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**Bolivia**

**Cochabamba Reproductive Health Project**

## FINAL PROJECT REPORT

**Title:** Cochabamba Reproductive Health Project

**Location:** Cochabamba, Bolivia

**Duration:** December 1991 -- September 1993

**In-Country Budget:** \$ 1,397,968

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## Objectives:

1. At the level of the woman and her family, to increase the awareness and utilization of all reproductive health services and to increase the practice of other positive maternal and neonatal health behaviors.
2. At the level of the health services, to increase the availability of family planning information and services as an integral part of comprehensive maternal health care and to improve the quality and coverage of prenatal, postnatal and delivery care provided to women at community, clinic and referral levels.
3. At the planning and policy levels, to improve the access of local, national and donor agencies to information related to maternal and neonatal health and nutrition improvement and the use of that information for program planning and evaluation.

## Outputs/Outcomes:

1. Formation of a Cochabamba IEC Subcommittee that has been <sup>INVOLVED</sup> in producing high quality and very participatory materials for **Prenatal Care** and **Safe/Clean Birth** campaigns, as well as in training health workers in their use; popularity of the materials has caused considerable demand; USAID will be producing the materials for nation-wide use.
2. Formation of a Cochabamba Training Subcommittee that conducted training for 60 health professionals in **Counselling and Interpersonal Communication** with an emphasis on the Andean Ethnophysiological Model; 250 health workers in **Prenatal Care**; 250 health workers in **Safe/Clean Birth**; and 45 traditional "kallawayas" healers in general reproductive health. All courses have systematically planned participatory curricula and are fully replicable.
3. Eleven NGO service delivery sites providing FP information and services as an integral part of comprehensive maternal health care. Comparing the six-month periods JAN-JUN 1992 and JAN-JUN 1993, these NGOs registered the following increases in service delivery:

Home visits	56%	Prenatal Care: COMBASE	17%
Health talks	82%	CPCCM	29%
OB/GYN consults	81%	PROMEFA	79%
Total consultations	69%	MEDICO	102%
		Hi-risk pregnancies detected	250%
Home births attended by trained staff	300%	Family Planning:	
Institutional births	38%	New IUD consultations	59%
Total births attended	48%	New Pill consultations	88%
New PAP smears	65%	New Condom consultations	59%
Doses of TT vaccine	__%	New Vaginal Tab consults	24%

#### 4. Prenatal Care

Women who saw or heard a message about:	JAN 1992 PRE	MAR 1993 POST
Prenatal Care	42%	71%
Danger Signs During Pregnancy	24%	57%
Of these, those who remembered EDEMA as a risk factor	2%	64%
(Traditionally edema was thought to be a <u>positive</u> sign indicating an easy birth, thus it was targeted for change.)		
Women who know any danger sign during pregnancy	28%	43%
Women who know EDEMA is a danger sign	4%	24%
(No change was seen in the population's knowledge of hemorrhage or malposition as danger signs, but these were not specifically targeted for change.)		

**Utilization of prenatal care services at the population level did not change, remaining at about 60% of women who are currently pregnant.**

#### 5. Family Planning:

	JAN 1992 PRE	MAR 1993 POST
Women who saw or heard a message about family planning or reproductive health	35%	45%
Women knowing any modern method of contraception	22%	40%
Women getting contraceptives from the public sector	49%	63%
Health personnel advising use of contraceptives	68%	77%
Father of the child advising use of contraceptives	3%	7%
"Don't know any" as reason for not using FP method	18%	13%
"Too expensive" as reason for not using FP method	11%	5%

**Contraceptive prevalence did not change, remaining at about 13.7%. Now that knowledge has begun to change, with more time to complete training and IEC interventions the utilization of FP services could be expected to increase.**

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## BACKGROUND

The MotherCare Cochabamba Reproductive Health Project is being implemented in the urban and periurban areas of the city of Cochabamba, a Type "C" setting. In 1992 the total population of the city was 561,170 inhabitants, with approximately 120,650 women of childbearing age and 22,450 pregnancies per year.

The project was selected following a MotherCare Assessment Team's visit to conduct an in-depth maternal and neonatal health situation analysis. Bolivia has the highest maternal mortality rate in Latin America, an estimated 480/100,000 live births. Paradoxically, there is one doctor for every 2000 people (similar to Costa Rica) and in urban areas up to one doctor for every 410 people (similar to Sweden). Other findings in service delivery were a lack of information of factors affecting women's health and nutritional status; wide availability of maternal health services but concern about their quality (lack of equipment, breakdown of referral system, poor patient education and counselling); underutilization of all types of reproductive health services; few family planning service delivery sites and greater potential for expansion in the NGO sector. In the population, induced abortion appeared to be the principal method of limiting births as well as one of the major causes of maternal deaths and there were other potentially dangerous behaviors related to pregnancy and birth. In 1990 the Ministerio de Previsión Social y Salud Pública (MPSSP) developed a National Plan for Child Survival-Development and Maternal Health (Programa Nacional de Desarrollo-Supervivencia Infantil y Salud Materna); both USAID and the Unidad Sanitaria Cochabamba (USC, the regional branch of MPSSP) showed strong interest in developing a program that combined interventions in public and private sectors.

