

PD-ALH-113
ISN 883013

TRIP REPORT: GUATEMALA

APROFAM QUICHE BIRTHING CENTER PROJECT

May 13 - June 3, 1992

Susan Colgate Goldman
MotherCare/ACNM Consultant

This report was prepared for the
Agency for International Development
Contract # DPE 5966-Z-00-8083-00

TABLE OF CONTENTS

Acronyms	3
Acknowledgements	4
I. Executive Summary	5
II. Purpose of Visit	5
III. Background	6
IV. Trip Activities	8
V. Methodology and Approaches	10
VI. Results/Conclusions	11
VII. Recommendations	18
Appendices	22
Scope of Work	
Questionnaires	
Map of Quiche Department	
Trained TBAs Currently Registered in Quiche	
Maternal Mortality in Quiche	
Equipment Needed to Provide Integrated MCH Care (Including Intrapartum Care) at the Health Center	
List of Contacts	

ACRONYMS

ACNM	American College of Nurse-Midwives
AGOG	Asociacion Guatemalteca de Ginecologia y Obstetrica
AFROFAM	Asociacion Pro-Bienestar de la Familia de Guatemala
DIGESA	Direccion General de Servicio Agricola
IGSS	Instituto Guatemalteco de Seguridad Social
IPPF	International Planned Parenthood Federation
INCAP	Nutrition Institute for Central America and Panama
MCH	Maternal and Child Health
MOH	Ministry of Health
PVO	Private Voluntary Organization
TBA	Traditional Birth Attendant
USAID	United States Agency for International Development
UNICEF	United Nations International Children's Emergency Fund

ACKNOWLEDGEMENTS

The author is most grateful for the untiring and cheerful collaboration of Dr. Leticia Velasquez, without whose help it would not have been possible to advance this project so far. In addition, she would like to express her thanks to the many, many people who helped facilitate her work during this trip, in particular, to Dr. Roberto Santiso, Lic. Victor Hugo Fernandez, Dr. Jorge Lopez, and Sra. Sandra Salazar, all of APROFAM, and to Jayne Lyons of USAID Guatemala.

I. EXECUTIVE SUMMARY

ACNM/MotherCare consultant Susan Colgate Goldman CNM, PhD travelled to Guatemala for two and a half weeks from May 18 to June 3, 1992 to help staff of the local IPPF affiliate, APROFAM (Asociacion Pro-Bienestar de la Familia de Guatemala), assess the feasibility of establishing integrated maternal and child health (MCH) services, including intrapartum care, in APROFAM clinics. After a few days spent in Guatemala City familiarizing herself with APROFAM's administrative organization, policies and capability, the focus of the consultant's work was in the department of Quiche, where APROFAM would like to begin a pilot project to provide delivery care. She assessed the existing APROFAM clinic and program of community services, examined available data measuring the health status of the population of Quiche, observed the current Ministry of Health program, and helped APROFAM staff explore various options using traditional and modern resources to add delivery services to the existing range of MCH services offered by the Association.

Because of its mountainous topography, fiercely proud indigenous culture, and recent history of political conflict, most of Quiche remains extremely underdeveloped. For the vast majority of women, TBAs are and will remain the only option for intrapartum care. Medical personnel, community leaders, women, and TBAs themselves all agreed that the TBAs need better training and closer supervision, that the referral process needs to be improved (timely detection of complications, appropriateness of referrals, availability of transportation, adequate communication), and that secondary level care must be provided in a culturally acceptable manner. Working with APROFAM staff, and consulting with MOH personnel, the consultant explored various options to improve this situation. Final recommendations include strategies to integrate TBAs into the APROFAM service program, expand the range of services offered to include intrapartum care, adapt the services provided to make them more culturally acceptable, and reach out into underserved communities and populations. The many detailed recommendations are listed in section VII. They were discussed with all interested parties.

II. PURPOSE OF VISIT

The purpose of this trip was to help APROFAM staff explore various options to expand the provision of integrated maternal and child health services by using traditional and modern resources to improve care of mothers and babies before, during, and after birth. In many indigenous populations in Guatemala, high maternal and infant mortality rates interfere with family planning acceptance. APROFAM wishes to increase its acceptability in such communities by expanding the range of services it provides to reduce maternal and child mortality

during the perinatal period. The consultant was asked to help plan a pilot project incorporating intrapartum care for the underserved department of Quiche. A copy of the scope of work is included as Appendix A.

III. BACKGROUND

Childbearing exposes Guatemalan women to significant risks. The estimated maternal mortality rate is 10 to 14 per 10,000 live births, and the estimated infant mortality rate is 73.4 per 1,000 live births. These rates are higher among the Indian population and those living in rural areas; highest in the most isolated areas where access to medical care is minimal.

Hospital facilities have the capacity to provide maternity care for only 20% of Guatemalan women. The majority give birth at home assisted by traditional birth attendants. TEAs (estimated 20,000 total) attend 60% to 70% of all births. They also provide the majority of prenatal care, and are the main health care providers for most Guatemalan women.

In the department of Quiche, the recent years of violent political struggle, social unrest, and drug trafficking have taken their toll on the health care infrastructure, and on the health status of the population. In the late eighties, the climate of violence forced both APROFAM and the Ministry of Health to curtail their activities in Quiche. In rural areas (the majority of the department) the natural response of the indigenous Mayan population to the violence was a drawing together for self defense, and an intense mistrust of outsiders. Though the situation has improved in the last few years, the fear of violence has not completely abated, and attitudes of suspicion and defensiveness persist.

Health indicators reflect the heritage of violence, isolation, and lack of health services in Quiche department. Existing epidemiologic data depict the poor health status of Quiche residents, although under reporting of both births and deaths is estimated to be at least 50%. In Quiche life expectancy for males was only 44.24 years, and 54.18 years for females in 1984 (latest available estimates). The maternal mortality rate here is 14.9/10,000 live births. Individual municipalities have much higher rates; highest is San Pedro Jocopilas (pop. 26,512) with an official maternal mortality rate of 128.8/10,000 live births in 1991. (This is not a typo. There were 13 maternal deaths reported for 1009 live births last year.) Infant mortality was 46.57/1000 and neonatal mortality 14.73/1000 in 1991, but again certain underserved municipalities had much higher rates. Worst off was again San Pedro Jocopilas with reported infant mortality of 86.22/1000 and neonatal mortality of 36.67/1000.

It is estimated that between two and eight per cent of births are attended in hospital in Quiche. Most women deliver at home attended by TBAs and are only transferred to hospital in desperation when they are at death's door. Consequently, the maternal mortality in the Hospital Nacional Santa Elena in Santa Cruz del Quiche is also high: 47.2/10,000 live births in 1990. Cultural barriers between the mostly rural indigenous population and the medical staff have not been surmounted, and the hospital lacks sufficient space to care for normal deliveries. Most people associate the hospital with death.

In Quiche TBAs provide an essential health service to the community, since most women have no other option for delivery care. Private doctors practicing in the towns of Santa Cruz del Quiche and Chichicastenango serve only the wealthy segment of the urban population. The Ministry of Health acknowledges the importance of the TBAs' role and has an active TBA training program, but several factors have hampered its success. Training is done by graduate or auxiliary nurses who staff local health centers or health posts. These nurses generally have no obstetrical training or experience, and no training in how to use appropriate methodologies for training illiterate adults. In addition, most of them do not speak Quiche, while the TBAs speak only Quiche. Week-long training courses are supposed to be followed up by regular supervisory/support visits; however there is usually not enough staff or funds available for transportation to make these visits possible. Content of the MOH TBA training courses has included a wide range of topics such as hygiene, family planning, child survival, nutrition, etc., in addition to pregnancy and birth. Past training interventions have not been shown to have significant impact on mortality (they have generally not been evaluated) and they have done little to reduce the structural, cultural, linguistic, economic and emotional barriers which prevent most community members from having free access to the formal health care system. Perhaps because of the difficult working conditions which have prevailed there in recent years, some parts of Quiche now have no trained TBAs registered by the Ministry of Health, although an unknown number of untrained ones are practicing. Untrained midwives have no relationship at all with the modern health care system, and rarely make referrals.

