

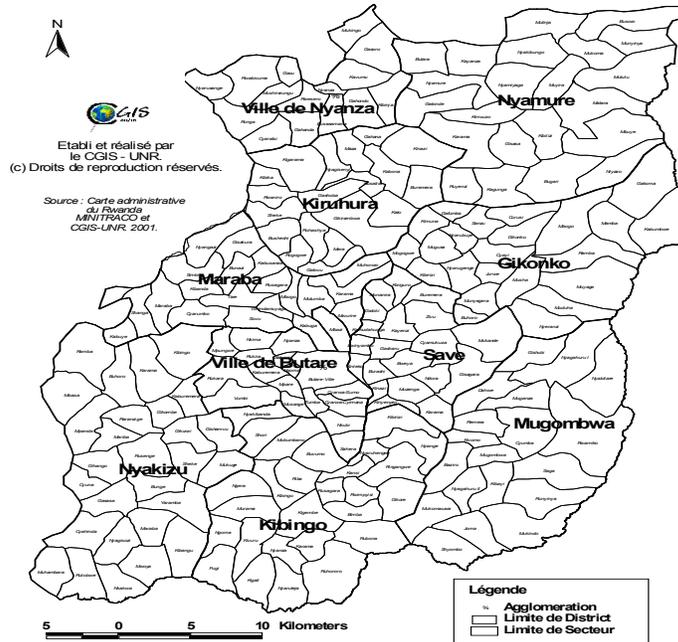


**Kibilizi Health District
USAID-Concern Rwanda Partnership**

Kibilizi Child Survival Program

**Knowledge, Practice, and Coverage
Baseline Survey Report**

**Carte administrative pour
la Province de Butare**



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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival
CBHA	Community Building Health Activist
CSP	Child Survival Program
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DHT	District Health Team
DMO	District Medical Officer
DPT	Diphtheria, Pertussis, and Tetanus
IDPs	Internally Displaced Persons
IRC	International Rescue Committee
KPC	Knowledge, Practice, and Coverage
MOH	Ministry of Health
PLA	Participatory Learning Assessment
SPH	School of Public Health
STI	Sexually Transmitted Infections
TBA	Traditional Birth Attendant
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

The Kibilizi District Health goal is to improve the prevention and the treatment of the priority health problems in its operational area. The Concern Kibilizi CSP aims to support the District Health Team (DHT) in Kibilizi to implement their Plan of Action and to achieve their Health Goal in line with the MOH strategy guidelines and technical standards. In order to help develop the Detailed Implementation Plan to achieve the above goals, Concern CSP in close partnership with Kibilizi DHT designed and implemented this Knowledge, Practice and Coverage (KPC) Survey in Kibilizi Health District. One of the main objectives of this KPC Survey was to obtain baseline information on Knowledge, Practice, and Coverage from mothers of children less than 24 months related to CSP's four intervention areas for program planning, implementation, and evaluation.

The following is a summary of the key findings in the four program areas:

1) HIV/AIDS

- 99.1% of mothers have heard about HIV/AIDS
- 94.3% of mothers know that HIV/AIDS is incurable
- 0.7% of mothers know the three most common methods of HIV transmission (blood, unprotected sex, and mother to child)
- *24.4% of mothers can cite at least two methods of HIV prevention*
- 9.5% of mothers have been tested for HIV/AIDS

2) Malaria

- 52.4% of mothers know how malaria is transmitted
- 52.4% of children 0-23 months had a fever in the last two weeks prior to survey
- 4.3% of mothers have an impregnated bed-net
- *0.9% of children slept under an impregnated bed-net the night before survey*

3) Nutrition

- 62.6% of children 6-23 months received vitamin A in the last 6 months
- 54.7% of mothers took iron tablets for at least 1 month during last pregnancy
- 38.0% of children 0-23 months were breastfed within 1 hour of birth
- *73.5% of children 0-5 months were exclusively breastfed in the last 24 hours prior to survey*
- *94.3% of children 6-9 months received both breastmilk and complementary foods in the last 24 hours prior to survey*
- 49.2% of children 0-23 months have been weighed within the last three months prior to survey

4) Maternal and Newborn Care

- *23.8% of mothers received at least 2 doses of Tetanus Toxoid during last pregnancy*
- 82.4% of mothers attended at least two consultations before delivery
- 19.0% of mothers' last delivery was at a health facility
- 43.3% of mothers' last home delivery was attended by a TBA
- 2.9% of mothers attended post-natal care within a month after delivery
- 2.8% of mothers know at least three danger signs for referral after delivery
- *72.3% of mothers know at least two signs of childhood illness that indicate the need for treatment*

Although the numbers obtained in this research did not match exactly with the DHS or other surveys, the general trends did. They show that knowledge, practice, and coverage on basic survival behaviors and program are low and need much strengthening. This reiterates the problems that had been identified in Kibilizi during the development of the Concern Child Survival Program. This allows staff to be more confident that the programs they implement are needed, and helps to determine which areas need more focus. The goals and objectives of the Kibilizi Child Survival Program will be revised according to these findings and will be reflected in the Detailed Implementation Plan.

Chapter 1

I. Introduction

The overall goal of Concern Rwanda's Child Survival Program (CSP) in Kibilizi District is to contribute to a sustainable reduction in maternal and child mortality and morbidity, and increased life expectancy in Kibilizi District, Butare Province of Rwanda. The program purpose is to improve the health status of the population of the district through capacity building for high quality and sustainable health services, and by empowering communities for better health with locally available resources. The emphasis is on sustainable institutional and community level health development, corresponding to Ministry of Health's Health Sector Objectives and to USAID's Strategic Objectives for Rwanda. Concern Rwanda's Child Survival Program is a five-year new program grant from USAID, which commenced on October 1st, 2001. In order to strategically plan the program, allocate resources appropriately, and to establish indicators for program monitoring and evaluation, a baseline assessment on Knowledge, Practice, and Coverage (KPC) was required. Hence, the main aim of this report is to present the results of the baseline KPC assessment. Before doing so, background information on the program and methodology employed will be discussed.

II. Background Information

Rwanda is a relatively small, densely populated, and mountainous Central African Country that is emerging from one of the most devastating violent conflicts in modern time. It shares borders with Burundi, Democratic Republic of Congo, Uganda, and Tanzania. The country was formerly colonized by Germany and later by Belgium. Rwanda won its independence in 1963. In 1994, around one million of its estimated population of 7.6 million were killed and another 2 million fled the country within a

window period of 100 days (UNDAF, 2001). The conflict left lives devastated, infrastructure ruined, and at least 220,000 children orphaned and one hundred thousand people in prison. According to the recent Demographic and Health Survey (2001), about one-third of all households are headed by women. Another study conducted by UNICEF found that about 60,000 households are headed by children (UNICEF, 1999). Also, in Rwanda, women constitute about 54% of the total population and 60% of the labor force (UNDAF, 2001).

Although the government has rehabilitated its infrastructure and restored many provisions of basic public services such as health and education, Rwanda is still considered to be in the transitional phase between emergency and development and is among the poorest countries in Africa by all development indicators. Approximately 65% of its people are living below poverty line and it ranks 164 out of 174 countries with respect to the Human Development Indicator (UNDP, 2000).

Rwanda Health Infrastructure, as a consequence of the genocide, was also destroyed and many health personnel were either killed or fled the country. Thus, the population's health is a major problem and remains a major constraint to the socioeconomic development of the country. At present, life expectancy is at 49 years, infant mortality is 107 per 1,000 live births, and mortality of children under the age of five years is 196 per 1,000 live births (UNDAF, 2001).

In 1995 the Government of Rwanda reestablished its Ministry of Health (MOH) and elaborated a National Health Policy, which served as a platform to rebuild its health infrastructure. As a mechanism to decentralize the delivery of health services, the MOH designated the Health District as “an operational unit which takes charge of all health problems of a defined group, with its participation.” In total, there are forty health districts in Rwanda. However, with less than four percent of government spending allocated to

support these systems, health services cannot be maintained and sustained without ongoing external financial support.

Kibilizi Health District is situated in the southeastern part of Butare Province. It is among one of the four health districts within Butare Health Province. Kibilizi Health District consists of two administrative districts (Mugombwa and Kibingo), 46 sectors, and 142 cells (the smallest administrative unit). The current estimate of total population living in Kibilizi is 152,143 (Gesis, 2001). It should be noted that a new law was introduced in late 2001 to restructure administrative units and to change the denominations “Prefecture” and “Communes” to “Province” and “District”, respectively.

Kibilizi Health District’s goal is to improve the prevention and the treatment of the priority health problems in its operational area. It has seven health centers that provide the primary health services for the population of the district. Each health center has a catchment population of 15,000 to 30,000. According to the Ministry of Health, each health district should have at least one hospital; however, Kibilizi is the only district in Butare province that does not have a hospital. Currently the nearest hospital is in Butare town, 42 km away from the furthest health center in Kibilizi. There is a plan to build a hospital in Kibilizi this year with financial assistance from the African Development Bank.

Concern Rwanda is part of Concern Worldwide (U.S.) Inc. founded in 1993 and Concern Worldwide which started operation in Biafra in 1968. Concern Worldwide main headquarter is in Dublin, Ireland. Concern Rwanda started operations in Rwanda at the height of the crisis in 1994 by supporting the internally displaced population and returnees in four provinces (prefectures). In 1998, Concern Rwanda started to provide technical health assistance in Kibilizi District at the request of the Butare Health Province office. Two years later (December 2000), with the support of key stakeholders at the

local and national level, Concern Rwanda submitted a CSP proposal to USAID in an effort to continue its health program interventions and was awarded the grant in May 2001. The new CSP was started on October 1, 2001.

The Concern Kibilizi CSP aims to support the District Health Team (DHT) to implement their Plan of Action and to achieve their Health Goal in line with the MOH strategy guidelines and technical standards. More specifically, the Concern Kibilizi CSP has the following goal and purpose:

The Program Goal is to contribute to a sustainable reduction in maternal and child mortality and morbidity, and increased life expectancy in Kibilizi District, Butare Province.

The Program Purpose is to improve the health status of the population of Kibilizi District through capacity building for high quality and sustainable health services, and by empowering communities for better health with locally available resources. The Kibilizi CSP program approach is built on the belief that long-term health security is achieved only if people improve their knowledge and capacity for better health. The three main strategies that are considered important to this approach are: 1) to develop the management capacity of the DMO and supervisors, 2) to develop the technical capacity of the district health staff on the four program intervention areas, 3) to strengthen the district's community outreach approach.

The program interventions to be implemented are (% of total program effort¹):

- 1) HIV/AIDS Prevention (28%)
- 2) Malaria Control (24%)

¹ This may be revised in view of findings and the increasing prevalence of HIV/AIDS in Rwanda.

- 3) Nutrition - Prevention of chronic malnutrition (24%)
- 4) Maternal and Newborn care (24%)

The expected program outputs are:

- 1) Improved district health management systems
- 2) Improved quality of services on the four selected interventions
- 3) Increased health care coverage
- 4) Decentralized and institutionalized health services
- 5) Sensitized District Health Team and population on gender health issues
- 6) Empowered population for disease prevention and risk reduction
- 7) Improved Concern-CSP planning, design, and management capacity

The Knowledge, Practice and Coverage (KPC) Survey in Kibilizi Health District is a major part of the CSP baseline assessment on the KPC of specific child and maternal health in the district for program planning, implementation, and evaluation.

The objectives of the CSP's baseline KPC survey are:

- 1) To obtain baseline information on Knowledge, Practice, and Coverage from mothers of children less than 24 months related to CSP's four intervention areas in Kibilizi Health District
- 2) To sensitize and orientate families and stakeholders regarding the proposed CSP
- 3) To raise awareness and increase understanding between the CSP, Kibilizi Health Team and local officials regarding mothers' capacities and constraints for protecting children's health.
- 4) To build up a positive relationship between the District Health Team, Butare Health Province, the Child Survival Team and local population of Kibilizi
- 5) To provide a baseline for follow-up KPC's which will contribute to mid-term and final Child Survival Program Evaluations.

Chapter 2

Survey Methodology

The Concern Child Survival Program (CSP) Team placed great emphasis in using the KPC study as a team building tool, involving as many people as possible from Kibilizi Health District, as well as expanding their capacity building and cooperation to involve another CSP program (IRC in Kibungo Health Province). Based on this strong emphasis, the CSP team designed the study and collected the data with the staff from Concern CSP and the Health District. To build institutional collaboration with local partners, Concern involved the School of Public Health (SPH) of the National University of Rwanda by sub-contracting the data entry, analysis, and write-up to the school. The author of the report, a visiting professor to SPH from Tulane University, was requested by the Director of SPH to lead this part of the study.

