

PN-ACJ-828

**QUALITATIVE STUDY**

**OF NEONATAL MORBIDITY AND MORTALITY**

**IN RURAL AREAS OF**

**HEALTH REGIONS 1, 2 AND 3**

**GENERAL REPORT**

**HONDURAS, 1997**

**SECRETARIAT OF HEALTH**

**DEVELOPMENT PROGRAM FOR CHILDREN AND WOMEN**

**SAVE THE CHILDREN OF HONDURAS**

**THE LA LECHE LEAGUE OF HONDURAS**

**MOTHERCARE, USAID**  
**BASICS**

306a

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## GLOSSARY

AHC	AREA HOSPITAL CENTER
CHIS	CHILDREN'S INFORMATION SYSTEM
CODECO	COMMUNITY DEVELOPMENT COMMITTEE
FAP	FAMILY ALLOCATION PROGRAM
HCNA	HEALTH CENTER WITH NURSING ASSISTANTS
HCP	HEALTH CENTER WITH PHYSICIAN
HP	HEALTH PERSONNEL
IFCB	INTERVENTION FOR CHANGES IN BEHAVIOR
IMCI	INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS
LLL/H	LA LECHE LEAGUE OF HONDURAS
M/F	MOTHERS/FATHERS
MIC	MATERNAL-INFANT CLINIC
MW	MIDWIVES
NR	NO RESPONSE
NRP	NATIONAL REGISTRY OF PERSONS
PERIS	PERINATAL INFORMATION SYSTEM
PRODIM	PROGRAM FOR DEVELOPMENT OF CHILDREN AND WOMEN ( <i>PROGRAMA PARA EL DESARROLLO DE LA INFANCIA Y LA MUJER</i> )
PW	PREGNANT WOMEN
R1	HEALTH REGION 1
R2	HEALTH REGION 2
R3	HEALTH REGION 3
SPU	SERVICES PRODUCTION UNIT
VOLCOL	VOLUNTARY COLLABORATOR AGAINST MALARIA
WFP	WORLD FOOD PROGRAM

## EXECUTIVE SUMMARY

Neonatal morbidity and mortality is a serious problem in Honduras in that nearly 50% of infant deaths occur in the first month of life. In order to make changes in the behavior of various population groups with respect to the care of newborns, we must first know their thoughts, feelings and actions regarding preventive measures, identification of danger signs, responses to these danger signs, access to health services and how the decision is made to seek help from these services.

In view of the need to learn about the above and in order to guide intervention strategies, the Secretariat of Health decided, with technical and financial support from MotherCare, USAID and BASICS, to carry out qualitative research on four specific groups: pregnant women, mothers and fathers, midwives and health personnel.

This document provides the coordinated and condensed findings from the four study groups. In the community groups, research was done on measures to prevent pregnancy, childbirth and the newborn as well as on the identification of danger signs and the response to them. Research was also done on the family's decision-making process when faced with danger signs and their level of access to and acceptance of the health services. In the health personnel group, research was done on health personnel's views of the community in terms of the size of the problem, how the community identifies and responds to danger signs, the health personnel's perception of the health services' ability to respond and the community's perception regarding this response.

The methodology used for the groups of pregnant women, midwives and health personnel was based on focus groups. There were fifteen focus groups for pregnant women, nine for health personnel and six for midwives, in addition to 60 in-depth interviews with fathers and mothers of infants under the age of three months. The community groups included participants in the service area of nine rural communities in Regions 1, 2 and 3 (Lepaterique, Texiguat, Teupasenti, Yamaranguila, Santiago de Puringla, Minas de Oro, Potrerillos, Quimistan and La Mina). The health personnel groups included participants from the different health care levels (HCP, HCNA, MIC and AHC) that provide services to the locations selected by the community. The study was conducted between the months of July and November 1997. The information gathered in the focus groups and in-depth interviews was recorded and transcribed word for word and coded. Summary tables of thoughts, feelings and actions were developed for each variable. The results were then analyzed and the obstacles and incentives involved in protecting the health of newborns were identified.

The findings in this report include the following:

- Health personnel feel that there is ignorance of the size of the problem of neonatal morbidity and mortality at the community, family and health services level due to:
  - Lack of interest among some community leaders
  - Lack of timely and consistent information
  - Low educational level among leaders and families regarding health
  - Lack of political will to give priority to newborn care in the health services
  - The perception of health personnel that partisan politics interferes with giving priority to effective actions.
- The lack of reliable and timely data creates problems not only in terms of knowledge about the problem but also in the ability to evaluate the changes that are occurring, which is affected by:
  - Under-reporting and inconsistency in the data produced by the National Registry of Persons (NRP) as compared to the data produced and verified by health personnel.
  - Complex bureaucratic procedures due to requirements for recording births and deaths, leading to a low cost-effectiveness rating on the part of the community which limits community interest in fulfilling these requirements.
  - Centralization of procedure in municipal seat, leading to neglect of the most geographically or economically disadvantaged.
- Inter-sectoral and inter-institutional coordination and the ability to act consistently with regard to the problems of newborns is restricted by:

- The compartmentalized perception among community leaders regarding management of problems, e.g., the belief that health problems are only the responsibility of the Secretariat of Health
  - Centralist and self-sufficient attitude of health services workers who feel they are the only ones with responsibility for confronting health problems
  - Lack of community organization to allow for linkage among all the efforts being made by public and private organizations with programs directed to resolving specific, but health-related, problems
- Community personnel with good guidance, support and monitoring represents a strategic resources, particularly in communities with problems of geographic access, especially midwives because:
    - They are natural leaders within the community
    - They are the first people families turn to for advice or treatment for health problems related to pregnancy, childbirth, the puerperium and newborns
    - They provide significant support to health personnel in the process of convincing families to accept the recommendations of health personnel
    - They are committed to and responsible for supporting and accompanying families with their health problems.
- Within the community, midwives play a motivating role with respect to:
    - Prenatal checkups
    - Administration of tetanus vaccine
    - Newborn check-up and infant vaccination
    - Identifying and alerting families to danger signs.
- Health personnel training and orientation have led to changes in behavior with respect to:
    - prophylaxis and hygiene in childbirth
    - cutting and care of navel
    - reviving newborns
    - attendance for prenatal care and administration of vaccines during pregnancy and for newborns
- The relationship between traditional and formal medicine leaves gaps for taking action such as: palpation during pregnancy and check of fetal position, mother's position for expulsion, time for cutting navel during placental stage, use of teas during labor, coming in during the first ten days after birth versus not taking the child out so as to avoid the "evil eye."
- There are certain customs and beliefs for which the risk to the baby is not identified such as: toxic pregnancy, meconium, early introduction of liquids and food, newborns sleeping for more than three hours without nourishment, newborns with low weight.
- There are danger signs that based on community beliefs cannot be resolved by the health services which are therefore not the first option when seeking help. These include: fever ("evil eye"), crying ("evil eye"), prolonged labor ("tied months"), dehydration, fever, diarrhea ("fallen crown").
- The ability to detect the risk of seriousness of certain danger signs is low, and thus they take medication or give the baby medication or use traditional medicine and delay the decision to go to the health services, as in case of premature rupture of the membranes, prolonged childbirth, jaundice, low weight baby, fever, continuous crying, respiratory infections and conjunctivitis.
- The ability to respond with adequate nourishment is deficient at the community level in particular situations such as:
    - problems with baby's suckling or mother's nipples
    - waiting for milk to come down

- premature baby, low weight, baby with congenital anomalies (cleft lip and/or palate)
  - fever, continuous crying, sleeping for more than three hours
  - mother working outside the home (case of single mothers)
- There is ignorance regarding the indicators of sufficient intake of mother's milk, leading to doubts and introduction of other liquids and foods. These indicators include:
    - minimum frequency of urination
    - pumping and storing
  - There is demand on health services concerning problems with feeding the newborn, the response to which is not coordinated with supporting home care to prevent early introduction of foods.
  - The decision to go to the health service in case of emergency depends to a large extent on the midwife's ability to detect the danger signs, the time the husband takes to make the final decision to go, which in turn depends to a large extent on community support, on the perception of the serious condition and expectation of cure.
  - Incentives for accepting health services are good treatment and communication by health personnel, ability to respond to problems, acceptance of the referral and immediate care, the closeness between the midwife and the health services.
  - Spacing births is a measure identified by midwives and pregnant women for avoiding dangerous situations in pregnancy, delivery, the puerperium and in the newborn, but they are not clear regarding the period of time between births or pregnancies.
  - The behavioral profile with respect to the danger signs, care during delivery and for the newborn, as well as customs and beliefs regarding care, and the obstacles and incentives for access to health services is very similar in the three regions.
  - Sex discrimination toward women is seen in various situations such as:
    - male babies are valued more highly than female babies
    - the mother is blamed for dangerous situations such as prolonged labor (she doesn't try)
    - final decision to go in case of emergency lies with the father
    - mother's lack of power to manage income which would provide financial freedom in emergencies
    - lack of support in caring for the baby and in domestic chores
    - physical and emotional violence towards the mother

In view of the preceding results, possible actions were identified which could counteract problems in infant survival. These are described below:

**A. Design and implementation of communication plan directed to four audiences: community leaders, pregnant women and their families, midwives, and health services personnel, including:**

**1. For community leaders**

As part of the applicable Municipalities Law:

- promote active and informed participation of the community in Open Councils
- strengthen the creation and sustainability of opportunities for dialogue, collaboration and development such as the Community Development Committees (CODECO)
- promote and develop the study of viable and feasible alternatives for transporting people in case of emergency

**Acquiring ability in:**

- seeking and channeling funding for construction
- fund management and financial and technical development sustainability of programs

**2. For midwives TBAs**

**Design and implementation of midwife curricula including guidance on:**

- cause-effect relationship in danger signs during pregnancy, childbirth and in the newborn
- strengthening prophylactic measures for clean delivery and handling of newborn
- filling gaps between traditional and formal medicine
- standardizing the idea of when childbirth begins
- including the father in caring for the baby

**Acquiring ability to:**

- recognize danger signs in timely fashion, and referral to health services
- handling premature babies and babies with low birth weight
- handling principal breast-feeding problems ("lowering of milk", cracked nipples, surplus milk)
- handling methods to achieve sufficient space between births for women

**3. For families**

**Guidance and counseling in:**

- instruction to prepare for the time of childbirth including money, materials, response in case of emergency, and prior negotiation with the couple on decisions in case of emergency
- participation of man in preventive measures with respect to pregnancy, delivery and newborn care
- content on danger signs during pregnancy, childbirth and with the newborn and their relationship to beliefs
- information on the importance of prenatal checkups when there is pathological obstetrical history, with emphasis on risk due to short intervals between births

**Acquiring ability to:**

- recognize danger signs in pregnancy, childbirth and in newborn
- handle an adequate diet during pregnancy, the puerperium and with the newborn
- recognize when childbirth begins
- clean and care for the navel
- handle basic breast-feeding problems (positions, changes in suckling, techniques for pumping and storing milk)

**3. For the health services**

**Training and negotiation with health personnel with respect to:**

- prioritizing risks, for example, for first-time mothers
- prenatal education subjects
- so they understand and tolerate the population's customs and beliefs, relating them to the danger signs and value and respect those that are not harmful to the health of women and children
- improving how pregnant women and their families are treated, promoting warm and human treatment
- negotiation on some hospital practices of concern to pregnant women such as:
  - designing a robe for delivery that provides more privacy
  - content of postpartum food provided in hospitals
  - change in the type of umbilical clips

- incorporating IMCI (integrated management of childhood illness)

**Acquiring ability to:**

- improve interactive communication with the community so that health personnel show understanding and respect for how the community identifies danger signs, whether or not they are associated with beliefs, and use appropriate strategies to promote cultural access and transform their practices. To appreciate the effort the community makes in order to go to the health services, taking into account the obstacles to access they must overcome and also handling the concerns of patients and their families regarding health conditions, treatment and procedures for patient.
- recognize and handle emergencies during childbirth and with the newborn
- handle problems with breast-feeding.

**B. Improvements in infrastructure and in access to health services and other government agencies:**

**Regulatory structure**

- Review and update the mechanisms used by the NRP so that its procedures are accessible to the community and its information can be used by localities in a timely manner.
- The regulatory and information infrastructure should be updated or developed to include newborn care as a priority
- Include work strategies and mechanisms regarding community beliefs and customs within health policy and standards
- Acceptance and assessment of referral and counter-referral
- Updating human resources training curricula in health in terms of handling emergencies with newborns
- Include the traditional medicine component in the curricula of all institutions training human resources in health in order to recover the community's knowledge in treating its health problems and in order to facilitate intervention in some of its practices and facilitate the required adaptation of the educational profile to the occupational profile in the extramural or intramural practice of community work
- Include other organizations and the community in order to resolve the problem of access

**Physical structure**

- Purchase of surgical equipment (monitors, doptone, ultrasound, X-ray, anaesthesia machine, surgical instruments)
- Purchase of materials and supplies
- Increase qualified medical and nursing personnel
- Expand emergency care coverage at the health center level
- Implement a communication network among health facilities to prevent rejections.

**C. Promote future research**

- operational research on:
  - recognizing and handling danger signs
  - handling premature and low birth weight babies
  - changes in behavior for warmer conduct among health personnel
  - community organization
  - community responses to emergency situations (patient transport, supply of medications, support for single mothers)
  - empowerment of women and men
- qualitative research on intrauterine deaths during pregnancy and childbirth
- situational analysis of health services

## I. BACKGROUND

Honduras is a country covering 112,491.76 Km<sup>2</sup>, with an estimated population in 1997 of 5,754,512 distributed evenly among the 18 departments that comprise its political divisions. The population concentration is 49.6 inhabitants per Km<sup>2</sup>, and the highest concentrations are found in the northwest area. Children under one year of age represent 3.2% of the population.

Health services are administered through a network of facilities assigned to nine Health Regions, which are in turn subdivided into Health Areas. The network of facilities provide its services through five types of facilities (SPUs) which range from the least complex to the most complex as follows: the HCNA (health center with nursing assistants), the HCP (health center with physician), the AHC (area hospital center, with the four basic specialties), the Regional Hospital (serving the population in one or more Health Regions, with other specialties in addition to the four basic ones), the National Hospital, that serves the population from the entire country or a large portion of it, and has physicians with subspecialties such as neurology, urology, etc. Currently, in order to improve institutional access for better care of childbirth and newborns, a network of Maternal-Infant Clinics is being started; eleven of these are now operational and five are being organized. These clinics are served by a nursing assistant and allow midwives to provide their services there as well. These Clinics arose to improve access to clean and safe childbirth and operate with community support.

There is a community voluntary corps, broadly distributed in the Health Regions, comprised of: litrosol distributors (oral rehydration salts), health custodians, maternal-infant counselors, breast-feeding counselors, the voluntary collaborator against malaria, the midwife and others. The activities of all these community volunteers are linked with the health facilities network through training, meetings, follow-up, referrals and counter-referrals, but this closeness is not homogeneous in all the health facilities, or from region to region due to problems in access.

A large portion of the rural population in Honduras has limited geographic access to health facilities, due to transportation problems, widely spaced operating hours during the day, limited service on holidays or weekends and access roads that are non-existent or in poor condition due to rainy seasons.

The population covered by Health Regions 1, 2 and 3 represents 48% of the country's total population and this is the focus of this study. These Regions are located in the central, central-western and northwest section of the country respectively and are divided into 4, 5 and 8 Health Areas respectively. Health Region No. 1 includes the departments of Francisco Morazan (except for Tegucigalpa) and El Paraiso; Health Region No. 2 includes the departments of Intibuca, Comayagua and La Paz; and Health Region No. 3, the largest region with the country's largest population, includes the departments of Cortes, Yoro, Santa Barbara and part of Lempira. Between 40% and 50% of the maternal care in the country is provided in these regions, either by health facilities or midwives.

**Neonatal hospital morbidity and mortality.** Causes of neonatal morbidity and mortality are included within the 20 primary causes for hospital discharge. Neonatal deaths represent 45% of hospital infant deaths. These hospital statistics do not take into account deaths that occur upon discharge after birth, when birth occurs in the hospital, or cases that never reach the hospital.

**National epidemiology and family health surveys (ENESF).** These surveys provide estimated information on neonatal mortality, where we see a decline from 32.6 deaths for every 1,000 live births in 1970-1974 to 20 deaths for every 1,000 live births in 1986-1995. In the last three years, the most frequent causes of death are infections, serious asphyxia at birth, respiratory conditions and premature birth, and the highest mortality is seen in the first week of life, specifically the first day of life.

The profile of neonatal mortality, through the verbal autopsy conducted under ENESF 96, is similar to the hospital epidemiological profile for this age group. The most frequent causes are: trauma or asphyxia (29.9%), premature birth (28.1%) sepsis (11.3%), ARI (16.8%). As in the hospital, a large portion of deaths occur during the first day (about 40%, ENESF 91-92) with the disadvantage of not having technical support available which leads to a higher probability of death, when this occurs at home.

**Other research** Two qualitative studies note the role of men who stand in the way of certain decisions by women regarding temporary or permanent family planning methods, or show their indifference to iron supplementation.

A qualitative research study applied to midwives and developed in Health Region No. 3 identifies certain critical points that foster perinatal mortality such as ignorance of the risk of multiple births, the signs of tetanus in newborns, and others. It also shows greater ignorance of practices related to clean childbirth among midwives who do not report as compared to those who do. This leads to actions to expand the search for access strategies, monitoring of midwives, especially those who find it difficult to approach the health services. In the evaluation of midwife projects carried out during the last three years, the problem of the lack of community support for the family with some obstetrical and/or neonatal emergency is frequently identified.

Another important point touched on is how the community is welcomed by the health services. A study conducted in Health Region No. 2 and Health Region No. 4 identifies deficient levels of quality in the delivery of health care services to women. Based on an educational intervention with health personnel and the community, the indicators improved. The community's perception for improving services (quality) were also identified in the evaluation of breast-feeding practices in hospital and ambulatory facilities. The study on anemia and iron supplementation also indicated the community's difficulties with access (closed health centers) during some periods of the year.

**Decision-making.** In view of the preceding overview, the Secretariat of Health, with technical and financial support from MotherCare, USAID, and BASICS, made the decision to further study behaviors of different groups that are in some way connected to neonatal morbidity and mortality. The groups selected were: mothers and fathers of infants under the age of three months and mothers/fathers of children who died within 29 days of birth in the three months prior to the interview, pregnant women with emphasis on the third trimester, midwives and health personnel from HCNA's, HCP's, Maternal-Infant Clinics and Area Hospitals.

Until this study, there was no documented work in Honduras on the practices of families with respect to care of the newborn, the decision-making process in the case of emergency and the logistics used to reach health facilities, the family's identification of the danger signs that could appear in newborns, as well as the empowerment of mothers in decision-making regarding care of the newborn.

This document contains the general and coordinated findings taken from the different study groups, on behaviors with respect to the variables mentioned above. The presentation of findings starts with the chapter on the size of the problem that is drawn from the data generated by the health personnel study group. The chapters on pregnancy, childbirth and the neonatal period derive from the coordination of the findings from the community groups, and observations are added from the health personnel group. In addition, a connection is made with the regulatory infrastructure of the Secretariat of Health. The chapter that deals with access derives from the findings concerning this subject from all the community groups and health personnel. Chapter VII also presents work strategies and plans developed by the three teams in Regions 1, 2 and 3 under the direction of the Maternal-Infant Department of the Secretariat of Health. Finally, the Annex presents a list of popular vocabulary and prescriptions from traditional medicine, as well as popularly used medications and the data collection guides. [translator's note: This sentence should be deleted as annexes have not been translated]

## II. METHODOLOGY

### A. GENERAL OBJECTIVE

To identify the thoughts, feelings and actions of the community and health personnel with respect to the danger signs associated with neonatal morbidity and mortality and access to health care for newborn survival.

### B. SPECIFIC OBJECTIVES

#### 1. FOR MOTHERS, FATHERS AND PREGNANT WOMEN

1.1 To obtain a complete profile of what the person caring for the newborn from birth until the age of 28 days does, thinks and feels.

1.2 To identify the perception of danger signs that they believe contribute to neonatal morbidity and mortality.

1.3 To define the family's decision-making process in dealing with the dangers signs that may appear in newborns.

1.4 To identify the obstacles and incentives involved in their decision to go to the health services when they have identified danger signs in the newborn.

#### 2. MIDWIVES

2.1 To identify the thoughts, actions and feelings of midwives regarding the danger signs that influence neonatal morbidity and mortality.

2.2 To identify the incentives and obstacles to access to health services faced by midwives as they relate to neonatal morbidity and mortality.

#### 3. HEALTH PERSONNEL

3.1 To explore the perceptions of health personnel regarding the population's thoughts, feelings and actions with respect to morbidity and mortality for newborns, late term fetuses and during delivery.

3.2 To know the perceptions of health personnel regarding the factors involved in the problem.

3.3 To explore the perceptions of health personnel regarding the community's assessment of prenatal services and handling of newborns.

A study was conducted that identified the behaviors, attitudes and practices of mothers, fathers, midwives, pregnant women and health personnel. This study was carried out in Health Regions 1, 2 and 3. The Department of Maternal-Infant Health was responsible for management of the study and there was a national coordinator who supported and monitored the implementation process. Three NGOs were responsible for making the study operational, with support and participation from the Health Regions involved.

## **C. STUDY GROUPS**

### **1. COMMUNITY**

Mothers with infants under three months or mothers with newborns who died during the first 28 days of life within the last three months.

Fathers with infants under three months or fathers with newborns who died during the first 28 days of life. Preference should be given to the husbands or companions of the mothers who are interviewed.

Midwives, including midwives trained or not trained in the new risk approach, those who reported regularly to the health facility and those who did not regardless of whether they were trained or not.

Pregnant women in any trimester of pregnancy, with or without risk factors, but preferably in the last trimester. Age and number of births were evenly distributed among all the groups.

### **2. HEALTH PERSONNEL**

HCNAs. Nursing assistants who work in HCNAs under the influence of the selected headquarters HCP.

HCP. Work team of the selected HCPs consisting of the general physician, the supervisor(s) and one nursing assistant for each HCP.

MIC. The work team of the selected maternal-infant clinics consisting of the nursing assistants, nursing supervisors and general physician.

AHC. Included the work team serving maternal and neonatal hospital demand consisting of professional operating room and emergency nurses, an emergency physician and specialists in pediatrics and obstetrics and gynecology who handle deliveries and newborns.

## **D. RESEARCH TECHNIQUES**

The techniques used in this qualitative method study were focus groups and in-depth interviews. To gather data, the guides (5) were developed based on study groups; these guides were submitted first for technical testing and then operational testing, and pertinent corrections were made to each of them.

Group of mothers and fathers: 30 in-depth interviews for mothers and 30 for fathers

Midwives study group: 6 focus groups

Group of pregnant women: 15 focus groups

Group of health personnel: 9 focus groups

In collecting the data, a moderator and note-taker were used; recordings were made with prior consent from the participants and transcribed literally in a data base (WP51). The information was subsequently coded and put into summary tables which were analyzed by region, and conclusions and preliminary recommendations were drawn.

The first report for each study group was submitted to a workshop with those responsible for the research in each study group in order to put together the draft of the final report and develop comparisons, conclusions and recommendations among the different study groups and Health Regions.

The draft of the final report was the input for two workshops lasting two days each (one in Health Region No. 3 and the other with Regions 1 and 2), for the purpose of selecting the intervention strategies. Those responsible for the study for each organization also participated in this workshop. This work was followed and supported by the national coordinator and by the Maternal-Infant Department of the Ministry of Health and the Health Regions involved (1, 2 and 3).

E. LOCATION

1. TABLE 2: COMMUNITY

LOCATION	PREGNANT WOMEN (FG)	MOTHERS AND FATHERS (IDI)	MIDWIVES (FG)
REGION No. 1			
Lepaterique	1	4/4	1
Texiguat	1	3/3	1
Teupasenti	1	3/3	
SUBTOTAL	3	10/10	2
REGION No. 2			
Santiago Puringla	2	4/4	
Minas de Oro	2	3/3	1
Yamaranguila	2	3/3	1
SUBTOTAL	6	10/10	2
REGION No. 3			
Quimistan	2	4/4	
Potrerillos	2	3/3	1
La Mina	2	3/3	1
SUBTOTAL	6	10/10	2
TOTAL	15	30/30	6

FG = Focus Groups

IDI = In-Depth Interviews

In the case of HCPs, the people interviewed may be urban but they will preferably be from the service area of the HCNAs.

Study Groups:

- Pregnant women in any trimester, preferably the third
- Mothers and fathers of infants under three months, or infants who died in the first 28 days of life within the last three months.
- The midwives group included those who are trained or not trained in the risk approach and those who report or do not report to the health facilities.

2. TABLE 3: HEALTH PERSONNEL

LOCATION	HCNAs	HCPs	MIC	AHC
REGION No. 1 Lepaterique Texiguat Teupasenti	1	1	0	0
REGION No. 2 Block: Santiago Puringla Taulabe Yamaranguila  Block: Santiago de Puringla Taulabe Jesus de Otero  Block: Siguatepeque Marcala Minas de Oro	1	1	1	
REGION No. 3 Quimistan Potrerillos Agua Blanca Sur  Block: El Progreso Santa Barbara	1	1		2
TOTAL	3	3	3	2

In the research groups with HCNAs given the name of HCP headquarters, reference is made to the HCNAs under their influence.

**E. PARTICIPANTS**

**TABLE 4: PARTICIPANT AND AGE RANGE BY COMMUNITY STUDY GROUP**

STUDY GROUP	PARTICIPANTS	AGE RANGE
PREGNANT WOMEN	106	16-43 years
MOTHERS/FATHERS	30/30	Fathers: 20-55 years Mothers: 15-45 years
MIDWIVES	51	39-87 years

19.6% (10/51) of midwives were older than 65 and most had participated in some training in the period 1991-1997.

**TABLE 5: PARTICIPANTS IN HEALTH PERSONNEL FOCUS GROUPS**

CARE LEVEL	PARTICIPANTS	PROFESSION
HCNAs	23	Nursing assistants = 23
HCPs	25	Nursing assistants = 9 Professional nurses = 9 General physicians = 7
MICs	8	Nursing assistants = 3 Professional nurses = 3 General physicians = 2
Area Hospitals	18	Nursing assistants = 7 Professional nurses = 4 General physicians = 2 Specialist physicians = 4
Total	74	Nursing assistants = 42 Professional nurses = 16 General physicians = 11 Specialists physicians = 4

**G. IMPLEMENTATION PERIOD**

**TABLE 6: WORK SCHEDULE**

ACTIVITY	TIME	PRODUCT
TESTING OF GUIDES	3 WEEKS	TESTED GUIDES
DATA COLLECTION AND ANALYSIS	10 WEEKS	CODED TRANSCRIPTIONS AND SUMMARY TABLES
COORDINATION WORKSHOP	1 WEEK (10-15 NOV.)	COORDINATED DRAFT REPORT, REVIEW OF REPORT BY GROUP
STRATEGY SELECTION WORKSHOP	5 DAYS (11-16 DEC.)	INTERVENTION STRATEGIES SELECTED
FINAL REVISION OF REPORT GENERAL DRAFT	JAN. 7 1998	FINAL REPORT

## H. OBJECTIVES AND VARIABLES

1. TABLE 7: COMMUNITY

SPECIFIC OBJECTIVES	VARIABLE	SPECIFICITY
<p>Identify the thoughts, feelings and actions of midwives regarding danger signs affecting neonatal morbidity and mortality</p>	<p>Identification of danger signs during delivery and in newborns that the midwives know. Immediate responses for each danger sign and reasons. (MIDWIVES AND PREGNANT WOMEN, IN MOTHERS AND FATHERS, EXCEPT FOR PREGNANCY)</p> <p>Identification of preventive activities during pregnancy, delivery and for the newborn that women know (MIDWIVES AND PREGNANT WOMEN IN FATHERS AND MOTHERS EXCEPT FOR PREGNANCY)</p>	<p><b>DANGER SIGNS:</b> (identification of presence and severity, immediate response) <b>PREGNANCY:</b> decrease or absence of fetal movement, vasospastic syndrome (edema, ringing in the ears, headache), previous dead child, problems in earlier delivery, previous child less than 12 months, bleeding, premature rupture of membranes.</p> <p><b>DELIVERY:</b> intense bleeding, premature delivery, prolonged labor, position of baby, meconium.</p> <p><b>NEWBORN:</b> small baby, premature, crying, lethargy, breathing (cyanosis, gasping), jaundice, chills, dehydration, signs of infection in eyes/navel, mother with breast-feeding problems (cracked nipples, excess milk, obstructed ducts, mastitis) baby with breast-feeding problems (weak suckling, milkweed, poor pressure, colic), sleepy baby, uncomfortable/demanding baby</p> <p><b>PREVENTIVE MEASURES</b> (reasons to give priority or not) <b>PREGNANCY:</b> tetanus vaccination, prenatal check-up (importance and meaning, role of midwife), iron intake</p> <p><b>DELIVERY:</b> Washing of hands by midwife, perineal washing of woman, mother's position, guiding the mother to breathe and push.</p> <p><b>NEWBORN:</b> tetanus vaccination (mother), vaccination of newborn, ophthalmic prophylaxis, cleaning of phlegm, exclusive breast-feeding, newborn check-up. Care and healing of navel.</p> <p>Concept of competition between newborn and sibling under 12 months</p>
<p>Identify the thoughts, feelings and actions of midwives regarding beliefs and preventive measures affecting neonatal morbidity and mortality</p>	<p>Identification and role of people who participate in childbirth and care/handling of newborn (MIDWIVES, PREGNANT MOTHERS, FATHERS AND MOTHERS)</p>	<p><b>ROLES OF:</b> midwife, father, grandparents, relatives and others (tasks, assignments, responsibility)</p> <p><b>IDENTIFICATION OF PRACTICES:</b></p> <p><b>PREGNANCY:</b> household tasks, customs, prenatal check-up (accompaniment, location, attitude), beliefs during pregnancy (tied months and others), massages, manipulations</p> <p><b>DELIVERY:</b> place where birth is planned (reason), artificial rupture of membranes, use of medications and other preparations (teas, urine, etc.), manipulation of fetal position, manipulation to expel the baby, pulling the umbilical cord, cleaning and sterilizing equipment.</p> <p><b>NEWBORN:</b> Holding newborn by the feet, cutting and treating navel, use of pacifier and other liquids, cleaning and dressing of baby, nursing.</p>
<p>Identify the thoughts, feelings and actions of midwives regarding the types of care the couple provides for the child that influence neonatal morbidity and mortality</p>	<p>Identification of the empowerment process of the mother in caring for the newborn (MIDWIVES, PREGNANT WOMEN, FATHERS AND MOTHERS)</p> <p>Support from father in caring for the mother and newborn (MIDWIVES, PREGNANT WOMEN, FATHERS AND MOTHERS)</p>	<p><b>WHAT DOES THE MOTHER DO, WHEN?</b> (1st day, days 2-7, days 8-28)</p> <ul style="list-style-type: none"> <li>• tasks and their frequency: cleaning/changing, treating navel, nursing</li> <li>• vaccination of newborn, newborn check-up, exclusive breast-feeding</li> <li>• what is the mother taught/checked/advised to do</li> </ul> <p><b>WHAT DOES THE FATHER DO, WHEN?</b> (1st day, days 2-7, days 8-28)</p> <ul style="list-style-type: none"> <li>• tasks caring for baby</li> <li>• tasks caring for mother</li> <li>• what is the father taught/checked/advised to do</li> </ul>

<p>Define the family's decision-making process when faced with danger signs</p>	<p>Role of each family member in making the decision to go to the health service (PREGNANT WOMEN, FATHERS AND MOTHERS)</p> <p>Perception of time that delays making the decision (PREGNANT WOMEN, FATHERS AND MOTHERS)</p>	<p><b>DECISION PROCESS:</b></p> <ul style="list-style-type: none"> <li>• reasons for making decision</li> <li>• persons who participate in making the decision (influence and role of the midwife)</li> <li>• sequence (who is consulted and why) in making the decision</li> </ul> <p><b>MAKING THE DECISION</b></p> <ul style="list-style-type: none"> <li>• what is it based on</li> <li>• what speeds up the decision</li> <li>• what slows down the decision</li> </ul>
<p>Identify the incentives/obstacles for access to health services handled by midwives with respect to perinatal morbidity and mortality</p>	<p>Logistics of moving (MIDWIVES, PREGNANT WOMEN, FATHERS AND MOTHERS)</p> <p>Perception of quality of health service (MIDWIVES, PREGNANT WOMEN, FATHERS AND MOTHERS)</p> <p>Family and community support (MIDWIVES, PREGNANT WOMEN, FATHERS AND MOTHERS)</p>	<p><b>TRANSPORT</b></p> <p>availability of transportation/emergency hours distance/time cost</p> <p><b>LODGING</b></p> <p>cost availability</p> <p><b>CHARACTERISTICS OF SERVICES</b></p> <p>Effective: service's ability to resolve delivery and newborn problems Infrastructure: hours of operation, days, operating method in terms of complications, qualified staff, medications, equipment Treatment: respect for customs, interpersonal communication</p> <p>Communication (telephone, telegraph, radio) child care and replacement at work (of man) person who accompanies the mother/newborn</p>
<p>Know the midwife's perception and experience of her role and the family's role in decision-making with respect to neonatal morbidity and mortality</p>	<p>Identification and role of midwife in making the decision for the mother/newborn to go to the health service in the case of complication (MIDWIVES)</p>	<p><b>PERCEPTION OF HER ROLE</b></p> <ul style="list-style-type: none"> <li>• weight of her diagnosis of the danger signs in the mother/newborn in the family's making the decision to go to the health service</li> <li>• her perception regarding the health services' acceptance (at all levels) of her work and diagnosis (meetings, referrals, acceptance of her accompanying mother in emergency situations).</li> <li>• influence of midwife with her perception of the quality of services in the family's decision to use the services</li> </ul>

2. TABLE NO. 8: HEALTH PERSONNEL STUDY GROUP

SPECIFIC OBJECTIVE	VARIABLE	SPECIFICITY
<p>Explore health personnel perceptions regarding the population's thoughts, feelings and actions with respect to the problem</p>	<p>Health personnel's perception regarding the community's identification of neonatal morbidity and mortality as a problem.</p> <p>Identification by health personnel of customs, beliefs, traditions of caring for pregnant women, newborns and birth as they relate to neonatal morbidity and mortality</p>	<p><b>SIZE OF PROBLEM ACCORDING TO THE COMMUNITY</b>                      A. Identification of the problem                      B. Prioritization according to needs</p> <p><b>SIZE OF PROBLEM ACCORDING TO THE COMMUNITY</b>                      A. Identification of the problem                      B. Prioritization according to other problems                      C. Identification of danger signs</p> <p><b>CULTURAL FACTORS</b>                      A. knowledge of community's customs, beliefs                      B. assessment of these customs in terms of risk/prevention</p>
<p>Know health personnel's perceptions regarding elements involved in the problem</p>	<p>Risk factors for neonatal morbidity and mortality in the community as identified by health personnel</p> <p>Identification by health personnel of factors that facilitate/hinder access to health services</p>	<p><b>COMMUNITY'S RISK CHARACTERISTICS</b>                      A. risk factors identified in each stage (pregnancy, childbirth, newborn)                      B. sources of information                      • obstacles                      • incentives</p> <p><b>ACCESS</b>                      A. distance                      B. transport (hours of operation, days)                      C. cost                      D. operation of health centers                      E. decision-making time                      F. incentives for access                      G. family problems                      H. barriers to access</p>
<p>Identify health personnel's assessment regarding the quality of their response to the problem</p>	<p>Health personnel's assessment of the cost-benefit of the services they provide</p> <p>Health personnel's perception of basic infrastructure to adequately handle neonatal morbidity and mortality</p>	<p><b>IMPORTANCE OF NEONATAL CARE</b>                      A. priority of work in the service                      B. health service hours of operation                      • newborn                      • childbirth                      • pregnancy                      • puerperium                      C. investment share in budget</p> <p><b>RESPONSE</b>                      A. response capability according to stage (pregnancy, birth, newborn) or the size of the problem                      B. equipment, personnel                      C. closeness to midwife                      1. incentives                      2. obstacles                      D. communication (dialogue, explanations, reaffirmation with mother/father)                      E. competence (training, experience)                      F. warmth (respect for traditions and beliefs, promotion and acceptance of accompanying spouse)</p>

<p>Explore health personnel's perception of the community's assessment of the services provided</p>	<p>Health personnel's perception of the demand for services (prenatal check-up, birth, puerperium, newborn care with or without complications)</p> <p>Identification by health personnel of customs, beliefs, traditions regarding community care for pregnant women, new mothers and newborns</p> <p>Health personnel's perception of community attitudes and practices with respect to referral to other care level in terms of neonatal morbidity and mortality</p> <p>Health personnel's perception of community's rejection/acceptance of the services provided to it</p>	<p><b>BEHAVIOR OF DEMAND</b></p> <ul style="list-style-type: none"> <li>A. demand rejected (reasons)</li> <li>B. demand satisfied (reasons)</li> <li>C. general behavior (attention to recommendations, participation of the rest of the family, role of midwife)</li> <li>D. changes in demand</li> </ul> <p><b>RESPONSES DETECTED</b></p> <ul style="list-style-type: none"> <li>A. functioning of referral/counter-referral</li> <li>B. response in emergency situations</li> <li>C. positive experiences (acceptance of other levels, including the midwife)</li> <li>D. negative experiences (rejection of other levels, including the midwife)</li> <li>E. fear (reasons) of accepting referral</li> <li>F. family logistics when faced with referral</li> <li>G. midwife's participation in accepting referral</li> <li>H. time for family to make decision for referred level</li> <li>I. acceptance and assessment of referral by the midwife</li> <li>H. acceptance and assessment of referral by the community</li> </ul> <p><b>ACCEPTANCE OF SERVICES</b></p> <ul style="list-style-type: none"> <li>A. acceptance of preventive activities</li> <li>B. community participation in service problems</li> <li>C. meaning of poor treatment</li> <li>D. indications of poor treatment at different service levels</li> </ul>
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### **III. FINDINGS**

## **A. SIZE OF THE PROBLEM**

### **1. DISCUSSION**

### **2. TABLES OF OBSTACLES AND INCENTIVES**

**A. SIZE OF THE PROBLEM**

This variable was studied only in the study group for health personnel at different levels of care and thus the information obtained provides [their] view of the size of the problem of neonatal morbidity and mortality. This was studied in terms of different health personnel perspectives on key groups such as leaders, the community and the family. Most health personnel at the different care levels feel that there is a lack of interest and an attitude of indifference among leaders regarding the problem of neonatal morbidity and mortality. They attribute this attitude to lack of awareness and information and limited education. One reason for this perception is that health personnel assess the leaders' level of awareness of the problem. This perception of health personnel is also affected by the fact that they assess interest in solving the problem based on the active participation of leaders in traditional health actions such as conducting cleaning, vaccination and other campaigns. In addition, they indicate that leaders' actions are motivated by the desire for popularity where neonatal morbidity and mortality are not of interest to the community. Added to the above is the belief that the solution to the problem is solely the concern of the Secretariat of Health, with a prevailing view of compartmentalized solution of problems instead of a multicausal view of the problem and thus a comprehensive and inter-sectoral solution to the problem.

The priority that health personnel have identified in the community regarding this problem is as follows:

**TABLE 9: PRIORITIES ASSIGNED TO PROBLEMS BY THE COMMUNITY IN THE VIEW OF HEALTH PERSONNEL**

HCNAs	HCPs	MIC	HOSPITALS
Latrines Electricity Transportation Economics Potable water	Potable water Highways Latrines Economics Public buildings	Potable water Highways Infancy Agreement Latrines Churches	Ballot box vote Violence Economics Potable water Streets

Basic infrastructure works are not considered by health personnel as elements that will have a direct influence on neonatal health like latrines, potable water, electricity and access roads. Health personnel identify health problem priorities as follows:

**TABLE 10: PRIORITIES ASSIGNED TO HEALTH PROBLEMS AT THE DIFFERENT CARE LEVELS**

HCNAs	HCPs	MIC	HOSPITALS
Malnutrition Diarrhea Parasites Respiratory infections Poverty	Diarrhea Respiratory infections Parasites Skin infections Malnutrition	Pneumonia Diarrhea Malnutrition Hypertension Diabetes	Geographic access Neonatal sepsis Premature birth Bronchopneumonia Hyaline membrane

Thus there is a difference in terms of the final objective in the priorities given to the problem in terms of what health personnel see as the community's incentives and what the community itself sees as priorities. For example, in the case of diarrhea (a problem that is mentioned at three care levels), the fundamental solution is the proper disposal of waste and the availability of potable water (problems they view as being given priority by the communities). The solution for the malnutrition mentioned in the three care levels is the family's ability to purchase food. Hospitals mention neonatal problems in terms of pathologies, but feel that the community first needs geographic access, the counterpart of which in the community is the construction of access roads. In the hospital, the problems identified are related to childbirth care

and immediate care for the newborn. The other levels, due to their ambulatory nature, identify other pathologies such as respiratory infections and diarrhea.

As expressed by health personnel in the HCNAs and HCPs, the community's view of neonatal death has a religious component, since in addition to considering it as a divine sign or proof given to the family, there is a fatalistic and resigned view of death as well as the perception that the child is an angel who returns to heaven.

Contributing to the above is the fact that a newborn who gets sick or dies is seen as a personal problem rather than a collective or community problem. In addition, the young age of the newborn devalues its death in comparison with that of an older child or adult, which represents not only a personal loss but also the loss of an economic contribution for the family. Health personnel perceive that the death of a newborn is seen with disinterest and lack of pain. They feel this is due to multiple births whereby one child is easily replaced by another, to the lack of affection for the newborn because of its young age at the time of death, to serious social and economic problems faced by the family where the death of a newborn is seen as a lesser evil. In contrast to the above, it was found that the parents of newborns who died went to the health services at least once during the last 48 hours of its life, three of them went (3/4) went an average of three times. When the child died they had a wake with their neighbors, in two cases they took photographs to remember their children by before burying them, and all of them have feelings of resentment and mistrust towards the health services because of what they see as the inability to respond.