APROFAM is a private, non-profit, Guatemalan service organization, founded in 1964, and devoted to the health and well-being of Guatemalan families. Its activities, traditionally focussed on family planning, have become increasingly diversified in recent years, and now include education for family life, responsible paternity, and sex education; community development services; and maternal and child health services, including child welfare clinics, gynecology, infertility, prenatal and postpartum care, and the establishment in 1991 of a birthing center in Guatemala City. With over 500 employees, and clinics,

community educators, and family planning promoters working throughout the country, APROFAM has labored steadily over the years to increase the number of family planning users and to improve the health of Guatemalan families.

Data recently collected by APROFAM's Evaluation and Statistics Unit indicate that the number of family planning users is not increasing, although the target level of coverage has not been reached yet. Further investigation showed that Guatemala's large rural, indigenous Mayan population has either been untouched by, or has not responded to APROFAM's existing programs. Recognition of these facts has led the APROFAM leadership to re-evaluate the goals and operation of the organization, and an attempt is now underway to redirect and re-organize APROFAM to make it more responsive to the needs of the majority indigenous Mayan population currently not being served. To this end a committee of workers representing all the country's major indigenous linguistic groups has been formed within APROFAM to advise on policy and program redirection. Clinic staff members working with indigenous populations are now being given local language training. Educational materials are being adapted and translated into indigenous languages. Administration is being reorganized to decentralize program operations, with the goals of greater responsiveness to local needs and increased efficiency. Recognizing that high maternal and infant mortality have interfered with family planning acceptance in rural areas, the organization is now exploring how to integrate intrapartum care into the services it already provides. The present consultancy was in response to APROFAM's request for help with design of a pilot project to provide intrapartum care in Quiche, hopefully to be later replicated in other areas of the country.

IV. TRIP ACTIVITIES

Trip activities were carried out to accomplish all specific tasks outlined in the scope of work. In Guatemala City, the consultant visited the APROFAM headquarters, studying its organization, its proposed reorganization, and how the various parts of its program operate. She briefed and debriefed the directors and interviewed the heads of the various relevant departments, and collected available data and statistics from them. She visited and observed the CEPAR (APROFAM's urban birth center), examined statistics on its operations to date (less than one year), interviewed its director and one of its obstetrical residents. She presented a list of equipment needed to provide integrated maternity care at the health center level to APROFAM's Director of Medical Services. They discussed the list in general terms, since the project design has not yet been finalized. A copy of this list is attached in the Appendix. She briefed and debriefed USAID.

In Guatemala City, the consultant and her APROFAM

counterpart, Dr. Leticia Velasquez, also interviewed the Chief of the Maternal Health Department in the Ministry of Health and the UNICEF nurse and doctor in charge of development of new TBA training materials to be used by the Ministry of Health. They also interviewed INCAP personnel about their experiences with TBA training in Quetzaltenango and Santa Maria Sacatepequez and their experiences setting up a rural health center-based delivery service where births are attended by doctors and TBAs in San Carlos Sija. They collected copies of existing TBA training materials from these various sources, and began analyzing them with an eye to adaptability for use in Quiche.

In the department of Quiche, the consultant and her counterpart, Dr. Velasquez, observed and evaluated the operation of the APROFAM family planning clinic in Santa Cruz del Quiche to assess the possibility of integrating maternity care into its functions. They interviewed the clinic director, consulting pediatrician, nurses, family planning counsellor, educators, secretary, and one family planning promoter. They interviewed the Ministry of Health's Regional Chief, Regional Nurse (in charge of TAB training program), Area Chief (Epidemiologist), District Chief (in charge of Health Center at Santa Cruz del Quiche). They visited and toured the Hospital Nacional Santa Elena (the departmental hospital located in Santa Cruz del Quiche) and interviewed the Hospital Director, the Chief of Obstetrics, the Director of the Blood Bank, and the hospital Social Worker. They saw, but could not get into, the newly built government hospital, which has not yet opened. Wherever possible, they collected existing statistical data to corroborate their impressions and the statements made by people they interviewed. They shared experiences and gathered preliminary impressions from the six members of the APROFAM survey team which was then in its third week of collecting data for a baseline study of Quiche reproductive health and family planning behavior. Many of the six had also worked on the recent investigation of Quiche sexual behavior and acceptance of family planning, and shared valuable insights.

Working together, Dr. Goldman and Dr. Velasquez created three questionnaires which APROFAM can use to interview community leaders, TBAs, and women about their preferences for maternity care, their attitudes, and past experiences with childbirth, and related information. The two then pretested each questionnaire to validate its usefulness and appropriateness. They tried out the community leaders' questionnaire by interviewing the mayor of Patzite; they pretested the women's questionnaire with a group of sixteen rural women in Chuamarcel in Patzite; and they tested out the TBAs' questionnaire by interviewing a rural TBA in Chuamarcel. Following these experiences, they analyzed the preliminary data collected and modified the questionnaires slightly as indicated. Copies of these draft questionnaires are included in the Appendix.

Dr. Goldman and her counterpart conversed with many other people (TBAs, medical personnel, lay people) during the course of their week in Quiche, informally gathering feedback about APROFAM's reputation in the area and about indigenous people's attitudes toward traditional and modern sources of health care. They got around town on foot and outside of town used public transportation, getting a firsthand impression of accessibility. They briefed and debriefed thoroughly with Dr. Lopez, head of the local APROFAM clinic, and with the local MOH officials.

V. METHODOLOGY AND APPROACHES

Several different methods were used to collect the largest amount of background data and to come up with the most realistic and workable proposals. To assess the experience, attitudes, and capability of APROFAM, the consultant interviewed and observed APROFAM administrators, clinical and field staff. She reviewed documentation, statistics, and records supplied by APROFAM. She questioned clients, community members, and officials of the Ministry of Health and PVOs about APROFAM's reputation and past service delivery. To determine the clinic's accessibility, both to clients and to necessary support services, she interviewed clients, clinic staff, and providers of support services, and visited supporting agencies, observed functioning of transportation system, and visited some surrounding rural areas.

To assess community members' preferences for health service delivery and APROFAM acceptability, Dr. Goldman and her counterpart developed and pretested three questionnaires -- for interviewing community leaders, women, and TBAs. Since it was readily apparent that a new mix of traditional and modern elements would be required to make maternity services acceptable to the indigenous population, they used mostly open-ended questions to explore attitudes and elicit preferences. To interview the rural women, the women's questionnaire was translated into Quiche by Dr. Velasquez. The team pretested the TBA and community leader questionnaires in Spanish; however it would be better to translate them into Quiche to get more reliable data.

To assess the health situation in Quiche, Dr. Goldman reviewed all available epidemiological data, and interviewed local and national health authorities, AID and UNICEF staff, community members, leaders, and TBAs. She also visited urban and rural communities in Quiche to make her own observations.

In searching for ways to make the proposed maternity care services financially self sufficient, the consultant reviewed existing literature on models of maternity care delivery in similar communities, and interviewed persons involved with maternity care programs, particularly those using TBAs, in other

parts of Guatemala. She studied the fee structure in the APROFAM clinic and the hospital in Quiche, collected data on annual income of the population of Quiche, and interviewed TBAs and community members about their financial means and how much they currently pay and would be willing to pay for maternity services provided by TBAs.

The consultant did not work alone to generate the proposals outlined in this report. They are the result of two and a half weeks of creative brainstorming and reality testing with APROFAM staff, and of consultations with the Ministry of Health, UNICEF, AID, and other professionals working in maternal health in Guatemala. The process has been a stimulating and fruitful one, and as a result, APROFAM leaders have reached a degree of consensus about what to do next.

VI. RESULTS/CONCLUSIONS

All objectives and specific tasks listed in the scope of work were accomplished during this short consultancy, thanks to the willing collaboration of everyone involved.

Development of improved and more accessible maternity care in Quiche suits the priorities of APROFAM, the Ministry of Health, and the indigenous population, albeit for different reasons. For the Mayan Indian inhabitants of this area, reproduction is a top priority, since many feel that they have been the victims of a genocidal war, or at least victims of a punitive policy of neglect causing high maternal and child mortality. From the Ministry of Health point of view, the dismal MCH statistics in the Quiche are an embarrassment. The violence caused by the undeclared civil war has made it nearly impossible for government health programs to work in Quiche, and the Ministry welcomes the assistance of whatever agency may be willing to help reduce maternal and infant mortality.

