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**LESSONS LEARNED FROM THE SITUATIONAL ANALYSIS  
STUDY IN FIVE HEALTH DISTRICTS  
OF LA PAZ AND COCHABAMBA, BOLIVIA**

**The MotherCare-II Project. October, 1995**

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## I. INTRODUCTION

The MotherCare-II project began operations in Bolivia in March 1995. One of the first activities undertaken by the project was a situational analysis of five Health Districts in the Departments of La Paz and Cochabamba, the purpose of which was to assess whether health services had the capacity to carry out Essential Obstetric Services (EOS)<sup>1</sup>. This paper documents the experiences and lessons learned from the methodology and implementation process of the situational analysis to provide recommendations for further adaptations and applications of the study methodology and instruments for other country/project specific situations, since there might be variations in the operational definitions of the Essential Obstetric Services provided by country and level of services.

The study was based on a methodology and instruments developed and field tested by the Population Council<sup>2</sup>, and modified for the project in Bolivia. The Population Council questionnaires were aimed to provide information on the health services' inventory, equipment and infrastructure, and included sections on health personnel skills and training.

For the study in Bolivia, the Situational Analysis team developed seven questionnaires in modular fashion. Each questionnaire covered one topic so that they could be applied simultaneously to different staff during the study (clinical based and inventory and equipment). Three additional questionnaires/topics were added to respond to the specific needs of the MotherCare-II project in Bolivia, i.e., sexually transmitted diseases (STDs), nutrition, and information, education, communication and counseling (IEC/C).

MotherCare staff involved personnel from the Bolivian Secretariat of Health (SOH) and non-governmental organizations (NGOs) working in the five Health Districts. All participants worked in all phases of the study -- design, implementation and analysis -- and in developing the MotherCare-II three years implementation plan for the project in Bolivia. Thus, the Situational Analysis study was to learn about the overall capacity of the health services, and what was needed to enable them to carry out the National Program for the Reduction of Maternal Mortality five Health Districts, by means of equipment and supplies, and personnel skills and training in some extent.

The study process took approximately eight weeks. Preparations begun four weeks before the initiation of the field work. There were four weeks of intense field work in the five Health Districts to train supervisors and interviewers, collect and analyze data, and prepare a written report.

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<sup>1</sup> The complete study results are presented in the report by Dr. Marcelo Castrillo. MotherCare-II project. Bolivia, March, 1995.

<sup>2</sup> Guidelines and Instruments for Maternity Care Situational Analysis Study: Nancy Sloan, Charlotte Quimby, Beverly Winikoff, Nina Schwalbe. The Population Council.

In addition to data collection, the study served as a lesson for personnel of MotherCare and SHO in situational analysis methodology. This experience will help SOH's technical staff at regional and national levels to carry out similar studies in other Health Districts of the country.

The methodology and instruments used in Bolivia for this situational analysis have proved excellent planning and management tools, providing vital information about the obstetrical health services of the Bolivian Secretariat of health, and a number of private hospitals. **To identify the main reproductive health problems in the community, main causes of maternal and child death, and the beliefs and practices of the population regarding reproductive health (baseline information), however, it is essential completing this work with population-based studies. The situational analysis study only provides information at the health service level.**

This study was also used to train field staff, and to establish preliminary information. It is a facilities study that can provide important information about the capacity of the SOH' health centers as for supplies and staff knowledge of the maternal care protocols (currently not standardized).

During the initial design of the study, MotherCare staff wanted to use the study results to determine which Health Districts will later be included in the MotherCare-II project. This idea was later abandoned because this methodology was not designed to assess the health needs of the Health District population. It can identify overall strengths and weaknesses among service providers in the district, and be used to determine what services are lacking and should be offered in a particular Health District. Nevertheless, it cannot be used to decide whether a Health District should be included in a services area. Because District Health personnel are involved in conducting the survey, it would be counterproductive to use it to determine whether their district would received services.

Access to facility health data (HIS) is critical to the quality of the information gathered in this assessment. Gaining access to such data, was in this case, very difficult, despite the fact that facility personnel were informed in advance of the need for access to this information. The consultant recommends that personnel to be surveyed be visited before initiation of the field study so they understand the importance of this information, and are prepared to provide it. Also, the quality of the information obtained was low, because record keeping does not follow standardized formats. The service health data is scattered throughout several forms and notebooks.

Sections of the questionnaire used were original to this study and had not been previously tested. In analyzing the results, it is apparent that some sections are more useful than others and that some sections/questions should be deleted. These observations are recommendations are discussed in the body of this report in the context of the evaluation of individual sections. It is imperative, however, that the reader of this paper is acquainted with the study report and annexes to fully understand the conclusions and recommendations.

## II. PREPARATION FOR THE STUDY

Four weeks were spent in anticipation of the field study to identify study participants, to make the necessary contacts and inform the appropriate personnel, and to prepare the required logistic support. The following actions were taken:

### *Personnel*

Key personnel from SOH, MotherCare and selected NGOs were identified as the core team, to adapt and customize the questionnaires and study methodology.

A total of 20 technicians and support personnel participated. Three obstetricians were part of the SA team, one from the Cochabamba and la Paz Regional Secretariats of Health, and one from the SOH central level. They are in charge of the implementation of the National and Regional Reproductive Health program. Thus, their participation was key to set the health services' standards. The rest of the team was representatives from the five Health Districts (doctors and nurses), and two NGO personnel working in the same districts. Finally, six were support personnel in charge of logistic support and data entry.

The group was divided in four teams of four. There was one MotherCare staff per team, in charge of assigning tasks (health centers' inventory, information system, health personnel knowledge and IEC/C), and the overall supervision and completion of the interviews without introducing biases.

The greatest benefit of using SOH personnel (National and District levels) was to train them in the SA methodology (learning by doing), adapting the instruments to the local standards and procedures, and most will be involved later-on in the implementation of the study recommendations.

The consultant in charge of the study, was also considered a survey trainer, and the Situational Analysis method allowed each participant to understand and participate in each phase of the study. The same key personnel (core team) later-on participated in the MotherCare-II work plan development.

The 20 participants were a manageable number of people to carry out the training sessions, to standardized the questionnaires, to cover the selected interview sites in two weeks, and to draw the group conclusions.

### *Questionnaires*

The initial questionnaire from the Population Council was translated into Spanish and customized to fit local needs and conditions. Specific adaptation issues considered were: (a) an appropriate list of medicines and medical equipment according to the SOH policy, and (b)

adapting the personnel skills and knowledge module according to the maternal health care protocols.

The most important questions answered by the study were;

*Is the Health Center or Hospital capable of providing Essential Obstetric Services? If not, What materials and equipment does it need to fulfill this goal?*

The module on personnel training only showed the health staff knowledge of the standard maternal health care protocols (which are currently being revised), and did not show the actual clinical skills of the health staff.

The module on IEC/C was very specific to determine the IEC materials, equipment and main methodologies used by Health District, level of care and by health center. However, a close-ended questionnaire was not the appropriate instrument to learn about the relationship between health personnel and patient, nor about the quality of the counseling provided.

Modules need further efforts to have standardized questionnaires to apply in specific country or local situations.

However, the questionnaires should be kept simple and practical, as a management tool for planning and monitoring the project. In order to obtain other necessary and complementary information, other instruments and complementary methodologies should be used, i.e., key informants, direct observations and exit interviews for client satisfaction and counseling.

### ***Location***

The MotherCare/Bolivia director and the Bolivian SOH authorities negotiated and selected the five health Districts for starting the MotherCare-II project and consequently the SA study.

Initially, the MotherCare SA team selected a sample of all hospitals, health centers and health post of the area<sup>3</sup>. But after the team listed all health services by district, and define the logistics, it was possible to interview all hospital and health centers. Also, some private hospitals enter in the study, only those working in close collaboration with the SOH.