I. Development of Questionnaire

With input from implementing partners within the District, the questionnaire was developed by the Concern local staff with assistance from Kibungo Health Province using the following documents for guideline:

- 1) The Rapid CATCH Technical Guideline (2000)
- 2) IRC KPC Baseline Survey in Kibungo Health Province of Rwanda (2000),
- 3) Concern Child Survival Program KPC Baseline Survey in Bangladesh.

The questionnaire was first drafted in English and later translated into French and Kinyarwanda. The Kinyarwanda version was utilized for the survey (Appendix I). The final questionnaire included 75 questions that are organized in nine sections as follows:

- 1) Respondent's Background
- 2) Breastfeeding, Nutrition, and Growth Monitoring
- 3) Diarrheal Diseases

- 4) Malaria
- 5) Prenatal Care
- 6) Delivery and Care of Newborn
- 7) Post-natal Care
- 8) Child Spacing
- 9) HIV/AIDS and other Sexually Transmitted Infections

II. KPC Indicators

The questions chosen are linked to a set of indicators that reflect the program objectives as well as international standards in maternal and child health. The KPC key indicators linked the four program intervention areas as follows (italicized indicators are also key KPC2000+ Rapid Catch Indicators):

HIV/AIDS:

- % of mothers who have ever heard about HIV/AIDS
- % of mothers who know that HIV/AIDS is incurable
- % of mothers who know the three most common methods of HIV transmission (blood, unprotected sex, and mother to child)
- *% of mothers who can cite at least two methods of HIV prevention*
- % of mothers who have ever been HIV/AIDS tested

Malaria:

- % of mothers who know how malaria is transmitted
- % of children 0-23 months who had a fever in the last two weeks
- % of mothers who have an impregnated bed-net
- % of children who slept under an impregnated bed-net the previous night

Nutrition:

- % of children 6-23 months who received vitamin A in the last 6 months:
- % of mothers who took iron tablets for at least 1 month during their last pregnancy
- % of children 0-23 months who were breastfed within 1 hour of birth
- % of children 0-5 months exclusively breastfed in the last 24 hours

- % of children 6-11 months who received both breastmilk and complementary foods in the last 24 hours
- % of children 0-23 months weighed within the last three months

Maternal and newborn care:

- % of mothers who received at least 2 doses of Tetanus Toxoid during last pregnancy
- % of mothers who attended at least two consultations before delivery
- % of mothers whose last delivery was at a health facility
- % of mothers whose last home delivery was attended by a TBA
- % of mothers attending post-natal care within a month after delivery
- % of mothers knowing at least three danger signs for referral after delivery
- % of mothers who know at least two signs of childhood illness that indicate the need for treatment

In addition, another set of indicators from other child survival interventions areas were included that were drawn from the Rapid KPC CATCH Questionnaire developed by CSTS.

Control of diarrheal disease:

- % of children 0-23 months who had diarrhea in the last two weeks
- % of mothers who sought advice/treatment at health facilities during this particular episode of diarrhea
- % of children 0-12 months who received increased fluids and continued feeding during diarrhea episode in the past two weeks

Child spacing:

- % of mothers who are currently using a modern contraceptive method
- % of children 0-23 months who were born at least 24 months after the previous surviving child

Immunization:

- % of children 12-23 months who are fully immunized before the first birthday
- % of children 12-23 months who received a measles vaccine.

III. Target Population

The target population for the baseline KPC study is women who are between the ages of 15 to 49 and have at least one child between 0 to 23 months old.

IV. Sample Size Calculation

The sample size of this study was determined by using the formula for the simple random sampling for proportion estimate, and was accordingly adjusted for the assumed design effect of a two-stage cluster sampling design. The sample size for simple random surveys for proportion estimate is determined by using the following formula:

$$n \geq [Z^2 (P) (1-P)]/D^2$$

n= minimum sample size required

Z= z-score corresponding to the level of confidence with which it is desired to be sure that the true population lies with +/- D percentage points of the sample estimate.

P= estimated prevalence coverage rate level to be investigated.

D= minimum tolerable error

For this particular survey, **P** was defined by the coverage rate that would allow the most conservative sample size estimates which is p=0.5. The minimum tolerable error allowed for this study is 10% (**D**=0.10) and the statistical certainty chosen to be 95% (**Z**=1.96).

Given the above assumptions, the minimum sample size requirement is:

$$n \geq [(1.96)^2 (.5) (.5)]/(0.1)^2$$

$$n \geq 97$$

To adjust for the design effect of cluster sampling, the minimum sample size had to be multiplied by the estimated design effect. In this study, the design effect was assumed to be two and hence the minimum sample size calculated above was doubled, which

yielded the requirement 194 sample for this particular study. To be conservative, a total of 422 mothers were interviewed in this KPC.

V. Sampling Design

This survey adopted a two-stage cluster sampling design. The first level involved sampling sectors, and the second level involved cells. A health district is composed of several sectors and each sector is composed of several cells. Ten of these sectors were chosen, and 3 cells within each sector, for a total of 30 cells to be surveyed. As Kibilizi Health District is made up of two administrative districts with 27 (60%) and 19 (40%) sectors respectively, the number of sectors within each administrative district was chosen proportionate to the number of sectors within each district. However, sectors were not selected by proportion to size.

Within each cell, the following protocol was used to choose households as prescribed in the EPI Coverage Survey Training Manual (WHO, Geneva, 1988):

- 1) Having reached the survey site, the team supervisor asked the local leader to lead the team to the center of the cell.
- 2) Once at the center, the team leader spun a pen or bottle to choose a direction.
- 3) The first household in that direction was chosen to participate in the survey.
- 4) Once the household was selected, the team chose the closest house in any direction as the next target.

Then within each household, interviewers would ask if there were any children between 0 to 23 months of age. If there was, and the mother was between the ages of 15 to 49 years, the interviewer would then ask the child's mother if she would participate in the study. If there was more than one mother living in the household, they would choose one at random. If the child's mother was not present, efforts were made to locate her. If she was not to be located, the interviewer proceeded to the next household.

VI. Interviewer Selection Process and Training

Concern CSP and DHMT Kibilizi believe that the interviewers should, as much as possible, come from within the District (including the Concern CSP staff) because the KPC was seen as a tool for partnership and capacity building and for raising awareness about the CSP program and mothers' capacity and constraints for protecting children's health (KPC objective 3 and 4). It was also seen as a great opportunity for health workers to observe the "real life" of the people within the community. Normally, it is the mothers who will come to the health centers, and due to limited community based health care, the health center staff rarely have the opportunity to visit families at home.

For the KPC interviewer, Concern CSP staff and DHMT nominated one staff member from each health center, four representatives from the two Administrative Districts within Kibilizi Health District, and seven Concern Capacity Building Health Activists. In addition, three interviewers were chosen who were not related to the District. One was a medical student from Butare, who was employed by the CSP program on a temporary basis as a translator. The two others were chosen due to their previous experience in research, each having a degree in Public Health. In addition one had been an interviewer during IRC's KPC study in Kibungo Health Province, and he was seen as major resource person who contributed with valuable suggestions. In total there were 22 interviewers who were then divided into four teams: two teams each having six interviewers, and another two teams each having five interviewers. Each team had one supervisor with two from the Concern staff and two from the DHMT (see Appendix III for the list of interviewers and supervisors). After the first day of data collection, one of the interviewers was promoted to supervisor when one of the supervisors went for a gender training workshop in another Province.

The team leader for the training and data collection was the Health Administrator from Kibungo Province, who was chosen due to his experience of working closely with IRC Kibungo on their CSP for the past two years and his involvement in their KPC which was conducted last year. In addition, he was chosen because of the already established relationship between him, the CSP Concern team, and the Kibilizi District Medical Officer (DMO), and the Supervisor.

Field training was conducted for 3 days covering the following key subjects: 1) the objectives of the KPC assessment, 2) the rationale for conducting the study, 3) the principle of indicators, 4) the sampling and interviewing techniques, 5) the methodologies of the study, and 6) the role and responsibilities of each team member (see Appendix IV for training schedule). The questionnaire was piloted during the last day of training. The pilot testing was done in Mumbeho Umudugudu (settlement), Gitwa Cell, Kibilizi District. This site was chosen because it is only a short distance from the training location.

VII. Data Collection

Ethical Consideration and Informed Consent: In Rwanda, there exists no formal ethics committee to approve research. A verbal approval was obtained from the Director of the SPH. A week before the data collection commenced the CSP launched its official opening in the district. The ceremony was attended by more than 100 community members including officials. During the ceremony the KPC was introduced including the objectives and data collection protocols. Concern also requested for attendees' participation and cooperation in the study. Letters were sent to the two Mayors of the data collection sites explaining about the KPC study, asking for consensus, and asking them to inform the leaders of the selected sectors about the study. Each selected sector was visited a few days before the research, where the sector leader was informed and

asked for cooperation. Out of the ten sector leaders, five had attended the CSP official opening a week before and were well informed about the program. The remaining were briefed about the KPC. Sector leaders promised to inform the cell community health workers and to assist in the data collection process. In addition, all study participants were asked for verbal consent before proceeding with the questionnaire.

Field Work: Data collection took place during the period of January 10 through 16, excluding Saturday and Sunday. Each morning during the data collection week, the 22 interviewers and 4 supervisors met at the Nyanruhengeri Ex Commune Hall- Kibilizi during the data collection week. Once questionnaires were distributed and instructions were provided, the interviewers divided into four teams, each having one supervisor and its own vehicle to drive to the selected cell (cluster). Each team was assigned one and one-half cells per day with each interviewer conducting an average of three to four interviews per day. At the end of each data collection day, each supervisor completed a quality control checklist (see Appendix V) In total, 422 interviews were completed during the five days of data collection.

VIII. Data Entry and Analysis

Concern sub-contracted the School of Public Health (SPH) of the National University of Rwanda to enter and analyze data and to write-up the report. Using four staff members from Concern and four students from the university, the data were entered into SPSS for analysis under close supervision of the author. Data entry was completed eight business days after receiving the questionnaires from Concern.

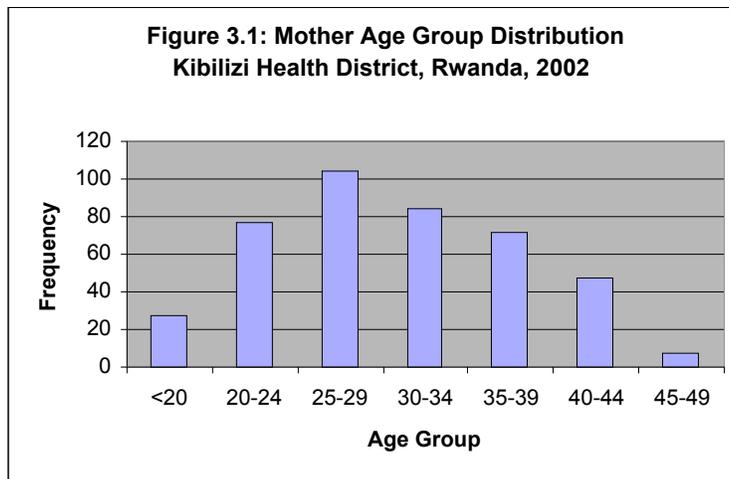
The majority of data analysis was implemented with SPSS. For calculating the confidence limits for the KPC2000+ Rapid Catch Indicators, EPI Info CSample program was utilized.

Chapter 3 Results

I. Respondent Socio-demographic Characteristics

A. Age Group of Surveyed Mother and Child

The biggest age group of mothers surveyed is between the ages of 25 to 29 years, which is approximately one-quarter of the respondents (24.8%). The other two major age groups consisting of less than 25% per group are 30 to 34 (20.0%) and 20 to 24 (22.9%). The mean and median age of the mothers surveyed is 30 years. Almost half of the mothers interviewed (48.6%) have a child 12 to 23 months old. More than one-quarter of the mothers surveyed (27.3%) have children 6 to 11 months, and the remainder (24.2%) have a child less than five months old. The mean and median age of surveyed children is 11 months.



With respect to the age distribution of the surveyed children, there are more children 0 to 11 months than children 12 to 23 months, which is similar to what was found in the IRC's Kibungo KPC Study. This may be explained by higher infant mortality and hence fewer children between the 12 to 23 months, gender differences in mortality

as suggested by the Kibungo KPC study, or due to chance. Unfortunately, this study does not have sufficient information to provide a clear explanation.