The project in Cochabamba falls under the National Reproductive Health Services Project (NRHSP) funded by USAID from 3 July 1991 to 30 September 1995, and extended to 1997. The NRHSP, in turn, is part of the MPSSP's National Plan for Child Survival-Development and Maternal Health. Working with the NRHSP are a large number of USAID Collaborating Agencies (CAs), national and international organizations (see Appendix). However, among CAs MotherCare is different in that it does not concentrate on one component (i.e. JHPIEGO for clinical training of health professionals, JHU/PCS for IEC materials, Population Council for operations research, etc.), but rather stands out in three aspects: 1) including components of research, services, IEC and training, 2) concern with the full reproductive cycle from pregnancy, to prenatal care, to labor and delivery, to postpartum and neonatal care, to family planning, and 3) focus on one city in Bolivia, Cochabamba. The MotherCare Project does collaborate frequently with the other CAs and local institutions working in reproductive health, primarily through the National IEC, Training and Services Subcommittees of the NRHSP.

The project leadership has changed over time and has included Lisa Howard-Grabman, JSI Resident Representative; Eduardo Vexina, Project Coordinator (CIAES); and Mary McInerney, Research Advisor (The Manoff Group). In its final year Bill Bower (Columbia University CPFH) joined as Project Manager/Trainer and the team expanded to include Ariel

Pérez, IEC Coordinator; Cecilia Cossío, IEC Assistant; Jeanette Crespo, Administrative Assistant; and Giovanna Cuellar, Bilingual Secretary.

Starting in May 1991 four NGOs have been subcontracted for service delivery: COMBASE, CPCCM, MEDICO and PROMEFA. A total of eight additional NGOs and private clinics have joined as "associates." The major service provider, of course, is the USC, including 18 health centers in the Northern and Southern Districts of the city, as well as German Urquidi Maternity Hospital. Other collaborators include the association of NGOs working in health (ASONGS), the Faculty of Medicine of the Universidad Mayor de San Simón, Reproductive Health Training Center at Germán Urquidi Maternity Hospital, and the Caja Nacional de Salud.

Two local subcommittees with representatives from NGOs and USC were formed to have input into developing IEC content and messages, and to plan and coordinate training. A half dozen local graphic artists and audio-visual services companies have participated in producing the IEC materials; four television and four radio stations have been used for broadcasting; trainers from USC, NGOs and other institutions have assisted with training activities.

The initial qualitative research, as well as the quantitative baseline and final surveys were conducted by CIAES. The study of Informal Communication Flow was done by Consultores Asociados and the IEC Monitoring Study was carried out by the Faculty of Communication of the Universidad del Valle (UNIVALLE).

The project had planned tandem IEC and training interventions in four areas: Prenatal Care, Safe/Clean Birth, Postpartum/Neonatal Care, and Family Planning. However, due to time constraints only the first and last of these interventions were accomplished in the period between the baseline and final studies.

## **GOAL AND OBJECTIVES**

The long term goal of this project is the reduction of perinatal, neonatal and maternal mortality in the urban and periurban areas of Cochabamba. The objectives or expected outcomes related to this goal are:

### **1. Affecting behaviors**

At the level of the woman and her family, to increase the awareness and utilization of all reproductive health services and to increase the practice of other positive maternal and neonatal health behaviors:

- 1.1 Increase early recognition of problems during pregnancy, delivery and postpartum, and appropriate action by women and their families when these occur;
- 1.2 Increase the target population's use of preventive prenatal care and postnatal care;
- 1.3 Increase the use of institutional delivery care, particularly in cases of high obstetrical risk;
- 1.4 Increase the number of home deliveries attended by trained personnel and those in which "Safe/Clean Birth" techniques and/or kits are used;
- 1.5 Increase the target population's knowledge and use of family planning methods;
- 1.6 Increase the percentage of women who start breastfeeding within the first hour of the neonate's life, who breastfeed exclusively and who carry on without supplements during the first four to six months of the infant's life.

### **2. Improving services**

At the level of the health services, to increase the availability of family planning information and services as an integral part of comprehensive maternal health care and to improve the quality and coverage of prenatal, postnatal and delivery care provided to women at community, clinic and referral levels:

- 2.1 Increase the percentage of women who are assessed according to the CLAP Simplified Perinatal History Form and managed according to established norms;
- 2.2 Increase the percentage of women receiving an adequate preventive dose of iron/folate therapy during pregnancy;
- 2.3 Increase the number of trained providers and the number of service delivery points (clinics) providing low cost contraceptive services;
- 2.4 Increase the percentages of all women of reproductive age and of all pregnant women who have received at least two doses of tetanus toxoid;

- 2.5 Increase the percentage of women who have ever participated in PAP screening for cervical cancer;
- 2.6 Increase the percentage of pregnant women who are screened for anemia, Chagas Disease, and specific STDs and cervical cancer prior to IUD insertion. (Screening implies that those who are detected will also receive appropriate treatment and/or supervision for existing conditions.)