As a result of experience gained in this study, it is recommended that future interviews should be conducted at the SOH's hospitals and referral centers only. In Bolivia, the study showed that peripheral health posts do not provide obstetric care. In case of obstetric emergencies patients and their relatives prefer to skip health post and go directly to a hospital or a referral center. As a result, there were almost no data on those health posts. Exceptions are some remote rural

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<sup>3</sup> All hospitals and referral centers, half of the health centers, and half of the health posts

districts, where sometimes a health post becomes the referral center for that district.

During the design of the study, MotherCare staff intended to use this methodology to select the districts where the project would be carried out. This idea was abandoned because it was apparent that this study was designed to provide information only on those health services targeted, and did not provide information on the health status of the population. Thus, without population-based data, it is not possible to determine the relevance of the project. Furthermore, carrying out the study in some area, and not setting up activities as result of the study could create conflict among health personnel.

### *Communication*

Early communication with the study objectives and purposes to the health personnel was vital. All health personnel need to be prepared to answer all questions with precision. The health information system, most particularly data on reproductive health, was necessary to the validity of the study. Even with early and seemingly adequate promotion and communication to the health service personnel, some records and information forms were not ready or available to the SA team. In future studies, researchers should increase their efforts to inform the health teams about the interviews and their objectives, and to check the health information system indicators.

The main problem encountered reviewing and abstracting data from the SOH's health information system was that there was no uniformity on how forms are filled out. Health services' staffs do not process and analyze the existing data for managing the interventions (plan for action and feedback) regularly. Preliminary visits to the health team members may be necessary.

### **III. TRAINING**

All participants (the core team) had the opportunity to learn about the SA methodology, by participating and discussing the study process through:

- o Adapting the questionnaire to respond specific project needs, and according to the SOH's norms.
- o Training supervisors and interviewers to carry out a standardized interview, and supervising the quality of the information. Team members took turns as interviewers and supervisors.
- o Conducting interviews according to the training.
- o Analyzing and interpreting the results.
- o Using the results to develop a work-plan for the MotherCare-II project.

The Bolivian SOH's National Plan for the Accelerated Reduction of Maternal Mortality, intends to initiate a series of situational analysis in all Health Districts of the country. Thus, this first experience served to train some SHOH's key personnel, and to demonstrate the time and human resources needed to carry out a standardized study. Obviously, the number and the level of

training needed to carry out future studies will vary with Health Districts and the SOH's resources.

Should an agency wish to develop a standardized training manual of situational analysis methodology and instruments, the following **additional** steps should be taken

- o Develop a complete training agenda and reference materials with the specific skills and abilities needed to carry out a high quality study.
- o Determine what key indicators can be obtained from the study, and express them in terms of numerator and denominator (operational definitions), i.e., medicines and equipment needed by level of service (EOS); specific knowledge and skill by health personnel (protocols).
- o Prepare an analysis plan.

More experience is needed to complete the above tasks. A core team should participate in the entire manual development process, so they can train health personnel at the health district level in the future.

#### IV. THE QUESTIONNAIRES

The study in Bolivia is comprised of seven modular-form questionnaires organized by topics. Conclusions about this particular study could help future researchers develop a more specific instrument.

##### 4.1. *QUESTIONNAIRE No. 1: SITE INVENTORY*

This questionnaire was directed to the nurse auxiliary, obstetric nurse, doctor/gynecologist, or the person **most familiar with the service**.

The specific objectives of Questionnaire 1 were:

- o To determine the distribution of medical and para-medical personnel by district and by type of health facility.
- o To determine the coverage of prenatal care provided, attention to delivery and obstetrical complications, and the main causes of maternal death in the service.
- o To estimate the capacity of the referral center to manage obstetrical emergencies, by means of trained personnel and cases attended.
- o To determine whether the service has a routine record of pregnancies and deliveries.
- o To determine the infrastructure to provide prenatal care and delivery.
- o To determine the equipment and supplies available for use in the maternal health care program (Essential Obstetric Care)

Questionnaire N. 1 - Basic Information - five sections:

- I. Personnel
- II. Statistics
- III. Case Data - patients treated and patients referred for the past year (1 Jan. to 31 Dec. 1994)
- IV. Infrastructure
- V. Equipment and Supplies

### ***Discussion***

#### ***Section I: Basic Information (questions 1-2)***

The purpose of this section was to identify the type of service according to the interviewee and SOH's personnel. The Bolivian health system is structured by the District Hospital and some Health Centers as the secondary level of care, and Health Post and some Health Centers as the primary level of care. There are only two tertiary level hospitals in La Paz and Cochabamba -- Hospital de la Mujer in the city of La Paz and Maternidad German Urquidi in the city of Cochabamba.

The actual functions of hospitals and health centers did not match the SHO's definitions for the system sometimes. Some district hospitals were functioning as health centers and some health centers as district hospital. Given the high turn over of health personnel, the district health system and the referral system were not clear for the SA team at the time of the analysis.

The information gathered through these two first questions were then cross-tabulated with most independent variables throughout the study in order to determine the real capacity of the district's health system under study (EOS).

#### ***Section II: Personnel (questions 3-6)***

The purposes of these questions were to determine the overall knowledge and skills of health personnel of the diagnosis and management of the most common obstetrical complications.

Personnel gender and training opportunities had a clear trend in the districts under study. Most qualified personnel in Bolivia are male and unqualified support personnel are female. Consequently, gender was not cross tabulated any further to avoid repeating what was already obvious. The recommendations are also clear -- There should be more emphasis on training female workers, specially nurses and nurse auxiliaries, because they are in closer contact with the target population, and very often the only resource in remote rural areas.

Personnel qualifications and training were also cross-tabulated with Questionnaire No 2: Knowledge and Skills.

Adding another column could complement this chart to find out those who stay on duty, and delete 6 and 18 that pertain the same purpose.

*Section III: Case Statistics and Patient Referral (questions 7-22)*

The purpose of these questions were to determine the total number of obstetric cases attended in the service, by year, type of complications, and the main causes of maternal deaths.

The present section/study was not design to identify obstetrical complications and maternal deaths in the community. Mothers have access to other private health facilities per district, and a large percentage in Bolivia deliver at home. However, the in-service clinical records of the deliveries (normal and complicated), were important to have an overview of the services' maternal health care.

In the present study, BCG immunization data was used to imply postnatal service and newborn care. This was not useful, because the use of BCG in Bolivia has been limited and inconsistent, specially in peripheral and rural centers. The question about BCG immunization should be deleted. Instead, a section of few questions on postpartum care could be added into the questionnaire.

*Section IV: Infrastructure, and Section V: Equipment and Supplies (23-37 and 38-40)*

These two sections are more relevant to Questionnaire No 5: Inventory of Essential equipment, and should be addressed under that questionnaire.

Questions 23-37 were filled out by direct observation. Interviewers were instructed to inspect and record the service infrastructure and essential equipment.

A consistent problem throughout the study was that the health staff did not prepare inventories of the materials by the time of the study, although the SOH's staff had informed the health service personnel in advance. Only administrator of the hospital/health center keep the inventory of all materials and equipment. Clinicians do not have access to this information. It is recommended for further studies, to actually visit the health services beforehand, and allow sufficient lead-time so that the information will be ready and available for the study. Also, it needs to be clear that the purpose of the study is to learn about the actual capacity of the health service to manage obstetrical cases, and the equipment inventory is crucial for planning.

Question 14 was incorrectly structured. There was considerable confusion between Apatients referred to the center @ and Apatients referred from the center to another one. @ This question should be split into two questions in order to determine what happened

when the patient was referred to the service under study, and to when the patient was referred to another service.

