# Breastfeeding and Infant Feeding in Belize



A Qualitative Study on the Current Breastfeeding and Infant Feeding Knowledge, Attitudes, Beliefs, Perceptions and Practices in Belize

December 1997

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#### **ACRONYMS**

BAPO BELIZE ASSOCIATION OF PRODUCER ORGANIZATIONS
BEST BELIZE ENTERPRISE FOR SUSTAINABLE TECHNOLOGY

BFLA BELIZE FAMILY LIFE ASSOCIATION

BIB BREAST IS BEST LEAGUE

BOWAND BELIZE ORGANIZATION FOR WOMEN AND DEVELOPMENT

CCDC CAYO CENTRE FOR DEVELOPMENT AND COOPERATION

CHW COMMUNITY HEALTH WORKER

ESTAP ENVIRONMENT AND SOCIAL AND TECHNICAL ASSISTANCE PROJECT HECOPAB HEALTH EDUCATION AND COMMUNITY PARTICIPATION BUREAU INSTITUTE OF NUTRITION FOR CENTRAL AMERICA AND PANAMA

MAF MINISTRY OF AGRICULTURE AND FISHERIES

MOH MINISTRY OF HEALTH

PAHO PAN AMERICAN HEALTH ORGANIZATION

PHN PUBLIC HEALTH NURSE

SIF SOCIAL INVESTMENT FUND

SPEAR SOCIETY FOR THE PROMOTION OF EDUCATION AND RESEARCH

TBA TRADITIONAL BIRTH ATTENDANT
UNICEF UNITED NATIONS CHILDREN'S FUND

WAV WOMEN AGAINST VIOLENCE MOVEMENT

#### **EXECUTIVE SUMMARY**

Prior to this study there was little available information on breastfeeding and none on infant feeding in Belize. Therefore, it was difficult to report the breastfeeding and infant feeding practices and to design interventions for improving these practices.

A nation wide qualitative study on breast and infant feeding practices was conducted to look at and provide information on the current practices, beliefs, attitudes, perceptions, experiences and knowledge of the population, including Ministry of Health (MOH) personnel, towards breastfeeding and infant feeding. This study will aid in the development of an intervention package to increase exclusive breastfeeding for the first four to six months, sustained breastfeeding up to 24 months and the timely introduction of nutritious foods. These will in turn provide considerable economic, health and emotional benefits to both the mother and child. For example, it could help to reduce the incidence of malnutrition and growth retardation in children and help in the prevention of breast cancer in women.

Both urban and rural areas were targeted as well as the four prominent ethnic groups in Belize. Mothers, grandmothers, nurses and traditional birth attendants (TBA) were interviewed countrywide. The qualitative techniques used in the study were focus group discussions and indepth interviews.

After reviewing the data collected the indications are that exclusive breastfeeding is not practiced in Belize (women give the neonate water, glucose and a tea of aniseed and garlic). Nationally the practice of breastfeeding is low. Rural areas have higher numbers of women who breastfeed than urban areas. The duration of breastfeeding for rural women is longer than for urban women.

There are a lot of similarities among the Creoles, Mestizos and the Garifunas. These groups were very knowledgeable about breastfeeding, practise combination feeding and introduce solid foods early (one to four months). The Mayas, on the other hand, breastfeed for longer periods, do not give formula but do not introduce solid foods until after nine months. The rural populations lack general information and support for breastfeeding and infant feeding.

First time mothers receive more support and encouragement on breastfeeding from the nurses and family members than mothers with more than one child. The education given at the prenatal clinics is targeted at first time mothers.

The types of foods offered to babies is similar across ethnic groups and in both rural and urban areas. These include foods such as high starch porridges, mashed potato and beans. Nurses feel that the government needs to create a special division for teaching and promoting breast and infant feeding.

Both urban and rural communities believe that the prenatal clinic is the best place for them to learn about breast and infant feeding and that presently the nurses are not reaching the mothers.

Maternity staff nurses are knowledgeable about the benefits of breastfeeding but they do not cite themselves as resource persons for the community. They lack knowledge of positioning of the baby and expression of milk. They conduct very little if any counseling with the mothers.

The MOH needs to put in place more support for breastfeeding and infant feeding promotion in its institutions and in the community, in order to achieve improved breastfeeding and infant feeding practices. It needs to implement and sustain mass media interventions targeted at parents, grandmothers and health workers (both rural and urban), on infant feeding and breastfeeding. Continuous support must be provided to parents by the government, the community and the health staff to ensure that the decline in breastfeeding is arrested.

There is need for legislation to allow working mothers time off to breastfeed. Nurses, traditional birth attendants (TBAs) and community health workers (CHWs) need updated information on breastfeeding and infant feeding promotion and management. Health workers need to be provided with materials and resources on breast and infant feeding.

An infant feeding campaign needs to be implemented countrywide. All mothers at pre-natal and postnatal clinics must be educated and counseled about breastfeeding and all mothers at child health clinics must be educated and counselled about feeding the older infant.

#### INTRODUCTION

Available information on breastfeeding and infant feeding practices in Belize shows that although breastfeeding is well accepted and is widely practiced, the norm is to partially breastfeed and bottle feed. As a result, exclusive breastfeeding rates are well below desired levels. Among certain ethnic groups, while exclusive breastfeeding is practiced, the introduction of complementary foods comes too late. On the other hand, in other groups, complementary foods are introduced too early.

There is a need to better understand not only the realistic expectations of lactating mothers to cope with breastfeeding and infant feeding, but also the social, cultural and economic reasons behind current infant feeding practices.

The required information was obtained by means of a qualitative study to examine key issues in urban and rural settings and among the different ethnic groups.

The information gathered will allow the design of breastfeeding and infant feeding interventions, and guide the development of an educational package to improve mothers' capability to increase exclusive breastfeeding practice up to four months, increase breastfeeding duration up to 24 months, and introduce safe and appropriate complementary foods after four months.

The study links in with efforts to support the national food and nutrition policy recently presented by the Government in "The Declaration of Dangriga: Food and Nutrition Security Policy and Plan for Belize". It contributes to the mission objective of ensuring adequate intake of macro and micro nutrients combined with adequate health care, especially for women and children throughout the country.

The study reviewed the breastfeeding and infant feeding practices and knowledge, perceptions, and experiences of mothers, grandmothers, and health workers. It provides information which will help to identify local needs, establish priorities at the household level and implement sustainable community based projects aimed at the improvement of the nutritional status of infants and children.

#### **PURPOSE AND OBJECTIVES**

#### **Purpose**

To provide information on breastfeeding and infant feeding practices for the design and implementation of sustainable community interventions aimed at the improvement of exclusive breastfeeding and the timely introduction of nutritious infant foods.

#### **Objectives**

- 1. To identify cultural, social, economic and environmental causes of the prevailing breastfeeding and infant feeding practices in Belize.
- 2. To describe mothers' expectations of breastfeeding and infant feeding and to describe the motivations behind practices perceived as needed for healthy babies.
- 3. To describe the gap between ideal and real breastfeeding and infant feeding practices and to assess the capability of mothers or caregivers for achieving these expectations in rural and urban communities.
- 4. To identify channels of communication the community has access to, how they use the channels and what channels of communication are trusted.

#### **METHODOLOGY**

#### A. Selection of Communities

The study was carried out in the six districts of Belize in both rural and urban areas. Rural communities were selected from those classified with a high prevalence of growth retardation. The selection of communities with low socio-economic status in urban areas was based on identified risk factors at household level, such as failure to exclusively breastfeed and inappropriate introduction of infant food.

#### B. Techniques utilized, instruments and analysis

The methodology used to collect the data was qualitative, which means that the findings were not obtained through statistical proceedings. What was missed in representativeness was gained in depth and understanding of the reasons behind the themes studied. This methodology was utilised with the community and used qualitative field work techniques, which provide easy, rapid and valuable information to facilitate a better appreciation of the situation. Specifically, two primary anthropological techniques were utilized: focus groups and in-depth interviews. Four instruments were designed. (Annex 2). The content of this information was transcribed using wordperfect 6.1.

#### **Focus Groups**

Focus group discussions in rural and urban areas of the six districts were conducted among:

- mothers with only one child from birth to 24 months
- mothers with more than one child from birth to 24 months
- grandmothers
- maternity staff

#### **Interviews**

In-depth interviews were conducted with mothers with a baby less than 30 days and TBAs, to determine whether mothers were likely to comply and cope with ideal breastfeeding and infant feeding practices.

Data from the interviews and focus groups with the exact words used by the informants was the primary data (their beliefs, experiences, opinions, ideas). This data was carefully reviewed to obtain descriptive findings. Responses from all focus groups and interviews can be found in a separate document called ANNEX.

Analysis of the data was done using several methods: reading and studying field notes, listing supersalient and frequently mentioned themes. Similarities and differences between mothers living in urban and rural areas, mothers with one child and mothers with more than one child, ethnic

groups, mothers and grandmothers as well as a comparison of the practices of the nurses and TBAs with the perception of the public were described and examined.

#### C. Study Population

The study population included: mothers with one child, mothers with more than one child, mothers with babies under thirty days, grandmothers (ages range between 45-68), TBAs, public health nurses and maternity staff in the hospitals. The study was conducted in both urban (five towns, one city) and rural areas (seven villages). The participants in the focus groups and the indepth interviews were selected by nurses, community health workers (CHW) and district coordinators in their respective communities. A total of 18 in-depth interviews with mothers, 27 focus groups with mothers, 12 focus groups with grandmothers, 14 focus groups with nurses and two interviews with TBAs and Rural Health Nurses were conducted country-wide. Responses from the interviews and discussions are reported and recorded in the language and terminology of the participants. (Annex 1).

#### D. Study Period, Time Table

The study period was from September 23 1997 to January 31, 1998.

During the period from Sept. 23 to Oct. 31, a bibliographic review of available data, the selection of sites, design and validation of instruments, identification and training of the data collection team in qualitative techniques were completed.

Data collection was carried out from November 3 to December 2. Analysis was conducted from Dec. 9-31. Report writing was done from January 5-31.

#### E. Research Team

The data collection team comprised of two MOH district coordinators, and a sixth form student led by the consultant. Transportation for data collection was provided by the Institute of Nutrition for Central America and Panama/ Pan American Health Organization (INCAP/ PAHO), and the United Nations Children's Fund (UNICEF) covered other costs. An anthropologist from INCAP provided technical guidance on techniques utilized, data analysis and presentation of findings. Oversight was provided by a team consisting of the MOH nutritionist, a senior Public Health Nurse (PHN), the INCAP/ PAHO consultant and the UNICEF Health Officer.

#### F. Obstacles, Constraints, Limitations

The study population was designed to include mothers with one child and mothers with more than one child under 24 months, mothers with a baby under 30 days, grandmothers, maternity nurses, public health nurses and traditional birth attendants. In two communities, the Rural Health Nurse was also interviewed. Only one rural community in the study had mothers with a baby under 30

days. Several of the rural communities did not have mothers with only one child who fit our criteria. In Corozal Town, data was not collected on mothers because it was difficult to locate mothers who fit the criteria (Mestizo, with a child under 24 months). In San Ignacio, the scheduled focus group with grandmothers was not conducted.

No one on the data collection team spoke any of the Maya languages. A mother and a CHW assisted us with some translation. In the Mestizo communities, only two of the data collection team members were fluent in Spanish; in areas where the people spoke Spanish only those two members conducted focus groups.

There were computer problems because the nutrition office computer has limited memory and had to be repaired twice, and the consultant had to share computer time with other staff members.

For some communities there were problems with identification of the people for focus group sessions. These therefore had to be rescheduled.

#### IV. DESCRIPTION OF STUDY COMMUNITIES

#### TOLEDO DISTRICT

#### AGUACATE (RURAL)

This is a Kekchi Maya community with about 55 households. The village is set in the Belizean rainforest and is a bit mountainous. It is about 50 miles from the main town of Punta Gorda with the only access being a rocky dirt road which becomes inaccessible in the rainy season.

The women are housewives and the men do milpa/subsistence farming of corn and rice. Produce is taken to Punta Gorda Town to be sold. Transportation to and from the village is available every Wednesday which is also market day.

There is one government school and a Catholic church in the village. All the school aged children attend school but most of the adults did not attend or did not complete primary school, hence most of them cannot speak English, they speak Kekchi and a few speak Spanish. This is especially true of the women.

The village has a health post and the nurse visits every six to eight weeks to conduct prenatal, postnatal and child health clinics. If there are emergencies people have to go to Punta Gorda. There is a CHW supported by the MOH. She was absent at the time of our visit but reports are that she is not active.

The environmental sanitation of the village is very poor. A few families have latrines which are not properly maintained and there are three hand pumps which are not working. The people use the river as a source of drinking water. There are currently no projects going on in the community.

#### SANTA CRUZ (Rural)

This is a Mopan Maya community of about 80 households. There is one government school and six churches, Catholic and Protestant. All the school aged children attend school but most of the adults did not attend or complete primary school. Most of the women do not speak English so the health worker had to translate. The village is very remote about 55 miles from Punta Gorda Town and is accessible by a rocky, dirt road which becomes impassable in the rainy season. Transportation is available in and out of the village once per week.

There is a health post and the nurse visits every six to eight weeks to do prenatal, postnatal and child health clinics. If there are emergencies people go to the nurse in the nearby village of San Antonio about five miles away, or to Punta Gorda Town. There is a CHW supported by the MOH; reports are that he is active in the community. The women's husbands or mothers normally conduct their deliveries and if there are complications they go to Punta Gorda.

The women are housewives and the men do subsistence farming of rice or corn. They take their produce to Punta Gorda to sell.

There are hand pumps in the village but people use the water from the creek as a source of drinking water. A few families have latrines that are not properly maintained. The environmental sanitation is somewhat poor. Currently there are no community projects in the village.

#### PUNTA GORDA TOWN (Urban)

Punta Gorda is the main town in the Toledo District and is the most southern town in the country. It has a population of about 4,500 hundred people. Most of the population is comprised of Garifuna, Creoles, East Indians and some Mayas. The Mayas tend to live in the rural areas.

There is a 30 bed government hospital with a staff of four physicians. The hospital performs primarily outpatient, observation and minor emergency services. Surgery is not performed there, all complicated cases are air lifted to Belize City. The hospital serves Punta Gorda and the surrounding villages. There are four private clinics that offer consultations only. Many people cross the border to seek health care and for shopping in neighboring Guatemala. There is a public health centre that conducts maternal, child health, diabetic and hypertensive clinics.

Punta Gorda has 24 hours electricity, water, telephone and cable television. There are four primary schools, one high school and a junior college. Most children complete primary school and many go on to secondary school. Most of the people are employed by the government and a few have their own businesses (stores, hotels, restaurants). The main industries in the area are rice production, logging and subsistence farming.

The environmental sanitation is poor. There is a lot of over grown vegetation and garbage on the streets. The road to Punta Gorda is rocky with many pot holes. It is impassable in the rainy season. Daily transportation is available by bus and airplane in and out of the town. Due to its poor health indicators, inaccessibility and infrastructure, Toledo District is always the target of many International Organizations conducting community work. Currently the Social Investment Fund (SIF) and the Environmental and Social and Technical Assistance Project (ESTAP) are carrying out community projects in the area (road building, school projects, small farmers projects and women development projects). The Belize Family Life Association (BFLA) also has a centre in Punta Gorda.

#### STANN CREEK DISTRICT

#### SEINE BIGHT (RURAL)

Seine Bight is a coastal Garifuna community with a population of about 600 people, it is about 46 miles from Dangriga Town. The first language of the population is Garifuna but everyone speaks English or Creole. There is one government school and a Catholic church. Most of the people in the village have completed a few years of primary school and all school aged children are currently enrolled in school. The village has 24 hours water, electricity and telephone. Transportation to and from Seine Bight is available daily, a few of the residents have their private vehicles. The villagers have to go to nearby Placencia or to Dangriga for groceries and medical care. Although there is a health centre in the village, there is presently no nurse stationed there. There is an active CHW and TBA in the community; they are both supported by the MOH. There is also a breastfeeding counselor trained by the Breast Is Best League (BIB).

Traditionally, Seine Bight was a fishing village but people do not live off fishing anymore. Most of the young people go out of the village to seek employment. As a result many babies are often times left in the care of grandmothers. When asked how they make their living the ladies smiled and said, "we do not know we just survive".

Although there is running water most people cannot afford toilets at home. They use buckets which are emptied into the sea. There are currently no projects going on in the village. Some of the people are now trying to set up bed and breakfast facilities and make handicrafts to sell to the tourists who pass through on their way to Placencia. The dirt road to Seine Bight is in deplorable condition: it is muddy, with many potholes. The village is also accessible by sea.

#### DANGRIGA TOWN (URBAN)

Dangriga is a coastal town in southern Belize with a population of approximately 7,000 people. It is sustained mainly by the citrus industry, fishing and subsistence farming. Many people work for the government and there are a number of private businesses that offer employment. There are five primary schools, one high school and a sixth form. Most school aged children attend primary school and go on to secondary school.

Dangriga has a 25 bed government hospital with a staff of four doctors. However, the hospital does only outpatient clinic and few minor emergencies e.g. sprains, breaks. It does not have the staff nor resources to conduct surgery. All complicated cases are transferred to the hospital in Belize City or Belmopan. The hospital serves the town and the surrounding communities. It also has a public health centre that does pre and postnatal clinics, childhealth clinics, diabetic and hypertensive clinics. There are a few private practitioners who offer consultation only.

The town has 24 hours electricity, water, telephone and cable television. Most of the road to Dangriga is paved. Daily transportation is provided to and from the town by bus and airline. The town is also accessible by sea.

Socially, economically and with respect to infrastructure, Dangriga is in a deplorable state. There is high drug use, and high teenage pregnancy. Some organizations with operations there are BFLA, Red Cross, Helpage International, Lions Club International, SIF. Many church groups conduct community projects from time to time.

The bulk of the population is Garifuna, followed by Creoles then Mestizos. The majority of the people can read and understand English and speak Creole. Over the past ten years there has been an influx of refugees from Guatemala, Honduras and El Salvador.

#### **CAYO DISTRICT**

#### Calla Creek Rural

This is a Mestizo community in the Cayo District. Most of the adults cannot or refuse to speak English hence Spanish is their first language. There are 350 people in the community and 40 households. There is a government school built by the organization Help For Progress and all school aged children attend school but most of the adults did not complete primary school. There is a Catholic and an Adventist church in the village.

The village is about 15 miles from San Ignacio and is located off the main highway. From the roadside to the village is a bumpy road and to get to the village one has to cross a rope bridge, so there are no vehicles in the community. There is a CHW and a TBA in the village, both of whom are active. Most maternity patients go to the TBA.

People live off subsistence farming and take their produce to San Ignacio to sell. Transportation is available daily but the people have to go to the roadside to get the bus. There is a health post built by an organization called Global Roots. The nurse visits every six to eight weeks to do prenatal, postnatal and child health clinics. There are no hand pumps in the village. People get drinking water from the river which they use without boiling. Only a few families have latrines. Currently there are no projects going on in the village but we were informed that the community is negotiating with SIF to implement a hand pump project. The village was generally clean.

#### SAN IGNACIO TOWN (Urban)

San Ignacio is a Mestizo and Creole town in western Belize on the border with Guatemala. It has a population of about 12,000 people. Though the residents speak and read English, Spanish is the preferred language for many. There are five primary schools and two high schools. All school aged children attend primary school and many go on to secondary school.

There is a government hospital with about 24 beds and three doctors, but the hospital only offers consultation and admission for observation. Patients are taken to Belmopan 20 miles away, or Belize City 67 miles away, for surgeries and other complicated matters. The hospital has a public health centre that conducts pre and post natal clinics, child health clinics and diabetic and hypertensive clinics. There is also a private hospital run by the Adventist Church. There are private practitioners who do consultations only. Since San Ignacio is near the border with Guatemala many people travel there to seek medical care and do their shopping. People generally believe that the medical care in Guatemala is superior to that in Belize.

The industries that sustain the area are dairy, cattle, poultry, agriculture and tourism. The government is also a big employer in the area. The town has three banks and aviable commercial center. The town has 24 hours electricity, cable television, water and telephone; there is a good transportation system with daily runs to and from the town to other parts of the country. Many people have private vehicles. The road to the town is paved and accessible at all times.

Organizations present in the community are Society for the Promotion of Education and Research (SPEAR), Cayo Centre for Development and Cooperation (CCDC), Belize Association of Producer Organization (BAPO), Health For Progress, Belize Enterprise for Sustainable Technology (BEST), SIF and many church organizations.

#### **BELIZE DISTRICT**

#### SANTANA (Rural)

This is a Creole village located on the old Northern Highway. The village has a population of about 200 people and is sustained by subsistence farming. Transportation comes through the village daily and it is only accessible by road. The road to the village is mostly paved but is in need of maintenance. There is one school and a church in the community. All school aged children attend school and most of the adults completed primary school or did a few years.

There is no electricity or water in the community but there is a community telephone. Most people do not have toilets. The village is generally unkept with much overgrown vegetation. People go to Belize City to buy their groceries and sell their produce. The nurse from Maskall visits every six to eight weeks to conduct pre and post natal and child health clinics. For emergencies people go to the health centre in Maskall which is about four miles away, or to Belize City about 35 miles away. There are two active CHWs.