B. Mother Marital Status and Member of Head of Household

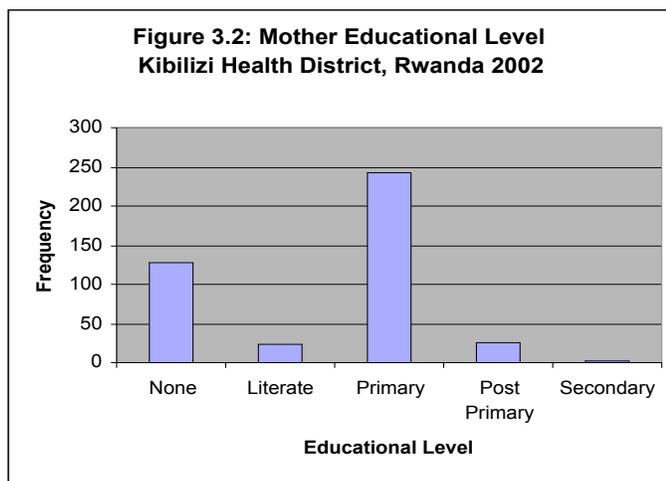
About 85% of the respondents are married and the others are divorced /separated (5.2%), widowed (3.6%), or single mothers (4.0%). The mean age of single mothers is 23 years. Over four-fifths (84.8%) of the respondents' households are headed by the mother's husbands, while over ten percent (11.6%) of the respondents' households are headed by the mother herself. Among the mothers who are head of the household about 33 % are married, 31% are widowed, 20% are separated, and the rest are either single mothers or illegally married (unregistered marriage).

The percentage of females heading households in this particular study is relatively low compared to the national figure. According to the DHS, about one-third of all households are headed by females. However, this may also be an artifact of the study's restriction of the target population to women who have children under 24 months of age.

C. Mother Educational and Literacy Level

Over one-half of the mothers have had some primary school (57.3%), almost one-third (30.3%) had no schooling, and less than ten percent had school beyond the primary level. None of the respondents had schooling beyond the secondary level. The mothers' educational levels correspond with their literacy levels. Over one-half (61.6%) of the respondents stated that they could both read and write Kinyarwanda, the local language. Less than 5 percent can only read, while one-third (33.9%) can NEITHER read NOR write Kinyarwanda.

The national literacy rate of people older than 15 years of age is 52%, the net primary school enrollment rate is 73%, and the net primary school completion rate is 23% (UNDAF, 2001). The ratio of girls to boys in primary education is one, which is more egalitarian than most developing countries where more boys are enrolled into schools than girls (UNDAF, 2001). Women’s educational and literacy level in this study is lower than the national figures, and it is even lower than mothers surveyed in the Kibungo Region (IRC, 2000).



D. Income Generating Activities

More than one-half (54.0%) of the mothers generate income through agricultural activities, and about two percent of these respondents augment their income with other activities such as husbandry, paid employment, or small business. Over one-third (36.5%) of the mothers do not have any income generating activities. The remainder, about 8% of the respondents, generate income only through husbandry, small business, or paid employment.

Due to the wording of the questions and options to provide more than one response, it is difficult to determine how accurately the results found reflect reality. Based on interviewers’ observations, almost all the mothers in this survey are involved in some kind of agriculture activity. Also according to national figures, approximately 90%

of the population engages in subsistence agriculture (UNDAF, 2001). It is uncertain but possible that agricultural activities actually generate monetary income for these families while they subsidize that income with other activities, but they may have stated the other activities as generating their income without listing agriculture.

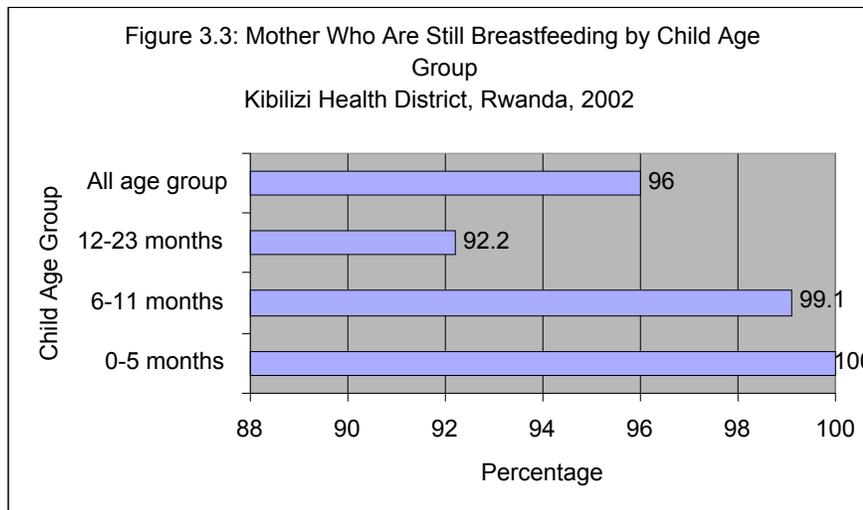
Table 3.1: Respondent Socio-demographic Characteristics		
Socio-demographic Characteristics	Frequency	Percentage
Mother Age Group n=422		
<20 years	27	1.9
20-24 years	77	22.9
25-29 years	104	24.8
30-34 years	84	20.0
35-39 years	72	17.1
40-44 years	47	11.2
45-49 years	7	2.1
Mean Age	30 years	
Children Age Group n=422		
0-5 months	102	24.2
6-11 months	115	27.3
12-23 months	205	48.6
Mean Age	11 months	
Mother Marital Status n=422		
Married	368	87.2
Widowed	15	3.6
Divorced/Separated	22	5.2
Other	17	4.0
Head of Household n=422		
Father	358	84.8
Mother	49	11.6
Other	15	3.6
Mother Educational Status n=422		
None	128	30.3
Literate	24	5.7
Primary	242	57.3
Post Primary	25	5.9
Secondary	3	0.7
Read and Write Kinyarwanda n=422		
Cannot Read nor Write	143	33.9
Can Read Only	19	4.5
Can Read and Write	259	61.6
Income Generating Activities*		% of 422
Member of Association	6	1.4
Agriculture	228	54.0
Husbandry	12	2.8
Small business	15	3.6
Paid employment	6	1.4
No income generation	154	36.5
Other activities	14	3.3

*Mother could respond more than 1 choice and hence total frequency could exceed 422.

II. Nutrition and Immunization

A. Breastfeeding and Complementary Feeding Knowledge and Practice

Breastfeeding and feeding knowledge and practices are key indicators of children's health and nutritional status. Breastmilk provides passive immunity and helps to protect the baby against diarrhea, coughs and colds, and other common illnesses (UNICEF, WHO, UNESCO, and UNFPA, 1993). According to the Integrated Management of Childhood Illness (IMCI) Guidelines, all mothers should start to breastfeed as soon as possible after birth and should exclusively breastfeed their child for at least four months, and if possible up to six months (BASICS program recommends for about six months). After 6 months, the child should receive energy and nutrient-rich complementary foods, while continuing to breastfeed up to two years or longer (Winch et al., 2001).



The KPC study found over one-third (38%) of the respondents stated that they started breastfeeding less than one hour after the birth of their youngest child. The same percentage cited that they started to breastfeed between one and eight hours after birth. At the time of survey, almost all (96%) of the mothers are still currently breastfeeding their youngest child. The study found that all respondents with a child between the ages

of 0 to 5 months are still breastfeeding and about three-quarters (73.5%) are exclusively breastfeeding that particular child. Only one percent of mothers with a child between the ages of 6 to 11 months are not exclusively breastfeeding. Ironically, the surveyed mothers' above feeding practices did not correspond to their stated knowledge. To elaborate, with respect to the mothers' assessed knowledge, more than one-half (57.6) of the surveyed mothers stated that complementary feeding should start between four and six months after birth, and almost one-third (31.5%) believe it should start after six months. Less than ten percent (7.3%) believed a child should start receiving complementary feeding before 4 months after birth, and about four percent did not know when it should start.

Among the mothers who are currently providing complementary food in addition to breast milk, about one-third (35.3%) are giving their child cereal and another one third (33.9%) are giving starchy vegetables (e.g., potato, sweet potato, and cassava). Almost one-half (46.2%) stated that they provided "other" types of food than the ones listed. The two most common "other" types of food mentioned are banana and green bean, which are common staples in Rwanda.

Table 3.2: Breast Feeding Knowledge and Practice		
	Frequency	Percentage
Interval between birth and 1st breastfeeding	n=421	
Less than one hour	160	38.0
Between one and 8 hrs	160	38.0
More than 8 hrs	97	23.0
Other	4	2.0
Mothers who are currently breastfeeding by child age group	n=421	% within grp
0-5 months	101	100
6-11 months	114	99.1
12-23 months	189	92.2
All age groups	404	96.0
Exclusively breastfeeding by child age-group		
0-5 months	75	73.5
6-11 months	8	0.07
12-23 months	5	0.02
Duration of breastfeeding among mother who are NOT currently breastfeeding	n=15	
6-11 months	2	11.8
12-19 months	8	47.1
20-23 months	5	29.4
Age at which complementary feeding should start	n=422	
Before 4 months	31	7.3
Between 4-6 months	243	57.6
After 6 months	133	31.5
Do not know	15	3.6
Food given to child		
Water	9	2.1
Milk	35	8.3
Fruit	59	14.0
Cereal	149	35.3
Starchy vegetables (potatoes, cassava)	143	33.9
Other (Banana, beans, green beans, vegetables, peas)	135	46.2

B. Growth Monitoring

Growth monitoring activities did not directly help a child, but provide a vital tool for detection and prevention of malnutrition by allowing a malnourished child to be detected early and properly counseled and treated. This survey found that the level of growth monitoring activities in Kibilizi is rather low. Although three-fourths of the surveyed children had a growth monitoring card, only 15% were weighed within 8 days of birth. Furthermore, one-half of the surveyed children had not been weighed in the last three months. About one-quarter (24.1%) had been weighed once, 12% had been weighed twice, and 13 % had been weighed three times during the last three months.

Since there have been several nutritional assessments conducted in Kibilizi Health District, this survey did not obtain any anthropometric measures of the child and will rely on existing data.

Growth Monitoring Activities	Frequency	Percentage
Possession of a growth monitoring card for the surveyed child	n=422	
Yes	316	74.9
No	106	25.1
Child Weighed within 8 days of birth	n=422	
Yes	64	15.2
No	358	84.8
Number of times child was weighed in the last 3 months	n=413	
None	211	50.8
Once	100	24.1
Twice	50	12.0
Three Times	54	13.0
Birth weight written on the growth monitoring card	n=394	
Yes	49	12.4
No	345	87.6

C. Vitamin A Supplementation and Immunization Coverage

Vitamin A and sufficient immunization coverage are the most important weapons against childhood blindness and mortality. In this particular study, mothers were asked if the surveyed child has received a Vitamin A dose and whether they have an immunization card. If the mother was able to present the immunization card, the interviewer recorded the date of vaccination against each targeted vaccine-preventable illness. In this study, about 83% of the surveyed mothers had the vaccination card. According to the vaccination card, among surveyed children 0 to 11 months old, more than the majority have received BCG, Polio1-3, and DPT1-3, but only about 20% have received their measles vaccination. On the other hand, over three-quarters of all children 12 to 23 months have received BCG, Polio-13, DPT1-3, and measles. In accordance with WHO/UNICEF guidelines, a child is considered fully immunized if that child has received BCG, Polio 1- 3, DPT 1-3, and measles. According to these criteria, about 16% of surveyed children 0 to 11 months and 68% of children 12 to 23 months are fully immunized. Also, each of the KPC interviewers showed the surveyed mothers a blue Vitamin A capsule and asked them if the surveyed child received a capsule during the six months prior to the study. Over a majority (62.6%) of the mothers responded yes.