APROFAM evaluations have recently shown that acceptance of family planning has been very low among the indigenous population, and research in Quiche has highlighted the high priority the Quiche people accord reproduction. Since integrating maternal and child health services into family planning clinics has boosted family planning acceptance rates in other parts of the country, it seems natural to try it here. To date, APROFAM's only experience offering intrapartum care has been in their birth center in Guatemala City, where deliveries are attended by doctors in a hospital-like environment at a cost well beyond the means of most people. The organization wishes to develop a model of culturally acceptable integrated MCH care, including intrapartum care, at an affordable cost to meet the needs of the indigenous population. Quiche, with its mainly indigenous population, high maternal and infant mortality rates,

low acceptance of family planning, and few health care facilities, has been selected as the ideal location to pilot test such a model.

Exploratory investigation during this consultancy revealed that APROFAM has received some bad publicity in Quiche in the past. The teachings of some local churches have equated APROFAM's efforts with the forces of evil (Maximon); family planning has been equated with abortion and described as murdering children; and APROFAM has been seen by members of the Mayan resistance as an agent of the government's punitive (or genocidal) policy. Although local churches are very powerful because of their success combining ancient Mayan ritual and theology with Christianity, people weigh religious instruction critically, aware of their own best interests. Our preliminary findings indicate that people are aware that their maternal and perinatal mortality rates are unnecessarily high, and that they would welcome any intervention designed to reduce this mortality, even from APROFAM. People interviewed by the consultant generally recognized that APROFAM is changing and now attempting to make its programs more responsive to the needs and desires of the indigenous population.

Preliminary investigation during this consultancy suggests that many women are not entirely satisfied with the care they now receive from TBAs. They complained that many of the TBAs are too old, and are unable to meet their needs appropriately because of failing vision, deafness, or antiquated ideas. The women we interviewed did not share the older TBAs' belief that prolonged labor is caused by moral transgression; they did not enjoy TBAs insulting and castigating them to elicit a confession during labor; and they did not share the belief that punishment would help speed the process of parturition. Women complained that TBAs do too many vaginal exams during labor; that they rupture the amniotic membranes prematurely; that they exhaust their patients by making them push during the first stage of labor; that they use undesired oxytocic injections during labor; that they pull too hard on the umbilical cord or insert their hands into the uterus when attempting to deliver the placenta; that they force women to eat extremely spicy foods or to take unbearably hot temaskals; and finally that they do not refer their clients for medical attention when complications arise.

During this brief trip to Quiche, the consultant and her counterpart Dr. Velasquez had time to meet only three practicing TBAs. These three represented an interesting, perhaps representative, spectrum. The first was an older woman, trained by the MOH, and practicing courageously in the isolated rural community where she is the only source of obstetrical care. She spoke of the difficulty of going out at night to attend laboring women because of the civil unrest and fear of violence in the neighborhood; her MOH-issued midwifery kit had been confiscated

and destroyed by soldiers who raided her home. She was illiterate and her skills needed upgrading. The training courses she had attended were taught in Spanish. It was clear that she would learn more if Quiche was the language of instruction.

The second TBA we talked to was a warm and energetic woman, about 35 years old, who would very much like to receive training. She became a midwife unexpectedly a few years ago when a friend whom she happened to be visiting delivered precipitously and she successfully caught the baby. She is now frequently called to attend births although she has never been trained for this role. The third TBA we visited, an older woman, was too drunk to converse with us, although it was the middle of the day. Alcohol abuse is a problem among some of the older TBAs.

The customary fee paid to a TBA for delivery in a rural area is now about Q.20-25 (US \$4-5), although it may be as low as Q.5 (US \$1) or as high as Q.40 (US \$8) for delivery of a boy. TBAs in town were reported to charge Q.50-100 (US \$10-20). The private medical practitioners in town serve mainly the urban Ladino population and charge Q.200-500 (US \$40-100) for delivery. This is well beyond the means of the rural poor. TBAs' prenatal and postpartum visits (which include newborn baths) cost Q.1-2 (US \$.20-.40) each, plus the family must feed the TBA lunch when she makes her visit. At the APROFAM clinic in Santa Cruz del Quiche, the charge for a clinic visit is Q.1.50 (US \$.30). Care in the government hospital and health centers is free.

The extreme poverty of the indigenous population of Quiche makes the question of financial self-sufficiency a difficult one. Although people may be willing to pay more for better quality care, they probably will not be able to pay much more. Smallholder farms are the main source of income and very few people work in salaried jobs. The fighting in the area has devastated the local economy and left many households headed by young widows with young children. The most recent available income data, from 1986-87, reported that per capita annual income in Quiche was Q.414 (about US \$83). It is unlikely that the poor rural population of Quiche will be able to pay for the full cost of high quality maternity care in the near future; at this time some external assistance or cross-subsidization from APROFAM activities in wealthier areas is required. The proposed project is designed to provide maternity care at the lowest possible cost by utilizing TBAs to attend normal deliveries in a non-medicalized setting; only those women who actually require medical management should come into contact with a doctor or hospital. Local community organizations and leaders appear willing to make in kind contributions. Possibilities include such things as land, buildings, fuel for ambulance evacuations, organizing volunteer construction crews, etc.

The APROFAM clinic in Santa Cruz del Quiche currently

provides prenatal, postpartum, gynecology, and well child care, as well as a full range of family planning services, in its central, in town location. The facility is clean, well organized, efficiently run, and somewhat under utilized. Clinical services are provided here by a capable, cheerful team of one gynecologist, two nurse clinicians (one "graduada" and one "auxiliar"), and a part time pediatrician. A family planning counsellor counsels patients in the clinic, and a clinic educator provides family planning education in the clinic. The clinic educator and two or three community educators (one position is presently vacant) supervise the education and distribution activities of about 93 volunteer family planning promoters based in communities throughout the department. None of the clinical staff are Quiche natives, though all members of the team are attending Quiche language classes provided by APROFAM three times a week. The two nurses have no obstetrical experience or midwifery training. The physical space is not large enough to incorporate maternity care (labor, delivery and postpartum units) into its present operation. Although the operating room is well equipped, it is only used on Thursdays when the anesthetist is in attendance. The clinic facility is also not suitable for emergency surgery (such as Caesarean sections) because there is no 24 hour nursing coverage nor space for prolonged postoperative recovery.

The APROFAM clinic staff members were all enthusiastic about the proposed service expansion to include full scope maternity care. All health professionals working in the area recognize the important problem of maternal mortality. They are also aware that cultural differences prevent the indigenous population from fully utilizing their services. They are applying themselves to their study of the Quiche language, and they are open to trying new approaches designed to better meet the cultural needs of their clients.

At the present time the national APROFAM organization is in the process of transforming its general administrative structure into a decentralized one. The country will be divided into five or six regions, each with its own regional director and administrative services. In the new structure, budgetary, personnel, programmatic, and operations decisions will be made at the regional level, not in the central headquarters as is presently the case. It is hoped that this reorganization will allow APROFAM to better respond to the needs of currently underserved indigenous populations in rural areas. To make the institution's programs more culturally appropriate and acceptable to the indigenous population, a committee of indigenous workers representing all major linguistic groups within APROFAM has been formed to advise on policy and program matters. It is important that this committee's recommendations be listened to.

The government hospital, the Hospital Nacional Santa Elena, located in Santa Cruz del Quiche, is a 135 bed general hospital which serves as the only referral center for secondary level care in the department of Quiche (estimated population in 1992 = 593,157; 42.5% child-bearing age). Twenty-five of the hospital beds are devoted to maternity: six for laboring patients, six for postpartum, six for septic cases, four for abortions, three for post-operative recovery. There is no newborn nursery because newborns are never separated from their mothers; exclusive breast feeding is the standard practice. There is a small premature nursery (two or three incubators), however it was empty at the time of the consultant's visit, and people rarely bring preemies to the hospital. Because the indigenous women are of short stature and usually deliver small babies, the hospital staff only consider a newborn to be low birth weight if it weighs less than 4 pounds. The hospital maternity service does not intend to handle normal births; they expect these to be managed at home by TBAs.