#### **BELIZE CITY (Urban)**

This is the only city in the country with a population of over 60,000 people. It is the centre of commerce for the country. Belize City has a mixed population but is predominantly Creole. Many people from the other districts move to Belize City in search of work hence the city is highly populated. Drug use, teenage pregnancy, crime and unemployment rates are high. There are 22 primary schools, ten high schools, three sixth forms and a university. There is evidence of absenteeism in many school aged children. Most people can understand English but Creole is the preferred language.

Belize City is sustained by trade and commerce, fishing, tourism and other industries. While the government employs many people, most of the population works in the private sector. The city has a government hospital with about 120 beds and over 40 physicians. This hospital does surgery and is the referral centre for the other districts. There are also two other private hospitals and over 40 private clinics that offer consultations only. There is a good transportation system that makes daily runs in and out of the city by land, sea and air. The roads to the city are paved and accessible at all times, most of the streets within the city are paved.

Some organizations working in Belize City are SIF, UNICEF, PAHO, SPEAR, BFLA, Belize Organization for Women and Development(BOWAND), Belize Council for the Visually Impaired (BCVI) and Women Against Violence (WAV).

#### ORANGE WALK DISTRICT

#### SANTA CRUZ (Rural)

This is a Mestizo village in Orange Walk that shares a river boundary with Mexico. The village is about 15 miles from the main town of Orange walk. Most of the women are housewives and the men work in the sugar cane industry or do subsistence farming. Everyone goes to the nearby Mexican village to do their shopping and trading. The village has electricity but no running water, there is a community catchment tank and most people have their private catchment tanks or wells. There is also a community telephone. Most families have latrines built through the CARE project some years ago. There are currently no projects going on in the village. The road to the village is very rough. It is located about ten miles off the main highway. There is daily transportation to the village and many families own vehicles.

The village is well kept and clean. There is a government school and one Catholic church. All school aged children attend school and most of the adults finished primary school or went for a few years. Though the people attend an English school they claim they do not speak English only Spanish. The village consists of 42 families. It has three active CHWs, one of whom is a TBA. They are all supported by the MOH. The nurse visits the village every six to eight weeks to do prenatal, postnatal and child health clinics. Any other health problems have to be treated in Orange Walk Town. The TBA does most of the deliveries.

#### **ORANGE WALK TOWN (Urban)**

This is a Mestizo town in northern Belize. It has a population of about 15,000 people who predominantly speak Spanish though English is the official language. There are two high schools and five primary schools. Most school aged children attend primary school and many adults have completed primary school. The roads to Orange Walk are paved and always accessible. Transportation is available daily in and out of the town. The town is accessible by road only. The government and the sugar industry (seaonal employment) are the biggest employers in Orange Walk.

There is a 47 bed government hospital with a staff of five physicians. However, this hospital provides only out patient and minor emergency services; it does not perform surgeries. There is a public health department that conducts pre and post natal clinics, child health clinic and diabetic and hypertensive clinics. There are a few private practitioners who provide consultation. A majority of the residents go to Chetumal in Mexico for health care and to do their shopping. There are many private businesses in the community. The town has 24 hours electricity, water, telephone and cable television. Some organizations operating there include SIF and BFLA.

#### **COROZAL DISTRICT**

#### **SAN VICTOR (Rural)**

San Victor is a Mestizo village in Corozal with a population of 119 families. The people speak only Spanish. Many of the adults did not complete primary school but all school aged children are enrolled in primary school. There is one government school and two churches. Everyone has latrines from the CARE Project. There are hand pumps in the village but they do not work, so people get water from catchment tanks or wells. The village has 24 hours electricity and a community telephone. The women are housewives and the men do farming of cane or corn.

There are two CHWs and one TBA, the nurse visits every six to eight weeks to conduct child health and pre and post natal clinics. Other health problems go to Chetumal approximately 25 miles or Corozal about 15 miles away. SIF is currently building a health post in the village and planning a hand pump project.

#### **COROZAL TOWN (Urban)**

Corozal is the most northern town in the country and borders with Mexico. It is predominantly Mestizo with a few Creoles, Garifuna and East Indians. Though everyone knows English, the preferred language is Spanish. The town has a population of about 9,000 people. There is a 40 bed government hospital with a staff of five physicians. This hospital does surgery, but most of the people go to nearby Chetumal, Mexico for medical care, they believe the care in Chetumal is superior to that in Corozal. The health sector has a public health centre that does pre and post natal clinics, child health clinics, diabetic and hypertensive clinics. The town has running water, electricity, telephone and cable television.

Many of the people are employed by the government or the sugar industry which is seasonal. There are six primary schools, three high schools and one junior college. Most people attended and completed at least primary school. All school aged children are enrolled in primary school

Some organizations working in the area include SIF, BFLA, BCVI, WAV, Red Cross and Rotary International.

#### **Belize: Location of Study Communities**

- 1. Corozal District
- Corozal Town
- San Victor
- 2. Orange Walk District
- Orange Walk Town
- Santa Cruz
- 3. Belize District
- Belize City
- Santana
- 4. Cayo District
- San Ignacio
- Calla Creek
- 5. Stann Creek District
- Dangriga
- Seine Bight
- 6. Toledo District
- Punta Gorda
- Aguacate
- Santa Cruz
- Urban Community
- Rural community

#### V. DISCUSSION

Social, cultural, psychological and economic factors influence breastfeeding and infant feeding practices in Belize and elsewhere. Some social factors are related to family and community for example, the women generally do not get support from their spouse when they are breastfeeding. Socio-economic factors have been found to be related to mother's education, type of mother's work, time allocation, family composition and rural and urban differences. Other factors identified are health system support, socio-cultural system, mass media and experiences of the parents. The information on hand reveals poor infant feeding practices of the population especially in the rural areas. Availability of local foods along with lack of information and skills are some of the main causes for the untimely introduction of foods and the introduction of poor quality foods in children.

The following is a discussion of the similarities and differences discovered between ethnic groups, rural and urban areas, grandmothers and mothers, mothers with one child and mothers with more than one child and a comparison between the nurses practices and the perceptions of the communities.

#### A. SIMILARITIES AND DIFFERENCES BETWEEN:

#### 1. URBAN AND RURAL AREAS

In rural Belize, the practice of breastfeeding is more prevalent than in urban areas. However, the rural women breastfeed not because of their knowledge but due to economic reasons. They have no money to buy formula and bottles; and from tradition they do not know what else to do. The belief and practice of initiating breastfeeding at birth is the same in both areas. Most rural women have no knowledge of colostrum and have the belief that it is bad for the baby, so it is not offered. But in urban areas most of the women offer the colostrum to the baby. In both areas colostrum is called "yellow milk or first milk".

In the urban areas the women are knowledgeable about breastfeeding but generally do not breastfeed. The ones who do choose to breastfeed do so because of the knowledge they received from the clinics and the breastfeeding counselors. The "baby refusing the breast" as a reason for not breastfeeding was more common among urban women while rural women said, "they never experienced that". In rural as well as urban areas the women have the belief and practice that they should massage the breast and drink lots of fluids e.g. Milo, cocoa, milk, so the breastmilk can flow.

The duration of breastfeeding is longer for rural (one to two years) women than for urban (four to six months). Upon termination of breast or bottle feeding, the child receives food from the family pot in both areas. Exclusive breastfeeding is not practised in either area because the majority of the mothers believe in and have the practice of giving their babies water, aniseed and

garlic (herbal drink made with garlic, aniseed and water boiled) and a mixture of glucose and water among other things. Urban women especially working mothers, tend to do combination feeding, that is, giving both breastmilk and formula. Rural women generally offer the breast only.

The practice in the rural areas is to not introduce solid foods to the baby until eight to ten months, whereas in the urban areas foods are introduced as early as three weeks in many cases. Similar types of complementary foods are offered in rural and urban communities. These include mashed potato, rice, beans. The practice of giving high starch, high sugar porridge without milk to the child is common to both areas. Some urban mothers tend to offer commercial baby foods such as Gerber but this was not a practice among rural mothers. In both areas babies do not receive meats until after one year of age. The reasons are either because "meat causes worms in children or they cannot chew the meat".

The beliefs of not eating certain foods e.g. beans, seafood and cabbage, when breastfeeding exists in some rural and urban areas, as does the practice of not breastfeeding if the mother is ill, frightened or angry. Reasons such as the baby will get diarrhea or gripping were consistent in both rural and urban communities. Another similarity is that rural as well as urban mothers have the practice of continuing to breastfeed the ill child.

Women in the rural areas have little or no access to information and help on breastfeeding and child care while urban women have a wide range of information sources at their disposal including the clinics, hospitals and breastfeeding counselors. A similarity is that in both areas mothers and grandmothers serve as teachers and resource people for breastfeeding/infant feeding and child care. The feedback from both rural and urban mothers is that the MOH needs to teach and reach the people more. They feel that there needs to be more health talks with mothers and that more messages should be aired on the radio.

In both rural and urban areas the women were not familiar with the term "complementary foods", they call it "weaning foods" or "food from the family pot". It is the custom in both areas for the mother to cook and feed the child. Their reasons for offering foods were the same, e.g. the breast was no longer enough. Urban rather than rural women tend to give vitamins as early as three months. Their reasons for giving vitamins were similar such as it gives the baby appetite, and for energy. About malnutrition, they had similar answers for identification of a child with malnutrition (thin, bony face, cries a lot). But more rural than urban women were confused about the causes of malnutrition.

### 2. SIMILARITIES AND DIFFERENCES BETWEEN MOTHERS WITH ONE CHILD AND MOTHERS WITH MORE THAN ONE CHILD

Mothers with one child = (MWOC)

Mothers with more than one child = (MWMOC)

There are more similarities than differences between these two groups. Some of the major differences include MWMOC believe that breastfeeding was inconvenient because it took up too much time and they had work and other children to attend to. Those who did breastfeed were motivated mainly by economics. While this same group had an idea of more or less when to terminate breastfeeding, MWOC had no idea when to terminate breastfeeding. A similarity is that both groups believe that the child who has terminated breast or bottle feeding should "eat from the family pot".

The MWOC's motivation for breastfeeding was due to advice from others. In the case of the rural mothers they didn't know what else to do. The MWOC received help from their husbands with chores and support for breastfeeding but the other group did not. A major reason for not breastfeeding among MWOC was that breastfeeding hurts and causes chest pains. The MWMOC had knowledge based on experience while the other set of mothers relied on the advice of others e.g. the nurse or their mothers.

The information received at clinics is geared towards first-time mothers rather than the MWMOC. The practice of MWMOC is to introduce foods at three to four months while MWOC introduce foods at six months. Neither group of mothers practices exclusive breastfeeding. They believe that babies should get water, aniseed and garlic and gripe water.

#### 3. SIMILARITIES AND DIFFERENCES BETWEEN ETHNIC GROUPS

There were more similarities than differences among the Mestizos, Garifunas and Creoles. The Mayas, on the other hand, showed a lot of differences from these three groups. For instance, the Mayas breastfeed from tradition and due to economics. They do not believe that the breastfeeding mother should eat any special foods nor should she avoid any foods. They had limited information about all aspects of breast and infant feeding and they had nowhere to go to get information and help concerning breastfeeding and child care.

The other groups were aware of the benefits of breastfeeding and they knew where to go to get information and help. However, it was not the norm among these groups to breastfeed. The practice of the Mayas is to express the colostrum and throw it away and to initiate breastfeeding three to four days after birth. They also tend to breastfeed for longer lengths of time and not to offer formula at all. The other groups were inclined to the practice of combination feeding (offering both breastmilk and formula). The age of introduction of food is earlier in the other ethnic groups (one to four months), than the Mayas (after seven months).

The Mestizos, Creoles and Garifunas had similar beliefs about the sort of foods a breastfeeding mother shouldn't eat and they had the practice of initiating breastfeeding at birth. These groups also had the practice of giving water and aniseed and garlic to babies. They believe that the angry or frightened mother should not breastfeed while the Mayas did not have this belief. It is a common practice among the Creoles and Mestizos to "comb" the breast with herbs and warm water so the milk can flow.

### 4. SIMILARITIES AND DIFFERENCES BETWEEN MOTHERS AND GRANDMOTHERS

Grandmothers = (GM) Mothers = (M)

The motivations and reasons for breastfeeding are different for the grandmothers and the mothers. For grandmothers they breastfeed because of economics and tradition. Hence the practice of breastfeeding was more common among grandmothers than it is today. There are many myths passed down from generation to generation. The grandmothers held on to these myths while mothers today are straying from them. However some myths are still believed and practiced today. For example, most mothers give aniseed and garlic to the neonate and said that there are certain foods breastfeeding mothers shouldn't eat.

Grandmothers often breastfed and did not offer formula while mothers today tend to practice combination feeding. Mothers have more knowledge and there are more places available to get information (nurses, counselors, doctors) on breastfeeding than grandmothers who had only their mothers and the midwives. The grandmothers often advised the mothers but complained that they do not take their advice. Grandmothers have a more positive, accepting attitude towards breastfeeding than mothers, because for grandmothers they saw breastfeeding as "the only natural thing to do there were no alternatives". Mothers today perceive breastfeeding as inconvenient and too time- consuming. They are also bombarded by many commercials for baby formula and food and have a wide selection of formulas and bottles to choose from. Mothers tend to introduce complementary foods earlier than grandmothers, but the types of foods offered are similar.

For many grandmothers breastfeeding was a natural method of contraception, while mothers today say that it does not work for them. Grandmothers claim that mothers today do not want to breastfeed because "they do not want their breast to hang and they want to be free to go everywhere". It is clear from the responses that grandmothers in the past accepted breastfeeding much more than mothers today do.

### B. COMPARISON OF THE PRACTICES OF NURSES AND TBAS WITH THE PERCEPTION OF THE PUBLIC

Apart from the Karl Heusner Memorial hospital all the hospitals in the other five districts said that formula and bottle are not allowed in the maternity ward. The nurses said that all babies are put to the breast immediately after birth and that only if the baby or the mother is ill then the baby receives formula. According to both maternity and public health nurses, all patients receive counseling on breastfeeding at the pre-natal clinic and in the hospital. The nurses say they instruct the patients how to breastfeed and how to express milk. Nurses say that breastfeeding practice in the communities is low and that mothers introduce formula too early to the baby.

Maternity staff nurses say they do not know the breastfeeding practices of the mothers since they only see the patients a short while in the hospital. The Public Health nurses were more knowledgeable about these practices. The nurses in the delivery room at the Karl Heusner Memorial Hospital said they are always left out of training on breastfeeding and believe that they should be included in training sessions and provided with the appropriate materials to do education on breastfeeding. Country wide, nurses reported that they do not have the time nor materials to do breast and infant feeding counseling and education.

In spite of what nurses said, many mothers reported that their baby was given formula in the hospitals. The information they relayed was that they only received counseling at the pre-natal clinic and not in the hospital. They believe that the counseling at the pre-natal clinic is generally not enough because it is one time only. The mothers also claimed that they only received counseling with their first child and not with the subsequent ones.

As it stands, the community generally believes that the nurses are not having an impact on the mothers. The results show that the practice of breastfeeding is low especially in urban areas and that most women do not exclusively breastfeed. The public does not feel the nurses give them enough information nor that they spend enough time teaching them.

There were several mothers with flat and inverted nipples who did not receive any information on how to prepare the breast for breastfeeding and there were babies in the maternity wards who had not been breastfed up to twelve hours after birth. The clinics and hospitals also do not have leaflets to give to the patients. Positioning and expression of milk are two areas that the mothers say they need more help with.

In rural areas the women said that the TBAs are doing a good job and that they learn a lot from them. The TBAs' claims are that they teach all mothers about breastfeeding and that they show them how to prepare the nipples and how to position the baby. The TBAs did not mention anything about teaching mothers how to feed the older infant.

#### VI. SUMMARY OF FINDINGS

Breastfeeding and infant feeding are two inseparable processes due to biological, social and economic reasons. Generally, people do not breastfeed because they find breastfeeding to be inconvenient, they lack support from health officials and family and they lack information of the benefits of breastfeeding. Cultural and social beliefs are also responsible for some women not breastfeeding.

#### EARLY BREASTFEEDING/EXCLUSIVE BREASTFEEDING

The findings from the data collected show that:

- \* the practise of breastfeeding in Belize is very low especially in urban areas. In rural areas though women tend to breastfeed the practice is also low.
- \* Exclusive breastfeeding is not practised in Belize because people believe their baby needs water and other liquids, (glucose and garlic and aniseed). The practice is to offer these mixtures before breastfeeding is initiated or during the first few months of life.
- \* The group that comes closest to exclusively breastfeeding is the Mayas, who also give water and do not give colostrum.
- \* Country-wide breastfeeding is generally initiated at birth but many women, especially in the rural areas, have the practice of throwing away the colostrum (first milk/yellow milk).
- \* Most mothers do not feed on demand instead they feed on a schedule.

#### MOTHER CARE AND SUPPORT

- \* Rural women do not have much information about breastfeeding while urban women have the breastfeeding information but choose not to breastfeed because they are working or it is inconvenient.
- \* There are many places the urban woman can go to learn about breastfeeding e.g.clinic, hospital, doctor, while the rural women who do not have a nurse in their community, have nowhere to go to learn about breastfeeding.
- \* Most mothers learn from their own mothers and grandmothers and many of their beliefs are handed down from the parents. Grandmothers are the first source of information everywhere and usually the caregiver if the mother goes out.

- \* The rural areas need more information and motivation for breastfeeding and the timely introduction of nutritious foods. In urban areas working mothers find it difficult to breastfeed because they do not get time off from work to breastfeed. Those who do breastfeed also give formula and terminate breastfeeding at four to six months.
- \* There is a lack of well trained health personnel in most of the rural areas.

#### SUSTAINED BREASTFEEDING/COMPLEMENTARY FEEDING

- \* The ages at which complementary foods are introduced ranges from 3 weeks to ten months.
- \* In the urban areas complementary foods are normally offered too early and in the rural areas too late.
- \* The types of complementary foods introduced are non-dairy foods and foods low in protein. These are usually high starch porridge with sugar and no milk, though some women do offer egg.
- \* High bio-available protein foods such as meat are introduced only after one year of age because it is believed that they cause worms. Vegetables are rarely if ever included in the diet of the child who is eating solid foods.
- \* Foods are introduced to acquaint the child with them or to replace breastfeeding rather than to complement breastfeeding.

#### **BELIEFS AND PRACTICES**

- \* In general the women who breastfeed are doing so purely for economic reasons and from tradition.
- \* There are still many myths and beliefs concerning the types of foods the breastfeeding mother should or shouldn't eat. Conch, tomatoes and chocolate shouldn't be eaten but she should drink a lot of milk, cocoa and juices.
- \* There are not many differences between the practices and beliefs of mothers with one child and mothers with more than one child. The mother with more than one child is more likely to breastfeed due to economic reasons.
- \* The mother with only one child is more likely to receive help from her husband and family members while the mother with more than one child does not.

- \* Both urban and rural mothers believe in restraining from eating certain foods when breastfeeding and eating certain other foods such as cocoa, fever grass and milk to produce breastmilk.
- \* The general practice is to feed the child the food the child likes rather than what the child should eat.
- \* People have a general idea of what malnutrition is and what the malnourished child looks like but they are not clear about the causes of malnutrition. They usually cite poor hygiene or worms as the causes. Interestingly enough they do not know how to treat malnutrition and do not realize that the mother herself can treat the malnourished child.

#### **KNOWLEDGE AND PRACTICES OF NURSES**

- \* Both maternity and public health nurses do not believe thay have the time for doing in-depth breastfeeding and infant feeding counseling. Their recommendation is that the MOH needs a special unit for breastfeeding/infant feeding where they can refer patients.
- \* The public health and rural health nurses have been identified as the major source of information for mothers to go for help concerning breastfeeding and child care. In the rural areas the CHWs and the TBAs have been identified as resource persons.
- \* Public health and rural health nurses rather than maternity staff nurses are more involved with the education of the women and the knowledge of the practices in their areas. Maternity staff say they only spend a short time with the patient so they do not know what happens before the patient comes to the hopsital and after she leaves.
- \* All mothers do not receive information on breastfeeding and infant feeding with each pregnancy but rather the nurses spend most of their time educating the first-time mothers.
- \* Hospitals and health centres lack updated information and materials for distribution on both breastfeeding and infant feeding. There is a lack of resources and support for health personnel to promote breast and infant feeding.
- \* Nurses received basic breastfeeding and infant feeding information at school and most of them, especially Public Health and Rural Health Nurses, have attended workshops where they received in-depth information.
- \* Nurses believe that most women today do not breastfeed because they are worried about their figure and they feel it will prevent them from going out. Also that working mothers are more concerned about breastfeeding than housewives. They say in urban areas more working mothers than housewives breastfeed.

#### **COMMUNITY INTERVENTION**

- \* Rural communities prefer meetings and discussion groups as a means of obtaining information. The urban communities prefer messages on T.V. and radio, posters and talks at the health centre.
- \* The communities believe that education should start from primary school and before the mothers deliver.
- \* There is a lack of mass media campaigns to educate mothers.