**Figure 3.4: Immunization Coverage Among Children 12-23 Months
Kibilizi Health District, Rwanda, 2002**

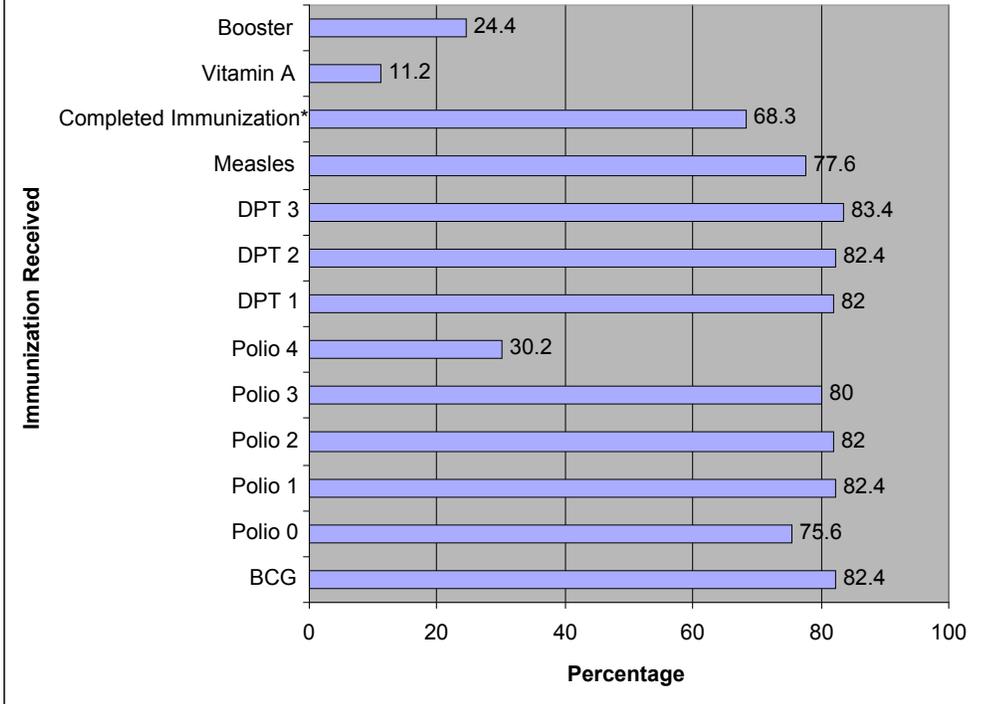


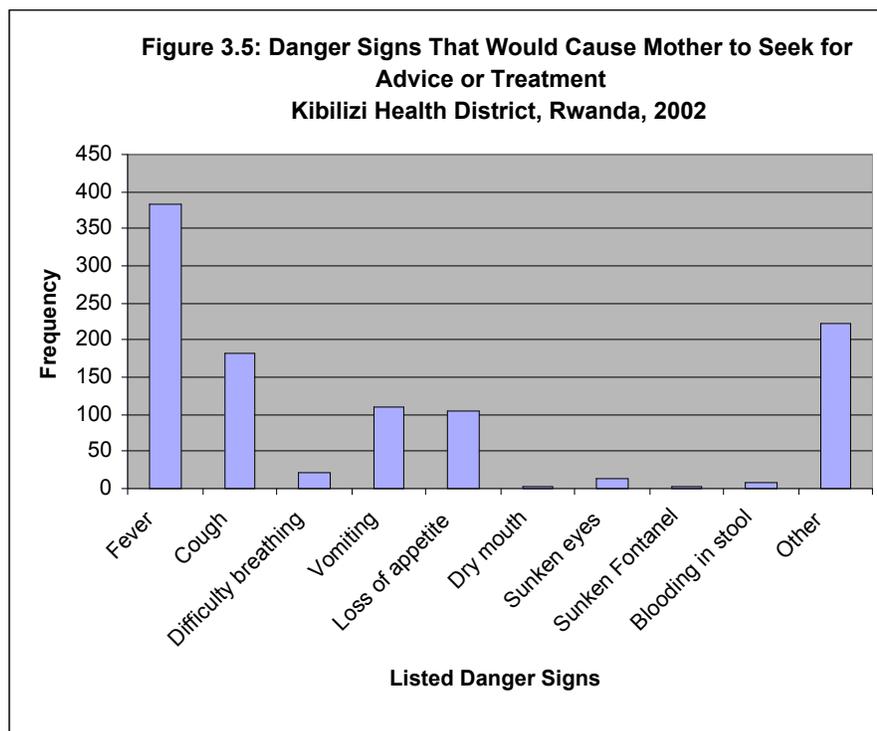
Table 3.4: Vitamin A Supplementation and Immunization Coverage		
	Frequency	Percentage
Child received Vitamin A dose	n=422	
Yes	264	62.6
No	158	37.5
Occasion where Vitamin A was received	n=264	
National Vaccination Day	134	50.8
During Normal Vaccination	93	35.2
During Growth Monitoring	35	13.1
Other	1	0.4
Do not know	1	0.4
Have vaccination card	n=422	
Yes	349	82.7
No	73	17.3
Immunization Received: <i>Child 0-11 Months</i>	n=217	% of children 0-11 months
BCG	171	78.8
Polio 0	150	69.1
Polio 1	152	70.0
Polio 2	137	63.1
Polio 3	117	53.9
Polio 4	9	4.1
DPT 1	151	69.6
DPT 2	133	61.3
DPT 3	121	55.8
Received Measles	47	21.7
Completed Immunization*	36	16.6
Received Vitamin A	7	3.2
Booster	1	0.5
Immunization Received: <i>Child 12-23 Months</i>	n=205	% of children 12-23 months
BCG	169	82.4
Polio 0	155	75.6
Polio 1	169	82.4
Polio 2	168	82.0
Polio 3	164	80.0
Polio 4	62	30.2
DPT 1	168	82.0
DPT 2	169	82.4
DPT 3	171	83.4
Received Measles	159	77.6
Completed Immunization*	140	68.3
Received Vitamin A	23	11.2
Booster	50	24.4

* Fully Immunized if received BCG, Polio1-3, DPT1-3, and Measles

III. Management of Childhood Illnesses

A. General Childhood Illness and Malnutrition

When mothers were asked which of the listed danger signs in Table 3.5 would cause them to seek for advice and treatment, almost all cited fever (90.5%). The second most frequent response was “other” (52.4%) which was most frequently specified as diarrhea. After fever and other, the remaining responses (from most frequent to least) are vomiting, loss of appetite, difficulty breathing, sunken eyes, and blood in the stool, sunken fontanel, and dry mouth. In general, about 25% cited one of the listed signs, 46% cited two signs, 23% cited three signs, and 3.3 % cited four signs.



When mothers were asked a similar question about signs of malnutrition, about one-half (50.5%) cited that edema would cause them to seek advice or treatment. The second most mentioned response was “other,” most frequently specified as anorexia, nausea, diarrhea, or abdominal pain. About one-third (32.9%) cited that growth retardation would also alert them to seek advice. In general, about 18% cited one sign,

24% cited two signs, 15% cited three signs, and 23% cited four signs. It should be noted that this question requested the mother to specify “three” signs of malnutrition that would cause them to seek advice or treatment. This suggests that either most of the surveyed mothers were unable to cite three signs, they did not understand the question, and/or the interviewers did not accurately ask or read the questions as written.

Table 3.5: Mother’s knowledge related to Integrated Management of Childhood Illnesses		
	Frequency	Percentage
Danger signs which would cause a mother to seek advice or treatment*		
		% of 422
Fever	382	90.5
Cough	182	43.1
Difficulty breathing	22	7.8
Vomiting	111	26.3
Loss of appetite	104	24.6
Dry mouth	3	0.7
Sunken eyes	14	3.3
Sunken fontanel	4	0.9
Blooding in stool	9	2.1
Other (most common cited is diarrhea)	221	52.4
Number of times above listed sign cited by mother**		
Citing 1 sign	104	24.6
Citing 2 signs	192	45.5
Citing 3 signs	99	23.5
Citing 4 or more signs	14	3.3
Signs of malnutrition that would cause a mother to seek advice or treatment*		
		% of 422
Light and loose skin	91	21.6
Edema	213	50.5
Growth retardation	139	32.9
Silky hair	120	28.4
Brown/red hair color	118	28.0
Don’t know	45	10.7
Other	160	37.9
Number of times above listed sign cited by mother**		
Citing 1 sign	75	17.7
Citing 2 signs	100	23.7
Citing 3 signs	63	14.9
Citing 4 or more signs	96	22.7

*Mother could respond more than 1 choice and hence total frequency exceeds 422.

**Excluded “Other” in any combination of responses.

B. Diarrheal Diseases

Diarrhea can lead to dehydration and malnutrition and even death if not properly managed or treated. When a child has diarrhea, WHO/UNICEF recommends mothers to increase the child's fluid intake and continue with breastfeeding and feeding practices. Almost one-third (31.0%) of the surveyed children have had diarrhea within two weeks prior to the time of survey. About 11% of the mothers treated the child with oral rehydration solution (ORS), 22% gave syrup or tablets, and an overwhelming majority mentioned "other." When mothers were asked how much fluid relative to daily amount they gave their child when they had diarrhea, about 40% of the mothers gave less fluid to the child than usual, 22% did not give the child anything to drink, 18% gave the same amount, and 20% gave more than usual. As to where the mothers sought treatment or advice for this particular episode of diarrhea, about 31% went to the health center, 12% went to a traditional healer, and 15 % mentioned other places. However, 42% of the mothers did not seek outside advice.

Mothers were shown a package of ORS and were asked to describe how they would prepare the ORS to the interviewers. A response was deemed correct by the interviewer if it fulfilled three criteria: 1) the correct volume of water was used, 2) the water was boiled, and 3) the time the solution could be stored before being discarded was correct. Of the 422 mothers surveyed, about 44% were judged to have correct knowledge of ORS preparation, but more than one-half had incorrect knowledge (54.3%) or did not know how to prepare it at all (1.9%).

Table 3.6: Diarrheal Diseases		
	Frequency	Percentage
Had diarrhea the past two weeks	n=422	
Yes	131	31.0
No	291	69.0
Treatment for the Episode of Diarrhea	n=130	
ORS	15	10.9
Water, salt, sugar solution	2	1.6
Syrup or tablets	28	21.7
IV Fluid	1	0.8
Don't know	3	2.3
Other	81	62.8
Fluid Intake during this episode of diarrhea	n=131	
Didn't give anything to drink	29	22.1
Less than usual	52	39.7
Same as usual	24	18.3
More than usual	26	19.8
Breast-feeding during this episode of diarrhea	n=131	
Didn't give anything to drink	8	6.1
Less than usual	63	48.1
Same as usual	29	22.1
More than usual	29	22.1
In weaning period	2	1.5
Food-intake during this episode of diarrhea	n=130	
Didn't give anything to eat	40	30.8
Less than usual	70	53.8
Same as usual	12	9.2
More than usual	7	5.4
Do not know	1	0.8
Care-seeking during this episode of diarrhea	n=131	
At the health center	40	30.5
Traditional healer	16	12.2
Did not look for advice	55	42.0
Others	20	15.3
Preparation of ORS	n=422	
Correct	185	43.8
Incorrect	229	54.3
Do not know how	8	1.9

C. Malaria

To get some indication of the prevalence of malaria, mothers were asked if their surveyed children had had fever within the two weeks prior to the KPC study. About one-half (52.4%) responded yes. Among those mothers who reported that their child had a fever, the majority (47.5%) did not seek medical advice. Only about one-third (34.8%) went to the health center and 7.2% went to a traditional healer. When mothers were asked how a person catches malaria, about one-half (52.4%) responded correctly by stating mosquito. When mothers were asked what were the signs of a person having malaria, the three most common responses were fever (82%), headache (42%), and shivering (16%).

In terms of malaria prevention behavior, less than 5% own an impregnated mosquito net, and if they do it is mostly the parents (71.4%) who are sleeping beneath the mosquito net. Only 21.4% of those owning a net reported that their children are sleeping underneath of it. Due to the nature of the questions designed in this study, it is not possible to determine the age of the child who slept underneath the net. Also, among those who owned a mosquito net, 71.4% impregnated their net less than 6 months ago, 14.3% did it more than 6 months ago, and 14.3% did not know when it was impregnated last.

Table 3.7: Malaria		
	Frequency	Percentage
Child had fever in the last two weeks	n=422	
Yes	221	52.4
No	201	47.6
Care-seeking during this episode of fever	n=221	
Did not look for advice	105	47.5
Health center	77	34.8
Traditional healer	16	7.2
Others	23	10.4
Mothers' knowledge on how to catch malaria	n=422	
By mosquito	221	52.4
By mosquito and drinking dirty water	10	2.4
By mosquito, drinking dirty water, and other	4	0.9
By mosquito and other	70	16.6
By drinking dirty water	4	0.9
By drinking dirty water and other	4	0.9
Other	60	14.2
Do not know	49	11.6
Main symptoms of malaria**		% of 422
Fever	347	82.2
Feeling Cold	25	5.9
Shivering	67	15.9
Headache	177	42
Vomiting	1	0.2
Diarrhea	2	0.4
Loss of Appetite	4	1.0
Other	1	0.2
Do not know	11	2.6
Possession of Impregnated Mosquito Net	n=422	
Yes	18	4.3
No	404	95.7
People who slept under the mosquito net last night	n=14*	
The parents	10	71.4
The children	3	21.4
Parents and infant	1	7.1
Time since last impregnation	n=14*	
Less than 6 months	10	71.4
More than 6 months	2	14.3
Do not know	2	14.3

* Four respondents who had impregnated mosquito net did not respond to these two questions.