### **3. Enhancing policy dialogue**

At the planning and policy levels, to improve the access of local, national and donor agencies to information related to maternal and neonatal health and nutrition improvement and the use of that information for program planning and evaluation:

- 3.1 Increase the amount of reliable information about the prevalence and importance of specific maternal and neonatal conditions, the behaviors related to these conditions and the factors associated with both;
- 3.2 Enable MPSSP planners to use a financial forecasting model to determine the cost and the cost recovery potential of maternal and neonatal care at various levels of service utilization;
- 3.3 Recommend tested IEC and fee-for-service interventions that are shown to impact maternal health behaviors and utilization of reproductive health services;
- 3.4 Recommend tested modifications in existing maternal and neonatal health and child survival programs (supplementary feeding programs, anemia prevention programs, immunization, prenatal control, etc.) that have been shown to improve their effectiveness;
- 3.5 The transfer of lessons learned and materials developed by the Cochabamba MotherCare Project to other public and NGO sector programs in Bolivia.

### **Hypotheses for Evaluation**

- 1A If awareness of women towards reproductive health and newborn care increases, then their use of those services will increase;
- 1B If service availability increases and quality of those services (especially attitude/behaviors of providers) is enhanced, then the women's use of those services will increase;
- 1C If use of services increases, neonatal and maternal mortality will be reduced.
- 2A If positive practices are assumed by the population, then maternal and neonatal mortality will decrease.

## RESEARCH METHODS AND MATERIALS

### Qualitative research

**Type of study:** Qualitative research on women's reproductive health knowledge, attitudes and practices (FORMATIVE).

**Objectives:** To describe and better understand the population's perceptions and behaviors in relation to the formal health care system, and to provide information that could be used to develop intervention strategies aimed at improving maternal and neonatal health.

**Sample:** 230 women of reproductive age from urban and periurban areas of Cochabamba, divided into "users" and "non-users" of formal health services; a purposive sample to include women of various ages and parity.

**Data collection mechanisms:** Focussed group discussions with 230 women (3 users groups, 3 non-users groups, 1 trained TBA group); in-depth interviews with 73 women of reproductive age; short exit interviews with 33 users of health services; and observations in waiting rooms, during prenatal and postnatal consultations, and in mothers' club meetings; in different question and observation guides.

**Data analysis:** Team analysis of themes for content and frequency tables; anthropologist derived ethnophysiological model; descriptive analysis and interpretation of findings.

### Quantitative research

**Type of study:** Uncontrolled pre-post community-based quantitative study (BASELINE AND FINAL).

**Baseline objectives:** To provide a baseline against which one can evaluate the effectiveness of project interventions; to determine the magnitude of the problems of interest to give useful information for guiding the process of making decisions while carrying out the interventions.

**Follow-up objectives:** To evaluate the effectiveness of the project interventions.

**Sample:** Baseline (pre) study 2200 women between ages 15-45; Final (post) study 1650 women between ages 15-45. Half are women who ended a pregnancy in the 12 month period before the interview; half are women who are pregnant at the time of the interview. Cluster sampling of blocks in low income periurban areas of Cochabamba.

**Data collection mechanisms:** Four questionnaires -- Form 1 for every woman 15-45.

Questionnaire A for women who are pregnant, Questionnaire B for women who have been pregnant in the 12 months prior to the interview, Questionnaire C in case of maternal death. Baseline study 1 JAN 1992 to 15 JUN 1993; follow-up study 15 MAR 1993 to 15 JUL 1993.

**Data analysis:** Using EPI-INFO software; initial data frequencies for all variables; data cleaning; analysis (cross tabs); regression analysis by Population Council if deemed necessary to adjust for pre-post changes in socioeconomic status or reproductive health status.

## ACCOMPLISHMENTS

### Affecting behaviors

- \* Formative research about women's reproductive health KAP conducted; andean ethnophysiological model developed; workshop held to compare traditional andean model with modern biomedical model; prioritization of practices of population and health services that are subject to change; development of strategies for modification of services, training and IEC using findings of research.
- \* Two IEC health education campaigns conducted: **Prenatal Care and Safe/Clean Birth**. Target audience is primarily pregnant women and women 15-45, but also husbands, grandmothers, mothers-in-law, midwives, parents, youths in military service, police personnel, middle education students and trade union members. (Time did not allow completion of the Postpartum/Neonatal Care campaign, nor the Family Planning materials to complement those of the National Reproductive Health Program.)
- \* Community oriented materials for each three month campaign included: 3 TV spots broadcast 6 times a day on 4 channels and 3 radio spots broadcast 8-9 times a day on three stations.
- \* Service provider oriented materials for each campaign included: 1 or 2 videos and manual, 3 cassettes in Spanish and Quechua and 3 manuals, 1 flipchart and manual, and 3 handout sheets; and training for health workers in their use.
- \* The **Prenatal Care** campaign included six questions which a woman should ask her doctor about her own health and that of her baby. Monitoring of this campaign showed high recall of these six questions; service providers reported that women were better informed and inquisitive patients.
- \* Service provider training in **Interpersonal Communication and Counselling** based on application of findings of the ethnophysiological model; training in **Prenatal Care** and in **Safe/Clean "humanized" Birth** coordinated with the IEC campaigns and aimed at achieving changes in providers' behaviors.
- \* Research on Informal Communications Flow and IEC Monitoring to guide the IEC campaigns; collaboration with National IEC Subcommittee on evaluation of impact of training in interpersonal communications and counselling and use of FP IEC materials.