The questions regarding patient referral were vague, and did not provide much information on what happens during the referral process, that is the time between referral and treatment and whether and what treatment is given. There was a problem with the consistency and quality of record keeping and the kind of information that can be dependably obtained from facility records. In-depth interviews and exit interviews may yield better results.

The SHO's health information system has a referral and counter-referral forms (not implemented in all health centers yet), which will provide more useful information when the system is in place and functioning. This section should be customized when those forms are in place.

#### *4.2. QUESTIONNAIRE No. 2: PERSONNEL TRAINING*

These questions were asked of the most senior person with the most experience in the service, or the person who handled most of the deliveries (doctors, nurses or nurse auxiliaries).

The specific objectives were:

- o To establish knowledge in diagnosis and treatment of preeclampsia, labor monitoring, hemorrhage during labor and postpartum, postpartum sepsis, and abortion.
- o To establish knowledge and practice of medical and paramedical personnel in detection of high-risk pregnancies and referral, treatment of eclampsia and referral, treatment of hemorrhage and referral, treatment of lacerations, and cesarean section.

#### *Discussion*

The purpose of these sections were to identify the interviewee's clinical management skills through responses to obstetrical emergencies. The questions were presented in the form of clinical cases, representing the main signs and symptoms of the most common obstetric complications. The clinical cases described were: (a) preeclampsia and eclampsia; (b) labor monitoring; (c) hemorrhage during pregnancy, labor and postpartum; (d) postpartum sepsis; and (e) abortion. In addition, in all cases there were questions to explore whether the mother received proper information and counseling about her condition.

The purposes of the clinical cases presented were to observe the following conducts of the health personnel:

Questions regarding the management of eclampsia, were to learn whether the health personnel knew how to diagnose eclampsia, based on blood pressure and proteinuria, and if personnel would establish that the immediate action for referral is to sedate the patient.

Questions about labor monitoring were to learn the parameters used by the health personnel to decide if labor was proceeding normally. The labor phases of the questionnaire corresponded to the PARTOGRAPH.

Questions regarding hemorrhage during labor and delivery, were to find out if the interviewee focussed his attention on the diagnosis and management of the hypovolemic shock, and replacement of fluids as the immediate action.

Questions on postpartum hemorrhage were to learn if the care giver would diagnose retention of the placenta as the first cause of hemorrhage during the immediate postpartum, and if the immediate action was to administer oxytocic drugs and perform manual extraction of the placenta.

Questions on postpartum sepsis were to establish if clinical signs and symptoms were to detect the presence of infection, and if the care giver would initiate antibiotics, even before the referral.

Questions regarding abortion were to determine if the condition was incomplete abortion, and the conduct of health personnel, and the immediate action is the patient's referral or surgery.

These questions regarding clinical cases, need to be further refined to assure that interviewees answer according to the specific case management protocols of the normal and complicated delivery. This was not so in Bolivia, because the SOH had not standardized the case management protocols by level of attention, and some of them are still under revision.

Questionnaire No 2 was the most difficult to handle during interviewer training and in conducting interviews. These questions test knowledge, asking colleagues with the same training background can be very sensitive. Interviewers should explain their colleagues that the questionnaire is not to assess knowledge of individuals, but the program as a whole, and that the results will help design and/or refocus health personnel training in Essential Obstetric Care (EOC) by level of attention.

It is also recommended that the interviewee be directed to place him/herself in the situation of the clinical case described, and be encouraged to take sufficient time to give complete answers of the diagnosis and procedures. The SA team should conduct the interview in private, and the questions or clinical case should be clearly presented.

Therefore, the emphasis on the data analysis was on the obstetrical complications case management skills (life saving skills). This emphasis was not always clear to the interviewees, and it was a strong tendency to give long clinical descriptions of all the diagnostic procedures and treatment. So, the interviewee should be directed to focus on specific actions to manage the patient with the conditions described.

During analysis of data, the table with questions 1 and 2 pertaining training and education of health personnel was not clear. The table should be simplified, by breaking it down into two or three separate questions, to find out what kind of training health personnel received and the time of it, and any postgraduate and in-service training.

Questions 3 to 6, pertaining the personnel's satisfaction with their work should be removed from the questionnaire. The results were speculative without real basis to support the responses. It is recommended to use open-ended questions and another survey method to obtain this information.

Question 21 was a multiple choice question, which consisted of a list of topics on reproductive health and obstetrical case management, which the trainee would have received as part of his formal or in-service training. The topics of interest were then grouped and cross tabulated by the interviewee's professional background. The results showed correlation between the professional background of the interviewee and the selected topics. The results may also suggest some areas for further training or updating.

The manner in which the questions are asked is extremely important, as this is an examination on knowledge and procedures for obstetrical emergencies. The interviewer should explain the purpose of the question clearly, and there should be sufficient time to answer each. **Supervisors should not interview their subordinates.** Interviewers should be foreign to the system or health service under study. Finally, the interviewers should be familiar with analysis of the answers, and understand the importance of completing the questionnaires.

If there is a need to reduce the number of questions, concentration should be on clinical cases that are most frequently seen in the service.

#### *4.3. QUESTIONNAIRE No 3: SEXUALLY TRANSMITTED DISEASES*

The doctors or gynecologists/obstetricians in charge of consultation with inward or outpatients answered this questionnaire.

The specific objectives of this questionnaire were:

- o To determine the number of cases of Sexually Transmitted Diseases by district and type of institution.
- o To establish what laboratory tests are currently for the diagnosis of STDs by district and by type of institution.

### *Discussion*

STD service statistics were inadequate. The SNIS forms (National Health Information System) only contain the total number of STD cases, they do not specify the diagnosis, nor the results of laboratory tests or the age of the patients. That information is available on the service records, a notebook, in which health personnel register all patients attending the service. Health staffs extract the information from the notebooks and fill out the SNIS forms monthly. However, the SA teams were not prepared to review all service notebooks to extract the information for Questionnaire No. 3.

Question 4 sought to indicate trends in STD patient visits according to the personnel interviewed. However, it was a poor estimate of the STD trends at the SOH's health services. According to the health staff interviewed, the percentage of STD patients that visit the SOH's health services is low.

The purpose of questions 5-7 was to establish the types of routine STD tests carried out in the service, and if they are applied according to the norms. With questions 8-9, these questions were most useful in this questionnaire, because they showed the laboratory capacity by district. These have provided data to come to general conclusions about the capacity of the Health District as a health system. In Bolivia, there is a wide dispersion, and Adouble funding@ of resources -- Each hospital and health center has a poorly equipped laboratory, instead of a complete and fully equipped laboratory for the entire Health District with a good referral system.

For future studies, the SA teams should assess the reliability and completeness of the health information system beforehand, to decide whether to include the STD question naire. However, questions on the functions and the capacity of the laboratories should be part of the Situational Analysis instrument as is. If the questionnaire is not used completely, they should include those questions concerning the laboratories in other sections of the study.

#### *4.4. QUESTIONNAIRE No 4: ANEMIA DURING PREGNANCY*

Nurse auxiliaries, nurses, or physicians in charge of prenatal consultations with outpatients or confined patients answered this questionnaire.

The specific objectives of Questionnaire 4 were to establish practices in the control and prevention of anemia in pregnancy and the use of auxiliary laboratory tests.

### *Discussion*

This instrument was useful only to find out the flow and distribution of iron folate. If needed these series of questions should be included in Questionnaire 6: Essential Medicines and Supplies.

Including these questions in a medical context, however, undercuts the WHO's recommendation to give iron folate to **all pregnant women** in areas where anemia during pregnancy is a problem. Therefore, use of clinical exams and laboratory tests to determine anemia in a universalized program for the distribution of iron folate is not recommended. On the other hand, the present instrument does not explore the quality, nor the impact of the anemia prevention and treatment program. For these reasons, this questionnaire is not useful for the Situational Analysis.