Because the linguistic and cultural gap between hospital staff and the surrounding indigenous population is very wide, the hospital is not heavily utilized. On the day the consultant visited, only 65 of the 135 hospital beds were occupied; in the maternity service only 10 of the 25 beds were occupied, all by complicated cases (eclamptics, breech deliveries, ruptured uterus, incomplete abortion, etc.) There are no private or semi-private rooms in the maternity service. All the beds are in crowded wards, and the one delivery room accommodates three delivery tables. Although the attending staff would like to allow family members to stay with laboring or hospitalized women, the physical setup is not conducive to family-centered care. Because of their tradition of extreme modesty, Mayan women cannot tolerate the presence of any man except their husband when they are in labor or during delivery. The result is that husbands and family members are usually not permitted to accompany women giving birth. A new, larger government hospital is being constructed on the outskirts of town, although its opening has not yet been planned because of lack of funds to equip and staff it. This facility, although larger, was not designed to provide family-centered care, and it also lacks private or semi-private rooms which might accommodate the presence of families.

In the hospital all support services are available 24 hours a day. There are only two anesthesiologists on the staff, and at the time of the consultant's visit one of them was on sick leave. At night and on weekends they take call at home, and sometimes they are hard to locate. Fortunately, there are enough other medical personnel on the staff who can administer anesthesia for emergencies. Radiology, laboratory and blood bank services are available at all times. The blood bank was opened in January of 1992 and is supported and managed by a committee of the women's hospital auxiliary. If a patient needing transfusion can supply

donors to give two units of blood, he will receive his blood for free. Otherwise hospital patients are charged Q.75 (US \$15) per unit of blood. Indigent patients can receive free blood. Private doctors' patients outside the hospital are charged Q.150 (US \$30) per unit of blood. All blood is tested for HIV, Hgb, and VDRL, typed and crossmatched. So far none has tested HIV positive. Testing for hepatitis will hopefully be added in June, 1992.

Communications in Santa Cruz del Quiche and Chichicastenango are good. The telephones work, lines are available, and domestic and international calls can be dialed directly. Telegraph and fax service is available. Outside of these two towns, communications are harder to come by. Most municipalities have no telephones. The consultant was not able to investigate the military communications network and the possibility of using it for civilian communication in case of emergency.

The road network linking Santa Cruz del Quiche with the twenty-one municipal capitals of Quiche department is mostly unpaved and passes through some extremely mountainous terrain. One municipality is so isolated that it is easier to reach from Coban than from Santa Cruz, so that the Ministry of Health has included it in the Health Area of Alta Verapaz, not Quiche. During the rainy season some of the roads are hard to negotiate without four wheel drive, and most municipalities have no gas station.

In Quiche there are 3 type A health centers -- in Joyabaj, Nebaj, and Uspantan -- each of which is well equipped, staffed with a doctor and a graduate nurse, and has thirty beds. There are 13 type B health centers (staffed only by a graduate nurse, no beds for hospitalization), and 48 health posts (staffed by an auxiliary nurse).

In the town of Santa Cruz del Quiche there is an IGSS health care facility which offers outpatient services and 18 hospital beds, including maternity beds, to workers registered with the social security system. In the town several private doctors and two ladino nurses attend deliveries of private patients either in clinics or in the patients' homes. Military doctors provide care for army personnel in military installations. The MOH lists 20 different PVOs providing various health-related services in the department. The indigenous population also receives care from an unknown number of traditional healers ("curanderos"), many of whom are also priests in the ancient Mayan religion. In towns as well as rural areas where modern style medical is rare, these traditional practitioners play an important role. They skillfully combine herbal treatments and ceremonial rituals to simultaneously satisfy physical and emotional needs.

Most maternity care is provided in the community by

traditional birth attendants. The Ministry of Health has been training TBAs since 1974, and currently has 717 active trained TBAs registered throughout the department. Another 1030 have been trained but are not now practicing, and an unknown number of untrained ones ("empiricas") are in practice. The registered TBAs were trained by their local health center or health post nurses, who are also supposed to be supervising them, however budgetary constraints limit the amount of supervision actually given. The registered TBAs supposedly receive an annual three day refresher course, annual examinations for tuberculosis and venereal diseases, and treatment if indicated. Trained TBAs receive a basic midwifery kit from the Ministry. TBA training content includes the following nine units:

- 1 - TBA role and responsibilities
- 2 - Beneficial, neutral, and harmful traditional customs surrounding childbirth and newborn care
- 3 - Hygiene
- 4 - Care and use of equipment in the midwifery kit
- 5 - Sex education, anatomy and physiology of pregnancy, prenatal care, risk factors and referrals
- 6 - Delivery management, immediate management and assessment of the newborn, referrals, and birth registration
- 7 - Postpartum and newborn management, family planning
- 8 - Infant care and feeding, immunizations, etc.
- 9 - Prenatal and postpartum nutrition, lactation, weaning.

The Ministry of Health usually gives the TBAs a stipend of Q.5-10 (US \$1-2) per day or an allowance of CARE food products for attending a training course. When funds or food products are not available as incentives, it has been hard to get TBAs to attend. As mentioned above, the nurse-trainers and the TBAs often do not share a common language; most nurse-trainers have no clinical midwifery experience; and the nurse-trainers are not trained to use appropriate participatory methodologies to teach illiterate adults. UNICEF has been trying to address the last problem by developing more appropriate teaching materials and training-of-trainer courses in Guatemala. A UNICEF-MOH pilot TBA training project is planned for the Quiche region in the near future.

In Quiche perhaps the most important barrier to improved community health is the deep cultural divide between the indigenous population and the mostly ladino health care personnel. The indigenous people are generally alienated from the health care system. They usually prefer not to utilize available facilities which provide care in a way that is culturally inappropriate, if not downright offensive and unacceptable. Medical staff, though well intentioned, usually do not speak Quiche well enough to communicate adequately with their

patient population. Their training has not prepared them to provide culturally sensitive care, and the institutions they work in plunge Quiche patients into cultural isolation -- deeply distressing because of Mayan traditional beliefs which associate illness with punishment for moral transgressions, and the need for expiation of sins.

Nowhere is the culture conflict more apparent than in the area of maternity care. In any culture, the process of becoming a mother requires a woman to complete certain social and emotional tasks as well as the physiologic tasks of labor and delivery. In Quiche, accomplishing these tasks requires interaction with husband, family, and a culturally appropriate TBA, yet health care establishments usually isolate women completely from their family and cultural context. Medical personnel universally recognized the disadvantages of the prone and lithotomy positions, yet they expressed confusion and bewilderment about how to manage births in the more physiologic positions spontaneously assumed by Mayan women for delivery. In Quiche a woman giving birth usually kneels or squats on the floor, perhaps leaning forward to support herself on the edge of her bed. Since Mayan women are extremely modest, and traditionally do not disrobe in front of anyone, even their husbands, the TBAs are accustomed to assisting births "blindly" from behind with their hands under the women's wide skirts. Doctors need to learn this skill if they are to provide culturally acceptable care. TBAs agreed that perineal lacerations almost never occur when women give birth this way, and it is known that the squatting or kneeling position stretches the pelvic outlet to its widest possible diameter.

In summary, three major points emerged from this investigation. First, maternal and neonatal mortality are high priority problems for Quiche residents, and they are eager for any intervention which will improve survival rates. Second, cultural factors are of utmost importance for the indigenous population of Quiche. Any intervention which does not respect traditional cultural practices will be doomed to fail. The referral process must be culturally friendly or else it will not function. Third, TBAs should remain the cornerstone of maternity care for this population, but their training and supervision must be improved so that they can be better integrated into the maternity care system.

VII. RECOMMENDATIONS

1. AID should support APROFAM's efforts to design and implement an integrated MCH service project which includes intrapartum care.