Various causes are indicated for the lack of information regarding the problem, including the unavailability of official data that should be recorded and generated in a timely fashion both in the National Registry of Persons and the health institutions, and the inconsistency of the data when compared among the different institutions. The data registry also has the limitation that relatives are not coming in to register births and deaths due to different reasons but primarily because the bureaucratic procedure for recording them is cumbersome and costly, particularly for families living in remote communities. The personnel in the HCPs indicated that health activities and records are generally directed to children under 5 years and among these, to children under one year, making it difficult to focus on infants under 29 days.

The focus groups at all levels indicated that there have been changes, especially as the result of interventions organized by the community, emphasizing the motivating role played by the active leadership of some mayors. In these organized communities, the flow of information identified is as follows: families, guardians and midwives inform the health center or the assistant mayor or both; these report at CODECO (community development committees led by the mayor's office) meetings where the mayor's office participates; in addition, the assistant mayor reports directly to the mayor. They also indicate the advantage of easy communication within the open councils, and the support provided by certain projects such as the LUPE project, the churches and teachers.

**TABLE 11: 3. SIZE OF THE PROBLEM OF NEONATAL MORBIDITY AND MORTALITY**

OBSTACLES	INCENTIVES
<ul style="list-style-type: none"> <li>• Ignorance of problem of neonatal morbidity and mortality among leaders due to:               <ul style="list-style-type: none"> <li>• lack of information</li> <li>• limited education</li> <li>• lack of awareness</li> </ul> </li> <li>• Attitude of indifference of some community leaders in terms of learning about and resolving the problems of neonatal morbidity and mortality</li> <li>• Perception of unorganized community that the problem of neonatal morbidity and mortality involves individuals rather than the community</li> <li>• Perception that health problems are the province of the Secretariat of Health and not the responsibility of various sectors</li> <li>• Leaders' focus on priority of problems in terms of gaining popularity rather than the seriousness of problems</li> <li>• Due to young age, infants under 29 days are not perceived as people and thus there is an assumption of no obligation regarding their right to identity, nationality and a name, reinforced by the limited facilities for recording births and deaths</li> <li>• Perception that the mother is the only family member who should be responsible for neonatal morbidity and mortality</li> <li>• Community's religious approach of acceptance and resignation regarding neonatal death</li> <li>• The newborn is perceived as a problem due to time and money spent, in comparison with an adult who represents an economic contribution</li> <li>• Sexism regarding male role:               <ul style="list-style-type: none"> <li>• assumption that the mother is responsible for children</li> <li>• in case of emergency, the father makes the final decision</li> <li>• the death of a male newborn is felt more than that of a female</li> </ul> </li> <li>• The lack of political will with respect to newborns has prevented the services from having a real awareness of the problems of morbidity and mortality</li> <li>• Information handled only on the basis of rates and absolute numbers prevents the services from having a complete perception of the thoughts, feelings and actions of the community</li> <li>• The generalization of activities in terms of children under age 5 with emphasis on those under one year, without specifying the newborn, has kept the services from identifying and prioritizing newborns</li> <li>• The centralists view of health personnel that they are the only ones with responsibility and leadership for doing something to resolve health problems does not foster effective coordination with other institutions</li> <li>• The educational approach of the health services, directed primarily to women, has not made it possible to involve the father in knowledge of the family's problems</li> <li>• Health personnel's perception that the community's prioritization of its problems does not relate to the solution of health problems (highways, water, waste disposal)</li> </ul>	<ul style="list-style-type: none"> <li>• Leadership of some mayor's offices in organizing the community</li> <li>• Presence in the community of some community, governmental, private, social and religious organizations that carry out activities that help to resolve problems</li> <li>• Active participation of volunteer community leaders (midwives, guardians and others) and members of religious orders who work in support activities and assume responsibility for care, contributing to resolving problems of newborns</li> <li>• There are organized communities that see the solution of problems as a collective rather than individual responsibility</li> <li>• The participation of grandparents in caring for the mother and baby gives the health services the opportunity to carry out educational activities with them that have an impact on families</li> <li>• Identification of certain danger signs by the family, particularly the mother, leading them to come in for a check-up</li> </ul>

## **B. PREGNANCY**

### **1. DISCUSSION**

### **2. COORDINATION TABLES**

### **3. OBSTACLES AND INCENTIVES**

## 1. PREGNANCY

The analysis of the results of pregnancy is divided into two broad areas: the process of caring for a pregnancy without complications; and the identification of and response to danger signs. These aspects were studied in the focus groups for pregnant woman and midwives. Pregnancy was not studied in the fathers and mothers study group.

**Prenatal check-up.** Care for pregnancy focuses on prenatal care, where both community groups (pregnant women and midwives) say that prenatal care is provided in the health center and by the midwives. The midwives insist that women go for a prenatal check before they will "take charge of them" and thus share responsibility with the health center, a fact that is identified by the pregnant women. The midwife's agreement to care for a women implies a personal commitment to handle the pregnancy, delivery and the baby "until the navel falls."

The objectives of a prenatal check-up for most of these community groups are: checking the baby's position, seeing that the mother takes vitamins and eats well so that both she and the baby will have strength for the delivery, capturing the mother to administer tetanus toxoid to protect her and the baby. These objectives are intended to prevent the principal dangers such as: poor positioning of the baby, prolonged delivery (lack of strength in mother and baby), weakness/anemia in the mother and malnutrition in the baby, and infection of the navel. Both pregnant women and midwives indicate that they palpate to check the baby's position and to relocate the baby if the mother is uncomfortable.

Midwives indicate that some women refuse to go to the health center for a check-up or to take vitamins, despite their understanding of preventive measures.

**Danger signs.** The danger signs that most pregnant women and midwives identify and recognize as complications that merit seeking help from the midwife or the health center or hospital are as follows:

- **bleeding:** this is not normal and should not occur during pregnancy, particularly if there's hemorrhaging; they associate it with imminent loss of the baby. Midwives also identify placenta previa, physical mistreatment and large shocks as possible causes. The response indicated by pregnant women is that they go to the midwife who gives them remedies and if these don't work refer them to the health services. In contrast, the midwives indicate that they refer women immediately to the health services, not mentioning the use of traditional medicine.
- **premature rupture of membranes:** identified as a sign that occurs up to the moment of birth, and thus if the membranes rupture and the pregnancy is not at term, this is a sign of danger. In some pregnant women, we find that the range of time for seeking help may be up to three days. Pregnant women indicate that midwives try to control the problem using traditional medicine before referring them to the health center; in contrast, the midwives say they refer immediately to the health services.
- **decrease in or absence of fetal movements:** they identify the absence of fetal movement with two conditions: the baby is either sleeping or dead. They associate the latter condition with the presence of discomfort in the mother such as pain in the womb or the sacral region. Up to three days might elapse for this danger sign to produce the response of seeking help. In the case of reduced movement, they attribute this to weakness, to the baby's sleeping, to the baby's sex, but the risk does not seem as clear to pregnant women as it is to midwives. Mothers say they go to midwives for palpation to wake the baby up, and the midwives also give traditional remedies. The midwives confirm the practice of palpating to check for movement, but state that they refer mothers to the health center in these cases. The midwives say they have seen women wait between 6 and 15 days before seeking help.
- **accidental falls and blows:** pregnant women and midwives fear these can cause premature birth or premature rupture of the membranes or can affect the baby (decrease or absence of fetal movements); thus they go to the health center.
- **vaginal and urinary infections:** these are identified by pregnant women and midwives as danger signs for the baby, associated with premature birth or low birth weight, and they thus go to the health center. However, some midwives feel that the baby is not affected when these infections occur at 8-9 months and they use traditional medicine to treat them. Other midwives indicate that some pregnant women do not identify these infections as a danger sign that merits treatment.

The following are other signs considered less serious than those above, and thus women delay/put off seeking help for them:

- **anemia:** in order to produce the immediate response of looking for health services, the pregnant woman must be extremely thin and pale or must be suffering generalized edema. For lower levels of these signs, there is no response from pregnant women, and midwives recommend improving diet and going to the health center for vitamins.
- **contractions during pregnancy:** they first consult the midwife, who tries to calm them with teas and remedies, and refer when these don't work. This sign was not indicated or mentioned by the midwives.

Danger signs that are not identified as such are as follows:

- **swelling of the hands and face:** both community groups associate this with proximity of birth or a sign of anemia and feel it can be handled with vitamins. Swelling of the feet is considered normal, without considering its intensity or coverage and without associating it with other signs such as headache.
- **headache:** for this sign, they use self-medication, and when this doesn't work they go to or are referred to the health center. Some groups indicated that it is a normal sign of pregnancy. Ringing in the ears is considered normal by pregnant women and is also associated with tension due to family problems and anemia. In areas where malaria is endemic, midwives consider this one of its signs.
- **previous child dead:** not recognized as a risk by the group of pregnant women since they do not think that all pregnancies are equal, although the midwives do consider it a risk and feel that pregnant women with this sign should be evaluated at the health center to check whether their delivery can be handled in the community.

Other situations are considered harmful, but they do not have much control over them, either due to social patterns (machismo), or because there are no responses available (places for help or refuge). These include:

- **child under 12 months, multiple births, extreme ages:** although midwives do identify these as danger signs, pregnant women do not although they feel they make it difficult to properly care for their families. Both groups consider the need to space births. The midwives group mentions that the man plays a role in opposing the use of family planning methods.
- **family violence and alcoholism:** they are interrelated for both groups; their consequences range from producing congenital anomalies, termination of pregnancy by beating women, and higher chance that children will become alcoholic when they are older. According to what the midwives say, family violence is also due to violence against single mothers by their fathers.

The results found in the health personnel focus groups are similar to those above, confirming that the reasons for coming spontaneously to the HCP for a visit are: urinary infection, vaginal infection, pains or contractions. The danger signs identified by the health personnel in the HCNA's and HCP's include generalized swelling, premature rupture of membranes, absence of fetal movements; hospital personnel add placenta previa.

The signs researched appear in the Standards for Women's Care and in the Midwife Training Manual. In the midwife manual, the danger signs must be developed with consideration given to their possible causes and consequences as well as creation of the skills to monitor them, in order to generate an appropriate community response. There are danger signs that are reported as local in areas where malaria is endemic and which are not specifically considered in the standards for women's care, since it is expected that each Health Region will adopt the standards to its epidemiological profile. However, there is no supplementary document for adapting or giving priority to these risk factors or the response mechanisms, nor methods for individual identification and monitoring of certain danger signs such as fetal movements and swelling.

**TABLE 12: 2. PRENATAL CARE AND DANGER SIGNS DURING PREGNANCY**

ACCORDING TO PREGNANT WOMEN	ACCORDING TO MIDWIVES
<p><b>PRENATAL CHECK-UP</b></p> <p>With whom?</p> <ul style="list-style-type: none"> <li>• with the midwife and the health center (R1,3)</li> <li>• Health center</li> <li>• Hospital (La Paz) (R2)</li> </ul> <p>For what?</p> <ul style="list-style-type: none"> <li>• difficulties and discomfort due to abnormal position of baby resolved with palpation/use of herbs (R1,2,3)</li> <li>• for referral to health center by midwife for vaccination check, especially with complications</li> <li>• for check of weight and growth of abdomen in the health center, to see if the baby is growing (R1,2,3); midwife measures by eye and with hand (R3)</li> <li>• to receive tetanus toxoid vaccine to protect mother and baby (R1,2,3); in R1,2 there is confusion/ignorance regarding what it's for</li> <li>• recognize disadvantages of not getting vaccination and risk of tetanus during delivery (R1,2,3)</li> <li>• recognize mortal illness in baby "seven day sickness" (R2)</li> </ul> <p>food:</p> <ul style="list-style-type: none"> <li>• belief: one must eat better and more during pregnancy</li> <li>• good nutrition: prevents malnourished baby, provides strength for childbirth, keeps the baby from falling</li> <li>• counteracts bleeding during childbirth</li> <li>• eat enough fruits, vegetables, meats, liquids and what's being harvested (R1,2,3)</li> <li>• Perception: the baby eats everything they eat (R1,2,3)</li> <li>• Harmful: eating banana prolongs delivery (R2)</li> <li>• Sometimes they aren't hungry (R3)</li> <li>• You should begin to eat well during the last trimester, because that's when the baby grows the most (R3)</li> <li>• Foods should provide nutrients, particularly calcium, consumption of iron is important (R1)</li> <li>• Eating well every day makes the baby fat and you have problems during delivery (R3)</li> </ul> <p>Clothing:</p> <ul style="list-style-type: none"> <li>• tight clothing creates problems in delivery</li> <li>• harmful effects on baby (R3)</li> </ul>	<p><b>prenatal check-up in health services</b></p> <ul style="list-style-type: none"> <li>• if they don't have identity card, they don't go; that's the first thing they ask the mother (R1,2,3)</li> <li>• some mothers resist going for a prenatal check-up</li> <li>• they take their pressure, give them vitamins, give them instructions on how to eat, examine the position of the baby and check for anemia (R1,2)</li> <li>• uterine growth measures the growth of the baby (R2)</li> <li>• vaccination is for tetanus, protects mother and baby (R1,2,3)</li> <li>• if they don't go to health center for check-up, midwife won't attend them (R1,2,3)</li> </ul> <p><b>prenatal check-up by midwife:</b></p> <ul style="list-style-type: none"> <li>• identify with examination of baby's position (R1,2,3)</li> <li>• examine breasts and nipples (R1,2,3)</li> <li>• check for swollen feet, sight (conjunctivitis), anemia, headache (R3)</li> </ul> <p>precautions:</p> <ul style="list-style-type: none"> <li>• don't lift heavy objects (R1)</li> <li>• you know whether they're anemic from the mother's weight (R1)</li> <li>• the couple should decide to care for the pregnancy (R3)</li> <li>• it's a problem for the mother to be fat and the baby large at the time of birth (R3)</li> <li>• thin and old is a problem in childbirth (R3)</li> <li>• it's good to rest and avoid heavy work (R3)</li> </ul> <p>food:</p> <ul style="list-style-type: none"> <li>• should eat a lot, food provides strength (R1)</li> <li>• acidic lemon provokes loss of the fetus or the babies come out infected (R2)</li> <li>• a weak woman should take vitamins to be strong for the birth (R2)</li> <li>• if you don't eat the baby comes out malnourished (R3)</li> <li>• cola drinks, cigarettes, alcoholic beverages are bad (R3)</li> <li>• bean soup with green bananas, sweet potato shoots with eggs are good (R3)</li> <li>• vitamins stimulate appetite, protect the child (R3)</li> <li>• some mothers don't like vitamins</li> <li>• soups and juices to prevent very dry skin in the baby (R3)</li> </ul>
<p><b>Decrease or absence of fetal movement</b></p> <p>Identification:</p> <ul style="list-style-type: none"> <li>• after six months it indicates intrauterine death or imminent risk for baby or mother (R1,2,3)</li> <li>• seek immediate care from the midwife, physician, health services. Decision to get help depends on the time spent determining that there's no movement, varies from a matter of hours to as much as 3 days (R1,2,3)</li> <li>• If the baby dies the mother has pain in the womb or sacral region (R2,3)</li> </ul> <p>characteristics of fetal movement:</p> <ul style="list-style-type: none"> <li>• more frequent at night (R2,3)</li> <li>• male babies move more (R3)</li> <li>• moves when the mother is hungry (R2,3)</li> <li>• moves when birth is near (R3)</li> </ul> <p>reasons why the baby moves less:</p> <ul style="list-style-type: none"> <li>• baby is sleeping; if it's a girl, it moves less; some babies move more than others (R1,2,3)</li> <li>• malformations, malnourished baby, traumas from mother's fall (R1,2,3)</li> </ul> <p>response:</p> <ul style="list-style-type: none"> <li>• self-stimulation (palpation with oil) of the abdomen to wake the baby, walking, remedies, the midwife palpates (R1,2,3)</li> </ul>	<p><b>Decrease or absence of fetal movement</b></p> <p>Identification:</p> <ul style="list-style-type: none"> <li>• movements depend on whether the baby is active or lazy (R1)</li> <li>• the baby should have strong movements, from 5 months they already move, when there are problems, the mother feels pain (R2)</li> <li>• baby moves slowly and the uterus hardens (R3)</li> </ul> <p>cause:</p> <ul style="list-style-type: none"> <li>• malnourished fetus, lazy, sleepy mother (R1,2)</li> <li>• weakness (R2), mother's fall, lack of vitamins, eclipse (R3)</li> </ul> <p>consequence:</p> <ul style="list-style-type: none"> <li>• doesn't affect it, could be sick (R1)</li> <li>• the fetus isn't normal, if it doesn't move, it's dead (R2)</li> <li>• premature birth, fetal death (R3)</li> </ul> <p>response:</p> <ul style="list-style-type: none"> <li>• go to health center (R1,2,3)</li> <li>• eat strengthening foods, palpate to check movements, give mother vitamins, visit the midwife before the health center where she is palpated, wait 6 to 15 days before consulting (R3)</li> </ul>

ACCORDING TO PREGNANT WOMEN	ACCORDING TO MIDWIVES
<p><b>Bleeding</b>  <b>Identification</b></p> <ul style="list-style-type: none"> <li>• bleeding isn't normal during pregnancy. It is a danger sign (R1,2,3)</li> <li>• associate presence of blood with imminent loss of baby and with abortion (R1,2,3)</li> <li>• associated: poor development of baby (R1), lost blood is associated with problems in the formation of some part of the baby (R1)</li> </ul> <p>causes:</p> <ul style="list-style-type: none"> <li>• pregnancy outside uterus (R1)</li> <li>• maternal anemia (R3)</li> </ul> <p>responses:</p> <ul style="list-style-type: none"> <li>• go to midwife who tries remedies/teas and if this doesn't work refers them to health center (R1,3)</li> <li>• go to the physician/hospital because this is serious (R1)</li> </ul>	<p><b>Bleeding</b>  <b>cause:</b></p> <ul style="list-style-type: none"> <li>• placenta previa (R1,2,3)</li> <li>• women physically mistreated (R2)</li> <li>• "strong fright" (R3)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• fetal malnutrition and death of mother and baby (R1,2)</li> <li>• weakness for the mother and baby, the baby doesn't use the blood that the mother loses (R3)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• emergency at hospital (R1,2,3)</li> </ul>
<p><b>Swollen feet</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• swollen feet is a sign of good delivery, something normal because of weight gain and staying on one's feet a lot (R1,2,3)</li> <li>• they've had swollen feet during previous deliveries and nothing happened (R1,2,3)</li> </ul> <p>causes:</p> <ul style="list-style-type: none"> <li>• lack of vitamins making delivery difficult (R3)</li> </ul> <p>response:</p> <ul style="list-style-type: none"> <li>• don't seek help with swollen feet (R3)</li> <li>• go to midwife (R2)</li> </ul> <p><b>Swollen hands and face</b>  <b>Identification</b></p> <ul style="list-style-type: none"> <li>• presence of anemia in pregnancy (R1,2,3)</li> <li>• announces proximity of birth (R2,3)</li> <li>• can arise after swollen feet and it's dangerous for birth (R1,2), they associate it with preeclampsia (R2)</li> </ul> <p>response:</p> <ul style="list-style-type: none"> <li>• go to doctor/hospital (R1,3)</li> </ul>	<p><b>Swelling</b>  <b>response:</b></p> <ul style="list-style-type: none"> <li>• go to health center (R1,2,3)</li> <li>• sometimes the spouse refuses to take her despite referral (R1)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• profound anemia (R1)</li> <li>• needs blood, a lot of work, problems with high or low pressure (R2)</li> <li>• weakness, blood doesn't have iron (R3)</li> <li>• it's going to be a good delivery</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• fetal and maternal death (R1,3), premature delivery (R2)</li> </ul>
<p><b>Anemia</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• from physical appearance of pregnant woman, thinness and generalized swelling, through laboratory exams (R2)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• poor nutrition, lack of vitamins (R3)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• lack of strength in birth (R2,3)</li> <li>• passes anemia on to the baby (R2)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• go to health personnel, to the hospital (R1,2,3)</li> <li>• take vitamins, don't do anything (R3)</li> </ul>	<p><b>Anemia</b>  <b>identification:</b></p> <ul style="list-style-type: none"> <li>• swollen (R1,2,3)</li> <li>• thin, yellow, headache (R1)</li> <li>• laziness, sleepiness, lack of strength (R2)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• lack of nutrition in the mother (R1,2)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• malnourished fetus, may have premature birth (R1)</li> <li>• fetal death, low birth weight (R2)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• go to health center, referral to hospital (R1,2)</li> <li>• recommendations for improved diet (R2)</li> <li>• B complex vitamins and vitamin K (R2,3)</li> </ul>

ACCORDING TO PREGNANT WOMEN	ACCORDING TO MIDWIVES
<p><b>Headache/ringing ears</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• don't identify them as a danger sign (R1,2,3)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• weakness of head, have gas (R1, Teupasenti)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• feel it may be dangerous for the baby because it might be born with head pains (R1, Teupasenti)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• take analgesics (acetaminophen), consult the health center (R1,2,3)</li> <li>• go to midwife who prescribes panadol (acetaminophen) (R3)</li> <li>• apply Vicks unguent (R2,3)</li> <li>• wrap their head (R2,3)</li> <li>• place cotton with alcohol on their head, rest (R2,3)</li> </ul> <p><b>prevention:</b></p> <ul style="list-style-type: none"> <li>• avoid misbehavior/physical abuse (R3)</li> </ul>	<p><b>Headache</b></p> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• anemia (R1,2)</li> <li>• problems with the couple, spouse's infidelity (R1)</li> <li>• it's a normal symptom of pregnancy (R1)</li> <li>• malaria (R2)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• cerebrovascular accident in the mother (R1)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• send her to the health center (R1)</li> <li>• give her analgesics, remedies (R2)</li> </ul>
<p><b>Family violence</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• insults, shouting and pushing (R1,2,3)</li> <li>• fear, anxiety, distress for the woman (R1,2,3)</li> </ul> <p><b>causes:</b></p> <ul style="list-style-type: none"> <li>• excessive alcohol (R1,3)</li> <li>• women causes it when she incites or provokes (R3)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• the distress is transmitted to the baby producing physical and psychological damage (R3)</li> <li>• fetal death (R1,2,3)</li> <li>• at birth the baby is rebellious, resentful (R3)</li> <li>• bruises and congenital malformations (R2,3)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• know laws that protect women (R1,2)</li> <li>• go to relatives members to seek support (R3)</li> <li>• seek help from health personnel (R2,3)</li> <li>• visit midwife for her to assess baby's condition (R2)</li> <li>• separate from spouse when they can (R2,3)</li> </ul>	<p><b>Family violence</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• mother's unhappy life (R2)</li> <li>• family mistreatment (R3)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• the husband is a "drunk," there are women who like alcohol (R2,3), pregnancies not wanted by family (woman's father) (R3)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• children end up drinkers or children don't develop (R2)</li> <li>• neglect food for wife and children, neglect to provide care at the right time (R3)</li> </ul>
<p><b>Obstetrical history: previous child dead, prior caesarean</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• previous child dead is not recognized as a danger sign (R1,2,3)</li> <li>• there is confusion regarding consequences although they mention that the risk is present if they get pregnant again (R1,2,3)</li> <li>• recognize the risk because the same thing can happen again, not all pregnancies are alike (R3)</li> </ul> <p><b>cause:</b></p> <ul style="list-style-type: none"> <li>• if one birth is by caesarean, the rest of them will be by caesarean (R1,3)</li> <li>• birth route depends on whether the pelvis is large enough (R2,3)</li> <li>• birth route depends on the position of the fetus (R3)</li> </ul> <p><b>consequence:</b></p> <ul style="list-style-type: none"> <li>• perceive danger for them not for the fetus (R1,2,3)</li> <li>• in case of earlier caesarian they perceive the risk of breaking the scar if there's a "bad force" (R1,3)</li> <li>• identify danger of breaking uterus in case of earlier caesarean if the space between births is small (range of 3-4 years in R2 and 1-4 years in R2,3)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• midwife evaluates and doesn't take the case if she believes birth will be by caesarean (R3)</li> </ul>	<p><b>Obstetrical history: previous child dead, prior caesarean</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• recognize the risk of previous child dead and prior caesarean (R1,2,3)</li> </ul> <p><b>causes:</b></p> <ul style="list-style-type: none"> <li>• very large baby, poor position, narrow hips (R1,2,3)</li> </ul> <p><b>consequences:</b></p> <ul style="list-style-type: none"> <li>• rupture of wound, death of baby or mother (R1,2,3)</li> </ul> <p><b>response:</b></p> <ul style="list-style-type: none"> <li>• referral to health center and hospital (R1,2,3)</li> </ul>

ACCORDING TO PREGNANT WOMEN	ACCORDING TO MIDWIVES
<p><b>Parents who drink alcohol or use drugs</b>  cause:  <ul style="list-style-type: none"> <li>• alcohol reaches blood flow of baby and produces abnormality in blood and in child (R3)</li> <li>• when the baby is conceived when drunk</li> <li>• when the mother is a smoker and drinks alcohol during pregnancy (R3)</li> </ul> consequence:  <ul style="list-style-type: none"> <li>• there's no consequence because they've conceived children with spouse drunk (R1,2,3)</li> <li>• mental alterations. baby doesn't speak. decrease of defenses. visual problems (R3)</li> </ul> </p>	<p><b>Parents who drink alcohol</b>  causes:  <ul style="list-style-type: none"> <li>• man is a drunk (R2,3), woman who likes alcohol (R2)</li> </ul> consequences:  <ul style="list-style-type: none"> <li>• children end up drinkers, don't develop (R2)</li> <li>• neglect food for wife and children (R3)</li> <li>• causes congenital anomalies, if the man is drunk when child is conceived (R1,3)</li> </ul> </p>
<p><b>Rupture of membranes</b>  Identification:  <ul style="list-style-type: none"> <li>• water breaking before birth is a danger sign because this should happen at the time of birth (R1,2,3)</li> <li>• they delay from 6 hours to 3 days in deciding to seek help (R1,3)</li> </ul> consequence:  <ul style="list-style-type: none"> <li>• prolonged delivery because the lack of fluid makes it difficult for the baby to come out (R1,3)</li> <li>• baby can be asphyxiated (R1,2,3)</li> <li>• babies are born without protection and malnourished because fluid is a source of energy (R1)</li> <li>• causes the baby to be born yellow and with dry skin (R3)</li> </ul> response:  <ul style="list-style-type: none"> <li>• go to midwife who provides plant-based treatment and if this doesn't work refer to the health services (R1,3)</li> <li>• go to health services immediately</li> </ul> </p>	<p><b>Premature rupture of membranes</b>  Identification:  <ul style="list-style-type: none"> <li>• when it's not time and they don't expect it to occur (R1)</li> <li>• even if half rupture, here comes the baby (R3)</li> </ul> cause:  <ul style="list-style-type: none"> <li>• excessive work, falls (R3)</li> </ul> consequence:  <ul style="list-style-type: none"> <li>• baby dies (R1,3)</li> <li>• affects the baby, not the mother (R1)</li> <li>• runs out of strength for the baby's birth (R3)</li> <li>• babies are asphyxiated during birth (R3)</li> <li>• there is perinatal death, premature birth (R1)</li> </ul> response:  <ul style="list-style-type: none"> <li>• send to the hospital immediately</li> </ul> </p>

**TABLE 13: 3. PREGNANCY**

OBSTACLES	PW	M/F	MW	HP
<p><b>Prenatal check-up</b></p> <ul style="list-style-type: none"> <li>• Midwives in the three regions indicate that some pregnant women refuse to go for a prenatal check-up at health services.</li> <li>• Some pregnant women are misinformed or unaware about why tetanus toxoid is administered</li> <li>• There are problems identifying foods that are rich in iron, they have mistaken beliefs that lead them to eat certain foods they believe have high iron content.</li> </ul>			X	NR
<p><b>Recognition of danger signs</b></p> <ul style="list-style-type: none"> <li>• There are beliefs during pregnancy that influence sensitivity of late perception of danger signs, inadequate treatment and the timely search for help from the health services, for example, the belief that uterine contractions can be produced by "gas," swollen feet is a sign of a good delivery.</li> <li>• The period of time taken to recognize a danger sign and go to the midwife for help is very long in the case of some danger signs such as decreased fetal movements, premature rupture of membranes, bleeding and contractions.</li> <li>• When faced with a danger sign, they identify one cause rather than the possibility of various causes. Generally the cause they identify is classified as manageable in the community; for example, anemia is identified as the cause of swelling in the hands and face and vaginal bleeding and is treated with vitamins and by improving diet. Preeclampsia is not identified.</li> </ul>	X		X	X
<p><b>Use of traditional medicine for danger signs</b></p> <ul style="list-style-type: none"> <li>• The practice of palpating can give a false sense of having solved a detected problem of fetal position, since they think the baby is "arranged."</li> <li>• Pregnant women indicate that midwives use traditional medicines to control different danger signs during pregnancy before they go to the health services for help, as in the case of bleeding, premature rupture of membranes, decrease in fetal movements, start of uterine contractions and swelling.</li> </ul>	X		X	X
<p><b>Sexism</b></p> <ul style="list-style-type: none"> <li>• The spouse or companion frequently rejects family planning methods for spacing pregnancies.</li> </ul>			X	X
<p><b>Family violence</b></p> <ul style="list-style-type: none"> <li>• Women who are exposed to problems related with a spouse with alcoholism or physical abuse, which frequently lead to their death or the death of their baby.</li> </ul>	X		X	X

PW - Pregnant women; M/F = Mothers/Fathers; MW = Midwives; HP - Health personnel

**TABLE 14: 3.1 PREGNANCY**

INCENTIVES	PW	M/F	MW	HP
<p><b>Prenatal check-up</b></p> <ul style="list-style-type: none"> <li>• Pregnant women go for prenatal check-ups with the midwife; the midwife asks them to go for a check-up with the health services too, a practice that both recognize, value based on: tetanus vaccination, supply of vitamins and check whether the baby is doing well (fetal position, intrauterine growth, maternal weight)</li> <li>• In the check-up provided by the midwife, palpation is used to detect incorrect positions in the fetus.</li> <li>• The midwife sends the pregnant women for a check-up at the health center in order to share responsibility, particularly in cases of at-risk pregnancy.</li> <li>• There is an association between health care events during pregnancy for successful delivery and a healthy baby such as:               <ul style="list-style-type: none"> <li>• prenatal check-up</li> <li>• good diet and vitamin intake</li> <li>• vaccination</li> <li>• rest and avoiding the lifting of heavy objects</li> </ul> </li> </ul>	X		x	X
	X		X	NR
	X		X	X
	X	X	X	NR
<p><b>Recognition of danger signs</b></p> <ul style="list-style-type: none"> <li>• It is indicated that the exposure to certain risk factors such as alcoholism, infections, poor nutrition and bleeding can produce a sick newborn.</li> <li>• There are four major concerns: that someone "answer" for the mother, incorrect position of the baby, presence of anemia in mothers so they aren't strong for delivery, and congenital malformations.</li> <li>• Most pregnant women go to the midwife for all the danger signs that they identify during pregnancy.</li> <li>• The risk is recognized in various pathological precedents such as:               <ul style="list-style-type: none"> <li>• previous caesarean</li> <li>• previous child with asphyxia</li> <li>• previous child born dead</li> </ul> </li> <li>• It is felt that family planning methods should be used in cases of multiple births and to avoid short intervals between births.</li> </ul>	X		X	NR
	X		X	NR
	X		X	X
	X		X	X
	X		X	X

NR - No response

## **C. CHILDBIRTH**

### **1. DISCUSSION**

### **2. COORDINATION TABLES**

### **3. OBSTACLES AND INCENTIVES**

## 1. PROCESS OF CARING FOR CHILDBIRTH

The analysis of the childbirth phase is divided into two parts: care during birth and identification of the danger signs that may occur during this phase as well as the response mechanisms.

### Childbirth care.

This care can be divided into various phases: preparation, measures for cleanliness and asepsis, managing of contractions, expulsion stage, birth and placental stage. For pregnant women and midwives the phases in childbirth are: breaking of water, birth and placental stage, in which the amniotic fluid serves to give the baby strength to be born and acts as a lubricant so the baby can slide. The placenta preserves the life of the baby and the mother and the umbilical cord is the vital link, to the point that they assign it the role of the baby's active link with the placenta facilitating the baby's exit, and this link dies if it is cut before the placental stage.

The event of childbirth is basically faced by the midwife and the mother; the midwife takes the role of a leader who decides together with the mother who stays or doesn't stay to help in handling the birth. Generally both accept the presence of the husband and secondly that of the patient's mother or sister. The mother adopts a passive role obedient to the midwife, who tries to have her keep "control of her nerves" in order to facilitate her cooperation.

The time for the midwife's participation in the birth depends on when the decision is made to call her and the distance from the mother's house to the midwife's house. The time when some families call is identified as when the membranes rupture, and thus when the midwife arrives she finds that the baby has already come down and is being born.

The preparation phase for midwives includes having their material and equipment sterilized, an procedure that is done in various ways: boiling in double boiler or directly and cleaning with alcohol after washing with soap and water. For all the community groups, preparation for birth involves preparing a place for the birth, for which both parents are responsible, as well as the baby's clothing and implements for treating the navel. The father is responsible for arranging the place and positioning the bed according to the midwife's instructions. He must also be alert to any emergency and support the mother either by encouraging her or preparing teas and remedies as ordered by the midwife. Some midwives indicate the importance of having a clean table for arranging their material and equipment. About half of the midwives use gloves when attending childbirth.

The first activity carried out by the midwife is to check the fetal position and the progress of labor. All the groups mention the importance of washing hands and bathing the mother, which is done not only for hygiene but also to "hasten the pains." The mother's cleaning of her genitals is checked by the midwife, who in some places washes them again with water with herbs.

According to all the study groups, contractions are managed basically with the use of teas, lemon root, cinnamon, camomile, and other herbs as well as the use of essence of *coronada*. Other actions involve making the patient walk, applying massages or palpating, monitoring the intensity and frequency of contractions, and keeping the mother from pushing before it's time.

The rupture of the membranes is the signal for the expulsion stage. If it doesn't happen, the midwife breaks the membranes either with a fingernail or scissors, and all the community groups agree on this. Fathers relate that midwives use tablets or injections to hasten the birth.

All groups mention the role of the spouse or companion in supporting the mother, by providing encouragement or massage or pushing the abdomen so the baby doesn't rise. The sign that birth is approaching is the flexing of the vulva and perineum and the midwife is expected to be ready to clean the baby's face at the moment of birth so amniotic fluid doesn't fall on it. The main fear at this stage is an umbilical cord wound around the baby. Although most midwives say the mother is lying down, they also indicate that some mothers insist on kneeling or squatting.

The placental stage presents a problem in that midwives refuse to cut the umbilical cord until after the placenta has been expelled, and some (most) of them move the baby away while they wait. Others cut the navel and wait while pinching the other end; others cut the navel and put the baby to the mother's breast to help placental delivery; others don't cut the navel and put the baby to the mother's breast (the minority). This behavior is due to fear that the placenta will "rise" or get lost inside, the patient will hemorrhage and then die. When the placenta is retained, the midwife cuts the cord and ties the patient's end to a leg. Possibly in times past when most mothers had their children while sitting or squatting, delivery without cutting the chord was easier for them than lying down, hastened delivery and reduced the risk of postpartum hemorrhage.

### **Danger signs**

The danger signs leading to an immediate action response are the following:

**Premature birth.** This is identified by the three community groups. They say that one of the causes is weakness or anemia in the mother, or pregnant mothers with genital infections or congenital malformations. Midwives add the lack of rest and problems with the husband, and with mothers interpret falls as a risk. Pregnant women say that the midwife's response is traditional medicine based on herbs. The mothers/fathers and midwives groups indicate that their immediate response is to go to the health services. All groups recognize the risk that the baby will die in utero or during delivery or immediately after birth.

Some focus groups of pregnant women and midwives indicated the belief that babies at 7 months die less than those at 8 months. Another belief is that not satisfying a pregnant woman's cravings causes premature birth.

**Incorrect position of baby.** This is an alarm signal identified as an emergency for which one should go immediately to the health services, but its identification depends on the midwife's checking the position. Midwives feel they are capable of identifying positions, but indicate that they are often called when the baby is already being expelled and there's no time to shift the position (pelvics, by hand).

During pregnancy, the mother goes to have the baby's position checked and for the midwife to use "palpating" to arrange the baby. Most pregnant women indicated that this had been done. The problem can occur when confidence is created without a solid basis that the fetus arranged itself and kept its position until the time of delivery.

Midwives mention having turned the baby in emergency cases, due to serious transportation problems. In two of the regions, pregnant women relate that midwives "arrange the baby" by hand. Fathers/mothers and pregnant women relate that they first go to the midwife who kneads them. But the preference of the three community groups is to go to the hospital for a caesarean.

**Problems with the cord.** This is a danger sign identified as an emergency that compromises the life of the baby (asphyxia, choking); it can be the cause of prolonged childbirth. Midwives also identify a prolapsed cord as an extreme risk. All groups attribute the cause to movements of the baby or the belief in "tied months" produced by curses from the mother's enemies.

The response must be quick at the time of birth. This means unraveling, cutting the cord immediately. Midwives say that when the cord is prolapsed they try to rearrange it and/or take the mother to the hospital. If they believe the cause is "tied months," they look for someone to use magical rituals to resolve the problem. Most midwives in the three regions refer to this belief as among the "ancient" beliefs from past generations and as a sign of the skill of the old midwives.

The three groups indicate that the way to prevent tied months is not to tell people how many months one is pregnant nor the probable due date. This keeps someone with "an unkind heart" from starting a ritual to tie the months.

The danger signs for which action depends on the response to traditional medicine or are recognized late are as follows:

**Bleeding before birth.** Mothers, fathers and midwives seen this as a danger sign. In Region 2, there are pregnant women who do not identify it. Midwives expand on its cause, identifying placenta previa. Both fathers/mothers and midwives mention that a little blood is normal and becomes an alarm signal when it is heavy.

Mothers/fathers and pregnant women say that the first response of midwives is to give traditional medicine based on herb teas and if they can't control the bleeding they send women to the health services. In Region 2, some midwives explain the use of traditional medicine and in Regions 1 and 3 they say that the mother is referred immediately to the health services. The consequences are identified in the three community groups.

**Prolonged childbirth.** The waiting time generally ranges from 6 hours to 8 days in the three groups. However, it is specifically identified when the membranes rupture. In this case waiting time shortens to 1 to 12 hours. Based on observation, the amount of time needed to identify prolonged childbirth depends not on the characteristics of the contractions themselves but is rather focused on the rupture of the membranes. The three community groups mention basic causes for this problem such as disproportion between the head and the pelvis, incorrect pushing. The three groups mentioned the beliefs in tied months associated with wrapped umbilical cords produced by curse and dry birth when there's no fluid for lubrication, due either to premature rupture of membranes or because they don't break.

The risk of this problem, particularly for the baby, is death during childbirth because the baby "suffocates as time passes" or the baby is born "purple" due to asphyxia. The death of the mother is identified as a consequence by the fathers/mothers group and by the midwives group.

**Rupture of membranes in term pregnancy.** This is taken by the group of pregnant women and the fathers/mothers group as an immediate sign of birth and not associated with a danger sign. It is identified by midwives as a sign of a "broken membrane" or dry birth. The difference in the groups is the precision in the time elapsed before sounding the alarm, ranging from 1 to 4 hours up to 4 days. It is identified as a risk by the fathers/mothers group and the midwives group but not by the pregnant women's group.

**Dry birth.** This is an alarm signal identified by the three community groups as a sign that birth will be very difficult due to the rupture of the membranes before labor begins. This is because there is no cooperation from the baby for the birth when the amniotic fluid that gives the baby strength to push is lost, so the burden of labor is entirely with the mother. In addition, because there's no fluid the baby doesn't slide down the birth canal; the response is to put oil in the vagina.

This is also associated with rupture of the membranes before the expulsion stage, so there is no fluid to facilitate the baby's slide. According to the community groups, this presents two risks. One is that the membrane will break right at the time the baby is born, which can cause the baby to swallow amniotic fluid or cause the fluid to fall into the baby's eyes. The other risk is that it doesn't break and the baby is born covered in ovular membranes and asphyxiated. The latter is considered a sign of good luck—a "blanketed baby."

The consequences in terms of danger and harm to the baby are identified by the three groups as prolonged childbirth with the resulting distress for the baby, asphyxia and death during delivery or as a newborn. The first response of pregnant women and the fathers/mothers group is to go to the midwife who uses traditional medicine based on herbs and oil in the vagina to help the baby slide. If this doesn't work, they refer the mother to the hospital. Midwives in Region 3 confirm that they put oil in the vagina to ease the birth.

The danger signs that are not recognized as such or are more difficult to recognize are:

**Presence of meconium.** This danger sign is identified differently in each of the community groups, ranging from denying its existence (fathers/mothers group), not recognizing it or considering it normal (pregnant women's group), or considering it something dirty (midwives and fathers/mothers), associated with infection in the mother (pregnant women's group, midwives), with fetal death (pregnant women's group and midwives) and with the mother's not using laxatives during pregnancy (mothers/fathers).

The consequences identified in the three groups are that the baby gets an infection in the eyes or lungs, blindness and some groups of midwives and pregnant women identify fetal death. Midwives say that there's no problem if the water breaks first and then the baby is born and indicate that mothers think there's no problem if it's not accompanied by pain. The most serious consequences identified are blindness or that the baby swallows and breathes in the fluid. The response is directed to protecting the baby from the time its head pushes through, cleaning the baby and aspirating phlegm; midwives add that they stop sucking "from below." They do not associate this sign with fetal distress and if they suspect the baby is dead due to lack of fetal movement, they interpret the fluid as the baby's body breaking down and refer or go to the hospital.

**Late childbirth.** This was discussed in the midwives' groups and with the fathers/mothers. They identify it as childbirth in which the baby goes beyond the date when it is supposed to be born. They attribute the reason to the mother's error in dating the pregnancy and the doctor's error in calculation. Midwives explain that it is because birth depends on the movements of the moon. In addition, in two regions (1,3), they relate that the best thing is to have an ultrasound because there's no mistakes with this examination, and they say they have little experience with this problem. If they manage to identify it or if they don't think there's an error in calculating the due date, they believe that the consequence is fetal death and the response is to go to the hospital.