Maintenance of information with the present instrument on the availability of iron folate in the service by direct observation, record review and expiration dates are recommended in Questionnaire 6.

#### *4.5. QUESTIONNAIRES No 5 AND No 6: INVENTORIES OF ESSENTIAL EQUIPMENT, MEDICINES AND SUPPLIES.*

The purpose of these two questionnaires was to establish a list of essential equipment and medicines necessary in the reproductive health program at the hospital level (District and referral centers), health centers, and medical posts.

The specific objectives were:

- o To establish an inventory of the essential equipment to carry out the maternal health program by district and type of service.
- o To establish an inventory of essential medicines to carry out the reproductive health program by district and type of service.
- o To determine which facilities have the essential equipment and supplies, and what are the necessary equipment and medicines to fulfill this requirement.

#### *Discussion*

Questionnaire No. 5 were to establish an inventory of the essential equipment to carry out the National Program for the Reduction of the Maternal Mortality by level of attention, and by Health District.

The initial analysis (see the report), permitted categorizing the essential equipment by health district and by the two levels of health studied (primary and secondary). In Bolivia, the primary level, medical and health posts, or peripheral doctors' consulting rooms, do not have the equipment or the appropriate medicines to carry out essential obstetric functions. At the secondary level, it was observed that some health centers in the studied district operate as referral hospitals, and some hospital really operate as health centers..

In the appendix of this paper, a list of the essential equipment complements the initial Situational Analysis, by the individual health services interviewed (tables 1, 2 and 3).

The purpose of Questionnaire No 6 was the same purpose as the previous questionnaire, but for the essential medicines. Tables 4 and 5 of the appendix are aimed to complement the initial information of the report.

The initial Population Council questionnaire was discussed and adapted to conform with the national norms of the reproductive health program. This process should be repeated in case of replicating the study in another country or situation.

#### 5.7. QUESTIONNAIRE No 7: INFORMATION, EDUCATION, COMMUNICATION AND COUNSELING (IEC/C)

This questionnaire was directed to the professional in charge of the IEC/C area of the corresponding health service, or to the service's director. There were seven sections: (1) existence of the IEC/C component in the health services, (2) counseling, (3) support from other public and private institutions, (4) key informants, (5) mass media communication resources, (6) infrastructure and equipment of each center, and (7) work experience of the health personnel.

The specific objectives of Questionnaire 7 were:

- o To establish the state of the IEC/C activities by district and by service, personnel involved and their training.
- o To establish an inventory of the equipment and materials used in IEC/C by type of service and by district.
- o To establish the level of coordination between services interviewed and other institutions working in IEC/C by district and by service.

#### ***Discussion***

This questionnaire was original to this study.

#### ***Section 1: Availability of the IEC component in the health services.***

These questions were successful in identifying the person in charge of IEC/C in the service, and his or her professional background; in determining the inventory of IEC materials; and identifying all IEC/C activities carried out in the service, and their origin.

Questions 5-7 can be reduced to one general question, however -- AWhat IEC/C activities are carried out in your service?@ Information that would establish where these materials came from, could not be assessed through question 5, because it only shows what the health service knows. Having an inventory of the institutions that produce IEC/C materials in the country is more useful, through organizations like UNICEF, PAHO, and the NGO umbrella group on IEC/C.

Question 9 is repetitious of questions 3 and 4, and does not provide any additional information for IEC/C activity planning. This question should be deleted.

*Section 2: Counseling*

These series of questions are extremely important for the IEC/C component. However, the quality of the counseling is heavily influenced by the interviewee's perception of the type of counseling the service is trying to provide. Consequently, obtaining this information through a close ended questionnaire to the provider is not advisable. Other methods, like direct observation, in-depth interviews and exit interviews, should be used to learn the quality of counseling.

*Section 3: Support of other private and public institutions*

This question was very important to identify the organizations by type and by district. The information is provided will help planning the coordination efforts necessary for the project MotherCare-II and the SOH.

*Section 4: Key informants*

The purpose of this section was to identify the organizations Aof the community@ by district. As in the previous section, the data served to plan the coordination efforts at the community level, and to identify the key informants and key groups for future activities.

*Section 5: Mass communication methods*

The purpose of this section was to establish the inventory of means of communication by district, to plan future IEC/C activities.

*Section 6: Infrastructure and equipment of the center*

The purpose of this question was to establish the service infrastructure as for delivery rooms and outpatient office and equipment. This section, which includes the inventory of the specific IEC/C materials by district and by service, can be combined with questions in Questionnaire 1 or 6 on the infrastructure.

*Section 7: Work experience of health personnel*

The purpose of this was to establish the education and training of personnel in charge of IEC/C, and future training needs perceived by the interviewees.

The number of questions in the IEC/C questionnaire can be reduced (as explained in the revision). The questionnaire meets the study's specific objectives, except in section 2 on counseling services, where another methods are recommended.

Questionnaire 7 was developed entirely in Bolivia for the Situational Analysis. It was the first experience, and the results of the study demonstrated that it is worth the trouble to include it in future studies. The data gathered in such close ended questionnaire, however, relates only to overall capacity for IEC as for materials, supplies, and coordination efforts. This information is basic and necessary, but needs to be complemented by direct observation to learn about the quality of counseling and messages, competency of counselors, and client satisfaction.

## V. ANALYSIS AND USES OF THE RESULTS

EPI/INFO, the CDC's software package, was used for data entry and analysis. This software is user friendly, and had enough statistical capabilities for the Situational Analysis in Bolivia.

Analyzing each questionnaire in a different manner was necessary. Frequency distributions were generated for the first, third, fourth and seventh questionnaires, then cross tabulated by health districts and type of service (dependent variables), to determine the overall capacity of the district. This allowed the study team to determine the strengths and weaknesses of the health districts and by type of service (hospitals, health centers, and health posts). Appendixes A and B of this paper complements that initial analysis, by providing information of individual health services.

The main use of the second questionnaire was to figure out the overall training needs of the health personnel. In this questionnaire, the first sets of tables were used to learn the education of the health personnel interviewed by time of training (pre-service and in-service) and title. Then, the occupation and training of the health personnel interviewed were taken as the dependent variables to cross tabulate with the cases of obstetrical complications under study. Since there are no standard norms and protocols for the case management of obstetrical complications in Bolivia, some inconsistencies found in the results were not only due to lack of training, but the absence of standardized protocols against to measure performance.

The fifth and sixth questionnaires were lists of essential equipment and medicines for reproductive health. These lists were grouped in two main categories according to the type of health services (health posts and health centers were grouped in one category).

- o District hospitals and referral centers -- To determine if this level has the necessary equipment and medicines for the diagnosis and management of pregnancies and normal deliveries, and obstetrical complications, including cesarean section.
- o Health centers and health posts -- To determine if this level has the necessary equipment and medicines for the diagnosis and management of pregnancies and normal deliveries, and for the first level of obstetrical complications case management, and referral to the next level of care.
- o All individual health services under study -- To determine the existing equipment and medicines, and what materials and equipment are needed to carry out the essential obstetric care for its level (included in this paper to complement the initial SA report).

The analysis of the results was undertaken with key personnel of the SHO and MotherCare. Once all initial tables were printed out, staff of both organizations got together in la Paz to analyze the results. The conclusions and recommendations of the study<sup>4</sup>, responded to the major areas of need identified by the Situational Analysis. These recommendations also served as basis in designing the MotherCare Project's Implementation Plan. SOH key personnel also participated in the elaboration of the MotherCare plan two months later.