** Mother could respond more than 1 choice and hence total frequency exceeds 422.

IV. Maternal and Newborn Care and Child Spacing

A. Prenatal Care

Prenatal care is an important component of maternal and child morbidity and mortality prevention programs. It allows mothers to receive proper counsel and advice, and receive early detection and treatment of many preventable complications and illnesses. This survey indicates that the frequency of prenatal visits is relatively high: about 91% of the surveyed mothers reported that they made at least one prenatal visit during their last pregnancy. Among those who seek prenatal care, about 82% had made two or more prenatal visits during their last pregnancy, and almost all of the prenatal visits (97.4%) were made at the health center. None of the mothers reported that they received prenatal care from a traditional birth attendant. When asked if they had received advice on the topics listed on Table 3.8 during their prenatal visit, about 60% responded yes to delivery preparation, 39% to breastfeeding, 44% to birth spacing, 58.5% to immunization, and 45% to signs of high risk pregnancy.

During their last pregnancy, about 55% of the surveyed mothers received iron tablets, 63% received vaccination, and 38% had a prenatal card. Among those who had a prenatal card, about 79% had received a tetanus toxoid (TT) vaccine. The absolute number of those who had TT vaccine specified on the card is much less than the number of mothers who stated that they received a vaccine during their last pregnancy. This number is concerning, because the only possible vaccine that a mother could receive during her pregnancy is TT. If this assumption is true, then there is a big gap between what the mothers reported and what was recorded on the prenatal card.

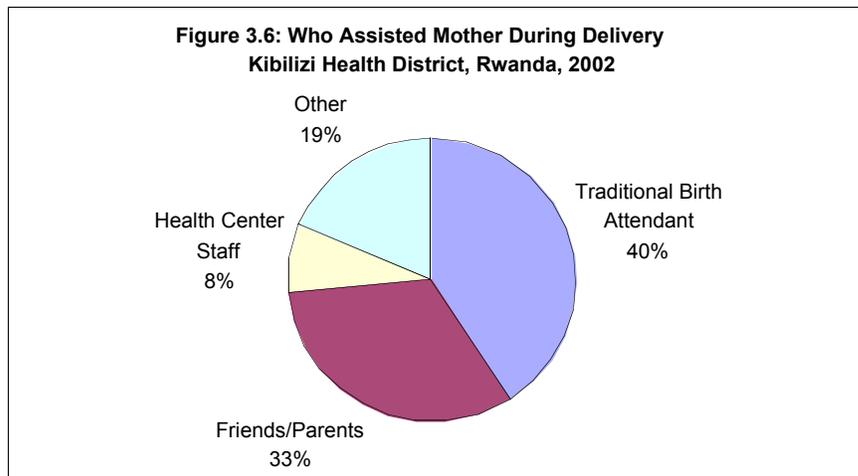
When surveyed mothers were asked the reason they received the TT vaccine, less than 5% (1.9+3.1%) correctly mentioned newborn. The three most common responses were to protect the fetus (35.8%), to protect pregnant mother and fetus (22.7%), and to protect newborn and other (12.8%).

Table 3.8: Prenatal Care		
	Frequency	Percentage
Prenatal visit during last pregnancy	n=422	
Yes	382	90.5
No	40	9.5
Care-seeking during the visits	n=379	
Health center	369	97.4
Hospital	8	2.1
Traditional Birth Attendant	0	0.0
Other	2	0.5
Number of prenatal consultations	n=380	
None	2	.5
One	65	17.1
Two	141	37.1
Three	172	45.3
Advice given during consultation		% of 422
Delivery preparation	254	60.2
Breast feeding	147	38.9
Birth spacing	156	44.2
Immunization	247	58.5
Sign of high risk pregnancy	191	45.3
Received iron tablets during pregnancy	n=417	
Yes	228	54.7
No	189	45.3
Received vaccination during last pregnancy	n= 419	
Yes	262	62.5
No	86	20.5
Completed already	71	16.9
Number of TT injections received	n=259	
One	170	65.6
Two	82	31.7
More than two	6	2.3
No injections	1	0.4
Had Prenatal Card	n=410	
Yes	156	38.0
No	254	62.0
Received Tetanus Toxoid (TT) Vaccine	n=154	
Yes	121	78.6
No	33	21.4

Reason for receiving TT vaccine	n=422	
Protect the pregnant mother	24	5.7
Protect pregnant mother and fetus	96	22.7
Protect pregnant mother, fetus, and newborn	7	1.7
Protect pregnant mother and newborn	8	1.9
Protect pregnant mother and other	1	0.2
Protect fetus	151	35.8
Protect fetus and newborn	10	2.3
Protect fetus and other	5	1.2
Protect newborn	13	3.1
Protect newborn and other	1	0.2
Do not know	12	12.8
Other	94	22.3

B. Delivery and Care of Newborn

According to surveyed mothers, about 81% had delivered their last child at home, about 15% at the health center, and only about 4% at the hospital. Among those who delivered the child at home, 43% were assisted by a traditional birth attendant, 35% by friends or parents, 5% by health staff, and 20% by “other,” which was most commonly specified as themselves, spouse, or mother-in-law. In general, only about 8% were assisted by the health center staff during delivery, the rest of the mothers were assisted by a traditional birth attendant (40.5%) or friends and family members (32.9 + 18.6%).



During delivery, about 64.5% of the surveyed mothers reported that the delivery assistant used hand protection, most commonly gloves (94.5%). The most common instrument used to cut the umbilical cord was a new razor blade (81.9%). Among the home deliveries, only 17% of the assistants used hand protection and 86% used a new razor blade to cut the umbilical cord. Among the deliveries made at the hospital, 100% of the assistants used hand protection, and 67% used the scissor to cut the umbilical cord. Among the deliveries made at the health center, 92% of the assistants used hand protection, and 69% used the scissor to cut the umbilical cord. Comparing one rate of

hand protection used, 81% of the health staff used hand protection compared to a much lower rate for both traditional birth attendants (33%) and friends/parents (4.3%).

Table 3.9: Delivery and Care of Newborn		
	Frequency	Percentage
Where the surveyed child was delivered	n=422	
Hospital	16	3.8
Health Center	64	15.2
At Home	341	80.8
Other	1	.2
Who transferred the mother to delivery location	n=81	
Traditional Birth Attendant	6	7.4
Where the mother normally goes	35	43.2
Advice from consultation	31	38.3
Others	9	11.1
Assistance during the delivery	n=365	
Traditional Birth Attendant	148	40.5
Friends/Parents	120	32.9
Health Center Staff	29	7.9
Other (<i>most done on their own, husbands, mother-in-law</i>)	68	18.6
Hand protection used by delivery assistant	n=346	
Yes	73	17.3
No	272	64.5
Do not know	1	.2
Type of Hand Protection Used	n=73	
Gloves	69	94.5
Do not know	2	2.7
Other	2	2.7
Instrument used to cut the umbilical cord	n=354	
New razor blade	290	81.9
Plant stem	6	1.7
Knife	1	0.3
Scissor	50	14.1
Do not know	6	1.7
Other	1	0.3

C. Post-natal care

Only a few mothers (2.9%) received post-natal consultation within a month of the surveyed child's birth. Among those who had consultation, about 64% also had their child examined during that visit. This low rate raises concerns because post-natal care is crucial to detecting delivery anemia and low birth weight. During the visit, only 10% were informed about family planning. When the respondents were asked to cite some post-partum danger signs, 48% cited bleeding, 21% cited abdominal pain, 12% cited prolapsed uterus, 9% cited fever, 34% cited other, and 7% did not know. The majority of the mothers who cited "other" specified retained placenta. The percentage of the total that cited retained placenta is over 25%, which is a valid response and should have been listed as one of the choices in the questionnaire.

On a similar question about danger signs for newborns, about 58% of the mothers cited difficulty sucking, 29% cited passivity, 24% cited fast breathing, 23% cited fever, 24% cited other, and about 8% did not know. These are concerning results as these signs should warrant immediate referral. For example redness around the cord could be a sign for harbinger of sepsis and can be fatal within hours, but only 2.4% cited this as a danger sign.

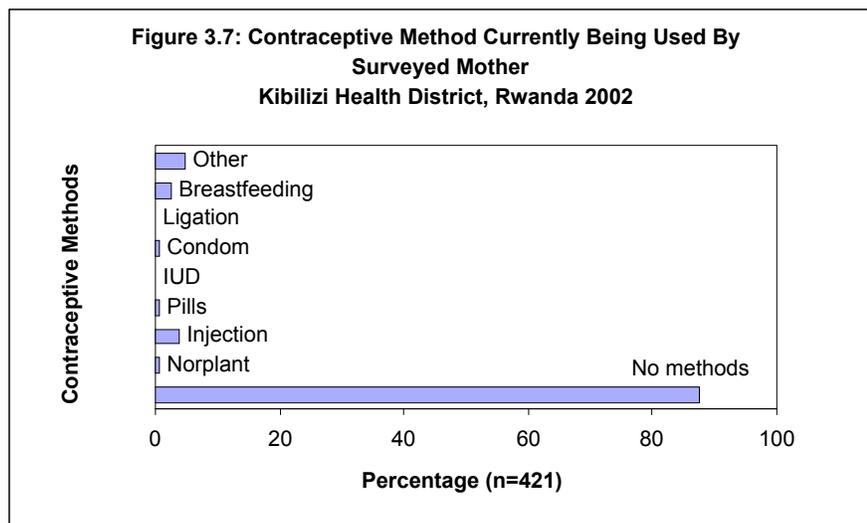
Table 3.10: Post-natal Care		
	Frequency	Percentage
Post-natal consultation within a month of surveyed child's birth	n=419	
Yes	12	2.9
No	407	97.1
Was the child examined as well during that visit	n=11	
Yes	7	63.6
No	4	36.4
Was mother informed about family planning during that visit	n=10	
Yes	1	10.0
No	9	90.0
Post-partum danger signs*		% of 422
Fever	39	9.2
Bleeding	204	48.4
Smelly vaginal discharge	5	1.3
Abdominal Pain	90	21.4
Prolapsed uterus	50	11.9
Other (mostly retained placenta)	146	34.5
Do not know	28	6.6
Danger signs for newborn*		% of 417**
Difficulty sucking	243	58.3
Fast Breathing	102	24.4
Passive	122	29.3
Redness around the cord	10	2.4
Red eyes/secretion	12	2.8
Fever	95	22.9
Other	103	24.6
Do not know	32	7.7

*Mother could respond more than 1 choice and hence total frequency could exceed 422.

**There were five missing responses.

D. Child Spacing

About 29% of the surveyed mothers had only one pregnancy in the last five years, one-half (51.9%) had two pregnancies, and 19% had three or more. This, however, does not correspond exactly with the number of live children they actually have. About 5.2% have three living children, 51.4% have two, and 43.3% have only one living child. Among the mothers who have had three pregnancies during the past five years, about one-quarter has three living children, over one-half (55.7%) have two, and 19% have one. Among the mothers who have had two pregnancies, about 77% have two living children and 23% have one. This finding along with the higher frequency of children in the 0 to 5 months age category suggests that infant mortality may be high in Kibilizi Health District. The respondents were also asked to list complications related to many pregnancies. About 62% mentioned chronic fatigue, 22.4% mentioned “many diseases”, and 30% mentioned other signs (other being most frequently cited as cesarean, poverty, insufficient care, or prolapsed uterus).