**Single/unwed mother.** This is a danger sign identified by the study groups of midwives and pregnant women. This risk is evident because there's nobody to "answer" for the mother in case of emergency and it's the midwife's decision whether or not to assume responsibility for caring for the birth. The situation gets worse if there's an emergency during pregnancy, childbirth or with the newborn, given inability to take on debt and because the mother herself has to go out to seek help. Once the baby is born, the other point they mention is the mother's need to work and deteriorating maternal care, producing early weaning or infant death, particularly in high risk cases such as low birth weight or premature babies.

The health personnel study group mentions that when faced with a danger sign families go first to the midwife and then to the health services. The birth-related problems for which they seek care are: prolonged childbirth, abnormal position of the baby, premature childbirth, absence of fetal movements, retention of placenta, previous caesarean, bleeding, or meconium. They confirm that families delay in identifying the emergency of prolonged childbirth. On the other hand, they identify the emergency in cases of premature birth and abnormal position of the baby. The mother-child clinics focus group felt childbirth in a kneeling, sitting or squatting position is inadvisable, given the difficulty in knowing how to support the mother.

The manuals and standards of the Secretariat of Health consider the steps in childbirth care, clearly define the start of childbirth and the risk of time passing between the rupture of the membranes and birth. All the danger signs are considered except for the single/unwed mother. The same is true of the midwife training manual but here the risk of the single/unwed mother is mentioned, although there is no explanation as to what should be done. The strategies for handling customs and beliefs derived from traditional medicine are not developed in the midwife training manual and the standards manuals.

There are standards on caring for childbirth in the sitting or squatting position but the guidelines for specific care and institutional physical infrastructure as well as the professional training curricula are not developed. Thus in practice the option for the mother to choose the position that is most comfortable for her is not created. In childbirth attended by a midwife, there is controversy regarding the indicated time for cutting the navel during childbirth.

## CHILDBIRTH CARE PROCESS: MIDWIVES' GROUP

REASONS	STAGES AND SIGNS	ACTIONS
<p>Material washed well with <i>paste</i> (plant material used like a sponge) and soap</p> <p>Scissors and gauze sterilized</p> <p>When material isn't sterilized, wipe with alcohol</p> <p>Cloths must be clean to prevent infection</p> <p>Nylon is more hygienic, so bed isn't soiled</p> <p>Not all have gloves</p>	<p style="text-align: center;"><b>EQUIPMENT AND PLACE PREPARED</b></p> <p>ALERT: husband or patient's mother</p>	<p>The family should have arranged the place</p> <p>Should have the baby's clothes ready</p> <p>Remove everybody, a woman deserves respect</p> <p>Husbands put water on to boil</p> <p>There are husbands who leave due to fear</p> <p>Have a table set aside for the material</p> <p>Wash hand and clean nails</p> <p>Sterilize gauze with double boiler</p> <p>Boil the syringe</p>
<p>Should have wide skirts for childbirth</p> <p>There are untrained midwives who keep women bare</p>	<p style="text-align: center;"><b>REVIEW</b></p> <p>SIGN: contractions and expulsion of mucus and blood</p> <p>CHECK: how far along and position</p>	<p>The first thing they do is "palpate them and take their pulse"</p>
<p>a bath hastens childbirth</p>	<p style="text-align: center;"><b>CLEANLINESS</b></p>	<p>Bathe mother with cold water</p> <p>After bath, check whether they need to be cleaned</p> <p>Clean themselves with quinine water</p>
<p>When it's not time but it's close, they keep coming until it is</p> <p>Monitor whether pains are coming quicker or not</p> <p>When pains are slow, don't push</p> <p>Mothers may get a "nervous chill"</p> <p>Some mothers get attacked by nerves</p> <p>With liquor, the baby comes quicker</p> <p>The baby is pushing so don't ask the mother to push</p> <p>Nervous mothers push before it's time</p>	<p style="text-align: center;"><b>HANDLING CONTRACTIONS</b></p> <p>MONITOR: pushing before it's time exercise calmness progress of pains</p>	<p>With first time mothers you need to be there to explain things</p> <p>Let them walk around until it's time</p> <p>Have them take food</p> <p>Give them massages</p> <p>"When it's time they slow down, you give them strength"</p> <p>Give them tea of cinnamon, camomile, allspice and essence of <i>coronada</i></p> <p>Orange tea for nerves</p> <p>Beer, liquor</p> <p>Violet root tea for what ails the heart or for blood pressure</p> <p>Check two or three times</p>
<p>On the ground, there's no room because the baby hits the ground</p> <p>"I've had all my 10 children on my knees"</p> <p>"Now I only attend them when they're lying down"</p> <p>Sometimes the babies face backwards because of the mother's position</p> <p>It's a single formal push downward</p> <p>The backside (perineum) is protected with a clean cloth</p> <p>Nervous mothers don't cooperate</p>	<p style="text-align: center;"><b>EXPULSION STAGE</b></p> <p>SIGN: the water breaks when the pains are two minutes apart</p> <p>DURATION: 20 minutes</p>	<p>There are mothers who only want to do it on their knees</p> <p>Open the mother up wide and cover her with a sheet</p> <p>There are women who are sitting</p> <p>There are women who can't push and swell up</p> <p>They support themselves with the bedclothes</p> <p>Sometimes women are afraid of what's going to happen and don't push</p> <p>They like pressure on their stomach because it goes downward, the husband exerts pressure</p> <p>There are husbands who help by embracing them</p> <p>The baby pushes and the water breaks</p> <p>Sometimes you have to break the water with scissors or a fingernail so that the baby can be born</p>
<p>Protects the mouth when the head comes through</p>	<p style="text-align: center;"><b>BIRTH</b></p> <p>SIGN: the vulva flexes and opens, you see the baby's head</p>	<p>The grandmother has to come take care of the baby while the mother convalesces</p> <p>Sometimes the father takes the baby</p> <p>Clean the head, mouth and ears</p>
<p>The cord dies when you cut it and the baby's movements no longer help in the placental stage</p> <p>If you cut the cord before the placental stage, the placenta goes into the stomach, there's bleeding and death</p> <p>They're afraid to cut the cord before the placental stage</p> <p>The breast helps the placenta to come out</p> <p>There's bleeding when portions of the placenta remain</p> <p>When the placenta is retained, the cord is tied around a leg</p> <p>Tying keeps the placenta from rising</p> <p>Health personnel prohibit giving oil to the patient</p> <p>Breast-feeding eliminates pain in the womb</p>	<p style="text-align: center;"><b>PLACENTAL STAGE</b></p> <p>Wait: half hour to an hour</p>	<p>So that the placenta will come out, put the baby to the mother's breast after cutting the cord</p> <p>They put the baby to her breast without cutting the cord</p> <p>Without cutting the cord, they move the baby away while waiting for the placenta to come out</p> <p>Check the placenta to see that it's complete</p> <p>They give laxol (castor oil) for placenta retention</p>

**CHILDBIRTH PROCESS  
STUDY GROUP: PREGNANT WOMEN**

<p><b>Actions Performed by the Mother</b></p> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>• bedclothes</li> <li>• cloths for birth</li> <li>• materials for baby (cutting and healing navel)</li> </ul> <p><b>Relatives support</b> Sometimes relatives help in the preparations</p> <p><b>Bath</b></p> <ul style="list-style-type: none"> <li>• begins labor</li> </ul> <p>Takes what they give her "so it will come out" Allows herself to be palpated trusting that this will help the baby to be born soon Obeys orders to breathe so the baby won't rise</p> <p><b>Identify sequence of events</b></p> <ul style="list-style-type: none"> <li>• Bleeding-water breaks</li> <li>• Birth of baby</li> <li>• Expulsion of placenta</li> </ul> <p>Women have different preferences for childbirth</p>	<p><b>Preparing Place</b></p>	<p><b>Perception of Work Done by Midwife</b></p> <p>Request preparation of materials Cleaning of equipment for handling birth</p>
	<p><b>Aseptic measures</b></p>	<p>Washing hands when checking the woman</p> <ul style="list-style-type: none"> <li>• to prevent illness in mother/child</li> <li>• to prevent infection in the naval</li> </ul>
	<p><b>Labor</b></p> <p><b>Contractions</b></p>	<ul style="list-style-type: none"> <li>• Preparation of remedies (roots, leaves, etc.)</li> <li>• Do manipulations - palpating to position baby</li> <li>• Guide breathing</li> </ul>
<p>Pushing before it's time</p> <ul style="list-style-type: none"> <li>• exhaustion</li> <li>• delays baby's birth</li> <li>• death (suffocation) of baby</li> </ul> <p>At time of birth relatives help with some manipulations Moral support</p>	<p><b>Expulsion</b></p>	<ul style="list-style-type: none"> <li>• Position of the mother</li> <li>• face up with legs bent</li> <li>• lying down</li> <li>• kneeling</li> <li>• squatting</li> </ul> <p><b>Manipulations:</b> Tie cloth around abdomen, fasten in back and tighten</p> <p><b>Guidance:</b> Guide breathing and pushing Give remedies to hasten birth</p>
<p>Receives baby to suckle him</p>	<p><b>Newborn</b></p>	<p><b>Receiving:</b> hands without gloves use towels and gloves</p> <p><b>Checking baby:</b> complete - normal - breathing</p> <p>Aspiration of phlegm Cutting and healing navel Clean and arrange (clothing) for baby</p> <p>Do early bonding</p>

**CHILDBIRTH PROCESS**  
**STUDY GROUP: FATHERS AND MOTHERS**  
**WHAT MOTHERS SAY**

Actions performed by mother		Actions of Midwife
	<b>Preparation of Place for Childbirth</b>	<ul style="list-style-type: none"> <li>• puts paper on bed</li> </ul>
<ul style="list-style-type: none"> <li>• The mother takes a bath, allows her perineum to be cleaned before and after birth</li> </ul>	<b>Aseptic measures</b>	<ul style="list-style-type: none"> <li>• midwife uses gloves, material for cutting baby's navel, cleans scissors with alcohol, wraps baby</li> <li>• cleans mother's perineum with lukewarm water</li> <li>• cleans perineum postpartum</li> </ul>
<ul style="list-style-type: none"> <li>• walks to hasten contractions</li> <li>• allows them to palpate her, press her belly, tie a cloth around her abdomen to hasten birth</li> <li>• allows them to rub her hands and feet</li> <li>• takes directions on how to breathe and push</li> <li>• takes preparations they give her to hasten birth</li> <li>• feels the spontaneous rupture of the membrane and participates by obeying orders for artificial rupture "pushing" and breaking the membrane</li> </ul>	<b>Labor Contractions</b>	<ul style="list-style-type: none"> <li>• breaks the membrane with fingers to ease childbirth in cases of prolonged labor</li> <li>• let the membranes break by themselves</li> <li>• break the membranes with scissors</li> <li>• prepare home remedies and give them to mother</li> <li>• palpate and rub mother's hands and feet</li> </ul> <p>help with tying a towel around the abdomen</p>
<ul style="list-style-type: none"> <li>• seeks physical support to sustain her in the effort of pushing</li> <li>• sense the protection of the perineum</li> </ul> <p>Gets in position for the birth:</p> <ul style="list-style-type: none"> <li>• lying down</li> <li>• kneeling</li> <li>• squatting</li> <li>• on the floor</li> <li>• standing</li> </ul> <p>Allow themselves to be grasped by the waist to push</p>	<b>Expulsion</b>	<ul style="list-style-type: none"> <li>• grasp the waist of the mother so she can push and have the baby</li> <li>• protect the perineum</li> <li>• tell the mother to "bear down"</li> <li>• direct the mother on how to position herself</li> </ul>
<p>Some:</p> <ul style="list-style-type: none"> <li>• receive the baby after expelling the placenta</li> <li>• receive the baby immediately after it is born</li> </ul>	<b>Birth of baby</b>	<ul style="list-style-type: none"> <li>• receive the newborn, cut the baby's navel, bathe the baby and then give to the mother to be suckled</li> <li>• take care of the mother in expelling the placenta and then take care of the baby</li> </ul>

**CHILDBIRTH PROCESS**  
**STUDY GROUP: FATHERS AND MOTHERS**  
**WHAT FATHERS SAY**

**Actions performed by the Father**

- prepare the room where birth will take place
  - arranges the bed
  - puts paper on the bed
- go for the midwife
  - helps with some of the midwife's actions
  - places the bed on an incline
- Looks for something to bring his wife so that she'll eat after giving birth
  
- washes hands before birth
- helps to boil some of the birthing instruments as ordered and instructed by the midwife
- buys disinfectants and puts them at the midwife's disposal
  
- makes teas to ease childbirth as ordered by the midwife
  
- gives emotional and physical support, supports her back

<b>Preparation of Place for Childbirth</b>
<b>Aseptic measures</b>
<b>Labor Contractions</b>
<b>Expulsion</b>
<b>Birth of baby</b>

**Actions of Midwife**

- arranges the place where birth will take place and cleans the room
  
- uses gloves for the birth
- washes hands before and after birth
- washes mother's perineum and tells her to bathe before birth
- puts alcohol or boiled water on the perineum
- washes the material she will use with alcohol
- boils the materials
  
- breaks mother's membrane
- makes teas to ease birth
- places oil on the woman's vulva when she hasn't broken the membranes
  
- injects the mother to lighten labor
- palpates the mother to arrange the child so it will come out soon
- guides the mother in breathing and pushing
- cleans the place after expulsion stage
  
- gives the baby to the mother immediately after birth
- cuts the navel and then cleans the baby

**TABLE 15: 2. DANGER SIGNS**

PREGNANT WOMEN	FATHERS AND MOTHERS	MIDWIVES
<p><b>Heavy bleeding before birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• not identified as a danger sign (R2)</li> <li>• is dangerous (R1,3)</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• placenta comes before baby (R3)</li> <li>• placenta isn't discharged (R3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• the baby is at risk of suffocating (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• handled by midwives with remedies and home cures; if bleeding doesn't stop, they refer and sometimes accompany the woman to the health services (R1,2,3)</li> </ul>	<p><b>Bleeding before birth:</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• it's a problem (R1,2,3)</li> <li>• hemorrhage is heavy and bleeding like menstruation (R3)</li> <li>• blood is the principal thing in the body (R1)</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• trauma infections (R2,3)</li> <li>• threat of miscarriage (R3)</li> <li>• medications during pregnancy (R3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• fetal and maternal distress (R1,3)</li> <li>• weak, low-weight baby (R1,2)</li> <li>• infection in the baby (R3)</li> <li>• weakness in the mother (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• take traditional remedies (R1,2,3)</li> <li>• go to health center or hospital (R1,2,3)</li> <li>• rest (R3)</li> <li>• palpating (R2)</li> </ul>	<p><b>Bleeding before birth:</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• placenta comes "in front" (R1)</li> <li>• flow without pain (R1)</li> <li>• flow before crowning/placenta first (bleeding before birth, bleeding during pregnancy, placenta and cord come before fetus) (R3)</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• if it's a little blood, it can be a sign of birth (R1)</li> <li>• if it's a lot of blood, it's placenta previa (R1,2,3)</li> <li>• strong push from the mother, present in the last birth, marginal placenta, history of bleeding in previous births (R2)</li> <li>• weak uterus and baby pushes, weak uterus from multiple births (R3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• doubts about hurting baby, maternal death (R1)</li> <li>• fetal death (R2,3)</li> <li>• baby dehydrates and is born weak (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• urgent transfer to hospital (R1,2,3)</li> <li>• caesarean (R3)</li> <li>• plant-based traditional medicines placed in mother's vagina, injection of vitamins, give mother camomile tea or essence of <i>coronada</i> (R2)</li> </ul>
<p><b>Premature birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• Identified when it occurs in the three regions</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• some don't know it (R1,3)</li> <li>• pregnant woman is weak, has infections such as yellow illness/flow, or due to malformations in the baby (R2,3)</li> <li>• adolescent mother (R1)</li> <li>• premature rupture of membranes (R1)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• if live birth, baby dies easily (R1,3)</li> <li>• small, malnourished baby (R3)</li> </ul> <p><b>Beliefs:</b></p> <ul style="list-style-type: none"> <li>• preemies at 7 months are more likely to live than preemies at 8 months (R2,3)</li> <li>• if you don't satisfy a pregnant woman's cravings, it's possible for the baby to fall (R2)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• midwives don't do anything (R3)</li> <li>• give spring water (R3)</li> <li>• if complication, you have to take mother to the hospital (R3)</li> </ul>	<p><b>Premature birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• preemie (R1,3)</li> <li>• early delivery (R2)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• error in probable due date (R1)</li> <li>• anemia and mother's fall during pregnancy (R2)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• neonatal death (R1,2)</li> <li>• trauma to fetus (R2)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• prenatal check-up (R1)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• palpating during pregnancy (R1)</li> <li>• going to hospital (R1,2,3)</li> <li>• going to health center (R2)</li> </ul>	<p><b>Premature birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• preemie (R1)</li> <li>• birth at 7, 8 months pregnant (R3)</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• associated with twin birth, multiple births, falls (R1)</li> <li>• sickness, shock, problems with husband, weakness of mother or baby, lack of rest, lifting bulky objects (R3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• intrauterine death, early neonate death (R1)</li> </ul> <p><b>Beliefs:</b></p> <ul style="list-style-type: none"> <li>• comes from not satisfying "cravings," newborns at 8 months don't suckle (even numbers); those at 7 months have a better chance (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• take mother to hospital (R1,3)</li> <li>• "can't take care of them very well" (R2)</li> </ul>

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<p><b>Prolonged childbirth</b> Identification:</p> <ul style="list-style-type: none"> <li>• In the three regions, when the time considered normal goes by (ranging from 1 hours to 2 days), birth is considered prolonged (ranging from 12 hours to 1 week)</li> </ul> <p>Causes:</p> <ul style="list-style-type: none"> <li>• irregular labor (R1,2,3)</li> <li>• very large baby, narrow pelvis, first-time mother (R3)</li> <li>• lack of strength to push in expulsion stage (R1)</li> <li>• when the baby doesn't have the strength to be born and doesn't descend (R1,2,3)</li> <li>• when the baby doesn't descend because his head is swollen from the mother's pushing so much (R1)</li> </ul> <p>Consequence:</p> <ul style="list-style-type: none"> <li>• the baby dies (R1,2,3)</li> <li>• despite prolonged birth, the baby can be born in good condition (R2)</li> </ul> <p>Beliefs:</p> <ul style="list-style-type: none"> <li>• going to wakes (R1,2)</li> <li>• tied months (R1,2,3)</li> <li>• sunbathing, when a pregnant woman is present at the birth, when the baby is a girl (R3)</li> </ul> <p>Prevention:</p> <ul style="list-style-type: none"> <li>• don't tell how many months pregnant you are (R1,2,3)</li> </ul> <p>Response:</p> <ul style="list-style-type: none"> <li>• those who don't go with midwives go directly to the hospital (R1,3)</li> <li>• if the baby isn't born at the time/hour estimated by the midwife, refer to the hospital (R1,2,3)</li> <li>• give teas with essence of <i>coronada</i>, lemon root and other herbs (R1,2,3)</li> <li>• remedies of beer or liquor because it provokes vomiting which expels the baby (R2,3)</li> <li>• liquor gives heat and courage at the same time (R1)</li> <li>• time they allow for the remedies to take effect is one day (R3)</li> <li>• midwives use injections (unspecified, although it is suspected that they may be oxytocin) (R2,3)</li> <li>• use camphor oil at the opening of the vagina so the baby's head can slide (R1,3)</li> <li>• at health services, they examine women, give them serum, and manipulate for expulsion (R1,2)</li> <li>• make the woman walk and palpate to expel the fetus, take the fetus out forcefully (R3)</li> <li>• the midwife handles tied months cases with prayers</li> </ul>	<p><b>Prolonged childbirth</b> Identification:</p> <ul style="list-style-type: none"> <li>• waiting two to three days (R1)</li> <li>• measurement depends on the time the membranes rupture, from 6-12 hours (R2), 2-8 days (R3)</li> </ul> <p>Causes:</p> <ul style="list-style-type: none"> <li>• urinary infections during pregnancy and birth (R1)</li> <li>• states of anxiety during birth (R1)</li> <li>• lack of vitamins (R1)</li> <li>• disproportion between baby's head and mother's pelvis (R2)</li> </ul> <p>Consequences:</p> <ul style="list-style-type: none"> <li>• neonatal asphyxia (R1)</li> <li>• baby is born with flu/fever or dead (R2)</li> <li>• fetal and maternal death (R3)</li> <li>• baby is born with bruises and swollen (R3)</li> </ul> <p>Belief:</p> <ul style="list-style-type: none"> <li>• tied months (R3)</li> </ul> <p>Prevention:</p> <ul style="list-style-type: none"> <li>• don't say how many months pregnant (R3)</li> </ul> <p>Response:</p> <ul style="list-style-type: none"> <li>• use of teas based on herbs and other preparations, beer, syrups, wines, essence of <i>coronada</i> and oil (R1,3)</li> <li>• lemon roots and orange leaves (R2)</li> <li>• leading the pushing (R1)</li> <li>• measure the duration of labor (R1)</li> <li>• perform tied months ritual (R3)</li> <li>• measure intensity, frequency and duration of contractions (R2)</li> <li>• palpation (R1,3)</li> <li>• medications/laxatives (R3)</li> <li>• transfer to hospital (R1)</li> </ul>	<p><b>Prolonged childbirth</b> Identification:</p> <ul style="list-style-type: none"> <li>• delayed birth (R1,2,3)</li> <li>• limit of 24 hours wait, sometimes 3-8 days, measurement depends on time membranes rupture, once broken the limit falls to 4 hours (R1)</li> <li>• strong pains and days have passed (R2)</li> <li>• limit for alarm depends on rupture of membranes, maximum limit is one hour (R2)</li> </ul> <p>Causes:</p> <ul style="list-style-type: none"> <li>• first time mothers (R1,2,3)</li> <li>• poor fetal position (R1,3)</li> <li>• maternal weakness, swollen fetuses (R1)</li> <li>• disproportion between baby's head and mother's pelvis</li> <li>• irregular labor (R1,3)</li> <li>• mother doesn't push, get's tired (R2)</li> <li>• cord wrapped around neck/body (R2,3)</li> <li>• disproportion between baby's head and mother's pelvis</li> <li>• poor fetal position (pelvic) (R3)</li> <li>• caput succedaneum, twists of cord, irregular labor (R3)</li> </ul> <p>Consequences:</p> <ul style="list-style-type: none"> <li>• death of fetus and mother (R1,2,3)</li> <li>• perineal tearing (R2,3)</li> <li>• midwife with problems with family (R2,3)</li> <li>• baby with asphyxia (R3)</li> </ul> <p>Belief:</p> <ul style="list-style-type: none"> <li>• dry birth, when associated with premature rupture of membranes, the mother "doesn't use strength to push baby out" (R1,3)</li> <li>• tied months</li> </ul> <p>Prevention:</p> <ul style="list-style-type: none"> <li>• check time (R1)</li> <li>• don't tell months of gestation during pregnancy (R1,2,3)</li> </ul> <p>Response:</p> <ul style="list-style-type: none"> <li>• wait (R1)</li> <li>• herb teas, guide pushing (R1,3)</li> <li>• manual rotation of head of fetus (R1)</li> <li>• pressure manipulations, cloths with lukewarm water on the womb, walking (R2)</li> <li>• transfer to hospital (R1,2,3)</li> </ul>

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<p><b>Poor position of baby</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• as abnormal position: podalic, pelvic, hand first, cross (R1,2,3)</li> <li>• in some cases this doesn't end in birth except through caesarean (R1,3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• no knowledge why this happens (R1,3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• risk of death (R1,2,3)</li> <li>• fracture of baby (R3)</li> <li>• risk of maternal death, heavy bleeding (R1)</li> <li>• prolongs birth (R1,2,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• before birth they consult midwife and she palpates to correct abnormal position (R1,2,3)</li> <li>• palpating to arrange baby (R1,2,3)</li> <li>• some pregnant women feel the midwife can't do anything to correct abnormal position; some go directly to the hospital (R1,3)</li> <li>• midwife refers to hospital (R3)</li> <li>• when the baby's hand presents, some midwives put the baby's hand back in and turn the baby so head comes first (R1,2)</li> <li>• extra help needed (R1,2)</li> <li>• they do a caesarean at the hospital (R1,3)</li> </ul>	<p><b>Poor position of baby</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• baby is cross or feet first (R1,2)</li> <li>• pelvic (R2)</li> <li>• pelvic and cross (R3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• increase in fetal movements (R1,2)</li> <li>• too much work, falls (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• fetal and maternal death (R1,2)</li> <li>• babies are born with malformations (R1,3)</li> <li>• neonatal asphyxiation (R2)</li> <li>• maternal death from hemorrhaging (R3)</li> <li>• they perform a caesarean in the hospital (R2,3)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• give vitamins (R1)</li> <li>• prenatal check to identify position (R1,2)</li> <li>• don't lift heavy objects (R1)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• palpating during birth, referral to hospital for caesarean (R1,2,3)</li> </ul>	<p><b>Poor position of baby</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• buttocks, feet, cross (R1,2)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• multiple birth (R1,3)</li> <li>• the baby can change position when the membranes rupture (R1)</li> <li>• they don't go for prenatal check-up, baby looks for another place (R2)</li> <li>• God's decision (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• depending on distance to hospital, the fetus dies (R1)</li> <li>• death during childbirth (R1,2,3)</li> <li>• asphyxiation of neonate (R1,2,3)</li> <li>• maternal death (R1,2)</li> <li>• neonatal death (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• attend pelvic birth (R1,2,3)</li> <li>• turn baby (R1,2)</li> <li>• palpate (R2)</li> <li>• handling rotation of head (R2)</li> <li>• preferably send to hospital (R1,2,3)</li> <li>• if impossible to move to hospital, give teas and essence of <i>coronada</i> (R3)</li> </ul>
<p><b>Meconium</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• don't recognize meconium or they consider it normal (R1,3)</li> <li>• some know that it isn't normal (R2)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• infection in the uterus (R2,3)</li> <li>• filth coming from womb, a cold (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• causes persistent tearing (R2,3)</li> <li>• blindness (R3)</li> <li>• some believe it goes to the lungs (R3)</li> <li>• some believe that the source is separate and nothing happens (R3)</li> <li>• indicates that the baby is dead (R2)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• seek help from the midwife who doesn't do anything (R2,3)</li> <li>• midwives refer to hospital (R2)</li> <li>• mothers bring baby to doctor</li> <li>• when the baby is born they wash it</li> </ul>	<p><b>Meconium</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• dirty, dark water (R1)</li> <li>• yellowish water (R3)</li> <li>• water is always clear, not dirty (R2)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• not using laxatives during pregnancy (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• the baby is born sick (R1,3)</li> <li>• baby loses sight if it falls in its eyes (R1,3)</li> <li>• can contract skin disease (R1)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• midwife should protect the baby from this fluid (R3)</li> <li>• use of laxatives during pregnancy (R3)</li> </ul>	<p><b>Meconium</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• dirty water (R1,2)</li> <li>• baby's feces (R1,2)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• infection, associated with fetal death, with absence of fetal movements (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• if it falls in baby's eyes, it causes blindness, if in the mouth, it makes them nauseous, infection in skin and intestines, leprosy (R1)</li> <li>• fetal and maternal death (R3)</li> <li>• born with infections in eyes, respiratory problems</li> </ul> <p><b>Belief:</b></p> <ul style="list-style-type: none"> <li>• doesn't do any harm if the water breaks first and then the baby is born (R1,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• cover and clean the newborn when it comes out, move it slightly away so that fluid doesn't fall on it, give it a pacifier (R1)</li> <li>• mothers don't identify danger if there's no pain</li> <li>• urgent referral to hospital (R2,3)</li> </ul>

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<p><b>Rupture of membranes/water in term pregnancy</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• sign of imminent birth (R1,3)</li> <li>• some confuse water breaking with urination (R1,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• go the doctor/hospital</li> <li>• midwife breaks the membrane (R3)</li> <li>• hastens birth with teas (R1,3)</li> <li>• doctor hastens birth by breaking membrane (R1,3)</li> </ul>	<p><b>Rupture of membranes/water in term pregnancy</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• not a problem (R1)</li> <li>• when it occurs it's because the baby is dead (R2)</li> <li>• it's a sign of birth (R3)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• neonatal and maternal death (R1,2,3)</li> <li>• dehydration in the baby (R1)</li> <li>• fetal death (R1,2)</li> <li>• premature birth (R2)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• take traditional medicines (R1)</li> <li>• go to health center or hospital (R1,2,3)</li> <li>• rest (R3)</li> <li>• put oil in vagina (R2)</li> <li>• give injection of vitamin B complex (R2)</li> </ul>	<p><b>Rupture of membranes/water in term pregnancy</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• birth with broken membrane/dry birth (R1)</li> <li>• critical limit is 1 to 1 ½ hours before labor; if the uterus or vagina doesn't dilate, it's not birth yet (R2)</li> <li>• expulsion of amniotic fluid for 4 days before birth, only the head comes, without membranes (R3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• fetus suffocates and dies, maternal death (R1)</li> <li>• the baby may have problems (R2)</li> <li>• the baby crown is hurt, may die, may become psychotic as an adult, if the baby comes out healthy, there's no problem (R3)</li> </ul> <p><b>Belief:</b></p> <ul style="list-style-type: none"> <li>• the water is the baby's life, he has no help when there's no fluid and if he doesn't come out he dies; if it's a dry birth the baby comes out normal and the mother may bleed profusely (R1)</li> <li>• it's water birth (R3)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• wrap and clean the baby so that it's not hurt (R1)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• referral to doctor who refers to hospital. In case of dry birth, there's only the mother's pushing for the expulsion stage (R1)</li> <li>• apply oil in the vagina and labia minora so that baby will slide (R3)</li> </ul>
<p><b>Problems with cord</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• babies wrapped in cord (R2), babies are born hobbled with guts on their head (R3), knots in their neck (R1)</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• belief in tied months (R1,2,3)</li> <li>• due to such much movement they get wrapped in the cord (R2)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• neonatal asphyxia (R1,2,3)</li> <li>• fetal and neonatal death (R1,2,3)</li> <li>• maternal death (R1,2,3)</li> <li>• prolonged childbirth (R1,2,3)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• don't tell how many months pregnant or due date (R1,2,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• prayers (ritual) from someone who knows how (R1,2,3)</li> </ul>	<p><b>Problems with cord</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• wound cord, tied months (R1,3)</li> <li>• rolled, roped around neck (R2)</li> <li>• baby tied up</li> </ul> <p><b>Cause:</b></p> <ul style="list-style-type: none"> <li>• increased fetal movements (R1,2,3)</li> <li>• tied months (R1,2,3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• asphyxia by strangulation (R1,2,3)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• don't tell how many months pregnant (R1,2,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• untie the months with ritual (R1,2,3)</li> <li>• cut the cord (R1,2)</li> <li>• go to health center/hospital, caesarean (R1)</li> <li>• evaluation by midwife</li> </ul>	<p><b>Problems with cord</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• turns of cord/lasso (turns around neck, prolapsed cord (R1,2,3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• baby suffocates (R1,2,3)</li> <li>• if the mother continues pushing, baby chokes (R1,2)</li> <li>• prolonged childbirth, asphyxiated baby, death in newborn (R3)</li> </ul> <p><b>Belief:</b></p> <ul style="list-style-type: none"> <li>• baby's going to be a cattleman, that's why he comes with a "lasso" (R1)</li> <li>• tied months (R1,2,3)</li> </ul> <p><b>Prevention:</b></p> <ul style="list-style-type: none"> <li>• don't tell how many months pregnant (R1,2,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• unravel cord immediately (R1,2,3)</li> <li>• put the umbilical back (prolapse) and take with baby out with pressure manipulations (R1)</li> <li>• in case of prolapse, take immediately to hospital/resuscitation maneuvers (R2)</li> </ul>

PREGNANT WOMEN	FATHERS AND MOTHERS	MIDWIVES
<p><b>Dry birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• happens when water has broken before the baby is born (R1,3)</li> <li>• happens when water doesn't break, mother doesn't release water (R2)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• risk of baby dying from asphyxiation</li> <li>• born bruised (R1,3)</li> <li>• born with jaundice and dry skin (R1,3)</li> <li>• prolonged birth due to lack of amniotic fluid (R1,3)</li> <li>• there's no water to help the baby slide (R1,2,3)</li> <li>• bleeding from torn perineum and risk of maternal death (R1,2)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• go to midwife (R1,3)</li> <li>• go to health services (R2)</li> <li>• when the midwife can't make the baby come, they refer to hospital (R1,2,3)</li> <li>• midwives apply oil to vagina (R1,3)</li> <li>• give oil to drink so the baby will slide (R3)</li> <li>• at health services they do pressure manipulations on the abdomen to facilitate baby's exit (R1,3)</li> </ul>	<p><b>Dry birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• it's dry birth without blood, without water (R1,2)</li> <li>• mother doesn't have strength (R3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• <i>hijo</i> (vapors released by a corpse), the baby comes out blanketed (wrapped in ovular membranes)</li> <li>• in summer childbirths are dry (R3)</li> <li>• the membranes are whole (R1)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• asphyxia in baby and death (R1)</li> <li>• the baby comes out covered with membranes (R3)</li> <li>• prolonged birth, fetal and maternal distress (R2)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• midwife breaks membranes (R1)</li> <li>• teas and preparations of traditional medicines (R1,2,3)</li> <li>• lubrication of vagina with oil (R2)</li> <li>• sexual relations (R3, La Mina)</li> </ul>	<p><b>Dry birth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• when there's neither water or blood, birth is dry, there are no signs (R1,2,3)</li> <li>• the baby come with everything and the water (R2)</li> <li>• when it's dry there's no fluids for the baby to slide (R3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• water doesn't break (R1,2,3)</li> <li>• when water doesn't break (R2)</li> </ul> <p><b>Consequences:</b></p> <ul style="list-style-type: none"> <li>• hurts the crown of the baby's head and he can die, the birth happens only with the mother's pushing, affects whether the baby is born sick, if he's healthy or not (R3)</li> <li>• it's normal birth, the baby has no problems (R1,2)</li> <li>• there's heavy bleeding in the mother after the birth (R1)</li> <li>• the baby can swallow amniotic fluid or it can fall into his eyes (R1,2,3)</li> <li>• the baby is born "blanketed" and can suffocate (R1,2,3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• put oil in the vagina (R3)</li> <li>• when membranes remain intact in expulsion, midwife breaks them with a fingernail or scissors (R1,2,3)</li> <li>• water breaks at the moment of birth, the clean and aspirate the baby immediately (R1,2,3)</li> <li>• if the baby is enveloped, remove the membranes from him quickly (R1,2,3)</li> </ul>
<p>No questions, and no spontaneous answers</p>	<p><b>Late childbirth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• identified as "date has passed" (R1,2,3)</li> <li>• they're born big (R3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• midwife or doctor made a mistake with the date, only God knows</li> <li>• decrease in uterine contractions (R1)</li> <li>• mother gets chilled (R1)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• neonatal death (R1,2)</li> <li>• nothing happens to them, they grow normally (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• go to doctor/hospital, caesarean, wait for time of birth to come (R1,2)</li> </ul>	<p><b>Late childbirth</b>  <b>Identification:</b></p> <ul style="list-style-type: none"> <li>• baby goes beyond due date (R1,3)</li> <li>• ultrasound doesn't make mistakes (R1,3)</li> <li>• relate little experience with this problem (R1,3)</li> </ul> <p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• the most frequent cause is mothers who don't know when they got pregnant (R1,3)</li> <li>• doctors make mistakes (R1,3)</li> <li>• every child is born due to the moon's movement, so they say the date has passed but the moon has not passed (R1,3)</li> </ul> <p><b>Consequence:</b></p> <ul style="list-style-type: none"> <li>• children come out like little old people, wrinkled, caesarean birth (R3)</li> </ul> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>• send them to the hospital (R1,3)</li> </ul>

**TABLE 16. DEATHS IN UTERO AND DURING DELIVERY  
MIDWIVES GROUP**

<b>DEATHS IN UTERO AND DURING DELIVERY</b>	<b>REGION NO. 1</b>	<b>REGION NO. 2</b>	<b>REGION NO. 3</b>
<b>SYMPTOMS</b>	<ul style="list-style-type: none"> <li>• "horrible" sensation</li> </ul>	<ul style="list-style-type: none"> <li>• for in utero deaths they're called when there's late expulsion</li> <li>• absence of fetal movement</li> </ul>	<ul style="list-style-type: none"> <li>• yellow meconium/bad-smelling odor, "foul," the fetus breaks up</li> <li>• absence of fetal movements</li> <li>• health and cold stomach</li> </ul>
<b>CAUSES</b>	<p><b>birth</b></p> <ul style="list-style-type: none"> <li>• complicated presentations: arm, pelvis</li> <li>• prolonged birth</li> <li>• premature birth</li> <li>• twin birth</li> </ul> <p><b>pregnancy</b></p> <ul style="list-style-type: none"> <li>• general swelling</li> <li>• bleeding</li> <li>• history of intrauterine deaths</li> </ul>	<p><b>birth</b></p> <ul style="list-style-type: none"> <li>• complicated presentations: cross</li> <li>• prolonged birth</li> <li>• prolapsed cord</li> <li>• twin birth</li> </ul>	<p><b>birth</b></p> <ul style="list-style-type: none"> <li>• prolonged birth</li> <li>• placenta previa</li> <li>• prolapsed cord</li> <li>• anomalous presentations: pelvic</li> <li>• disproportion between baby's head and mother's pelvis</li> </ul> <p><b>pregnancy</b></p> <ul style="list-style-type: none"> <li>• mother falls</li> <li>• premature rupture of membranes</li> </ul>
<b>ASSOCIATED BELIEFS</b>	<ul style="list-style-type: none"> <li>• tied months</li> </ul>	<ul style="list-style-type: none"> <li>• tied months</li> <li>• eclipse</li> </ul>	<ul style="list-style-type: none"> <li>• tied months</li> <li>• dry birth</li> </ul>

**TABLE 17: 3. BIRTH**

OBSTACLES	PW	M/F	MW	HP
<p><b>Process of caring for childbirth</b></p> <ul style="list-style-type: none"> <li>• The family frequently calls for the midwife when the baby is already being expelled or when birth has already happened. This hinders early identification of danger signs and timely response to them.</li> <li>• There are problems reaching agreement between the community groups and health personnel regarding the time when birth starts; some midwives identify it with the release of the mucus plug and the beginning of contractions, while others identify it with the rupture of the membranes.</li> <li>• Certain prophylactic activities to care for childbirth are not carried out or are done in a limited way, e.g., wearing gloves</li> <li>• They continue with manipulations to hasten the birth such as: "palpating," applying pressure and "tying" and using "injections"</li> </ul>		X	X	NR
			X	NR
	X	X	X	X
	X	X	X	X
<p><b>Recognition of danger signs</b></p> <ul style="list-style-type: none"> <li>• Some danger signs are not recognized during childbirth, which doesn't allow for a timely decision regarding: <ul style="list-style-type: none"> <li>• premature rupture of membranes</li> <li>• meconium</li> <li>• past due birth</li> <li>• toxic pregnancy</li> </ul> </li> <li>• There's difficulty identifying prolonged birth and uterine bleeding before birth in a timely and appropriate way</li> </ul>	X	X	X	X
	X	X	X	X
<p><b>Use of traditional medicine with danger signs</b></p> <ul style="list-style-type: none"> <li>• There are some gaps in the workings between traditional and formal medicine leading to confusion and doubts such as: <ul style="list-style-type: none"> <li>• use of teas during labor</li> <li>• position for expelling the baby</li> <li>• time to cut navel during placental stage</li> <li>• mother going in for an appointment during the baby's initial days in order to follow a diet and beliefs keeping the baby from leaving the house in order to protect it from the "evil eye."</li> </ul> </li> <li>• There are beliefs indicating that the first response when faced with a danger sign is traditional medicine based on rituals and plants, thus delaying the decision to go to the health services, e.g., "tied months" in the case of prolonged birth.</li> </ul>	X	X	X	X
	X	X	X	X
<p><b>Use of materials</b></p> <ul style="list-style-type: none"> <li>• Midwives in Regions 2 and 3 complain of the lack of supplies to care for childbirth such as gloves, gauze, iodine, et al.</li> </ul>			X	X

PW = Pregnant women  
MF = Mothers/Fathers  
MW = Midwives  
HP = Health personnel



**D. NEWBORN**

**1. DISCUSSION**

**2. COORDINATION TABLES**

**3. OBSTACLES AND INCENTIVES**

## 1. CARE OF NEWBORN

This section discusses immediate care of the newborn at birth and thereafter and the empowerment of the mother. The discussion then focuses on the danger signs, their identification and interpretation and the response to them.

### Immediate care of the newborn.

Direct care of the newborn begins with cleaning and protecting the baby's eyes and mouth as the head is born. The receiving of the newborn is the responsibility of the midwife but when the midwife doesn't manage to arrive or is not called, the mother takes care of herself or is helped by her mother or husband.

Midwives and pregnant women relate that births are sometimes attended with gloves and sometimes not. Both groups say that the majority of midwives receives the baby with a clean towel or cloth.

According to the midwife's instructions, the husband plays the role of an observer ready for any emergency. In some regions, they say there are problems with the husband's "responsibility" since they aren't at the birth or are afraid.

The midwife's next step is to clean the mucus off the baby with gauze or a syringe and remove the baby from between its mother's legs. Then midwives act differently in the placental stage. Some midwives separate the baby and cover it without cutting the cord and place it to one side of the bed. Others do the same but without covering the baby and still others (fewer) put the baby to its mother's breast without cutting the cord in order to hasten the placenta's expulsion. There is obvious resistance by the midwives to cutting the cord before the placental stage because they are afraid the placenta will retreat or the mother will bleed out and due to the belief that the baby's movements hasten the placenta's exit. Some midwives who cut the cord before the placenta is expelled, put the baby to breast-feed to accelerate the process; others cut the cord and place the baby to one side while they attend to the mother.

By changing the mother's position during expulsion from a sitting, kneeling or squatting position to a prone position, one loses the ease with which the baby is immediately put to the mother's breast to facilitate expulsion of the placenta, the advantage of the newborn's initial period of physical alertness as well as the natural protection of the baby's contact with the mother's skin. The groups report that they then delay covering and breast-feeding while they wait for the placenta to be discharged.