## Improving services

- \* A Cochabamba Training Subcommittee comprising trained trainers from USC and NGOs and representatives from other collaborating institutions, capable of executing a coordinated ongoing program of inservice training in the future.
- \* Development of curricula and training materials that are fully replicable, based on training needs and resources assessment, developed in collaboration with all participating agencies, and using a process that can be applied to future themes.
- \* Training plans developed for Prenatal Care, Safe/Clean "humanized" Birth, Postpartum and Neonatal Care for four levels of service providers: doctors, professional nurses, auxiliary nurses and promotores/RPS/TBAs.
- \* Training: over 250 health workers received training organized by Cochabamba Training Subcommittee in Prenatal Care, Safe/Clean Birth, Postpartum/Neonatal Care (40 doctors, 40 professional nurses, 60 nurse auxiliaries, and 110 promotores/RPS/TBAs); 20 doctors and nurses received training in clinical family planning and counselling at the Reproductive Health Training Center at Germán Urquidi Maternity Hospital with MotherCare sponsorship.
- \* Over 75 participants attended national or regional training courses in a range of health and program management subjects, including training-of-trainers (TOT), TOT for IUD insertion, FP counselling, lactation amenorrhea method of child spacing, treatment of complications of abortion, detection and treatment of cervical cancer, quality of care, logistics, MIS and health services management. Many seminars replicated for local NGO staff.
- \* Referral system improvements being tested in USC Northern District, but problems in such a super-competitive service delivery environment may be overwhelming (distrust, piracy, cliques, kickbacks).
- \* Logistics system implemented for USAID supplied contraceptives managed by Administrative Assistant; 20 NGO clinics are supplied and report regularly; clinic equipment purchases for 11 clinics belonging to four NGO subcontractors.
- \* Monthly reports on reproductive health services and community activities received from 4 NGOs and 8 associates; family planning services and commodities issued are reported to USAID each trimester through QUIPUS system; periodic evaluation of service statistics with NGO participation; development of Harvard Graphics charts to illustrate trends and make comparisons; workshops for analysis of service statistics; monthly meetings of NGO Directors.

- \* Introduction of CLAP (Centro Latinoamericano de Perinatología) Basic Perinatal History form into regular use in two NGOs that have computers: MEDICO and COMBASE.
- \* Management improvements instituted by NGOs after study tour to PROSALUD.

### **Enhancing policy dialogue**

- \* Formative research and strategy development workshop comparing andean and biomedical models (mentioned above) influenced development of national norms for maternal health care.
- \* "Sensitization" Campaign to influence decision makers (local government, university, mass media, health services); opening presentation of qualitative research findings and IEC materials; broadcasting of TV spots.
- \* Study on alternatives for improving cost-recovery and service utilization for Germán Urquidi Maternity Hospital.
- \* Participation on IEC, Training and Services Subcommittees of NRHSP; financial support for Services Subcommittee.
- \* Paper on "role of health education" for Andean Safe Motherhood Conference, Santa Cruz; teaching selected sessions for Universidad NUR/Proyecto Esperanza postgraduate degree program in management and administration of health services.
- \* Influence on NGOs: COMBASE's acceptance of family planning paved the way for church groups and other evangelical NGOs to do the same; presentations at workshop for PROCOSI association of NGOs helped convince some to incorporate reproductive health in their portfolio of activities; local association of NGOs working in health (ASONGS) invited MotherCare to participate in policy debate about family planning.
- \* Participatory analysis of service statistics by NGOs leads to improving service promotion and delivery strategies.
- \* Assistance to the Cochabamba Regional Committee for Vigilance of Maternal and Neonatal Mortality with developing a form for reporting maternal deaths.
- \* Greater acceptance of reproductive health through integrated approach; numerous requests for technical assistance in integrating reproductive health into training, IEC and service delivery from public and private sector health workers.

TABLE 1.1: SUMMARY OF IMPACT AND PROCESS INDICATORS OF PROJECT

PROJECT OBJECTIVE	PROCESS INDICATOR	IMPACT INDICATOR
<b>1. Affecting behaviors</b>		
1.1 Increase early recognition of problems and appropriate action when these occur	IEC materials developed about danger signs in pregnancy; health workers trained in use; TV and radio broadcasting; % of women who saw or heard a message about prenatal care rose from 42%-71%, who saw or heard about danger signs in pregnancy rose from 24%-57%, who remember EDEMA as danger sign rose from 2%-64%	% of women who know any danger sign during pregnancy rose from 28-43%; % who know EDEMA as danger sign rose from 2%-24%
1.2 Increase use of preventive prenatal care and postnatal care	IEC materials about prenatal care developed; health workers trained in use; TV and radio broadcasting; (postnatal intervention not done); training of health workers in interpersonal communication and andean ethno-physiological model as relates to pregnancy and postnatal period	Prenatal consultations at NGOs increase: COMBASE 17%, CPCCM 29%, PROMEFA 79%, MEDICO 102%; but overall there is no significant change in prenatal care service utilization at population level
1.3 Increase use of institutional delivery care, especially for high obstetrical risk	IEC materials developed about safe/clean birth, danger signs and complications during labor; training of health workers in interpersonal communication and andean ethnophysiological model as relates to birth process	NGOs show 250% increase in detection of high risk pregnancies and 48% increase in total births attended
1.4 Increase number of home deliveries attended by trained personnel and those in which "Safe Birth" techniques and/or kits are used	IEC materials developed about safe/clean birth, danger signs and complications during labor; training of health workers in andean ethnophysiological model as relates to preferences during home birth	Attendance of home births by trained personnel in periurban Cochabamba increases from __% to __%; attendance of home delivered by trained NGO staff triples (but still is a small % of total births attended)
1.5 Increase target population's knowledge and use of family planning methods	IEC materials from National Program distributed; health workers trained in clinical FP and counselling	% of women knowing any modern method of contraception rose from 22%-40%; NGOs under subcontract show increased number of new consultations for modern methods: IUDs 50%, pills 88%, condoms 59%, vaginal tablets 24%
1.6 Increase % of women who start breastfeeding within first hour of neonate's life, who breastfeed exclusively and who do not use supplements during first 4-6 months	Training of health workers in early initiation of breastfeeding; collaboration with LLL in promoting early/exclusive breastfeeding to private physicians; no time to implement specific IEC intervention	Not measured by final study