2. The focus of the maternity care program should be on integration of TBAs into the APROFAM MCH care system. The

proposed model is an APROFAM maternal and child health care center located on the outskirts of Santa Cruz del Quiche in the vicinity of the new government hospital. This center would serve several functions:

- a full service MCH center which offers all services, including maternity care, family planning, and children's services in one location;
- a culturally appropriate birth center where families can enjoy normal births attended by TBAs in their traditional manner but with the added safety of hospital proximity, screening for high risk conditions, and immediate access to consultation with a doctor or nurse trained in midwifery skills;
- a waiting home (casa de espera) to which rural TBAs can refer high risk women in late pregnancy so that they can be close to the hospital when their labor starts;
- a TBA training center where group discussions can be directly related to the clinical practice of TBAs delivering patients in a home-like environment in the maternity center;
- a center for culturally appropriate health education and leadership in community health promotion projects.

3. TBA training should focus on interventions which will specifically reduce mortality of mothers and babies. It should include plenty of supervised clinical practice. Teaching methodology should be participatory, and adapted to the learning needs of the illiterate TBAs. The language of instruction should be Quiche.

4. APROFAM should work with local leaders organized into a community health or development committee to inform the community and mobilize support for the project. If no such committee exists, organize one. Good communication and active, organized community support are essential.

5. All staff hired to work in the integrated maternity care project should be Quiche speakers. Whenever possible, clinical staff (nurses, doctors) should be female.

6. The Quiche region must become part of APROFAM's new decentralized administrative structure prior to implementation of this project. Flexibility to adapt to local conditions requires local authority to make decisions.

7. Provide an experienced administrator to manage the administrative aspects of the project. The project's technical director will have her hands full with TBA training and

supervision, management of obstetrical problems, community relations, and coordination between different elements of the program.

8. APROFAM should translate the three questionnaires developed during this consultancy into Quiche. Use them to query community leaders, women, and TBAs in the proposed project area about their preferences for maternity care, willingness to collaborate, ability to pay, etc. Use this data, along with data now being collected in the APROFAM Quiche baseline survey, as the basis for program planning. A female native Quiche speaker, preferably Dr. Velasquez, should do the interviewing. Provide this person with a car so that she can get the input of the rural population.

9. Send the project head to participate in the upcoming UNICEF TBA training workshop to be held in Chichicastenango June 22 - 26th. Send her to visit and learn from other rural birth center and TBA projects in Guatemala (INCAP project in Quetzaltenango; MOH/INCAP birth center in San Carlos Sija; former INCAP project in Santa Maria Sacatepequez; Evangelical church's Clinica Mam in San Juan Ostuncalco; Project Concern International in Santiago Atitlan; Universidad Francisco Marroquin birth center in San Juan Sacatepequez; TBA program run by Catholic nuns in Jacatenango; Centro de Salud de Cabanas in Zacapa; UNICEF TBA program under Dr. Gustavo Aldes in Huehuetenango; and other groups training TBAs in Quiche: SECAM, Alianza para el Desarrollo, Ninos Refugiados del Mundo).

10. AID should finance a forum for doctors and nurses to share their experiences working with TBAs in Guatemala. At present there is a wealth of diverse experience scattered about the country (see #9 above), but the various professionals involved in this field are mostly working on a small scale and in isolated locations where they are experimenting with practical ways to meet the needs of underserved populations. The Maternal Health Department of the Ministry of Health has been talking about getting these people together for a long time, and AGOG has also expressed interest in organizing a meeting to share local experiences working with TBAs. Ideally such a conference would also include site visits to see the most innovative programs in action.

11. Provide Guatemalan doctors and nurses with training materials in Spanish which demonstrate mechanisms and management of second stage of labor when the parturient is in a kneeling, squatting, or hands and knees position with the birth attendant assisting from behind. Written materials would be helpful if clear, step by step diagrams were included, but many doctors specifically requested a video. If such materials do not presently exist, MotherCare should produce them.

12. Provide the obstetrical service at the Hospital Nacional Santa Elena in Santa Cruz del Quiche with a teaching video which demonstrates how to manage labor and delivery in a regular bed without the use of stirrups and lithotomy position, as specifically requested by Dr. Gil, Chief of Ob/Gyn.

13. The maternity center, waiting home, and outpatient family planning/MCH clinic should all be in one location, but under separate roofs. The child care clinic should see sick children in addition to providing well child services, and the maternity patients need to be separated to avoid exposing pregnant women and neonates to childhood illnesses.

14. The maternity waiting home should be built as a cluster of traditional style houses, each designed to insure privacy by housing one woman and her attendant family members during late pregnancy, labor, delivery and the immediate postpartum period. Each family unit should have its own hearth or traditional style stove.

15. Contain operating costs by allowing each family maximum independence. Patient families should supply and prepare their own food, procure their own firewood, supply their own bedding, and do their own laundry. Provide adequate space for patients to do laundry.

16. Maintain good environmental sanitation by ensuring that patients and their families have free access to clean water, latrines, and an adequate rubbish disposal facility. Teach clients how and why to use these facilities if they do not already know.

17. Make the maternity center culturally friendly by including such elements as a temaskal in addition to a shower, and a medicinal garden to supply the TBAs with herbs they may wish to prescribe for their patients. Make sure that there is a safe place for children to play which is separate from the sick children's waiting area. Provide grinding stones so that families can grind their own corn in the traditional way without incurring an additional expense.

18. At a later stage, plan to open outreach integrated MCH/FP clinics which offer intrapartum care in areas which have high maternal mortality but are not blessed with a type A health center (San Pedro Jocopilas, Cotzal, Chicaman, and San Andreas Sajcabaja). San Pedro Jocopilas should be the first priority because it has the highest mortality despite its relative proximity (only 8 km) to Santa Cruz del Quiche and the government hospital.

APPENDICES

**SCOPE OF WORK
SUSAN COLGATE GOLDMAN**

BACKGROUND

The majority of women in Guatemala continue to give birth at home. However, statistics indicate that many women are opting for hospital deliveries. APROFAM, the Guatemala affiliate of the International Planned Parenthood Federation, has opened its first Birthing Center in Guatemala City in response to the increasing demand for hospital deliveries. The Birthing Center offers a non-hospital delivery alternative for women judged to be at low risk of intrapartum complication.

Both APROFAM and USAID/Guatemala have submitted requests to MotherCare for technical assistance in introducing a more family oriented birthing center. In February, 1992, Dr. Peg Marshall, MotherCare/ACNM consultant met with Dr. Roberto Santiso, Executive Director, APROFAM, to discuss APROFAM's technical assistance needs to establish an integrated maternity service. Initially, it was expected that this maternity service would function in an urban setting, however, as a result of Dr. Marshall's visit, a peri-urban setting has been selected.

APROFAM has a health center located in Santa Cruz, Quiche State which is located outside of Guatemala City. The consultant will spend the first week in Guatemala City meeting with APROFAM staff in Guatemala and visiting the birthing center. The consultant will then continue to Santa Cruz to study the feasibility of establishing an integrated maternity center in the area.

The purpose of this consultancy is to assist APROFAM staff explore various options which will improve the provision of integrated maternal and child health services by using traditional and modern resources and personnel. Phase I of this activity will be carried out under this consultancy and will help determine the feasibility of establishing integrated maternal and child health services in APROFAM clinics. This consultancy will focus primarily on the APROFAM clinic in Santa Cruz.

SPECIFIC TASKS

1. Review existing literature and/or conduct interviews by phone to obtain information on models of integrated maternity services utilizing traditional (TBAs & healers) and modern health services with emphasis on how to make services acceptable to the community and self supporting. This review would include models of how such programs are financed with a view to self sufficiency.
2. Brief and debrief with APROFAM and USAID staff.
3. Review existing statistics grading the health condition of the residents of Quiche State (department) which APROFAM has collected. The data should include, but not be limited to, the number of registered TBAs, number of trained TBAs, and other traditional and

modern healers in the area. What is the content of the TBA training - clean birth, PHC, EPI, promotion of FP, promotion of sex education, other? What private practitioners are working in the area and what services are offered?

