and Child programs, STD/HIV prevention.

Health Information System

1. The definition of objectives and indicator for the Project has been of great use in the development of tools for gathering and consolidating information.
2. The Situation Analysis should have been more extensive, covering all the facilities under the Project's area of intervention, and should have focused on the following aspects:
 - a) Data on all the active personnel, using the official NHIS form
 - b) Provision of supplies (work areas, furniture, supplies, inputs, medicines) and functioning services and programs: in the definition of Essential Obstetric Care according to Bolivian needs and the categorization of health facilities based on that criterion.
 - c) An evaluation on the structure and performance of IEC/C, the Information and Supply Systems.
 - d) An initial evaluation of performance regarding prenatal controls, delivery and management of maternal and perinatal complications.

Thus, the study would have been able to consider globally all the initial evaluations of all components based in health facilities. The monitoring/supervision systems will update some of the information collected in the initial study.

3. Delays in the conclusion of the Validation Study hampered the achievement of its main goal, which was to serve as a base for the design of the Baseline Study form. In this study it was concluded that the information provided by mothers isn't useful to measure the prevalence of obstetric complications (hemorrhaging, distocia and infection), except for eclampsia. A great number of questions could have been eliminated from the interview form, thus resulting in a simplification of the Community Baseline Study. The Validation Study should have provided the guidelines for the development of tools that measure the prevalence of these complications in Bolivia.
- 4 The study on Barriers and Enablers in the Care of Obstetric and Neonatal Complications as well as the study on Validation of Obstetric and Perinatal Complications have been of great use in the design of the interview form for the Community Baseline Study.

5. The Community Baseline will be simpler in all aspects:
 - a) The interview form will contain only the necessary questions to acquire enough information for calculating the initial values of the Project's indicators based on the community
 - b) While there are no measuring tools more trustworthy available, the prevalence of complications will no longer be measured through questions. The questionnaire will be reduced to the questions that have proved their usefulness and that measure the Project's objectives.
 - c) The sample will be taken at a municipal level, calculating the size of the sample based on the results obtained in this first study. For the selection of sample units Census information and updated maps must be used. Currently, the Bolivian Government is making efforts to standardize and update population data at a municipal level.
 - d) Computer programs for storing, filtering and tabulating information and obtaining indicators will be available at each municipality before the start of the fieldwork
 - e) Each municipality will provide the personnel, logistics, and supervision of the fieldwork and data entry. The project will be in charge of the training/evaluation of the municipal interview teams and of the quality control of the gathering of information and data entry.
 - f) Municipal teams will be formed to conduct the interviews every five years or for the start of a project that influences the objectives proposed by MotherCare.
 - g) Information will be disseminated through municipal bulletins
6. The specialization acquired by the monitoring/supervision System has resulted in that each of the Project's components has developed its own tools. Some are in the developing stage, others in the implementation and validation stages of all tools, as well as in the development of a guide to standardize and consolidate the system.

Instruments and procedures have been developed, used and validated for over two years for monitoring key indicators for maternal/perinatal health. We aimed for the majority of necessary information come from the NHIS periodic reports (available in a computer data bank accessible through the internet).

At the time of writing this report (end of August 1998), a process of discussion and consensus is beginning to standardize the information to be collected and the tools that will be used by the main entities in the health sector at a national level. We wish this information to be included in the NHIS reports.

7. Conscious of the fact that the tools and procedures for training and that the processing and use of the information will become official, we dedicated a great effort to reach a consensus regarding the information to be collected and used. The result of this process has been the adaptations made to these instruments and the delays in their implementation. Even with the repercussions of these setbacks, we consider a priority to reach a consensus over the tools to make them official and avoid the development of parallel information systems.