#### VII. RECOMMENDATIONS

The key elements for the success of behavioral changes are mainly knowledge, skills and willingness for improvement. The current beliefs, practices and motivations for breastfeeding are known; the knowledge base and problems identified. The consideration of these factors is essential for identification of sustainable solutions to problems of breastfeeding and infant feeding to be implemented at household, community and professional levels. It is important that breastfeeding promotion and continuous support to parents and care givers be given because this can help tremendously in reducing the commercial pressures for artificial feeding.

In communities with a poor child health profile, infant feeding practices need to be improved substantially, especially with nutritionally improved foods and child care. This also means that women need strong support during pregnancy and lactation, specifically in areas of physical and nutritional health, stress level and shared workload.

All programme actions should include realistic, continuous and sustainable goals that will be monitored and evaluated. In addition to this, actions to improve exclusive breastfeeding and infant feeding practices should be aimed at increasing the food and nutrition security of Belize by using locally produced nutritive-rich baby foods.

- 1. Mass media intervention targeting mothers and fathers (primary audience), grandmothers and TBA/CHW (secondary audience), nurses and physicians (tertiary audience).
- 2. It is difficult for mothers to practise exclusive breastfeeding because of their attitudes, expectations and cultural beliefs. The suggestion is to establish a programme to aggressively promote exclusive breastfeeding.
- 3. Identify and reactivate persons who had been trained as breastfeeding counselors and investigate mechanisms for their support. Train the district coordinators to work along with the nurses and the CHWs in breastfeeding and infant feeding. The district coordinators can plan district strategies along with the nurses, but the district coordinators along with the CHWs and breastfeeding counselors can be responsible for conducting the actual education and promotion of breastfeeding and infant feeding. Nurses will serve as resource persons and support. The CHWs and breastfeeding counselors would be supervised by and report to the district coordinator in their respective districts.
- 4. Nurses and physicians should receive yearly updated information on breastfeeding and infant feeding facts, promotion and management.
- 5. Provide a written curriculum on breastfeeding and infant feeding education and promotion for pre-natal and post partum mothers and mothers with older infants in order that the information given can be standardized country wide.

- 6. Supervisors of persons responsible for breast and infant feeding education and promotion need to ensure that their staff is trained in the knowledge and promotion of breast and infant feeding and that they are actually doing the promotion.
- 7. Provide the maternity staff and public health nurses with a list of the names and addresses of breastfeeding counselors to give mothers at least one of these names upon discharge from the hospital.
- 8. It is necessary for the government to develop legislation that grants working mothers the right to get time off to breastfeed or provide a place and time for them to express and store milk.
- 9. Implement a campaign targeted at parents and caregivers to promote the appropriate and timely introduction of nutritious complementary foods, and the use and production of local foods. Teach mothers the food guide pyramid, food guidelines for infants and children and the consideration principles for introducing foods to children.
- 10. Coordinate activities between MOH, Ministry of Education (MOE) and Ministry of Agriculture and Fisheries (MAF) to promote and support backyard gardening with parents.
- 11. Develop or revise any existing ones, and promote a complementary foods booklet for infants and toddlers. This should include suggestions for utilizing local staples, vegetables and fruits. Also it should contain recipes to improve the nutrient content of the complementary foods currently being offered to children.
- 12. Develop a food guideline for infant feeding and teach health professionals how to use and promote the food guidelines.
- 13. Educate all mothers attending pre-natal clinic on breastfeeding.
- 14. Educate all mothers attending child health clinic on infant feeding.
- 15. Educate school children about breastfeeding.

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## Breastfeeding and Infant Feeding in Belize



A Qualitative Study on the Current Breastfeeding and Infant Feeding Knowledge, Attitudes, Beliefs, Perceptions and Practices in Belize

**ANNEXES** 

December 1997

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#### ANNEX 1

# RESPONSES FROM FOCUS GROUPS AND IN-DEPTH INTERVIEWS1

# FOCUS GROUPS WITH MOTHERS WITH MORE THAN 1 CHILD TOLEDO DISTRICT

RURAL COMMUNITIES: KEKCHI-Aguacate (AG); MAYA -Santa Cruz (SC)

**URBAN COMMUNITY: MAYA- Punta Gorda (PG)** 

## 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge (AG - SC)**

In the rural areas mothers get some information from nurses, but they said "there is no where in the village we can go for help with breastfeeding". A mother (SC) said that "nurse told me that bottle isn't good for the baby". Their lack of knowledge is such that no one knew about colostrum, they never heard the phrase complementary foods and they didn't know about vitamins. They said they get some advice from their mothers and grandmothers and what they have seen at their homes. Mothers know that it is better to breastfeed and that "you should breastfeed the ill baby because it will help them to get better", but mostly their motivations are due to economic reasons like "because we do not have money to buy and wash bottles".

# Knowledge (PG)

1

In Punta Gorda Town, mothers receive more information from the clinic during pregnancy and they can go to BFLA and the breastfeeding counselors for help. Mothers know that breastfeeding "protects against loose stools", "is nutritious and helpful for mother and child", that "colostrum is nourishing for the baby" and also that "stress can affect a mother's ability to breastfeed". Some mothers said they experienced that. Like in the rural areas, they receive advice from their mothers and grandmothers, also as in rural areas they expressed that they have economic reasons to breastfeed "it is cheaper".

Responses from the focus groups and in-depth interviews are recorded in the language and terminology of the participants as far as possible.

#### Beliefs and Practices (AG-SC)

Mayan mothers (AG) believe breastfeeding is good and should start at birth but they do not know why. In SC mothers believe "colostrum is not good" and instead of giving colostrum they give the baby warm water for the first three days. The practice is to start breastfeeding three days after the baby is born (SC) because they believe "the baby can grow". Mothers living in both rural areas said they breastfeed on demand when "the baby is hungry". The practice is that if the baby refuses the breast they will give him water (AG) or they "beat the baby" (SC). In both places, they believe it is convenient for them to breastfeed because "baby goes everywhere with mother". They said in their culture "no one bottle feeds", because "breast is enough". There are no restrictions on breastfeeding if the mother is upset or angry because "it has nothing to do with the baby" neither when she is sick "because the baby isn't used to bottle". They breastfeed for one to one and a half years. Mothers will drink milk and caldo to produce breast milk and will eat special foods such as beans and fish (SC) or calaloo, potato and cassava (AG). They said they don't get any help at home with chores or feeding, and do not get any encouragement.

#### Beliefs and Practices (PG)

Mothers living in PG believe that colostrum (called the first milk or false milk) is good for the baby. They initiate breastfeeding as soon as the child is born and they do it on demand. Some mothers claim that the nurse at the hospital gave their baby a bottle. They believe most mothers have not had the experience of the child refusing the breast, but if that is the case they will alternate with a bottle or they will express the milk to give it to the baby. They believe that "bottle feeding is more convenient because the mother doesn't have to take the child everywhere with her," and mentioned that the reason why many young women don't breastfeed is because they want to feel free. If a mother gives formula she will follow the directions on the can. Although it is a common practice for mothers to breastfeed for up to one and a half years this is not exclusive as some mothers introduce juice at two weeks. They believe that there is no reason why mothers cannot breastfeed when they are angry or frightened. Also they believe that when you are breastfeeding you do not need to eat any special foods.

# 2. Complementary Feeding/Sustained Breastfeeding

# Knowledge (AG - SC)

Mothers in AG and SC seemed to have very little knowledge about nutrition. They said "never heard the words complementary foods before" (AG). In one community mothers knew some signs of malnutrition such as "baby has diarrhea, doesn't eat good, is thin" (AG), in the other community one mother said "with my first baby I didn't know how to feed it because no one taught me, so maybe the baby was malnourished" (SC).

# Knowledge (PG)

Mothers living in PG mentioned that malnutrition is when "a child is pale, underweight and not following the growth chart". They also believe that you have to give vitamins to the baby at one year of age.

#### Practices (AG)

In both rural communities mothers said that they give foods like caldo (soup), porridge made of flour and sugar, coffee, flour/corn tortilla, rice (AG), potato or pumpkin (SC). After giving complementary food (a term that is unknown to them), they will breastfeed "so the food could digest". They said that you have to give additional foods so the baby can get healthy. They will give banana, egg, tortilla and rice (SC) when the baby is six months and meats like fish, gibnut, pig, chicken, duck at one year (AG). They have different practices when the baby refuses food. Mothers from AG will try again while in the other area (SC) they will leave the baby alone or lash him. In both communities mothers prepare the baby's food and feed the baby. When breastfeeding stops the child eats what the family eats. Some mothers said that when the baby is ill it is better to leave him alone "until he decides to eat again" (SC).

#### Beliefs - Practices (PG)

In the urban area mothers introduce foods at three to four months. They give cereals, although some mothers introduce juice at two weeks. Usually it is the mother who feeds the baby and she encourages the child to eat. If the child still doesn't want food, she gives the child what he wants even though they stated that you should "feed the baby what the mother thinks is nutritious, not what the baby wants." During the period when they are breastfeeding they said they get support from their mothers and sisters, and some husbands. They believe that if the mother is eating a balanced meal no vitamins are needed for the breastfed child. They will give vitamins to the child at one year.

# Suggestions (AG) - (SC)

In the rural communities the mothers think that a women's group should be formed so they can have meetings and get information (AG). But also they think that they need the nurse to come more often to teach them about taking care of their babies (nurse comes every two months) (SC). Mothers think that the best way to give them information is to have meetings with them.

# MOTHERS WITH MORE THAN 1 CHILD STANN CREEK DISTRICT

RURAL COMMUNITY: GARIFUNA-Seine Bight (SB)

URBAN COMMUNITY: GARIFUNA-Dangriga (DA)

## 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge (SB)

Mothers living in SB know the following: that breastmilk is healthier for the baby than formula, breastfeeding helps to control bleeding and makes the placenta come down faster, the colostrum is the first milk and that breastfeeding is more convenient, "no money to buy formula, don't have to get up at night". All this information they got from the health centre and the BIB counselor.

### Knowledge (DA)

In Dangriga mothers learned about breastfeeding at the clinic and in the hospital. They learned about colostrum at the clinic and at school. They think that the best way to reach the people is through talks in the evening and individual meetings.

#### Beliefs/Culture and Practices (SB)

In SB mothers believe that the breast doesn't have milk until two to three days after birth but they offer the breast ten minutes after birth "so the baby can get used to suck". They also believe that the breastfeeding mother should not eat avocado because it makes the baby sick, and that beans, give the baby loose stools. Also, they believe that a mother cannot breastfeed if she has a fever because the baby will suck the fever or if she has any kind of stress "because it will enlarge the baby's heart". But if you breastfeed at night, the baby will sleep longer. They think that the mother should drink coconut water when she has problems with the breast. Some mothers believe that the baby should stop breastfeeding when the mother gets pregnant again while other women continue to breastfeed until they deliver. In practice they said that breastfeeding depends on whether the mother works or not. If she is working, she will leave the baby with the grandmother. If she stays at home the baby is fed on demand or whenever the baby cries but working mothers feed on a schedule. If the baby refuses the breast or if the mother is busy she will give a bottle. Although they said they get information from the clinic, when they have problems with breastfeeding they go to the older ladies in the community.

#### Beliefs/Culture and Practice (DA)

In DA mothers believe that the colostrum opens the baby's eyes. One mother said she squeezed out the colostrum but she doesn't know why. They said that they initiated breastfeeding at birth. (except for one mother who did not breastfeed due to inverted nipples). They give the baby water one day after birth because it is thirsty. They give brown sugar and water which prevents the baby from getting pain in the belly at night and start giving starch at one to three weeks after birth so the baby can get full (learnt from parents). If the mother is angry/frightened she should not breastfeed because the baby will froth at the mouth. Also if the mother is ill the baby is not breastfed because he will get ill too. On the other hand, a sick baby is breastfed. In this urban area

mothers breast and bottle feed; they said it is more convenient to bottle feed because breastfeeding takes too long or because they are too young. They did not have the experience of the baby refusing the breast. The baby gets formula such as Lactogen or Enfamil. At nine months it gets Klim which is prepared: two scoops formula to two oz water or two scoops formula to three oz water. Breastfeeding mothers do not eat any special foods; they just drink a lot of juices and milk. Some mothers feed on demand and others on a schedule. They said that women can go to the health centre for help but sometimes the nurses don't have the information.

## 2. Sustained Breastfeeding/Complementary Feeding/Weaning

#### Beliefs/Culture and Practices (SB)

In SB mothers believe that they should give complementary foods when the baby is between three to five months old. They said that it is good to give babies the local porridge: cassava, cornstarch, flour but to also give them mashed potato, soft banana, bread soaked in milk, orange juice, and Gerber processed foods. They start complementary foods because the baby starts to get uneasy. Also they give a bottle because the baby does not get full with the breastmilk alone. They believe that rice gives the baby rash. Depending on whether the mother works or not the grandmother prepares food or feeds the baby. When the child refuses food, they spank the child, take him to the nurse, or go to the elderly for help. Mothers get support from the family. They give the baby vitamins to give appetite and help the baby to resist diseases. When the baby is taken off the breast it eats from the family pot.

#### Beliefs/Culture and Practices (DA)

In this urban area complementary foods such as potato, banana, soup, rice, egg. are introduced at four to six months. If the mother has to go out the grandmother looks after the baby and cooks and feeds the baby. Food is given to the baby first, followed by formula. Some mothers believe that if the child refuses to eat you have to force feed because it needs to eat, but some others said that the child should be given what it wants to eat e.g. if it likes noodles, give noodles. When breastfeeding is completely terminated, the child eats what the family eats. They start giving vitamins at three months.

#### Knowledge (SB)

They know that a baby is malnourished when it refuses to eat, is thin, its hair falls out, it is restless, weak and has loose stools. But they do not know what to do with a malnourished baby.

# Knowledge (DA)

In DA mothers said that a malnourished child is skinny and has a bony face. It is caused because the child is not fed enough or not at all. The first step for treatment is that someone should talk to the parent.

## Suggestions (SB)

In the rural area mothers suggest that the MOH should put a nurse in the village because there is no one to help the mothers and they feel they need more education on breastfeeding and infant feeding.

# MOTHERS WITH MORE THAN 1 CHILD CAYO DISTRICT

RURAL COMMUNITY: MESTIZO -Calla Creek (CC)

<u>URBAN</u> COMMUNITY: MESTIZO-San Ignacio (SI) (one mother)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

# Knowledge (CC)

Mothers in rural areas know that the "breastfed baby is not sickly" and that "sick babies should be breastfed". They got this information from the clinic, where mothers attend only during pregnancy. Otherwise "there is no where to go for help in the community, the nurse comes every two months" and they need more information about infant feeding.

#### Knowledge (SI)

The only mother interviewed in this urban community knows that breastfeeding lets the child develop fast, it is natural and the child receives all the nutrients from the mother. Also she said that "it is good to breastfeed when the baby has diarrhea, it is economical" and that breastfeeding should be initiated at birth so the baby can get the first milk. She got all this information from books, her sister, neighbor and mother. Also she said that it is good to listen to the advice of parents because they have experience. In SI the clinic gives breastfeeding information which is accessible to the public.

#### Beliefs/Culture and Practices (CC)

In the rural area, mothers know colostrum as first milk and they initiate breastfeeding two hours after birth. They believe that breastfeeding is more convenient and their practice is that "none of us give bottle". However, it is a belief and also a practice to give gripe water until the milk starts to flow and some give formula. Mothers that breastfeed do so on demand and they know the child is hungry because it sucks its finger/cry, or the mother feels the let down of milk. The few mothers who do give formula prepare it: one scoop milk to one ounce water and one scoop cereal. They do not believe that there are special foods for breastfeeding mothers. They said that they do not get encouragement from home to breastfeed although if they have to go out or to work, they will leave their baby with family members. The practice is to breastfeed for up to a year and a half. They breastfeed if the mother is frightened, angry or if the baby is sick. They introduce foods at four to five months.

#### Beliefs and Practices (SI)

The mother from SI believes that the first milk cleans out the baby but her baby got water and glucose at one day old because it had jaundice and this cures the jaundice. The practice then is to give water to baby at one day old. She breastfeeds on demand. She initiated breastfeeding at birth and will terminate it when the baby is ready. She said that her baby hasn't refused the breast but if it does she will give formula. She believes that a breastfeeding mother should eat different from

the family e.g. maicena (corn porridge), cocoa, milk, custard but should refrain from eating avocado, pigtail, coconut and chaya because the child won't be able to digest them. She also believes that she will continue to breastfeed if she is ill because nothing is wrong with the milk but not when she is frightened. The baby she believes, should not get the first milk at this time.

#### 2. Sustained Breastfeeding/Complementary Feeding/Weaning

### **Beliefs/Practices (CC)**

In CC the complementary foods given to babies are beans, potato, corn tortilla, yams, cornflakes in milk, carrots, soup from beans or any foods the family eats. They also give a special porridge made from commeal. Mothers prepare the food and feed the babies. They stop breastfeeding when the child decides. They give the baby what it likes. If not they believe that the baby will vomit. Also babies are fed three times a day like grown ups. A baby gets meat when it has teeth.

#### Beliefs/Practices (SI)

The urban mother said that it is a practice to introduce complementary foods at three to four months, the same time that vitamins are given. She believes that vitamins will protect the baby from illness. It is a belief that a baby should not be fed food and bottle together because the child might over eat. The baby is given a bottle and then complementary food. She gives breast and bottle because she has to go back to work. She believes that bottle feeding is more convenient, also that you have to give complementary foods so the baby can learn to eat. In this particular case the baby sitter cooks and feeds the baby. She believes that if the child refuses food, "try bottle, then try to encourage the child to eat". It is a belief that the child who doesn't get the breast anymore is fed on a schedule and the practice is that he eats what the family eats.

## Knowledge (CC)

The rural mothers said that malnutrition is when a baby has "big belly, is sad, doesn't grow, doesn't gain weight and has a poor appetite". This is caused by worms or when the child is not well taken care of. The treatment they know is to take the child to the clinic.

# Knowledge (SI)

The urban mother said that malnutrition is when a "child has a big belly, sunken eyes and weight loss".

# Suggestions (SI)

The urban mother suggests that to reach the mothers about breast and infant feeding: "give pamphlets, and talks at the clinic". She doesn't think the nurses are reaching the people because a lot of mothers do not breastfeed.

# MOTHERS WITH MORE THAN 1 CHILD BELIZE DISTRICT

RURAL COMMUNITY: CREOLE-Santana (SAN)

URBAN COMMUNITY: CREOLE-Belize City (BC)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

## Knowledge(SAN)

Mothers from this area know that "breastfeeding makes the baby healthier", "it prevents the baby from getting ill" and that "colostrum is good for the baby". Also they know that breastfeeding is more convenient, because "you don't have to worry about preparing anything, the milk is always ready". They received information at the clinic on how to prepare the breast, and some got information from their mothers "who are very supportive".

#### Knowledge (BC)

In BC mothers know that "breastfeeding helps the baby to get more mature, it keeps the skin clean, it is nourishing, it is cleaner than bottle, it gives the baby strong bones and teeth" and that "the breastfeeding mother needs to drink milk and eat fruits and vegetables". The mothers learned about breastfeeding at the pre-natal clinic, BIB and from their parents; but not at the hospital. They took Ms. Eva Middleton's advice because she is very experienced. If they have breastfeeding problems they can go to the hospital, their mother or BFLA.

#### Beliefs/Practices (SAN)

The practice of the mothers living in SAN is to start breastfeeding the first day the baby is born. Colostrum which is called "first milk," is given to the baby. The baby is given gripe water for hiccup. The child is breastfeed on demand and breastfeeding will be terminated between 1-3 years. The practice is that if the mother needs to go out she takes the baby since she does not give bottle. Mothers know when their baby is hungry because they feel it in their breasts. During the breastfeeding period, mothers eat a lot of greens and meat and drink a lot of water and juice. If she is angry or frightened the mother still breastfeeds. She will also breastfeed if she is ill providing she has milk. If the baby is ill the mother breastfeeds on the advice of the doctor.

### Belief/Practices (BC)

In Belize City mothers said that it is a belief and a practice to give colostrum because it brings down the milk. It is a practice that breastfeeding is started once the nurse gives the mother the baby and the baby is not sleeping. They never had the experience of the child refusing the breast. It is a belief that "the infant should be given water so it doesn't get sunken mole (fontanelle) or dry skin" also to give the baby gripe water for hiccups, to help it burp, and stool. They believe that a breastfeeding mother should restrain from eating pork, craboo, pine, mango, corn and potato salad until the baby is nine months old. They believe that these foods will give the baby puff belly. They said that babies are breastfed for one to three years. They believe that an angry

or frightened mother should not breastfeed because the baby will get stressed (doctor said so), they know a woman whose baby died that way.

#### A Sustained Breastfeeding/Complementary Feeding/Weaning

#### Knowledge (SAN)

In this area mothers know that "complementary foods are foods from the pot". The foods offered to the baby are the ones the mother knows are good for the child e.g. vegetables. In SAN mothers know that malnutrition is when "a child does not eat well, has no appetite, doesn't sleep and is thin and underweight". It is caused when the child does not eat and drink. The treatment they know of is to feed the child and check with the doctor. In Belize City they said that malnutrition is when the baby has light eyes, light weight, cries a lot, is weak, pale and doesn't play. Malnutrition occurs because the mother doesn't feed the child, or she doesn't have money to buy food. The treatment they recommend is to go to the doctor.