**TABLE 1.2: SUMMARY OF IMPACT AND PROCESS INDICATORS OF PROJECT**

PROJECT OBJECTIVE	PROCESS INDICATOR	IMPACT INDICATOR
<b>2. Improving services</b>		
2.1 Increase % of women assessed according to CLAP Simplified Perinatal History Form and managed according to established norms	Health workers trained in use of form and norms; computer information system installed; supervision	By end of project all women giving birth at MEDICO or COMBASE are assessed using CLAP form
2.2 Increase % of women receiving adequate preventive dose of iron/folate in pregnancy	Training of health workers; availability of iron/folate	Not measured
2.3 Increase number of trained providers and number of clinics providing low cost FP services	Training of health workers; purchasing of clinic equipment; distribution of contraceptives	20 NGO providers from 11 clinics trained in clinical FP and counseling; 20 USC providers trained in clinical FP; 60 USC providers trained in counselling
2.4 Increase % of all WRA and of all pregnant women who have received at least 2 doses of TT	Training of health workers; availability of TT vaccine; IEC about TT vaccination during prenatal care; NGOs increase # of doses of TT given	No significant change at population level found in final study.
2.5 Increase % of women who have ever participated in PAP screening for cervical cancer	Training of health workers; availability of supplies for PAP; IEC about PAP; NGOs increase new PAP smears 65%	No significant change at population level found in final study. NGOs report 65% increase in new PAP smears.
2.6 Increase % of pregnant women screened for anemia, Chagas Disease, STDs and cervical cancer prior to IUD insertion (and who get appropriate Tx and/or supervision.)	Training of health workers about anemia and cervical cancer (but not about Chagas Disease or STDs); see 2.2 and 2.5 above	NGOs report 65% increase in new PAP smears while new IUD insertions increase 59%

**TABLE 1.3: SUMMARY OF IMPACT AND PROCESS INDICATORS OF PROJECT**

PROJECT OBJECTIVE	PROCESS INDICATOR	IMPACT INDICATOR
<b>3. Enhancing policy dialogue</b>		
3.1 Increase amount of reliable information re. prevalence/importance of specific maternal and neonatal conditions, behaviors related to these conditions and associated factors	Qualitative and quantitative research completed; publication; dissemination	Incorporation of information into norms, training, project designs, activities, etc.
3.2 Enable MPSSP planners to use financial forecasting to determine cost and cost recovery potential of maternal and neonatal care at various levels of service utilization	Two cost-recovery/quality of care/utilization studies conducted	Little, due to change in leadership at Maternity Hospital
3.3 Recommend tested IEC and fee-for-service interventions that impact maternal health behaviors and utilization of reproductive health services	IEC Monitoring Study results; pre-post survey IEC findings	USAID plans to reproduce MotherCare Prenatal Care and Safe/Clean Birth materials for use nation-wide
3.4 Recommend tested modifications in existing maternal and neonatal health and child survival programs that have been shown to improve their effectiveness	Training of health workers; dissemination of qualitative research findings and recommendations for changes in service delivery practices	Increase in NGOs prenatal care service delivery (see 1.2 above) and births attended (see also 1.3 and 1.4); Cochabamba Training Committee comprising USC and NGOs has included reproductive health training in annual workplans; Rural districts of Cochabamba plan to introduce reproductive health activities
3.5 Transfer of lessons learned and materials developed by MotherCare Cochabamba Project to other public and NGO sector programs in Bolivia	Dissemination through participation in national subcommittees, seminars, conferences, papers; development, reproduction and distribution of materials	USAID plans to reproduce MotherCare Prenatal Care and Safe/Clean Birth materials for use nation-wide; PROCOSI and ASONGS member NGOs increase interest in reproductive health, may implement programs; evangelical NGOs in Cochabamba follow COMBASE's lead in adopting reproductive health; Caja Nacional de Salud Cochabamba dedicates a % of its budget to reproduce MotherCare IEC materials