## VI. LESSONS LEARNED

This joint effort involving staff from the MotherCare and the Bolivian Secretariat of Health deserves to analyze for lessons learned to consider the validity of this approach in carrying out a study and in providing technical assistance to staff in the future. In summary, the lessons learned are as follows:

The study implementation process, as a planning tool and a training exercise, was both acceptable and effective for gaining a better understanding of the design and use of the situational analysis instrument.

This process led to strengthening of the country/regional networking of those involved in the MotherCare Project. The fact that the SOH is struggling with similar difficulties in establishing an effective reproductive health program, promoted a sense of the need to continue networking and collaborating together.

Involving key personnel of the SOH and PVO was crucial to legitimizing future efforts. Dr. Guillermo Seoane, the MotherCare/Bolivia Country Director, initiated this event in response to a request made by the people in charge of the National Reproductive Health Program asking that key staff participate in the study and get acquainted with the methodology and instruments used.

This format also served to identify local needs as for equipment and training, and to address them with the available resources of the project and the SOH. There were individuals with considerable expertise in various aspects of reproductive health. The process underlying the implementation of the National of Reproductive health became more real as the participants saw the main areas of need and areas of future studies and research. Also, from the discussion held during the Situational Analysis and their conclusions, the study was clearly a stepping stone in considering the development of future actions together.

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<sup>4</sup> The complete study results, conclusions and recommendations, are presented in the report by Dr. Marcelo Castrillo. MotherCare-II project. Bolivia, March, 1995.

This format can be used to meet similar or comparable needs whenever necessary in the future, with the understanding that the host project staff and their counterparts be willing to plan, host and implement the study, and use the results as a planning tool.

## **ANNEXES**

<b>Table 1</b>	<b>Essential Equipment: Delivery Kit for Health Posts and Health Centers Codebook</b>
<b>Table 2</b>	<b>Essential Equipment for Health Centers and Health Posts Codebook</b>
<b>Table 3</b>	<b>Essential Equipment: District Hospitals and Referral Centers Codebook</b>
<b>Table 4</b>	<b>Essential Medicines: District Hospitals and Referral Centers Codebook</b>
<b>Table 5</b>	<b>Essential Medicines: Health Centers and Health Posts</b>

Table 1. Essential Equipment: Delivery Kit for Health Posts and Health Centers

NAME	COMMUNITY	DISTRICT	TYPE	1	2	3	4	5	6	7	8	9	10	11	12
C S H TIQUIPAYA	TIQUIPAYA	DISTRITO V QUILLACOLLO, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H ORLANDO TAJA	MALLKU RANCHO	DISTRITO V QUILLACOLLO, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H VINTO	VINTO	DISTRITO V QUILLACOLLO, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEÑOR DE LOS MILAGROS	SIPE SIPE	DISTRITO V QUILLACOLLO, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H PAROTANI	PAROTANI	DISTRITO V QUILLACOLLO, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H SALOMON KLEIN	QUINTANILLA	DISTRITO VI SACABA, CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD UCUCHI	UCUHCI	DISTRITO VI SACABA, CBB	Health Center					Y	Y	Y	Y				
C S PROSALUD VILLA BOLIVAR	VILLA BOLIVAR D	DISTRITO II, EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S NUEVOS HORIZONTES	NUEVOS HORIZONTES	DISTRITO II, EL ALTO	Health Center	Y				Y	Y	Y	Y	Y	Y	Y	Y
C S ABAROA	VILLA ABAROA	DISTRITO II, EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S 1ERO DE MAYO	1ERO DE MAYO	DISTRITO II, EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VILLA ADELA	VILLA ADELA	DISTRITO II, EL ALTO	Health Center			Y		Y	Y	Y	Y	Y	Y	Y	Y
C S SANTIAGO SEGUNDO	SANTIAGO SEGUNDO	DISTRITO II, EL ALTO	Health Center	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
C S KORPA	KORPA	DISTRITO I, LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TIAHUANACU	TIAHUANACU	DISTRITO I, LA PAZ	Health Center	Y				Y	Y	Y	Y	Y	Y	Y	Y
C S TARACO	TARACO	DISTRITO I, LA PAZ	Health Center			Y	Y		Y	Y	Y	Y	Y	Y	Y
C S VIACHA	VIACHA	DISTRITO I, LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
POSTA DE SALUD MELGA	MELGA	DISTRITO VI SACABA, CBB	Health Post	Y					Y	Y					
P S ACHACA	ACHACA	DISTRITO I, LA PAZ	Health Post			Y			Y	Y	Y				
P S HILATA CENTRO	HILATA CENTRO	DISTRITO I, LA PAZ	Health Post		Y	Y			Y	Y	Y	Y	Y	Y	Y
P S CONIRI	CONIRI	DISTRITO I, LA PAZ	Health Post		Y	Y			Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD COLOMI	COLOMI	DISTRITO VI SACABA, CBB	Health Center	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y

## **CODEBOOK**

**Table 1. Essential Equipment: Delivery Kit for Health Posts and Health Centers**

<b>1</b>	<b>Sterilization instr./boiling type</b>
<b>2</b>	<b>Suture catgut obstetric sterile w/needle</b>
<b>3</b>	<b>Suture silk black</b>
<b>4</b>	<b>Tape umbilical non-ster</b>
<b>5</b>	<b>Forceps dressing spring</b>
<b>6</b>	<b>Forceps hemostat straight</b>
<b>7</b>	<b>Forceps tissue spring type</b>
<b>8</b>	<b>Holder needle straight broad jaw</b>
<b>9</b>	<b>Sterile gauze pads</b>
<b>10</b>	<b>Gloves surgeon's latex</b>
<b>11</b>	<b>Sterile sanitary pads</b>
<b>12</b>	<b>SOH's sterile delivery kit</b>

Table 2. Essential Equipment for for Health Centers and Health Posts

NAME	COMMUNITY	DISTRICT	TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C S H TIQUIPAYA	TIQUIPAYA	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H ORLANDO TAJA	MALLKU RANCHO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H VINTO	VINTO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y					Y		Y	Y	Y	Y	Y	Y		
BENOR DE LOS MILAGROS	BIPE BIPE	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y		Y
C S H PAROTANI	PAROTANI	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y			Y	Y		Y	Y	Y	Y	Y	Y		
C S H BALOMON KLEIN	QUINTANILLA	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y		Y			Y		Y	Y	Y	Y	Y		Y
CENTRO DE SALUD UCUCHI	UCUCHI	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y					Y		Y	Y	Y	Y	Y	Y		
C S PROBALUD VILLA BOLIVAR D	VILLA BOLIVAR D	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
C S NUEVOS HORIZONTES	NUEVOS HORIZONTES	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y		
C S ABAROJA	VILLA ABAROJA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y		Y
C S IERO DE MAYO	IERO DE MAYO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y		Y
C S VILLA ADELA	VILLA ADELA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y						Y	Y	Y	Y	Y	Y		
C S SANTIAGO REGUNDO	SANTIAGO REGUNDO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y		
C S KORPA	KORPA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C S TIHUANACU	TIHUANACU	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y				Y		Y	Y	Y	Y	Y	Y		
C S TARACO	TARACO	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y		
C S VIACHA	VIACHA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y		Y				Y	Y	Y	Y	Y	Y		Y
POSTA DE SALUD MELGA	MELGA	DISTRITO VI SACABA CBB	Health Post	Y	Y	Y	Y				Y	Y			Y	Y	Y	Y	Y		
P S ACHACA	ACHACA	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y			Y						Y	Y	Y	Y		
P S HILATA CENTRO	HILATA CENTRO	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y									Y	Y	Y	Y		Y
P S CONINI	CONINI	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y									Y	Y	Y	Y		
CENTRO DE SALUD COLOM	COLOM	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y			Y	Y				Y	Y	Y	Y	Y		Y