#### Practice (SAN)

In SAN foods and liquids are introduced at four months e.g. potatoes and gravy which they get from the family pot. Babies are given food first then breastfed. A child receives bottle and breast after four months. A baby is weaned at two years and eats what everyone else eats. He gets three meals per day plus a snack in the morning and afternoon.

#### Practice (BC)

In Belize City it is a practice that foods are introduced at six to nine months. The foods given are Gerber (two mothers), egg, chicken, rice, beans, flour lab<sup>2</sup>, oats, custard (made with condensed/carnation evaporated milk) also cassava or corn lab. Formula with cereal is introduced at six months because then the breast is not enough, they prepare it: four oz water, four scoops formula, three scoops cereal. The mother cooks and feeds the baby. The child who doesn't take the breast anymore eats what the family eats. It is a belief and a practice to give the baby vitamins and tonic at one year "so they do not get low blood".

#### **Suggestions**

In SAN, thy believe that the first time mothers especially need information and that the best way to share information is at the health centre. In Belize City they said that they know mothers need to be coached on breastfeeding techniques and they think and suggest, that the best way to teach people is: to have T.V. shows, go house to house, have meetings on Sundays.

<sup>&</sup>lt;sup>2</sup> Creole term for porridge made from flour.

#### MOTHERS WITH MORE THAN 1 CHILD ORANGE WALK DISTRICT

RURAL COMMUNITY: MESTIZO-Santa Cruz (SCOW) (there was only one mother with

one child, she formed part of this group)

URBAN COMMUNITY: MESTIZO-Orange Walk Town (OWT)

#### 1. Exclusive Breastfeeding/Early Breastfeeding

# **Knowledge (SCOW)**

Mothers living in this area know that breastfeeding is healthy, economical, forms a bond between mother and child and is more convenient and easier than bottle feeding. They got information from the nurse and the CHW but they know that the best way for them to get information is at the mobile clinic because everyone will pay attention.

### Knowledge (OWT)

In OWT mothers get breastfeeding information from the clinic, the doctor, friends, and from books. They know that "breastfeeding makes the baby healthier, it is not sickly, it is cheaper and comfortable for both mother and child. They said that anybody can get the information which is very helpful and that the best way to get information to the community is at the clinic, through health workers, have meetings in different areas of town or to distribute pamphlets with pictures.

#### **Beliefs and Practices (SCOW)**

Mothers in this rural area believe that colostrum, which is called "first milk" should not be given to the baby, They contradicted themselves however, when they said that the practice is to put the baby to the breast immediately after birth. The "women do not give colostrum, they squeeze it out". They said "no commercial products are available at the birth place". It is a practice to breastfeed on demand. In order to produce breastmilk mothers drink a lot of milk and juice. It is a practice that some women breastfeed until the child is two years old and others when they get pregnant again. It is a belief and a practice not to breastfeed if a mother is angry because the baby will get gripping, if she is frightened because the mother will not produce milk, and if she is sick because her baby will get sick too. But if the baby is sick the mother still breastfeeds. It is a practice that the family provides support to the mother when she is breastfeeding. Also if the mother needs to work she will leave the baby with the grandmother or aunt and give formula. To mix the formula, she will follow the directions on the container. Mothers try to follow the advice given by the nurse and the CHW.

# **Beliefs and Practices (OWT)**

Mothers from OWT call colostrum "the first yellow milk" and they believe colostrum is good for the baby although one said a nurse told her it isn't good. Two mothers did not give colostrum the others did. It is a belief and a practice to give the baby water a few days after birth to prevent constipation, glucose for jaundice, gripe water for belly ache, aniseed and garlic for gas pain and orange juice for cough. It is a practice to initiate breastfeeding at birth, (two mothers said that because they had a caesarean-section they started breastfeeding one week after birth). Only one

mother exclusively breastfed for six months, the others introduced formula as early as a three to four weeks. They said that mothers terminate breastfeeding between five months and two years. The women usually breastfeed on demand. They also breastfeed the ill child. Three mothers express their milk if they have to go out, the others give formula especially if they "are busy". It is a belief that if a frightened mother breastfeeds the baby can die. in order to prevent the child's death, she has to squeeze out the first milk. Also she has to avoid foods like cabbage, tomato, beans, egg, chocolate while she is breastfeeding because they cause the baby to have gas. Mothers believe and had the experience that breastfeeding does not prevent pregnancy. They believe that if the breast gets too full the mother will get a fever. It is a practice that a breastfeeding mother gets help at home with chores.

# A Sustained Breastfeeding/ Complementary Feeding/Weaning

#### **Knowledge (SCOW)**

In this rural community they know that malnutrition is when a "child looks sick, does not play, doesn't want to eat, sleeps a lot and looks sad". It is caused from lack of hygiene and an unbalanced diet. The treatment is to give calcium so the bones can get solid, also to take the child to the doctor.

#### Knowledge (OWT)

In OWT malnutrition is when a "baby is sick, doesn't want to play, or doesn't want to eat". The causes mentioned were "the child doesn't eat healthy or the mother doesn't have food;" and the treatment is to take the child to the doctor.

# **Beliefs and Practices (SCOW)**

In the rural area they believe that "there are no foods that are harmful to the baby". They introduce soft foods from the family pot or semi-solid foods, Gerber and other liquids at two to four months. Some mothers give food first then the breast. Others give breastmilk first then food. The follow-up feeding is done in case the child is not full. Mothers cook and feed the child. Most mothers do combination feeding. When a mother goes out the child is left with the grandmother. It is a practice to terminate breastfeeding at one to two years, usually the child gives up the breast. The child who does not get breast or bottle eats what the family eats and is fed on a schedule. Children are fed the foods they like. If a child doesn't want to eat, the mother takes him to the doctor.

### **Beliefs/Practices (OWT)**

In the urban area a baby starts with complementary foods between one to four months. He will be fed with liver, egg, carrots, Gerber, (they said that the mother usually asks the nurse what foods to give baby). When the baby does not receive breastmilk anymore it gets food from the family pot. He will be given three meals and snacks between meals. He will be fed with the foods he needs not what he wants. If the child refuses to eat, the mother feeds it herself or forces the baby to eat. Usually a baby gets vitamins between four to six months, but if it is born with an illness it gets vitamins earlier.

#### MOTHERS WITH MORE THAN 1 CHILD COROZAL DISTRICT

RURAL COMMUNITY: MESTIZO-San Victor (SV)

URBAN COMMUNITY: MESTIZO-Corozal Town (CO) (information could not be included)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge (SV)

Mothers in SV know that "breastmilk is good for growth and development, it helps to prevent diseases especially diarrhea, the mother doesn't have to buy milk and it helps in a way with family planning". The women receive information at the prenatal clinic, from the TBA, the CHW, the hospital and their neighbour. The advice to prepare the nipples was very helpful. They said their mothers did not have any advice. They think that the best way to receive information is through village meetings, home visits and at prenatal clinic.

#### Belief and Practices (SV)

In this rural area the mothers' practice is to initiate breastfeeding right after birth. It is a belief that the breast does not have enough milk so the baby has to get formula. The mothers practice combination feeding. If a baby refuses the breast it is offered a bottle. When a mother is busy or when she has to be away she leaves the baby with the grandmother who gives the formula. They follow instructions on the can to prepare the formula. It is a belief and a practice to give glucose after birth, other mothers prepare a cloth with alusema, aniseed, and romero (herbs) which they give to the baby to suck. Mothers feed on demand and they terminate breastfeeding at one to two years. They do not believe that a nursing mother has to eat special foods but it is a practice that a breastfeeding mother drinks a lot of Milo, milk, and porridge (oats and masa). They know that the "baby is hungry when the mother offers the bottle/breast and the baby takes it or if she feels a flow of milk". It is also a practice that if a mother is angry or frightened she still breastfeeds, also when a baby is ill; because "that is all that it wants". Mothers receive support from their mothers and husbands.

# 2. Sustained Breastfeeding/Complementary Feeding/Weaning

# Knowledge (SV)

The mothers said that malnutrition is when "a baby does not want to play, it has a poor appetite, is skinny and only wants to sleep". The cause is poor hygiene and the treatment is to take the baby to the doctor.

#### Belief and Practice (SV)

Mothers from this rural area believe that "complementary foods should not be given before nine months because the baby is too small and can get diarrhea". They get food the family eats or Gerber. The baby is fed first then offered the breast or bottle. The mother prepares the food and feeds the baby. They also believe that "babies should receive vitamins if the doctor or nurse says they need it". The child usually leaves the breast on its own; at one to two years. At this time, it eats when and what the family eats. A child is fed what it needs not what it wants and if it refuses to eat it is encouraged.

# FOCUS GROUPS WITH MOTHERS WITH ONLY ONE CHILD TOLEDO DISTRICT

RURAL COMMUNITIES: MAYA-Santa Cruz (SC) (3 mothers); KECKCHI-Aguacate

(AG) (no mothers with only one child)

URBAN COMMUNITY: MAYA-Punta Gorda (PG) (3 mothers)

### 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge (SC)**

Mothers in the rural area know that "breastmilk is good because the baby grows good and healthy, it is more economical and they do not have to use bottle". They had never heard about colostrum. One of the mothers said the nurse told her to give the breast a few hours after the baby was born. They learn about breastfeeding from their mothers because "there is no one in the community to help with breastfeeding problems". Mothers do not know when to stop breastfeeding since it is their first child.

#### Knowledge (PG)

In the urban area mothers knew that "colostrum is good for the baby, that the breast is more convenient than bottle and that a mother should breastfeed when the baby is ill". They get information from pre-natal classes, books and breastfeeding counselors. They believe that talks should be given to mothers and that radio messages should be aired. "The best place to go for breastfeeding help is the clinic but many mothers do not go. They "do not think the MOH is giving people enough information"

#### **Beliefs/Practices (SC)**

In SC mothers said the practice is to give only breastmilk. They breastfeed on demand e.g. whenever the child cries. If a child refuses the breast they do not give anything. They do not give vitamins because breastmilk has everything. When the mother is breastfeeding the child goes everywhere with her. The practice is that mothers breastfeed if the child is ill because "breastmilk will help the child to recuperate easier". The husband helps the breastfeeding mother with chores.

#### Beliefs/Culture and Practices (PG)

In PG mothers believe the breast doesn't have milk for the first week, so they gave the baby formula until breastmilk was produced. They believe that it is "very demanding to breastfeed, because the mother has to take the child everywhere with her", also that "breastfeeding is good but some babies do not want the breast". In spite of what they believe all the mothers were breastfeeding every four hours. It is their belief that at six months the mother should give breastmilk and formula. In practice they will give breast until the baby is one year old. They believe that a breastfeeding mother should eat special foods (didn't specify) but should not eat cold

things because it gives the baby puff belly e.g., for the first three months she should not eat beans and corn. The baby won't take the breast if the mother is upset. One of the mothers said that the bottle gaves her baby a rash and another believes breastfeeding gives her chest pains. They get support from their families with breastfeeding. The mothers breastfeed before they go out if they have to leave their child.

#### 2. Complementary Feeding/Weaning

#### Knowledge (SC)

In SC mothers were not familiar with the term complementary foods nor did they know what malnourished means (their children are healthy).

#### Knowledge (PG)

They know malnutrition is when the baby doesn't have the correct weight.

#### Beliefs/Practices (SC)

Although mothers in SC did not know the term "complementary foods" the practice is to introduce foods such as caldo, mashed rice, or chicken at five to seven months. Sometimes breastmilk is given before complementary foods so the child can be full. When a child is one year it is given all kinds of foods from the family pot. Meats are given when babies have teeth. The practice in the rural area is that mothers and grandmothers prepare porridge for the baby. They give corn porridge (kuun: boil corn in water, prepare it like masa then add sugar, if they have milk it is added). The mother feeds the child what she thinks is healthy but if the child refuses to eat they give biscuit; wait for a while then offer food.

#### Beliefs/Customs and Practices (PG)

In urban Toledo, mothers believe that complementary foods are good for the baby. They prefer to give traditional foods because it is more economical. Some examples of foods offered to the baby are cassava starch with milk, ripe banana with coconut milk, ginger. They also believe that it is good to give the baby formula at six months (four teaspoons cerelac, three teaspoons milk, eight oz water). The practice is that whomever cooks makes the baby's food. They believe snapper is the only fish babies should eat. It is believed that babies should be given vitamins at 6 months (one mother said the doctor told her to give vitamins at three months old).

# FOCUS GROUPS WITH MOTHERS WITH ONLY ONE CHILD STANN CREEK DISTRICT

RURAL COMMUNITY: GARIFUNA-Seine Bight (SB)

URBAN COMMUNITY: GARIFUNA-Dangriga (DA)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge (SB)

Mothers living in the rural area knew nothing about colostrum. They know that "breast feeding is more convenient especially at night"; "breastmilk is always ready and won't get sour". They receive information from grandmothers, nurses, mothers, aunts and at the clinic. They said that mothers need information about breastfeeding ahead of time that is, while they are pregnant.

#### Knowledge (DA)

In the urban area mothers know that "colostrum is good for the baby", that "breastfeeding is cheaper, it is healthier, it is convenient, and more nutritious". At the prenatal clinic the nurse told them about breastfeeding but did not examine their breasts. The hospital nurse also told them about breastfeeding but they learn many things from their mothers. They also know when a baby is hungry because the baby sucks hard, and persistent crying tells the mother that the child is hungry. They think that nurses at the clinic need to have better attitudes and give better explanations. The best way to get information to people is to form clubs and meet often, the club can teach the expectant mothers. Evening is the best time to meet mothers".

### Beliefs and Practices (SB)

In SB mothers call colostrum "white water and believe it should not be given to the baby". It is the practice to start breastfeeding the second day after birth because the breast has no milk before that and also the breast hurts. It is a practice to introduce liquids other than breastmilk on the third day after birth. Mothers were not exposed to commercial products at the hospital. They believe that when a mother has a cesarean section, she cannot breastfeed because she has no blood. It is a practice that if a baby refuses the breast to offer a bottle. They also believe that a breastfeeding mother should eat special foods, although they did not specify which ones. It is a belief and a practice that breasfeeding mothers do not eat fish such as shark, it gives the baby rash, (if someone passes with shark some of the shark blood must be rubbed on the baby's lip to prevent the rash), beans without garlic, mango, craboo and plantain, because the baby will get puff belly. It is a belief that a mother should not breastfeed when she is angry because the baby will get angry too. It is a practice to breastfeed a sick baby (they feel sorry for the baby, it is the only thing the baby won't vomit). The belief is that "breastfeeding is good for five months because after that the breast starts to hurt". It is a practice to breastfeed and bottle feed (only one mother exclusively breastfed). To prepare the formula they follow instructions on the container. Breastfeeding is terminated between six months and one year. The mothers receive support from their families when they are breastfeeding.

#### Beliefs and Practices (DA)

In the urban area, the mothers' practice is to give colostrum but they believe that you have to "give the baby water because it is thirsty, gripe water for gripping, glucose and water for jaundice and to clean out the baby's lines". They initiated breastfeeding at birth when the baby was given to them and started to give water when they were released from the hospital. They believe that "breastfeeding hurts because your nipples get sore" but "if the baby refuses the breast, force him and he will eventually take it". Mothers cannot give bottle in the hospital. There are exceptions, like "one mother who had ceserean birth said the nurse gave her baby formula. She did not start breastfeeding until two days after delivery". Two mothers breastfed for only three days because breastfeeding hurts, the others breastfed longer. The mothers believe that a pregnant woman should not breastfeed because the baby will get sick, also a sick mother should not breastfeed, the baby will get the sickness. A frightened or angry mother should not breastfeed because the baby will get stressed but if she does, she has to drink a cup of water first. It is a belief that if an "ill baby does not want to breastfeed; give sugar and water". It is a practice that "mothers breastfeed the ill baby, it is healthy". They believe that a "breastfeeding mother needs to drink a lot of: cocoa, tea, milk, watermelon and papaya juice so the breast can get full" but there are some foods that "a breastfeeding woman should not eat such as: soursop, conch, lobster, craboo, mango, and certain fish. These foods can give the baby loose stools. It is a practice to breastfeed on demand and to terminate breastfeeding when the baby wants. Also, they said it is a practice that "most young girls do not breastfeed because they don't want their breast to hang and they can't go where they want". If the mothers give formula they prepare it depending on the age of the child: at three months three scoops formula, eight oz water, five scoops nestum; at six months: six scoops Klim, six scoops nestum and at one year two scoops Klim, four cerelac, eight oz water. Mothers get help from their families when they are breastfeeding (chores, support).

#### 2. Complementary Feeding/Weaning

# Knowledge (SB)

In the rural area "no one had knowledge of complementary foods, they just call it food from the family pot e.g. potato, bundiga (green banana), tapou (green banana in coconut milk with fish), eggs, huduut (mashed plantain in coconut milk with fish), rice". Mothers in the rural area said that "signs of malnutrition are: skin folds, big belly, eyes sink in, the child gets loose stools and vomits easily". The causes are "the baby doesn't eat the correct foods, lack of vitamins, or the baby eats dirt". To treat him/her provide the correct food, give vitamins, and take care of the baby.

# Knowledge (DA)

In DA mothers said that malnutrition is when "the hair turns red, the child has a big belly, big head, pale face, doesn't grow and doesn't gain weight". The causes are "poverty, poor hygiene, maybe the baby eats sand"; and the treatment is to give the baby more attention, keep the house clean, go to the doctor.

#### Beliefs and Practices (SB)

In the rural area the practice is to terminate breastfeeding at six months to one year. At seven months a baby receives infantol (tonic). The practice is to give the baby what it needs, not what it wants and if the baby refuses to eat encourage the baby and beat if necessary. They believe that it is good to "give a baby gripe water to prevent puff belly". It is a practice to leave the baby with the grandmother if the mother has to go out.

#### Beliefs and Practice (DA)

In the urban area women believe that foods should be introduced early because the milk alone does not full the baby. The practice is to offer foods to the baby at three months. The foods offered are: mashed potato, rice, noodles, bundiga and Gerber (for a while). Meat is not offered because it will give the baby worms. Babies need vitamins to build their blood. In practice mothers will introduce foods at three months, but one said that she gave her baby nestum (cereal), at two weeks and another one at one year. Local foods given to babies are gungude (banana porridge) and cassava porridge. Anyone helps to feed the baby. The mother or grandmother cooks. When breastfeeding is completely terminated the baby will eat what the family eats. The mother will give what she thinks is good for it. If the baby doesn't want to eat the mother forces him/her. It is a practice to give the baby vitamins at three months or nine months. One mother gave vitamins at three weeks.

# FOCUS GROUPS WITH MOTHERS WITH ONLY ONE CHILD CAYO DISTRICT

RURAL COMMUNITY: MESTIZO-Calla Creek (CC) (there were no mothers with only

one child)

URBAN COMMUNITY: MESTIZO-San Ignacio (SI)

# 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge (SI)

Mothers living in SI do not "know if the colostrum is harmful or good". They know "breastfeeding is more convenient because it is easier to give, it is cheaper and healthier". The mothers know their baby is hungry because it sucks its fingers and cries. The mothers took the advice they received at the prenatal clinic e.g. preparation of nipples, and what they learned in high school. They think that information and health education "helps to keep the baby healthy". They suggested that the best place to receive information on breastfeeding is at the health centres and prenatal clinics. Also that the MOH needs to give out pamphlets to the mothers.

#### **Beliefs and Practices (SI)**

They believe the mother should give the baby the colostrum, which is called the "yellow milk". The practice is to start breastfeeding at birth. They comb the breasts so the milk can come down. They breastfeed in combination with offering glucose with water, because their mother taught them to do so. The practice to introduce formula when the child refuses the breast, also to breast and bottle feed because breastmilk is not enough. If they give formula they prepare it five ounces water to two and a half scoops milk plus one teaspoon cerelac per ounce of water. One of the mothers said that she only breastfed for one week to fifteen days because "the baby wasn't getting enough milk. They said that the common practice among the Mestizos is to breastfeed for up to two years. Most women breastfeed on demand or whenever the baby cries. There were no commercial products at the birth site. It is a practice that if the mother goes out she takes the child with her. They receive support e.g. with chores and encouragement from their mothers and mothers-in-law when they are breastfeeding. They believe that if the mother is frightened or angry she should not breastfeed because the child will get angry too. It is a practice to breastfeed the ill child, because it will throw up the formula. It is a belief that a "breastfeeding mother should not eat beans or rice cooked with coconut milk because the baby will get puff belly. The mother must also avoid avocadoes and beef because they are too cold". They believe that at seven months the baby does not need the breast anymore.

#### 2. Sustained Breastfeeding/Complementary Feeding/Weaning

#### Knowledge (SI)

Mothers know that "complementary foods are foods from the family pot" and that "children do not need vitamins if they eat well". They said that signs of malnutrition are: a poor appetite, the child does not want to play and does not feel well. The treatment is to take the child to the doctor.