**TABLE 2: ACTIVITIES BY TOPIC EMPHASIZED**

ACTIVITIES / PRODUCTS	Prenatal Care	Danger Signs	Complications	Labor/Safe Delivery	Referral System	Post-Partum Care	Perinatal Care	Family Planning
<b>Enhancing Policy Dialogue:</b> * Findings from formative research incorporated into national norms for maternal health care. * "Sensitization" Campaign aimed at decision makers: opening presentation, video, poster, folder, 3 TV spots. * Regular participation on National Reproductive Health Services Project Subcommittees: Services, Training, IEC.	X			X		X	X	
<b>Improving Services:</b> * Remodelling and equipping 11 sites belonging to 4 NGOs. * Establishing regular supply of USAID contraceptives. * Establishing information system for maternal/neonatal health activities, integrated with USAID QUIPUS system. * Prenatal Care refresher training for 250 health workers. * Safe/Clean Birth, Postpartum and Neonatal Care refresher training for over 250 health workers.	X		X	X	X	X	X	X
<b>Affecting Behaviors:</b> * Formative research report dissemination. * Training 60 NGO and USC health workers in Counselling and Interpersonal Communication, with emphasis on understanding the andean ethnophysiological model. * Provide 5 TV/VCRs and 25 radio/cassette players to service delivery sites for health education purposes. * Prenatal Care Campaign: 3 TV spots, 3 radio spots, 1 video & manual, 3 Spanish/Quechua cassettes & 3 manuals, 1 flipchart & manual, 3 handout sheets; training 25 NGO and public sector health workers in use of IEC materials. * Safe/Clean Birth Campaign: 3 TV spots, 3 radio spots, 2 videos & 2 manuals, 3 Spanish/Quechua cassettes & 3 manuals, 1 flipchart set containing 3 units & manual, 3 handout sheets; training health workers in their use. * IEC materials developed by MotherCare on Prenatal Care and Safe/Clean Birth will be reproduced and distributed nation-wide to all institutions in NRHSP. * Training in Reproductive Health for 45 traditional "kallawaya" healers and TBAs.	X	X	X	X	X	X	X	X
	X		X	X	X	X	X	X
	X	X	X	X	X	X	X	X
	X	X	X	X	X	X	X	X

## LESSONS LEARNED

### Affecting behaviors

**Formative research should be an integral part of early stages of any project.** Knowing the target population's communication behavior (internal, interpersonal) and socio-demographic-cultural characteristics is essential for developing effective IEC strategies and materials.

**The IEC objectives, strategies and activities should be determined taking into account the time available for implementation of the plan and of the objective conditions of the project environment** (health service providers, mass media, experience of IEC team, budget, etc.). Using a fully participatory process and allowing time for incorporation of pretest results and technical feedback, it takes 5-6 months to prepare a new IEC campaign (including TV and radio spots, video, audio cassettes, flipchart and handout sheets, plus manuals). It is also important for a project's IEC team to have sufficient time to mature, both as a team and in their relationship with the community. Three years minimum are needed for this process to be optimal. Still, the model and strategy for IEC proposed by MotherCare Cochabamba (with slight adjustments and operational enrichment), appear to be viable for the periurban context in which it was applied.

**Health messages delivered by a health worker trained in using appropriate IEC materials are remembered more, but mass media messages get repeated more often.** The more participatory are the IEC materials, the more they incorporate the philosophy of "learning by doing," the more likely they are to achieve their objectives. But the materials can be useful only if employed by trained health workers skilled in communication and use of the materials. Practical training and systematic follow-up is essential to ensure this.

**The IEC strategy used by MotherCare in Cochabamba resulted in high levels of coverage of reception of health messages by the target population via mass media (TV and radio),** however the most dramatic increases were seen in reception by face-to-face communication channels (flipcharts, handout sheets, audio cassettes and videos). **Doctors, and especially nurses, also increased their role as transmitters of reproductive health information.** Friends and women's group activities remained the same or decreased slightly their role in communicating health messages.

**The involvement of health workers in developing the philosophy and objectives of the project is essential.** But our experience shows that, no matter how good the IEC materials may be, if there is not a real commitment on behalf of the health workers to **change their own attitudes and behavior** towards patients along the lines prescribed by the qualitative research, the effort to develop IEC materials will be in vain. A "foundation workshop" for each health education unit is useful to ensure that up-to-date knowledge is reflected in materials and training, as well as to save time and improve quality.

Attractive, informative, easy to understand IEC materials can arouse the interest of sectors that usually stay uninvolved. Traditional health workers ("kallawayas" and TBAs) who formerly shunned the formal health sector, requested training. Doctors, however, commented negatively on the use of everyday language and local women to deliver health messages (again demonstrating the need for a foundation workshop to help overcome service delivery obstacles to culturally sensitive health care).

**If you produce high quality, participatory materials, they will be appreciated.** USAID has decided to reproduce the MotherCare Cochabamba materials for all institutions working in NRHSP. The IEC Monitoring Study detected improvements over time of the quality and participatory nature of the materials, their positive reception by the target audience, and their acceptance by health workers.

**Changes in the population's knowledge are easier to achieve; changes in the population's health practices take longer.** In addition to more time and effective IEC interventions, this also requires strategies to make services more culturally acceptable and financially accessible.

### **Improving services**

**Health workers need correct knowledge, appropriate attitudes, adequate equipment and materials, and good management to be able to provide improved services.** MotherCare addressed all these concerns.