Training and Supervision

1. Low rate of permanency of the trained personnel at their posts (unpaid personnel, temporary province doctors, other factors). Approximately 60 % of the personnel trained in the services. Forty seven percent of the supervised personnel are not trained.
2. There is an increasing commitment, on the part of the regional authorities, towards the training activities. In the beginning there was resistance, on the part of the personnel and MOH, to assist to the courses since it meant leaving the health posts and/or for lack of replacement during their absence. The regional units decided to send personnel from other districts as part of their strategy, this prompted an adjustment between what was programmed and what was actually carried out.
3. There is a mass grouping of the personnel being trained at maternity hospitals. This has a negative effect on the achievement of the practical objectives of the training.
4. There was general acceptance of the training curriculum on the part of health providers at all levels of care.
5. Though the evaluation system for the training has the necessary instruments for its development, it has no computer completed computer program for an evaluation of the trainer. The evaluation of the trainee is basic.
6. There is a commitment for continued support, on the part of universities, to the training during under-graduate studies, with the backing of the faculty as a strategy for the sustainability of the training. With this initiative MotherCare has reinforced the support of the academic department. This has no bearing on auxiliaries, that don't receive their training at universities, or on the permanent personnel, that requires recycling.
7. There is the need to improve and modify the content of the norms for care, check lists and others, to make them comprehensible for the personnel with low academic formation
8. There is a preliminary design for 13 networks of maternal and perinatal care that would carry out essential obstetric care, and would count with logistics for referral and counter-referral of patients. Of these, none has transfusion service Sixty one percent (eight), have anesthetic service and essential neonatal care. Thirteen comply with the remaining 7 essential obstetric care services.

9. There is no network of equipment and input supplies, essential for obstetric and perinatal services.
10. There is no regular monitoring and supervision procedure incorporated to the network of services, which makes it necessary to transfer this technology, developed by MotherCare, to the districts, modifying it to the technical capabilities and to the availability of technical and economic resources.
11. Planning and programming services is based on the coverage goals that do not correspond to the demand and have no regular IEC services. This makes it necessary to develop mechanisms that include specific tasks to promote their demand.
12. There is a need to develop complimentary manuals to the normative process: vademecum for care and a supervision manual.

Anemia

1. It's very important to keep working at the community level to increase the demand of iron folate pill, since the current level of knowledge and information on the subject is very low as is the number of women with access to health facilities.
2. It is evident that the only logistical problem lies in the low availability of iron folate pills at the central level that covered only 30% of the target population. However, that amount covers 100% of the current demand.
3. When the demand for iron folate pills increases at the local, district and regional levels, the central level will be forced to increase the amount of pills it's been handling in the last two years by twofold or threefold. To this end, we recommend that the aid committed by national and international organizations be made effective with due anticipation.
4. It is evident that to improve the current supplementation coverage of iron folate pills, one must implement IEC/C activities at the community level, thus increasing demand for the pills, plus there must be a sustained supervision so that achievements thus far do not regress.
5. The existing barriers and enablers in the reception and consumption of iron folate pills are well known.

IEC/C

1. Conduct sound formative research with all parts of the maternal-neonatal health system. MotherCare Bolivia conducted formative research with community members, ie. pregnant women, women in reproductive age, pregnant women and women in reproductive age husbands/partners, TBAs, Community Health Volunteers, and key informants. It also conducted formative research on health providers, ie. physicians, nurses and nurse auxiliaries as well as administrators. It finally, interviewed decision makers such districts health directors and mayors.
2. Follow a sound methodology. The IEC/C Component of MotherCare-Bolivia used the following methodology:
 - Formative research
 - Actual, Ideal and Feasible Knowledge, Attitudes and Behaviors Analysis

- Sub-contracted with agencies to conduct formative research and IEC/C Strategy Designed and Production
- Trained agencies on Health Communication Methodology
- Closely supervision and participation on formative research and estrategy designed
- Take into account system's education, culture and customs
- Develop a feasible IEC/C Strategy
- Pre-test with all parts of the mentioned system the different educational materials as well as the radio campaign
- Supervise Production
- Establish distribution strategies
- Launched the IEC/C Strategy with authorities such as the First Lady as well as the Ministry of Health
- Trained Health Providers in using the IEC/C Strategy
- Supervise IEC/C Strategy implementation
- Monitor IEC/C Strategy implementation
- Evaluation the Impact of the IEC/C Strategy

Interpersonal Communication and Counseling Skills Curriculum and Training

- Conduct formative research (focus groups and in-depth interviews) with nurse auxiliaries, nurses as well as physician to determine how are their interpersonal relationships, how much do they know about IPCC.
- Develop curriculum base on their needs and knowledge level
- Base training course on the principles of "Adult Education"
- Involve health providers in the development of the curriculum and training methodology
- Validate curriculum and training with health providers
- Conduct "evaluation meetings" to better curriculum and training course
- Collect data on trainees theoretical and practical "hands-on" knowledge.
- Supervise activities constantly during training course
- Visit health services to conduct "training supervision" every three months
- Evaluate

The training on gender and sexuality yielded great interest and benefit to the health providers. It should continue to be part of the curriculum.