NAME	COMMUNITY	DISTRICT	TYPE	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
C S H TIQUIPAYA	TIQUIPAYA	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H ORLANDO TAJA	MALLKU RANCHO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H VINTO	VINTO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BENOR DE LOS MILAGROS	BIPE BIPE	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H PAROTANI	PAROTANI	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H BALOMON KLEIN	QUINTANILLA	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD UCUCHI	UCUCHI	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S PROBALUD VILLA BOLIVAR D	VILLA BOLIVAR D	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S NUEVOS HORIZONTES	NUEVOS HORIZONTES	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S ABAROJA	VILLA ABAROJA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S IERO DE MAYO	IERO DE MAYO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VILLA ADELA	VILLA ADELA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S SANTIAGO REGUNDO	SANTIAGO REGUNDO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S KORPA	KORPA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TIHUANACU	TIHUANACU	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TARACO	TARACO	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VIACHA	VIACHA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
POSTA DE SALUD MELGA	MELGA	DISTRITO VI SACABA CBB	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S ACHACA	ACHACA	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S HILATA CENTRO	HILATA CENTRO	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S CONINI	CONINI	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD COLOM	COLOM	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

NAME	COMMUNITY	DISTRICT	TYPE	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
C S H TIQUIPAYA	TIQUIPAYA	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H ORLANDO TAJA	MALLKU RANCHO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H VINTO	VINTO	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BENOR DE LOS MILAGROS	BIPE BIPE	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H PAROTANI	PAROTANI	DISTRITO V QUILLACOLLO CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H BALOMON KLEIN	QUINTANILLA	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD UCUCHI	UCUCHI	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S PROBALUD VILLA BOLIVAR D	VILLA BOLIVAR D	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S NUEVOS HORIZONTES	NUEVOS HORIZONTES	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S ABAROJA	VILLA ABAROJA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S IERO DE MAYO	IERO DE MAYO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VILLA ADELA	VILLA ADELA	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S SANTIAGO REGUNDO	SANTIAGO REGUNDO	DISTRITO II EL ALTO	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S KORPA	KORPA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TIHUANACU	TIHUANACU	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TARACO	TARACO	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VIACHA	VIACHA	DISTRITO I LA PAZ	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
POSTA DE SALUD MELGA	MELGA	DISTRITO VI SACABA CBB	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S ACHACA	ACHACA	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S HILATA CENTRO	HILATA CENTRO	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S CONINI	CONINI	DISTRITO I LA PAZ	Health Post	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD COLOM	COLOM	DISTRITO VI SACABA CBB	Health Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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# CODEBOOK

**Table 2. Essential Equipment for Health Centers and Health Posts**

1	Sphygomanometer
2	Bulb syringe for sucking infant
3	Pinard
4	Stethoscope
5	Albumin sticks for testing for proteinuria
6	IV fluid sets
7	IV catheter sets
8	Tourniquets
9	Foley catheter
10	Urine collection bags
11	Sponge forceps
12	Vaginal speculum
13	Sterile needles and syringes for IM and IV injections
14	Thermometer
15	Padded tongue blade or spatula
16	Oxygen tank, tubing, and face mask or nasal cannula
17	Access to laboratory or centrifuge for hematocrits of hemoglobinometer for hemoglobin checks
18	Absorbable suture on curved needle (ie. chromic 00 & 0000)
19	Sterile packing material or sterile sanitary pads
20	Sterile 4x4 gauze pads
21	Stainless metal delivery bed
22	Device for amniotomy - such as amnitome, amnihook, or sterile allis clamp
23	Suture set - needle holder, scissors, non-toothed dissecting forceps
24	Delivery set - cord scissors, cord clamp, 2 Mayo clamps
25	Protective apron

26	Containers with lids to store boiled instruments, gloves, etc.
27	Stainless metal delivery bed
28	Chart for calculating fetal ages
29	Bulbs for flashlight
30	Basin kidney stainless steel
31	Ambu
32	Bath baby oval
33	Bowl sponge stainless steel
34	Cup solution stainless steel
35	Irrigator 1.5 litre stainless steel
36	Jar dressing w/cover litre SS
37	Tray instr./dressing w/cover SS
38	Bag hot-water and ice combination
39	Catheter tracheal Delee w/glass mucus
40	Catheter urethral nelaton solid-tip one eye 12 FR
41	Catheter urethral foley 18 FR disp
42	Connector 3 in 1
43	Gloves surgeon's latex sizes 6 to 8
44	Pump breast hand, rubber-bulb glass/plastic bell
45	Sheeting plastic clear
46	Dropper medicine curved tip ungraduated
47	Brush hand surgeon's
48	Lancets SS
49	Non-sterilized cotton
50	Urinometer
51	Measuring cup 500ml cup pyrex.
52	Stopwatch 30 minutes

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Table 3. Essential Equipment. District Hospitals and Referral Centers

NAME	COMM	DIST	TYPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
HOSPITAL QUILLACOLLO	QUILLACOLLO	DISTRITO V QUILLACOLLO, CMB	DISTRICT HOSPITAL	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H BACABA	BACABA	DISTRITO VI BACABA, CMB	DISTRICT HOSPITAL	Y									Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
HOSPITAL JOSE DE LA REZA	CAPINOTA	DISTRITO VII CAPINOTA, CMB	DISTRICT HOSPITAL			Y	Y						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
H D LOS ANDES	LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL			Y	Y															
H D FERROCARRIA	VIACHA	DISTRITO I LA PAZ	DISTRICT HOSPITAL										Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
HOSP CUSHIERI	COLCAPINCHA	DISTRITO V QUILLACOLLO, CMB	PRIVATE CLINIC (REFERRAL CENTER)										Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CLINICA CORAZON DE JESUS	EL KENKO	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)										Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

NAME	COMM	DIST	TYPE	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
HOSPITAL QUILLACOLLO	QUILLACOLLO	DISTRITO V QUILLACOLLO, CMB	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y	Y	Y	Y				Y	Y	Y			Y	Y	
C S H BACABA	BACABA	DISTRITO VI BACABA, CMB	DISTRICT HOSPITAL																			Y	Y
HOSPITAL JOSE DE LA REZA	CAPINOTA	DISTRITO VII CAPINOTA, CMB	DISTRICT HOSPITAL	Y									Y									Y	Y
H D LOS ANDES	LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL			Y	Y	Y	Y	Y	Y		Y	Y	Y							Y	Y
H D FERROCARRIA	VIACHA	DISTRITO I LA PAZ	DISTRICT HOSPITAL										Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
HOSP CUSHIERI	COLCAPINCHA	DISTRITO V QUILLACOLLO, CMB	PRIVATE CLINIC (REFERRAL CENTER)																			Y	Y
CLINICA CORAZON DE JESUS	EL KENKO	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)																			Y	Y

NAME	COMM	DIST	TYPE	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	
HOSPITAL QUILLACOLLO	QUILLACOLLO	DISTRITO V QUILLACOLLO, CMB	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H BACABA	BACABA	DISTRITO VI BACABA, CMB	DISTRICT HOSPITAL																
HOSPITAL JOSE DE LA REZA	CAPINOTA	DISTRITO VII CAPINOTA, CMB	DISTRICT HOSPITAL	Y			Y												
H D LOS ANDES	LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL	Y		Y	Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
H D FERROCARRIA	VIACHA	DISTRITO I LA PAZ	DISTRICT HOSPITAL																
HOSP CUSHIERI	COLCAPINCHA	DISTRITO V QUILLACOLLO, CMB	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CLINICA CORAZON DE JESUS	EL KENKO	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)																