### Practices (SI)

The practice is to introduce foods and liquids at three to seven months. They do not give babies rice nor tamalitos (ground green corn, boiled in the corn husk) because the baby will get diarrhea and puff belly. The practice is that children should stop receiving breast and bottle at one to two years because the child can eat regular foods at this time. There are no special foods for children after they terminate breastfeeding. Mothers should give carrots because it is good for eye sight and also fruits and juices. The mother usually prepares the baby's food and feeds the baby. The child who is off the breast or formula should be fed three times per day and given milk in between (two times). He is given the food he needs because it is best for him and he needs it for energy. If a child does not want to eat the mother should find out what is wrong and encourage the child because the child can become sick.

# FOCUS GROUPS WITH MOTHERS WITH ONLY ONE CHILD BELIZE DISTRICT

RURAL COMMUNITY: CREOLE-Santana (SAN) (1 mother)

URBAN COMMUNITY: CREOLE-Belize City (BC) (2 mothers)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

# Knowledge/Information (SAN)

The knowledge of the mother is such that she knows breastfeeding is economical, it doesn't take much time, the baby gets healthy and is not sickly. The mother got breastfeeding information from the nurse at the clinic, from pamphlets, and from older people. The advice she follows was from the clinic and the pamphlets or whatever her mind tells her.

#### **Knowledge/Information (BC)**

These urban mothers knew about breastfeeding because they learned from their friends and mothers. One mother said she did not receive any breastfeeding information at the clinic and the other said she did not attend clinic. They know that breastfeeding helps the baby to fight infections, the baby gets all the nutrients it needs, "colostrum is good, it contains a lot of nutrients" and breastfeeding allows the baby to get warmth from the mother. The women said that breastfeeding services are available and accessible if a person is interested.

#### **Beliefs/ Practice (SAN)**

Though the mother had a lot of information about breastfeeding she still was not convinced of the importance of colostrum. She said that "colostrum is the thick, yellow milk, it is not important for the baby it is just something that passes through the breast as a waste." The mother gave her baby colostrum because the nurse told her to do so. The mother gives glucose to the baby because it gives strength and energy, she also gives aniseed for gas and wind. She believes that breastfeeding is more convenient than bottle feeding because sometimes she cannot get formula in the village. The practice is for breastfeeding to be initiated at birth because the baby is too young for anything else. The baby is fed when it cries or when the mother's breasts start to leak. When the baby refuses the breast it gets formula; which is introduced at two weeks. The mother said she will terminate breastfeeding when the child is one year so she (the mother), can return to school.

#### Beliefs/Practices (BC)

The practice is to initiate breastfeeding at birth. One mother said her baby got water in the hospital. Colostrum is called "juice". The mothers believe that breastfeeding is not convenient in public. One breastfeeds on demand and one on schedule (she works). When the baby refuses the breast, formula is given. The mothers practise combination feeding because they work. To mix the formula they follow the label on the container. According to the mothers breastfeeding and bottle feeding will be terminated when the baby wants and sometimes they express their milk when they have to be away from the baby.

#### A Sustained Breastfeeding/Complementary Feeding/Weaning

#### **Knowledge/Information (SAN)**

The mother did not know what complementary foods are but "calls it energy foods". The complementary foods the baby receives were chosen because those were the ones her pamphlets from the clinic recommended. According to the mother a baby with malnutrition is weak, inactive and does not want to eat.

#### **Knowledge/Information (BC)**

The mothers had not heard the words "complementary foods" before. They call it " food from the family pot". They know a child is malnourished when it eats dirt, loses weight, and has diarrhea. They believe the causes to be due to lack of attention. The treatment they recommend is that mothers need to take care of their children and give them good, nutritious foods. They did not specify where they got this information.

#### Beliefs/Practices (SAN)

The practice of the mother is to breast and bottle feed. The formula is prepared according to the instructions on the can. If the mother has to be away she leaves instructions on how to mix the formula. The mother said that foods are introduced at four months e.g. mashed potato, fish, cereal (nestum), vegetables, fruits, rice, cheese chips and snacks without sugar. She gives the baby the breast then food, because sometimes the breast alone fills the baby. The grandmother cooks and the mother feeds the baby. The mother believes that babies should get vitamins at six to seven months because "it gives them energy and prevents them from being sickly". She believes babies should terminate breastfeeding at two to three years because by then they should be in preschool. When the baby is off the breast it will eat what the rest of the family eats. The baby will be fed what it wants and what it needs, she will feed on a schedule. Some special baby foods given in her community include flour lab, oats with carnation milk and corn lab. The baby gets these because the bottle is not enough. The practice of this mother is not to breastfeed when she is ill because the baby will get ill also. But the mother breastfeeds when she is frightened. When the baby is sick he gets only breastmilk. As a breastfeeding mother she needs to drink lots of milk, eat fruits and vegetables and take vitamins. She says she receives breastfeeding support from her family. According to the mother her baby was given formula at the hospital because it was sick.

#### Beliefs/Practices (BC)

The practice is that porridges and liquids are introduced at three to four months and other complementary foods and vitamins are introduced at seven months. The babies "need the vitamins so they can get stronger bones and teeth and to help prevent illness. Vitamins give them a lot of nutrients". Babies are given food first then the breast or bottle, the opposite of what the rural mothers do. Unlike the rural mothers these urban women believe foods the baby shouldn't eat are: eggs, beans and macaroni because these foods are too heavy especially at night. Instead the mothers believe that the baby should eat: fruits, vegetables and juices because they have a lot of nutrients. The practice is to breastfeed when they are frightened or angry but not when they are ill. The baby eats from the family pot when breastfeeding and bottle feeding are terminated. The mother makes the food and feeds the baby. Some special homemade foods include oats, custard, cornflour and flour lab. The mother encourages the child to eat if he refuses food.

#### Suggestions (SAN)

She believes the available services are accessible and helpful and that mothers need to know why they must breastfeed. The mother suggests that the MOH needs to provide leaflets and have more talks in the community and to air radio messages.

#### Suggestions (BC)

The mothers suggest that the best way to give information in the community is to have meetings with refreshments. They believe that today's mothers do not want to breastfeed because they want to be on the street and they do not want their breasts to hang.

# FOCUS GROUPS WITH MOTHERS <u>WITH ONLY ONE CHILD</u> ORANGE WALK DISTRICT

RURAL COMMUNITY: MESTIZO-Santa Cruz (SCOW) (there were no mothers with only

one child)

URBAN COMMUNITY: MESTIZO-Orange Walk Town (OWT)

#### 1. Exclusive Breastfeeding/Early Breastfeeding

#### **Knowledge/Information (OWT)**

These women were very knowledgeable about breastfeeding. They said they got their information from the health centre, their mothers and that anyone can get information from BFLA. They know that a mother loses weight as a result of breastfeeding, she doesn't have to be cautious because the milk won't spoil. Breastmilk is less expensive than formula, the mother only has to drink plenty of liquids to produce breastmilk. The first milk that comes out of the breast is colostrum, it has antibodies, and helps the baby not to get sick. They said that breastmilk is the best milk because whatever the mother eats the baby gets also. Breastfed babies are not sickly, they are healthier than formula fed babies. The hospital has a sign that says "no bottles" so the mothers were not exposed to commercial products at the birth place.

#### **Beliefs/Practices (OWT)**

Though the women are knowledgeable about breastfeeding they gave the neonate water because they said the breastmilk was not available. The contradiction however, is that the women said they started breastfeeding as soon as the baby was given to them (yet they gave water). One mother had flat nipples but she still breastfed. She said the child refused the breast at first but she kept insisting until the child took the breast. One mother did demand feeding while the others fed on a schedule. The mothers believe that "breastfeeding takes too much time when you have to do chores". Three of the mothers did combination feeding because they had to work. To prepare the formula they boil bottles and nipples and follow the instructions on the label. The baby gets formula twice per day and can be left with family members since it takes formula. All the babies received liquids other than breastmilk at one month: pedialyte, water, juices, and glucose with water were some liquids offered to the babies.

# 2. Sustained Breastfeeding/Complementary feeding/Weaning

## **Knowledge/Information (OWT)**

The mothers know a child is hungry if when it cries and they rock it, it still continues to cry. They said that malnutrition is when the child is pale and has a poor appetite. To treat malnutrition they said you should give the child apasote (bush medicine) for worms and go to the doctor. They had not heard the term complementary foods before but they give their children foods they eat.

#### **Beliefs/Practices (OWT)**

The practice is to introduce foods at three to four months e.g. soups, mashed potatoes, maseca porridge with milk, custard with condensed milk and cornflakes with KLIM. Some mothers feed the child with food first then breastfeed, others give breast in the morning and food during the day. They breastfeed the sick child "sometimes that's all they want". They also believe that a mother should still breastfeed if she is frightened or angry and that there are no special foods for the breastfeeding mother. Another belief of theirs is that "girl children can be breastfed for as long as they want but boys have to stop by two years or they will bleed through their noses". They plan to terminate breastfeeding at one to two years, when the child wants to stop, or when the child is eating well from the family pot. They said that in their community children who are off the breast or bottle are fed three times per day with fruits given between meals. The child eats food the family eats. Mothers feed the child what they know the child needs and when the child does not want to eat, it is encouraged to "because he needs to eat so he won't get sick". The mothers cook and feed their babies. They believe that vitamins should be given at three months or two years. Vitamins are good for the baby to have appetite. The plan is to give meat at one year (did not say why). Their mothers, sisters and husbands encourage them to breastfeed and help them with chores when they are breastfeeding. They put the information they received into practice e.g. giving the first milk.

#### Suggestions (OWT)

They believe that mothers need information on what to expect at delivery, how to prepare the breast and the importance of breastfeeding. They think the best way to reach mothers is to have meetings, and the mothers who do not attend the meetings should be visited at their homes.

# FOCUS GROUPS WITH MOTHERS WITH ONLY ONE CHILD COROZAL DISTRICT

RURAL COMMUNITY: MESTIZO-San Victor (SV)

URBAN COMMUNITY: MESTIZO-Corozal Town (CO) (Data was not sent)

## 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge (SV)

These rural women had a lot of knowledge about breastfeeding. They said the CHW in their community is very active. They get information from her and that they also learned about breastfeeding from their mothers, grandmothers, the nurse and the TBA. They know that breastmilk is the best food for the baby, it is always at the right temperature, and the breastfed baby is not sickly. Their knowledge is such that they know colostrum is the first milk and it acts as a vaccine for the baby so they give the baby the colostrum. Breastfeeding serves as a form of family planning, and protects the baby from diseases. Breastfeeding is more economical than bottle feeding and more convenient because "you don't have to get up at night to mix formula". For these women one of the most helpful advice they received was the preparation of the nipples. When they have breastfeeding problems they go to the TBA or the CHW. The mothers were not exposed to commercial products at the birth place.

# Beliefs/Practices (SV)

The practice is that breastfeeding is initiated at birth when the baby is given to the mother. The mother gives the colostrum to the baby. The mothers breastfeed on demand, if the child refuses the breast they insist; and if the child still doesn't take it then they "wrap aniseed in a cloth and give it to the baby to suck".

# 2 Sustained Breastfeeding/Complementary Feeding/Weaning

# Knowledge/Information (SV)

They know that a child is malnourished when it has a poor appetite, no energy, it is sad and the child does not want to play. They believe the causes of malnutrition to be due to worms, too much sweets, and because the child did not get vitamins. The treatment is to give the child worm medicine, then vitamins and provide nutritious foods. If the child does not get better from the treatment take him/her to the doctor. They had not heard the term complementary foods before, but give their children the food that they eat.

#### Beliefs/Practices (SV)

The mother prepares the food and feeds the child. The child is fed on demand, if the child does not want to eat, the mother feeds it what it wants. They believe babies need vitamins so they can be stronger. Vitamins are given at one year. The mothers said they receive support from their mothers-in-law and their husbands when they are breastfeeding.

# Information/Suggestions (SV)

They think future mothers need information on the preparation of the nipples and importance of breastfeeding and that the best way to reach the mothers is to have village meetings.

**URBAN AREAS** 

# DANGRIGA-STANN CREEK DISTRICT-GARIFUNA (4 women)

# 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge

The women know that breastfeeding helps the baby to develop fast and that it is healthy. From the information they received at the clinic, BIB and in high school. They know breastfeeding helps the mother to recover fast after child birth, helps to close the womb and serves as a family planning method for a while. They know colostrum (called yellow milk), is the first milk and the baby should get it, because it helps to fight infections. Breastmilk is always ready. They also get information from their grandmothers, the doctors, and the radio.

#### Beliefs/Practices

The practice is to give the colostrum because it "cleans the baby's eyes". They initiate breastfeeding when the baby is born. The mothers believe that if their first child doesn't refuse the breast, the others won't; they did not have the experience of the baby refusing the breast. As breastfeeding mothers the practice is not to eat conch and fish, because it will result in hair loss in the mother. They believe they should eat special foods when breastfeeding (did not specify). One mother said she will not give her baby formula. All of them said they will breastfeed the baby when it is ill.

# 2. Breastfeeding/Bottle Feeding/Combination

#### Beliefs/Practices

Their belief is that bottle feeding is convenient for working mothers and breastfeeding keeps back mothers i.e. they are not free to go where they want. The other mothers said they will give bottle because the breast isn't enough. They will follow instructions on the formula container to mix the formula. Soft foods and bottle will be introduced at three months. But they will breastfeed until the baby is ready to stop, sometimes up to three years.

#### **Suggestions**

Give more talks to the mothers and have radio programs.

# SAN IGNACIO - CAYO DISTRICT - MESTIZO (3 women)

# 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge/Information

The women got information about breastfeeding from reading and from the nurses. Their knowledge was demonstrated in the fact that they knew breasmilk is the best for the baby, it has all the nutrients for the baby. The breastfed child is not sickly and the mother is closer to the baby. One mother said colostrum offers immunization and anti bodies to the baby. Mothers can go to the doctor or nurse for help concerning breastfeeding. Two of the mothers said they had never heard about colostrum.

#### Belief/Practices

One mother said colostrum is not good. She did not give it to her baby. The other mother gave colostrum to the baby. They said they believe breastfeeding should begin the same day the baby is born, about two hours after the nurse gives them the baby. However, one mother still hadn't breastfed after 12 hours because she had inverted nipples. They will demand feed for now, but when they return to work, they will feed on schedule. If the child refuses the breast it will get formula. One mother always missed the talks at the clinic (inverted nipples).

# 2. Breastfeeding/Bottle Feeding Combination

# Knowledge

Breastfeeding is more convenient because the breast is right there and you don't have to prepare anything.

#### Beliefs/Practices

The plan of the women is to breastfeed and bottle feed due to their jobs. The formula will be prepared according to the label. One mother already giving formula, prepares it: one ounce water to one scoop formula. One mother plans to express milk when she goes to work They plan to breastfeed for at least six months.

# **Suggestions**

The women believe the nurses should do more with the mothers during pregnancy so they can be more motivated to breastfeed. One mother had an inverted nipple and said she wasn't told anything about breastfeeding and how to prepare the breast.

#### PUNTA GORDA-TOLEDO DISTRICT-MAYA (4 women)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge/Information

The mothers know that breastfeeding gets the body in shape, it is nourishing for the baby and makes the baby grow fast. They knew about colostrum and thought it has antibodies. The source of their knowledge is the clinic, reading on their own and from their mothers. They were not exposed to commercial products at the hospital.

#### Beliefs/Practices

The women believe that breastfeeding is convenient. One mother said breastfeeding makes her eat a lot and that it punishes the mother at night. The mothers said they started breastfeeding the day the baby was born but at the time of the interview only three of the mothers were breastfeeding. One was giving formula. Although they know breastfeeding is the best for the baby they give the neonate <u>Spanish Medicine</u> (mixture of herbs), when it has puff belly. One mother gave her baby orange juice because it had a rash. All the mothers say they feed on demand. They said if you don't pump the breast you can get a fever.

## 2. Breastfeeding/Bottle Feeding/Combination

#### Beliefs/Practices

The breastfeeding mothers said they would terminate breastfeeding when the baby decides to stop. The bottle fed baby's formula is prepared: two ounces water to one scoop milk (Enfamil). The range for introducing complementary foods was from three to six months to one year. Some complementary foods that will be given are: mashed potato, soup and orange juice. They plan to breastfeed when they are ill except if taking medication. One mother had flat nipples but was using breast shields and breastfeeding.

#### Suggestions

The women felt the breastfeeding information should be given at the clinic, and that the ministry should have programmes on the radio and T.V. They do not believe the clinic is doing a good job in reaching the women.

# ORANGE WALK TOWN-ORANGE WALK DISTRICT-MESTIZO (4 mothers)

# 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge/Information**

These women did not seem to know much about breastfeeding. All four of them claimed that they had not heard about colostrum before. They said it is best to start breastfeeding right after birth. They said they were breastfeeding at the time of the interview.

#### Beliefs/Practices

Breastfeeding was initiated one to two hours after birth (did not indicate if they gave the colostrum). However, the mothers gave their babies glucose and one gave aniseed then the breast. They said the babies are fed when they cry or every three to four hours.

# 2. Breastfeeding/Bottle Feeding/Combination

#### Beliefs/Practices

One mother added bottle feeding at one week because "the breast was not enough". For the other mothers, their babies will start to get breast and bottle at three months. All the mothers said that the baby will be given bottle if it refuses the breast. They believe combination feeding is better so the mother can go out and work. To mix the formula, they will follow the instructions on the label: one teaspoon milk to two ounces water. Foods will be introduced at three to five months. They believe the baby should stop breastfeeding at one to two years but one mother said she will stop at six months.

# **BELIZE CITY-BELIZE DISTRICT-CREOLE (4 mothers)**

# 1. Early Breastfeeding/Exclusive Breastfeeding

### Knowledge

The mothers were knowledgeable about breastfeeding and said that breastmilk is good for babies because it makes them healthier and they are not sickly, it is economical and no preparation is needed. Two of the mothers had not heard about colostrum but the others had and knew it prevented the baby from getting sick. They knew the best time to start breastfeeding is when the baby is given to the mother. The first milk will cause the rest to come down. All this information was received at the clinic, but two of the mothers said they were told about breastfeeding only with their first pregnancy. Their mothers and mothers-in-law also gave them information and advice. In one case, her husband had given her information.

#### Beliefs/Practices

The mothers had initiated breastfeeding on the day of birth (one mother still hadn't fed her baby after nine hours). The other babies though, were given colostrum (one mother didn't give colostrum). Two mothers said they would exclusively breastfeed and one said she would not. They plan to breastfeed on demand and to terminate breastfeeding when the baby wants. If the baby refuses the breast, one mother will give formula, the others will wait until the baby takes the breast.

# 2. Breastfeeding/Bottle Feeding/Combination

# Knowledge/Information

They know breastfeeding is more convenient; the milk is readily available and you do not have to get up at night to prepare formula. They said that most mothers today do not breastfeed because they are lazy and do not want to stay at home.

#### **Beliefs/Practices**

One mother will do combination feeding because she thinks her breastmilk will not be enough. Another one said she will go back to work after six months but if she sees the baby is healthy she will continue to breastfeed. If not she will give formula. The other mothers will give breast only. The ones who plan to give formula will use the directions on the can to prepare the formula. The babies will be put on a feeding schedule when they get older. If the mothers have to leave their babies they plan to express milk but one said she will give formula. They believe foods and other liquids should be introduced at five to seven months; foods to be introduced are mashed potato, juices and Gerber processed foods.

COROZAL TOWN - COROZAL DISTRICT - MESTIZO (Data was not sent)

#### SANTA CRUZ-TOLEDO DISTRICT-MAYA

(2 mothers) there were no babies under 30 days in the other six villages

#### 1. Early Breastfeeding / Exclusive Breastfeeding

#### Knowledge/Information

The women had some limited knowledge about breastfeeding; for instance they knew that the breast keeps the child alive and it is cheaper to breastfeed because they cannot afford milk. On the other hand however, their lack of knowledge is such that they had never heard about colostrum so they did not give their babies because "maybe it is not good". For these ladies, they just learn about breastfeeding when they have their own baby, also they learn from their mothers.

#### **Beliefs/Practices**

They believe that breastfeeding is the best for the baby, because "it keeps the baby alive". The plan is that if the baby refuses the breast the mother will give condensed milk. The women said that they did not have any milk so they will initiate breastfeeding two to three days after the birth of the baby. While waiting for the milk to flow, they gave a bottle with condensed milk. One said she had no milk at first but she tried and tried until the milk came. As the baby wakes/cry, they will breastfeed. The mother with more than one child plans to breastfeed for about a year, but the first-time mother said she didn't know for how long she will breastfeed.

# 2. Breastfeeding/Bottle Feeding/Combination

#### **Beliefs/Practices**

They plan to introduce other foods at two months and will give the baby caldo and corn tortilla at about one year of age. These women do not plan to give formula.