Culturally Sensitive Mother/Child Friendly Health Facilities

- Conduct formative research
- Ask Community how could a health service become more culturally sensitive and friendly to them
- Ask health providers/services what aspects of the community's culture and customs were they be willing to incorporate and adopt
- Train health providers in using the chosen community customs as well as Interpersonal Communication and Counseling Skills (IPCC)
- Inform community that health services are adopting x or y community customs and are bettering quality of care
- Provide constant "training supervision" to health providers to adopt customs and implement IPCC skills
- Monitor activities to determine the level of implementation of these activities
- Evaluate

Safe Motherhood Community Involvement Component

- Choose communities that have shown to have had more obstetrical and neonatal complication, so that there is an intrinsic concern about the issue
- Train Community involvement facilitators
- Visit community formal and informal authorities
- Present the component to leaders

- Ask for their permission
- Coordinate activities with them
- Ask who will be your community facilitator
- Invite participants through key informants
- Visit the community at least 5 times before starting activities
- Show interest by being punctual and going when you said you will go
- If activities are taking sometime to get started do not get discouraged
- Ask the community what are the best ways to involve that particular community in Safe Motherhood efforts
- Remember the community itself will teach you what you need to accomplish activities ask them how this can happen and modify your protocol accordingly
- Take into account community's meetings, festivals, holidays
- Community mobilization takes time
- Community mobilization only happens if programmers follow the community at its own rhythm.

VIII. Recommendations for Scaling up and additional Research

Costs

The implementation of the Mother/Baby Package in Bolivia has been a very important tool to demonstrate that the National Mother/Child Insurance reimbursement rates are not enough to cover the interventions' variable costs. Hence, the Ministry of Health requested a study to modify the reimbursement rates using the methodology developed by MotherCare, the WHO and PHR.

In this context, during the month of August, MotherCare and a team of consultants will present to the MHO the study conducted in 11 model municipalities selected by this ministry. Thus, the study achieved its objective of becoming a political tool by being used by the Government for decision making.

During the MotherCare/Egypt visit the MC/Bolivia team presented them with the possibility of conducting a similar study in Egypt.

Syphilis

In support/ coordination of the National STD / HIV National Program:

1. Organize the reagents/medicines supply system to the health services
2. Train all prenatal care providers
3. Organize a quality assurance program
4. Organize a surveillance system to ensure accurate program monitoring and evaluation
5. Organize a sustainable medical – clinical management and supervisory system.

SIS

1. Design a simplified interview form and a method for evaluating the results of maternal/perinatal health programs at a municipal level. Integrate municipal teams to periodically conduct these studies.
2. A discussion process has begun, with the participation of the NHIS and the main organizations of the health sector in Bolivia (USAID, PSF, PROISS, 00CCH), to define the indicators and the information to be used at a national level in a uniform and official way. The indicators have already been selected and the registry books have been accordingly modified. The registry guides will have to be modified to the new information demands, as will the data processing, the monitoring and supervision tools, and the quality control of the information.
3. Standardization of tools and methodology for monitoring/supervision of the mother/child section of the uniformed guide, structured in a manner that facilitates its modification according to the changing informational needs
4. Deeper focus on the methodology and tools for training the health personnel in recording and processing information and on the quality control and use of that data. After modifying the available tools to the new demands, the following instruments should be developed and validated:
 - a) Validation of the theoretical tests of the data registration Guide
 - b) Evaluation and review of the existing self-training books.
 - c) Design, implementation and validation of the self-training books and tests on the guides for data processing and for the quality control and use of the information
5. The methodology for use of the information at all levels of the health system is still in the planning stage. It must be developed according to the changing informational needs.