NAME	COMM	DIST	TYPE	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
HOSPITAL QUILLACOLLO	QUILLACOLLO	DISTRITO V QUILLACOLLO, CMB	DISTRICT HOSPITAL						Y	Y	Y	Y					Y	Y
C S H BACABA	BACABA	DISTRITO VI BACABA, CMB	DISTRICT HOSPITAL															
HOSPITAL JOSE DE LA REZA	CAPINOTA	DISTRITO VII CAPINOTA, CMB	DISTRICT HOSPITAL															
H D LOS ANDES	LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL	Y		Y	Y	Y	Y	Y	Y	Y						
H D FERROCARRIA	VIACHA	DISTRITO I LA PAZ	DISTRICT HOSPITAL															
HOSP CUSHIERI	COLCAPINCHA	DISTRITO V QUILLACOLLO, CMB	PRIVATE CLINIC (REFERRAL CENTER)															
CLINICA CORAZON DE JESUS	EL KENKO	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)															

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Table 3. Essential Equipment: District Hospitals and Referral Centers

1	Anesthetic face mask for adults
2	Anesthetic face mask for infants
3	Catheter tracheal defec
4	Laryngoscope
5	Laryngoscope spare parts
6	Bateries for laryngoscope
7	Containers with lids to store sterilized instruments
8	Hangers for towels
9	Sponge forceps
10	Forceps hemostat straight
11	Forceps hemostat for the uterus
12	Forceps straight, 22.5 cm
13	Forceps straight, 12.5 cm
14	Forceps tissue spring type
15	Taniers forcep
16	Needle holder
17	Bistoury's handle
18	Bistourys' blades
19	Needle, 7.3 cm and 6 cm
20	Round needles 12 cm and 6
21	Abdominal separator with supra pubic valve
22	Abdominal separator
23	Scissors dissect straight Mayo
24	Scissors straigh Mayo
25	Scissors straight 22cm
26	Bulb syringe for sucking
27	Sucking catheter, 22.5 cm
28	Forceps tissue straigh
29	Forceps tissue curved
30	Pediatric IV fluids set
31	Adult IV fluids set
32	Peridural punction set
33	Doppler

34	Y and T type Connectors
35	Tape umbilical
36	Razor
37	Sphyngomanometer
38	Stethoscop
39	Fethoscope or Pinard
40	Lamps
41	Ultraviolet light
42	Running water
43	Room air extractor
44	Surgery table
45	Autoclave
46	Dry sterilizer
47	Trays all sizes
48	Portable lams
49	Stretcher with wheels
50	Delivery beds
51	Bistoury
52	Yankauer's canula
53	Pool-Wheeler
54	Electric bistoury
55	Catheters all sizes
56	Kocher catheter
57	Containers all sizes
58	Basins
59	Vaginal specuhans Sims
60	Vaginal specuhans
61	Amniotomy scissors
62	Vacuum extractor
63	Amniotomy devices
64	Histerometer
65	Uterine dilator, all sizes
66	Curettage kit

Table 4. Essential Medicines: District Hospital and Referral Centers

NAME	DIST	TYPE	DD1	DD2	DD3	DD4	DD5	DD6	DD7	DD8	DD9	DD10	DD11	DD12	DD13	DD14	DD15
HOSP QUILLACOLLO	DISTRITO V QUILLACOLLO, CBB	DISTRICT HOSPITAL	Y	Y	Y		Y	Y		Y			Y		Y		
H D SACABA	DISTRITO VI SACABA, CBB	DISTRICT HOSPITAL	Y	Y			Y	Y		Y			Y		Y	Y	
HOSPITAL JUAN DE LA REZA	DISTRITO VII CAPINOTA, CBB	DISTRICT HOSPITAL	Y	Y	Y		Y	Y		Y		Y			Y	Y	Y
H D LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL	Y	Y	Y		Y	Y		Y		Y	Y	Y	Y	Y	Y
H D FERROCAJA	DISTRITO I LA PAZ	DISTRICT HOSPITAL	Y	Y	Y		Y	Y		Y		Y	Y	Y	Y	Y	Y
HOSP CUSHIRI	DISTRITO V QUILLACOLLO, CBB	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y		Y	Y		Y		Y	Y	Y	Y	Y	Y
CLINICA CORAZON DE JESUS	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y

NAME	DIST	TYPE	DD16	DD17	DD18	DD19	DD20	DD21	DD22	DD23	DD24	DD25	DD26	DD27	DD28	DD29	DD30
HOSP QUILLACOLLO	DISTRITO V QUILLACOLLO, CBB	DISTRICT HOSPITAL			Y	Y	Y		Y	Y							Y
H D SACABA	DISTRITO VI SACABA, CBB	DISTRICT HOSPITAL		Y	Y	Y	Y		Y	Y							Y
HOSPITAL JUAN DE LA REZA	DISTRITO VII CAPINOTA, CBB	DISTRICT HOSPITAL			Y	Y	Y	Y	Y	Y	Y		Y				Y
H D LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL		Y	Y	Y	Y	Y	Y	Y		Y					Y
H D FERROCAJA	DISTRITO I LA PAZ	DISTRICT HOSPITAL		Y	Y	Y	Y	Y	Y	Y							Y
HOSP CUSHIRI	DISTRITO V QUILLACOLLO, CBB	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y	Y	Y				Y			Y
CLINICA CORAZON DE JESUS	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)		Y	Y	Y	Y	Y	Y	Y	Y						Y

NAME	DIST	TYPE	DD31	DD32	DD33	DD34	DD35	DD36	DD37	DD38	DD39	DD40	DD41	DD42	DD43	DD44
HOSP QUILLACOLLO	DISTRITO V QUILLACOLLO, CBB	DISTRICT HOSPITAL	Y	Y	Y		Y		Y					Y	Y	
H D SACABA	DISTRITO VI SACABA, CBB	DISTRICT HOSPITAL	Y	Y		Y								Y	Y	
HOSPITAL JUAN DE LA REZA	DISTRITO VII CAPINOTA, CBB	DISTRICT HOSPITAL	Y	Y	Y			Y	Y					Y	Y	
H D LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y	Y					Y	Y	
H D FERROCAJA	DISTRITO I LA PAZ	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y	Y					Y	Y	
HOSP CUSHIRI	DISTRITO V QUILLACOLLO, CBB	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y	Y					Y	Y	Y
CLINICA CORAZON DE JESUS	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y		Y	Y						Y	Y	

NAME	DIST	TYPE	DD45	DD46	DD47	DD48	DD49	DD50	DD51	DD52	DD53	DD54	DD55	DD56	DD57	DD58
HOSP QUILLACOLLO	DISTRITO V QUILLACOLLO, CBB	DISTRICT HOSPITAL	Y			Y	Y	Y		Y				Y	Y	Y
H D SACABA	DISTRITO VI SACABA, CBB	DISTRICT HOSPITAL	Y				Y	Y		Y				Y	Y	Y
HOSPITAL JUAN DE LA REZA	DISTRITO VII CAPINOTA, CBB	DISTRICT HOSPITAL	Y		Y		Y	Y		Y				Y	Y	Y
H D LOS ANDES	DISTRITO II EL ALTO	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y
H D FERROCAJA	DISTRITO I LA PAZ	DISTRICT HOSPITAL	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y
HOSP CUSHIRI	DISTRITO V QUILLACOLLO, CBB	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y
CLINICA CORAZON DE JESUS	DISTRITO II EL ALTO	PRIVATE CLINIC (REFERRAL CENTER)	Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y	Y

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**Table 4. Essential Medicines: District Hospital and Referral Centers**