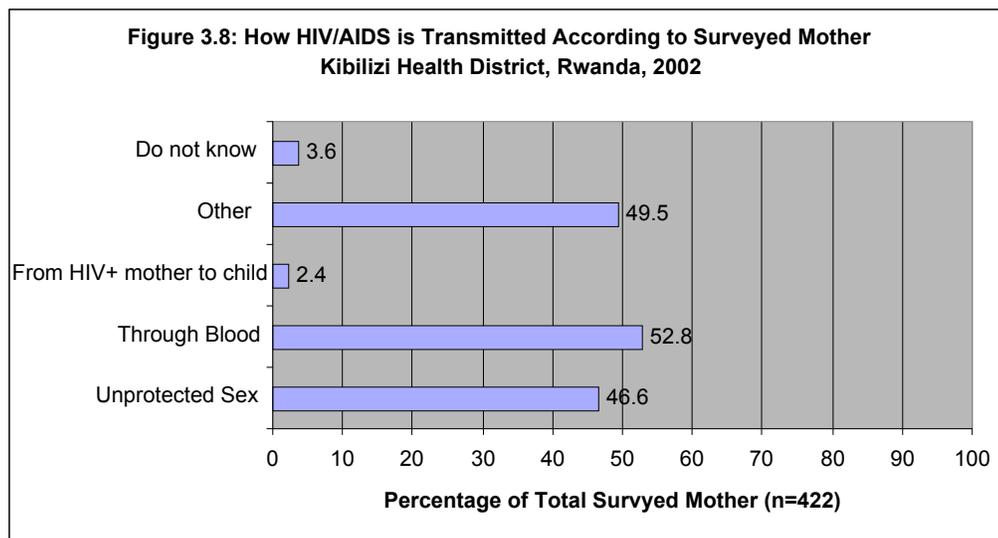
In terms of child spacing among mothers who have more than one child, about three-quarters had their youngest child two or more years after the one before. When all surveyed mothers were asked if they were currently pregnant, about 88% responded no,

and 8% responded yes, while the others did not know. As to how many children they want, more than one-half (56%) wanted five or more children, 27% wanted four, 9% wanted three, 7% wanted two, and about 1% only wanted one. Currently an overwhelming majority (87%) of the mothers is NOT using any method of contraception and about 5.5% are using modern contraceptives. The information found in this section clearly suggests that infant mortality is high and family planning is low. The finding is not a surprise given that the study also found post-natal care to be low and little information about family planning to have been provided to mothers.

Table 3.11: Child Spacing		
	Frequency	Percentage
Number of pregnancies in last 5 years	n=418	
One	122	29.2
Two	217	51.9
Three or more	79	18.9
Number of living children under 5 years of age	n=420	
One	182	43.3
Two	216	51.4
Three	22	5.3
Age gap between the surveyed child and the one before	n=238	
Below one year	7	2.9
One year	55	23.1
Two years	98	41.2
More than two years	78	32.8
Pregnant at present	n=418	
Yes	33	7.9
No	368	88.0
Do not know	17	4.1
Number of children wanted	n=420	
One	4	1.0
Two	29	6.9
Three	36	8.6
Four	115	27.4
Five or more	235	56.0
Don't know	1	0.2
Complications related to many pregnancies		
Chronically tired	257	61.8
Risk of abortion	37	8.9
Many Diseases	93	22.4
Other	124	29.9
Do not know	56	13.5
Contraceptive method currently being used	N=421	
Norplant	2	0.5
Injection	16	3.8
Pills	3	0.7
IUD	0	0
Condom	2	0.5
Ligature of tube	0	0
Breastfeeding methods	10	2.4
No methods	368	87.4
Other Methods	20	4.8

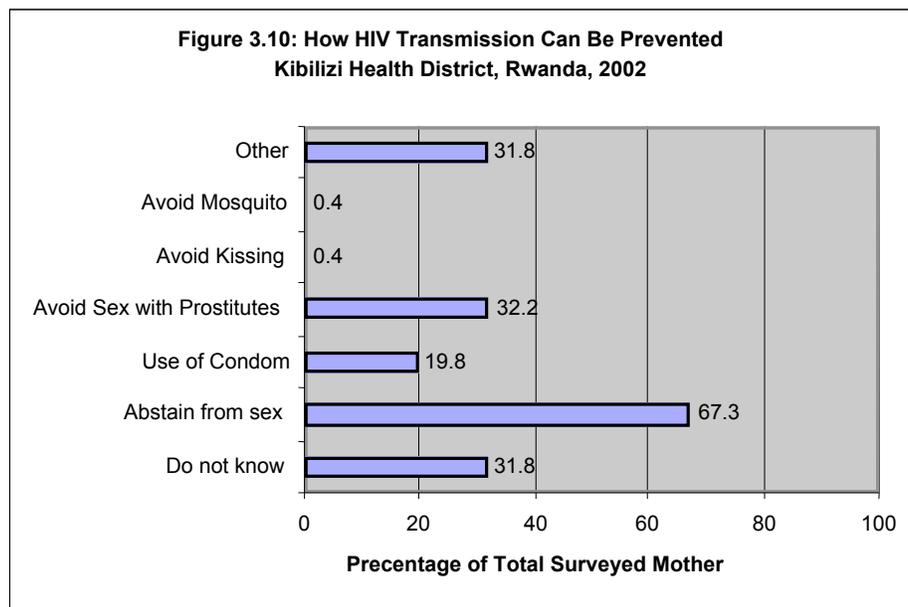
V. HIV/AIDS and Other Sexually Transmitted Infection (STI)

All except for 1% of the surveyed mothers have heard about HIV/AIDS. About three-quarters get information about HIV/AIDS through the radio, about 34% obtain information through meetings, 38.4% through friends, and 16% through community health workers. Despite the numbers showing that most mothers have heard about HIV/AIDS, their knowledge of how HIV/AIDS can be transmitted is low. About one-half (52.8%) cited at least that HIV is transmitted through blood, less than one-third (46.6%) cited through unprotected sex, and about 2% cited from mother to newborn. Surprisingly about one-half responded “other” with the majority specifying other as prostitution and sexual act. Furthermore, only 3 people (less than 1%) correctly cited all three listed methods of transmission (i.e., though blood, unprotected sex, and from HIV positive mother to child). When mothers were asked how HIV can be transmitted from mother to child, about 69% cited during pregnancy, 18% cited during delivery, and 35% cited during breastfeeding.



Knowledge of how HIV transmission can be averted is also low. About 67.3% believe HIV transmission can be prevented by abstaining from sex, 19% believed through the use of condoms, 32% cited through abstaining from sex with prostitutes,

32% mentioned “other,” and another 32% do not know how HIV transmission can be prevented. Nonetheless, almost all respondents (94%) know that HIV/AIDS cannot be cured. Less than 10% of the mothers have been tested for HIV. However, when respondents were asked if they would like to receive an HIV test, over one-half (63%) responded yes. Among those who have been tested, only 63% had received counseling before testing.



Respondents were also asked if they had knowledge of any other type of sexually transmitted infections (STI). Most (85.6%) responded yes to Gonorrhea, 55% to Syphilis, 4.6% to Chancroids, and 5.6% to other which usually are Chlamydia and Trichomonas. In terms of signs and symptoms of STI for men, more than one-half (57.3%) replied that they did not know any. Among those who did, 18% mentioned foul smelling discharge, 18% burning pain during urination, 11% pain during sex, 8.2% genital ulcers, and 7.6% other. Knowledge about signs and symptoms of STI for women was relatively lower with 67% stating that they did not know, and among those that did, 17% mentioned foul smelling discharge, 14% burning pain during urination, 13% lower abdominal pain, 11% others, and 2% pain during sex.

Table 3.12: HIV/AIDS		
	Frequency	Percentage
Have heard about HIV/AIDS	n=422	
Yes	418	99.1
No	4	0.9
Source of Information		% out of 419*
Radio	312	74.4
TV	3	0.6
Meetings	143	34.0
Friends	161	38.4
Community Health Workers	65	15.5
Other (Health Center, AIDS information Center)	136	32.5
How HIV/AIDS is transmitted		% out of 418*
Do not know	15	3.6
Unprotected Sex	195	46.6
Through Blood	221	52.8
Transmitted from mother to child	10	2.4
Other (prostitution, illegal marriage)	207	49.5
How HIV/AIDS is transmitted: Total Number of Correct Methods Listed Above?		% out of 418*
Cited 1 correct method	81	19.4
Cited 2 correct methods	120	28.7
Cited 3 correct methods	3	0.7
How HIV/AIDS transmission can be prevented		% out of 422
Do not know	134	31.8
Abstain from sex	284	67.3
Use of Condom	84	19.8
Avoid Sex with Prostitutes	136	32.2
Avoid Kissing	2	0.4
Avoid Mosquito	2	0.4
Other	134	31.8
How HIV/AIDS transmission can be prevented: Total Number of Correct Methods Cited		% out of 422
Cited 1 correct method	188	44.5
Cited 2 correct methods	94	22.2
Cited 3 correct methods	9	2.2
Can a person with HIV/AIDS be cured	n=420	
Yes	16	3.8
No	396	94.3
Do not know	8	1.9
Transmission of HIV/AIDS from mother to child	n=422	% out of 422
During pregnancy	292	69.2
During delivery	77	18.2
During breast feeding	147	34.9
Other	2	0.5
Do not know	31	7.3
Been tested for HIV/AIDS	n=420	
Yes	40	9.5
No	380	90.5
Received counseling before testing	n=27	
Yes	17	63.0
No	10	37.0
Would like an HIV test	n=411	
Yes	261	63.5
No	150	36.5

Table 3.13: Other Sexually Transmitted Diseases		
	Frequency	Percentage
Knowledge of other sexually transmitted diseases		% out of 417*
Syphilis	230	55.1
Gonorrhea	358	85.6
Chancroid	19	4.5
None	23	5.6
Other	45	10.8
Sign and Symptoms of STI for Men		% out of 422
Foul smelling discharge	77	18.3
Burning pain during urination	77	18.3
Genital Ulcers	35	8.2
Pain During Sex	45	10.6
Other	32	7.6
Do not know	242	57.3
Sign and Symptoms of STI for Women		% out of 420*
Foul smelling discharge	73	17.4
Burning pain during urination	58	13.8
Pain during sex	11	2.6
Lower abdominal pain	54	13.0
Other	47	11.3
Do not know	241	67.1

* There were missing responses

VI. KPC2000+ Rapid CATCH Indicator

The CORE Monitoring and Evaluation Working Group strongly recommends that all child survival programs include the RAPID CATCH (Core Assessment Tool on Child Health) questions in their KPC surveys, and that they report the corresponding indicators. The KPC study included 11 of the 13 Rapid CATCH indicators presented on Table 3.14. KPC2000+ Indicators 1 and 13 were not assessed in the KPC because it has been measured in other recent studies. In addition, calculation for indicator 9 (I-9) cannot be obtained because the denominator cannot be determined with available information. The study questionnaire does not ask specifically for the age of the child who slept underneath the net, and as a result it was not possible to restrict the numerator to children between the age of 0-23 months; hence it will have to include all children without the age qualifier. Also, due to this wide inclusion in the numerator, it was not possible to numerate the denominator, which would have to include all the children the women had.

KPC2000+ Rapid Catch Indicators

Table 3.14: KPC2000+ Rapid Catch Indicators				
INDICATOR	NUMERATOR	DENOMINATOR	ESTIMATE	LOWER and UPPER CONFIDENCE LIMITS
I-2: Percentage of children age 0–23 months who were born at least 24 months after the previous surviving child	261	354	73.7	69.9, 77.61
I-3: Percentage of children age 0–23 months whose births were attended by skilled health personnel	29	365	7.9	4.3, 11.6
I-4: Percentage of mothers of children age 0–23 months who received at least two tetanus toxoid injections before the birth of their youngest child	100	420	23.8	18.1, 29.4
I-5: Percentage of infants age 0–5 months who were exclusively breastfed in the last 24 hours	75	102	73.5	64.4, 82.6
I-6: Percentage of infants age 6–9 months receiving breastmilk and complementary foods	66	70	94.3	89.8, 98.8
I-7: Percentage of children age 12–23 months who are fully vaccinated (BGG, Measles, and three doses of Polio and DPT vaccine) <i>before the first birthday</i>	132	205	64.4	61.6, 67.1
I-8: Percentage of children age 12–23 months who received a measles vaccine	159	205	77.6	72.7, 82.4
I-10: Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	305	422	72.3	66.7, 77.8
I-11: Percentage of sick children age 0–23 months who received increased fluids and continued feeding during diarrhea episode in the past two weeks	11	131	10.7	6.7, 14.6
I-12: Percentage of mothers of children age 0–23 months who cite at least two known ways of reducing the risk of HIV infection	103	422	24.4	20.8, 28.0

Chapter 4

Discussion and Recommendations

The Kibilizi District Health Goal is to improve the prevention and the treatment of the priority health problems in its operational area. The Concern's Kibilizi Child Survival Programs (CSP) is a five-year USAID funded program aimed at supporting the District Health Team (DHT) in Kibilizi in the implementation of their Plan of Action and achieving their Health Goal in line with the MOH strategy guidelines and technical standards. More specifically, the overall goal of Concern CSP is to contribute to a sustainable reduction in maternal and child mortality and morbidity, and increased life expectancy. In order to help develop a detailed intervention plan to achieve the above goals, Concern CSP in close partnership with Kibilizi District Health Team (DHT) designed and implemented this Knowledge, Practice and Coverage (KPC) Survey in Kibilizi Health District. One of the main objectives of this KPC Survey was to obtain baseline information on KPC from mothers of children less than 24 months related to CSP's four intervention areas in Kibilizi Health District for program planning, implementation, and evaluation.