Most of the community group participants say that after the placental stage the umbilicus is cut with a scissors or razor blade and treated with alcohol, iodine or thimerosal. The baby is then cleaned and checked, clothed and given to the mother to breast-feed.

Ophthalmic prophylaxis is not always done; it depends on the whether or not the midwife has drops. When these drops are not provided by the health services, some midwives buy ophthalmic drops that are not the right drops because instead of antibiotics they contain vasoconstrictors. All midwives wash the eyes with lukewarm pure or salt water.

The monitoring done afterwards focuses on whether the baby breast-feeds, urinates, or defecates, whether there is fever jaundice and the care which according to social custom is the mother's responsibility. In addition, while they wait for the navel to fall, which all expect to happen within no more than 8 days, the midwife has a moral commitment to visit and care for the family. Both the pregnant mothers and the fathers/mothers group say that they also participate with the midwife in caring for the navel. However, although they don't mention that midwives use other substances to treat the navel, some mothers and pregnant women say that they do use cooking oil or chicken oil and camphor. It is customary to use the *fajuelo*<sup>1</sup> to protect the navel (so it doesn't pop out with crying or pushing), and this is something mentioned by the three community study groups. The health personnel group confirms what is stated in this paragraph.

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<sup>1</sup> *Fajuelo* - a strip of cloth tied around baby's stomach to keep the navel from protruding.

Before the mother's milk begins to flow, they give the baby a pap and introduce teas or other milks. The basic objective of the pap is to remove the mucus they were unable to aspirate and which can hurt the baby's intestine. This is emphasized if the fluid from the "water" is dirty (meconium).

The baby is cleaned daily by the mother and all groups agree that the custom is to bathe the baby at 8 days. All groups say that they bring the baby in for a check-up for vaccination within one month to 40 days. The role of the maternal or paternal grandparents is to help in cleaning the baby and preparing the pap.

In addition to observing and being ready for any request from the midwife during birth, the father's role is then to take guidance from the midwife regarding how to care for and watch over the mother and baby. He is responsible for providing food for his family, including artificial milk for the baby, as well as for hiring or finding someone to help with the housework. He indicates fear of picking up the baby lest he hurt it, but he is expected to express affection toward the baby. Although the fathers/mothers group indicates that the father accompanies the mother for the baby's check-up or vaccination visit, midwives say that this is very rare and this is confirmed by the health personnel. The father is responsible for registering the baby, since it is he who gives the baby his surname.

### Danger signs

The development of this subject will be divided into two points: danger signs that occur immediately after birth and those that appear after the first day and up to the 28th day. The first set of signs involve identifying and handling an asphyxiated or suffocated baby, a premature baby, a low birth weight baby, and congenital malformations.

**Serious suffocation at birth.** This is a sign that the three community groups identify immediately upon birth as a "purple baby who doesn't cry" and most associate this with prolonged birth, aspiration of mucus, a "blanketed" baby (born wrapped in ovular membranes). Midwives add pelvic presentation and problems with the cord.

The response is to resuscitate immediately with massages, slaps on the buttocks, mouth-to-mouth breathing, aspiration of mucus with a syringe or the midwife's mouth, holding the baby by its feet and rubbing with alcohol or spirits. In Region 3, some pregnant women and midwives indicate that the umbilical cord shouldn't be cut and should be squeezed intermittently. Midwives relate successful and unsuccessful cases in their efforts to resuscitate. They say that in such cases, extracting mucus with gauze doesn't work and they use a syringe or their mouth.

The consequence identified by all the groups is death of the newborn, and pregnant mothers also mention mental retardation and epilepsy.

**Premature birth.** This is identified by the three community groups as "preemies." The different groups mention different causes but the most common are: failure to satisfy cravings during pregnancy, with pregnant mothers adding premature rupture of membranes, midwives adding domestic violence and malnutrition and the fathers/mothers group adding lunar eclipse. The three groups think that preemies at seven months have better chances of survival than those at eight months. Some believe this is because seven is an uneven number and eight an even number and some midwives associate this with removal from the incubator in the hospital at eight months.

The immediate response is to try to avoid a chill with previously heated cloths, taking the baby to the hospital for incubation. The pregnant mothers group mentions that fathers can participate by heating the baby up inside their clothes (kangaroo method).

The major difficulty mentioned is dealing with feeding which they try to do with a dropper, spoon, baby bottles and they feed the baby pumped mother's milk or whole cow milk; they also introduce gruel made of rice and flour. They relate that the baby needs direct care from both parents.

**Low weight newborn.** This is one of the danger signs that are not recognized as an emergency, which agrees with the health personnel study group. It is known in the three community groups as a malnourished baby, who weighs little and is small. They attribute the condition to lack of nutrition and vitamins in the mother during pregnancy, anemia and weakness of the mother, and the consequence is death. The family's response is breast-feeding, medical check-up and vitamins, direct maternal care; mothers add giving vitamin-fortified serum.

**Congenital malformations.** The three study groups recognize this as "children with defects" and attribute the condition to exposure during pregnancy to a solar or lunar eclipse. Midwives add infections in the mother, alcoholism and heredity. To prevent it, they wear red colored underwear and their immediate response is that at birth the midwife checks the baby to identify defects early, particularly an unopened anus. Once the defects are identified, they refer immediately to the hospital for surgery.

The principal problem mentioned by the fathers/mothers group and midwives is difficulty feeding a baby with a harelip and split palate.

The danger signs that are considered between the first and 28th day are as follows: lethargy, hypothermia, temperature changes (hypothermia and fever), dehydration, conjunctivitis, omphalitis, skin color problems (jaundice, cyanosis, pallor), behavioral problems (baby who cries or sleeps a lot) and breast-feeding problems. In addition, in this section various danger signs are identified by the community with problems that many believe can only be solved with traditional medicine, such as evil eye, fallen crown and gas.

**Lethargy.** This is a little recognized sign, is confused with paralysis (mothers/fathers) or with flaccidity in the baby who suffers serious asphyxia at birth (midwives). Pregnant women identify it with the slow behavior of babies with Down syndrome. In any case, they associate it with illness and the need to bring the baby in for medical attention; they attribute its cause to lack of vitamins during pregnancy.

**Changes in temperature (hypothermia and fever).** For newborns successfully identified as cold or frozen, the immediate response is to heat them and take them to the health services. Along the way (pregnant women and mothers/fathers groups) they warm the baby with clothes, rub him with oil and Vicks, give him paps and teas and analgesics (acetaminophen, aspirin, dipyron). The consequences are respiratory diseases and death. Midwives relate little experience with this problem.

Fever or a temperature is identified as a danger sign in the community groups, when the baby also cries continually. The three groups say that their response is to go to the health services, but in the meantime they give the baby analgesics and antipyretics (aspirin, acetaminophen, dipyron and decongestant compounds), bathe him, and give him cinnamon and camomile. The greatest risk is when the family suspects that the fever is produced because someone gave the baby the "eye"—a problem that the health services can't solve (health personnel don't believe in the eye)—so they treat the baby's illness with magical rituals from traditional medicine. The response to this danger sign presents an overlapping between traditional and formal medicine. The risk that someone will give the baby the eye leads the family to hide him from strangers with a hard stare.

**Dehydration.** The recognized signs of dehydration are that the baby urinates little, has a dry mouth, is weakening, has dry skin, and cries continually. They associate it with two conditions, diarrhea and "fallen crown." If the first diagnosis prevails, the response is to seek out the doctor, give the baby liquids, litrosol. If they suspect "fallen crown," which is produced by blows, by the baby's falling, by abruptly taking away the nipple, they have to find a "crown lifter" who lifts it using a magical ritual. The consequence they indicate for the two causes is death.

**Conjunctivitis.** It is recognized as "eye sickness," inflamed eyes, dirt or discharge in the eyes. The cause the three study groups identify is that amniotic fluid falls in the baby's eyes. The fathers/mothers group also adds the mosquito as a vehicle of infection and pregnant women mention prolonged birth. The response is home medicine based on cleaning with water boiled with herbs. Midwives also indicate ophthalmic medications with antibiotics and ophthalmic drops with vasoconstrictors. The consequence is blindness.

**Omphalitis.** This is a recognized danger sign and creates fear in the community groups. They mention the change in navel color to purple or green and the bad odor it gives off. The consequence is death. The response to this problem is to go to the health services, but meanwhile they try cures from traditional medicine. Some fathers/mothers in Region 3 mention that if they recognize it as "7-day illness" they apply crushed local antibiotic pills to the navel and give the baby paps. They recognize that it is produced by incorrect handling of the navel and know that tetanus toxoid vaccine during pregnancy as well as proper treatment prevent it. Midwives relate that they haven't seen cases of omphalitis for some time, but those that they have seen have been treated by the mother herself by applying other substances to the navel without the midwife's authorization.

**Changes in skin color.** The changes studied were jaundice, cyanosis and pallor. Jaundice is recognized by yellow eyes and skins. Causes mentioned by midwives and fathers/mothers in Region No. 3 are malaria and hepatitis. Pregnant women attribute it to illness in the mother or child, and in the child to "7-day illness" or sepsis. The response is to take the baby to the hospital, although they also do other things such as exposing the baby to the sun. They do not associate it with different blood types in mother and baby, nor do they note its extent and how it progresses in the body.

Cyanosis is identified as "blue skin." It is also confused with serious asphyxia at birth, is considered an emergency calling for the baby to be taken to the hospital immediately. Some midwives think it's because the mother wore tight clothing during pregnancy, and fathers/mothers associate it with congenital anomalies and eclipse.

Pallor in the newborn is caused by the mother's vitamin and nutrition deficit during pregnancy. The response is to give vitamins to the mother and take the baby to the health center for a check-up.

**Newborn who cries continuously.** A newborn who cries continuously is identified as a danger sign but not urgent enough to go to the health services. The response depends on the cause identified. If they identify pain (colic, ears), they give the baby paps and herb teas. Also, fathers/mothers say they give children's analgesics (aspirin, dipyrone, acetaminophen) while they go to the health service. They identify the risk that the baby could develop an illness. If they think it's due to hunger, they give the baby paps and water with sugar or honey. If they think it's due to anger, they give the baby *chichimora* tea.

There are also two causes frequently associated with beliefs, *culucos*<sup>2</sup> and gas. They treat the first by rubbing the baby's back with mother's milk and removing the reddish fuzz. They treat the second using traditional medicine with magical rituals and herb teas. They believe that gas can hurt the navel and produce a hernia, umbilical bleeding and death. To prevent gas, they believe the baby should not be exposed to people with a hard gaze or pregnant women. This belief means that the family tries not to go out during the first month.

**Baby who sleeps a lot.** This sign was studied on the basis of its identification if the newborn sleeps more than three hours without feeding. This sign is not identified since they consider it normal for the baby to sleep all day because that's how it grows and it takes nourishment from sleep. However, some subjects in the fathers/mothers group identified the risk of malnutrition, congestion because feeding time goes by, and hypoglycemia. This danger sign may be very serious especially in babies with gigantism, low weight babies and preemies at risk of hypoglycemia. This danger sign was not identified as a danger by health personnel either.

**Problems with exclusive breast-feeding.** The problems encountered by the three groups are associated with difficulty in starting and establishing breast-feeding. Problems with the newborn's ability to suck and apply enough pressure prevail, whether due to the baby's own problems (premature birth, low weight, palate problems or moniliasis), anatomical problems in the mother (flat and inverted nipples) and her ability to achieve adequate pressure (position). For these problems, the three groups resort to traditional medicine, thus the midwife, and secondarily to the health services. Although the three groups recognize that early start of breast-feeding causes the milk to flow, that colostrum is important for its purgative and vitamin value, they do not feel it is enough to satisfy the baby. For all of the problems mentioned,

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<sup>2</sup> No English equivalent found, perhaps parasites or worms.

one of the most frequent responses is the introduction of paps, teas or artificial milks which are started on a temporary basis and are continued depending on how the condition develops. All the community groups believe that it is better to breast-feed the baby, but introduce water and other liquids either to accustom the baby [to sucking] or because they themselves are thirsty and think the baby must be thirsty too and needs water. The group of pregnant women think that between 17 days and the second or third month babies need to be given water.

The points where what was found in the three study groups and the Secretariat of Health's standards for care and manuals intersect are as follows:

- The standard time for cutting the umbilicus does not consider community customs or specify what the **mother should do with the baby** in terms of protection and feeding while the placenta is being delivered. This is a very important point and a concern for the community.
- The procedure for treating the umbilicus and the instrument used by the midwife follows the standards and the training material. This is corroborated by the groups of fathers/mothers and pregnant women. In these cases, actions outside the norm are carried out by the mothers themselves or grandmothers.
- Ophthalmic prophylaxis is clearly shown in the standards, but administration of the correct drops is still under the control of the health services. When these drops are not available, the midwife deals with this situation by buying ophthalmic drops without being able to distinguish/choose the right content.
- The midwives standards manual explains that there is no need to bathe the baby immediately, but this is the standard in the manual on "newborn care protocols." This can lead to inconsistencies in health personnel and confusion in training and guiding the community.
- The standards and training manuals promote and stress early bonding and exclusive breast-feeding, prohibiting the use of paps, but the guidance that links the community's interpretation of the importance of the mother's heat for protecting the baby and the role of colostrum in expelling mucus "from below" is not developed in the training manual and thus there is no guarantee that the trainer will use, stress or promote awareness of these terms.
- The standards in the newborn care protocols consider most of the danger signs in the newborn and how to handle them in the hospital health services. Care is not developed at the ambulatory care level or community level where there are also strategies for handling problems that the community deals with using traditional medicine.
- Treatment for certain feeding problems at the community and ambulatory level is not considered in the newborn care protocols. These include problems with sucking, feeding periods, feeding under special circumstances (with preemies, low weight, congenital anomalies, surplus milk, nipple problems, obstructed ducts and mastitis).

The table below compares the guidelines of the World Health Organization for immediate care of newborns, what the community groups were found to be doing, and the country's standards infrastructure in this area. The achievements in clean childbirth, care of the umbilicus, start and stabilization of breathing and immunization are satisfactory. Less widespread are covering the baby, breast-feeding, care of the eyes and care for premature and low birth weight babies. The need to develop a curriculum for midwives and for the ambulatory facilities network is noted.

TABLE 19: WHO STRATEGIES FOR NEWBORN CARE, COMMUNITY GROUP FINDINGS AND STANDARDS INFRASTRUCTURE

WHO STRATEGIES ESSENTIAL MANAGEMENT OF NEWBORN 1996 TECHNICAL REPORT	COMMUNITY GROUPS			SECRETARIAT OF HEALTH STANDARDS		
	MIDWIVES	FATHERS/ MOTHERS	PREGNANT WOMEN	NEWBORN CARE PROTOCOLS	COMPREHENSIVE WOMEN'S CARE STANDARDS	MIDWIFE TRAINING MANUAL
<p>Clean birth</p> <ul style="list-style-type: none"> <li>washing of hands</li> <li>washing of perineum</li> <li>cutting instrument and material to tie umbilicus clean and available; strong tie</li> </ul>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>
<p>Care of umbilical cord</p> <ul style="list-style-type: none"> <li>don't apply other substances</li> <li>keep it dry and clean</li> <li>use sterile gauze</li> </ul>	<p>YES YES YES</p>	<p>not generally YES YES</p>	<p>not generally YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>	<p>YES YES YES</p>
<p>Monitoring</p> <ul style="list-style-type: none"> <li>red cord and secretion with pus</li> <li>red area around umbilicus</li> </ul>	<p>YES YES</p>	<p>YES YES</p>	<p>YES YES</p>	<p>YES YES</p>	<p>YES YES</p>	<p>NO NO</p>
<p>Ambulatory management</p> <ul style="list-style-type: none"> <li>initial dose of antibiotics and referral to hospital</li> </ul>				NO	NO	
<p>Protection</p> <ul style="list-style-type: none"> <li>warm area for childbirth care</li> <li>dry baby with warm clothing</li> <li>skin-to-skin contact with mother</li> <li>wrap in warm clothing if skin-to-skin contact isn't possible</li> <li>postpone bathing</li> </ul>	<p>YES YES NO YES YES</p>	<p>NO YES NO YES YES</p>	<p>NO YES NO YES YES</p>	<p>YES YES YES* (1) YES YES</p>	<p>YES YES YES YES</p>	<p>NO NO NO YES</p>
<p>Monitoring:</p> <ul style="list-style-type: none"> <li>extreme (very hot or cold) temperatures</li> <li>weak suction, continuous crying</li> <li>use clothing suitable to climate</li> <li>if very hot, remove unnecessary clothing</li> </ul>	<p>NO NO NO NO</p>	<p>NO NO NO NO</p>	<p>NO NO NO NO</p>	<p>YES YES NO NO</p>	<p>NO NO NO NO</p>	<p>NO NO NO NO</p>
<p>Ambulatory care</p> <ul style="list-style-type: none"> <li>take temperature</li> <li>refer if there are signs of very high fever or hypothermia</li> </ul>				NO NO	NO NO	
<p>Breast-feeding</p> <ul style="list-style-type: none"> <li>early and exclusive start of breast-feeding within the first hour after birth</li> <li>No other liquids or foods</li> </ul>	<p>YES NO, give while milk lowers</p>	<p>YES NO, give while milk lowers</p>	<p>YES NO, give while milk lowers</p>	<p>YES YES</p>	<p>YES YES</p>	<p>YES YES</p>
<p>Monitoring</p> <ul style="list-style-type: none"> <li>weak suction</li> <li>incorrect position and pressure</li> <li>suction becomes weak</li> <li>baby doesn't wake up for feeding</li> </ul>	<p>YES YES YES NO</p>	<p>YES NO YES NO</p>	<p>YES NO YES NO</p>	<p>NO NO NO NO</p>	<p>YES YES NO NO</p>	<p>NO NO NO NO</p>
<p>Ambulatory care</p> <ul style="list-style-type: none"> <li>note and check suction</li> <li>check for mouth sores</li> <li>if there are sores, apply gentian violet and make appointment for next day</li> </ul>				NO NO	NO NO NO	

WHO STRATEGIES ESSENTIAL MANAGEMENT OF NEWBORN 1996 TECHNICAL REPORT	COMMUNITY GROUPS			SECRETARIAT OF HEALTH STANDARDS		
	MIDWIVES	FATHERS/ MOTHERS	PREGNANT WOMEN	NEWBORN CARE PROTOCOLS	COMPREHENSIVE WOMEN'S CARE STANDARDS	MIDWIFE TRAINING MANUAL
Care of eyes <ul style="list-style-type: none"> <li>• cleaning immediately after birth</li> <li>• applying ophthalmic drops</li> </ul> Monitoring <ul style="list-style-type: none"> <li>• secretion of pus</li> </ul> Ambulatory care <ul style="list-style-type: none"> <li>• check for red eyes or secretion of pus</li> <li>• start parenteral antibiotics and refer to hospital</li> </ul>	YES YES, when they have them  YES YES	YES YES when they have them  YES YES	YES YES when they have them  YES YES	YES YES  YES NO  YES NO	YES YES  NO NO  NO NO	YES Yes depending on access  NO
Starting breathing <ul style="list-style-type: none"> <li>• if baby doesn't cry, check breathing</li> <li>• if baby doesn't breathe, start resuscitation               <ul style="list-style-type: none"> <li>• aspiration of mouth and nose</li> <li>• mouth to mouth breathing</li> </ul> </li> </ul> Monitoring <ul style="list-style-type: none"> <li>• good cry, breathing without difficulty</li> </ul> Ambulatory care <ul style="list-style-type: none"> <li>• count breaths</li> <li>• check for retractions</li> <li>• look and listen</li> <li>• if present, refer</li> </ul>	YES YES YES YES and trad. med. measures  YES	YES YES YES YES	YES YES YES YES  YES	YES YES YES YES  NO YES YES YES YES	YES YES YES NO	NO NO NO NO  NO
Low birth weight and premature newborn <ul style="list-style-type: none"> <li>• in addition to preceding strategies:               <ul style="list-style-type: none"> <li>• take weight</li> <li>• determine gestational age</li> <li>• if the baby doesn't suck well, squeeze the milk into his mouth</li> <li>• check breathing, suction and temperature</li> </ul> </li> </ul> Monitoring <ul style="list-style-type: none"> <li>• frequent breast-feeding</li> <li>• if the baby doesn't suck, pump the breast and administer in cup and spoon</li> <li>• cover up</li> <li>• cleaning</li> </ul> Ambulatory care of danger signs <ul style="list-style-type: none"> <li>• if difficulty with breathing or suction or lethargy or jaundice in palms and feet, refer to hospital</li> </ul>	NO NO YES NO  NO YES YES YES	NO NO not generally NO  NO sometimes YES YES	NO NO not generally NO  NO sometimes YES YES	YES YES YES SUCTION NOT INCLUDED YES YES YES YES  NO	NO NO NO NO  NO NO NO NO	NO NO NO NO  NO
Immunization <ul style="list-style-type: none"> <li>• according to national policy</li> <li>• appointment for next dose</li> </ul>	NO YES	NO YES	NO YES	YES YES	YES YES	NO NO

WHO STRATEGIES ESSENTIAL MANAGEMENT OF NEWBORN 1996 TECHNICAL REPORT	COMMUNITY GROUPS			SECRETARIAT OF HEALTH STANDARDS		
	MIDWIVES	FATHERS/ MOTHERS	PREGNANT WOMEN	NEWBORN CARE PROTOCOLS	COMPREHENSIVE WOMEN'S CARE STANDARDS	MIDWIFE TRAINING MANUAL
Others						
Monitoring for:						
• skin lesions	NO	NO	NO	YES	NO	NO
• jaundice in palms and feet	IN EYES	IN EYES	IN EYES	YES	NO	NO
• abnormal movements	NO	NO	NO	YES	NO	NO
• convulsions	NO	NO	NO	YES	NO	NO
• lethargy	NO	NO	NO	YES	MO	NO
Ambulatory care must refer to hospital when one of these signs is present				NO	NO	

\*(1) newborn is exposed to warming lamps before being placed with mother

TABLE 20: NEWBORN CARE: WHAT EVERYBODY DOES ACCORDING TO PREGNANT WOMEN, MOTHERS AND FATHERS AND MIDWIVES

Critical Points	ACC. TO PREGNANT WOMEN, FATHERS AND MOTHERS		ACCORDING TO MIDWIVES		
	Act. to Pregnant Women	Act. to Mothers and Fathers	MIDWIFE	MOTHER	FATHER
Person who receives newborn at moment of birth	<p>Midwife:</p> <ul style="list-style-type: none"> <li>• some receive the baby with gloves, others don't; others receive with towels; other with hands only (R1,2,3)</li> <li>• checks the baby (R1,2,3)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li>• some want husband present, others don't (R1,2,3)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>• grandmothers help with birth</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>• midwife receives baby (R1,2,3)</li> <li>• different tactics when receiving baby</li> <li>• slap buttocks (R1); wrap baby (R2), put baby to side or on mother's legs (R1,2)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li>• mother receives baby when she's alone (R3)</li> </ul> <p>Father:</p> <ul style="list-style-type: none"> <li>• grabs baby (R1,3)</li> <li>• cleans baby (R1)</li> <li>• puts baby to side (R3)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>• mother-in-law receives baby (R1,2,3)</li> <li>• maternal grandmother receives baby (R2,3)</li> <li>• paternal grandmother receives baby (R2)</li> <li>• neighbor receives baby (R3)</li> </ul>	receives the baby (R1,2,3)	<ul style="list-style-type: none"> <li>• some want husband there at birth, others don't (R1,2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• observe (R1,2,3)</li> <li>• ready for any emergency (R1,2,3)</li> <li>• check how the little one comes out (R1)</li> </ul>
Cleaning oropharyngeal secretions	<p>Midwife:</p> <ul style="list-style-type: none"> <li>• remove the mucus with this pump (R1,2)</li> <li>• place a cloth in the baby's mouth and then suck out the dirt that's remained in mouth and nose (R1);</li> <li>• remove the mucus by suctioning the mouth and then turn baby over to slap back (R2)</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>• they remove mucus with: cloth, special little sticks (R1)</li> <li>• finger (R1,2,3)</li> <li>• syringe, cotton (R2)</li> <li>• give pap of <i>chichimora</i> (R1)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li>• they give pap of <i>chichimora</i> and essence of <i>coronada</i> (R1,3)</li> </ul>	<p>mucus: chokes them, you hear it in their throat; they "get restless" (R1,2,3)</p> <p>clean: sterile gauze (R1), with clean cloth (R2), with syringe, with gauze along the side (R2,3)</p>	<ul style="list-style-type: none"> <li>• midwife's work</li> </ul>	<ul style="list-style-type: none"> <li>• it's the midwife's work</li> </ul>

Critical Points	ACC. TO PREGNANT WOMEN, FATHERS AND MOTHERS		ACCORDING TO MIDWIVES		
	Acc. to Pregnant Women	Acc. to Mothers and Fathers	MIDWIFE	MOTHER	FATHER
<i>Cutting and treating umbilicus</i>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>uses scissors (R1,2,3)</li> <li>uses razor blade with rag; makes 3 knots before cutting and then burns the umbilicus (R1)</li> <li>wraps baby (<i>fajuelo</i>) (R2)</li> <li>washes with hot water, snips the baby's navel (R1)</li> <li>disinfects with alcohol (R1,2,3), burns navel with <i>azador</i> (R2)</li> <li>boils it, uses razor, ties the umbilicus with hemp (R3)</li> <li>treats it with cotton and iodine (R1,3); thimerosal (R2,3), thimerosal with essence (R2)</li> <li>apply thimerosal until it falls off (R2,3)</li> <li>once a day until it falls off, apply iodine, talcum (some), chicken fat, oil, hot camphor, cover with gauze (R3)</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>cuts the umbilicus and ties it, puts alcohol and iodine on cord, cuts with scissor (R1,2,3)</li> <li>cuts with razor (R3)</li> <li>before doing this, burn with</li> <li>hydrogen peroxide (R1)</li> <li>candle and hot lime (R3)</li> <li>cut after the placenta same out (R1,2,3)</li> <li>tie with thread or hemp (R3)</li> <li>put on a type of adhesive tape (R1) or use gauze (R1,2,3)</li> <li>put a <i>fajuelo</i> on the baby (R1,2,3)</li> </ul> <p>Father:</p> <ul style="list-style-type: none"> <li>watches for the umbilical to fall off in three days (R1)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>the maternal grandmother cut with scissors, burned with iron and applied camphor and oil (R2)</li> </ul>	<p>tie cords (R1,2) with embroidery thread (R3)</p> <p>cut; until placenta falls (R1,2,3); before placenta falls but put baby to mother's breast (R1,2), allows the cord to throb before cutting it (R3), cut until the placenta falls but putting baby to mother's breast (R3)</p> <p>Instruments: scissors, razor blade (R1,2,3)</p> <p>Treat with: iodine (R1,2), alcohol (R1,3), thimerosal (R3) before burned with candle and hot irons (R1) burn with candle (R3) don't like iodine because it burns skins (R3)</p> <p>Custom: use <i>fajuelo</i> (R1,2,3)</p>	<p>there are mothers who take care of this after birth; other's are afraid to do it (R1,2)</p> <ul style="list-style-type: none"> <li>wash hands before taking care of umbilicus (R2)</li> <li>be careful that umbilicus doesn't get wet with wet cloths (R1,2)</li> <li>participation in treating navel (R1,2)</li> <li>don't undo tie in umbilicus</li> </ul>	<ul style="list-style-type: none"> <li>it's work for the midwife and mother</li> </ul>
<i>Early bonding</i>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>hand baby to mother for breast-feeding after cleaning (R1,2,3)</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>gives to mother to breast-feed (R1,2,3)</li> <li>immediately after baby is born (R2)</li> <li>after a half hour (R1)</li> <li>after an hour (R1,3)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>the maternal grandmother gives the baby to mother (R2)</li> </ul>	<p>early bonding: immediately (R1,2) within no more than one hour (R1) between 5 and 20 minutes after birth</p> <p>once baby is cleaned up, gives to mother for feeding (R1)</p> <p>breast-feeding makes the milk flow quicker (R2)</p> <p>the first milk is a vaccine (R2)</p> <p>cleans breast before feeding (R1,2,3)</p> <p>loosens the placenta (R1,2,3)</p> <p>calms womb pain (R2,3)</p> <p>bleeding stops after birth (R1)</p> <p>colostrum serves as a purgative (R3)</p> <p>put honey on nipple so baby will suck (R3)</p> <p>doesn't leave until baby feeds (R3)</p>	<ul style="list-style-type: none"> <li>once mother is settled, she and baby wait until they carry her to bed before feeding baby (R1,2,3)</li> </ul>	<ul style="list-style-type: none"> <li>supports breast-feeding and nourishes the mother (R1,2,3)</li> </ul>

Critical Points	ACC. TO PREGNANT WOMEN, FATHERS AND MOTHERS		ACCORDING TO MIDWIVES		
	Acc. to Pregnant Women	Acc. to Mothers and Fathers	MIDWIFE	MOTHER	FATHER
Cleaning and covering the newborn	<p>Midwife:</p> <ul style="list-style-type: none"> <li>bathes them, arranges them, wraps them up well (towels, cloths) (R1,2,3); cleans them with lukewarm water, bathes them with camomile rose water (R2)</li> </ul> <p>Mothers, Fathers and Others:</p> <ul style="list-style-type: none"> <li>accustomed to washing baby at two days. Up to a week after birth. Have help from family members (sisters). Buy clothes (R2); clean baby as necessary; have help from mother-in-law and mother (R3)</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li>cleans baby (R1,2,3)</li> <li>bathes, dry, covers (R1,2,3)</li> <li>cleans with oil (R3)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li>covers the baby (R3)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>female neighbor wraps and dresses (R3)</li> <li>grandmother help with cleaning baby (R2,3)</li> </ul>	<p>cleaning: clean baby with lukewarm camomile water and with oil (R1,3) immediately to prevent amniotic fluid from falling into eyes and mouth (R2)</p> <p>immediate bath: harmful because it's cold, it's prohibited by health center</p> <p>check: tongue (speech defect), eyes, ears, legs, anus, whole body (R1,2), penis (to check that it's not "blinded") R2), sole of foot, to see if it's premature (R3)</p> <p>covering: cover immediately after birth (R1,2) dress baby after cleaning (R1) wrap up (R3)</p> <p>belief: cheesy vermix is dirty and must be removed (R1); don't clean vermix due to training session (R2); cheesy vermix is "fat" that is produced because the mother didn't exercise during pregnancy (R3)</p>	<ul style="list-style-type: none"> <li>cover, frequent diaper changes (R1,2,3)</li> <li>cleaning of mother and baby (R3)</li> </ul>	<ul style="list-style-type: none"> <li>buy clothes and change baby (R1,2,3)</li> </ul>
Introduction of liquids and other foods	<ul style="list-style-type: none"> <li>give pap and other remedies, give it for 3 nights on a piece of cotton (R1,2,3)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li>breast-feeds on demand (R1)</li> <li>gives pumped milk in pap, gives cow's milk, exclusive breast-feeding. Some breast-feed exclusively up to 3 months (R2)</li> <li>exclusive breast-feeding: range is between 15 days and 6 months (R3)</li> </ul>	<p>Midwife:</p> <ul style="list-style-type: none"> <li><i>chichimora</i> pap (R1)</li> <li>sugared water, camomile tea, essence of <i>coronada</i> (R2)</li> <li>water with honey, flower water (R3)</li> </ul> <p>Mother:</p> <ul style="list-style-type: none"> <li><i>chichimora</i> pap, cinnamon tea, pap made of oil, honey, garlic, maize flour (R1)</li> <li>artificial milk (R2,3)</li> <li>water with rice, <i>chichimora</i>, cinnamon, tea, sugared water, cream of rice with cinnamon (R3)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>grandmother makes pap (R3)</li> </ul>	<ul style="list-style-type: none"> <li>while milk falls, you have to give the baby serum with vitamins (R3)</li> <li>while milk falls, "honey water according to people's custom" (R1,2,3)</li> <li>when the baby doesn't get its fill, you give boiled water with honey (R3)</li> <li>only breast-milk and a little water (R3)</li> <li>pap or teas when the mother has problems breast-feeding or the baby cries a lot (R1,2,3)</li> <li>if the mother is single, you have to give maize flour with cow's milk (R1)</li> </ul>	<ul style="list-style-type: none"> <li>mothers give them water with sugar on a piece of gauze (R3)</li> <li>when the mother has no milk and the baby cries you give him pap or anise (R1,2,3)</li> <li>only breast-milk (R1,2,3)</li> </ul>	<ul style="list-style-type: none"> <li>father is in charge of buying milk (R1)</li> </ul>

Critical Points	ACC. TO PREGNANT WOMEN, FATHERS AND MOTHERS		ACCORDING TO MIDWIVES		
	Acc. to Pregnant Women	Acc. to Mothers and Fathers	MIDWIFE	MOTHER	FATHER
<i>Ophthalmic prophylaxis</i>	Midwife: • puts drops in (R2)	Midwife: • cleans the eyes with oil (R1,2,3) and water (R2,3) • with some fabric (R1) • With cotton (R1,2)  Others: • maternal grandmother cleans eyes (R2)	clean: with drops from health center, with salt water (R1), before they gave drops at health center (R2), now they clean with lukewarm water and some gauze (R2), clean with cotton (R3), use eyemo (R3) use neomycin when they have red eyes (R3)	• midwife's work	• midwife's work
<i>Vaccination</i>	• administer vaccine (BCG) at 40 days (R1,2,3) • vaccinate at hospital when baby is born there (R1,2,3)	• vaccination at 40 days	• referral to health center for vaccination, range from 10 days to 2 months (R1,2,3)	• take baby for vaccination (R1,2,3)	• some go along to health center (R1,2) • don't accompany to health center (R3)
<i>Caput succedaneum</i>	• apply chicken fat when the baby is sleeping (R3)	no information	apply: cloths with lukewarm water	no information	no information
<i>Monitoring signs</i>	• monitor: sucking, breathing, defects (R2)	• monitor: urine, feces, check for blows (R1)	check and monitor: suction (R1,2,3), jaundice (R3), congenital anomalies (R1,2,3), defecation and urination (R1,2,3), fever in mother and baby (R3)	• monitor for jaundice, don't sweep in front of the baby, watch for colic, protect from blows from older siblings (R1)	• monitor feeding of mother so that milk will flow (R1,3)
<i>General care</i>	Mother: • daily check of umbilicus according to midwife's instructions • use to treat umbilicus, alcohol, iodine and thimerosal (R1,2,3) • some pregnant women use talcum and cooking oil or chicken fat to treat umbilicus (R1,2,3) • give pap while milk falls (R1,2,3) • give other milks (R2) • clean baby daily (R1,2,3) • bathe baby at 8 days (R2) • have help from mother-in-law and mother (R2,3)	midwife: • treating umbilicus until it falls (R1,2,3) • guidance for the mother (R1) • preparing pap (R1,2,3)  Father: • carry baby, treat baby affectionately, watch baby (R1,2,3) • cleaning and changing baby's clothes when mother can't (R1,2,3) • buying other milks and baby bottles (R1,2,3) • looking for someone else to help (R1,2,3) • help with household chores and shopping for food (R1,2,3) • goes along for check-up at health center (R1,2,3)  Mother: • cleaning, care and breast-feeding (R1,2,3) • care of cleaning umbilicus together with midwife and sometimes grandmother (R1,2,3) • use iodine (R1,3) • use camphor oil (R3) • give pap, other liquids and artificial milk (R1,2,3) • bring in for vaccination check-up (R1,2,3) • bathe baby at 8 days (R1,2,3)	care of umbilicus: until it falls off (R1,2,3) range 3-10 days leaves gauze and iodine when far away and can't visit every day  guidance: guides and calls father's attention (R2,3), guides mother (R1,2,3)	• the problem of caring for the baby is the mother's problem alone (R1,3) • frequent breast-feeding, cleaning and covering baby, monitoring development (R1,2,3) • esteem, affection and appreciation (R2) • washing and boiling diapers (R1,3) • eating permitted foods that don't harm baby (R1,3) • taking baby to health center for check-up (R1,2,3)	• "it's the father who sees how his little one has turned out" (R1) • recognize children, "give them his name" • perhaps he holds the baby after it's been cleaned (R1) • help in cleaning the house (some do this) (R1,2,3) • support in breast-feeding and nourishing mother so she has enough milk (R1,3) • have medicine available for any emergency (R1) • accompany to health center (some go) (R1,2) • take care of baby while mother prepares meal (R2) • buy clothes for and change baby (R2) • support first time mother in particular • help in cleaning house (R3) • none accompany mother and baby to health center (R3)