**A sustainable program of inservice training based on systematic assessments of training needs is required to give health staff the knowledge, attitudes and skills needed to respond to changing health situation.** Good training is a strong motivator and is always appreciated. However, plans for training require a systematic process of training-of-trainers, training needs assessment, task analysis, careful development of content/methods/materials, evaluation, follow-up, and appropriate logistics. Public sector institutions often have considerable training capabilities which can be strengthened; with limited additional resources, technical direction they can replicate most training activities. Supervision and follow-up are still areas requiring more attention.

**Doctors who take to heart and flexibly apply the recommendations of the qualitative study (changes in service delivery, better treatment of patients, understanding of traditional health concepts) find that women appreciate it, recommend their clinic to others, and utilization increases.** Still, others are reluctant to change service practices -- modifying attitudes is the most difficult area of training. For future projects such as this one it would be critical to have strong clinical input into the formative stages and assisting throughout.

**NGOs estimate that 90% of their clients choose their service because of a satisfied patient's recommendation.** They are trying to improve how patients perceive the services, from initial reception to "humanized" and courteous treatment that is respectful of traditional andean culture, to sharing health information and adequate medical care. In most cases,

women prefer to go to a female doctor for reproductive health care. Women who have seen a male doctor will often ask a female nurse "Did I understand what he said?" "Did he tell me the right thing?" "Is it OK for me to follow his advice?"

**Exposure to alternatives in service delivery management can improve utilization.** The study tour to PROSALUD Santa Cruz was a very eye-opening experience and raised many issues related to management, quality of care, cost-recovery, marketing, etc. NGO directors instituted changes after they returned to Cochabamba and want more training in management of health services in the future.

**Service coverage can be increased through "associates" who voluntarily joined the project,** (receiving only contraceptives, IEC materials and training). This may be more cost-effective than using subcontractors. However, the project has less control over the quality of services of these "associates." Interestingly, it is this sector that has asked for establishing norms, procedures, fees and referral system.

**Regular availability of contraceptives makes an enormous difference in trust of people for FP services.** The next step should be to expand the method mix to include appropriate postpartum options (minipill, DepoProvera) and VSC.

**Communication is key to effective referral, and can be a problem in poorer periurban neighborhoods where telephones are scarce** and official telephone installations are too costly. Radiophone "beepers" are a popular, low-cost solution for clinics located in these areas, and can help strengthen referral links.

### **Enhancing policy dialogue**

**MotherCare's activities in-country are respected, among other reasons, because of their basis in solid local research (qualitative, pre-post quantitative).** These methodologies and results should be disseminated more widely.

**NGOs unconvinced of the reasons to get involved in reproductive health have been influenced positively by MotherCare's experiences in Cochabamba and Inquisivi.** They appreciate the formative research, the empowerment of women through the autodiagnosis and participatory-informative IEC materials, pressure applied to change the health system to meet people's needs more sensitively, and the broader definition of reproductive health (pregnancy, prenatal care, birth, postpartum-neonatal care, family planning, etc.). COMBASE has set an example and made FP acceptable in the evangelical community of Cochabamba; other evangelical NGOs have followed suit (MAP International, FEPADE, Luz del Mundo).

**Coordination with other primary health care projects at national level (i.e. CCH) can lead to greater integration of maternal and neonatal health services using an integrated approach.** Rural health workers and communities are quicker to accept family planning when it is fully integrated into a package of reproductive health service delivery.

**Studies proposing alternatives for improving cost-recovery, while at the same time increasing service quality and utilization, can be very useful for referral hospital managers.** However, the effective/continuous leadership and good management required to implement any proposed changes can be a problem in the highly competitive and political environment that characterizes a "C" Setting.

### **Improving project management**

An attractive and well equipped clinic creates a good first impression, so remodelling and equipping are essential. NGOs feel that USAID purchasing regulations caused the procurement of equipment to drag on longer than expected. **If regulations had been known ahead of time, budgets would have been designed for US origin equipment; delays could have been avoided.**

**It is essential that the various project components be developed and coordinated in a sustained, parallel fashion -- especially the training and IEC components.**

**The model of USC-NGO cooperation has been very successful in the city of Cochabamba and could be expanded regionally to the entire Department.** In future, NGOs that join the project should be required to "buy in" to the approach of modifying services according to the recommendations of the qualitative study and strategy workshop. In return, MotherCare would provide equipment, funds, training, IEC materials, etc.

**The MotherCare Project Office acts as an effective intermediary to get NGOs and USC access to training, national IEC materials, and contraceptives, mostly through contact with the National subcommittees.** Alone the NGOs and USC would be left out. Once the office was opened, the NGOs and USC had a neutral place and technical experts with whom to relate. Greater communication between USC and NGOs was a beneficial unexpected outcome.

**The model of using local IEC and Training Subcommittees functions well, with some problems of course, but it maximizes local participation and commitment to the project.** Local USC staff have the ability to carry out a good training program, but they needed MotherCare to provide a place to meet, the focus on reduction of maternal and neonatal morbidity and mortality, and funding for training costs. Most NGOs are small and do not have much internal training capacity, but they learned by participating in the Training Subcommittee along with USC trainers. The same applies for the IEC Subcommittee.

**Separation of the technical leadership and the daily administrative/ financial responsibilities into two jobs would be more efficient.** For future expansion, a Training Assistant and/or professional Administrator would be desirable. If this is not possible, candidates for Project Manager should be either screened for financial management skills and knowledge, or should receive more formal training in this area before assuming their post.