4. Explore the reputation of APROFAM in the community and if the community will accept APROFAM expanding its services in the area of maternity care.
5. Observe and evaluate the APROFAM clinic which is providing family planning services in Santa Cruz City, Quiche State. The physical capacity and human resources of the clinic will be evaluated including skills personnel may have, but are not currently using (e.g. delivery experience).
6. Determine the accessibility of the clinic to people APROFAM wishes to serve. (How accessible is transportation, communication, access to blood bank, anesthesia, x-ray, surgery, other necessary infrastructure).
7. Develop a questionnaire which APROFAM can use to query community leaders and women regarding their preference for health service delivery: hours offered, location, types of services included, and who should provide the services. What are the necessary elements for a happy and safe delivery in the home and in the health center/maternity clinic? How much are people able and willing to pay for their care. Would another model of care be more acceptable such as a birthing hut to be used by one or multiple TBAs? Are there other more acceptable models?
8. Develop a list of equipment that would be necessary to provide integrated maternity care, including delivery, at the health center and as an outreach home delivery service from the health center.
9. Interview the health center personnel (Chief of the clinic, social workers, educators) regarding their ideas, and attitudes towards adding integrated maternity services into their current structure.
10. Present findings to the health center, MOH, APROFAM, and USAID staff prior to leaving Guatemala.

PRODUCT

The consultant will be conducting a small feasibility study while at the same time making recommendations for the development and design of an integrated maternity service. Five days have been requested for the consultant to complete a technical report based on the findings of this consultancy. The report will outline the feasibility of integrating maternity services into the APROFAM clinic and will include a recommended design of an integrated maternity service.

Quiche Maternity Care Preferences
Women's Questionnaire

Date: _____ Place: _____
Name of woman or women's group: _____

If a group, how many in group: _____
If an individual, age: _____ Number of children living: _____
Name of interviewer: _____ deceased: _____

How would you like to be cared for during your pregnancies and births?

Who should provide prenatal care? _____ Why? _____

Who should attend your births? _____ Why? _____

At what times should prenatal or postpartum clinics be offered?
Why? _____

Where would you like prenatal/postpartum clinics to be held?
Why? _____

What kind of care do you need during pregnancy? _____ Why? _____

What kind of care do you need during labor and delivery? _____ Why? _____

What kind of care do you need after giving birth? _____ Why? _____

What kind of care does a newborn need? _____ Why? _____

What factors determine whether a birth at home will be safe? Why? _____

What factors determine whether a home birth will be a happy one?
Why? _____

What factors determine whether a hospital or health center birth
will be safe? Why? _____

What factors determine whether a hospital or health center birth will be a happy one? Why?

How much do you pay a TBA for attending a birth?
for prenatal care?
for postpartum care?
for newborn care?

What services are included for these fees?

How much are you willing to pay for better maternity services?
(Define what you mean and are willing to pay more for.)

Which of these TBA services are important to you during labor and delivery?

- traditional position for delivery (kneeling, squatting, other?)
- place of delivery (at home, in a certain room?)
- abdominal massage
- temaskal
- herbal bath
- traditional medicines
- food, hot drinks
- binding of abdomen after delivery
- management of the placenta
- washing of personal clothing

How old do you think a TBA should be? Why?

What other characteristics are important in a TBA? Why?

What do you think of the idea of a waiting home near the hospital?

What do you think a waiting home should be like?

What do you think of the idea of a birth center?

What do you think a birth center should be like?

Are there any traditional TBA practices which you don't like? Why?

Do you go for prenatal checkups? If so, why?

Do you think prenatal care is important? Why?

Does a TBA give you prenatal care?
If so, how is her prenatal care different from a doctor's?

Why do women not like to deliver in the hospital or to go to the hospital?

If you were referred to the hospital for complications, what would you want the hospital care to be like?

How do you feel about being referred to a male doctor in case of complications?

Are there couples in this community who have had trouble trying to have children?

If so, what did they do to try to solve their infertility problem?

What do you think about APROFAM?

Other comments:

**Quiche Maternity Care Preferences
TBA's Questionnaire**

Date: _____ Place: _____

Name of TBA: _____

Name of interviewer: _____

How long have you been a TBA?

Why did you become a TBA?

How did you become a TBA?

Who taught you how to attend deliveries and care for women?

What services do you give to:

- pregnant women?

- laboring women?

- women giving birth?

- women after delivery?

- newborns?

How much do you charge for the various services you give?

Do you ever have trouble getting paid? (If so, describe)

What problems do you have providing services to women and babies?

Have you ever attended a training course?

If so, when?

where?

taught by whom?

How did you like the teaching methodology used? Why?

How did you like the content of the course? Why?

What other content would you like to have covered in a training course?

Was there followup provided after the course?

If so, describe (How often, by whom, where, how?)

Why did you attend the training course?

Where would you like to have training courses given?

Who should teach TBA training courses?

In what language?

What do you think of APROFAM?

What do you think of the idea of a waiting home near the hospital, run by APROFAM?

What do you think of a birth center run by APROFAM?

In your obstetric experience, have you ever run into complications? (Describe)

In case of complications, what has been your experience referring patients to the hospital? (Were they well received, appropriately treated?)

How do you see the younger generations -- are there younger women interested in becoming TBAs?

Do you know women who attend deliveries, but are not trained?

How do you feel about the Ministry of Health requirements to be registered as a TBA -- ID card with photo, carnet, etc.?

Other comments:

**Quiche Maternity Care Preferences
Community Leader's Questionnaire**

Date: _____ Place: _____
Name of community leader: _____
Position in the community: _____
Name of interviewer: _____

Do you know the TBAs in your community?

Are there enough TBAs in your community? Too many?

Are community members satisfied with TBA services?

Do you know of cases of complications during pregnancy, birth, or the postpartum period in your community?

Do you know of cases of complications of newborns in your community?

Have there been any deaths of mothers during pregnancy, delivery or the postpartum period in this community in recent years? If so, describe.

Have there been any deaths of newborns in this community in recent years? If so, describe.

What are the necessary elements for a safe birth?

What are the necessary elements for a happy birth?

What would you think of a waiting home run by APROFAM near the hospital?

What would you think of a birth center run by APROFAM?

How could your community support such a project?

How could you support such a project?

What is available in the way of transport for emergencies?

How much can people in this community pay for delivery care?

Do you know untrained women who attend deliveries who would like to be trained?

Do you know young women who would like to become TBAs?

Do you know of any problems community members have had with TBAs?

Do TBAs in this community give injections? If so, what for?

What do you think about TBAs using injections?

What other MCH services are offered in this community?

Have you ever attended an emergency delivery or the delivery of a family member?

What do you think of APROFAM?