TABLE 21: DANGER SIGNS IN NEWBORN AND RESPONSE MECHANISMS

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Serious asphyxia at birth</i></p>	<p><b>Suffocated baby</b>, purple, doesn't cry (R1,2,3); mucus chokes baby (R1,3) "membrane covers baby's head" (R1) "black," don't cry, come mute, are dead, it's frozen (R2); doesn't breathe, worn out, heart that doesn't beat well, cries softly, are born sick, come out suffocated (R3)</p> <p><b>Cause:</b> blanketed baby (R1), prolonged birth (R1,2), late pregnancy (R3)</p> <p><b>Consequence:</b> death (R1,2,3), epilepsy, mental retardation (R2) can't breast-feed (R3)</p> <p><b>Response:</b> <b>Midwife:</b> sprinkles baby with water, sprinkles spirits on body, on head, touches, moves baby, moves baby's arms (R1); places them face down and pats back, suction mouth, holds by feet (hangs) (R1,2,3); slaps feet, hits feet (R1,3); lifts baby, blows in nose, administers injection in umbilicus (R2); blows 10-15 times, gives air with hand from right to left, mouth to mouth breathing, holds baby up, smacks buttocks, takes pulse, rubs with alcohol, cleans out mouth, gives honey, opens mouth and breathes in air with tobacco smoke, pinches the umbilicus, takes to doctor (R3) <b>Mother:</b> takes to doctor (R1,2) <b>Doctor:</b> "Puts oxygen in him" (R1), walks around with baby (R3)</p> <p><b>Changes in breathing:</b> Don't breathe heavily, problems in breathing (R1,2,3). Breathes slowly, is born purple (R2), no abdominal movements seen (R3)</p> <p><b>Causes:</b> Some problem with heart (R2)</p> <p><b>Consequences:</b> Can't suck breast, death of newborn (R1)</p> <p><b>Response:</b> <b>Midwife:</b> Applies camomile water in nostrils (R1); breathes air into mouth (R2,3); gives drops of oil to drink, gives little sips with bits of cotton, when sips don't eliminate the exhaustion, takes baby to doctor, gives artificial respiration to make baby react, places cloths with lukewarm water on baby, uses a syringe in the mouth to remove mucus, stimulation (prick inside mouth), lifts baby and separates from mother and shakes him (R2); bathes with flower water, gives baby flower water to smell (R3);</p> <p><b>Other people:</b> Suck the baby's nose through a scarf, menthol vapors (R1)</p>	<p><b>Suffocated baby:</b> purple, doesn't cry, doesn't breathe (R1,2,3) eyes closed (R1,2) breathes little (R2)</p> <p><b>Prevention:</b> rapid birth (R1,2) support the mother for rapid expulsion (R3)</p> <p><b>Cause:</b> prolonged childbirth (R1,2,3) obstruction with mucus (R1,2,3) when they come wrapped up in ovular membranes (R1) when the water breaks at the moment of birth and the baby "swallows that mucus," tight twists of cord (R2) pelvic birth, short umbilical cord (R3)</p> <p><b>Consequence:</b> it's an emergency, leads to death (R1,2,3)</p> <p><b>Belief:</b> save the membranes of a "blanketed baby" in secret, brings good luck for child (R1) blanketed babies can be suffocated by the membranes that wrap them at birth (R3)</p> <p><b>Response:</b> <b>Midwife:</b> smacks the back, suction mouth to remove mucus (R1,2,3) massages (R1,2) places baby face down, warms baby, spits lukewarm water or spirits on back, aspirates with syringe, blows in air with her mouth, sprinkles with spirits (R1) hangs baby by feet (R1,3) cleans away mucus with gauze (R2,3) squeezes baby's heels firmly so it hurts (R2) blows air on back, puts them aside (R2) massages with alcohol, smacks baby, sprinkles with water or alcohol, wet the back with water, intermittently squeeze the umbilical cord while it's still pulsing without cutting it (R3)</p>	<p><b>Suffocated baby:</b> purple, doesn't cry, difficulty breathing (R1,2,3) doesn't sleep, screech (R2) doesn't breathe, weak (R3)</p> <p><b>Prevention:</b> pregnant woman shouldn't bathe a lot have prenatal check-ups (R1) rapid birth (R2) caesarean (R3)</p> <p><b>Cause:</b> prolonged birth (R1,2,3) obstruction with mucus (R1,3) lack of preparation of mother for expulsion, aspiration of amniotic fluid, mother's trauma (R2) pelvic birth, limited cooperation from mother, when they come wrapped in the ovular membrane, disproportion between baby's head and mother's pelvis (R3)</p> <p><b>Consequence:</b> leads to death (R1,2,3) can cause a blow in the baby's heart, they're born sick (R1) it's an emergency (R3)</p> <p><b>Belief:</b> the membranes of a "blanketed baby" are allowed to dry and kept in secret, provide good luck to baby and he's valiant (R3)</p> <p><b>Response:</b> <b>Midwife:</b> blows air into mouth, smacks buttocks (R1,2,3) aspiration with syringe, sprinkles head with lukewarm water, smacks back, takes to hospital (R1,2) sprinkles with flower water and alcohol, examines to see if breathing, holds baby up so it takes air, puts face down, hangs baby by feet, checks them (R1) rubs with unguent or homemade ointments (R2,3) sucks the mouth to remove mucus, massages with flower water, oil and alcohol, gives baby air, throws baby up so it takes air, sucks the fontanelle, removes mucus with finger (R2) blows on fontanelle and face, massages chest area, at hospital they give oxygen, take to health center, or hospital for hematology tests.</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<i>Premature birth</i>	<p><b>Premie:</b> Can't cry, body doesn't help him, needs special care, weighs very little, weak sucking (R1), at 8 months, they're born with mental deficiency, not normal (R2), babies born at 7 months live, those at 8 months don't (R2,3), lungs aren't developed, need warmth (R3)</p> <p><b>Cause:</b> Adolescent mother, premature rupture of membranes (R1), desires, cravings (R3)</p> <p><b>Prevention:</b> Can't be prevented (R2)</p> <p><b>Consequence:</b> Difficulty with breast-feeding, difficulty breathing, death because they're not at 9 months (R1), death if they're born at 8 months (R2,3)</p> <p><b>Response:</b>  <b>Mother:</b> feed baby with mother's milk (R1,2,3), give baby cow's milk, wrap in small diapers, sheets, socks (R2), put baby on a tile with a rag, move baby on top of water, bring baby into the sun, tie baby around abdomen and take to hospital (R3)</p> <p><b>Midwife:</b> slap on buttocks, take to doctor or refer to hospital (R1,2,3), feed with cow's milk on a spoon or in pap (R2), wrap in rag, give to father to provide warmth (kangaroo method), doesn't do anything (R3)</p> <p><b>Hospital:</b> Put baby in incubator (R2,3)</p> <p><b>People:</b> Wrap baby in towels, put them near fire to warm up, wrap in warm rags (R1)</p>	<p><b>7 month baby (R1,2), seven month baby or premie (R3), frozen (R1,2,3), can't breast-feed (R1,3), weak (R1), without warmth, "strengthen as they reach 9 months" (R2), don't cry, don't move, thin, frequent in pelvic delivery (R3)</b></p> <p><b>Cause:</b> lunar eclipse (R3)</p> <p><b>Consequence:</b> death (R3) chance of survival greater at 7 months than at 8 (R1)</p> <p><b>Response:</b> heat baby, massages (R1) check, take to hospital, surround with hot water bottles and put in sun every morning, rub with a natural medicine paste, feed frequently, feed with dropper, bottles, spoon, rice water with brown sugar, pumped mother's milk, care must be personal (parents) (R3)</p>	<p><b>7 month baby:</b> born at 7 months (R1,2) baby at 7 or 8 months (R3) small, weak (R1,2,3) not enough time to be born (R1) malnourished (R2) low weight, frozen (R3)</p> <p><b>Prevention:</b> pregnancy check-ups, good nutrition and take vitamins during pregnancy (R2), treatment to calm pains (R2)</p> <p><b>Cause:</b> malnutrition in the mother (R2) unsatisfied craving of the mother, domestic violence, mother's mood (R3)</p> <p><b>Consequence:</b> death (R1,2,3) greater chance of death if born at 8 months (R1,3) increased chance of life if baby is assisted at hospital level and is born at 7 months (R3)</p> <p><b>Response:</b> take to hospital for radiant heat from lamps or incubator (R1,2,3) feed, exclusive breast-feeding (R1,2) carry them inside blouse (kangaroo method), warm baby, give pap of flour gruel, careful that they don't catch a chill, don't let them see people, take to health center, keep them under check until they stabilize (R1); special care (R2,3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Newborn with low weight</i></p>	<p>If the stomach doesn't grow, they're born malnourished, sick and die (R1,2,3), a skinny, small baby, (R1); born at 6 pounds and less (R2,3).</p> <p><b>Prevention:</b> Pregnancy check-up, avoid having children very close together, give everything the baby needs (R1)</p> <p><b>Cause:</b> Lack of appetite during pregnancy (R3) Pregnancies very close together (R1) Poor nutrition during pregnancy (R3) Sickness of child (R2,3,)</p> <p><b>Response:</b> <b>Mother:</b> gives food through breast (R2) Goes to doctor (R2,3), seeks help from relatives (R2)</p> <p><b>Midwife:</b> cleans with oil, doesn't help (R3)</p>	<p><b>Malnourished baby</b> (R1,2,3) small (R1,3) weak crying (R1) sick, weak, weighs little (R2)</p> <p><b>Cause:</b> mothers don't eat during pregnancy (R1) maternal weakness during pregnancy (R2) multiple births, lack of nutrition during pregnancy, sick father (R3) mother refuses to take vitamins during pregnancy, they associate it with hydramnios (R2)</p> <p><b>Consequence:</b> death</p> <p><b>Response:</b> medical care, mother eats and breast-feeds baby, gives vitamins, warms baby, support from family, especially husband, can't do anything (R1) feed baby with milk, needs father in addition to mother (R2) breast-feeding and maternal care (R3)</p>	<p><b>Malnourished baby</b>, small (R1,2,3) thin, weighs little (R1,2,3) weak, has anemia (R1) sickly (R2) doesn't grow (R3)</p> <p><b>Prevention:</b> mother takes vitamins during pregnancy (R1,2,3) go in for prenatal check-ups (R1,3) feed pregnant woman well (R2,3) take lots of milk when pregnant (R3)</p> <p><b>Cause:</b> mother's lack of nutrition during pregnancy (R1,2,3) anemia in mother, lack of milk consumption while pregnant, eat fruit which is inadvisable (R1) overworked pregnant woman, lack of vitamins during pregnancy, decreased appetite during pregnancy (R2) mother includes animals like armadillo and iguana in diet (R3)</p> <p><b>Consequence:</b> death, baby is born sick (R1)</p> <p><b>Response:</b> exclusive breast-feeding (R1,2,3) give baby treatment (R2,3) feed baby well (R1,2) give baby vitamins with iron, give baby serum with vitamins, take to health center or hospital (R1) maternal care, take to health center for growth and development check-up (R2) feed mother well so she can nourish the baby with her milk, take baby to health center (R3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Newborn with hypothermia</i></p>	<p>they're frozen because it's cold, or they're dead (R2)</p> <p><b>Cause:</b> change in environment (leaving uterus) (R2)</p> <p><b>Consequence:</b> can die (R3)</p> <p><b>Response:</b></p> <p><b>Mother:</b> keeps baby next to her and warm (R2) cover with clothes (hats, socks, sheets, etc.) keep close to mother (R3)</p> <p><b>Midwife:</b> wraps in warm diapers (R2,3), gives pap with cotton, gives camomile (R2); arranges and gives baby to mother, rubs with camphor, Vicks and chicken fat (R3)</p> <p><b>Hospital:</b> transfer baby to nursery (R3)</p>	<p>don't have experience with this condition (R1)</p> <p><b>Response:</b> take to health center and warm them up (R1)</p>	<p>frozen baby (R1,2,3) doesn't feel warm, sick, has no heat in blood (R1) chilled, trembling, chilling of limbs (R2) weakness (R3)</p> <p><b>Prevention:</b> wrap baby at birth (R3)</p> <p><b>Cause:</b> mother's womb is frozen (R1) they're not covered at the moment of birth, lack of warmth in the mother (R2,3) temperature changes in the environment (R3)</p> <p><b>Consequence:</b> death (R1, R3) respiratory diseases (R1,2)</p> <p><b>Response:</b> cover baby (R1,2) provide warmth from mother's body (R1,3) heat diapers and rub some warm oil over baby, consult doctor as to what to do, rub baby's body with camphor oil, preparations of camphor and chicken fat to rub the baby (R1) rub with alcohol, palpate, heat with fat, place close to heat source, give essence of <i>coronada</i>, look for medicines (R2) camomile tea (R2,3) give them warmth, wrap them with blankets, take them to hospital where they're warmed in incubator, give medications (Panadol, Novalgina, Milagrosa) some don't do anything to reestablish baby's body heat (R3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Fever</i></p>	<p>cry a lot (R2)</p> <p><b>Midwife:</b> gives oral medications (R2,3) and moistens them (R1) can't rub baby, send baby to doctor (R2) aspirin, acetaminophen (R3)</p> <p><b>Hospital:</b> provide instructions (bathe and clothe baby) and parenteral medications (R1,3)</p> <p><b>Cause:</b> infection (R1,2,3) diarrhea, flu (R3)</p> <p><b>Consequence:</b> fever rises (R1), can die (R1,2,3), complication (R2), deafness (R3)</p> <p><b>Response:</b> <b>Mother:</b> prepares remedies (R1); would take baby to doctor (R3)</p>	<p>fever/temperature (R1,2), eye and disease (R3) infection when they're born with hoarseness (R1) high fever that doesn't subside, small left eye (R3)</p> <p><b>Cause:</b> infection, prolonged labor (R2) people with hard stares look at baby (R3)</p> <p><b>Consequence:</b> risk of death (R1,3)</p> <p><b>Response:</b> give baby sips, camomile tea (R1) take to health center (R2) magical ritual performed by people who have been given the eye (R3) cover babies so they don't get sick (R1)</p>	<p>fever, continuous crying (R1,2,3) temperature (R1,3) purplish, depressed, dry throat (R1) warm (R2,3) don't defecate (R2) decreased appetite (R3)</p> <p><b>Cause:</b> infection in mouth, temperature of mother passes to baby (R1) exposure of baby (R2) indicates some illness, they're born with fever already (R3)</p> <p><b>Consequence:</b> "some don't fight back and they die" (R1) death (R2,3)</p> <p><b>Belief:</b> when the pregnant women is at term and bathes with a cold she gives the baby a fever, when parents come sweaty from work and pick up the baby (R2) "there's strong and weak blood; if it's weak, the temperature is low, if strong, then high" (R3)</p> <p><b>Response:</b> give baby pills with milk (Panadol, acetaminophen, Milagrosa, aspirin, Desenfriol) (R1,2,3), Valerian tea, rub with ointments (R1), camomile tea (R1,2) bathe baby (R2,3) give air, go to doctor (R2) rubs with Vicks and alcohol, make household remedies with strips of cinnamon, pepper and cumin, pour lukewarm or cold water on their head, wrap them up, take their clothes off, in hospital and private clinics they administer injections (R3); take them to health center or hospital (R1,3)</p>

Danger Sign	According to Pregnant Women	According to Midwives	According to Mothers & Fathers
<p><i>Signs of dehydration</i></p>	<p><b>Changes in urine:</b> little urination; persistent crying (R1), little urination (R1,2,3), causes pain (R1,2), inflammation (R2)</p> <p><b>Cause:</b> kidney problem, don't drink enough liquid (breast milk) (R2) baby breast-feeds little (R2,3) very hot, urinary tract obstructions (the baby is stopped up) (R1) obstruction, cold climate, infection (R3)</p> <p><b>Consequence:</b> death (R1,2), dehydration (R2,3)</p> <p><b>Frequency:</b> 24 hour frequency of urination (average of 8 diapers) every 2 to 3 hours (R2). Urinates every now and then (R1) between 3 and 10 times daily (R3)</p> <p><b>Prevention:</b> Give liquids</p> <p><b>Response:</b>  <b>Mother:</b> eat more, take more liquids to produce more milk, use household medicines (R2,3); give baby cool linseed drinks in a glass of water, look for midwife (R1), look for doctor (R1,2,3)  <b>Midwife:</b> must give cool drinks because of heat, take them to health center, they give them wine leaves for dehydration (R2)  <b>Doctor:</b> prescribes medications and physical stimulation (R3).</p> <p><b>DIARRHEA:</b> congealed feces (R1,2), short, green, liquid/watery, painful crying and they get indigestion (R3), vomiting (R1,2) fallen crown (R1,2,3), rings under eyes (R1), parched lips (R3)</p> <p><b>Cause:</b> agitated milk, fallen crown (R1,2,3), the mother eats avocado (R3)</p> <p><b>Prevention:</b> drink a glass of water before breast-feeding (R2,3), put salt on nipple (R1,2,3), back and head before breast-feeding, avoid taking nipple away from baby abruptly (R2)</p> <p><b>Response:</b> Fallen crown: <u>mother</u> seeks help from midwife (R1,2,3) and doctor (R3), self-medicates with teramycin, bismuth, litrosol  <u>midwife</u> does magical ritual (R1,2,3)</p> <p>Agitated milk: mother prevents by putting salt on her nipple (R1), squirts her milk over the baby's back or throws the milk (R2), pump and pass the milk over the baby's buttocks, put salt on the baby's back, navel and mouth (R3)</p>	<p>dehydrated baby: little urination, weak, sad, low weight (R3); baby with dry skin, sunken eyes (R1)</p> <p><b>Cause:</b>  doesn't have enough strength at moment of birth (R3)  lack of cleaning (R1)</p> <p><b>Consequences:</b>  the baby tends to be sick (R3)  risk of dying (R2,3)  dehydration (R1)</p> <p><b>Prevention:</b> cleanliness of mother (R1,3)</p> <p><b>Response:</b>  care, give baby medications and food, vitamins, soy with milk or boiled water (R3)  magical ritual (R2), give litrosol, take to doctor (R1)</p>	<p>Baby with sunken or fallen crown, vomiting (R1,2,3) doesn't breast-feed, urinates little (R1,3) nauseous, sad, cry a lot, depressed, sunken eyes malnourished, doesn't make tears, dry skin (R1) dehydrated, weak, wrinkled skin, continuous crying, diarrhea (R1,2) abdominal distention, fever, green diarrhea, dry mouth (R3) doesn't urinate (R1,3)</p> <p><b>Cause:</b>  a fall while being changed, rocking baby too much, abrupt movements (R1) a blow to the baby (R1,3) lifting them abruptly, diarrhea, vomiting, and abrupt removal from breast (R2) a scare (R3)</p> <p><b>Consequence:</b>  death (R1,2,3)</p> <p><b>Belief:</b>  if you leave the baby's diapers in the sun too long and they get hot, this produces "urine sickness" (R3)</p> <p><b>Response:</b>  perform magical ritual to life sunken or fallen crown (R1,2,3); look for someone knowledgeable (midwife) to fix baby's crown, give baby serum, put oil on the baby's body (R1) Litrosol, take baby to health center (R1,3) put their finger to the roof of the baby's mouth to lift the palate (R1,2) give baby massage, suck on crown, place a cloth with lukewarm warm on the crown, give the baby fluids (R2) use household remedies such as cigarette water (R3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<i>Conjunctivitis</i>	<p><b>Eye infection:</b> infection in the eyes (R1) sight suffers or eye disease (R2) (conjunctivitis) (R3) have red, stuck eyes, they leak white substance (R3) eyes stick (R1,3); dirty, swollen eyes (R3)</p> <p><b>Prevention:</b> Doctors say to keep amniotic fluid from falling into their eyes (R3)</p> <p><b>Cause:</b> Baby is born with yellow illness (R3), infection, prolonged expulsion, dirt falls into eyes (R1)</p> <p><b>Consequences:</b> can lose sight, discharge in the eye (R1), can't open eyes (R3)</p> <p><b>Response:</b> <b>Mother:</b> wash with rose water (ink) (R1,2,3) wash with lukewarm water, application of medications, take to doctor if doesn't improve (R1), cotton with camomile water, buy medicines from pharmacy (R2)</p> <p><b>Midwife:</b> cleans eyes with cotton and applies fluid (R1), never does anything (R3)</p> <p><b>Health centers:</b> prescribe medications (teramycin) (R3)</p>	<p><b>dirt in eyes, eyes stick (R1), eye disease (R2,3) pus comes out (R1,2) inflamed eyes (R2)</b></p> <p><b>Cause:</b> when amniotic fluid falls into their eyes (R1,2,3)</p> <p><b>Consequence:</b> blindness (R1)</p> <p><b>Response:</b> take to health center (R1) give drops, wash with dawn rue, application of eyemo, cleans them up to take to health center for fear of questions (R1) haven't have experience (R2) penicillin, teramycin, visine, rose water (R3)</p>	<p><b>Discharge in the eyes, red eyes (R1) pus in the eyes (R1,3) eye disease (R1,3) eye inflamed with secretion, irritation, stye (R2) weepy eye (R2,3) don't see, yellow (R3)</b></p> <p><b>Cause:</b> mosquitos land in the dirt and later on the baby's eyes (R1,3) infection (R2) amniotic fluid fell into baby's eye during birth (R3)</p> <p><b>Response:</b> teramycin (R1,2,3) take baby to health center, apply household remedies, clean with cotton and baby oil (R1) wash with traditional medicines, clean with cotton and cream, seek medical care (R2) pills in liquid, with boiling water, wash their face, administer medication in dropper (R3) application of mother's milk in eye (R2,3)</p>

Danger Sign	According to Pregnant Women	According to Midwives	According to Mothers & Fathers
<p><i>Omphalitis</i></p>	<p>releases bad smell (R1,3) it's an infection, an illness (R1,2,3) tetanus and known as 7-day illness; the umbilicus bleeds and a wound opens (R2)</p> <p><b>Prevention:</b> check navel every day, clean navel (R1,3), get tetanus vaccine (R1,2,3), use of <i>fajuelos</i> (R3)</p> <p><b>Cause:</b> failure to clean (R1), 7-day illness; when the mother isn't vaccinated against tetanus, when the umbilicus isn't checked (R3)</p> <p>Lack of vaccination (R2,3), contamination via umbilicus (R2)</p> <p><b>Consequence:</b> infection in navel (R1,3) death (R1,2,3) baby is born and gets tetanus, 7-day illness (R2,3) black nails, gangrene (R3)</p> <p><b>Belief:</b> so that he doesn't take in air (use of <i>fajuelo</i>)</p> <p><b>Response:</b> <b>Mother:</b> cleaning with black liquid twice a day, daily cleaning of umbilicus (R1,2,3) in those cases, baby is taken to the health center for injection and to the hospital (R2) change of <i>fajuelo</i>, don't let baby cry too much, application of thimerosal and yellow paste (contains penicillin), clean with cotton and water, warm with cooking oil and camphor (R3). <b>Midwife:</b> prescribes cleaning with cooking oil (R1).</p>	<p>fever, tetanus/7-day illness (R1,2,3) continuous crying, pain (R1,3) they get purple, pus in navel, gangrene (R1) green navel (R2) nails, tongue, navel and rest of body purple, contractions, doesn't breast-feed (R3)</p> <p><b>Prevention:</b> tetanus vaccine for pregnant woman (R1,2,3) cleaning navel (R2,3,) checking navel (R3)</p> <p><b>Cause:</b> lack of vaccination (R1,2,3) swallowing mucus during birth, careless parents (R1) poor cleaning of navel (R2) non-sterile scissors and materials, failure to clean hands (R3) mother's use of harmful substances on navel (fodder, flower water) (R3)</p> <p><b>Consequence:</b> it's an emergency, leads to death (R1,2,3)</p> <p><b>Response:</b> take to health center immediately, on the way to health center, treat the navel, using traditional plant-based medicines (R1) indicate that they haven't had any experience (R2) referral to hospital, application of quinine water and thimerosal to the navel, there aren't any medicines to treat it at home (R3)</p>	<p>7-day illness (R1,2,3) gangrene (R3) the navel is wet, swells up (R1) pain, infection, pus in navel, bad smell, inflammation (R1,2) pus or blood in navel, "gives them gas," green diarrhea, fever at 7 days, purple nails on hands and feet, navel is obstructed (R3)</p> <p><b>Prevention:</b> tetanus vaccine for pregnant women (R1,2,3) cleaning and treating of navel (R2) prenatal check-up, special diet for pregnant woman who lactates, not eating rice and beans, not letting new born cry a lot, treating the navel with oil and thimerosal (R3)</p> <p><b>Cause:</b> hernia, infection from cutting and inadequate care of navel, mother's neglect (R2) allowing the baby to cry a lot, the mother isn't careful what she eats, sweaty people approach the baby, neglect in caring for navel (R3)</p> <p><b>Consequence:</b> death (R1,2,3) "now they don't die of this, before they did" (R1) die at 7 days (R3)</p> <p><b>Response:</b> treat the navel with thimerosal, dermatol, midwives treat the navel with household remedies, burn the navel with remedies, give baby calabash tea to prevent 7-day illness, at 4 days they give baby pap with a mild purgative to prevent this condition (R1) visit to midwife for check-up (R2,3) take to health center, take to doctor (R1,3) treat navel with alcohol and iodine (R2) give baby pap, perform magic ritual to cure 7-day illness, apply antibiotic, give garlic water when they cry and also put it on their nails (R3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<i>Jaundice</i>	<p><b>Jaundiced baby:</b> yellow eyes, yellow skin (R1,2,3), sick, frozen (R2)</p> <p><b>Cause:</b> due to illness in the mother (R1), lack of strength (R2); he's sick, when they have 7-day illness (R3)</p> <p><b>Consequence of keeping baby in the sun for a long time:</b> sunburn (R1)</p> <p><b>Response:</b>  <b>Mother:</b> put baby in sun, seek doctor (R1,2,3), take baby naked into the sun, how long: from 7 to 9 days. time: 7:00 to 8:00 a.m. (R3); take them to hospital where they give creams (R3)</p> <p><b>Midwife:</b> prescribes putting baby in sun (R1,2,3), sends them to hospital with father, didn't do anything, none acted to bring me the baby (R2)</p>	<p><b>Yellow baby/hepatitis,</b> yellow eyes, yellow body (R1,2,3)</p> <p><b>Consequence:</b> can die (R1,2)</p> <p><b>Cause:</b> malaria in the mother during pregnancy, hepatitis, lack of nutrition in the mother (R3)</p> <p><b>Responses:</b> take baby to hospital, put baby in the sun (R1,2,3) take baby to health center (R1) give baby sugar water (R3)</p>	<p><b>Yellow baby,</b> yellow skin (R1,2,3) born malnourished (R1) white of eyes are yellow, don't breast-feed, hyporectic (R3)</p> <p><b>Cause:</b> hepatitis, malaria, lack of vitamin (R3)</p> <p><b>Consequence:</b> death (R1) illness (R2)</p> <p><b>Response:</b> give vitamins, make remedies and wipe them over baby's body (R1); take them into the morning sun, go to health center, make household remedies (R2) do "anti-malaria" tests so as to treat them later (R3)</p>
<i>Cyanosis</i>	NOT STUDIED NOR DID IT COME UP SPONTANEOUSLY	<p><b>Identification:</b> blue body (R3)</p> <p><b>Prevention:</b> pregnant woman shouldn't use tight clothes</p> <p><b>Consequence:</b> death of baby (R3)</p> <p><b>Response:</b> take baby to hospital (R3)</p>	<p><b>Identification:</b> purple baby (R1,3) blue skin (R1,2), bruises, illness (R2)</p> <p><b>Cause:</b> eclipse, careless mother (R1), illness whose cause should be investigated, malformations (R2); prolonged birth, trauma, suffocated baby, they're born sick (R3)</p> <p><b>Response:</b> take baby to hospital (R1) go to health center (R2,3) household remedies (R2), breathe in mouth, place in incubator (R3)</p>
<i>Pallor</i>	NOT STUDIED NOR DID IT COME UP SPONTANEOUSLY	<p><b>Identification:</b> pallid baby (R1)</p> <p><b>Cause:</b> mother's lack of nutrition (R1)</p> <p><b>Consequence:</b> death of baby (R1)</p> <p><b>Response:</b> feed mother so the baby will develop through breast-feeding</p>	<p><b>Identification:</b> pallid skin (R1,3)</p> <p><b>Cause:</b> mother's loss of strength (R2), mother doesn't take vitamins during pregnancy (R3)</p> <p><b>Response:</b> put baby in sun for 15 minutes, give baby fluids (R1) give mother vitamins (R2,3) go to health center for check-up (R2)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Baby who cries continually</i></p>	<p><b>COLIC:</b> gases swallowed by baby during breast-feeding, it's bad air, can't belch (R1) baby cries a lot, persistent crying (R1,2,3) doesn't sleep, pain, eat a lot (R3)</p> <p><b>Prevention:</b> burping baby after breast-feeding (R1) breast-feed on demand (R2,3)</p> <p><b>Cause:</b> when baby breast-feeds lying down, the baby doesn't burp, gas (R1), baby is sick, body pain (R2), ear pain, hunger (R2,3) pain (R3)</p> <p><b>Consequence:</b> crying, doesn't sleep during the day, only at night (R1) risk of illness (ear pain) (R2)</p> <p><b>Response:</b> <u>Mother:</u> Burp baby (R1), give pap of mustard, garlic and <i>chichimora</i> so baby will sleep (R1,2); consult nurse, breast-feed baby, give water (R3); gives essence of <i>coronada</i> (R2), give oral medications (corilin, anti-spasmodic), take baby to health center (R2,3). <u>Doctor:</u> Prescribes medications (R1,2)</p> <p><b>Uncomfortable and demanding baby:</b> Baby is hungry, persistent crying, impatient (R1,3); they're always at the breast (R3)</p> <p><b>Causes:</b> hunger (R1,3), shade (R1)</p> <p><b>Consequence:</b> impatience (R1,2,3), can't sleep, nocturnal disquiet (in shade) (R1); cry a lot (R3)</p> <p><b>Response:</b> <u>Mother</u> prepares pap of honey with anise and cooking oil (R1), puts to her breast and takes to the doctor (R3) <u>Midwives and older people:</u> prescribe pap for the baby (R1)</p> <p><b>People who see the baby:</b> carry him in their arms, make a cross of sweat on their forehead (R1)</p>	<p><b>BABY WHO CRIES A LOT (R1,2,3)</b></p> <p><b>Cause:</b> colic, hunger, pain, mother suffered colic pain during pregnancy and passed it to baby (R1), diaper rash, earache, headache, doesn't breast-feed (R2); hunger, mother doesn't have enough milk, "temperature" on 3rd day after birth due to open air (R3)</p> <p><b>Response:</b> give anise tea, go to health center, mothers give them bottles, traditional plant-based medicine (R1); give them pap, salt plug in the ear, medicine bath on head (R2); give them honey water, Panadol, Mejoralita and aspirin (R3)</p>	<p><b>baby who cries a lot: (R1,2,3)</b> may have something, squirms, colic, pain, can't say what hurts them, baby exhausts itself with crying (R1); depressed, unsettled, healthy baby develops crying (R2); angry (R2,3)</p> <p><b>Prevention:</b> go to health center for guidance (R1)</p> <p><b>Cause:</b> illness (R1,2,3) pain (R2,3) "mutes," asphyxia (R3) ear may hurt, preemies cry a lot, mother's milk doesn't flow (R1); appetite increases, pain, chill, accustomed to being carried in one's arms (R2)</p> <p><b>Consequence:</b> can die in some cases, exhaustion of baby (R1) navel pops out (R3)</p> <p><b>Response:</b> give pills for children (doloferin, bebetinas, milagrosa, mejoral), rub mineral oil on painful area, take to health center, give them drops of medication, camomile tea, rub on menthol, rosemary based aromatic substance, burn pine leaves allowing smoke to go where baby sleeps, bathe baby with water of rue, basil and cypress (R1) take to doctor (R1,2); give essence of <i>coronada</i> (R2,3); give white honey, pills (mejoralitas), rub with ointments, carry baby, breast-feeding, traditional medicines, "sleepy ones leaves well cooked in the bottle." <i>chichimora</i> tea (R2)</p>

	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<i>Beliefs associated with baby who cries continually</i>	<p><b>CULUCOS:</b> little black things, little hairs that prick them during the day (R1) erythema on the skin, , babies squirm, pricks them (R2,3) little animals (R2,3), little black animals that come out on the back and knee, feels pain and cries insistently (R2); they come out white on the back (R3).</p> <p><b>Consequence:</b> complain (R1,2,3) restless, uncomfortable baby, they squirm (R1) rash, pain (R3); pricks them (R1,3); baby's persistent crying (R2)</p> <p><b>Response:</b> mother applies mother's milk to back and rubs (R1,2,3), on the legs (R3)</p> <p><b>GAS:</b> when the baby pushes (R1,3), stomach swells (R3), continuous crying, fever, pain, infection in navel, umbilical bleeding (R2)</p> <p><b>Cause:</b> colic (R1), people with hard stares or sweaty people look at baby (R2,3), a pregnant woman looks at baby or ignores them (R1,2,3), someone with bad look sees the diapers (R2)</p> <p><b>Consequence:</b> umbilical bleeding (R1,2,3), infection in navel, doesn't heal (R2) disquiet during night (R3)</p> <p><b>Prevention:</b> keep a pregnant woman from carrying the baby or giving it something that belongs to her (R2)</p> <p><b>Response:</b> traditional medicine based on rituals and ointments (R1,2,3), the person who gave him the eye or a pregnant woman should carry the baby (R2,3), seek help from a pregnant woman (R1)</p>	<p><b>CULUCOS:</b> cries, doesn't sleep (R1,2,3) baby rubs himself (R1), it's common in hairy babies (R1,3), uncomfortable and gassy (R2), angry (R4)</p> <p><b>Response:</b> rub back with mother's milk (R1,2,3), take out on alternate days so newborn doesn't get a fever (R1)</p> <p><b>Cause:</b> visible thick black hairs on the back or inside a pore (R1,2,3), they're animals (R2)</p> <p><b>Consequence:</b> unsettled baby, doesn't sleep (R1,2,3)</p> <p><b>GAS:</b> Babies squirm, push, green feces (R1,2); intense abdominal push, frequent green and minimal feces, fever. There are gases due to <i>culucos</i>, foods and strong glances (R3)</p> <p><b>Response:</b> magic ritual (R1,2,3); go to health center (R1,2); traditional plant-based medicine; when gas is from food, give them pap of food that bothered them (R3)</p> <p><b>Prevention:</b> there is the belief that the first diaper that the baby soils should be thrown over him (R3)</p> <p><b>Cause:</b> Newborn is seen by people who can provoke gas (R1,2,3), by first time mothers (R1,3), sweaty people, people who recently had sexual relations (R1); by people with "evil glance"; when the newborn has been wet (R2); when someone with a hard stare sees some of the baby's clothes</p> <p><b>Consequence:</b> lesions in the anus due to intestinal heat (R1), umbilical bleeding (R1,2), vaginal bleeding in girl babies (R2); navel pops out, intestinal irritation, death (R3)</p>	<p><b>CULUCOS:</b> can't sleep, come out on back (R1,3), have fever (R3)</p> <p><b>Response:</b> massage with mother's milk (R1,2,3); household remedies (R1), cinnamon water (R3)</p> <p><b>GAS:</b> seems like they're going to burst, push a lot (R1,2,3), colic pain, green feces, dysentery (R1), continuous crying (R2), infection in the navel and skin (R3)</p> <p><b>Cause:</b> first time mother looks at baby (R1,2,3) they look at baby's diapers (R1,2)</p> <p><b>Consequence:</b> umbilical hernia and death (R2)</p> <p><b>Response:</b> a pregnant woman should pick baby up (R1,2), rub alcohol and camphor on back, herb ointments (R1), warm buttocks with diaper with urine (R2), people who gave baby gas have to throw saliva on baby's navel and forehead (R2,3)</p>

<i>Danger Sign</i>	<i>According to Pregnant Women</i>	<i>According to Midwives</i>	<i>According to Mothers &amp; Fathers</i>
<p><i>Baby who sleeps a lot</i></p>	<p>He's a newborn (R1,2,3)  normal to sleep 2 hours, improved so they sleep, only sleep (R2); sleep 4 hours, are weak, inactive, sick (R3); from ½ hour to one hour, is normal (R1); from ½ hour to all day (R2), up to all day (R2,3); from 2 hours up to all day (R3)</p> <p>Cause: Sleep because they're full, they make gestures in their sleep (R1), feel sick (R2)</p> <p><b>Mother's reasons for letting baby sleep a lot:</b>  They have their time to sleep and time to eat (R2); Sleep nourishes the baby; sleepy time; consider a lot of time when the milk flows (R3). They wake up to breast-feed and go back to sleep (R2,3)</p> <p><b>Consequences:</b> Provides energy, helps them grow, crib death (R1)</p> <p><b>Response:</b>  <b>Mother:</b> wakes baby to breast-feed him (R2,3); another would wait for baby to wake up, guard him while he sleeps (R2); take baby for growth and development check-up, give baby vitamins (R3)</p>	<p><b>Newborn who doesn't wake up to eat within three hours</b> (should be waking up about three times each day) (R1); sleepy baby (R2,3)</p> <p><b>Consequence:</b>  low growth (R1)  perhaps is well maintained (R3)</p> <p><b>Response:</b>  it's normal (R1,2)  if baby rejects breast or sleeps more than usual, take to doctor (R1);  you have to be patient, the mother should have a watch and wake the baby after three hours (R3)</p>	<p>sleeps a lot (R1,2,3);  decreased appetite, intestinal obstruction (R2)  anemia (R1);  sick, healthy baby "sleeps minimum from 12 to 24 hours (R2,3);  low weight, weak (R3)</p> <p><b>Cause:</b>  sickness, anemia (R1);  a newborn is sleepy, "it's their life to sleep" (R1,3);  decreased appetite, doesn't breast-feed (R2)  baby's sugar is lowering (R2)</p> <p><b>Consequence:</b>  can get clogged (congested baby), is malnourished, stomach can bother baby, mother's concern when she sees baby does nothing but sleep (R1)  death (R2)</p> <p><b>Response:</b> bismuth in pap (if baby gets clogged), give serum, honey stick in pap (R1), wake baby to breast-feed him (R1,2,3);  take baby to health center (R1,3)  give baby massage and laxative, give anti-sleep medicine (R2);  give children's pills (Panadol, milagrosa) (R3)</p>

TABLE 22: PRINCIPAL BREAST-FEEDING PROBLEMS IDENTIFIED AND RESPONSE MECHANISMS

PROBLEM	PREGNANT WOMEN	MIDWIVES	FATHERS AND MOTHERS
<i>Sucking/pressure problems</i>	<p><b>Cause:</b> mouth sore (R1,2,3), respiratory problems (R1,3), incorrect position (R3), introduction of bottle at hospital (R3), premature birth, harelip, cleft palate, baby doesn't want nipple (R3), fallen palate (R3), when breast-feeding is delayed (R1)</p> <p><b>Consequence:</b> malnutrition and death</p> <p><b>Prevention:</b> clean nipples before breast-feeding</p> <p><b>Response:</b> give traditional and popularly used medicines (pine-nut, shining stone, camomile tea) (R1,2,3), give other liquids and bottle (R3), go to midwife, go to friends, go to health services, go to private doctor (R1,2,3), put their finger in baby's mouth to lift palate (R3)</p>	<p><b>Cause:</b> premature or low birth weight baby, preemies are weak in sucking or can't suck, low weight babies don't breast-feed well (R1,2,3), without strength in palate (R2), speech defect (R3), harelip and cleft palate, mouth sore/plaque, throat infection (R1)</p> <p><b>Consequence:</b> risk of death and risk of malnutrition (R1,2,3)</p> <p><b>Response:</b> go to health center, there are fathers who don't take them to health center, natural medicine, give other fluids, give pumped mother's milk (R1), give them pumped mother's milk (R3), struggle for them to take nipple, go to doctor for surgery in case of speech defect or cleft palate (R1,3), give other types of milk (R1,2,3), use gauze to lift the palate in case of a weak palate (R2)</p>	<p><b>Cause:</b> sick baby, plaque/mouth sore (R1,2,3), weak baby without strength to draw (R1,2,3), doesn't grab breast (R3), very small baby, premature baby (R2), palate problems and harelip (R2,3), sleepy baby (R3), very large breast and very small mouth (R1)</p> <p><b>Response:</b> give cow's milk (R1), go to health center (R1,2,3), in case of candidiasis wipe alum or gentian violet inside mouth (R1,2), apply pine-nut water and wash with baking soda (R1,2,3), clean with bee's honey (R2,3), apply nystatin (R3), pump milk and feed with bottle or spoon (R1,2,3), pap of mint (R1), lift palate (R2,3), give soft fluids (R2)</p>
<i>Nipple problems</i>	<p><b>Cause:</b> flat, inverted, cracked nipples (R1,2,3), small nipples (R2), there are mothers who always suffer (R2), all mothers get cracked nipples (R3)</p> <p><b>Consequence:</b> lowers the amount of milk, pain, bleeding nipples, distress (R1,2,3), mammary congestion, obstructed ducts, baby cries continually (R1), baby can't grab breast (R2), can make baby sick (R3)</p> <p><b>Prevention:</b> Do nipple exercises during pregnancy (R2)</p> <p><b>Response:</b> put a larger child to suckle, apply popularly used oral, topical and parenteral medications (R1,2,3), clean nipples before breast-feeding (R2), extract milk and put it aside, extract milk into baby's mouth (R2) seek midwife and doctor (R1,2), lukewarm water to soften them (R2), continue with breast-feeding so the baby takes to the nipple (R2,3), trick babies so they'll grab (R2)</p>	<p><b>Cause:</b> flat nipples, inverted nipples (R1,2,3), cracked nipples (R1,2), hard/inelastic nipples (R1)</p> <p><b>Consequence:</b> suspend breast-feeding, later have no money to buy milk (R1)</p> <p><b>Response:</b> massages, continue breast-feeding, examine during pregnancy (R1,2,3), baby takes to nipple (R2), give teas and pap (R1,2), suspend breast-feeding because it hurts them (R1,2)</p>	<p><b>Cause:</b> blunt, injured and sunken nipple (R1,2,3), small nipple (R3)</p> <p><b>Response:</b> after pumping use hydrogen peroxide (R1), remove from breast (R1,2), go to health center (R1), give whole milk (R1), put baby to breast-feed so that he'll take to it (R3), pull on nipple (R3), rub on cooking oil before breast-feeding (R3)</p>
<i>Milk doesn't flow</i>	<p><b>Cause:</b> baby doesn't want breast, baby is not breast-fed frequently, cracked nipples (R1), baby gets used to one breast and milk stops flowing from the other (R3), mother doesn't produce milk after birth (R2)</p> <p><b>Prevention:</b> give baby breast as soon as it's born (R1)</p> <p><b>Consequence:</b> baby cries continually because it doesn't get its fill and gets angry (R1,2,3), one breast dries up when baby only feeds from one breast (R3)</p> <p><b>Response:</b> give pap, give other fluids, you have to give baby bottle (R1,2,3)</p>	<p><b>Cause:</b> milk is late in flowing, poor nutrition in mother (R1,2,3), breast-feed from only one breast (R1)</p> <p><b>Response:</b> take something to make milk flow (R1), put baby to breast-feed more frequently, feed the mother, give pap, teas, serum (R1,2,3), breast massage (R2)</p>	<p><b>Identification:</b> milk is late in flowing (R1,2,3)</p> <p><b>Cause:</b> when they're first time mothers, the milk doesn't flow (R1)</p> <p><b>Consequence:</b> breast-feed from only one breast (R1,3)</p> <p><b>Response:</b> give baby pap with honey (R1,2), give baby whole milk (R1), give massages so milk will flow (R1)</p>

<p><i>Surplus/mastitis</i></p>	<p><b>Cause:</b> baby doesn't breast-feed, mammary congestion (R1,2,3), baby gets used to one breast, infection in the breast (R1), milk is bad (R2)</p> <p><b>Consequence:</b> diarrhea and vomiting in baby (R2), tumors, milk dries up, fever and pain in mother (R1,2,3), infection is passed to baby (R1,2,3), breasts mature (R1,2,3), cover breasts get stopped up and little balls come out (R2)</p> <p><b>Response:</b> put baby to breast-feed, give massage with hot water bottles, massages with rags (R2,3), discard the milk, but don't throw in on the ground, throw it on the wall (R2,3), apply water with salt (R2), apply lukewarm water, give baby bottle (R3), seek doctor, don't breast-feed if they have an infection (R1), continue breast-feeding to remove accumulated milk (R1,2), at health center they give tetracycline (R1), go to health center (R1), go to midwife (R2)</p>	<p><b>Cause:</b> related to lowering of milk (R1,2,3), occurs when baby is a girl but not with boys because they eat more (all the midwives from La Mina, R3)</p> <p><b>Response:</b> pump milk, total weaning (R1), go to doctor (R1,3), cloths with lukewarm water and take uralbina, apply menthol, pump and give milk to newborn (R3)</p>	<p><b>Cause:</b> the breast gets warm and the milk rolls into a ball (R1), the breast gets very full of milk (R1), milk is retained (R2), blood infection (R2), tumors (R2), inflamed breast (R3), baby doesn't grab breast (R3)</p> <p><b>Response:</b> prepare homemade ointments made of epazote, salt water (R1,2), go to doctor and health center (R1,2), apply salicylate to warm up breast (R1), at the health center they give pills and administer injections (R1), breast-feed with only one breast, wean and give baby some other type of milk (R2,3), cloths with frozen water (R2), pump, continue breast-feeding, use uralbina (R3)</p>
<p><i>Social and economic problems</i></p>	<p>Not researched and didn't come up spontaneously</p>	<p><b>Cause:</b> they weaken, fall, don't want, mother's work (R1,3), embarrassed breast-feeding in front of others, single mother (R1), young/first time mother (R1,2,3), mothers are idlers (R3)</p> <p><b>Response:</b> nothing can be done (midwives), don't breast-feed baby, introduction of maize gruel (R1,3), introduction of artificial milk (R1,2,3)</p> <p><b>Consequence:</b> malnutrition, low weight (R1,2,3), diarrhea and nausea (R1,2,3)</p>	<p>Not researched and didn't come up spontaneously</p>

TABLE 23: NEONATAL DEATHS, 4 CASES

VARIABLE	CASE 1	CASE 2	CASE 3	CASE 4
PLACE	LA MINA	LA MINA	MINAS DE ORO	TEUPASENTI
AGE	21 days	6 hours	28 days	3 days
SEX	male	female	male	female
PLACE OF BIRTH	Area Hospital	home	home	National Hospital
BIRTH ORDER	third	eighth	fourth	third
DANGER SIGN	fever	serious asphyxia at birth	fever and crying	fever
USE OF TRADITIONAL MEDICINE	camomile tea	pap	NO	pap and teas
SELF-MEDICATION	desenfriolito		acetaminophen	
CONSULTED	grandmother	midwife	midwife	female neighbor
CONTACT WITH HEALTH SERVICES	3 times (hospital and two private doctors)	no, died immediately after birth, had gone to hospital 5 hours before birth but were rejected	3 times at health center	once at health center
PERIOD WAITED BEFORE GOING TO HEALTH SERVICE	14 hours, identified emergency at night	didn't go, emergency occurred at night	in the first 12 hours, made first visit	2 days, emergency was identified on Saturday night

OBSTACLES	PW	M/F	MW	HP
<p><b>Process of newborn care</b></p> <ul style="list-style-type: none"> <li>• In childbirth care at home, inadequate practices are still being carried out, to a greater or lesser extent. These include: <ul style="list-style-type: none"> <li>• not covering the baby immediately or not doing early bonding, waiting for placental stage to cut the placenta</li> <li>• ophthalmic prophylaxis with antibiotic drops is not performed</li> <li>• although some midwives have scales, they are hardly or never used because they haven't developed the ability to use them</li> </ul> </li> <li>• Some mothers at their own initiative and following tradition treat the umbilicus with household preparations based on oils, hot camphor and talcum</li> </ul>	<p>X</p> <p>X</p>	<p>X</p> <p>X</p>	<p>X</p> <p>X</p>	<p>X</p> <p>X</p>
<p><b>Recognition of danger signs</b></p> <ul style="list-style-type: none"> <li>• Exposure to eclipses is identified as a cause of congenital malformations and in one Region they add alcoholism in the couple without considering possible exposure to toxic substances, infections and other risks.</li> <li>• There are danger signs where identification of cause is based on misinformation such as: if a newborn has jaundice, they think of hepatitis (they don't associate it with incompatible blood types), baby's crying is associated with not enough milk.</li> <li>• There are danger signs that are not seen as such: <ul style="list-style-type: none"> <li>• sleeping for more than 3 hours without feeding</li> <li>• newborn with low weight</li> <li>• early introduction of foods</li> <li>• relationship between enough milk and frequency of urination</li> </ul> </li> <li>• There are danger signs that fathers and midwives medicate in newborns such as: conjunctivitis, dermatitis, fever, respiratory infections and colic.</li> </ul>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>			
<p><b>Use of traditional medicine for danger signs</b></p> <ul style="list-style-type: none"> <li>• In childbirth care at home, inadequate practices are still being carried out, to a greater or lesser extent. These include: <ul style="list-style-type: none"> <li>• when a baby has suffocated, some midwives resort to inadequate traditional practices such as sprinkling with alcohol or rue</li> <li>• final extraction of mucus using suction (the majority)</li> </ul> </li> <li>• There are danger signs in newborns that are attributed to magical causes and thus their cure is sought from healers or midwives who handle traditional medicine, before going to the health services. These include: <ul style="list-style-type: none"> <li>• fever, the crying is identified with "evil eye"</li> <li>• diarrhea with dehydration and fever is identified as "fallen crown"</li> <li>• problems in the umbilicus are identified with "gas"</li> </ul> </li> <li>• There are danger signs in newborns that are attributed to beliefs, and thus the way to prevent them is based on that belief. For example, a pregnant woman uses red or black underwear to avoid the "eclipse" which produces congenital malformations.</li> <li>• Mothers and midwives introduce pap, teas and other fluids for: <ul style="list-style-type: none"> <li>• changes in baby's sucking</li> <li>• surplus milk and mastitis</li> <li>• temporarily until "the milk flows"</li> <li>• fever and preemies, presence of mucus</li> <li>• baby who cries a lot</li> </ul> </li> </ul>	<p>X</p> <p>X</p> <p>X</p> <p>X</p> <p>X</p>			

<p><b>Introduction and maintenance of breast-feeding</b></p> <ul style="list-style-type: none"> <li>• There are inadequate breast-feeding practices such as: <ul style="list-style-type: none"> <li>• cleaning breasts before breast-feeding</li> <li>• eliminating and replacing pumped milk with other fluids in case of problems with nipples or sucking</li> </ul> </li> <li>• Midwives lack the necessary knowledge and skills to attend the correct introduction of breast-feeding, particularly in special cases (preemies, low birth weight, harelip and cleft palate) and when the mother has problems (cracked, inverted or flat nipples) where there is a high community management component</li> </ul>	X	X	X	NR
<p><b>Gender approach</b></p> <ul style="list-style-type: none"> <li>• It is customary among fathers for the birth of a male baby to be more highly valued than that of a girl, and fathers give little support to the mother in caring for the baby or in household tasks during the puerperium.</li> </ul>			X	X

TABLE 15: 3.1 NEWBORN

INCENTIVES	PW	M/F	MW	HP
<p><b>Process of newborn care</b></p> <ul style="list-style-type: none"> <li>• Midwives carry out immediate preventive measures with newborns, including removing mucus, cutting and treating umbilicus correctly.</li> </ul>	X		X	NR
<p><b>Recognition of danger signs</b></p> <ul style="list-style-type: none"> <li>• Midwives identify most of the immediate danger signs in newborns such as asphyxia at birth, changes in breathing, premature birth and low birth weight</li> <li>• In the case of asphyxia and breathing problems midwives perform resuscitation measures which include chest stimulation, respiratory assistance and placing the baby in a vertical position by holding it by the feet to facilitate the elimination of mucus.</li> <li>• In the case of danger signs occurring immediately at birth, most midwives refer to the health services.</li> <li>• Midwives are responsible for caring for and cleaning the umbilicus with the correct frequency and using iodine, alcohol and thimerosal until the umbilicus falls off and for guiding the mother and making her participate in this activity</li> </ul>	X	X	X	X
<p><b>Use of traditional medicine for danger signs</b></p> <p>Some beliefs and customs practiced by mothers have a proven basis in correct care for the baby. These include:</p> <ul style="list-style-type: none"> <li>• restricting certain foods for the mother during the puerperium in order to prevent colic in the newborn</li> <li>• avoiding delay in feeding baby because it could cause "indigestion"</li> </ul>	X	X	X	X
<p><b>Introduction and maintenance of breast-feeding</b></p> <ul style="list-style-type: none"> <li>• Midwives recognize the different types of nipples that lead to problems for the baby's suction and mention appropriate techniques for correcting these problems during pregnancy</li> <li>• In the case of surplus milk and mastitis, midwives identify correct consequences and management practices such as massage, pumping and seeking the doctor's help</li> </ul>	X	X	X	NR

**E. ACCESS**

**1. DISCUSSION**

**2. COORDINATION TABLES**

**3. OBSTACLES AND INCENTIVES**

## 1. ACCESS

This section analyzes the data obtained from the groups of fathers and mothers, pregnant women, midwives and health personnel. It studies in the depth the decision-making process in cases of emergency for the newborn, the pregnant woman and the woman in labor. It also discusses the factors that facilitate or delay the patient's going to the health services, the logistics for moving the patient, community support for the patient's going to the health services, and the perceptions of both health personnel and community members regarding the services' response capability, their quality and warmth and the workings of referral and counter-referral.