# B. FOCUS GROUPS WITH GRANDMOTHERS BOTH RURAL AND URBAN

# Responses from Grandmothers in Toledo District (Maya, Garifuna, Creole)

RURAL COMMUNITIES: Kekchi-Aguacate (AG), Maya-Santa Cruz (SC)

URBAN COMMUNITY: Creole, Garifuna, Maya-Punta Gorda (PG)

## 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge/Information (AG)**

In Aguacate the grandmothers said they breastfed so their babies would not get loose stools and because formula costs too much. They did not have money to buy formula. They also said that it is hard to clean and boil bottles. They got information on breastfeeding from their mothers or they learned when they had their own children. Mothers in their village today learn the same way. These women breastfed due to tradition and economics rather than from knowledge. There was and is no where in their village a person could go for help with breastfeeding. None of them indicated whether the nurse gave them any information.

#### **Knowledge/Information (SC)**

It is too expensive to bottle feed. They said, "everyone use their own mind to breastfeed. People do not need advice because they grow up seeing everyone else breastfeed". They did not get breastfeeding information from anyone they just did what was natural, so they do not know if breast is the best thing for the baby. These women breastfed due to culture and economics rather than due to knowledge of the benefits of breastfeeding. They said there was and is nowhere in their village someone can go for help and information concerning breastfeeding. None of them indicated whether or not the nurse gave them breastfeeding information.

#### **Knowledge/Information (PG)**

In the urban area as well as rural the ladies said they got information from their mothers and grandmothers. Their actions were based mainly on tradition and economics. The ladies breastfed because they believed breastmilk is healthy for the baby, breastfeeding forms a bond between the mother and the child, breastfeeding helps children to have healthy teeth (this is what they saw with other peoples' babies). They gave their baby colostrum because it is good to "purge the baby". The grandmothers advise their daughters, but the young girls today go to the hospital.

#### Beliefs/Practices (AG)

The women said that they did not start to breastfeed until three days after the baby was born because they did not have any milk, their milk came after three days. They did not give the baby the colostrum because it is not good so they threw it away. While they were waiting for the milk

to come they drank warm water. The women breastfed when they were frightened or angry because "that has nothing to do with the baby". The baby was fed on demand usually when it cried. They do not believe that babies need to eat any special foods. They eat what their family has. There are no harmful foods for the breastfeeding mother, she can eat whatever she wants.

#### Beliefs/Practices (SC)

The women started breastfeeding four days after birth because they did not have any breastmilk. While they were waiting for the milk to come, they gave their babies oregano water to drink. The babies did not get colostrum because the mothers said colostrum is not good so they "threw it away". They did not know why it is not good for the baby, they have no special name for colostrum not call it anything. If the mother has fever she does not breastfeed she gives the baby coffee. She doesn't know why she should not breastfeed. If she is frightened or angry she can still breastfeed but she doesn't know why.

#### Beliefs/Practices (PG)

The grandmothers believe that colostrum is good for the baby. They believe a mother should breastfeed the ill child. They believe that when you are breastfeeding you shouldn't eat certain foods that can give the baby boils and gripping. These include beans, coffee, shark, iguana, turtle and conch. Also, the mother should eat certain foods "to produce milk" e.g. ginger tea, fever grass, provision bark, milo and cocoa. The ladies believe that you should put hot compresses on your breasts so the milk can flow. The baby should not be breastfed when the mother is angry because the baby will get boils. You should "squeeze out the milk and throw it on ants nest, then breastfeed the baby". They believe that if the baby refuses the breast the mother should give glucose and water.

# 2. Sustained Breastfeeding/Complementary Feeding/Weaning

## **Knowledge/Information (AG)**

The grandmothers had no knowledge of malnutrition but they know "a baby isn't healthy if it cries a lot, doesn't grow or doesn't want to eat." They had not heard the words complementary foods "no one told them about it before". They just knew they had to feed their baby what they ate because that was all they had.

# **Knowledge/Information (SC)**

The ladies had no knowledge of what complementary foods and malnutrition are because no one told them about it before.

# **Knowledge/Information (PG)**

The grandmothers said that complementary foods help the baby to grow faster but no one had told them that they just learned it from experience. They knew that the malnourished child "cries a lot, loses weight, has no appetite and no energy to play," this child should be taken to the doctor. The grandmothers did not state where thy got this information from.

#### Beliefs/Practice (AG)

The grandmothers believe that babies should start receiving foods at six to seven months they just did that. They also said that they gave their babies calaloo, jippi jappa (heart of a palm tree), rice, beans, corn and flour tortilla and egg to eat at this age. These are the foods the rest of the family eats also. They said they stopped breastfeeding at one and a half years when the baby starts to eat from the family pot. They said a baby should not eat meat until one year old but they do not know why. The grandmothers believe that you should not force a baby to eat but give it what it wants e.g. "chips and biscuit". The grandmothers did not get any help from their family with childcare. It is their responsibility to take care of the baby.

#### Beliefs/Practices (SC)

The women said they did not know if "a baby can live on bottle and they do not know if the breast is the best thing for the baby". The ladies said they introduced foods to their babies at six to seven months and the child ate what everyone else did, caldo, beans, corn tortilla, water. The women said that when they did not have milk they gave the baby condensed milk in a bottle (one and a half spoons milk to three ounces water). They did not receive any help with their baby because it is their job to take care of it.

#### Beliefs/Practices (PG)

The grandmothers believe that semi solid foods should be introduced at two months "because then it will be easier for the baby to eat solid foods". Juices are introduced at three months then at nine months the child should get solid foods. Some foods given to the baby are arrow root, corn and starch porridge, cocoa, cassava and potatoes. They believe that a child should not get meat until it has teeth because it can chew at that time. They have to give the baby the food because the breast alone won't full them. The grandmothers believe that babies should stop taking the breast at two years and at this time they are old enough to eat what the rest of the family eats. The grandmothers also believe that when a baby doesn't want to eat, the mother should purge the baby and if a child is malnourished the mother should "mix a raw egg in the child's milk". They did not explain why this is done but said that they learned this from their parents.

#### **Suggestions**

The women in the rural areas did not have any suggestions for us as to what should be done to reach the mothers in their communities. In urban Toledo the grandmothers felt that home visits and meetings with mothers to teach them about breast and infant feedings were necessary. They also feel that the MOH needs to have radio messages and the nurses need to counsel the mothers before delivery.

## Responses from focus groups with Grandmothers in Stann Creek District

RURAL COMMUNITY: GARIFUNA-Seine Bight (SB)

URBAN COMMUNITY: GARIFUNA-Dangriga (DA)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### Knowledge/Information (SB)

The grandmothers said they learned about breastfeeding from their mothers and grandmothers but their daughters now have the nurse and the breastfeeding counselor they can go to for information and help. They know that breastfeeding is healthier for the baby and that it forms a bond between the mother and the child but their lack of knowledge was demonstrated when they said "give the baby colostrum but it is bad milk so purge the baby after you give it". They also know that "a mother should drink lots of fluid so her milk can flow". These women breastfed and believe in breastfeeding because that is what they were taught.

## Knowledge/Information (DA)

These women learned about breastfeeding from their mothers and mothers-in-law and from the nurse. They knew that breastfeeding makes the baby healthy, breastfeeding should be initiated right after birth, colostrum is the "first milk" and it is nutritious so it should be given to the baby. The breastmilk is always at the right temperature. They also knew that a sick baby prefers the breast. Like the rural grandmothers they breastfed from tradition.

#### Beliefs/Practice (SB)

The grandmothers believe that breastfeeding is good and that they should breastfeed even if they are ill, angry or frightened. They also believe they should breastfeed for one year, because after this time "the breast is not nourishing for the baby and the baby is big enough to eat". Again these beliefs were handed down to them from their parents plus from their own experiences. They believe a mother should not eat certain foods when she is breastfeeding because "it makes the baby stool green and cause puff belly". The foods are: shark, ham, conch, coconut milk, muskmelon. They teach these things to their daughters but they (daughters), do not take their advice because "the mothers today want to do what they please".

## Beliefs/Practices (DA)

These women said that their beliefs were what their mothers and mothers-in-law taught them. Like the rural grandmothers they said that the mothers today do not want to take their advice. They believe a breastfeeding woman should drink a lot of: milk, ovaltine, lentu (ripe banana porridge), rice lab and synderie soup (small mollusc), "so that the milk can flow". But they do not believe that a woman should avoid any foods when she is breastfeeding. The neonate needs water and glucose and water "to free the bowels and for the mole (fontanelle)". They also believe that the neonate needs "brown sugar and water for strength and energy".

## 2. Sustained Breastfeeding/Complementary Feeding/Weaning

#### Knowledge/Information (SB)

The grandmothers were not familiar with the term "complementary foods," they call it "food from the family pot". They knew that a baby is malnourished if it is thin, with red hair, bloated face and belly and it is weak. The cause is due to lack of care and finance to buy food.

#### Knowledge/Information (DA)

The women were not familiar with the term complementary foods they call them "weaning foods". They said that a baby is malnourished if "the child is skinny, has hair loss, sunken eyes, its ribs are showing and it is weak. The cure is to "teach the parents how to make nutritious foods". They said that there are many malnourished babies today because the mothers today do not breastfeed.

#### Beliefs/Practice (SB)

The grandmothers believe that babies should get cod liver oil to build their bones and teeth. They believe that once the baby starts to eat foods around six months that "the food should be given first because the breastmilk only serves as a wash down". They believe "it is more convenient to breastfeed because it is cheaper and you do not have to mix milk". There are no special foods for the baby who doesn't get the breast anymore; it eats "food from the family pot". These are customs they got from their parents and older people in their community also they had to feed their baby what they had.

#### Beliefs/Practices (DA)

The women believe that babies should start eating foods at four months but to continue breastfeeding. The foods the baby gets at this age are: conconte (green banana porridge), green plantain porridge, corn flour porridge, cassava porridge, fish, egg, juice, cocoa, yams, rice, beans, bread soaked in milk. The baby gets food at this age because "this is the time they can chew and digest the food". The baby has to be fed on a schedule now because they "do not want to overfeed them and strain the stomach". Like the rural grandmothers these women believe that "the breastmilk serves as a wash down for the food". The baby should receive Scots Emulsion, Cod Liver Oil and or Infantol at three months "to build their blood". The practice in their day was that for the first three months after delivery the mother stays with her mother or mother-in-law so she can get help with the baby. They were taught that bony fish, pork and beef are harmful to babies they should get these foods after one year. "Meat will give the baby worms". The women said that they usually allowed the baby to leave the breast on its own. This is usually around two years.

#### **Suggestions**

The rural grandmothers feel that the MOH needs to visit their community more often and form mother support groups. They would also like to have a nurse stationed in their village again. One of their leading suggestions is to reinstate the program of giving powdered milk and cod liver oil to mothers. In urban Stann Creek the women want the government to conduct participatory workshops and seminars with mothers. They should also do home visits and air continuous radio and television spots. Most importantly they said that the MOH needs to follow up on the recommendations provided.

## Responses from focus groups with Grandmothers in Cayo District

RURAL COMMUNITY: MESTIZO-Calla Creek (CC)

URBAN COMMUNITY: MESTIZO-San Ignacio (SI) (information not received)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

## **Knowledge/Information (CC)**

The grandmothers breastfed because they knew that "breastfed babies are healthier than bottle fed babies". They also knew that the ill baby wants only the breastmilk and that the breastmilk will help the child to get better. The grandmothers however, did not seem to comply with their knowledge because they said they gave both breast and bottle because "the baby suffers when the mother has to leave it". The women got their information from their mothers and older women in their community also from the nurse who would come to the village. Although they had several sources they got information from they did not mention anything about giving colostrum to their babies nor did they indicate if they believe it is necessary for their babies.

#### **Beliefs/Practices (CC)**

The women believe that breastfeeding makes the baby healthier but that a woman should not breastfeed if she is angry or frightened because "it will give the baby diarrhea or colic". They also believe that a breastfeeding woman should not eat foods such as: eggs, fish, beans or tomato, "until 40 days after the birth of the baby because it will cause the umbilical cord to become infected". The custom in their community is "if the mother is in hot sun she cannot breastfeed, she must put the first milk on the baby's fontanelle or make a cross on the baby's back before feeding the baby; otherwise the milk will make the baby sick". The women said they started to breastfeed as soon as the baby was given to them. If the baby was asleep they waited until the baby woke up.

## 2. Sustained Breastfeeding/Complementary Feeding/Weaning

## **Knowledge/Information (CC)**

The women said they had never heard about complementary foods before, but to them a malnourished child is one who is skinny and has no energy to play. They did not know though, what causes malnutrition and what should be done to treat it.

#### Beliefs/Practice (CC)

The women said that three to four months is a good age to introduce foods to the baby, but one said she waited until eight months. At this time they give the baby food from the family pot because they do not believe that there are any harmful foods for the baby. They believe that "breastmilk is better than formula and that the baby should be breastfed for as long as it wants or until the mother has no more milk".

## Suggestions

In rural Cayo the women had no suggestions for us they said however that if women today have problems or need help with breastfeeding they can go to the older women in the community.

## Responses from focus groups with Grandmothers in Belize District

RURAL COMMUNITY: CREOLE-Santana (SAN)

**URBAN COMMUNITY: CREOLE-Belize City (BC)** 

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge/Information (SAN)**

In rural Belize grandmothers said they learned about breastfeeding from their mothers and from the nurse. From the information they received they knew that breastfeeding is the best because it forms a bond between the mother and the child. Also that the breastfed baby is "healthier" than bottle fed babies. The women said that they grew up believing that colostrum (yellow milk) was bad and did not give it to their babies but that with their last baby they gave colostrum because the nurse told them it is good for the baby. They also know that "breastfeeding helps the mother because it reduces pain in the uterus".

#### **Knowledge/Information (BC)**

These urban women seemed very knowledgeable because they knew that breastfeeding helps prevent diarrhea and infections in babies. They said it is more sanitary than bottle feeding and that it is cheaper. These women got their information from their mothers, midwives and nurses. They also knew that breastfeeding is natural and nourishing, it forms a bond between the mother and the child. Colostrum is good for the baby. Unlike the rural grandmothers these women gave colostrum "because it is part of their breastmilk". These women said they talked to the young mothers today to advise them about breastfeeding and child care.

## Beliefs/Practice (SAN)

These rural women had a lot of traditions passed down to them by their elders. For example, like many of the other grandmothers they believe that certain foods should not be eaten by breastfeeding women. Some of the foods include: beans, okra, conch, and grunt fish. These foods according to the women, will give the baby griping. Another belief of theirs is that the neonate should be given garlic and aniseed (for nine days) "to clean out the stomach" and sugar and water at night so it can sleep well. Although these ladies had a lot of information they did not exclusively breastfed. They believed that "a baby's tongue should be cleaned with honey so that the baby won't get thrush". They think that the mother should not breastfeed when she is ill because the baby will get ill also. In practice these ladies drank milo, cocoa, fever grass and milk so they can produce breastmilk. They also had the practice of not feeding the baby if the mother was in the sun. She had to drink a glass of water before she started to breastfeed. While all these beliefs are practiced the women mentioned that they initiated breastfeeding at birth.

#### **Beliefs/Practices (BC)**

These women believe that the baby needs colostrum so breastfeeding was started as soon as their baby was handed to them. They believe however, that the baby needs to get aniseed and garlic "for gas". They believe that a breastfeeding woman should not eat conch, okra, crab, iguana and beans because "the baby will have griping". Another belief of theirs is that if the mother drinks coffee she will not produce any milk (they know of people this happened to). Though they believe that breastmilk is the best for the baby they do not think a mother should breastfeed when she is ill especially if it is fever (the baby will suck the fever). They also said that a woman should not breastfeed when she is angry because the "baby's nose will bleed". The women said that when they were breastfeeding they drank cocoa, Milo, fever grass and milk so they could produce breastmilk (same as rural). They also had the practice of combing the breast with warm water and salt to release the milk. Like the rural grandmothers, these urban women believe that a mother should not breastfeed when she comes out of the sun because it will cause pain in the baby's belly. They believe that if a mother was in the sun she should throw away the first milk before feeding the baby. Their practice was also to drink serose after delivery "to clean out the mother and the baby".

#### 2. Sustained Breastfeeding/Complementary Feeding/Weaning

#### Knowledge/Information (SAN)

These women said that they had never heard about complementary foods before but that they introduced soft foods to their children at four to six months e.g. porridge. They gave foods that are nourishing to the baby. When asked about malnutrition they mentioned that it is when the child is pale, with big belly and the child is not growing. They know that such a child will need healthier foods to get better. They also said that breastmilk is better than formula because the baby does not get germs from the breastmilk. The women in their community today can go to the nurse in Maskall for help with breast and infant feeding.

## **Knowledge/Information (BC)**

These women know that breast is better than bottle because breastmilk is more nourishing. They did not know what complementary foods are but they gave their babies nourishing foods at four to six months. For them a malnourished child is one who is thin, weak and has loose stool; this child is getting the wrong diet. Like the rural grandmothers, these women learned these things by experience and from others around them. Today there are breastfeeding counselors and themselves who the women in their community can go to for help.

#### **Beliefs/Practices (SAN)**

The practice of the women was to give their babies soft food (banana, flour porridge, custard) at four to six months and cereal in their bottle. Then at nine months the baby received solid food but not meat because "meat will give them worms". The belief for these women is that the children can get meat after one year of age. When food was introduced the women still continued to breastfeed but they gave the food first because the breastmilk "is a wash down for the baby'. Another practice was to terminate breastfeeding when the baby was two years. At this time the

baby could eat foods the family eats since there are no special foods for the child. The practice in the community is for the mothers to prepare the food and feed the baby. One grandmother mentioned that she gave her last baby Gerber food.

#### Beliefs/Practices (BC)

The practice in their time was to let the baby breastfeed until it felt like stopping. At four to six months the baby got foods such as bread soaked in milk, stew fish, mashed potato and porridge e.g. from flour and banana. After one year it got foods the family ate. For these women babies are fed breast and food. They chose the foods they did because they are nourishing and good for the baby. They believe that if a baby refuses to eat the mother should keep trying until it takes the food. It is common in their community for the mother to cook the food and feed the baby.

#### Suggestions

Both the rural and urban grandmothers believe that the Ministry of Health should target the young mothers to teach them about breastfeeding and infant feeding and to show videos.

## Responses from focus groups with Grandmothers in Orange Walk District

RURAL COMMUNITY: MESTIZO-Santa Cruz (SCOW)

URBAN COMMUNITY: MESTIZO-Orange Walk Town (OWT)

#### 1. Early Breastfeeding/Exclusive Breastfeeding

#### **Knowledge/Information (SCOW)**

The women here breastfed largely due to need and economics because the first reason they gave for breastfeeding was that it is economical. They also said that breastfeeding is healthy because the milk contains vitamins and minerals and it prevents the child from getting sick. They have the belief that the ill child must be breastfed so it can get better. Though these women mentioned the benefits of breastfeeding they did not say if they gave colostrum to their baby or if they thought colostrum was important. Their breastfeeding information was gotten largely from their mothers and the midwife. They said that they give advice to their daughters and daughters-in-law.

#### **Knowledge/Information (OWT)**

These women like in the rural area, breastfed from tradition and for economic reasons as those were the first reasons given for breastfeeding. They also added that a breastfed baby grows healthier than a bottle fed baby, breastmilk is at the right temperature and that breastfeeding creates a bond with the mother and the child. The knowledge came from what their mothers told them and from their experiences. They know that in their community women today can learn about breastfeeding from the nurse.

#### **Beliefs/Practices (SCOW)**

The women did not think that there are any harmful foods for the breastfeeding mother. To let the milk flow the mother had to wash the breast with warm water and leaves from an orange tree. For them the practice is to initiate breastfeeding up to two hours after birth and that most women breastfed for up to two years. The practice is to not breastfeed if the mother is angry because "the child can die," but if the baby is ill the mother still breastfeeds "because that is all the child wants". They said that breast is better than bottle because they do not have to get up at night to mix formula.

#### **Beliefs/Practices (OWT)**

Like the rural grandmothers these women have the practice of combing the breast with different balms so the milk can flow. Unlike the rural ladies though, they believed that the breastfeeding mother should avoid foods such as pepper, beans, escabeche, relleno<sup>3</sup>, sour foods, eggs, okra, avocado, cabbage and pork meat because they will cause gripping to the baby. The eggs though will "cause the mother to have a lot of discharge and coconut water will cause her to become sterile". The practice is to start breastfeeding at birth and breastfeeding lasts from up to ten months to two years. They said they used breastfeeding as a form of contraceptive.

<sup>&</sup>lt;sup>3</sup>Escabeche is a watery soup with lots of onion and chicken, relleno is a soup with chicken and boiled eggs and it is black in colour from a seasoning called black recardo.

## 2. Complementary Feeding/Sustained Breastfeeding/Weaning

### **Knowledge/Information (SCOW)**

The women had never heard the words complementary foods before but they know that the child must be fed food in addition to breastmilk because after four months the breast is not enough for the baby. They said that malnutrition is when the child is weak, has a poor appetite, is always sick, pale and inactive. the malnourished child they said has poor nutrition. They feel that a baby should be fed what it needs and not what it wants.

#### **Knowledge/Information (OWT)**

The women said that breastfeeding is better than bottle feeding because there is more love. They had never heard about complementary foods. They said that the ill baby must be breastfed so it can get better. They said that malnutrition is caused when a child is fed foods it should not eat. This causes the child to be thin, pale and underweight. They did not indicate where they got this information.