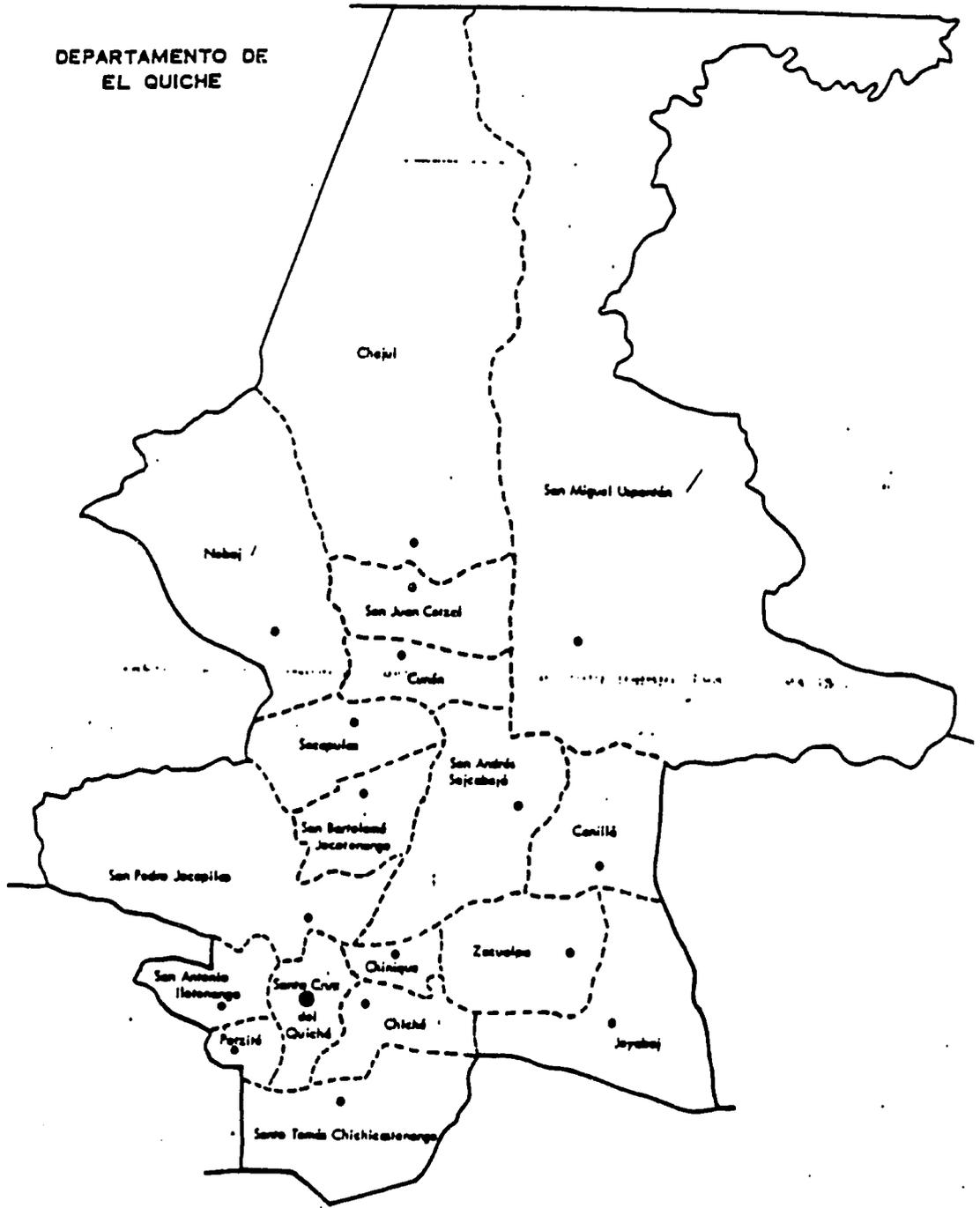
What does your community think of APROFAM?

Do you think your community would use an APROFAM birth center if it were located in this community? If it were located in Santa Cruz del Quiche?

Do you think your community would accept APROFAM training TBAs here?..

Other Comments:

DEPARTAMENTO DE
EL QUICHE



PLANILLAS DE ACTUALIZACION DE
COMADRONAS AREA DE SALUD QUICHE.

Orden	Lugares	No.
1	Santa Cruz Quiché	36
2	Patzité.	9
3	Panaxit.	12
4	Lemoa	20
5	Sta Rosa Chujuyub	14
6	Comitancillo	19
7	Joyabaj	25
8	Nebaj	43
9	Uspantán	10
10	Zacualpa	54
11	Chiché <i>San Juan, San Antonio</i>	43
12	Chinique	16
13	Cunen	50
14	Sacapulas	49
15	Sn. Antonio Ilotenángo	37
16	Cotzal	22
17	Chajul	19
18	Pachalúm	18
19	Chichicastenángo.	221
TOTAL		717
20	<i>g.m. unid. e</i>	55

Estos 2 lugares se encuentran divididos pero en el mismo formulario por carecer los mismos.

25 - 81
 P.S. Chujuyub - 45
 P.S. Chuchip. - 45
 P.S. Prunichel - 15
 P.S. H2O unid. - 15
 P.S. Panaxit - 20
221

221

INDICADORES DE SALUD AÑO DE 1,991, DEPARTAMENTO

No.	MUNICIPIO	POBLACION TOTAL	DEF. - 28 D.	DEFUNCIO - 28 D. A - 1 a.	DEF. - 1 a.	DEF. 1 a - 4	DEF. MATER NAS	M.V.
1	Santa Cruz	48154	99	53	84	48	3	2207
2	Chiché	19945	9	32	40	11	0	763
3	Chinique	10872	6	4	10	5	0	321
4	Chajul	41209	16	20	28	34	0	548
5	Chichicastenango	97828	59	89	140	64	0	2643
6	Patuité	4146	3	4	7	4	0	141
7	San Antonio Itz'	16111	1	23	24	23	0	734
8	San Pedro J.	26512	37	50	87	93	13	1009
9	Cunés	23481	12	14	26	22	0	747
10	Nebaj	48374	40	126	166	112	4	1762
11	San Andrés Saj'	19852	13	16	25	10	1	728
12	Sagapulas	37025	20	34	54	16	0	1293
13	San Bartolomé J.	6745	0	4	4	9	0	278
14	Cetzal	18272	17	21	38	19	2	617
15	Canillá	8042	0	6	6	11	0	336
16	Chicamán	19088	2	33	35	48	2	822
17	Uspantán	50120	1	24	25	27	3	1031
18	Joyabaj	49230	25	69	94	124	2	3072
19	Pachalum	5878	5	3	8	8	0	181
20	Zacualpa	21942	8	16	24	14	0	867
X	TOTAL	572825	296	640	936	702	30	20100

FUENTE: Memoria Servicios del Area, Sección Estadística Jefatura Area de Salu

1 + 8 = 9

Equipment and Supplies for a MCH Clinic in a Developing Country

PHYSICAL SETTING

The services offered in a Maternal and Child Health Clinic can be offered in a very simple setting. It is not necessary to have elaborate equipment or a fancy office. An examination room with a separate, adjacent waiting room is sufficient. There should also be a toilet and a place to wash and sterilize instruments. If births will be conducted in the clinic, a labor/recovery room and a birthing/delivery room will (also) be needed.

EQUIPMENT FOR A SMALL MCH CLINIC

I. Furnishings

A. Examination Room

1. An Examining Table.

The table does not have to be fancy. It must be comfortable for the woman when she lies down. It also must have a place for her to rest her legs. The table can be made locally of material that is available in the area. There are two kinds of support available: knee crutches or heel rests. Either one will do. These can be purchased or made.

2. A Cabinet or Shelves.

This is used as a clean area. All the supplies for the health services to be given in that room are kept on the clean shelves. Keep one shelf exclusively for sterile equipment. After you finish sterilizing instruments, wrap them carefully in a sterile cloth and put them on the shelf.

On another shelf, keep the medicines, needles, syringes, and supplies of the birth control medicines. It is very important that nothing dirty or used comes into contact with the shelves or with the procedure table. If the area in which the clinic area is located is dusty, it is better that a cabinet or enclosed shelves are used.

To take care of your used supplies, it is necessary to have a basket and two buckets in the room. The basket is used to hold used linens that can be washed and used again. One bucket is used to hold things that are to be thrown away. The other bucket, filled with soapy water, is used to hold used instruments that will be rewashed and sterilized again.

3. A Desk and Two Chairs.

It is a good place to talk to the client and to take a medical history. It helps if this area can be screened off from the rest of the room.

4. A Table.

This can hold supplies routinely given to each patient (vitamins and iron), microscope and lab supplies, basin for handwashing and possibly patient files.

5. Scales (Adult and Pediatric)

The weight of mothers and infants is an important assessment of their well-being. The scales can be kept in the examining room or in the adjacent waiting room.

6. An Adjustable Stool.

This is needed for the health care provider performing a pelvic exam.

7. A Bookcase

This is used for reference books, magazines and other educational material. Patient handouts and information as well as visual aids could be stored here.

8. A Record Keeping System

This might be a file cabinet or a table with wooden boxes which hold individual patient records. Any record keeping system should be simple and easily accessible. As the number of patients increase, a registration table can be set up in the waiting room to facilitate patient flow.

9. A Cot.

It is important to have a place where the client can rest. It is good if this cot could also be screened off so that one client can rest while another is being seen. The room should be clean. The floor should be washed every day. If possible, there should be a source of fresh air.

10. A Light.

If electricity is not available, a battery-operated lamp works just as well. There must be light for the clinician when she or he examines the client. Also, there should be enough light for the clinician and client to see each other while talking. A spare flash light with batteries should also be available.

11. A sink or a basin for washing hands.

12. There should be adequate ventilation. Each room should have at least two windows with shutters and screens (and locks) for fresh air and cross ventilation. These also provide additional light.

B. Waiting Room

1. Bench or chairs

There should be adequate seating for patients. The benches or chairs should be arranged in such a way that the patients can rotate or move forward as each new patient is called by the health care provider.