**Decision-making.** Findings in the four study groups indicate that in the event of emergency in the newborn, the pregnant woman or the woman in labor, those who participate in the decision-making include, in addition to both parents, the paternal and maternal grandparents and secondarily other relatives such as siblings of the parents as well as neighbors. The person who sounds the alarm and encourages the move to the health services is the midwife, and health personnel even indicate that they support each other when a patient's needs to be moved and the family is doubtful about making the final decision.

Generally, the person who makes the final decision to seek out the health services is the husband or companion as it is he who manages the family's funds or is recognized by the community for his ability to handle debt. The woman does not have this ability since if she is a single mother she goes to her parents or encounters serious problems at times of emergency.

The most important obstacles to going to the health services are lack of money or the ability to take on debt, lack of transportation, and lack of knowledge or ability to perceive the danger signs as an emergency. Both midwives and health personnel indicate that the parents do a cost-benefit analysis in making the decision to move, since if the likelihood of saving the patient is minimal they prefer to stay where they are. Another obstacle is the degree of their confidence in the health services.

The factors facilitating a quick decision and identified by the groups include the ability to identify the seriousness of the danger sign, the availability of money and transportation, pressure from the midwife and health personnel to the effect that what happens to the patient is the family's responsibility, and the support provided by the midwife or health personnel in accompanying the family.

**Family and community support.** The community study groups indicate that in the event of emergency for the mother or newborn it is basically the grandparents (paternal or maternal), sisters or older children and sometimes a neighbor who remain in charge of the other children. When they have the financial resources, they hire others to care for the children.

In terms of replacing the father in his work, this depends on whether he is an independent worker or not, whether he asks for leave or just takes off from work. If he is an independent worker and has older sons, they or the grandparents assume responsibility. This problem is more easily resolved in large families with strong ties. If they have no access to someone who will take care of their work, they abandon it or delegate the responsibility for accompanying the wife and making the decision to someone else like the midwife or a relative. Money problems are usually solved with loans from relatives and friends. There are mayor's offices in Regions 1 and 2 that are mentioned for their economic assistance in cases of emergency.

**Type and cost of transportation.** All the regions have one or more types of transportation: mass transit (buses), private transportation, ambulances (from the Red Cross or the health services). However, when a specific analysis is done, regional differences stand out. For example, some areas in Region 1 are more accessible than others, either due to poor quality of the roads or route frequency on public transportation (once a day) going from the towns to a city, even though it may be three hours a way. From the more inaccessible area to the more heavily trafficked areas, the community moves its sick in hammocks or tarps, which they take turns carrying.

The cost of collective transportation ranges from 2.50 to 14.00 lempiras and that of public transportation from 100.00 to 1,000.00 lempiras. This cost is influenced by various factors such as time of day (if it's at night), holidays or weekends. The cost of ambulance transport ranges from 60.00 to 450.00 lempiras.

**Lodging.** All Health Regions indicate that there is private lodging available and that its cost per night ranges from 10.00 to 150 lempiras. However, due to the problem of a lack of money, those families that leave their relative in the hospital or are waiting for them to receive care prefer to remain inside the hospital, sleeping in halls and on waiting-room benches; when removed from the hospital, they remain on the grounds around the hospital.

**Perception of Health Service's quality.** The data are presented and analyzed by ambulatory health care center (HCP or HCNA), Maternal-Infant Clinic or by area or national hospital, according to where the community says it goes or the discussion of the health personnel.

**Health Center.** All the groups agree that the health centers do not currently have response capability to deal with emergencies in newborns, pregnant women or women in labor and that their capacity is limited to low risk cases. They relate this inability to respond to the fact that all these cases are referred to a higher level of complexity for resolution and they attribute this to a lack of equipment, medications, staff training and physical infrastructure.

This situation is exacerbated because these facilities have limited hours from Monday to Friday and from 8:00 a.m. to 4:00 p.m. as well as limited ability to meet the demand, depending on the human resources working in the facility and other factors such as vacations, sick-leave and strikes.

The perception of the response capability of this type of facility is more personalized in that the people generally know the staff and the staff know the community they serve.

**Hospital.** The community study groups indicate that families perceive that the hospitals have the technical and equipment capacity to respond to their emergencies. However, they also note the lack of equipment, clothing, stretchers, beds, supplies and medications.

They feel that the nursing staff do not have the preparation to take care of emergency cases alone and that the doctor does have it, particularly the medical specialist.

### **How they are treated.**

**Interpersonal communication.** The community groups break medical and nursing staff into two groups. First there are those who are attentive, helpful, calm, take care of patients quickly and don't make distinctions among the patients. Then there are those who are irritable or don't communicate, who are indifferent, discriminatory and make distinctions in the care they provide depending on social class. This same classification applies to ambulatory care health centers and hospitals. However, there is more closeness and individualized communication in the health centers as compared to the hospitals.

In the hospitals, the guard is categorized as someone arrogant and haughty who must be tipped in order to gain access to health care. Guards don't pay attention to the referral, they tear it up and offer abuse with dirty words. Some people believe they are following orders. Registration staff generally provide good services except that they show preference in registering patients who are their friends.

The health personnel study group says that the patient should be treated with simplicity, confidence, respect and discussion and not grumbling and that the partner or companion should be involved. They admit that there are people who are treated with grumbling, inappropriate expressions, indifference and that some people humiliate the patients.

In addition to the above, the midwives indicate that mothers feel they are mistreated when two mothers are placed in a single bed at the hospital, when they or their babies are handled nude, are attended when they're already in the expulsion stage and are scolded.

**Respect for customs and beliefs.** The community's assessment of routine hospital practices and whether this affects their acceptance of and trust in the health services are analyzed.

**Episiotomy.** All the study groups agree that the healing from this procedure is painful and bothersome during bowel movements, urination and when sitting. The fathers and mothers study group as well as the midwives group indicate that with this procedure they remain open, spread, poorly sutured and that the procedure is generally done for the convenience of staff who want a quick delivery rather than having the patience to wait.

**Pelvic exams (touch).** The groups of midwives, mothers/fathers and health personnel agree that this procedure is disagreeable, painful, bothersome for the mothers, especially if the one performing the exam is a man. The health personnel group mentions that some mothers also have complaints from their husbands.

**Food.** All the groups agree that mothers refuse the hospital's food because of the type of food provided since they feel that some foods should not be ingested (beans, avocado, eggs, rice, cabbage) because they can harm the baby, give the baby green diarrhea or give the mother colic pains.

The foods they tolerate in this period are toasted tortilla with cheese, chicken soup, roast beef, pine nuts and oats. On the other hand, they indicate that they are left to fast totally during labor (without the water or teas given when birth occurs at home) and that after the delivery they are given nothing to eat unless the timing happens to coincide with meal time. This situation does not occur in the maternal-infant clinic where the companion is allowed to give them food after the birth.

**Bath.** All the study groups agree that the bath after birth is not accepted by the mothers. This is also true for bathing the baby who they consider weak and who might get sick. On average the custom is to bathe both mother and baby within eight days, with the mother cleaning her genitals periodically in the meantime. Bathing mothers is considered harmful because they swell up, it gives them a headache and fever. The bath before birth is accepted because it is a community practice that they follow in the belief that it speeds up labor.

**Care of the umbilicus** The community and health personnel groups indicated that they don't like the clips they put on the babies to tie off the umbilicus because they think it bothers them and because the baby cries when they put on the *fajuelo*. They indicate that some mothers remove the clip when they arrive home.

**Separation of mother and child.** The community and health personnel groups indicate that mothers gladly go to shared rooms since with this practice they feel more secure that their babies won't be lost or switched. Shared rooms are difficult when there are two mothers in a single bed. Mothers see shared rooms as normal since this is the practice in childbirth at home.

**Hospital clothing.** The community groups indicate that mothers reject the robe because it is open in the back and leaves their body naked when they walk. For this reason, they try to put on a petticoat (underwear) beneath the robe. In some hospitals, their belongings are given to their families and they aren't allowed to use their own clothing. In other hospitals, no clothing is provided and they indicate that their clothing is stolen. They relate that they are scolded for covering their heads and ears during the postpartum; this practice follows the belief that they have to protect themselves so that "air won't enter them."

**Position for expulsion stage.** All the community and health personnel groups agree that not all mothers like the lying down position, since one of the customs is childbirth in a kneeling or squatting position. In addition, they indicate that they don't help them to push or guide the bearing down at the moment of birth, that they give them an injection to speed things up and that mothers lose privacy because many people are present.

The community groups indicate that pap is prohibited in the hospital and that when they give it the doctors scold them, indicating that they should breast-feed. However, when they get home, mothers give their babies pap.

The discharge of mothers in the postpartum usually after 12 hours is considered very soon since it interferes with the custom of postpartum rest, in addition to transportation problems when discharge doesn't coincide with the mass transit schedule and they are forced to hire private transportation or seek lodging.

They feel that health personnel do not believe in the eye, food stuck in the stomach and fallen crown and thus they do not go to the health services first but rather to the midwife or healer.

Health workers' appreciation for customs and beliefs becomes more tolerant the lower the health care level. Nursing assistants are found to involve themselves more in the community's tradition. Generally the use of teas and pap is tolerated. It is not felt that a danger sign in a newborn is in itself sufficient reason to go to the health services. There are certain signs that health personnel do not identify as risk either, e.g., a baby who sleeps for more than three hours. Health personnel indicate that they strive to guide and educate mothers and midwives but that the traditions are practically impossible to eliminate. In addition, they feel the need for training to handle problems in newborns. There is an evident need to supplement the standards manuals for newborns and women's care with symptomatic or initial care for emergencies while transporting to the hospital, targeted for the ambulatory level and for certain types of health care that can be handled locally with the community.

TABLE 26: 2. DECISION-MAKING

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
<p><u>Decision-making</u></p> <p>1. People who participate in making the decision</p>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Mother-in-law</li> <li>• Grandparents</li> <li>• Midwife</li> <li>• Sister-in-law (R1,3)</li> </ul>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Spouse or companion</li> <li>• Mother</li> <li>• Mother-in-law</li> <li>• Grandmothers</li> <li>• Doctor</li> </ul>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Father</li> <li>• Maternal grandparents</li> <li>• Midwife</li> </ul>	<ul style="list-style-type: none"> <li>• Husband</li> <li>• Grandmothers</li> <li>• Sister-in-law</li> <li>• Midwife</li> </ul>
<p>2. Who makes the final decision.</p>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Father</li> <li>• Sometimes the mother</li> <li>• Midwife (R2)</li> </ul>	<p>1,2,3:</p> <ul style="list-style-type: none"> <li>• Mother</li> <li>• Accompanied (together)</li> <li>• Alone (by herself)</li> <li>• Father</li> </ul>	<ul style="list-style-type: none"> <li>• Husband (R1,2,3)</li> <li>• Mother's family (R2)</li> <li>• Midwife (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• Accompanied - Father</li> <li>• Alone (the woman)</li> </ul>
<p>3. Who accompanies patient</p>	<p><u>When it's the baby</u></p> <p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Someone in the family</li> <li>• Husband</li> <li>• Grandmothers (maternal and paternal)</li> <li>• Baby's mother</li> <li>• Midwife</li> </ul>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Husband</li> <li>• Grandparents</li> <li>• Siblings</li> <li>• Relatives</li> </ul>	<p><u>When it's the baby</u> (R1,2,3)</p> <ul style="list-style-type: none"> <li>• Baby's father</li> <li>• Mother</li> <li>• Midwife</li> <li>• Family</li> </ul> <p><u>When it's the mother</u> (R1,2,3)</p> <ul style="list-style-type: none"> <li>• Husband</li> <li>• Midwife</li> </ul>	<ul style="list-style-type: none"> <li>• Grandparents</li> <li>• Midwife</li> <li>• Father</li> <li>• Siblings</li> </ul>
<p>4. Obstacles</p>	<ul style="list-style-type: none"> <li>• Condition/illness of mother (R1)</li> <li>• Lack of money (R1,2,3)</li> <li>• Lack of transportation (R1,2,3)</li> <li>• Who cares for children (R2,3)</li> <li>• Leave or replacement at work (R3)</li> <li>• If the health condition is so serious, it's not worth it to move patient (R3)</li> <li>• Whether access road is available (R1)</li> <li>• If hours of operation (service, transportation) is available (R1)</li> </ul>	<p>R1,2,3:</p> <ul style="list-style-type: none"> <li>• Lack of money</li> <li>• With whom to leave the children</li> <li>• Availability of transportation</li> <li>• Distance (R1,2)</li> <li>• Who to leave to take care of the house (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• Money (R1,2,3)</li> <li>• Transportation (R1,3)</li> <li>• Who will take care of children (R2)</li> <li>• Lack of provision during pregnancy, if man doesn't make decision, father's mistrust of diagnosis of danger sign, religious conformity. Mother's fear of going alone, delay in making decision until problem has worsened (R3)</li> <li>• In case of emergency, they follow the sequence HCNS =&gt; HCP =&gt; AHC (R3)</li> <li>• If the emergency occurs at night (R1)</li> <li>• Don't believe it's urgent</li> </ul>	<ul style="list-style-type: none"> <li>• Whether the husband approves</li> <li>• Who will take care of the children</li> <li>• Lack of money</li> <li>• Availability of transportation</li> <li>• Distance</li> <li>• Operating hours of facility</li> <li>• Fear of being fired at work</li> </ul>

TABLE 27: FAMILY AND COMMUNITY SUPPORT

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
CARE OF THE CHILDREN	<ul style="list-style-type: none"> <li>• grandmothers (R1,2,3)</li> <li>• aunts (R1,2,3)</li> <li>• older children (R1,2,3)</li> <li>• husband looks for relative to stay with them (R1,2)</li> <li>• Hire a private individual (R3)</li> <li>• Father (R2,3)</li> <li>• Midwife (R3)</li> <li>• Mother (R3)</li> <li>• Female neighbor (R2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• grandmothers (R1,2,3)</li> <li>• aunts (R1,2)</li> <li>• older children (R2,3)</li> <li>• husband looks for relative to stay with them (R1,2)</li> <li>• Father (R1,2)</li> <li>• Neighbors (R2,3)</li> <li>• They stay alone (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• grandmothers (R1,2,3)</li> <li>• aunts (R1,2)</li> <li>• older children (R1)</li> <li>• husband looks for relative to stay with them (R1,2)</li> <li>• Mother (R3)</li> <li>• Female neighbor (R1)</li> </ul>	<p>HCNA</p> <ul style="list-style-type: none"> <li>• PRODIM Communal Medications</li> <li>• Fund is used to finance transportation costs</li> <li>• Community helps them</li> <li>• Health personnel accompany family to Mayor's office to seek help</li> <li>• Contributions are sought with Health Center patients</li> <li>• Three councilman were opposed to the ambulance</li> </ul> <p>HCP</p> <ul style="list-style-type: none"> <li>• Mayor cooperates in transporting patient</li> <li>• Health personnel cooperate with their private cars</li> <li>• Voluntary personnel contribute</li> <li>• Health Center cooperates with money for transportation</li> <li>• There's fear of assaults</li> <li>• Sell their animals</li> <li>• Wait up to a week to get the money together</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• In Marcala, the Organization of Mayor's Offices (CONCESA) contributes an annual amount to care for births</li> <li>• They ask to borrow money</li> <li>• They seek help from neighbors for child care</li> <li>• They're afraid of being assaulted (Transportation)</li> </ul> <p>AHC</p> <ul style="list-style-type: none"> <li>• Support from SITRAMEDYS Fund (AHC, El Progreso)</li> <li>• They take up collections</li> <li>• The community helps in transporting patients</li> </ul>
REPLACING MAN AT WORK	<ul style="list-style-type: none"> <li>• Nobody, work is personal (R1,2,3)</li> <li>• Older children take charge of all the work (R1,2)</li> <li>• Asks for leave at work (R1,3)</li> <li>• Looks for and pays someone else to take over the work (R1)</li> <li>• Leaves work (R2,3)</li> <li>• Older son (R1,2)</li> <li>• His parents (R2)</li> <li>• If he goes, he loses job (R1,3)</li> </ul>	<ul style="list-style-type: none"> <li>• Replaced at work by relatives or sends young man (R2,3)</li> <li>• Abandon job (R1,2)</li> <li>• Ask for leave, send excuse (R1,2,3)</li> <li>• Work is his own so he halts it (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• Loses his three days of work (R3)</li> <li>• Sometimes the father doesn't go because he has a lot of work (R1)</li> <li>• The work is left to itself (R1,2)</li> <li>• Sometimes older sons or a neighbor do it (R1)</li> <li>• When families are together, the father or brothers (R1,2)</li> </ul>	
FAMILY AND COMMUNITY SUPPORT	<ul style="list-style-type: none"> <li>• Don't help (R2,3)</li> <li>• With meals (R1,2)</li> <li>• Help in caring for and feeding children and with house (R3)</li> <li>• Loan of money (R1,2,3)</li> <li>• Assistance from Mayor's office (R1,2)</li> <li>• The nurse went to the Mayor's so he'd give me money (R1)</li> <li>• Save the Children helps with money and transportation (Yamaranguila) (R2)</li> <li>• The community gets together to provide economic help (collects money) (R1,3)</li> <li>• Look for and provide transportation (R1,2,3)</li> <li>• Transport patient in hammock/tarp (R1,2)</li> <li>• With car (R1,2,3)</li> <li>• Goes to telephone to call (R1)</li> <li>• Lends telephone (R3)</li> <li>• Voluntary health personnel detect serious cases in children, referring them to Health Center (R2)</li> <li>• Assistant from Mayor's office helps in handling seriously ill children (R2)</li> <li>• Accompany patient's relatives to hospital (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• Economic help from neighbors (R1,2)</li> <li>• Help in moving patient (R3)</li> <li>• Loan of car (R2)</li> <li>• Economic assistance from Mayor's office (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• Loan car (R2)</li> <li>• Private company, religious group or health personnel provide transport (R1)</li> <li>• Help to take to highway (R1,2,3)</li> <li>• Loan or collect money (R1,2,3)</li> <li>• Give advice (R2)</li> <li>• Care for other children (R2)</li> <li>• Volunteers cooperate in transportation (R1,2,3)</li> <li>• Take care of house that's left alone (R3)</li> <li>• Mayor's office helps with money (R1)</li> <li>• Community practically doesn't help (R1,3)</li> </ul>	

**TABLE 28: TRANSPORTATION, MONEY AND LODGING**

VARIABLE	REGION 1	REGION 2	REGION 3
<p><b>1.- TYPE OF TRANSPORTATION AND COST</b></p>	<ul style="list-style-type: none"> <li>• Sometimes they find a rental car</li> <li>• COST: 300.00 - 1,000.00 lempiras</li> <li>• Mass transportation Operate weekends and holidays</li> <li>• COST: 8.00 - 25.00 lempiras</li> <li>• Ambulance</li> <li>• COST: 200.00 - 300.00 lempiras</li> </ul>	<ul style="list-style-type: none"> <li>• Rental car available at night, weekends and holidays (all areas)</li> <li>• COST: 100.00 - 800.00 lempiras</li> <li>• Mass transportation</li> <li>• COST: 6.00 - 20.00 lempiras</li> <li>• Ambulance from Maternal-Infant Clinic (Minas de Oro)</li> <li>• Red Cross Ambulance (Siguatepeque and Marcala) available at any time</li> </ul>	<ul style="list-style-type: none"> <li>• Rental car available at night and on weekends</li> <li>• Availability: in some places there's no car at night (La Mina, La Ceibita, Potrerillos)</li> <li>• COST: 100-300 lempiras</li> <li>• Mass transportation 1 bus each hour</li> <li>• COST: 1.00 - 9.00 lempiras</li> <li>• Taxi</li> <li>• COST: 25.00 - 30.00 lempiras</li> <li>• Ambulance (Potrerillos, Pimienta, Pinalejo)</li> <li>• COST: 60.00 lempiras Pimienta 100.00 lempiras Potrerillos 450.00 lempiras Pinalejo</li> <li>• Bicycle</li> <li>• Pack animal</li> <li>• Rental 250.00 lempiras</li> <li>• Hammock</li> <li>± 3 hours on foot</li> </ul>
<p><b>2.- LODGING</b></p>	<ul style="list-style-type: none"> <li>• Availability: it's not difficult if you have money. They stay at hospital provided they don't remove you or stay with relatives.</li> <li>• COST: 15.00 - 150.00 lempiras per night</li> <li>• Board:</li> <li>• 12.00 - 20.00 lempiras per meal</li> </ul>	<ul style="list-style-type: none"> <li>• Availability: They find lodging, stay with relatives, friends, stay in hospital, in the halls, on the floor, on the sidewalk, in the street, wherever.</li> <li>• COST: 15.00 - 20.00 lempiras per night</li> <li>Board:</li> <li>• 10.00 - 20.00 lempiras</li> </ul>	<ul style="list-style-type: none"> <li>• Availability: they stay at Hospital, seated on benches</li> <li>• COST: 40.00 - 100.00 lempiras/night (regular category)</li> <li>• Board</li> <li>• 15.00 lempiras per meal, purchased in Hospital plaza, bear with it</li> </ul>

SOURCE: INFORMATION FROM MOTHERS, FATHERS, PREGNANT WOMEN, MIDWIVES AND HEALTH PERSONNEL

**TABLE 29: PERCEPTION OF HEALTH SERVICES QUALITY**

VARIABLE	FATHERS/MOTHERS		PREGNANT WOMEN		MIDWIVES		HEALTH PERSONNEL	
	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL
Service's Ability to Respond	<ul style="list-style-type: none"> <li>Disparage quality (don't think it has quality) (R1,3)</li> <li>Lack of capacity causes them to refer cases to the hospital or closer clinics (R1,3)</li> <li>Don't resolve problems (R3)</li> <li>Handle light cases (R2,3)</li> <li>Assessment of response capability based on existence of medications (R1,3)</li> <li>Don't have experience (R2)</li> <li>If there's an emergency they take care of it (R1)</li> <li>There's a delay in caring for patients (R2)</li> <li>Care is good but demand is high (R3)</li> <li>Don't handle childbirth (HCP) (R1,3)</li> <li>The MICs depend on the evolution of the birth being handled (R2,3)</li> </ul>	<ul style="list-style-type: none"> <li>Don't give much importance to patients who don't indicate seriousness in health care (R2)</li> <li>They're overloaded caring for patients (R3)</li> <li>Established diagnoses don't coincide with the patient's pathology (R3)</li> <li>They resolve any problem with childbirth or newborn (R3)</li> <li>They take care of serious cases (R3)</li> <li>They give treatment</li> <li>Not enough personnel (R2)</li> <li>They're more rapid for care (R1)</li> <li>They operate there (R1,3)</li> </ul>	<ul style="list-style-type: none"> <li>Don't handle complicated deliveries (R1)</li> <li>Refer to hospital (R1,2)</li> <li>When they're social services doctors, they're afraid to handle complicated births (R1)</li> <li>They take care of normal delivery</li> <li>They solve problem if it's not very serious (R2)</li> <li>There's only general doctors (R2)</li> <li>Personnel not trained to handle complications (R1)</li> <li>They take care of children well (R1)</li> <li>They provide care quickly (R2)</li> </ul>	<p>REGIONAL HOSPITAL</p> <ul style="list-style-type: none"> <li>They're well prepared (R1)</li> <li>They clear up doubts (R1)</li> <li>They take care of you quickly when there's a referral (R1) and in serious cases (R3)</li> <li>Sometimes they don't take care of you quickly, they're indifferent (R1,2,3)</li> <li>They leave people hospitalized (R3)</li> <li>There are physician specialists (R3)</li> <li>The doctors have studied more and are better trained than the midwives (R3)</li> <li>They perform caesareans (R1,2,3)</li> </ul> <p>AREA HOSPITAL</p> <ul style="list-style-type: none"> <li>If you have a referral, they take care of you immediately (R1)</li> <li>Sometimes there's a lot of neglect (R2)</li> <li>Other times they take care of you equally well whether you have a referral or not (R2)</li> <li>Some don't know what to do in serious cases, they don't have specialists (R3)</li> <li>Give referrals and sometimes don't resolve problems (R3)</li> </ul>	<ul style="list-style-type: none"> <li>Take care of non-serious illnesses (R1)</li> <li>Have trained personnel, but lack resources (R1)</li> <li>If the problem is very complicated, they refer it (R1,2)</li> <li>They're over-booked (R1)</li> <li>They make mistakes in diagnosis (R1)</li> <li>There's only nurses (R3)</li> <li>The doctors examine the mothers well (R3)</li> </ul>	<p>NATIONAL HOSPITAL</p> <ul style="list-style-type: none"> <li>The staff is trained (R1,3)</li> <li>It resolves complicated cases (R1,3)</li> <li>It saves lives (R1)</li> <li>The child dies because of the long wait while they make decisions (R2)</li> <li>They treat serious cases (placenta previa, uterine bleeding) (R3)</li> <li>Intra-uterine deaths</li> <li>They heal newborns (R3)</li> <li>They perform caesareans (R3)</li> </ul> <p>AREA HOSPITAL</p> <ul style="list-style-type: none"> <li>They treat prolonged delivery with serum (R3)</li> <li>Sometimes they don't do a caesarean and they do a referral (R3)</li> <li>They refer serious cases to the teaching hospital (R2)</li> </ul>	<ul style="list-style-type: none"> <li>Eutopic births and newborns</li> <li>Lower risk</li> <li>No ability to handle emergencies in small children</li> <li>The problem is the number of patients</li> </ul> <p>MATERNAL-INFANT CLINIC</p> <ul style="list-style-type: none"> <li>The services are not prepared to take care of emergencies in newborns</li> </ul>	<p>REGIONAL HOSPITAL</p> <ul style="list-style-type: none"> <li>Problems with diagnosing diseases</li> <li>Overcrowding</li> <li>Physical space in terms of distribution</li> <li>After 9:00 p.m. x-ray, laboratory, surgery and other services don't operate</li> <li>Not enough staff in emergencies</li> </ul>

PERCEPTION OF HEALTH SERVICES QUALITY (cont.)

VARIABLE	FATHERS/MOTHERS		PREGNANT WOMEN		MIDWIVES		HEALTH PERSONNEL	
	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL
<p>2 Infrastructure</p> <p>2.1 Equipment, supplies and personnel</p> <p>2.2 Medications</p>	<ul style="list-style-type: none"> <li>• Don't have all the equipment needed (R1,3)</li> <li>• Lack equipment to care for newborns and women in labor (HCPs) (R1,3)</li> <li>• A room for newborns and deliveries is needed (R2)</li> </ul>	<p>1 Have special equipment for diagnosis, special equipment for preemies (R2)</p> <ul style="list-style-type: none"> <li>• There's equipment (R1,3)</li> <li>• They have everything there since there are more cases (R1)</li> </ul> <p>2. They give good medicines (R1)</p> <ul style="list-style-type: none"> <li>• They have medications to handle serious cases (R3)</li> <li>• They give prescriptions for you to buy (R2)</li> <li>• Under-supply of medications (R2)</li> </ul>	<p>1 Don't have everything necessary to perform operations, examinations (R1,2,3)</p> <ul style="list-style-type: none"> <li>• They're not prepared</li> <li>• Not enough equipment. No devices (R1,2,3)</li> <li>• No incubators (R2)</li> <li>• No surgeon (R2)</li> <li>• No necessary materials (R1,2,3)</li> </ul> <p>2 They don't have medications</p> <ul style="list-style-type: none"> <li>• People have to buy the medications (R1,2,3)</li> <li>• They'd like them to have vitamins, serum and injections (R2,3)</li> </ul>	<p>1 There are few cots, sheets (R3)</p> <ul style="list-style-type: none"> <li>• It's well equipped (R1,2,3)</li> <li>• They want to have better devices</li> <li>• They lack personnel (R3)</li> </ul> <p>2. They don't have medications and ask you to buy them (R1,2,3)</p>	<p>1. It's not suitable for emergencies (R1,3)</p> <ul style="list-style-type: none"> <li>• They need oxygen, cots, x-ray equipment, thermometers to take children's temperatures (R3)</li> </ul> <p>2. There are no medications so they give you a prescription to buy them (R1,3)</p>	<p>1 They have all the equipment they need (R1,3)</p> <ul style="list-style-type: none"> <li>• Note that they lack beds, cots (there are 2 patients in each bed) (R3,1)</li> <li>• There's no clothes (R1,3)</li> <li>• You have to wait your turn in the operating room because there are no cots (R2)</li> </ul> <p>2. There are no medications so they give you a prescription to buy them (R1,3)</p> <p>AREA HOSPITAL</p> <ul style="list-style-type: none"> <li>• No ultrasound</li> <li>• No medications (R3)</li> </ul>	<p>1 There's no equipment for emergency care (intubation)</p> <ul style="list-style-type: none"> <li>• Lack clothing, supplies</li> <li>• There's no oxygen</li> <li>• There's no laboratory services (HCNA)</li> <li>• X-rays</li> <li>• Sometimes they lack medications</li> <li>• They don't have a room for childbirth (R2)</li> </ul> <p>2. They lack medications (antibiotics)</p> <ul style="list-style-type: none"> <li>• They have basic medications</li> <li>• They lack medications for emergencies (Vit. K)</li> </ul>	<p>1. Lack medical and nursing staff</p> <ul style="list-style-type: none"> <li>• Lack clothing and medical equipment</li> <li>• Lack medical equipment to handle emergencies</li> <li>• Transport incubator</li> <li>• Medical supplies</li> <li>• Beds</li> </ul> <p>2. Medications are in short supply</p>
3. Competence	<ul style="list-style-type: none"> <li>• They need training (R1,2)</li> <li>• They're trained (R3)</li> <li>• They're not trained, because patients have to be taken elsewhere (R1,2)</li> <li>• There are student nurses and physicians This detracts from reliability (R3)</li> <li>• Excellent (R1)</li> <li>• Don't have criteria for grading staff skills (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They're professionals (R3)</li> <li>• They have the best doctors for all the disease (specialists) (R1,3)</li> </ul>	<ul style="list-style-type: none"> <li>• The doctors are well prepared</li> <li>• Sometimes they neglect the pregnant woman, the baby dies or they have to perform a caesarean (R2)</li> </ul> <p><u>Nurses</u></p> <ul style="list-style-type: none"> <li>• They're not prepared (R1)</li> <li>• There are good ones and bad ones (R2)</li> <li>• Sometimes they're neglectful (R2)</li> <li>• They don't have enough skill</li> <li>• Some are well prepared (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• There are specialists</li> <li>• The doctors aren't suited to the patients' diseases (R2,3)</li> <li>• They have few personnel (R2)</li> <li>• There are good and bad doctors and nurses (R2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence in the medical staff is higher (R1)</li> <li>• They think that the nurse doesn't have experience because she doesn't attend to them (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• Only in less serious cases (R3)</li> <li>• Not all personnel are trained (R2)</li> <li>• They're trained to handle emergencies, but are lacking with respect to pregnant women and newborns (R1,2)</li> </ul>	<ul style="list-style-type: none"> <li>• Only in less serious cases</li> <li>• Not all staff are trained (HCP).</li> <li>• In the MICs, they are trained to handle emergencies, but are lacking with respect to pregnant women and newborns</li> </ul>	

PERCEPTION OF HEALTH SERVICES QUALITY (cont.)

VARIABLE	FATHERS/MOTHERS		PREGNANT WOMEN		MIDWIVES		HEALTH PERSONNEL	
	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL
			<ul style="list-style-type: none"> <li>• Sometimes there's only one (R1,2)</li> <li>• They take good care when they're from the community (R1,2)</li> <li>• Some have more experience (R1,2)</li> <li>• They have more studies and training than the midwife (R3)</li> <li>• Sometimes they're absent from the health center (R1)</li> </ul>		<ul style="list-style-type: none"> <li>• They assess the staff according to the response the health care level gives them: "the doctors must be weak because they didn't operate on my daughter there." (R2)</li> <li>• They repair episiotomies poorly (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• The doctors are trained (R1)</li> <li>• They take care of emergency cases outside of operating hours (R1)</li> <li>• The nurses cannot take care of an emergency (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• They don't feel trained to take care of certain emergencies in childbirth and with the baby.</li> </ul>	
4 Hours of Operation (hours of operation of the facility and priority given to care of newborns, pregnant women and post partum women)	<ul style="list-style-type: none"> <li>• 7:00 a.m. to 4:00 p.m. (R1,2)</li> <li>• They sign up until 9:00 o'clock (R3)</li> <li>• They don't operate weekends, holidays or at night (R1,3)</li> <li>• Some work a half day on Saturday (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They take care of you at any hour (R3)</li> <li>• Since there are shifts, it's continuous (R1,2)</li> <li>• There are no holidays (R1)</li> <li>• They work weekends (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• Generally they only work in the morning (R1,3)</li> <li>• They sign up until 9:00 (R1)</li> <li>• Don't treat on weekends, holidays or at night (R1,2,3)</li> <li>• If you arrive after 9:00 there's no room and you have to return (R3,1)</li> <li>• Only in Region 2 do they treat until 3:00, when they close at 4:00 it's a good hour (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• They function 24 hours a day (R1,2,3)</li> <li>• On holidays they only handle emergencies (R2)</li> <li>• They take of you when you get there (R2)</li> <li>• When there are strikes or holidays, they only handle emergencies (R2,3)</li> </ul> <p><u>Visiting hours</u></p> <ul style="list-style-type: none"> <li>• They don't let you come in at any hour (R1)</li> <li>• They don't let family stay with the patient (R1)</li> <li>• The mother comes in to breast-feed (R1)</li> <li>• They give you a chance to bring in supplies (clothing) during visiting hours (R3)</li> <li>• They are aware (the mothers) that there should be a schedule for visits (R2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• When there are a lot of people, they sign up until 9:00 (R1)</li> <li>• When the nurse is on vacation, they tell us to go to another center (R3)</li> <li>• Appointed day (when it's a pregnant woman they don't vaccinate) (R3)</li> <li>• They work Monday through Friday (R1,3)</li> <li>• Patient sign-up from 7:00 to 8:00 a.m. Monday through Friday (R1)</li> <li>• The doctor only comes by in the morning (R3)</li> <li>• There are two pregnancy rooms (R3)</li> <li>• Visits from 8:00 a.m. to 4:00 p.m. (R1,2)</li> <li>• The MIC is permanent (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• On Saturdays and Sundays, there's no specialist, only interns (R3)</li> <li>• The doctors work for hours because there are "so many" (R3)</li> <li>• They work in shifts (R3)</li> </ul>	<p><u>HCNA</u></p> <ul style="list-style-type: none"> <li>• Hours of operation from 8:00 a.m. to 4:00 p.m.</li> <li>• They take care of you when you get there (newborn)</li> </ul> <p><u>HCP</u></p> <ul style="list-style-type: none"> <li>• There's no schedule for care, especially in neglected communities</li> </ul> <p><u>MIC</u></p> <ul style="list-style-type: none"> <li>• Pregnant women and newborns on demand</li> <li>• No sign-up hour for newborns and post partum women</li> <li>• Sign-up for those inside from 8:00 to 9:00, outside until 2:00 p.m.</li> </ul>	<ul style="list-style-type: none"> <li>• 24-hour care in emergency room</li> <li>• Have problems with care during weekends</li> </ul>

PERCEPTION OF HEALTH SERVICES QUALITY (cont.)