The followings are a summary of the key findings in the four program areas (*italicized* are the KPC2000+ Rapid CATCH Indicator):

1) HIV/AIDS

- 99.1% of mothers have heard about HIV/AIDS
- 94.3% of mothers know that HIV/AIDS is incurable
- 0.7% of mothers know the three most common methods of HIV transmission (blood, unprotected sex, and mother to child)
- *24.4% of mothers can cite at least two methods of HIV prevention*
- 9.5% of mothers have been tested for HIV/AIDS

2) Malaria:

- 52.4% of mothers know how malaria is transmitted
- 52.4% of children 0-23 months had a fever in the last two weeks prior to survey
- 4.3% of mothers have an impregnated bed-net

- *0.9% of children slept under an impregnated bed-net the night before survey*

3) Nutrition:

- 62.6% of children 6-23 months received vitamin A in the last 6 months
- 54.7% of mothers took iron tablets for at least 1 month during last pregnancy
- 38.0% of children 0-23 months were breastfed within 1 hour of birth
- *73.5% of children 0-5 months were exclusively breastfed in the last 24 hours prior to survey*
- *94.3% of children 6-9 months received both breastmilk and complementary foods in the last 24 hours prior to survey*
- 49.2% of children 0-23 months have been weighed within the last three months prior to survey

4) Maternal and newborn care:

- *23.8% of mothers received at least 2 doses of Tetanus Toxoid during last pregnancy*
- 82.4% of mothers attended at least two consultations before delivery
- 19.0% of mothers' last delivery was at a health facility
- 43.3% of mothers' last home delivery was attended by a TBA
- 2.9% of mothers went for post-natal care within a month after delivery
- 2.8% of mothers know at least three danger signs for referral after delivery
- *72.3% of mothers know at least two signs of childhood illness that indicate the need for treatment*

Other important indicators drawn from the Rapid KPC CATCH Questionnaire:

5) Diarrheal disease

- 31.0% of children 0-23 months had diarrhea in the last two weeks
- 30.5% of mothers sought advice/treatment at health facilities during this particular episode of diarrhea
- *10.7% of children age 0-23 months received increased fluids and continued feeding during diarrhea episode in the past two weeks*

6) Child spacing

- 5.5% of mothers were currently using a modern contraceptive method
- *73.7% of children age 0-23 months were born at least 24 months after the previous surviving child*

7) Immunization

- *64.4% of children 12-23 months were fully immunized before the first birthday*
- *77.6% of children 12-23 months have received a measles vaccine.*

Discussions

HIV/AIDS and Child Spacing (Family Planning)

Although almost all of the surveyed mothers have heard about HIV/AIDS, their knowledge about HIV/AIDS transmission and prevention is rather low. Almost all of the surveyed mothers could NOT cite ALL of the three most common modes of HIV transmission. And in “other” choices for this question, many of the mother specified sex with prostitutes, sexual act, and an unfaithful man as modes of HIV transmission. While it is true that these are potential high-risk behaviors, it does not indicate that the mother understands that HIV is transferred through infected fluid. Also several mothers still believed the myth that HIV can be transmitted through mosquito, self-medication, sharing dresses, and saliva.

There was no direct question in this survey asking mothers how they are protecting themselves from infection with HIV. However, this study found that less than one percent of the surveyed mothers reported to having used condoms for contraception. If the method of contraceptive practice among those surveyed is indicative of HIV prevention practice, then it will pose a major problem for Kibilizi Health District, if it has not already. According to the National Program Against HIV/AIDS, the prevalence of HIV among pregnant women in Butare ranges from 31.6% to 3.6%, depending on the age groups (Ministere des Finances et de la Planification Economique, 2001). The implications for mother to child transmission are disturbing. Also with the overwhelming majority of the mothers not having been tested for HIV, there will be many HIV positive mothers who will not be aware that their newborn child is at risk and how they may minimize that risk.

Additionally, at the moment there is no clear breastfeeding policy for HIV positive mothers at the local, national, or international level. The health staff must understand the risks and benefits of breastfeeding among HIV positive mothers, and the Health District must determine what policy or protocol they will follow when encountering this situation

(i.e., whether to recommend breastfeeding for HIV positive mothers and to prescribe medication that minimizes the risk of mother to child transmission). In addition, family planning programs should be congruent with HIV/AIDS prevention programs in order to increase their effectiveness and avoid sending mixed messages. Thus in the context of HIV/AIDS, a child spacing program (family planning) should encourage families to use condoms as the main method of contraception. It is cost-effective and helps prevent HIV and other STI.

Program Recommendations:

- Increase mothers' knowledge of HIV/AIDS transmission and prevention
- Promote condom use for both HIV/AIDS prevention and family planning
- Provide universal access to condoms
- Provide access to HIV testing and counseling
- Sensitize the health staff about the risks and benefits of breastfeeding for HIV positive mothers

Malaria (and Diarrheal Diseases)

The KPC found that very few mothers owned an impregnated net and very few children slept underneath it if it was there. This low rate corroborates national data. The recent DHS found only 7% of total surveyed households owned an impregnated mosquito net in Rwanda, but in rural areas like Butare the percentage is much lower (2.9%). One possible explanation for the low ownership of mosquito nets is that some mothers do not know that malaria is transmitted by mosquitoes. Another explanation could be affordability. In one of Concern's key informative interviews, the informant cited that they cannot afford to purchase a mosquito net with their income (PLA notes, February 16, 2002). The mothers also stated that although malaria treatment is more

expensive, it is much easier to borrow money from friends or family to treat an illness than to purchase a mosquito net.

The majority of the mothers also reported that the surveyed children had had a fever within the two weeks prior to the study. Sign of fever is used as a proxy indicator of malaria prevalence; and when fever was juxtaposed with diarrhea, approximately 67% of surveyed children who had diarrhea also had fever within two weeks prior to the study. This may be due to the fact that fever induces diarrhea even when there is not a gastrointestinal infection, or that diarrhea and fever are common effects of malnutrition. Generally, malnourished children are more susceptible to both diarrhea and febrile illnesses. Therefore the specificity of the fever as an indicator for malaria may also be low which means that the prevalence of malaria may be less than what was shown.

Program Recommendations:

- Increase mothers' knowledge about malaria, its prevention, and care
- Increase mothers' access to mosquito nets
- Integrate malaria program with nutritional and other child survival programs

Nutrition and Immunization Coverage

In general, this survey reveals that the surveyed mothers have good breastfeeding and feeding practices. The percentage of exclusive breastfeeding among mothers of children 0 to 5 months (73%) is slightly higher than the national level of 71% (DHS, 2000). In addition mothers reported feeding practices that were much better than their cited knowledge. More mothers appropriately feed their children than reported to know the appropriate feeding practice. In this case, the gap between knowledge and practice leads to positive sequel. As well, the fact that over three-quarters of the mothers

who started breastfeeding within 8 hours after birth suggests that there is no cultural barrier to breastfeeding practice.

The study, however, did not quantify the amount of breast milk and complementary food the mother provided to her child and did not assess the nutritional status of the surveyed child. Also the study found that growth monitoring activities in Kibilizi are modest. Hence, it is not possible to determine whether the surveyed child is well nourished. Nonetheless, the duration and timeliness of breastfeeding and complementary feeding practice found in this survey suggests that these practices are in accordance with guidelines in Kibilizi Health District and that the program should continue to encourage mothers to maintain this life saving practice.

In terms of Vitamin A supplementation, over a majority (62.6%) of the mothers stated that the surveyed child has received it during the six months prior to the study. This figure, however, is much higher than the one obtained from the vaccination card. According to what was recorded on the vaccination card, only 3.2% received Vitamin A among children 0 to 11 months, and 11.2% among children 12 to 23 months. This is vexing because about one-half of the mothers reported that their child received a Vitamin A dose during National Vaccination Day, over one-third (35.2%) during normal vaccination visit, and more than 13% during growth monitoring. When the occasion of when Vitamin A was received is examined against what was recorded on the vaccination card, it reveals that among the mothers who reported that their child received a Vitamin A dose during National Vaccination Day, only 12.7% of these cases were recorded on the vaccination card. Also, among the cases reported to have received Vitamin A doses during routine vaccination, only 8.6% of these cases were recorded on the vaccination card. This suggests that Vitamin A doses are not routinely recorded on the immunization card, and this is potentially dangerous as it may lead to overdosing.

In addition, the insufficient recording of Vitamin A dose raises concerns about the reliability of the vaccination card in tracking vaccination schedule. This study shows that the vaccination coverage among children 11 to 23 months is lower than the national rate. According to the DHS, 76% of children in Rwanda are fully immunized and in this study only 68% are fully immunized. This lower rate could be the result of inadequate documentation.

Program Recommendations:

- Reinforce appropriate breastfeeding and complementary feeding practices
- Increase growth monitoring activities
- Ensure adequate documentation of vaccination and Vitamin A supplementation

Maternal and Newborn Care

This study found that maternal and newborn care needs strengthening. The Rwandan Ministry of Health recommends that each pregnant woman make three prenatal visits per pregnancy. Although over 90% of the mothers have had at least one visit, only about 45% made three prenatal visits at the health center. The quality of service the surveyed mothers received from the health staff is also questionable. The majority of the mothers did not receive their TT dose and did not receive information about breastfeeding, birth spacing, and sign of high risk pregnancy. The majority, but not all, received information about delivery preparation and immunization. In addition, the utilization of health facilities and health staff was low for both child delivery and post-natal care. The majority of child deliveries were assisted by traditional birth attendants, most of whom did not use hand protection. The health district staff reported that there has been no formal training for traditional birth attendants since the 1994 genocide.

While surveyed mothers' knowledge of post-natal complication signs that would trigger them to seek care for themselves was low, their knowledge of care-seeking behavior for their child is relatively high. Nonetheless, when the section on Integrated Management of Childhood Illness was carefully examined in its entirety, a discrepancy was discovered. First of all, more than 90% of the mothers cited that they would seek advice or care if their child had a fever. In the malaria subsection, over one-half of the mothers stated that their child had had a fever within the 2 weeks prior to the study, but almost one-half of these mothers did not look for any advice. Thus, there is big gap between how the mothers report their behavior and what they actually did.

Program Recommendations:

- Assure the quality of services for pre- and post-natal care
- Assure that the TBA's receive adequate training
- Increase mothers' knowledge about signs of illness and care-seeking behaviors
- Address the gap between knowledge and practice with regard to care-seeking behaviors

VI. Limitations of the Study

- **Translation:** Some errors in the translation of the questionnaire were discovered during the first day of data collection and were corrected the next day. This caused several problems with missing responses, skip pattern, and data entry (i.e., the data entry personnel were confused about what information to enter). The questionnaire should have been double-checked by translating the Kinyarwanda version back into English before launching data collection.
- **Questions and Forced-Choice Responses:** In some sections, the questionnaire was not pre-tested sufficiently. For example, most mothers

specified banana and green beans, which are the most common staples in Rwanda, in the “other categories” of complementary food. Also in the maternal complications section, many mothers cited retained placenta as the “other” response. Thorough piloting of the questionnaire could have identified these as possible responses.

- **Skip Pattern:** There were many missing responses through the KPC data set. One of the reasons for missing responses is due to a problem with the skip pattern. In one question the skip pattern instruction was not appropriate and was discovered after the data collection had already begun. Though the problem was identified and corrected, it was too late for one questionnaire already completed. In addition, the instruction for skip pattern was not clearly written and questionnaire layout was not clearly presented. This may have induced the interviewers to make errors in completing the form.
- **Scheduling:** There were two problems with the scheduling that could have compromised the quality of the study. First, the interviewer training, piloting, and data collection were scheduled to start the second week after the New Year (January 7th). This is a time when the coordinator and many staff members came back from the winter holidays and hence did not provide sufficient time for the Team to regroup and plan the training and data collection. Also despite objection from the School, Concern only allocated two weeks (January 21-February 1.) for data entry, analysis, and report writing. This is ambitious and places many unnecessary pressures on all parties.

Recommendations for Future Study:

- 1) Carefully identify and define all the goals, objectives, and indicators of the study before designing the questionnaire and study design.

- 2) Conduct a back-translation of the questionnaire into its original language to verify translation before data collection.
- 3) Pilot the questionnaire more than once and allow sufficient time between the pilot and study implementation to make appropriate changes and edits.
- 4) Format the questionnaire and write instructions clearly to minimize errors.
- 5) Allocate sufficient time for design, implementation, data entry, and analysis of the data.
- 6) Involve SPH faculty at the early stages and/or designate one person who has an appropriate level of training and experience in survey research design and implementation to lead the team throughout the research and capacity building process. This will not only ensure that the study is designed and conducted properly, but also that the correct research methodology will be transferred to the Research Team.
- 7) A mid-term KPC assessment should be conducted in order to obtain another baseline data for monitoring and future evaluation.