2. Health Education Material/Visual Aides

The waiting room is an ideal place for appropriate health education material and visual aids to be placed. Health talks can be given by staff or volunteers on various topics. Mothers and children can also learn from visual presentations, posters, etc.

C. Labor/Delivery/Postpartum Rooms (2-3 rooms) - If possible, one room to isolate septic cases from normal deliveries

1. Infant scale

2. Plastic covering for bed(s)

3. Adequate lighting - general and spot

4. Beds (3 labor room beds, 3 post partum)
5. Toilet/sink immediately available
6. Shower/bathing facilities immediately available
7. Refrigerator
8. Kitchen facilities (if possible)
9. Cabinet/storage space for equipment and supplies
10. Facilities for sterilization of equipment
11. Garbage container for each room.

12. Laundry facilities — for clinic laundry and for patients laundry.

II. Supplies and Equipment

1. Disinfectant solutions (for dressing wounds, cleaning and sterilizing equipment)
2. Gauze
3. Needles - various gauges and types for injection as well as suturing
4. Syringes - various sizes
5. Blood tubes
6. Tourniquets

7. Alcohol (swabs)
8. IV fluids and tubing, IV poles
- * Nitrazine paper
9. Thermometers
10. Fetoscope
11. Sphygmomanometer
12. Stethoscope
13. Urinary catheter
14. Microscope, with low power (x10) and high dry (x40) objectives and necessary supplies
15. Instruments
 - 2 kellys
 - 2 hemostats
 - 2 needleholders

*Nonessential in Third World clinic setting

- - 2 sponge forceps
- 2 scissors
- 8 speculum (med) Pederson
- 8 speculum (large) Graves
- 2 IUD Kits
- 2 diaphragm fitting sets
- metal container for instruments
- 3 buckets (2 -- dirty/clean)
- 4 metal basins
- 3 kidney basins
- Transfer forceps
- 2 covered containers (to soak instruments and to keep sterile instruments)
- wide mouth container (for sterile pickup -- scissors, needleholder)

16. Airways, laryngoscope, endotracheal tubes

17. Ambu bags

18. Oxygen and adult/infant masks
 19. Sterile gloves
 20. DeLee traps
 21. Sutures
 22. Adhesive tape
 23. Amnihooks
 - * Culture tubes and swabs
 - * Dip sticks (urine and blood sugar)
 - * Disposable under pads
 24. Sterile water (boiled)
 25. Linen and basic supplies and clothing for mother and baby
 25. Plastic covering for bed(s)
 26. Adequate lighting - general and spot
 - * Provision for thermal regulation of infant (heat lamp)
 - * Baby identification equipment
- * Nonessential in Third World clinic setting

27. Appropriate equipment for intrapartal and postpartal care
(e.g., 2 bed pan, sanitary pads, emesis basins, etc.)

28. Sterile OB pack

a. Scissors (2)

b. Needleholder

c. Sponge forceps

d. Clamps

e. Umbilical tape/clamp

f. Towels

g. Gauze pads

h. Bulb Syringe

i. Small basin/bowl or local anesthetic

* Nitrazine paper

* Culture tubes and swabs

* Dip sticks (urine and blood sugar)

* Disposable under pads

* Nonessential in Third World clinic setting

- * Provision for thermal regulation of infant
- * Baby identification equipment

III. Medication

Those drugs agreed upon in protocols.

Secure storage area for narcotic drugs; written procedure for accountability.

IV. Protocols

Written protocols for all levels of personnel, including clear guidelines for referral criteria and referral procedures.

- * Nonessential in Third World clinic setting

List of Contacts

- Dr. Ivan Alvarado, Obstetrician, CEPAR, and formerly in charge of INCAP/MOH Birth Center, San Carlos Sija
- Dra. Azancon, Director of Blood Bank, Hospital Nacional Santa Elena, Santa Cruz del Quiche
- Sra. Maria de Jesus Gomez Barrios, APROFAM Educator, Santa Cruz del Quiche
- Dr. Alfred Bartlett, INCAP, and Office of Health, AID/Washington
- Dr. Elizabeth de Bocaletti, Centro de Educacion e Investigaciones en Salud en Areas Rurales, Antigua
- Sra. Pascuala Lucia Xiquin Bulux, APROFAM Field Interviewer, Santa Cruz del Quiche
- Sra. Martha Chajal Calel, APROFAM Field Interviewer, Santa Cruz del Quiche
- Lic. Edilzar al Castro, Director of Information, Education, and Communication, APROFAM
- Dr. Carlos Contreras, Director of Medical Services, APROFAM
- DIGESA Women's Group (16 women), Chuamarcel, Patzite
- Lic. Victor Hugo Fernandez, Coordinator of Programs, APROFAM
- Dona Florencia, Traditional Birth Attendant, Chuamarcel
- Dona Florinda, Traditional Birth Attendant, Santa Cruz del Quiche
- Dr. Adolfo Gil, Chief of Ob/Gyn, Hospital Nacional Santa Elena, Santa Cruz del Quiche
- Sra. Veronica Giron, DIGESA Extension Worker, Santa Cruz del Quiche
- Dr. Gonzalez, Director, Hospital Nacional Santa Elena, Santa Cruz del Quiche
- Sra. Floridalma Gutierrez, Auxiliary Nurse, APROFAM Clinic, Santa Cruz del Quiche
- Sr. Pedro Santay Hernandez, APROFAM Educator, Santa Cruz del Quiche
- Dr. Oscar Liendos, UNICEF, Guatemala City
- Dr. Jorge Lopez, Jefe de Clinica, APROFAM, Santa Cruz del Quiche

Jayne Lyons, Health and Nutrition Officer, USAID/Guatemala

Dr. Haroldo Medina, Jefe Departamento de Salud Materna, MSPAS

Sra. Natalia Mejia de Lopez, APROFAM Field Interviewer, Santa Cruz del Quiche

Sra. Christina Perez Medrano, APROFAM Field Interviewer and Team Leader, Santa Cruz del Quiche

Dr. Esteban Medrano, Jefe de Distrito y del Centro de Salud, Santa Cruz del Quiche

Sra. Sarah de Molina, Director of Community Based Distribution Program, APROFAM

Sra. Marta Pelaez, Head Nurse, APROFAM Clinic, Santa Cruz del Quiche

Sra. Bertillia Cabrera Padilla de Pez, Enfermera de Area, Santa Cruz del Quiche

Sra. Antonieta Fineda, Director of Evaluation and Statistics Unit, APROFAM

Sra. Arecelia Rivera, Family Planning Counsellor, APROFAM Clinic, Santa Cruz del Quiche

Dr. Mario Aurelio Rivera, Jefe de Area, Santa Cruz del Quiche

T. S. Rosita, Social Worker, Hospital Nacional Santa Elena, Santa Cruz del Quiche

Sra. Aura Celina de Leon Saenz, APROFAM Promotora, Nebaj

Sra. Isabel Saenz, Nurse in charge of TBA Training Program, UNICEF, Guatemala City

Sra. Sandra Salazar, APROFAM Evaluation and Statistics Unit, Director of Quiche Baseline Field Investigation

Dr. Gustavo Santiso, Director, CEPAR (APROFAM Birth Center, Guatemala City)

Dr. Roberto Santiso, Executive Director, APROFAM

Dr. Barbara Schieber, Principal Investigator, INCAP Quetzaltenango Maternal and Neonatal Health Program

Sra. Vilma Elizabet Tojin, APROFAM Field Interviewer, Santa Cruz del Quiche

Don Diego Uz, Mayor (Alcalde) of Patzite

Dr. Leticia Velasquez, APROFAM Quiche Birth Center Project
Director, Santa Cruz del Quiche .

Sr. Ruben Velasquez, Training Department, APROFAM

Dr. Waldemar Velez, Pediatrician, APROFAM Clinic, Santa Cruz del
Quiche

Dona Vicenta, Traditional Birth Attendant, Santa Cruz del Quiche

Sr. Miguel Angel Ramos Zapeta, APROFAM Educator, Santa Cruz del
Quiche

Dr. Manuel Alberto Zecena, Jefe de Region, Santa Cruz del Quiche