## **RECOMMENDATIONS**

### **A. If the project were scaled up to departmental level (pop. 1.1 million):**

In the Department of Cochabamba, where MotherCare is well known, there is great potential and enthusiasm for expansion into rural districts being supported by PROISS, World Bank, IDB or CCH projects where the project can complement efforts to improve infrastructure and management.

### **Modifications in any components**

- \* **RESEARCH:** consider validating the qualitative study, but the ethnophysiological model applies; perhaps quantitative studies in sentinel areas
- \* **IEC:** drop TV for rural areas; emphasize radio; develop more participatory group face-to-face community-based communication methods (role plays, health fairs, etc.); continue with cassettes and flipcharts; adapt strategy to be bilingual Quechua-Spanish
- \* **TRAINING:** keep the same basic series of courses; include a greater practical component; modify to reflect rural realities (i.e. referral sites may not be nearby)
- \* **SERVICES:** continue working with both USC and NGOs, however current NGOs will not need assistance in FP (covered by Pathfinder); concentrate more effort on improving quality of care at Germán Urquidi Maternity Hospital referral center; add component for strengthening District Hospital capacity to provide basic obstetrical emergency services; more effort on improving referral system (perhaps discounts for referral within network?); add minipill, DepoProvera, VSC, and vacuum aspiration for Tx of incomplete abortion

### **Components recommended for expansion**

- \* **RESEARCH:** rapid situational analysis for new districts, including maternal and neonatal morbidity and mortality; operations research for referral system interventions and maternity waiting homes; collaborate with Population Council in study of contraceptive rumors, fears and misconceptions
- \* **IEC:** use of radio, face-to-face interpersonal communication, Quechua language; widen participation in IEC Subcommittee; finish the process started in MotherCare I by broadcasting the postpartum/neonatal care campaign and developing and using complementary materials to promote family planning; consider developing more modules on other aspects of reproductive health care (i.e. STDs, detection of breast and cervical cancer); provide radio/cassette players for service delivery sites; intensive training in use of IEC materials & community based education methodologies; add graphic artist to staff
- \* **TRAINING:** training needs and resources assessments; more TOT first; decentralize some training to districts; widen participation in training Subcommittee; management training for NGO and district directors; intensive course for obstetric risk management

for district hospital physicians; replication of regional and national courses for staff of NGOs and USC districts; add training assistant to staff

- \* SERVICES: expand to all willing USC districts; add more NGOs to network of subcontractors and "associates" especially in areas still underserved; consider maternity waiting homes for remote districts; strengthen referral links and supervision; solve problem of supplying contraceptives to USC districts; look at issues of transport and communication

### **What is sustainable?**

The RESEARCH component will always need outside funding; but use of the SNIS or QUIPUS information systems can be improved and applied in a sustainable way for monitoring and evaluating health services.

The mass media component of the suggested IEC strategy would involve radio only in the rural areas, not TV. Therefore, costs would be much lower and could be more easily sustained. Once they are trained and motivated, health workers could carry on the face-to-face interpersonal communication activities if given appropriate supervision and encouragement.

Decentralized TRAINING at district level is not very expensive, but to be sustained will require funding that is probably available only in districts with outside project support (PROISS, World Bank, IDB or CCH).

Public sector SERVICES, of course, are on-going. After initial equipping, District Hospitals could continue providing improved obstetric emergency services only if specialized/trained staff continue to be assigned to the district.

**Estimate of costs for one year period: (excluding establishing an office) RESEARCH \$40,000, IEC \$160,000, TRAINING \$90,000, SERVICES \$210,000 = TOTAL \$500,000.**

### **B. If the project were scaled up to national level:**

70% of Bolivia's population is in the three departments of La Paz, Cochabamba and Santa Cruz and migration to their major cities continues to be high. Cochabamba is also in the middle of the north-south axis of less developed departments. The most cost-effective strategy would be to collaborate with well established NGOs in urban/periurban La Paz, El Alto, and Santa Cruz (PROSALUD, CIES, San Gabriel) in the areas of training and IEC, but let them handle service delivery.

### **Modifications in any components**

- \* RESEARCH: rely more on DHS and improved SNIS

- \* IEC: adapt the materials to the characteristics other regions, altiplano and tropical, as far as language, style of dress and people's appearance
- \* TRAINING: decentralize to regions
- \* SERVICES: consider using a simpler package of services, focussing on fewer interventions likely to be most cost-effective in the Bolivian context; make sure adequate referral services are available; seek input into national level protocols for managing high risk pregnancies and obstetric emergencies

### **Components recommended for expansion**

- \* RESEARCH: rapid situational analysis
- \* IEC: regional teams
- \* TRAINING: add clinical training advisor and training assistant to staff; more TOT; training in use of national level protocols mentioned above; collaboration with preservice training institutions
- \* SERVICES: communication and transport for referral for obstetric emergencies

### **What is sustainable?**

By working with established NGO partners there is good potential for sustainability since a high level of cost recovery has already been achieved.

**Estimate of costs for one year period:** (excluding office expenses; in addition to costs for departmental expansion; and assuming some cost sharing with NGO partners) RESEARCH \$40,000, IEC \$150,000, TRAINING \$60,000, SERVICES \$0 = TOTAL \$250,000.