#### Beliefs/Practice (SCOW)

The women believe that appropriate foods for the baby are vegetables, fruits, custards and soups with vegetables, but beans and meat are not good for them because they cannot chew them and they will give the babies diarrhea. The child should be fed with food first then breastfed when it is hungry again. When the child is taken off the breast however, they gave foods the family ate because "there are no special foods for babies that are not receiving the breast". The practice in their community is for the mother to cook and feed the baby. The child who refuses to eat is encouraged to eat.

#### **Beliefs/Practices (OWT)**

The practice in their area is to introduce foods anywhere from three to ten months. Only one grandmother indicated that she waited until ten months but did not specify why she waited that long. They do not believe in giving fried foods to children because these are too hard to digest. Foods given are custard, maizena, biscuit, potato and "food from the family pot". The baby got meat when it had teeth usually around one year. When solid food was introduced the baby was given food first then breastfed. The ladies believe that the child should be taken off the breast abruptly and at this time there are no special foods for the child they eat food from the family pot (what is good for them). The practice in their community is for the mother to cook and feed the baby. These women do not believe in force feeding the child because the mother should have patience.

## **Suggestions**

In both rural and urban Orange Walk the women had no suggestions for us.

## Responses from focus groups with Grandmothers in Corozal District

RURAL COMMUNITY: MESTIZO-San Victor (SV)

**URBAN COMMUNITY: MESTIZO-Corozal (CO)** 

## 1. Exclusive Breastfeeding/Early Breastfeeding

#### **Knowledge/Information (SV)**

The lack of knowledge in these women is such that they do not give their baby colostrum because they say it is not good for the baby. They learned about breastfeeding from their mothers and from watching everyone else around them. They know that breastmilk is better than formula because the baby gets all the food from the mother and also the baby does not get diarrhea. They said that the woman has to eat well so that she can have a lot of milk.

#### **Knowledge/Information (CO)**

The women believe that breastfeeding is more hygienic than bottle feeding and it prevents the baby from getting sick. They did not mention what they thought about colostrum and if they gave it to their children. They learned about breastfeeding from their mothers and the midwife. They know that women in their community today can learn from the health worker and the nurse.

#### Beliefs/Practice (SV)

The women initiated breastfeeding about 30 minutes after birth and breastfed for up to two years. But they threw away the colostrum. They gave the neonate romero<sup>4</sup>, aniseed and sugar or honey "to clean out the baby". They gave the baby glucose and water for two days after birth. This also cleans out the baby. The women washed their breasts with orange leaves so that the milk could flow. They have the belief that for the first six months the mother should not drink cold water because it will give the mother and the baby cramps. The breastfeeding mother should not eat tomatoes and eggs because it gives the baby griping. They believe that if the mother is angry she cannot breastfeed because "the baby will also get angry". But if the mother or the baby is ill, the baby should still be breastfed.

#### **Beliefs/Practice (CO)**

The women said that breastfeeding should begin immediately after birth. At this time the breast is combed and rubbed with teta (a yellow fruit that looks like a breast) dipped in sweet oil so the milk can flow. Another belief of theirs is that if the baby belches on the breast it will become engorged. In their community breastfeeding usually lasts for 10-12 months because "after one year the baby will suck blood". Like the rural grandmothers they believe that certain foods such as coconut, eggs and avocado are harmful for the breastfeeding mother. These foods will cause griping and diarrhea in the baby. Also if the mother feeds the baby when she is angry the baby

<sup>&</sup>lt;sup>4</sup>Romero is a herb used as medicine.

will get diarrhea. And the mother should not breastfeed if she is ill because the baby will get whatever illness she has. If the mother happens to give the breast when she is ill or angry then she must purge the baby.

#### 2. Sustained Breastfeeding/Complementary Feeding/Weaning

#### **Knowledge/Information (SV)**

As in most of the other areas the women had never heard about complementary foods before. But they said that their babies started to eat foods at three to six months. They gave foods that they know are good for the child. For them malnutrition means that a child has no appetite, looks sick, sad, does not play and loses weight.

#### **Knowledge/Information (CO)**

These women also had not heard about complementary foods, they however introduced foods at five months. They said that malnutrition is when the child is skinny and it is caused as a result of poor hygiene.

#### Beliefs/Practice (SV)

When the mothers introduced foods the baby got the food first then the breast. The baby got foods such as biscuit, bread, beans, tortilla, chicken soup, atole de harina, oats, potato and macaroni. They said that "if a child does not want to eat, the child should be purged then given chicken soup". The practice is for children to be taken off the breast abruptly at one to two years. The child who does not get breast or formula anymore should be fed three times per day like the rest of the family and also eat what everyone else eats. For the treatment of malnutrition the women have the practice of boiling yerba buena, altahaca (local herbs) and orange leaves for the child to drink.

#### Beliefs/Practice (CO)

The types of food introduced to the baby at five months were stew beans, chicken, calaloo, chipillin (green leaf used to make soup) and tortilla. At this time the baby is given the food first then breastfed. The mother or mother-in-law prepared the food and fed the baby. The practice was to encourage the child if it did not want to eat. The urban and rural grandmothers had similar practices.

#### **Suggestions**

Neither the rural nor urban grandmothers had any suggestions for us.

# C RESPONSES FROM FOCUS GROUPS WITH MATERNITY AND PUBLIC HEALTH NURSES

**URBAN AREAS** 

#### RESPONSES FROM NURSES IN TOLEDO DISTRICT

Punta Gorda Maternity Staff (4 nurses)

## Knowledge/Information

The nurses said that breastfeeding is beneficial for economic reasons. The milk is always at the right temperature and available at the right time. They know a mother should breastfeed the ill child. According to the nurses their maternity ward has breastfeeding counselors who work with the mothers. The nurses also said mothers learn about breastfeeding at the prenatal clinic and that they (mothers), can go to the hospital if they have any problems. They said that young girls today generally do not breastfeed because they feel their breast will hang. Their information on breastfeeding was received at school, from BIB Workshops and from pamphlets. They said their last workshop on breastfeeding was about two years ago.

#### Practice/Beliefs

Though the nurses said that it is their practice to talk to all mothers about the advantages and disadvantages of breastfeeding, they did not cite themselves as a resource where mothers learn about breastfeeding. They said the practice in the hospital is that mothers cannot bring bottles, only breastfeeding is allowed. They said that in the community they have no problems with breastfeeding among the Mayas but that the Creoles and Garifunas have low breastfeeding rates (they practise combination feeding). According to the nurses the Mayas breastfeed for three or more years or until they are pregnant again (Mayas say they breastfeed for one to two years) and that they use breastfeeding as a form of contraceptive. According to nurses the Maya children do not get sick until after one year because they are breastfed. They believe that the Mayas introduce foods too late to their children. The nurses say there are myths about breastfeeding in the community but they do not advocate the myths. They believe though, that a mother can breastfeed if she is frightened or angry. The nurses introduce complementary foods at four months and vitamins at one year, with their own children.

## **Suggestions**

The nurses said that if the MOH wants to increase its impact on the people it needs to disseminate more information on breastfeeding and incorporate breastfeeding into the Maternal and Child Health Programme. They feel that the government needs to provide funding for the people who were trained as breastfeeding counselors to keep them working.

#### RESPONSES FROM MATERNITY AND PUBLIC HEALTH NURSES IN STANN CREEK

(PHN) Public Health Nurse (1 nurse) (MN) Maternity Nurse (3 nurses)

#### Knowledge/Information

The nurses know that breastfeeding is important for the mother and the baby. Breastfeeding is economical, the milk has the right temperature and the mother does not have to prepare anything. Breastfeeding brings the body back to its normal size and it forms a bond between the mother and the child. Breastfeeding serves as a child spacing method (MN). They said that the breastfeeding mother should eat a balanced meal and she will always have milk. Both sets of nurses said they got their breastfeeding information in their basic nursing training and from in-depth workshops they attended. One of the nurses is a breastfeeding counselor. They also read in their spare time. Their last breastfeeding workshop was three to six years ago. Women can go to the clinic for information on breastfeeding. The MN do not offer themselves as a resource for the women and both sets of nurses say they do not do any work outside their working hours.

#### Beliefs/Practices

The nurses said that the policy of the hospital is to encourage exclusive breastfeeding and that they talk to the mothers about breastfeeding especially the first-time mothers (PHN). But the practice in the community is to breastfeed in the hospital (because they have to), then do combination feeding at home. The PHN says that most women in the community do not breastfeed and that breastfeeding rates are lowest among housewives. Working mothers tend to do combination feeding (bottle is introduced at four to six weeks). She said very few women exclusively breastfeed and among those who breastfeed they terminate it at four months when they introduce semi-solids. MN say that most women in the community terminate breastfeeding between nine months and one year. The reports are conflicting because the PHN says most women in the community do not breastfeed but the MN said that breastfeeding is the norm in the Garifuna culture. Some women give colostrum and others do not (MN).

The nurses believe that breastfeeding should be initiated at birth, but that aniseed and garlic should be given until the breastmilk comes down (PHN). She said that "the aniseed and garlic helps the baby to pass gas". The nurses say that there are myths in the community about breastfeeding but they do not advocate the myths. On the topic of breastfeeding when the mother is angry or frightened the PHN said that the mother should breastfeed "so milk production can continue" but the MN said that "the mother should not nurse at this time because the milk will not flow and the baby will get fussy". They feel that if the child refuses the breast "the mother should boil synderic (small mollusc) and drink it because this will cause the milk to flow"(MN). They believe that the mother can breastfeed when she is ill, if it is not a debilitating illness or she is not on medication. If the mother cannot breastfeed then she should give the baby "formula or glucose". According to the nurses many women say they do not breastfeed because they do not want their breast to hang. Some other reasons they give for not breastfeeding are they do not have enough milk or their milk is sour (MN). Mothers are bombarded by too many commercials for formula (PHN).

The PHN feels that babies should get water at two months and that foods should be introduced at six months. She said that the practice in the community though is to introduce juices at two months and cereals and foods at four months, while meat is usually introduced around six months. Some foods given to the baby include banana, rice, plantain, potato, yams and vegetables. She also feels that the mother should let the child wean itself.

#### **Suggestions**

The MN nurses do not think the PHN is reaching the people because she is working alone (no staff or resources). The nurses suggest that the MOH should reactivate the breastfeeding counselors and provide pamphlets so they can distribute. Also to air radio and TV messages. They believe that the MOH needs to conduct workshops with the mothers, parents of young pregnant girls, nurses and caretakers. They also said that the government should stop the sale of formula and give more support to the districts. Each district should have a coordinator for breast and infant feeding. They feel the best way to meet the people is to give them personal invitations and have classes with them.

# RESPONSES FROM MATERNITY AND PUBLIC HEALTH NURSES IN CAYO DISTRICT

(4 nurses)

#### Knowledge/Information

The nurses said that breastfeeding helps with immunization and protects against infections. It helps the child to be healthier and smarter. The baby suckling helps to release the placenta and forms a bond between the mother and the child. The breastmilk is always ready and available, it needs no preparation and is easy for the baby to digest. The nurses said that mothers can learn about breastfeeding and get help at the clinic, the hospital, from breastfeeding counselors or their family members. The nurses got their information at school, from workshops and from pamphlets.

#### Beliefs/Practice

The practice at the hospital is to instruct the mothers to initiate breastfeeding within a half hour after birth (there were two mothers who had not fed their newborns up to ten hours after birth), and to exclusively breastfeed. They said they teach all mothers the advantages and disadvantages of breastfeeding and at the first prenatal visit they are counseled (PHN) (there was a mother in the hospital with inverted nipples who attended clinic but was not told how to prepare the nipples). A mother who doesn't want to breastfeed is told the advantages of breastfeeding. The MN say they position the baby for the mother if the baby refuses the breast. Maternity staff said they do not know the breastfeeding rates in the community but they believe that the women who breastfeed stop around one to two years (PHN agrees). The PHN however, said that most women in the town practise combination feeding and they feel that mothers give formula because they do not have enough milk. Also because "the mothers believe that the more expensive the formula, the better it is". Both sets of nurses believe that mothers should not avoid any foods when breastfeeding but rather, should eat a balanced diet and drink plenty of milk to produce breastmilk. They also believe that a mother can breastfeed when she is ill if she is not on harmful medication. The MN pointed out some disadvantages of breastfeeding such as it is time consuming, the mother cannot go anywhere without the child and the mother has to take time off from work to feed the child. They believe these could be some of the reasons why some women do not breastfeed.

#### **Suggestions**

The nurses believe that education should start in high school and continue to educate the mothers at the clinic. They also suggest that the nurses themselves receive more lectures and be provided with leaflets for distribution.

# RESPONSES FROM MATERNITY AND PUBLIC HEALTH NURSES IN BELIZE DISTRICT

Belize City (9 nurses)

#### Knowledge/Information

The nurses said that the advantages of breastfeeding are it forms a bond between the mother and the child, it is easier because the milk is always available and at the right temperature, the child gets sick less often e.g. no diarrhea. MN believes the child develops an immune system, it is cheaper, psychologically and emotionally good for the child and mother, helps the mother with pain, helps with uterine contraction, less risk for breast cancer. Colostrum is rich in antibodies and serves as immunization. The sick child should be breastfed to get better, especially to rehydrate the baby when it has diarrhea. The nurses learned about breastfeeding at school, from reading, from experience and from attending BIB and UNICEF workshops.

#### Beliefs/Practice

The nurses have the belief that breastfeeding is the best for the first year and that after six months it is not the same level and amount of milk that is produced. They believe that iron is not sufficient in breastmilk so the baby needs other supplements and feedings (MN). They also said that exclusive breastfeeding and initiating breastfeeding are difficult due to mastitis and engorgement (PHN). According to nurses, bottle feeding is not bad if it is done the right way (PHN). The nurses believe that breastfeeding is too time consuming. They know that the community has myths about breastfeeding but they personally do not believe the myths. On the other hand, the PHN believes that the neonate should be given aniseed and garlic for gas and that the breastfeeding woman should not eat cabbage or avocado because these foods cause gas. The nurses say that they encourage all mothers to breastfeed. All mothers especially first time mothers are counseled for 15-20 minutes and receive a breast exam at the first visit(PHN). If a mother refuses to breastfeed, her baby gets formula two hours after birth (MN). The practice in the community is for most mothers to partially breastfeed or to breastfeed for the first four to six months only. The nurses believe that most mothers find it difficult to breastfeed due to let-down problems especially among working mothers (PHN). The PHN say that they know for a fact that the hospital gives formula to the newborn. PHN tell mothers to give crushed fruits and juices at four to six months because they are easily digested, but they also believe that weaning causes malnutrition. The practice in the clinics and hospital is to encourage mothers to breastfeed when they are frightened, angry or ill except if it is a problem like hepatitis. They believe that foods such as mashed potato, fish, banana, porridge, corn lab, custard and eggs can be introduced at about six months because the child can tolerate them at this age. The breastfeeding mother should drink a lot of milk and eat vegetables. In addition to all this, the nurses said that many pregnant women prefer to go to the private clinics and they do not get any breastfeeding information there.

## **Suggestions**

The nurses in the maternity ward believe that breastfeeding education should begin at the prenatal clinic where there should be a special person to do breastfeeding education. Both sets of nurses feel that the MOH needs to reactivate BIB and have a separate budget for breastfeeding and infant feeding because they need the help and they are short-staffed and do not have resources. The MS believes that breastfeeding education should begin in high school. The delivery room nurses say they never receive training on breastfeeding and they need it; they also need their own set of posters and leaflets so they too can do education.

## RESPONSES FROM MATERNITY AND PUBLIC HEALTH NURSES IN ORANGE WALK DISTRICT

#### Orange Walk Town (7 nurses)

#### **Knowledge/Information**

The nurses got their knowledge and information from nursing school, books and BIB workshops. The nurses were very knowledgeable about breastfeeding and one of the MN had visited a Baby-Friendly Hospital. They know that breastfeeding is good because the breastfed child has less health problems than the formula fed child, has strong teeth. The breastfed baby does not have a lot of allergies and formula has artificial nutrients (PHN). Breastmilk is always ready. They also know that a sick baby should be breastfed as long as it can suck, and that breastfeeding forms a bond between the child and the mother. They said that a woman can go to the PHN, hospital, doctor or health worker for information or help about breastfeeding.

#### **Beliefs/Practices**

The practice in the hospital is to put the baby to the breast immediately after birth and the mothers cannot bring bottles and formula to the hospital. Both sets of nurses claimed that they counsel all mothers they come in contact with about breastfeeding. When a mother refuses to breastfeed she is told about the advantages and disadvantages of breastfeeding. One of the differences between the PHN and the MN is that the MN believe that there are certain foods a breastfeeding woman shouldn't eat such as seafood, chocolate, cabbage. She believes that babies can develop allergies, she had gotten the information from a physician. While the PHN say there are myths in the community, they do not advocate them. The nurses believe that working mothers are more concerned about breastfeeding than housewives (PHN), they also say that breastfeeding rates in the community are very low. The women who breastfeed do partial breastfeeding and breastfeeding is usually terminated at six months to a year. The nurses however, believe that a child should be fully breastfed and allowed to leave the breast when he chooses. They said that most mothers introduce formula at one week (PHN). The practice at the hospital is to give pre lacteal feeds ONLY if there is a problem with the baby or the mother. PHN say that older people in the community give breastfeeding advice and confuse the patient. Both sets of nurses believe that soft foods should be given to the baby at six months. However, they know that this is not the practice in the community. Foods are usually introduced earlier. Foods they feel should be given to the six month baby include: fish, mashed potato, fruits, juices and vegetables. Some other foods mothers in the community give are: corn meal porridge, flour lab, custard, cornflakes, oats, beans, potato and custard. Both sets of nurses believe that a frightened or angry mother should "calm herself down then breastfeed". According to the nurses a breastfeeding mother should eat foods high in protein so she can produce quality milk. Though the nurses have all this information, they say the breastfeeding rates in the community are very low especially among the housewives (PHN).

#### Suggestions

The nurses were full of ideas and suggestions to increase breastfeeding rates. For instance one of them said that the government should pass a law to place warnings on formula labels. They aslo feel that the government needs to sustain programmes rather than let them die out e.g. "what they did with BIB" (PHN). They feel that they do not have the resources and time to do effective work and that the MOH should provide the support to them. The PHN feel that length of stay in the hospital is not long enough to work with the mothers. Both sets of nurses suggest that nurses be trained twice per year with updated information on breastfeeding. To reach the community, they feel that the ministry should increase the incentive for health workers, and target the low income families.

## RESPONSES FROM MATERNITY AND PUBLIC HEALTH NURSES IN COROZAL DISTRICT

#### Corozal Town (5 nurses)

#### **Knowledge/Information**

Nurses said that breastfeeding is the best for the baby because the baby gets all the nutrients it needs. They support breastfeeding because both the child and mother benefit from breastfeeding. They said they got their knowledge from school, from reading and from workshops. They know that breastfeeding provides antibodies and immunization to the child and bonds the child to the mother. Breastfeeding is economical and bottle feeding can cause hazards such as choking. If a mother breastfeeds it can prevent breast cancer, promote weight loss, save time and the milk is always available and at the right temperature. They also believe that breastfeeding should be initiated at birth, because the colostrum is ready and the stimulation will help the womb to contract (PHN). The nurses said that women in the community can go to the PHN for advice on breastfeeding. As in the other districts, the MN nurses did not recognize themselves as a resource for the public.

#### **Beliefs/Practice**

The practice in the hospital is to counsel all mothers before and after delivery and to initiate breastfeeding at birth. Formula is not allowed in the hospital and working mothers are instructed on how to express milk. However, "if the mother doesn't produce any milk within four hours the baby is given dextrose" (MN). While at the clinic the nurses say they counsel all mothers who attend clinic. With all this counseling that the patients receive breastfeeding rates are well below the desired levels. According to the PHN many mothers in the community practise combination feeding. Formula is introduced as early as two weeks and breastfeeding is usually terminated at four months. The nurses said that mothers introduce juices and fruits at four months and foods such as mashed potato, pumpkin, and soups at six months. The nurses believe that a breastfeeding mother should drink a lot of juices and eat nourishing foods, but that she should not drink tea or coffee because it will irritate the baby and cause colic (PHN). The nurses said that they instruct mothers to feed the baby who is off the breast or bottle food from the family pot and that local, homemade foods are cheaper and more nutritious than the commercial foods. Mothers are also taught that the sick baby should be breastfed because the breastmilk is nutritious and that if the mother is angry or frightened she should breastfeed after she relaxes. According to the nurses they get better breastfeeding results from first-time mothers than from mothers with more than one child. They believe that a malnourished mother should still breastfeed because her milk is still nutritious.

#### Suggestions

the nurses believe that the MOH is not reaching the people and they suggest that the ministry should implement activities such as breastfeeding fairs, radio and television talks and commercials. The MOH should also distribute more posters. In terms of training, they feel that they themselves need training on breastfeeding, infant feeding and nutrition and that the health workers also need training. In addition to this, they feel that the ministry should target the schools with the desired information.