Anemia

1. Training constitutes a rather long process, and due to the limited experience of the RPSs and health promoters in the management of anemia, the need to lend additional support, in the form of new training sessions and continuous modification, has been established. This can be achieved through training/supervisory visits through 1998 and part of 1999. Furthermore, there is the need for continued support in the form of informative and communication activities aimed at the community to increase the demand for these services. Even though the supplementation coverage has increased since the implementation of the community strategy for distribution of inputs (iron pills and interactive educational materials), the challenge remains to cover at least 80% of pregnant women with 90 pills before the year 2,000.
2. There must also be another a new run of copies of the EC materials to cover the other UDES districts in La Paz and Cochabamba, as well as to cover the requests made by several NGOs. In this sense, at least 3,000 new posters and 2,000 sets of diagrams and manuals must be printed. Also, another 20,000 commemorative calendars must be printed to cover our districts for another year.
3. The Monitoring and Supervision Plan must be implemented during 1998 and 1999 to strengthen the technical capabilities of the community based health personnel in the Project's area of intervention, and to make sure that at least 90% of pregnant women receive the adequate iron supplementation and effective counseling.

4. The supplementation coverage with iron folate pills and folic acid must be evaluated in each of the districts starting on the first trimester of 1999 to be able to make adjustments to the strategy if any are necessary.
5. The impact of the implementation of the pilot Program must be evaluated by determining the anemia prevalence and hemoglobin distribution before the year 2,000, along with the final evaluation of the MotherCare Project.
6. Conduct necessary operative investigations to guarantee the availability of inputs (iron folate pills and folic acid or other supplement approved by the MOH) through an interview on the Iron Distribution System in the Project's area of intervention and also at the Regional and National levels.
7. Conduct operative investigations to determine compliance in the consumption of iron pills and folic acid, fundamentally on the part of pregnant women.
8. The focus implemented in pilot form to improve the distribution coverage and consumption of iron pills and folic acid by pregnant women and women breastfeeding in the health districts backed by MotherCare, is expected to serve as a model for other health districts in Bolivia.
9. MotherCare is monitoring and evaluating the implementation and effect of the interventions being undertaken with the MOH at a Regional and District level. Part of this monitoring includes the modification of the number of iron folate tablets deliver to pregnant women and post partum women.

While these registers will serve as the main data collection instruments to monitor and evaluate the overall Program, special tools have also been developed to ensure that the intervention is well implemented, e.g. clinical and counseling skills are retained following training, radio or IEC messages are heard by the target audience, needed supplies are adequate, and community level knowledge about birthing practices are improved. These tools include a checklist, exit interviews to pregnant women and also community based surveys.

10. MotherCare is supporting the MOH's effort to improve Management and coverage of iron supplementation, by the dissemination of the results of the Supply Study. The study identified some bottlenecks of the distribution chain of iron supplements at a National level and also has established the amount of iron - folate tablets availability at a National level.

Also MotherCare is developing adequate tools for Information collection to monitored and evaluate the implementation of the new approach to deliver iron pills at the local level.

IEC/C

- Continue more aggressively with IEC/C Safe Motherhood Strategies through Mass Media Communication and add these activities at the Community Level. Thus, involving the community into their own active participation towards the reduction of maternal/neonatal mortality.
- Continue training and supervision on IPPC skills with health providers
- Provide technical Assistance, TOT and supervision to Pre-service
- It seems that those health services that were equipped to be culturally sensitive were perceived as providing better quality care. Therefore, an effort should be made to assist other services in implementing the culturally sensitive mother/child friendly services.
- Determine a system to accredit Mother/Child Friendly Health Services
- Community Involvement efforts that use the IEC/C Strategy should be scaled-up.
- Safe Motherhood Committees should be established at a local level
- Training should be provided to health providers that will start they community-service year

- The whole IEC/C Strategy should be taught to the social communicators at the national and regional health system level.
- Teach health officials planning and programming methodologies
- Establish as sound supervision, training supervision, and monitoring strategy
- Demonstrate the importance of mid-term and final evaluation for future programming
- Incorporate the gender and sexuality component into the curriculum
- Incorporate the "Andean Health System and Cosmvision" into the curriculum as health providers should be aware of these health systems as well as the occidental one.
- Identify community members who will like to volunteer as educators at the health services. The suggestion is to lower health providers work-load by having community members talk about breast-feeding, family planning, STD prevention, and iron folate intake.
- Research activities will be suggested after the final evaluation is concluded.