VARIABLE	FATHERS/MOTHERS		PREGNANT WOMEN		MIDWIVES		HEALTH PERSONNEL	
	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL
5 Interpersonal treatment/communication	<p><u>Doctors</u></p> <ul style="list-style-type: none"> <li>• There are some who are calm, others are violent (R2)</li> <li>• Some are friendly (R2)</li> <li>• Some are good and attentive, some are angry and scold Give good treatment to children (R3)</li> <li>• Sometimes they don't take care of you They scold the patients because they don't bathe (R1)</li> </ul> <p><u>Nurse</u></p> <ul style="list-style-type: none"> <li>• When it's time for them to leave, they complain about the workload (R3)</li> <li>• Treatment depends on the social level of the patient (R2)</li> <li>• They scold when the child gets very sick (R2)</li> <li>• They treat people well (R1)</li> <li>• They take care of children and pregnant women quickly (R2)</li> <li>• If you miss the appointment or arrive late, they scold (R1)</li> <li>• Only at the health center have they treated by like a person Staff scold when patients come in dirty (R3)</li> </ul> <p><u>Administrative personnel</u></p> <ul style="list-style-type: none"> <li>• They treat people well (R1)</li> </ul> <p><u>General treatment</u></p> <ul style="list-style-type: none"> <li>• They don't have to be asked twice (R3)</li> <li>• They treat children well (R1,3)</li> </ul>	<p><u>Doctors</u></p> <ul style="list-style-type: none"> <li>• They're stifled, they want to finish quickly (R2)</li> <li>• He's imprudent and treats patients poorly (R3)</li> <li>• They take care of you immediately (R1)</li> <li>• Treatment is good with newborns and postpartum women (R1)</li> <li>• In the hospital, they don't help you (R1)</li> <li>• In an emergency, it's excellent (R1)</li> <li>• They leave mothers alone when they're suffering labor pains (R3)</li> <li>• Discrimination towards patients depending on social class (R3)</li> <li>• They're irritated and angry (R2)</li> <li>• They don't take care of you because of boredom (R3)</li> <li>• They reject when there's no space (R3)</li> </ul> <p><u>Nurses</u></p> <ul style="list-style-type: none"> <li>• There are some good ones, others are the devil (R1)</li> <li>• They treat you well (R1,3)</li> <li>• Sometimes the woman is left alone in the room (R3)</li> </ul> <p><u>Administrative Personnel</u></p> <ul style="list-style-type: none"> <li>• Attention depends on whether you're friends with them (R3)</li> <li>• They treat people well (R1,3)</li> </ul>	<p><u>Doctors</u></p> <ul style="list-style-type: none"> <li>• Sometimes they're friendly (R1,2)</li> <li>• Sometimes they don't assign importance to examinations (R2)</li> <li>• Sometimes they reject people (R2)</li> <li>• They do take care of pregnant women (R2)</li> </ul> <p><u>Nurses</u></p> <ul style="list-style-type: none"> <li>• Some are friendly (R1)</li> <li>• Some use vulgar language (R2)</li> <li>• They're slow when they vaccinate the children (R2)</li> <li>• They scold for any reason (R3)</li> </ul> <p><u>Administrative personnel</u></p> <ul style="list-style-type: none"> <li>• They don't note down whether you have a referral or vaccination card (R1)</li> <li>• Some treat you well (R2)</li> <li>• Sometimes they're indifferent, disgusting (R2,3)</li> <li>• They don't note down when the pregnant woman arrives late (after 9 00) (R1,3)</li> <li>• If the space has already closed, you have to come back another day (R2,3)</li> <li>• Some give preference to little children (R3)</li> <li>• They allow some room for children and people who come from far away (R2)</li> </ul>	<p><u>Guard</u></p> <ul style="list-style-type: none"> <li>• You have to beg him to let you in (R1)</li> <li>• They accept gifts to allow people to pass (R1)</li> <li>• They don't let you come in accompanied (R1)</li> <li>• In case of emergency, they facilitate entry (R2)</li> <li>• Some treat people well (R2)</li> <li>• Sometimes they get angry (R2)</li> <li>• They don't answer when you speak to them (R3)</li> <li>• When they answer, they do so arrogantly (R3)</li> <li>• They consider themselves the boss because of their position (R3)</li> <li>• They take care that children aren't stolen (R3)</li> </ul> <p><u>Doctors</u></p> <ul style="list-style-type: none"> <li>• They take better care if you have a referral (R1)</li> <li>• Some clear up doubts (R3)</li> <li>• Some give information (R1,2)</li> <li>• Some consider you something less (R3)</li> <li>• Some are friendly</li> <li>• Some are angry (R3)</li> <li>• Sometimes they don't take care of you (R3)</li> <li>• Some don't consider the referral important (R3)</li> </ul>	<p><u>Health Center Doctors</u></p> <ul style="list-style-type: none"> <li>• Transfer of patients in private car (R1)</li> <li>• Treat with love (R1)</li> <li>• They've attended childbirth between the two of them (R1)</li> <li>• He's generous (R1)</li> <li>• That new doctor, he can't handle it even with a miracle (rejection) (R2)</li> </ul> <p><u>Health Center Nurses</u></p> <ul style="list-style-type: none"> <li>• They treat you well (R1)</li> <li>• They help to find a car (R1)</li> <li>• They're good, not angry (R1)</li> <li>• They call your attention to things (R1)</li> <li>• They've been good (R2,3)</li> <li>• They scold about traditional medicine (R3)</li> <li>• They take care of you (R3)</li> </ul>	<p><u>Doctors</u></p> <ul style="list-style-type: none"> <li>• They scold mothers</li> <li>• They take care of you but treat you pompously. They ridicule customs (R1)</li> <li>• They've taken care of me no matter what time it is They're sincere They don't respect the midwife (R3)</li> </ul> <p><u>Nurses</u></p> <p>Hospital</p> <ul style="list-style-type: none"> <li>• They love the children. They've received me well. They don't listen to the father. They don't let people accompanying you in (R2)</li> <li>• They scold mothers (R3)</li> <li>• They've been good (R2,3)</li> <li>• Some communicate, others don't talk, some don't answer (R3)</li> <li>• They scold (R2,3)</li> <li>• They don't respect the midwife (R3)</li> </ul> <p><u>Guards</u></p> <p>Hospital:</p> <ul style="list-style-type: none"> <li>• They don't let you in (R1,3)</li> <li>• You have to be patient with them (R1)</li> <li>• You have to put up with them (R1)</li> <li>• You have to win them over and give them soft drinks (R3)</li> <li>• They're fierce (R3)</li> <li>• They're managed by schedules (R3)</li> </ul>	<p>HCNAs</p> <ul style="list-style-type: none"> <li>• Speak to them with simple words they can understand</li> <li>• Make them feel (mother or pregnant woman) that you're not there to recriminate or complain</li> <li>• Give them confidence</li> <li>• Have them give you back in their own words the message they've received</li> <li>• They shout at them, laugh or don't pay attention</li> <li>• They answer with bad words and humiliate people</li> <li>• People like to be listened to</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• Provide education to the couple</li> <li>• Make the companion feel that he's part of the discussion</li> <li>• Have them give back the message in their own words</li> <li>• Sometimes people don't talk because they don't want to hurt the midwife</li> <li>• It takes effort to grab the couple and educate them</li> </ul>	<p>AREA HOSPITAL</p> <ul style="list-style-type: none"> <li>• Important to speak with the companion</li> <li>• Use appropriate language</li> <li>• Education in management and care of the newborn</li> <li>• Ongoing contact with relative to get reports on patient's health status</li> <li>• Give them confidence</li> <li>• Repeat several times until they understand the message</li> </ul>

PERCEPTION OF HEALTH SERVICES QUALITY (cont.)

VARIABLE	FATHERS/MOTHERS		PREGNANT WOMEN		MIDWIVES		HEALTH PERSONNEL	
	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL	HEALTH CENTER	HOSPITAL
	<p><u>Rejection</u></p> <ul style="list-style-type: none"> <li>• Sometimes there are nurses and doctors who don't take care of you (R1)</li> <li>• They didn't take care of me, they were on strike (R2)</li> <li>• They don't take care of you because it's late (R3)</li> </ul>	<p><u>Guards</u></p> <ul style="list-style-type: none"> <li>• They want you to be humiliated (R3)</li> <li>• Some are good, others are bad (R1)</li> <li>• They're totally awful (R1)</li> <li>• You have to present the visit card or the appointment sheet for them to let you in (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• Rejection for arriving to sign up at 9:00 a.m. (R1)</li> <li>• Rejection by the general physician in health service for not being able to handle childbirth in abnormal position (R1)</li> <li>• On holidays and weekends they don't provide care (R1)</li> </ul>	<p><u>Nurse</u></p> <ul style="list-style-type: none"> <li>• They get angry when there are family members inside and it's not visiting hours</li> <li>• They provide most of the care</li> <li>• They speak easily</li> <li>• They're very angry (bitchy)</li> <li>• Some are good and affectionate (R3)</li> <li>• Some are pompous, inhumane</li> <li>• Some of them speak to you with fear (R3)</li> <li>• Doctors that don't provide care on holidays (R3)</li> </ul>		<ul style="list-style-type: none"> <li>• They don't pay attention to the referral. They return patients to the line without giving importance to the emergency. They mistreat with dirty language. They tear up the referrals (R3)</li> <li>• They don't treat things lightly. They give orders for you to behave just so. They're serious (R2)</li> </ul> <p><u>Others</u></p> <p>MIC</p> <ul style="list-style-type: none"> <li>• They discharge on the same day they treat you (R2)</li> <li>• You have to pay express transportation to return (R2)</li> <li>• They take good care of you (R2)</li> <li>• They allow food to come in immediately after birth when the husband brings it (R2)</li> <li>• They charge midwives for consultation (R2)</li> <li>• They scold people (R2)</li> <li>• Reject patient care (R2)</li> <li>• They put 2 patients in one bed (R3)</li> <li>• They handle the mothers when they are naked (R3)</li> <li>• They don't receive them until the moment of birth, while they "walk around doing nothing." They don't like them because it's a pain (R3)</li> <li>• They take care of you quickly (R3)</li> <li>• You have to be on a stretcher in order to be treated as an emergency (R1)</li> <li>• They have the women on the floor</li> <li>• They don't "pamper" them (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• We try to be respectful towards beliefs.</li> <li>• I speak with the people, but I insist. There's cultural resistance.</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• Simple language</li> <li>• Participation of the family and family planning</li> <li>• Discussion with the mother and the husband</li> <li>• Give her confidence</li> <li>• If they're with a companion, we tell him to wait outside</li> </ul>	<p><u>At the moment of birth</u></p> <ul style="list-style-type: none"> <li>• Things that shouldn't be said to a patient</li> <li>• The doctor scolds her</li> <li>• Use of inappropriate expressions and they bother them</li> <li>• They complain of treatment when they are bearing down</li> <li>• They hit them when they push</li> <li>• They shout at them</li> </ul>

TABLE 30 TREATMENT: HOSPITAL PRACTICES AND COMMUNITY CUSTOMS

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
EPISIOTOMY	<ul style="list-style-type: none"> <li>• They make an incision and suture in the perineal area (R2)</li> <li>• They cut them because the baby may be too big (R1)</li> <li>• They join the rectum and then they suture it (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They cut them in the event of abnormal position at the moment of birth (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• They leave them wide open (R1)</li> <li>• They cut them to make the birth easy (R3)</li> <li>• They don't want it because they will have to return to the hospital for the next birth (R3)</li> <li>• It hurts them (R3)</li> <li>• They suture poorly (R3)</li> <li>• They've had complications (R3)</li> <li>• They feel it is an abuse to cut them (R3)</li> <li>• They say they're open (R2)</li> <li>• It hurts them to have a bowel movement and to urinate, it hurts them to sit (R2)</li> <li>• They do it so the baby can be born (R1)</li> </ul>	<p>HCPs</p> <ul style="list-style-type: none"> <li>• They don't like it, they run away</li> <li>• It's painful</li> <li>• They can't have a bowel movement</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• They don't like it, especially when it's traumatic</li> <li>• They're afraid of it</li> </ul> <p>MICs</p> <ul style="list-style-type: none"> <li>• One patient didn't allow them to repair the episiotomy</li> </ul> <p>AHC</p> <ul style="list-style-type: none"> <li>• They confuse it with a caesarean</li> <li>• Some of them refuse it</li> <li>• Others ask for it</li> </ul>
PELVIC EXAMS	<ul style="list-style-type: none"> <li>• They put both hands in them (the vagina) to take out all that's dirty (R3)</li> <li>• They're embarrassed and don't want to have the baby in front of the doctor (R1)</li> <li>• They check the woman constantly (R1,2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• wasn't studied and wasn't mentioned spontaneously</li> </ul>	<ul style="list-style-type: none"> <li>• When they examine their genitals it frightens them (R2)</li> <li>• They bother them, they put their hands inside them (R3)</li> <li>• They're frequent and bothersome (R1)</li> <li>• Up to 10 doctors check them, remove their clothes and do everything to them (R1)</li> </ul>	<p>HCNAs</p> <ul style="list-style-type: none"> <li>• They complain that it's painful</li> <li>• They don't like someone putting a hand inside them</li> <li>• If it's a woman they accept it</li> <li>• Post partum checks don't bother them</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• Many people handle them</li> <li>• Complaint from husband</li> <li>• They don't like fingers put inside them</li> <li>• They don't like it because it's painful</li> <li>• They're afraid when the doctor is a man</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• They don't like it</li> <li>• They get bothered</li> <li>• They feel pain</li> <li>• If it's a woman who touches them they're less ashamed</li> <li>• Sometimes they don't explain to them that it's a touch</li> </ul> <p>AHC</p> <ul style="list-style-type: none"> <li>• They don't like it and they're right</li> <li>• They refuse</li> <li>• They don't want to allow the doctor to examine them</li> <li>• You have to convince them</li> </ul>

TREATMENT: HOSPITAL PRACTICES AND COMMUNITY CUSTOMS (cont.)

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
FOOD	<ul style="list-style-type: none"> <li>• They give them heavy meals like beans and rice, eggs, butter, sausage, banana; at home they have tortilla and cheese (R2)</li> <li>• Some people don't like to eat certain things; that's why they don't go to the hospital (R1,2,3)</li> <li>• They feed you everything, avocado, pine nut, fresh butter, and that's bad; here we use cheese and tortilla for eight days (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• Some feel satisfied with the food they are given in the Hospital (R1)</li> <li>• Sometimes they have to bring food from their community (R1)</li> <li>• At the hospital they give them vegetables when they operate, in a normal birth they are given egg, bread and cinnamon tea (R2)</li> <li>• The Hospital food affects the baby (R2)</li> <li>• The nurses hope that they will eat the food they are given in the hospital (R2)</li> <li>• In terms of food, they believe they are better cared for at home (R2)</li> <li>• They'd like the hospital to give them everything but avocado, cabbage, fried potatoes, banana, because they give the baby pain and green diarrhea (R2)</li> <li>• They only eat cheese, Maggi soup, chicken soup (R2,3)</li> <li>• They are accustomed to eating three times a day (R2)</li> <li>• The hospital food doesn't fill them, doesn't satisfy them (R3)</li> <li>• At the hospital they give them food, if they want to they eat it, if not they put up with it (R3)</li> <li>• Hospital food gives them a stomach ache (R3)</li> <li>• They want the hospital food to be good, for them to give them meat and not just beans (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They don't allow them to eat anything before the birth or after they birth if it doesn't coincide with a meal time (R2)</li> <li>• They give them everything to eat (R1)</li> <li>• They give them something so the food won't harm them (R1)</li> <li>• Those who have a diet don't like to go to the hospital (R1)</li> <li>• The post partum diet is not respected (R3)</li> <li>• They don't give them anything to eat after the birth if meal time is already over (R3)</li> </ul>	<p>HCNAs</p> <ul style="list-style-type: none"> <li>• They complain because they don't allow them food</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• They don't eat the food</li> <li>• They give them egg in the meal and this is bad (it rots and smells)</li> <li>• They leave them to endure hunger</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• They feel bad because they tell them not to eat or drink water.</li> </ul> <p>AHC</p> <ul style="list-style-type: none"> <li>• They protest</li> <li>• Everybody complains about the food</li> <li>• They don't even give you a bit of cinnamon tea in the Hospital</li> </ul>
IMMEDIATE BATH	<ul style="list-style-type: none"> <li>• The baby is very delicate, gets sick; that's why they don't want the baby bathed (R1,2)</li> <li>• Outside they bathe at eight days (R1,2)</li> <li>• There (in the hospital) they're bathed the moment the baby is born (R2)</li> <li>• They order mothers to bathe the day after the birth, they swell up and get sick (R2,3)</li> <li>• They order mothers to bathe with cold water (R2)</li> </ul>	<ul style="list-style-type: none"> <li>• In the hospital, they order the woman to bathe before the birth and that the baby be bathed too, they bathe the baby with a stream of water (R1,3)</li> </ul>	<ul style="list-style-type: none"> <li>• They bathe them on the same day (R1)</li> <li>• They bathe the baby too (R1)</li> <li>• They gather strength in the pre-partum bath (R2)</li> <li>• They are afraid to be bathed because it swells them up (R2)</li> <li>• They bathe the mothers who come in with serious problems (R2)</li> <li>• They haven't complained about the baths (R2)</li> <li>• They don't like the bath on the first day but rather at the traditional time (R3)</li> <li>• They get a fever and headache (R3)</li> <li>• At the first birth, they aren't accustomed yet (R3)</li> <li>• Women with a caesarean are bathed on the first day (R3)</li> </ul>	<p>HCNAs</p> <ul style="list-style-type: none"> <li>• They don't like it</li> </ul>

TREATMENT: HOSPITAL PRACTICES AND COMMUNITY CUSTOMS (cont.)

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
CARE OF THE UMBILICUS	Not studied	<ul style="list-style-type: none"> <li>• In the hospital, they don't allow the use of the <i>fajuelo</i> for the newborn (R1,2,3)</li> <li>• In the hospital, they use the umbilical clip to tie the umbilicus (R2)</li> <li>• When they arrive home, some mothers remove the umbilical clip from their babies, because they feel it bothers him. They believe that the baby has to be wrapped in the <i>fajuelo</i> to prevent bleeding and umbilical hernia. They consider the umbilical clip a lock (R2)</li> <li>• They like them to put thimerosal on the umbilicus too (R2)</li> <li>• In the maternity hospital, they don't allow the use of the <i>fajuelo</i>, they scold them, they have to remove it before going for an examination. They put the <i>fajuelo</i> on when they leave the hospital. (R3)</li> <li>• Some doctors do allow the use of the <i>fajuelo</i>. They use it in the rural area (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They put on a clip that makes it difficult to use the <i>fajuelo</i> (R3)</li> <li>• Unlike the hospital, the houses are made of dirt (R3)</li> <li>• They only put on a clip (R1)</li> </ul>	<p>HCPs</p> <ul style="list-style-type: none"> <li>• They don't like the clip</li> <li>• When they put on the <i>fajuelo</i>, the baby cries a lot</li> <li>• They'd like them to teach them how to treat the umbilicus</li> <li>• They give it importance</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• Mother's and grandmother's interest in how to take care of the umbilicus</li> </ul> <p>AHC</p> <p>They're pending</p> <p>Those who've had multiple births already know.</p>
SEPARATION OF MOTHER AND CHILD	<ul style="list-style-type: none"> <li>• They separate the newborn from its mother, they rob the baby (R1)</li> <li>• They give them (the babies) to other mothers (R2)</li> <li>• They're afraid to go to the hospital because sometimes you hear that they remove the babies, carry them away and switch them (R1,2,3)</li> </ul>	<ul style="list-style-type: none"> <li>• When they hospitalize a child they allow them to stay in the hospital to breast-feed the baby (R1)</li> </ul>	<ul style="list-style-type: none"> <li>• If they don't pay the hospital, the baby answers for it (R1)</li> <li>• They're afraid that someone will rob or switch their babies (R1)</li> </ul>	<p>HCNAs</p> <ul style="list-style-type: none"> <li>• They enchant them so they can't be robbed (the baby)</li> <li>• Sometimes they don't give you the baby, because the patients are in bed</li> <li>• They are aware of this now</li> <li>• They like it that they bring them their baby immediately after its born</li> </ul> <p>HCPs</p> <ul style="list-style-type: none"> <li>• They like that they don't take away their children</li> <li>• They get worried when they don't give them their babies</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• They ask for their baby very quickly</li> <li>• Sometimes they use the pretext that they're not breast-feeding because their nipple is torn</li> </ul> <p>AHC</p> <ul style="list-style-type: none"> <li>• Those with a caesarean are a little uncomfortable</li> <li>• Problems when there's more than one patient in a bed</li> <li>• They have accepted it</li> <li>• They see it as normal</li> </ul>

TREATMENT: HOSPITAL PRACTICES AND COMMUNITY CUSTOMS (cont.)

VARIABLE	FATHERS/MOTHERS	PREGNANT WOMEN	MIDWIVES	HEALTH PERSONNEL
REST	<ul style="list-style-type: none"> <li>• They don't give the mother a prudent rest before discharging her (R3)</li> </ul>	not studied nor was it mentioned spontaneously	<ul style="list-style-type: none"> <li>• They have to leave the same day (R2,3)</li> </ul>	Not studied nor did it arise spontaneously
CLOTHING AND OTHER PROCEDURES	<ul style="list-style-type: none"> <li>• In the hospital they don't help the mother to have the baby; here at home they help her to push, to hold the stomach (R1,2,3)</li> <li>• They inject so the baby will be born quickly (R1,2,3)</li> <li>• They place the mothers on birthing beds (R1,2,3)</li> <li>• They perform caesarean sections on the women (R1,3)</li> </ul>	<ul style="list-style-type: none"> <li>• At the hospital they don't dress, they use a robe before lying down (R1,2,3)</li> <li>• They don't like the hospital robe because it leaves them bare in back, doesn't give them privacy (R2)</li> <li>• Some wear a petticoat underneath the robe (R2)</li> <li>• They cover themselves to go to the bathroom, they don't like to walk with their buttocks showing (R2)</li> <li>• At the hospital they take away from them everything they're wearing (R2)</li> <li>• They only let them use the hospital clothing; they hand over what they bring to relatives (R2)</li> <li>• At the hospital, they put a robe on them (R3)</li> <li>• They go prepared to the hospital with clothing to use for that time (R3)</li> <li>• Some mothers complain about the clothing (R3)</li> <li>• At the hospital, they scold when mothers cover their ears and head (R3)</li> <li>• Nurses and doctors press down on the bottom of the uterus (R2)</li> <li>• The doctors break the water (R3)</li> <li>• They perform caesarean sections (R3)</li> </ul>	<ul style="list-style-type: none"> <li>• They rob the clothes that the patient wears in the hospital (R3)</li> <li>• At the hospital, there are no clothes for the mother and baby (R3)</li> <li>• They leave them very naked, everybody looks at them and they don't like this (R1,3)</li> <li>• They wash them (enema), purge them so they're light and don't defecate (R1)</li> <li>• They don't receive them until they're about to deliver and they walk around doing nothing, making do in the halls (R3)</li> </ul>	<p>AHC</p> <ul style="list-style-type: none"> <li>• Some are afraid when they talk to them about a caesarean</li> <li>• The birthing table</li> <li>• Some accept it as normal</li> <li>• They rarely ask to give birth in another position</li> </ul> <p>HCNAs</p> <ul style="list-style-type: none"> <li>• They like it, they feel it is easier on the birthing table</li> <li>• A lot of people and a lot of light</li> </ul> <p>HCP</p> <ul style="list-style-type: none"> <li>• They're accustomed to privacy</li> <li>• They like to squat on the ground</li> <li>• They complain about the position of the cot</li> <li>• The midwife places them as she likes</li> </ul> <p>MIC</p> <ul style="list-style-type: none"> <li>• One patient did not want to get on the birthing bed</li> </ul>

TABLE 31 COMMUNITY CUSTOMS AND BELIEFS AND HOW THEY ARE ASSESSED BY HEALTH PERSONNEL

BELIEF OR CUSTOM	ASSOCIATED DANGER SIGN ACCORDING TO COMMUNITY GROUPS	HEALTH PERSONNEL			
		HCNAs	HCPs	MIC	AHC
THE EYE	<ul style="list-style-type: none"> <li>• Fever</li> <li>• Crying</li> </ul>	<ul style="list-style-type: none"> <li>• They're beliefs</li> <li>• Can't be eliminated</li> <li>• I believe in the eye</li> <li>• They laugh</li> <li>• They ridicule</li> <li>• The treatment helps them because they give them little baths</li> <li>• If the medicine is rubbed on there's no problem, if its ingested there is a problem</li> <li>• You can't even touch them to give them the BCG</li> <li>• It's true that the woman's gaze is strong</li> <li>• The people are afraid to take their babies outside</li> <li>• This affects us because we don't have training for post partum women or for newborns</li> </ul>	<ul style="list-style-type: none"> <li>• They still believe</li> <li>• It's harmful</li> <li>• You don't have to believe or stop believing</li> <li>• The baby with the "eye" was fixed with a ritual</li> <li>• They laugh</li> <li>• Don't give them anything to take and let them continue with their belief</li> </ul>	no information	<ul style="list-style-type: none"> <li>• It's bad</li> <li>• The belief about the strong gaze is true</li> <li>• Faith is what matters</li> </ul>
GAS	<ul style="list-style-type: none"> <li>• Fever</li> <li>• Whiny baby</li> <li>• Green diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Produced by the cold</li> <li>• Produced by gases</li> <li>• They laugh</li> </ul>	no information	no information	
FALLEN CROWN	<ul style="list-style-type: none"> <li>• Diarrhea with dehydration</li> <li>• Blows or falls</li> </ul>	<ul style="list-style-type: none"> <li>• The faith that mothers have</li> <li>• It's gross to do that with babies</li> <li>• You follow behind the midwife so that she does her work well</li> <li>• So much time spent giving them talks and they haven't learned</li> </ul>	<ul style="list-style-type: none"> <li>• The treatment isn't correct</li> <li>• They treated my daughter and nothing happened to her</li> <li>• They're harmful beliefs</li> <li>• Sometimes the crown falls because of the sweating</li> <li>• There must be some effect</li> <li>• It can cause serious problems</li> </ul>	<ul style="list-style-type: none"> <li>• By tradition you see him at home and you think he's better all of a sudden</li> <li>• It's a harmful belief</li> <li>• It must have something good</li> <li>• Tradition has a lot of influence</li> <li>• Mothers arrive when the baby can no longer be saved</li> </ul>	<ul style="list-style-type: none"> <li>• It's a harmful belief</li> <li>• It has no anatomical or physiological basis</li> <li>• It's something my grandfather believed in</li> <li>• We should speak with the people who do these things</li> </ul>
CULUCOS	<ul style="list-style-type: none"> <li>• Continuous crying</li> <li>• Whiny baby</li> </ul>	<ul style="list-style-type: none"> <li>• I believe in this</li> <li>• It's like a splinter; I've seen it</li> <li>• It's hairs and they say its <i>culucos</i></li> </ul>	<ul style="list-style-type: none"> <li>• In an inoffensive belief/custom</li> <li>• It's normal</li> <li>• They are mothers who wound their babies</li> </ul>	<ul style="list-style-type: none"> <li>• It's inoffensive</li> <li>• It causes little damage to the baby</li> </ul>	no information
MUCLE	<ul style="list-style-type: none"> <li>• Green diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Affects the baby because the mother doesn't receive enough nutrients</li> </ul>	no information	no information	no information
DIRTY/AGITATED MILK	<ul style="list-style-type: none"> <li>• Diarrhea and malnutrition</li> </ul>	<ul style="list-style-type: none"> <li>• They're becoming educated</li> <li>• They're changing</li> </ul>	<ul style="list-style-type: none"> <li>• It's harmful</li> <li>• It's not correct to throw out the milk</li> <li>• You give them education</li> <li>• They're not aware of the importance</li> </ul>	<ul style="list-style-type: none"> <li>• It's bad, awful</li> <li>• You give them education</li> <li>• They're lies</li> <li>• They laugh</li> </ul>	<ul style="list-style-type: none"> <li>• It's harmful, for us it's the most important thing</li> <li>• my son got sick from agitated milk, my mother instructed me about what I had to do</li> </ul>

BELIEF OR CUSTOM	ASSOCIATED DANGER SIGN ACCORDING TO COMMUNITY GROUPS	HEALTH PERSONNEL			
		HÇNAs	HCPs	MIC	AHC
FAJUELO	<ul style="list-style-type: none"> <li>• Umbilical hernia and bleeding (prevention)</li> </ul>	<ul style="list-style-type: none"> <li>• It's a belief that you can't rid them of</li> </ul>	<ul style="list-style-type: none"> <li>• It's inoffensive</li> <li>• It's restricting</li> <li>• Vomits and regurgitates</li> <li>• That little rag doesn't satisfy hygiene requirements</li> <li>• They almost split the baby</li> </ul>	no information	no information
USE OF TEAS/PAPS/OIL	<ul style="list-style-type: none"> <li>• To remove mucus from birth</li> <li>• Baby cries from colic pain, eye, hunger</li> </ul>	<ul style="list-style-type: none"> <li>• The pap is a custom from way back</li> <li>• It depends on the pap they give</li> <li>• The pap can give the baby diarrhea</li> <li>• Before they had a business with the pap</li> <li>• Trained midwives don't give pap</li> <li>• The baby isn't affected by teas</li> <li>• If strong, the honey or teas affect the baby</li> <li>• They give oil for respiratory problems</li> <li>• It's the custom to give oils</li> <li>• I do believe the teas are very harmful</li> <li>• Camomile tea is good</li> <li>• The tea should be given to a baby who is sick</li> </ul>	<ul style="list-style-type: none"> <li>• With oil the baby has bronchial breathing</li> <li>• The family doesn't notice that the baby is breathing very rapidly</li> <li>• The baby is led to a single breast</li> <li>• It's harmful to give oil</li> <li>• The pap is dangerous because of disease</li> <li>• They've been doing it for years and nobody is going to change them</li> <li>• The teas don't lead to malnutrition</li> <li>• A single breast is recommended</li> </ul>	<ul style="list-style-type: none"> <li>• For me, it's inoffensive</li> <li>• They're customs passed from generation to generation</li> <li>• They scold and recriminate the mother with the possibility of killing the baby</li> </ul>	<ul style="list-style-type: none"> <li>• They interfere with breast-feeding</li> <li>• I gave my babies pap and they never got sick, I think it was the pap</li> <li>• A pap of honey is beneficial</li> <li>• They're not good, they're harmful</li> <li>• Oil can produce other problems</li> <li>• It's the grandmothers who prescribe oil</li> <li>• Some mothers can be changed</li> </ul>
TEAS DURING LABOR	<ul style="list-style-type: none"> <li>• To hasten labor and prevent exhaustion and nervousness in mother</li> </ul>	<ul style="list-style-type: none"> <li>• Lemon root creates a horrible force</li> <li>• Incenses can affect the baby</li> </ul>	no information	no information	no information
USE OF SPIRITS	<ul style="list-style-type: none"> <li>• To give strength</li> </ul>	<ul style="list-style-type: none"> <li>• Doesn't affect but doesn't help either</li> <li>• An overdose keeps the mother from cooperating</li> <li>• There are midwives who get them drunk</li> </ul>	<ul style="list-style-type: none"> <li>• Liquor inhibits the contractions</li> <li>• They laugh</li> </ul>	no information	no information
POSITION FOR EXPULSION	<ul style="list-style-type: none"> <li>• It's quicker, the baby comes out in front, not in back</li> </ul>	<ul style="list-style-type: none"> <li>• There's a risk that the mother will faint and the baby will be hurt</li> <li>• There's a lot of doubt because the mother can't be cared for</li> <li>• They've had all their babies that way</li> <li>• That tradition has been lost</li> </ul>	<ul style="list-style-type: none"> <li>• I wanted her to have the baby in the bed</li> <li>• It's so they can push</li> <li>• It's accepted if we can protect the baby as it comes out</li> </ul>	<ul style="list-style-type: none"> <li>• It's inappropriate</li> <li>• It's incorrect</li> </ul>	no information
POSTPARTUM REST	<ul style="list-style-type: none"> <li>• Prevention and healing measure</li> </ul>	<ul style="list-style-type: none"> <li>• It's an error of the people</li> <li>• The babies don't get to the health center</li> </ul>	no information	no information	no information
CRAVINGS DURING PREGNANCY	<ul style="list-style-type: none"> <li>• Prevention for premature birth</li> </ul>	<ul style="list-style-type: none"> <li>• I explain it to them</li> <li>• It's the people's version</li> <li>• They laugh</li> <li>• They chat with mothers</li> </ul>	<ul style="list-style-type: none"> <li>• If they eat dirt, it's explained to them</li> <li>• They laugh</li> </ul>	no information	no information
ECLIPSE	<ul style="list-style-type: none"> <li>• Produces congenital malformations and premature birth</li> </ul>	no information	no information	no information	no information

BELIEF OR CUSTOM	ASSOCIATED DANGER SIGN ACCORDING TO COMMUNITY GROUPS	HEALTH PERSONNEL			
		HCNAs	HCPs	MIC	AHC
USE OF RED UNDERWEAR	<ul style="list-style-type: none"> <li>Prevents curses for the mother and baby</li> </ul>	no information	no information	no information	<ul style="list-style-type: none"> <li>It doesn't give them any problem</li> </ul>
TIED MONTHS	<ul style="list-style-type: none"> <li>Prolonged childbirth produced by curses</li> </ul>	<ul style="list-style-type: none"> <li>It was negligence by the midwife who didn't handle it quickly</li> <li>You inform them during prenatal check-up</li> </ul>	no information	no information	<ul style="list-style-type: none"> <li>You see this at all levels</li> <li>They think that if they give the doctor the date someone out there will be listening</li> </ul>
PALPATING	<ul style="list-style-type: none"> <li>Checks fetal position and positions baby correctly</li> </ul>	no information	<ul style="list-style-type: none"> <li>It's a custom that will take 10 or more years to rid the people of</li> <li>It's risky</li> </ul>	<ul style="list-style-type: none"> <li>They tell them not to do it because it's bad</li> <li>They believe in the midwife more than in the doctor</li> </ul>	no information

TABLE 32 ACCESS AND HEALTH SERVICES

OBSTACLES	PW	M/F	MW	HP
<p><b>Decision-making</b></p> <ul style="list-style-type: none"> <li>• Delay in making the final decision to move patient is influenced by:                             <ul style="list-style-type: none"> <li>• failure to identify the danger sign as high risk</li> <li>• lack of money</li> <li>• access roads in poor condition</li> <li>• unavailability of public or private transportation</li> <li>• emergency situation occurring on weekends, holidays and during the night</li> <li>• lack of confidence in the health services</li> <li>• doubt regarding treatment</li> <li>• difficulty lodging people who accompany patient</li> <li>• lack of community support</li> <li>• nobody's "answering" for the mother (single and without parents)</li> </ul> </li> </ul>	X	X	X	X
<p><b>Confidence in health services</b></p> <ul style="list-style-type: none"> <li>• Lack of confidence in or refusal to go to the health services is influenced by:                             <ul style="list-style-type: none"> <li>• lack of health service's ability to respond (capacity of personnel, equipment and medications)</li> <li>• poor treatment in hospitals such as: scolding, rejection, perception that staff are lazy, low level of communications</li> <li>• lack of respect for customs such as: food, bath, clothing</li> <li>• fear of hospital practices such as: episiotomy, caesarean, frequent pelvic exams, separation of mother and child (fear baby will be switched or stolen)                                     <ul style="list-style-type: none"> <li>• mistreatment by guard staff even in emergency cases</li> <li>• irregular hours of health services due to staff vacations, sick-leave or work outside the service</li> </ul> </li> </ul> </li> <li>• Doubts indicated in terms of going to the hospital relate to:                             <ul style="list-style-type: none"> <li>• Too much demand on health services (waiting in halls to be allowed in, two patients in one bed, discharge prior to 24 hours after birth)</li> <li>• Rejection or indifference to the referral</li> <li>• Need to be in serious condition in order to be accepted</li> <li>• Rejection or inadequate care in emergency</li> </ul> </li> <li>• It is felt that the health services do not resolve most problems with complications because:                             <ul style="list-style-type: none"> <li>• Sign-up is closed</li> <li>• Hours of operation from Monday to Friday</li> <li>• Strikes, holidays</li> <li>• Lack of equipment and training</li> <li>• Lack of training for nursing staff</li> </ul> </li> </ul>	X	X	X	X
<p><b>Sexist approach</b></p> <ul style="list-style-type: none"> <li>• The decision-making process is delayed by the woman's economic dependency on her spouse, so that she is unable to make the decision by herself even if she is aware of the emergency, because of her inability to pay or to take on debt.</li> <li>• There are spouses/fathers who are indifferent to the health/emergency needs of the mother or newborn.</li> <li>• It is noted that men who accompany their spouse/baby to the health services are in the minority.</li> <li>• In some areas of Region 2 the women are less communicative than the men and are less informed despite the fact that responsibility for and care of the baby lies with them</li> </ul>	X	X	X	X



#### **IV. STRATEGIES AND WORK PLAN**

#### IV. STRATEGIES AND WORK PLAN

The development of this study from its conceptualization and design to the formulation of strategies had broad base of participation from the technical team of the Maternal-Infant Care Department and the regional teams. This made it possible to enhance the study so as to obtain a better product.

The participation of most of the human resources that contributed to carrying out this work was implemented through workshops that were technically and financially supported by MotherCare and BASICS/USAID. The first workshop to review the conceptual framework was held on April 14, 1997. The objective of the second workshop was to review the design draft; it was held in May of the same year and resulted in the final design of the study. Subsequently, the research start-up workshop was held on July 14 to carry out technical review of the guides for focus groups and in-depth interviews.

The performance period of the study was the first five months of the second half of 1997, this being a period prior to the elections for the Government of the Republic, where there were social pressure movements related to the search for economic improvements among workers' groups, including health workers. The workshop with the Secretariat of Health to select strategies and develop a plan of work was initially scheduled for November 17-21. Due to a strike among hospital workers, it was limited to a day of work with the Department of Maternal-Infant Health where the results were presented. This Department, which is responsible for leading the process, decided to reschedule by dividing the workshop in two, the first scheduled for December 11-12 with the work team from Region 3 and the second for December 15-16 with Health Regions 1 and 2.

After the presentation of data, a workshop was held with the coordinators from each NGO and the technical support of Dr. Reynaldo Pareja and Anjou Parekh, MSH, both from MotherCare Wa, in order to produce a work approximating the intervention strategies. This was achieved and a working document was produced for carrying out the two workshops with the Health Regions.

In accordance with the schedule, two workshops were carried out with the Regions, with excellent participation from them. These workshops were always under the direction and responsibility of the Maternal-Infant Department through its Women's Care Unit and always with the technical support of Dr. Reynaldo Pareja and Anjou Parekh MSH. The workshops had the following characteristics:

Duration: 16 hours

Program: during the first four hours, presentation of results (Research coordinators, by NGO and national), analysis of how to work to select strategies for changes in behavior (Dr. Reynaldo Pareja), presentation and discussion of work instruments. Finally, the remaining 12 hours were used to work in study group teams selecting feasible strategies and the work plan to develop them.

The documents used during the workshops were the coordination tables, the purpose being to validate the conclusions and recommendation and not to bias the participants.

Presented below are the final tables showing the results of these workshops with an estimated budget.