QDD1	Atropine
QDD2	Diazepam
QDD3	Lidocaine
QDD4	Nitrous oxide
QDD5	Oxygen
QDD6	Acetylsalicylic Acid
QDD7	Morphine
QDD8	Paracetamol
QDD9	Pethidine
QDD10	Epinephrine
QDD11	Hydrocortisone
QDD12	Promethazine
QDD13	Ferrous sulfate/iron
QDD14	Folic acid
QDD15	Insulin
QDD16	Hydralazine
QDD17	Dogizil
QDD18	Ampicillin
QDD19	Benzylpenicillin
QDD20	Procaine benzylpenicillin
QDD21	Chloramphenicol
QDD21	Gentamicin
QDD22	Sulfamethoxazole + trimethoprim
QDD23	Chloroquine
QDD24	Mefloquine
QDD25	Proguanil
QDD26	Pyrimethamine = sulfadoxine
QDD27	Quinine
QDD28	Chlorhexidine
QDD29	Iodine
QDD30	Surgical spirit/alcohol

QDD31	Water for injection
QDD32	Compound solution of sodium lactate
QDD33	Glucose with sodium chloride
QDD34	Sodium chloride
QDD35	Sodium bicarbonate
QDD36	Ethinylestradiol + levonorgestral
QDD37	Ethinylestradiol + norethisterone
QDD38	Depo medroxy-progesterone acetate
QDD39	Norethisterone
QDD40	Norethisterone enantate
QDD41	Ergometrine
QDD42	Oxytocin
QDD43	Diazepam
QDD44	Tetanus antitoxin (antitetanus immunoglobulin) (human)
QDD45	Tetanus toxoid
QDD46	Pentotal
QDD47	Phenobarbital
QDD48	Marcaine 0.5%
QDD49	Dexametazone
QDD50	Metronidazol
QDD51	Quinolone
QDD52	Benzatil penicilline 2.4
QDD53	Metildopa
QDD54	Magnesium sulphate
QDD55	Savlon (antiseptic)
QDD56	Furosemide
QDD57	IUDs
QDD58	Preservatives

Table 5. Essential Medicines: Health Centers and Health Posts

NAME	DIST	TYPE	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8	CD9	CD10	CD11	CD12	CD13	CD14	CD15	CD16	
C S H TIQUIPAYA	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER			Y			Y	Y	Y	Y	Y	Y				Y	Y	Y
C S H ORLANDO TAJA	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y	Y				Y	Y	Y
C S H VINTO	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y	Y				Y	Y	Y
SEÑOR DE LOS MILAGROS	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER		Y	Y		Y	Y	Y	Y	Y	Y	Y				Y	Y	Y
C S H PAROTANI	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y	Y				Y	Y	Y
C S H SALOMON KLEIN	DISTRITO VI SACABA, CBB	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y					Y	Y	Y
CENTRO DE SALUD UCUCHI	DISTRITO VI SACABA, CBB	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y					Y	Y	Y
C S PROSALUD VILLA BOLIVAR D	DISTRITO II, EL ALTO	HEALTH CENTER		Y	Y		Y	Y	Y	Y	Y	Y					Y	Y	Y
C S NUEVOS HORIZONTES	DISTRITO II, EL ALTO	HEALTH CENTER						Y	Y	Y	Y	Y					Y	Y	Y
C S ABAROA	DISTRITO II, EL ALTO	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y					Y	Y	Y
C S 1ERO DE MAYO	DISTRITO II, EL ALTO	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y			Y	Y	Y	Y	Y
C S VILLA ADELA	DISTRITO II, EL ALTO	HEALTH CENTER		Y	Y		Y	Y	Y	Y	Y	Y					Y	Y	Y
C S SANTIAGO SEGUNDO	DISTRITO II, EL ALTO	HEALTH CENTER					Y	Y	Y	Y	Y	Y					Y	Y	Y
C S TARACO	DISTRITO I LA PAZ	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y					Y	Y	Y
C S VIACHA	DISTRITO I LA PAZ	HEALTH CENTER		Y	Y			Y	Y	Y	Y	Y					Y	Y	Y
P S KORPA	DISTRITO I LA PAZ	HEALTH CENTER		Y	Y		Y	Y	Y	Y	Y	Y	Y				Y	Y	Y
C S TIAHUANACU	DISTRITO I LA PAZ	HEALTH CENTER		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y
POSTA DE SALUD MELGA	DISTRITO VI SACABA, CBB	HEALTH POST		Y	Y			Y	Y	Y	Y	Y		Y			Y	Y	Y
P S HILATA CENTRO	DISTRITO I LA PAZ	HEALTH POST						Y	Y	Y	Y	Y					Y	Y	Y
P S CONIRI	DISTRITO I LA PAZ	HEALTH POST						Y	Y	Y	Y	Y					Y	Y	Y
P S ACHACA	DISTRITO I LA PAZ	HEALTH POST						Y	Y	Y	Y	Y					Y	Y	Y
CENTRO DE SALUD COLOMI	DISTRITO VI SACABA, CBB	HEALTH CENTER			Y			Y	Y	Y	Y	Y					Y	Y	Y

NAME	DIST	TYPE	CD17	CD18	CD19	CD20	CD21	CD22	CD23	CD24	CD25	CD26	CD27	CD28	CD29	CD30	CD31
C S H TIQUIPAYA	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H ORLANDO TAJA	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H VINTO	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SEÑOR DE LOS MILAGROS	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H PAROTANI	DISTRITO V QUILLACOLLO, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S H SALOMON KLEIN	DISTRITO VI SACABA, CBB	HEALTH CENTER		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD UCUCHI	DISTRITO VI SACABA, CBB	HEALTH CENTER		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S PROSALUD VILLA BOLIVAR D	DISTRITO II EL ALTO	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S NUEVOS HORIZONTES	DISTRITO II EL ALTO	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S ABAROA	DISTRITO II EL ALTO	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S 1ERO DE MAYO	DISTRITO II EL ALTO	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VILLA ADELA	DISTRITO II EL ALTO	HEALTH CENTER		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S SANTIAGO SEGUNDO	DISTRITO II EL ALTO	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TARACO	DISTRITO I LA PAZ	HEALTH CENTER		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S VIACHA	DISTRITO I LA PAZ	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S KORPA	DISTRITO I LA PAZ	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C S TIAHUANACU	DISTRITO I LA PAZ	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
POSTA DE SALUD MELGA	DISTRITO VI SACABA, CBB	HEALTH POST		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S HILATA CENTRO	DISTRITO I LA PAZ	HEALTH POST	Y					Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S CONIRI	DISTRITO I LA PAZ	HEALTH POST						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P S ACHACA	DISTRITO I LA PAZ	HEALTH POST						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CENTRO DE SALUD COLOMI	DISTRITO VI SACABA, CBB	HEALTH CENTER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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Table 5. Essential Medicines: Health Centers and Health Posts

CD1	Hydralazine hydrochloride (apresoline)
CD2	Methyldopa (aldomet)
CD3	Diazepam (valium, diazemsuls)
CD4	Chrolmethiazole (heminevrin)
CD5	Magnesium Sulfate
CD6	Ergometrine (ergonovic, ergotrate)
CD7	Oxytocin (Pitocin, syntocinon)
CD8	Methergine
CD9	Syntopentrine syntocynone
CD10	Ferrous sulphate (fersolate)/iron
CD11	Folic acid
CD12	Calcium
CD13	Panadol (buffered aspirin)
CD14	Paracetamol
CD15	Acetaminophin (tylenol)
CD16	Ampicillin
CD17	Procaine Penicillin
CD18	Erythromycin
CD19	Atropine
CD20	Xilocaine
CD21	Dexametazone
CD22	Metrimidazol
CD23	Iodine
CD24	Alcohol
CD25	Furosemide
CD26	Tetanus Toxoide
CD27	IV glucose fluids
CD28	IV Saline fluids
CD29	Oral contraceptives
CD30	IUDs
CD31	Condoms