# RESPONSES FROM RURAL HEALTH NURSES AND TRADITIONAL BIRTH ATTENDANTS RURAL AREAS

#### Benque Viejo Cayo District (1 nurse)

#### **Knowledge/Information**

The nurse said she learned about breastfeeding in school and from BIB workshops. She also said that she is a breastfeeding counselor. The nurse believes that the women can get information at the clinic and at the hospital in San Ignacio. She said that breastfeeding should begin immediately after delivery because it helps to control bleeding. Breastfeeding helps the uterus to contract, it forms a bond between the mother and the child and an ill mother should still breastfeed.

#### **Beliefs/Practices**

The nurse said the practice in the community is that most mothers breastfeed, especially the poorer ones. She said that breastfeeding usually lasts until the child is a year and a half. Local foods given to babies are: mashed potato, corn, rice, banana and plantain porridge. The nurse believes that an angry or frightened mother should still breastfeed. She tells mothers that they should eat nutritious foods when they are breastfeeding. The nurse gives breastfeeding advice to anyone who goes to the clinic.

#### **Suggestions**

The nurse said that the mothers should receive breastfeeding talks while they are waiting at the clinic. She feels that the nurses need information also especially when they have their own children. The nurse apologized for not being knowledgeable about the community because she had only been living there for four months.

## Maskall Belize District (1 nurse)

## Knowledge/Information

The nurse said that breastmilk has all the nutrients the baby needs for growth and nourishment and that the baby needs the colostrum because it cleans out the baby. She said she got her breastfeeding information at school and that she has never attended a breastfeeding/infant feeding workshop. She said mothers in the community can go to the clinic for information on breastfeeding or they can learn from their mothers.

#### Beliefs/Practices

The nurse said that the practice in the community is for most mothers to do combination feeding. They usually introduce formula as early as two weeks and that breastfeeding usually lasts for one to two years. The nurse and the community feels that a baby should be given aniseed and garlic one week after birth and whenever the baby has "puff belly". The practice is also to give the baby gripe water for colic. The nurse believes that the breastfed baby should receive water everyday because the baby gets thirsty. The common belief in the community is that a breastfeeding mother

should not eat seafood and corn based foods. According to the nurse, a baby should receive formula and juices at four months because at this time, the breastmilk isn't enough. In addition to this, the baby should eat only egg yolk because it is soft. She also feels that if the mother becomes ill she should give the baby formula.

#### Suggestions

The nurse said the best way to reach mothers in her community is at the clinic or to do home visits because the women do not like to attend meetings. She said that she needs training in breastfeeding and infant feeding because she doesn't know many things and that she needs updated materials for distribution.

#### Santa Cruz Orange Walk (1 TBA)

#### **Knowledge/Information**

The TBA said that in her training she learned about breastfeeding and she has also attended breastfeeding workshops. She said that breastmilk is the best for the baby because it makes it grow healthier. Breastfeeding causes the uterus to return to its original size and the breastfeeding mother does not have to buy formula.

#### **Beliefs/Practices**

There are no harmful foods for the breastfeeding mother. She should eat anything she can to be healthy. The practice of the TBA is to explain the advantages and disadvantages of breastfeeding to the mothers. She said that the practice in the community is for most of the mothers to exclusively breastfeed for four months then they continue to breastfeed for up to a year and a half. She said that the mothers breastfeed their ill babies because this helps the babies to get better quickly. The TBA said when the baby is taken off the breast it eats what the family eats. She said some mothers give their babies choco sacan (porridge from massa and sugar, no milk). The belief of the TBA is that a mother should not breastfeed when she is angry because there is no flow of milk.

#### **Suggestions**

The TBA feels that the MOH has an impact in their community because they receive support for the CHWs and the community learns a lot from them. She said MOH should just continue to support the CHWs who in turn should continue to educate the mothers. The best way to work with the community is to have meetings.

#### San Victor Corozal (1 TBA)

#### Knowledge/Information

The TBA received breastfeeding information when she was trained and from workshops she attended. Breastmilk helps the baby to develop well and it is like giving vitamins to the baby.

#### Beliefs/Practices

She said that there are no harmful foods for the breastfeeding mother but that she should drink atole de massa, oats and custard to produce milk. The practice in the community is to mix garlic and orange leaves so the mother can drink to produce milk. She said that the mother should not breastfeed if she is angry because the baby will get diarrhea. The TBA says she advises the mothers to prepare the breast before delivery and encourages them to exclusively breastfeed. The practice is for mothers to initiate breastfeeding immediately after birth, breastfeed for 3-4 months then introduce formula. Breastfeeding is usually terminated at 1-2 years. She had no suggestions for us.

#### **ANNEX 2**

#### **INSTRUMENTS**

- 1 Focus Group with mothers with one child from birth to 24 months.
- 1 Focus Group with mothers with more than one child from birth to 24 months.

#### 1. EARLY BREASTFEEDING/EXCLUSIVE BREASTFEEDING

- a. How do you feel about breastfeeding? (knowledge, attitudes (if it takes too much time), perceptions, experiences, benefits).
- b. What is the best time to initiate breastfeeding?
- c. When did you start to breastfeed?
- d. What do you give the baby right after birth? Why?
- e. Do you know what colostrum (yellow part of the milk) is?
  What do you call it? Is it harmful? if so, Do you think it is important? Why?
- g. How do you breastfeed? (on demand, schedule, because the baby falls asleep, tired, enough)
- h. What do you do when the child refuses the breast? (alternatives)
- i. At what age do you stop breastfeeding? (How fast)

#### 2. BREASTFEEDING/BOTTLE FEED/COMBINATION

- a. Do you breastfeed or bottle feed or both?
- b. Which is more convenient for you? Why?
- c. How do you prepare the formula? Do you follow the label? How often do you feed the child?
- d. What do you do when you are away from the child?
- e. At what age are foods and liquids other than breastmilk introduced?

## 3. MOTHER CARE/SUPPORT

- a. Do you have to eat different foods from the rest of the family when you are breastfeeding? If so why, what kinds?
- b. Do you breastfeed when you are ill, when you are frightened, when you are angry?
- c. When the baby is ill? Why or why not?
- d. (If not) what do you give the baby when you are ill/or when he is ill?
- e. Do you receive support from the family when you are breastfeeding? (encouragement, information, help with chores, approval) From whom?
- f. Where/how do you receive information on breastfeeding? Which advice did you follow? Why?
- g. Do you feel services available are helpful/accessible? Does it make a difference to you?
- h. What kind of information do you think mothers need about breastfeeding?
- i. What is the best way to receive the information in your community? Why?
- j. Is the mother exposed to commercial products at the birth place?
- k. When a baby cries, how do you know if he is hungry?

## 4. SUSTAINED BREASTFEEDING/COMPLEMENTARY FEEDING

- a. At what age are foods and liquids other than breastmilk or formula introduced?
- b. Do you know what complementary foods are? (importance, reasons)
- c. What do you call it?
- d. Which ones do you give to your baby? Why?
- e. What foods do you believe are appropriate/harmful for breastfeeding children? (types and consistency)
- f. At what age do you start to give complementary foods? Why?
- g. Do you give complementary food, before or after breastfeeding? or bottle feeding?
- h. Do you think babies should receive vitamins? Why? At what age?

#### 5. LOCAL FOODS: PRODUCTION AND PREPARATION/WEANING

- a. When and how should children stop receiving the breast or bottle? Why?
- b. Are there special foods when the baby stops being breastfed or bottlefed? Which ones?
- c. Are there special homemade baby foods? What are they? Why are they given?
- d. Who makes food for the baby? Who feeds the baby?
- e. When you stop breastfeeding or bottlefeeding, do you feed on demand/schedule, what the child likes or what the child needs?
- f. When the baby does not want to eat do you encourage him? Why?
- g. How do you know if a child is malnourished? (Causes, treatment)

#### 3-4 IN DEPTH INTERVIEWS WITH NEW MOTHERS AT THE HOSPITAL

## 1. EARLY BREASTFEEDING/EXCLUSIVE BREASTFEEDING

- a. How do you feel about breastfeeding? (knowledge, attitudes, perceptions, experiences, benefits).
- b. When is the best time to initiate breastfeeding?
- c. When did you start to breastfeed?
- d. What do you give the baby right after birth? Why?
- e. Do you know what colostrum (yellow part of the milk) is? What do you call it?
- f. Do you think it is important? Why?
- g. Has anyone explained to you about colostrum?
- h. How are you planning to breastfeed? (on demand, schedule, because he falls asleep, is tired, has had enough)
- i. What will you do when the child refuses the breast? (alternatives)
- j. At what age do you think you will stop breastfeeding? (How fast)

## 2. BREASTFEEDING/BOTTLE FEED/ COMBINATION

- a. Do you plan to breastfeed or bottlefeed or both? Why?
- b. How do you prepare the formula? Do you follow the label? How often do you feed the child?
- c. What are you planning to do if you have to be away from the child?
- d. At what age should foods and liquids other than breastmilk or formula be introduced?
- e. Do you think it is more convenient to breastfeed or bottlefeed? Why?

## **Observation**

The following will be observed:

- -is child breastfed or bottlefed
- -demand breastfeeding/force feedings
- -how mother decides when to breastfeed
- -mother terminates breastfeeding or waits until child is finished
- -who prepares the formula if the child is bottlefed
- -how is the formula prepared (hygiene)
- -Compare actions to words
- -conditions of child e.g. signs of malnutrition, eating habits, hygiene of child/environment

#### FOCUS GROUP WITH GRANDMOTHERS

## 1. EARLY BREASTFEEDING/EXCLUSIVE BREASTFEEDING

- a. What do you think about breastfeeding?
- b. When do you think breastfeeding should begin?
- c. What are the current breastfeeding practices in the area?
- d. Do you give advice to anyone?
- e. Where do people in the area learn about breastfeeding?
- f. If a mother has problems with breastfeeding, is there somewhere or someone can go for help?
- g. For how long are babies breastfed in this community?
- h. Which foods should a mother eat or avoid when she is breastfeeding? Why?
- i. Do you think a mother should breastfeed when she is ill, angry or frightened? If NOT, what should be done? If YES why?
- j. Do you think a baby should be breastfed when he is ill? If NOT, what should be done? If yes why?

## 2. SUSTAINED BREASTFEEDING/ COMPLEMENTARY FEEDING

- a. At what age are foods and liquids other than breastmilk introduced?
- b. What is complementary food? (importance, reasons)
- c. Which ones do you think a baby should be given? Why?
- d. What foods do you believe are appropriate/harmful for breastfeeding children? (types and consistency)
- e. At what age do you think babies should receive complementary foods? Why?
- f. Do you think complementary food should be given, before or after breastfeedingor bottle feeding?

#### 3. LOCAL FOODS: PRODUCTION AND PREPARATION/WEANING

- a. When and how should children stop breastfeeding? Why?
- b. Are there special foods for when the baby stops breastfeeding?
- c. Are there special homemade baby foods? What are they? Why are they given?
- d. Who makes the food for the baby? Who feeds the baby?
- e. When a child stops being breastfed should you feed on demand/schedule, what the child likes or what the child needs?
- f. When the baby does not want to eat do you think you should encourage him? Why?
- g. Do you think it is best to breastfeed or bottle feed?
- h. How do you know if a child is malnourished? (Causes, treatment)

# FOCUS GROUP/INTERVIEW WITH MATERNITY STAFF OR TRADITIONAL BIRTH ATTENDANTS

#### 1. EARLY BREASTFEEDING/EXCLUSIVE BREASTFEEDING

- a. What do you think about breastfeeding?
- b. When do you think breastfeeding should begin?
- c. What are the current breastfeeding practices in the area?
- d. Do you give advice to anyone?
- e. What do you do if a mother refuses to breastfeed?
- f. Where do people in the area learn about breastfeeding?
- g. If a mother has problems with breastfeeding, is there somewhere or someone she can go to for help?
- h. For how long are babies breastfed in this community?
- i. Which foods should a mother eat or avoid when she is breastfeeding? Why?
- j. Do you think a mother should breastfeed when she is ill, angry, frightened? If NOT, what should be done? If YES why?
- k. Do you think a baby should be breastfed when he is ill? If NOT, what should be done? If YES why?
- 1. Where do you get information on breastfeeding?
- m. What do you feel is the impact of the Ministry of Health concerning breastfeeding?

## ANNEX 3

## **CHRONOGRAM**

## METHODOLOGY IN EACH DISTRICT

DISTRICT	SITE	ETHNIC	TECHNIQUES AT EACH SITE
1) TOLEDO	URBAN	Maya	4 IDI/Ob. mothers
	Punta Gorda		1 FG maternity staff
		ľ	1 FG mothers only 1 child
			1 FG mothers > 1 child
			1 FG grandmothers
	RURAL		4 IDI/Ob. mothers
	Santa Cruz	Maya	1 IDI with TBA
	Aguacate	Kekchi	1 FG mothers only 1 child
			1 FG mothers > 1 child
			1 FG grandmothers
2) STANN CREEK	URBAN		4 IDI/Ob. mothers
	Dangriga	Garifuna	1 FG maternity staff
			1 FG mothers only 1 child
			1 FG mothers > 1 child
			1 FG grandmothers
	RURAL		
	Seine Bight	Garifuna	4 IDI/Ob. mothers
			1 IDI with TBA
			1 FG mothers only 1 child
			FG mothers > 1 child
			1 FG grandmothers
3) CAYO	URBAN		4 IDI/Ob. mothers
	San Ignacio	Mestizo	1 FG maternity staff
			1 FG mothers only 1 child
			1 FG mothers > 1 child
			1 FG grandmothers
	RURAL		
	Calla Creek	Mestizo	4 IDI/Ob. mothers
			1 IDI with TBA
			1 FG mothers only 1 child
			1 FG mothers > 1 child
	<u> </u>		1 FG grandmothers

YIDDANI		4 IDI/Oh mothers
_	Canala	4 IDI/Ob. mothers
-	Creole	1 FG maternity staff
white HC		1 FG mothers only 1 child
		1 FG mothers > 1 child
DVD 4 V		1 FG grandmothers
	Creole	4 IDI/Ob. mothers
Village		1 IDI with TBA
		1 FG mothers only 1 child
		1 FG mothers > 1 child
		1 FG grandmothers
URBAN		4 IDI/Ob. mothers
Orange Walk	Mestizo	1 FG maternity staff
		1 FG mothers only 1 child
		1 FG mothers > 1 child
		1 FG grandmothers
RURAL		
Santa Cruz	Mestizo	4 IDI/Ob. mothers
		1 IDI with TBA
		1 FG mothers only 1 child
		1 FG mothers > 1 child
		1 FG grandmothers
URBAN		4 IDI/Ob. mothers
Corozal	Mestizo	1 FG maternity staff
		1 FG mothers only 1 child
		1 FG mothers > 1 child
		1 FG grandmothers
RURAL		
	Mestizo	4 IDI/Ob. mothers
		1 IDI with TBA
		1 FG mothers only 1 child
		1 FG mothers > 1 child
	,	1 FG grandmothers
	Orange Walk  RURAL Santa Cruz  URBAN Corozal	Cleopatra White HC  RURAL Santana Village  Creole  URBAN Orange Walk  RURAL Santa Cruz  Mestizo  URBAN Corozal  Mestizo

## ANNEX 4

## TIMETABLE

DISTRICT SITE	DATE	TIME	TEAM	ACTIVITY
	MON. 3/11	8:00am	ALL	TRAVEL*
TOLEDO			  - 	
URBAN	1	8:00am	1	4 IDI/Ob. mothers
Punta Gorda	TUE. 4/11	10:00am	2	1 FG maternity staff
		1:30pm	2	1 FG mothers only 1 child
		3:00pm	2	1 FG mothers > 1 child
RURAL		7:00pm	ALL	1 FG grandmothers
Santa Cruz	WED. 5/11			
		8:00am	1	4 IDI/Ob. mothers
		10:00am	1	1 IDI with TBA
Aguacate		1:30pm	2	1 FG mothers only 1 child
	THU. 6/11	3:00pm	2	1 FG mothers > 1 child
		7:00pm	ALL	1 FG grandmothers
Punta Gorda		8:00am	1	
Punta Gorda		10:00am	1	4 IDI/Ob. mothers 1 IDI with TBA
	FRI. 7/11	1:30pm	2	1 FG mothers only 1 child
	SAT. 8/11	3:00pm	2	1 FG mothers > 1 child
		7:00pm	ALL	1 FG grandmothers
				REVIEW NOTES
				TRAVEL TO STANN CREEK

DISTRICT SITE	DATE	TIME	TEAM	ACTIVITY
STANN CREEK		8:00am	1	4 IDI/Ob. mothers
URBAN		10:00am	2	1 FG maternity staff
Dangriga	MON. 10/11	1:30pm	2	1 FG mothers only 1 child
		3:00pm	2	1 FG mothers > 1 child
		7:00pm	ALL	1 FG grandmothers
RURAL		-		
Seine Bight	TUE. 11/11	8:00am	1	4 IDI/Ob. mothers
		10:00am	1	1 IDI with TBA
		1:30pm	2	1 FG mothers only 1 child
		3:00pm	2	1 FG mothers > 1 child
	WED. 12/11	7:00pm	ALL	1 FG grandmothers
		08:00am		REVIEW NOTES
		2:00pm		TRAVEL TO CAYO
CAYO		8:00am	1	4 IDI/Ob. mothers
URBAN		10:00am	2	1 FG maternity staff
San Ignacio	THU 13/11	1:30pm	2	1 FG mothers only 1 child
		3:00pm	2	1 FG mothers > 1 child
		7:00pm	ALL	1 FG grandmothers
RURAL				
Calla Creek	FRI. 14/11	8:00am	1	4 IDI/Ob. mothers
		10:00am	1	1 IDI with TBA
		1:30pm	2	1 FG mothers only 1 child
		3:00pm	2	1 FG mothers > 1 child
	SAT. 15/11	7:00pm	ALL	1 FG grandmothers
		8:00am	All	REVIEW NOTES
		1:00Pm	All	TRAVEL TO BELIZE

MON. 17/11	8:00am 10:00am 1:30pm	1 2	4 IDI/Ob. mothers 1 FG maternity staff
	3:00pm 7:00pm	2 2 ALL	1 FG mothers only 1 child 1 FG mothers > 1 child 1 FG grandmothers
TUE. 18/11	8:00am 10:00am 1:30pm 3:00pm 7:00pm	1 1 2 2 ALL	4 IDI/Ob. mothers 1 IDI with TBA 1 FG mothers only 1 child 1 FG mothers > 1 child 1 FG grandmothers  REVIEW NOTES
THU. 20/11	6:00 am 8:00am 10:00am 1:30pm 3:00pm	ALL  1 2 2 2	Travel to Orange Walk  4 IDI/Ob. mothers 1 FG maternity staff 1 FG mothers only 1 child 1 FG mothers > 1 child
FRI. 21/11 SAT. 22/11	7:00pm 8:00am 10:00am 1:30pm 3:00pm 7:00pm	ALL  1 1 2 2 ALL	1 FG grandmothers 4 IDI/Ob. mothers 1 IDI with TBA 1 FG mothers only child 1 FG mothers > 1 child 1 FG grandmothers REVIEW NOTES TRAVEL TO COROZAL
	THU. 20/11	8:00am 10:00am 1:30pm 3:00pm 7:00pm  6:00 am  8:00am 10:00am 10:00am 1:30pm 3:00pm 7:00pm  FRI. 21/11  8:00am 1:30pm 3:00pm 7:00pm 3:00pm 7:00pm 7:00pm	FUE. 18/11  8:00am 10:00am 1:30pm 2 3:00pm 7:00pm  ALL  6:00 am ALL  6:00 am 10:00am 10:00am 1:30pm 2 3:00pm 2 7:00pm  ALL  FRI. 21/11  8:00am 1 10:00am 1 10:00am 1 1:30pm 2 3:00pm 7:00pm  ALL  FRI. 21/11  8:00am 1 18:00am 1

DISTRICT SITE	DATE	TIME	TEAM	ACTIVITY
COROZAL URBAN	MONT 24/11	8:00am 10:00am	1 2	4 IDI/Ob. mothers 1 FG maternity staff
Corozal	MON. 24/11	1:30pm 3:00pm 7:00pm	2 2 ALL	1 FG mothers only 1 child 1 FG mothers > 1 child 1 FG grandmothers
RURAL		_		
San Victor	TUE. 25/11	8:00am 10:00am 1:30pm 3:00pm	1 1 2 2	4 IDI/Ob. mothers 1 IDI with TBA 1 FG mothers only 1 child 1 FG mothers > 1 child
	WED. 26/11	7:00pm	ALL	1 FG grandmothers
	THU. 27/11	8:00am		REVIEW NOTES
		3:00pm		TRAVEL TO BELIZE
URBAN Dangriga	TUE. 2/12	1:30pm 3:30pm 5:30pm		1 FG mothers only 1 child 1 FG PHN 1 FG grandmothers 1 FG mothers > 1 child
				110 moniors > 1 cities

<sup>\*</sup> INCLUDES PREPARATION OF ACTIVITIES FOR NEXT DAY

TEAM 1 = 2 INTERVIEWERS
TEAM 2 = REGINA AND 1 INTERVIEWER