**TABLE 34: STRATEGIES FOR CHANGING BEHAVIOR DURING PREGNANCY, CHILDBIRTH AND NEWBORN CARE**  
**Target Group: Pregnant Women, Region 3**

CURRENT PRACTICES	DESIRABLE AND FEASIBLE PRACTICES	PRINCIPAL OBSTACLES	PRINCIPAL INCENTIVES	STRATEGIES
<p><i>Pregnant women do not assign enough importance to and do not recognize the severity of these signs:</i></p> <ul style="list-style-type: none"> <li>• fetal movements</li> <li>• swelling of hands and face, ringing ears, persistent headache</li> <li>• prolonged childbirth</li> <li>• heavy bleeding</li> </ul> <p><i>it's normal during childbirth</i></p> <ul style="list-style-type: none"> <li>• meconium is not recognized</li> <li>• fever in newborn</li> <li>• newborns' breathing problems are handled at home</li> </ul>	<ul style="list-style-type: none"> <li>• To recognize the severity of these signs and that they should go to the health services immediately when they appear</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of recognition of the seriousness of the danger signs that they know but associate with beliefs and treat with traditional methods before deciding to go to the health services</li> <li>• Use of natural medicines to treat the danger signs</li> <li>• Health services don't have emergency schedules on weekends or holidays</li> <li>• They perceive little response capability in the health services</li> <li>• Lack of available transportation, high cost</li> <li>• They don't have money saved for this, need the authorization of their companion to go to the health services</li> <li>• There's nobody to leave in charge of the children and the house</li> </ul>	<ul style="list-style-type: none"> <li>• They go for a prenatal check-up with the midwife and with the health services</li> <li>• Pregnant women feel that medical and nursing staff are better trained than midwives to resolve complications in pregnancy, delivery or in the newborn.</li> <li>• Pregnant women try to do something when they see blood, are beaten, note decreased fetal movement.</li> <li>• They recognize that anemia and bleeding affect the normal development of the baby. They improve their nutrition and take vitamins.</li> </ul>	<ul style="list-style-type: none"> <li>• Do a presentation of the Neonatal Study and its Strategies for the Regional Directors, Area Chiefs, regional and area nurses in Regions 1, 2 and 3.</li> <li>• Revise the Midwife Training Manual to include development of the signs of complications identified in current behavior during pregnancy, birth and in the newborn so that they are aware of their seriousness and of the need to instruct mothers that they must go to the health services immediately.</li> <li>• Design a package of illustrations on the danger signs so that the midwife can use it to help her in explaining things to the pregnant woman.</li> <li>• Train the trainers of midwives and Nursing Assistants in the 3 Regions in the use of the new manual and illustrations package.</li> <li>• Reproduce the illustrations in printed form to be given to mothers during the prenatal check-up (including Emergency Plan)</li> <li>• Design a Sustainability Incentives Plan for the Nursing Assistants and Midwives (inputs like gauze, iodine, etc.) with the local level.</li> </ul>

TABLE 35: STRATEGIES FOR PREGNANT WOMEN, FATHERS/MOTHERS REGIONS 1-2, Tegucigalpa

CURRENT PRACTICES	FEASIBLE PRACTICES	OBSTACLES	INCENTIVES	STRATEGIES
<p><i>Pregnant mothers do not assign enough importance to and do not recognize the severity of these signs for them to go immediately to the health service:</i></p> <ul style="list-style-type: none"> <li>• <i>swelling of hands and face, ringing ears, persistent headache</i></li> <li>• <i>late recognition of decrease in fetal movements</i></li> <li>• <i>prolonged childbirth</i></li> <li>• <i>belief that heavy bleeding is normal during pregnancy</i></li> <li>• <i>meconium is not recognized</i></li> <li>• <i>fever in newborn</i></li> <li>• <i>newborns' breathing problems are handled at home</i></li> <li>• <i>newborn sleeps more than three hours and doesn't wake up for feeding</i></li> <li>• <i>continuous crying</i></li> <li>• <i>changes in skin color (jaundice, cyanosis, pallor)</i></li> <li>• <i>problems with breast-feeding</i></li> </ul>	<ul style="list-style-type: none"> <li>• To recognize the severity of these signs and go immediately to the health service when they appear:</li> <li>• swelling of hands, face, decreased fetal movement</li> <li>• prolonged childbirth</li> <li>• fever in the newborn</li> <li>• continuous crying</li> <li>• changes in skin color (cyanosis, jaundice)</li> <li>• feeding problems (suction, mastitis and others)</li> <li>• lethargy</li> </ul>	<ul style="list-style-type: none"> <li>• Limited recognition of the seriousness of the danger signs they know and associate with beliefs and treat with traditional methods before going to the health service.</li> <li>• Use of traditional medicine to treat danger signs</li> <li>• They believe paps and teas are necessary while waiting for mother's milk to flow</li> <li>• The HCNAs, HCNs do not have emergency hours on weekends or holidays</li> <li>• They perceive little response capability in the health services: lack of supplies and personnel, trained personnel, poor treatment from health personnel</li> <li>• Lack of availability of transportation, high cost, distance, lodging</li> <li>• They don't have money saved and need the authorization of their companion in order to go</li> <li>• There's nobody to leave in charge of the children and house.</li> </ul>	<ul style="list-style-type: none"> <li>• They go for a prenatal check-up with the midwife and with the health services</li> <li>• Pregnant women consider medical and nursing personnel better trained to resolve complications in pregnancy, delivery and in the newborn.</li> <li>• Pregnant women try to seek help at the health service when they see bleeding, absence of fetal movements</li> <li>• They recognize that anemia and bleeding affect the baby's normal development. They improve their nutrition and take vitamins.</li> <li>• The midwife refers a pregnant woman whom she recognizes as high risk to the health service</li> <li>• Fathers/mothers and pregnant women recognize that prolonged childbirth, abnormal fetal position, cord problems cause fetal death or serious asphyxia at birth</li> <li>• Fathers/mothers and pregnant women recognize that breast-feeding is the best food</li> </ul>	<ul style="list-style-type: none"> <li>• Do a presentation of the Neonatal Study and its Strategies for the Regional Directors, Area Chiefs, regional and area nurses in Regions 1, 2 and 3 and to the COCEM/CODECO.</li> <li>• Use the contact with the pregnant woman to educate her in recognition of the danger signs during: prenatal check-up at health service, delivery of Mother's Bonus, Offering of basic package in the community</li> <li>• Train promoters, guardians/VOLCOL to create awareness in men with pregnant wives so they will draw up an Emergency Plan in case of complications during pregnancy, delivery and in the newborn</li> <li>• Design a package of illustrations on the danger signs so that their seriousness and the need to go to the health service can be explained to the pregnant woman</li> <li>• Design a form on the Emergency Plan so that extension workers can guide men with pregnant wives on how to resolve an emergency</li> <li>• Produce a flyer on the danger signs for pregnant women to be given to them during the prenatal check-up</li> <li>• Produce a radio spot on reducing the time of prolonged delivery.</li> <li>• Training in interpersonal communication and counseling for trainers of Nursing Assistants</li> </ul>

**TABLE 36: CURRENT AND DESIRABLE PRACTICES, OBSTACLES, INCENTIVES AND GENERAL STRATEGIES  
TARGET GROUP: MIDWIVES, REGIONS 1,2,3**

CURRENT PRACTICES	DESIRABLE PRACTICES	OBSTACLES	INCENTIVES	STRATEGIES
<p><i>Midwives do not assign enough importance to or recognize the severity of these signs, or don't define them well, or treat them incorrectly:</i></p> <ul style="list-style-type: none"> <li>• <i>prolonged childbirth</i></li> <li>• <i>poor position of baby</i></li> <li>• <i>meconium</i></li> <li>• <i>rupture of membranes</i></li> </ul>	<ul style="list-style-type: none"> <li>• To recognize, identify the signs and go to the health service</li> <li>• Not use liquor, beer or oxytocin to hasten childbirth, or use abrupt manipulations or pressure to hasten birth</li> <li>• Reduce the diagnosis of time to standards of more than 15 hours of labor to define prolonged childbirth so as to refer to hospital immediately (don't wait)</li> <li>• do referral on paper (write that baby was born with meconium) with signature so that the woman and baby are not rejected when they arrive at the hospital</li> </ul>	<ul style="list-style-type: none"> <li>• Beliefs</li> <li>• Economic, geographic, for reaching hospital</li> <li>• Failure to identify danger signs that we identify</li> <li>• False perception that what they do resolves the problem</li> <li>• Liquor and beer are used to reduce pain during labor</li> <li>• Late decision when there is consultation with the midwife</li> </ul>	<ul style="list-style-type: none"> <li>• They identify some causes</li> <li>• Low risk Childbirth Standards (Comprehensive Care for Women) place emphasis on referring woman in labor with complications, including poor position of baby</li> <li>• Midwives recognize some signs</li> <li>• Low risk Childbirth Standards (Comprehensive Care for Women) allow for options in terms of mother's position</li> <li>• There is a monthly meeting of midwives</li> </ul>	<ul style="list-style-type: none"> <li>• Reinforce midwife during training at all institutional levels in how to manage labor, both in the initial training and in monthly meetings.</li> <li>• Participation of health personnel in meetings set up with the community (CODECOs, open councils, etc.) to inform on practices during childbirth (e.g., not to use intoxicants and oxytocin during childbirth so as to prevent death of the baby)</li> <li>• Develop in the manual the latest points regarding calling for the midwife at the right time for childbirth care (in the Manual for the Training of Traditional Midwives in Honduras); and preparations</li> <li>• Presentations in R1 in communities with problems of transport and access with community representatives where community organizations are set up (strengthen those that exist) in order to respond to the needs for transportation and economic needs when there are cases of complications in pregnant women or newborns. Where there is no group, form one.</li> <li>• Articulate and adopt the plan and the content directed to the IEC midwife Reproductive Health from the Central Level (which they're planning in R7 and Metropolitan region) in the three regions using the behaviors defined in the study</li> <li>• Design a radio program with specific points for midwives and families; identify the facilities that exist in the regions and take advantage of radio space available (e.g., Radio Progreso in R3) to disseminate topics related with childbirth and newborn care</li> </ul>

CURRENT PRACTICES	DESIRABLE PRACTICES	OBSTACLES	INCENTIVES	STRATEGIES
<ul style="list-style-type: none"> <li>• <i>newborn care</i></li> <li>• <i>asphyxia</i></li> <li>• <i>extraction of mucus</i></li> <li>• <i>fever</i></li> <li>• <i>self-medication</i></li> <li>• <i>cutting of umbilicus</i></li> <li>• <i>ophthalmic prophylaxis</i></li> <li>• <i>premature birth</i></li> <li>• <i>low weight baby</i></li> </ul>	<ul style="list-style-type: none"> <li>• allow the mother to freely choose the position for childbirth</li> <li>• as soon as the baby comes out, dry, clean cavities, wrap/cover immediately clean clothes (don't bathe)</li> <li>• position for breast-feeding (offer squatting, kneeling, seated position)</li> <li>• feed only with mother's milk</li> <li>• refer</li> </ul>	<ul style="list-style-type: none"> <li>• beliefs</li> <li>• economic, geographic, to reach hospital</li> <li>• failure to identify danger signs</li> <li>• midwives don't have medications for ophthalmic prophylaxis</li> <li>• don't handle preemies well (heating, feeding, referral)</li> <li>• don't know how to use the syringe properly (or don't have one)</li> <li>• introduce other fluids</li> </ul>	<ul style="list-style-type: none"> <li>• visually recognize low weight baby</li> <li>• some have scales</li> <li>• can calculate weight with their hands</li> </ul>	<ul style="list-style-type: none"> <li>• continue with participatory training with focus on reproductive risk</li> <li>• revise content of midwife training manual to include behaviors and subjects</li> <li>• maximize monthly meeting with midwives for practical review of what to do with newborns (at least twice a year)</li> <li>• define a sustainability incentives plan</li> <li>• health personnel guide midwives regarding medications to be used in ophthalmic prophylaxis, and how to use them correctly</li> <li>• review and add to midwife's curriculum the immediate handling of preemies and low weight babies for timely referral</li> <li>• strengthen midwives' training, especially in the role of colostrum and the extraction of mucus and waiting for the milk "to fall"</li> <li>• add general management of newborn to manual for midwife training, including the non-use of medications</li> </ul>

**TABLE 37 WORK PLAN FOR COMMUNITY GROUPS, REGIONS 1 AND 2**

January-August 1988

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	PEOPLE/GROUPS RESPONSIBLE	FINANCING
<ul style="list-style-type: none"> <li>• Present National Study and Strategies to the Regional Directors, Area Chiefs, regional and area nurses in Regions 1, 2; and to the CODEM/CODECO</li> <li>• Utilize contact with pregnant woman to educate her on recognition of the danger signs during:                             <ul style="list-style-type: none"> <li>prenatal check-up at health service</li> <li>Delivery of Mother's Bonus</li> <li>Offer of basic package in the community (extension worker)</li> </ul> </li> <li>• Train extension workers/guardians/COLVOL to make men with pregnant spouses aware that they should prepare an Emergency Plan for complications, pregnancy, birth, and for the newborn</li> <li>• Design a package of illustrations on danger signs so that the Nursing Assistant can explain their seriousness to the pregnant woman and the need to go to the health service</li> <li>• Design a form on the Emergency Plan so that extension workers can guide men with pregnant spouses on how to resolve an emergency.</li> <li>• Produce a flyer on danger signs to be given to pregnant women during the prenatal check-up</li> <li>• Develop curricula for midwives based on training manual and findings from newborn research study</li> <li>• Develop package of illustrations directed to the midwife for guiding the family</li> </ul>	<ul style="list-style-type: none"> <li>• Regional Chiefs, Regional Nurse, Educators, Area Chiefs and Nurses (in sector)</li> <li>• Pregnant women who have contact with the Nursing Assistant, nurses, doctors who go into the community</li> <li>Extension workers, COLVOL/guardians, Nurses, Nursing Assistants</li> <li>Pregnant women who go to the health centers</li> <li>Pregnant woman's companion</li> <li>Pregnant women</li> <li>Midwives</li> <li>Midwives</li> </ul>	<ul style="list-style-type: none"> <li>• Second half of February</li> <li>April: 3 days training in counseling with illustrations</li> <li>May</li> <li>January-February-March</li> <li>January-March</li> <li>January-August</li> <li>January-August</li> <li>January-August</li> </ul>	<ul style="list-style-type: none"> <li>R1: US\$1,350</li> <li>R2: US\$2,200</li> <li>CODEM/CODEC is regional counterpart</li> <li>R1: US\$1,000</li> <li>R2: US\$950</li> <li>R1,2: \$1,500 (ID card for 6,500)</li> <li>\$5,000 (320 sets of 10 illustrations for ea. SPU/design and testing \$1,000</li> <li>Meetings &amp; printing: US\$4,000</li> <li>45,000 sheets = \$1,000</li> <li>US\$28,500.00</li> <li>US\$10,000.00</li> </ul>	<ul style="list-style-type: none"> <li>• R1 Director: Julio Cesar Arita</li> <li>R2: Francisco Rodriguez</li> <li>R1: Rubenia Velasquez</li> <li>R2: Guadalupe Contreras</li> <li>Sector and Area Nurse</li> <li>Consultant (a)</li> </ul>	<ul style="list-style-type: none"> <li>MotherCare</li> <li>MotherCare</li> <li>MotherCare</li> <li>MotherCare</li> <li>MotherCare</li> <li>MotherCare</li> <li>MotherCare</li> </ul>
<ul style="list-style-type: none"> <li>• Produce flyer on danger signs for pregnant women to be given to them during prenatal check-up.</li> <li>• Produce radio spot on decreasing time in prolonged childbirth</li> </ul>	<ul style="list-style-type: none"> <li>Pregnant woman, midwives</li> </ul>	<ul style="list-style-type: none"> <li>January-March</li> <li>January-March</li> </ul>	<ul style="list-style-type: none"> <li>45,000 sheets = \$1,000</li> <li>\$16,000.00</li> </ul>	<ul style="list-style-type: none"> <li>Consultant (a)</li> </ul>	<ul style="list-style-type: none"> <li>MotherCare</li> <li>MotherCare</li> </ul>

**TABLE 38 STRATEGIES FOR CHANGED BEHAVIOR WITH HEALTH PERSONNEL**

Region 3, San Pedro Sula

CURRENT BEHAVIOR	DESIRABLE/FEASIBLE BEHAVIOR	OBSTACLES	INCENTIVES	STRATEGIES
Health personnel are technically deficient in handling childbirth and newborn (including emergencies)	<ul style="list-style-type: none"> <li>• Apply (recognize/handle) IMCI package in an effective and timely manner as soon as they receive a newborn case (R1-3)</li> <li>• Immediately recognize and handle women with prolonged birth, premature rupture of membranes, meconium, decreased fetal movement</li> </ul>	<ul style="list-style-type: none"> <li>• Ignorance of the IMCI content</li> </ul>	<ul style="list-style-type: none"> <li>• IMCI content on management of newborns has been designed and training sessions on its use have been scheduled</li> </ul>	<ul style="list-style-type: none"> <li>• Training in newborn care standards for hospital personnel in Regions 1, 2 and 3</li> <li>• Training by IMCI</li> </ul>
Health personnel are deficient in their interpersonal dealings with patients	<ul style="list-style-type: none"> <li>• Health/administrative personnel should treat pregnant women or women giving birth, mothers with children, or visitors with respect (because they abuse with shouting, scolding for arriving late, for practicing beliefs, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• They abuse them verbally, insult them, humiliate them, scold them, treat them with indifference and impede their access to service</li> </ul>		<ul style="list-style-type: none"> <li>• Training in interpersonal communication and counseling for health personnel, administrative area</li> </ul>
<p><b>GUARD</b></p> <ul style="list-style-type: none"> <li>• Guard doesn't let pregnant mothers or mothers with newborns enter if he decides it's not an emergency</li> <li>• If he lets them in, it's with time to wait</li> <li>• Assumes a position of power that isn't his</li> <li>• Lets it be known that you don't get in if you don't bribe him</li> </ul>	<p>The guard should allow entry for any baby under one year (priority given to newborn), pregnant woman with a referral, or women in labor without conditions</p>	<ul style="list-style-type: none"> <li>• They have an autonomy that is not controlled by anyone.</li> <li>• Since he's the first person the patient sees, he's making technical decisions for which he has no training</li> <li>• Although they are health personnel they are sometimes difficult to handle</li> </ul>		<ul style="list-style-type: none"> <li>• Correct the behavior of hospital guards so that they don't impede or hinder access for pregnant women or women with newborns who come with complications</li> <li>• Training in interpersonal communication with emphasis on friendly dealings, the serious consequences of their behavior</li> <li>• Develop an occupational profile with necessary qualities as a requirement for giving him a contract</li> </ul>
The clerk doesn't give priority to pregnant women or women with newborns who have complications	<ul style="list-style-type: none"> <li>• The clerk should give equal priority in turn to pregnant women or women with newborns (even if they don't have a vaccination card or referral)</li> </ul>	<ul style="list-style-type: none"> <li>• Use their own judgment regardless of the standard</li> </ul>	<ul style="list-style-type: none"> <li>• There are standards for giving priority to pregnant women and newborns</li> <li>• Sometimes this is easier to handle if it's private</li> </ul>	<ul style="list-style-type: none"> <li>• Suggest a study by hospital with a specialist in administrative management to formulate a specific plan for each hospital to determine how the problem has been diagnosed</li> <li>• Carry out a study meeting to negotiate these problems with representatives from AHCs and Catarino Rivas hospital (ob/gyn)</li> </ul>
Transportation is lacking or unavailable in the community	<ul style="list-style-type: none"> <li>• The couple should plan how to get out in case of an emergency, make contacts and set aside the money needed</li> </ul>	<ul style="list-style-type: none"> <li>• They don't have the custom of saving for such times</li> <li>• They don't think that a pregnancy can easily become complicated</li> </ul>	<ul style="list-style-type: none"> <li>• In some communities (Region 1) the Mayor's office helps</li> <li>• In some communities, they help with transportation (hammocks, stretchers)</li> </ul>	<ul style="list-style-type: none"> <li>• Counseling for the pregnant women</li> <li>• Ask the Red Cross to design a project to move pregnant women and newborns when there are complications, at the local level in the three regions. Submit proposal to regional boards.</li> <li>• Study whether there is appropriate technology like wagons in the community that could be made available to the community.</li> <li>• Study whether firemen or other community organizations like owners' associations, CODECOs or public agencies like the municipality or the mayor's office could be involved</li> </ul>

<p>Hospital practices:</p> <ul style="list-style-type: none"> <li>• They give regular diet to post partum women which is contrary to the tradition of the post partum diet</li> <li>• Births are carried out on the birthing table with mother lying down</li> <li>• They use a very large umbilical clip to tie off the navel.</li> <li>• Clothing: they force you to use a type of robe that leaves your naked body open to view</li> <li>• Bath: the post partum women is forced to bathe before being checked by the doctor in the morning</li> </ul>	<p>food:</p> <p>they should be given the traditional post partum menu (chicken soup/chicken, tortilla/cheese, oats</p> <ul style="list-style-type: none"> <li>• they shouldn't be offered avocado, rice, beans, eggs, butter, cabbage, or cauliflower</li> <li>• give fluids on demand during normal delivery</li> </ul> <p>position: allow the woman to choose her position: cot, bed, floor</p> <p>umbilical clips replace with umbilical thread</p> <p>clothing: redesign robe with administrative personnel so it is suitable</p> <p>bath: don't force women to bathe</p>	<ul style="list-style-type: none"> <li>• Practice established within the hospital, with no great justification</li> </ul>	<ul style="list-style-type: none"> <li>• There's experience in changing standards and practices within the hospital</li> </ul>	<ul style="list-style-type: none"> <li>• Present research results to Director and Department Head in ob/gyn, the nutritionist in terms of what most bothers the mothers about the clothes, food and birthing position.</li> <li>• Propose changes in robe, diet and free position. Invite Dr. Esau Castillo to present experience at his hospital to the hospital directors</li> <li>• Instruct mothers that they must bring in supplies as determined by the hospital</li> </ul>
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**TABLE 39 WORK PLAN FOR COMMUNITY GROUPS AND HEALTH PERSONNEL**

Region 3 January-August 1988

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	People/Groups Responsible for Implementation	Groups Responsible for Financing
Ask help from the Red Cross to design a project to move pregnant women, women in labor and newborns when complications arise, in rural areas of the three Health Regions (including the participation of firemen and municipalities); then it should be presented to the directors of each Region	Red Cross, mayor's office, firemen, municipality, region teams	prepare design from January to March for submission in March	US\$1,200.00	Departmental and National Council of the Honduran Red Cross	MotherCare
Define a sustainability incentives plan (for midwives, supplies, etc.)	Midwife	February to March	US\$600.00	At local level - with regions and the mayor's office  La Leche League	MotherCare
Hire a specialist in administrative management to conduct a study by hospital to resolve the problem of guards in 3 hospitals in each Region - one per week (9 weeks total)	Administrative personnel	February to April	US\$1,800.00	Specialist in administrative management	MotherCare
Coordinate and adapt the plan and content aimed at midwives for IEC in Reproductive Health at the Central Level (that they are developing in R7 and the Metropolitan Region) in the three Regions, using the behaviors defined in the study	Midwife	Late February to March	US\$1,000.00	Secretariat of Health	Secretariat of Health
Design a radio program with specific points for midwives and families (on prolonged childbirth); identify the facilities existing in the Regions and utilize available radio space (e.g., Radio Progreso in R3) to disseminate topics related to birth	Mothers, midwives and pregnant women	February to August	US\$3,000.00	Hire consultant	MotherCare
Reinforce in midwife training the prevention and management of danger signs, both in initial training and in the monthly meetings (using case studies and subject reviews)	Midwives	Begin in February; ongoing	US\$2,000.00	Secretariat of Health and NGOs working to train midwives (World Relief, World Vision, CARE, PRODIM)	MotherCare and other international organizations working in the area Secretariat of Health

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	People/Groups Responsible for Implementation	Groups Responsible for Financing
Revise the midwives' training manual so that it includes a) signs of complications identified in the current behavior during pregnancy, childbirth and in the newborn so that they will be aware of their seriousness and of the need to instruct the mother that she must go directly to the health services; b) immediate management of premature and low weight babies for timely referral; c) newborn management in the midwives' training manual, including the non-use of medications; d) points on the right time to call the midwife to provide childbirth care; and e) preparations for negotiating with the family to call the midwife at the right time to provide childbirth care	Midwife	Begin end of February to August  * The modules must be defined before April	US\$40,000.00	Maternal-Infant Department (MI) of the Secretariat of Health  Consultants  International organizations with programs in this field	Secretariat of Health and MotherCare
Present results of qualitative study of neonatal morbidity and mortality and these strategies to the Regional Directors, Area Chiefs, regional and areas nurses in Regions 1, 2 and 3	Regional health personnel	March to April	US\$2,000.00	National Coordinator, Coordinators of the 3 NGOs (PRODIM, League, Save the Children)	MotherCare
Training for hospital personnel involved in direct care in newborn management and inclusion of the family in correct ambulatory care for newborns	Hospital personnel	After presentation in each Region (end of March to beginning of April)	N/A	BASICS with IMCI	BASICS
Training in interpersonal communication and counseling directed to administrative personnel	Health personnel (administrative)	After presentation in each Region (end of March to beginning of April)	US\$1,000.00	Consultant	MotherCare
Correct the behavior of guards (so they don't impede access) and the notation system through IFCB and for new hires demand that compliance with the profile be included in contract clauses	Administrative Director, personnel	After presentation in each Region (end of March to beginning of April)	US\$2,000.00	Specialist in administrative management	MotherCare Secretariat of Health
Design and produce a package of illustrations for the midwife to use to help her in guiding pregnant women	Midwife	April to August	US\$25,000.00	Consultant  Secretariat of Health	International organizations with programs in this area
Design and produce illustrations in printed form to be reviewed with and given to mothers during prenatal check-up	Mothers	April to August	US\$15,000.00	Maternal-Infant Department, regional team	International organizations with programs in this area
Train the trainers of midwives in the 3 Regions in the use of the new manual and illustrations package	Trainers	September...	US\$4,000.00	Maternal-Infant Department of the Secretariat of Health	International organizations with programs in this area

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	People/Groups Responsible for Implementation	Groups Responsible for Financing
Participation of health personnel in meetings set up with the community (CODECOs, open councils, etc.) to inform on practices during childbirth (e.g., not to use intoxicating beverages and oxytocin during birth, in order to prevent death of newborn)	Midwife	Ongoing	Annual: US\$10,000.00	Secretariat of Health and Mayor's Offices	Secretariat of Health and International organizations with programs in this area
Continue with participatory training with focus on reproductive risk	Midwife	Ongoing	N/A	Secretariat of Health	Secretariat of Health
Present successful experiences in organizing for community support in cases of emergency for pregnant women, women in labor and newborns in Region 2, directed to communities with problems with transport, access and medications; and promote the organization of community support groups where they don't exist	Community	Coordinate with Region 2 and PRODIM	US\$15,000.00	Coordinate with PRODIM	MotherCare

**TABLE 40 STRATEGIES FOR CHANGED BEHAVIOR WITH HEALTH PERSONNEL - REGIONS 1 and 2**

CURRENT PRACTICES	DESIRABLE PRACTICES	OBSTACLES	INCENTIVES	STRATEGIES
<p>Health personnel need training (including emergencies) on identification and medical treatment - they are technically deficient in managing birth, newborns</p>	<ul style="list-style-type: none"> <li>• health personnel identify and correctly manage the danger signs, especially in an emergency, and ambulatory consultation with emphasis on newborn</li> </ul>	<ul style="list-style-type: none"> <li>• attitudes of personnel</li> <li>• new personnel lack orientation</li> <li>• the seriousness of signs is not identified</li> <li>• there's no dissemination of neonatal epidemiological information at the institutional and community level (personnel are not aware of the problems)</li> <li>• lack of follow-up on training</li> <li>• there's no quality control system</li> <li>• ignorance of standards (on women and newborns)</li> <li>• they are not applying the PERIS and CHIS information process</li> <li>• lack of knowledge of and coordination with other NGOs that can help</li> <li>• inconsistency between organizations that train health personnel and the models, programs of direct care for people</li> </ul>	<ul style="list-style-type: none"> <li>• There are standards of care for women (for all levels) and newborns (for hospitals)</li> <li>• PERIS and CHIS exist</li> <li>• There is the ACCESO policy</li> <li>• Existence of NGOs to support the work</li> </ul>	<ul style="list-style-type: none"> <li>• Development of human resources in the neonatal area (training)</li> <li>• Orientation and training in standards at all SPU levels</li> <li>• Preparation of standards for managing emergencies in newborns at the ambulatory facilities network level (we have to include medications and supplies, minimum profile of human resources)</li> <li>• Include the newborn component in the information system (of the MPH)</li> <li>• Health personnel must attend analysis and feedback sessions on epidemiological data in the perinatal area in order to stay informed and aware (so they know the problem exists) - monthly monitoring</li> <li>• Adapt the health resources training curricula in the perinatal area</li> </ul>
<p>Health personnel (in terms of treating patients) abuse with shouting, scold for arriving late, ridicule beliefs, etc.</p>	<ul style="list-style-type: none"> <li>• Health personnel should deal humanely with women who are pregnant or in labor or mothers with children, should not scold, should respect beliefs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Overload of work (personnel are tired)</li> <li>• There are no options for health service supply</li> <li>• lack of incentives for the health worker (based on merit classification)</li> <li>• frustration, dissatisfaction of personnel with what they are doing</li> <li>• inconsistency between institutional goals and expectations of individual workers</li> <li>• the law is not applied (statutes, civil service, health code)</li> </ul>	<ul style="list-style-type: none"> <li>• salary</li> <li>• there is an existing legal framework (statutes, civil service, health code)</li> <li>• there is educational material</li> </ul>	<ul style="list-style-type: none"> <li>• Review and design of educational material promoting humane treatment (posters, etc.)</li> <li>• Definition and implementation of an incentives and merit qualification plan to allow for consistency between institutional and individual objectives</li> <li>• Disseminate the existing legal framework on quality of care to the community</li> <li>• Use the studies (patient opinion surveys) to revise the model of care and document it, and then share it with health personnel</li> </ul>

CURRENT PRACTICES	DESIRABLE PRACTICES	OBSTACLES	INCENTIVES	STRATEGIES
<p>Infrastructure - installed physical capacity is inadequate; lack of supplies, medications and equipment to handle emergencies</p>	<ul style="list-style-type: none"> <li>• for installed physical capacity to be sufficient and adequate</li> <li>• the health service should have the supplies, equipment, medications and personnel needed to effectively manage complications with pregnant women, women in labor and newborns</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of technical knowledge to care for emergencies</li> <li>• Lack of health engineering design of basic emergency facilities at all levels of care</li> <li>• maintenance and sustainability of equipment</li> <li>• there are some organizations already helping with sustainability of equipment and supplies</li> <li>• rejection of patients at some health centers</li> <li>• no system of communication between health centers</li> </ul>	<ul style="list-style-type: none"> <li>• The process of transforming HCPs into maternal-infant clinics and support with maternity homes has begun</li> <li>• Some places have the minimum equipment (basic table)</li> <li>• In Minas de Oro and Libertad there are telephones and they are used for referrals, information</li> <li>• There is experience with techniques such as kangaroo mother method</li> </ul>	<ul style="list-style-type: none"> <li>• Review and adaptation of basic table of medications and minimum equipment with respect to newborn care at all levels (refer to standards)</li> <li>• Community participation for sustainability of the process</li> <li>• Improve communications elements (referral system between health services and patients or between the services) within the network</li> <li>• Training and implementation of techniques (kangaroo mother) that require supplies, equipment, etc.</li> </ul>
<p>Hospital administrative personnel: Guard - doesn't allow a patient to enter, blocking the entrance (even in emergency)</p>	<ul style="list-style-type: none"> <li>• The guard should allow mothers with referrals and all babies under one year to enter (priority for newborns, even without referral)</li> </ul>	<ul style="list-style-type: none"> <li>• The guard is the first wall in the hospitals</li> <li>• There is no shift supervision</li> <li>• The guard and other support services are not considered part of the health care network</li> <li>• There's no process integrating the guard with the health care services - he operates alone</li> </ul>	<ul style="list-style-type: none"> <li>• There are some guards who allow patients to enter without obstacles and have a good attitude</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate the guard in the health care team</li> <li>• Guard (public or private) and other support personnel (clerk) should be included in the orientation strategy (refer to the strategy for giving personnel orientation on standards)</li> <li>• Define the profile for guards and other personnel well</li> <li>• Ongoing supervision of guard service and other support personnel in accordance with profile</li> </ul>
<p>Hospital administrative personnel: Clerk - rejects patients because of limited allotments</p>	<ul style="list-style-type: none"> <li>• The clerk should give access to level of demand without allotments for newborns and pregnant women</li> </ul>	<ul style="list-style-type: none"> <li>• There are (unwritten) standards such as schedules for intake and care of patients per hour</li> <li>• There is limited space</li> <li>• Nobody prioritizes health care cases in the hospital</li> </ul>	<ul style="list-style-type: none"> <li>• The expanded role of nurses</li> <li>• Fewer problems in HCPs and HCNA's because fewer people come</li> <li>• In some HCPs there are awareness days in the communities to learn about and become aware of geographic access</li> </ul>	<ul style="list-style-type: none"> <li>• Guard (private or public) or other support personnel (clerk) should be included in the orientation process (refer to strategy for giving personnel orientation on standards)</li> <li>• Hold awareness sessions in remote communities so that health personnel (selectively) will understand geographic access</li> </ul>
<p>Lack of adequate transportation system in the community</p>	<ul style="list-style-type: none"> <li>• The community should plan solutions, coordinate with the municipal government, identify the mechanisms and means for transporting patients to the health services</li> </ul>	<ul style="list-style-type: none"> <li>• No access to communities</li> </ul>	<ul style="list-style-type: none"> <li>• Existence of Red Cross</li> <li>• There is an ambulance</li> <li>• There are municipal health and development plans</li> <li>• There are health committees owners' associations, CODECOs, etc. that assist in moving patients (they finance it)</li> </ul>	<ul style="list-style-type: none"> <li>• Health personnel is included and participates in CODECO meetings, etc., to promote community organization</li> <li>• Health personnel and mayors' offices promote community organization where there is none</li> <li>• Coordinate with the NGOs to receive assistance in community organization</li> </ul>



**TABLE 41 WORK PLAN FOR STRATEGIES - REGIONS 1 AND 2**

January - August 1998

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	PEOPLE/GROUPS RESPONSIBLE FOR IMPLEMENTATION	GROUPS RESPONSIBLE FOR FINANCING
Human resources development in neonatal area: orientation and training in neonatology standards at all SPU levels (hospitals and M-I clinics): review and adaptation of basic table of medications and minimum equipment associated with neonatal care at all levels (refer to standards) Training and implementation of techniques (kangaroo mother)	Health personnel in hospitals and MICs; standards personnel at central level in coordination with operational level	April to June	US\$4,000.00	A team of facilitators from the central and regional levels (by levels)	USAID
Development of standards for managing newborn emergencies at the ambulatory facilities network level (we must include medications and supplies, minimum profile of human resources)	Personnel in Health Areas in Regions 1, 2 (HCPs, HCNAs)	June to August	US\$20,000.00	A team of facilitators from the central and regional levels (by levels) plus Area teams	International organizations with programs in this area
Meeting and negotiations with the statistics department to modify the newborn component and include it in the information system (of the MPH)	Regional teams, M-I Dept., statistics	March	N/A	Maternal-Infant Dept.	Secretariat of Health
Health personnel incorporate perinatal problems in monthly sessions and place emphasis on feedback of epidemiological data in the perinatal area so as to stay informed and aware; use the studies (patient opinion surveys) to revise the model of care and document it, and then share it with health personnel in monthly meetings	Institutional health personnel	Ongoing	US\$20,000.00	Area teams	Secretariat of Health and international organizations with programs in this area
Adapt the curricula for training human resources in health regarding the perinatal area	Teaching team from the Department of Medical Sciences	2nd half of 1998	US\$20,000.00	Central Level	Secretariat of Health, Department of Medical Sciences and international organizations with programs in this area
Review and design of educational material to promote humane treatment (posters, etc.) disseminate the existing legal framework on quality of care to the community; also development of educational materials to prepare pregnant women during the prenatal check-up for childbirth and emergency situations (emphasize perineal cleanliness, post partum bath)	Health users and servants	February to August	US\$15,000.00	Identify and hire an expert	International organizations with programs in this area

STRATEGY	AUDIENCE	SCHEDULE	ESTIMATED COST	PEOPLE/GROUPS RESPONSIBLE FOR IMPLEMENTATION	GROUPS RESPONSIBLE FOR FINANCING
Definition and implementation of an incentives and merit grading plan allowing for consistency between institutional and individual objectives (in terms of attitude)	Health personnel at all levels	Ongoing	US\$1,000.00	At Central Level (Technical-administrative level)	Secretariat of Health
Community participation for sustainability of the process and maintenance of communication system	Community leaders	Ongoing	US\$40,000 for three years, divided in decreasing percentages	Regional team and Maternal-Infant Department	Secretariat of Health and international organizations with programs in this area
Improve communications elements (referral system between health services and patients or between the various services) within the radio communication network	Service network at all levels	February to August	US\$50,000.00 for 120 facilities	Regional team and Maternal-Infant Department	International organizations with programs in this area
Define well the occupational profile of the guard and other support personnel and incorporate in the orientation and training process with respect to standards; ongoing supervision of guard and other support personnel in accordance with profile. Should be included in contracts in case of replacement of service	Guards and support personnel	February to August	US\$2,000.00	Regional team and Maternal-Infant Department and an NGO to conduct the training	Secretariat of Health and international organizations with programs in this area
Promote and strengthen community organization in which health personnel are included and participate in CODECO meetings; coordinate with NGOs to receive assistance in community organization (for transportation)	Health personnel, NGOs, community organizations	Start process in February to December	US\$30,000.00 for three years in equal percentages	Mayors' offices, NGOs such as Save the Children, PRODIM in R2, UNIR in R1, CADER, World Aid	Secretariat of Health and international organizations with programs in this area
Conduct a workshop with health personnel to review the study reports and select what foods women prefer to eat post partum with nutritional value for this stage in order to adapt the hospital diet. Review the intake of fluids in the labor stage, the design of the robe, preparation for care of natural childbirth, change of clip (the entire hospital policy); conduct exchange visits between the Comayagua hospital and the various AHCs, including a team of doctors, nurses and administrative personnel	Health personnel	February	US\$3,000.00	Maternal-Infant Department	Secretariat of Health and international organizations with programs in this area

## **V. CONCLUSIONS AND RECOMMENDATIONS**

## A. CONCLUSIONS

1. Health personnel perceive that there is ignorance at the community, family and health service level of the magnitude of the problem of neonatal morbidity and mortality caused by:

- Lack of interest on the part of some community leaders
- Lack of timely and consistent information
- Low educational level in the area of health among leaders and families
- Lack of political decision to prioritize newborn care in the services
- The perception among health personnel that partisan politics interferes in giving priority to effective actions

2. The lack of reliable and timely data is an obstacle not only to knowledge of the problems but also to the ability to evaluate the changes that are occurring. This is caused by:

- Under-reporting and inconsistency of data generated by the office of the National Registry of Persons (NRP) in comparison with the data generated and verified by health personnel.
- Bureaucratic procedures with complicated requirements for recording births and deaths, leading to a low assessment by the community of the cost-effectiveness, leading to community disinterest in fulfilling the requirements.
- Centralization of procedures in municipal seats, with the result that those most geographically or economically neglected are overlooked

3. Coordination between sectors and institutions and their ability to act in a coherent way in dealing with problems with newborns is hampered by:

- Compartmentalized perception of community leaders with respect to management of problems, considering, for example, that health problems are the sole responsibility of the Secretariat of Health
- Centralist and self-sufficient attitude of health services personnel who feel that they are the only ones with responsibility for action in dealing with health problems
- Lack of community organization to make it possible to coordinate the efforts being made by various public and private organizations with programs aimed at resolving specific problems that are nonetheless related to health

4. Community personnel who are well guided, supported and monitored represent a strategic resource, especially in those communities that have problems with geographic access. The midwife stands out in this group due to:

- Her natural leadership within the community
- Her being the first person families go to when seeking consultation or treatment for health problems related to pregnancy, childbirth, the post partum and newborns
- The important support she provides to health personnel in the process of convincing families to accept their recommendations
- Her commitment to and responsibility towards families in supporting them and accompanying them with their health problems.

5. The midwife plays a motivating role with respect to:

- prenatal check-ups
- administration of tetanus toxoid
- neonatal check-up and vaccination of baby
- identifying danger signs for the family and sounding the alarm when they appear

16. Spacing births is a measure identified by midwives and pregnant women for avoiding dangerous situations in pregnancy, delivery, post partum and in newborns. However, they are not clear regarding the period of time between births and pregnancies.

17. The behavioral profile when faced with danger signs, attending birth and the newborn, as well as the customs and beliefs regarding care, and the obstacles to and incentives for going to the health services are quite similar in the three Regions.

18. Sex discrimination against women is noted in various situations such as:

- greater appreciation for boy babies than for girl babies
- the mother is blamed for dangerous situations like prolonged childbirth (she isn't trying)
- final decision to go in emergency cases lies with the father
- mother's inability to manage income which would give her financial freedom when faced with emergencies
- lack of support in caring for the baby and in household chores
- physical and emotional violence directed toward the mother

## **B. RECOMMENDATIONS**

**B1. Design and implementation of communication plan directed to four audiences: community leaders, pregnant women and their families, midwives and health services personnel, including:**

### **1. For Community Leaders**

As part of the applicable Municipalities Law:

- promote active and informed participation of the community in the Open Councils
- strengthen the creation and sustainability of opportunities for dialogue, collaboration and development such as the Community Development Committees (CODECO)
- promote and develop the study of viable and feasible alternatives for transporting people in case of emergency

**Acquiring ability in:**

- seeking and channeling funding for construction
- fund management and financial and technical development sustainability of programs

### **2. For Midwives**

Design and implementation of midwife curricula including guidance on:

- cause-effect relationship in danger signs during pregnancy, childbirth and in the newborn
- strengthening prophylactic measures for clean delivery and handling of newborn
- filling gaps between traditional and formal medicine
- standardizing the idea of when childbirth begins
- including the father in caring for the baby

**Acquiring ability to:**

- recognize danger signs in timely fashion, and referral to health services
- handling premature babies and babies with low birth weight
- handling principal breast-feeding problems ("lowering of milk", cracked nipples, surplus milk)
- handling methods to achieve sufficient space between births for women

**3. For Families**

**Guidance and counseling in:**

- instruction to prepare for the time of childbirth including money, materials, response in case of emergency, and prior negotiation with the couple on decisions in case of emergency
- participation of man in preventive measures with respect to pregnancy, delivery and newborn care
- content on danger signs during pregnancy, childbirth and with the newborn and their relationship to beliefs
- information on the importance of prenatal checkups when there is pathological obstetrical history, with emphasis on risk due to short intervals between births

**Acquiring ability to:**

- recognize danger signs in pregnancy, childbirth and in newborn
- handle an adequate diet during pregnancy, the puerperium and with the newborn
- recognize when childbirth begins
- clean and care for the navel
- handle basic breast-feeding problems (positions, changes in suckling, techniques for pumping and storing milk)

**3. For the Health Services**

**Training and negotiation with health personnel with respect to:**

- prioritizing risks, for example, for first-time mothers
- prenatal education subjects
- so they understand and tolerate the population's customs and beliefs, relating them to the danger signs and value and respect those that are not harmful to the health of women and children
- improving how pregnant women and their families are treated, promoting warm and humane treatment
- negotiation on some hospital practices of concern to pregnant women such as:
  - designing a robe for delivery that provides more privacy
  - content of postpartum food provided in hospitals
  - change in the type of umbilical clips
- incorporating IMCI (integrated management of childhood illness)

**Acquiring ability to:**

- improve interactive communication with the community so that health personnel show understanding and respect for how the community identifies danger signs, whether or not they are associated with beliefs, and use appropriate strategies to promote cultural access and transform their practices. To appreciate the effort the community makes in order to go to the health services, taking into account the obstacles to access they must overcome and also handling the concerns of patients and their families regarding health conditions, treatment and procedures for the patient.

- recognize and handle emergencies during pregnancy, childbirth and with the newborn
- handle problems with breast-feeding.

**B2. Improvements in infrastructure and in access to health services and other government agencies:**

**Regulatory structure**

- Review and update the mechanisms used by the NRP so that its procedures are accessible to the community and its information can be used by localities in a timely manner.
- The regulatory and information infrastructure should be updated or developed to include newborn care as a priority
- Include work strategies and mechanisms regarding community beliefs and customs within health policy and standards
- Acceptance and assessment of referral and counter-referral
- Updating human resources training curricula in health in terms of handling emergencies with newborns
- Include the traditional medicine component in the curricula of all institutions training human resources in health in order to recover the community's knowledge in treating its health problems and in order to facilitate intervention in some of its practices and facilitate the required adaptation of the educational profile to the occupational profile in the extramural or intramural practice of community work
- Include other organizations and the community in order to resolve the problem of access

**Physical structure**

- Purchase of surgical equipment (monitors, doptone, ultrasound, X-ray, anaesthesia machine, surgical instruments)
- Purchase of materials and supplies
- Increase qualified medical and nursing personnel
- Expand emergency care coverage at the health center level
- Implement a communication network among health facilities to prevent rejections.

**B3. Promote future research**

- operational research on:
  - recognizing and handling danger signs
  - handling premature and low birth weight babies
  - changes in behavior for warmer treatment from health personnel
  - community organization
  - community responses to emergency situations (patient transport, supply of medications, support for single mothers)
  - empowerment of women and men
- qualitative research on intrauterine deaths during pregnancy and childbirth
- situational analysis of health services