VI. Successes

Despite the problems and constraints encountered within the survey, there were several positive results that warrant mentioning. First of all, the KPC study is the first project where the Concern CSP worked together as a group with the District Health Staff. The expected strength of involving both health personnel and people from the administrative district was proven to be very successful, and was commented upon by all KPC participants. This was also the first time the School and Concern worked together. By working through the problems encountered in the study, a strong relationship was established. This integration of research with capacity, team, and partnership building should continue with future projects.

Secondly, although the numbers obtained in this research did not match exactly with the DHS or other surveys, the general trends did. They show that knowledge, practice, and coverage on basic survival behaviors and programs are low and need much strengthening throughout the district. This confirms speculations about the problem in Kibilizi during the development of the Concern Child Survival program. The findings allow staff to be more confident that the programs they are implementing are needed, and specifies areas where more focus is warranted.

By and large, this study meets its objectives in that: 1) it obtained baseline information on Knowledge, Practice, and Coverage from mothers of children less than 24 months, related to CSP's four intervention areas in Kibilizi Health District; 2) It sensitized and orientated families and stakeholders regarding the proposed CSP through the survey implementation and results implementation process (see below); 3) It raised awareness and increased understanding between the CSP, Kibilizi Health teams and local officials regarding mothers' capacities and constraints for protecting their children's health; and: 4) It established positive relationships between the District Health Team, Butare Health Province, the Child Survival Team, and local population of Kibilizi.

Information Dissemination

On March 7, 2002, Concern CSP organized a KPC and PLA (Participatory Learning Assessment) Dissemination Workshop at the Kibilizi Health District Office with a total 67 participants representing health workers at all levels (including TBA), administrative leaders, teachers, and other stakeholders in Butare. Upon arrival, all participants received a written summary of the key findings in both French and Kinyarwanda. Then the key findings of both studies were presented and discussed in English, French, and Kinyarwanda during the morning session. Then in the afternoon, the attendees were divided into four groups, each representing one of the four

interventions. All groups were asked to reflect on the key findings from the KPC and PLA, share personal experience and knowledge related to the topic, and provide suggestions to the following questions: 1) What can be done?; 2) Who can do it?; and 3) How can it be done?. After finishing, each group shared its discussion and strategies with the other groups. The results of this discussion will be reported in the Concern CSP Detail Implementation Plan.

In addition, the preliminary findings will be presented to USAID Kigali office and each of the health center zones to local leaders, community health workers, and traditional birth attendants. Finally, the final report will be translated into French and disseminated to the District (including the mayors' offices), provincial health level personnel, and other stakeholders at local and national levels (Nutrition Department, Malaria, Reproductive Health Department).

KPC Budget

Item	Amount
Training	\$618
Per Diem for Facilitators	\$534
Per Diem Interviewers	\$1201
Supplies	\$662
Vehicles	\$381
Sub-Contract	\$4,500
Dissemination Workshop	\$145
Total	\$8,041

References

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Appendix 1

QUESTIONNAIRE K.P.C/ KIBILIZI/ JANVIER/ 2002².

Identification du questionnaire

Numero de grappe

Numéro d'enregistrement

INTRODUCTION ET DEMANDE DE CONSENTEMENT.

Bonjour, mon nom est, Je suis ici pour le compte du Concern/Rwanda et du Ministère de la Santé pour le District Sanitaire de Kibilizi.

Cette semaine, nous menons une enquête sur la santé des mères et des enfants de moins de 24 mois dans le district sanitaire de Kibilizi. C'est pour cela que nous voudrions nous entretenir avec vous si vous n'y voyez pas d'inconvénients.

Votre participation est un apport scientifique pour le corps médical ainsi que l'amélioration de vie de toutes la communauté de la zone du district sanitaire de Kibilizi.

Voulez-vous continuer la causerie ? 1.oui

2.non.(Finir la causerie)

Muraho, nitwa.....Ndihamo noherejwe n'umuryango Concern/Rwanda n'akagari kubuzima ka Kibirizi. Muri iyi minsi hari ubushakashatsi bukorerwa ku babyeyi bafite abana bafite munsi y'imyaka ibili. Niyompamvu nifuzaga ko twaganira niba bitakubangamira . Ibisubizo mumpa bizagira akamaro mubyerekeranye nimibereho myiza y'abaturage bo muri aka kagali ku buzima.

Ibisubizo mumpa bizaba ibagirwa ibanga.

Munyemereye se ko tunganira ? Yego

Oya (igendere)

Andika isaha utangiriyeho.....

Andika isaha urangirijeho.....

District Administratif(Akarere)		Nom de l'enquêteur	
Secteur(Umurenge)		Nom du superviseur	
Cellule(Akagali)		Nom de la mère.	
Grappe numéro		Age de la mère	
Ménage numéro			
Date d'interview			

² The author did not edit questionnaire; the questionnaire reflect the one used during the survey.

IDENTIFICATION DE L'ENFANT.

Mère ayant un enfant de **0-11mois**

Mère ayant un enfant de **12-23mois**

Date		Date	
Mois		Mois	
Année		Année	
Age en mois		Age en mois	

INFORMATION SUR LA PERSONNE ENQUETEE

1. Etes-vous mariée Urubatse?	Mariée.....1 Veuve.....2 Séparée/divorcée.....3 Autres (a préciser).....9
2. Qui est le chef de cette famille ? Ninde mutware wururugo ?	Le père..... 1 La mère..... 2 Autre..... 9
3. Pouvez-vous lire le Kinyarwanda ? Ushobora gusoma ikinyarwanda ?	Oui.....1 Non..... 2
4. Pouvez –vous écrire le Kinyarwanda ? Ushobora kwandika ikinyarwanda ?	Oui.....1 Non.....2
5. Quel est ton niveau d'instruction ? Wize amashuli angaha ?	Aucun.....1 Alphabétisée.....2 Primaire.....3 Post primaire.....4 Secondaire.....5 Supérieures.....6
6. Avez-vous des activités génératrices de revenu ? Hari imirimo cyangwa ibindi bikorwa bibazanira amafaranga ?	Association.....A Agriculture.....B Elevage.....C Petite commerce.....D Emploi salarié.....E Aucune.....G Autre (a préciser).....X

SECTION 1 : ALLAITEMENT, NUTRITION et SUIVI DE LA CROISSANCE

7. Quel est l'intervalle de temps entre la naissance de votre enfant et sa mise au sein ? Kanaka yonse hashize igihe kingana iki avutse ?	Inférieure a une heure.....1 Entre une et huit heures.....2 Au-delà de huit heures.....3 Autres (a préciser).....9
8. Votre enfant tete encore ? Kanaka aracyonka ?	Oui.....1(Q 10) Non.....2
9. Combien de temps avez-vous allaité votre enfant ? Mwonkeje kanaka igihe kingana iki ?	Nombre de mois.....
10. A quel âge une mère doit-elle commencer à administrer à son enfant des aliments en plus du lait maternel ? Ni ryali umubyeyi agomba gutangira guha umwana we infasha bere ?	Avant 4 mois.....1 Entre 4 et 6 mois.....2 Après 6mois.....3 Ne sait pas.....8
11. Quel est l'aliment que votre enfant a consommé entre hier et aujourd'hui ? Niki Kanaka uyu yariye uherye ejo kugeza uyumunsi ?	Eau.....A Lait autre que le lait maternel....B Fruit.....C Repas a base de cereal (Riz, Sorgho, Soja).....D Tubercules.....E Aucun.....G Autre nourriture.....X
12. Votre enfant a-t-il reçu la dose de la vitamine A identique a celle-ci durant les 6 derniers mois ? (Montrer un échantillon à la mère) Kanaka yaba yarabonye aka kanini(ka Vit A)muli aya mezi atandatu ashize ?	Oui.....1 Non2(Q 14)
13. A quelles occasions votre enfant a-t-il reçu cette dose de vitamine A ? Ya gahawe habaye iki ?	J.N.V.....1 Lors de la vaccination.....2 Lors de la pesée.....3 Autres circonstances.....4 Ne sait pas.....8
14. Votre enfant a-t-il une carte de vaccination ? Kanaka afite ifishi y'ikingirwa ?	Oui.....1 Non2(Q 16)

<p>15. Si oui, est-ce que je peux la consulter ? (Ecrire les dates de chaque vaccin)</p> <p>Niba ali yego nshobora ku yibona ? Andukura amatariki ajyanye nabuli rukingo.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%; text-align: center;">Jour</th> <th style="width: 33%; text-align: center;">Mois</th> <th style="width: 33%; text-align: center;">Année</th> </tr> </thead> <tbody> <tr><td>B.C.G.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>POLIO 0.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>POLIO 1.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>POLIO 2.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>POLIO 3.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>POLIO 4.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>D.T.C 1.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>D.T.C 2.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>D.T.C 3.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>ROUGEOLE.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>VITAMINE A.....</td><td>/</td><td>/</td><td>.....</td></tr> <tr><td>RAPPEL.....</td><td></td><td></td><td>.....</td></tr> </tbody> </table>		Jour	Mois	Année	B.C.G.....	/	/	POLIO 0.....	/	/	POLIO 1.....	/	/	POLIO 2.....	/	/	POLIO 3.....	/	/	POLIO 4.....	/	/	D.T.C 1.....	/	/	D.T.C 2.....	/	/	D.T.C 3.....	/	/	ROUGEOLE.....	/	/	VITAMINE A.....	/	/	RAPPEL.....		
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VITAMINE A.....	/	/																																																		
RAPPEL.....																																																				
<p>16. Cet enfant a-t-il une carte de croissance ? Si oui, puis je voir le document ? Kanaka yaba afite igipande yipimishirije ho ? (Niba ari yego nshobora kukibona)</p>	<p>Document vu.....1 Pas de document.....2</p>																																																				
<p>17. Cet enfant a-t-il été pesé dans les huit jours qui ont suivi sa naissance ? Kanaka uyu yaba yarapimwe mucyumweru yavutse mo ?</p>	<p>Oui.....1 Non.....2 Ne sait pas.....8</p>																																																				
<p>18. Combien de fois cet enfant a-t-il été pesé au cours des trois derniers mois ? Kanaka yaba yarapimwe inshuro zingaha muri ayamezi atatu ashize ?</p>	<p>Aucune fois.....1 Une fois.....2 Deux fois.....3 Trois fois et plus.....4</p>																																																				
<p>19. Notez si le poids de naissance est inscrit sur le document Andika n'iba ibiro umwana yavukanye bigaragara kw'ifishi.</p>	<p>Oui.....1 Non.....2</p>																																																				
<p>20. Quels sont les signes de maladies chez cet enfant qui pourraient vous amener a la consultation ? Ni ibihe bimenyetso by'indwara byatuma mujya kugisha inama cyangwa kuvuza kanaka ?</p>	<p>FièvreA TouxB Difficultés pour respirerC Vomissement.....D Perte d'appétitE Bouche sèche.....F Yeux enfoncés.....G Fontanelle enfoncée.....H Sang dans les selles.....I Autres (spécifier).....X</p>																																																				

21. Dites-moi trois signes de malnutrition qui exigent un transfert. Ni ibihe bemenyetso biterwa a nimilire mibi byatuma usaba inama cyangwa ujjana umwana kwa muganga	Gutikura.....A Kubyimba.....B Kuzingama.....C Gucurama imitasi.....D Gutukura imisatsi.....E Ne sait pas.....Z Autres (spécifier)
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SECTION 2. LES MALADIES DIARRHEIQUES

22. Cet enfant a-t-il eu la diarrhée au cours de ces deux dernières semaines ? Kanaka yaba yararwaye impiswi muri ibi byumweru bibiri bishize ?	Oui.....1 Non.....2 (Q 28) Ne sait pas.....8 (Q 28)
23. Quel traitement a-t-il reçu durant son épisode diarrhéique ? Kanaka yavujwe iki ?	Solution sachets S.R.O.....1 Solution eau, sel, sucre.....2 Sirop ou comprimés.....3 Injection intraveineuse.....4 Ne sait pas.....8 Autres.....9
24. Pendant l'épisode de la diarrhée, lui avez vous donné à boire moins que d'habitude, comme d'habitude, plus que d'habitude ? Hari icyo mwahaye kanaka cyo kunywa igihe yahitwaga ? ugereranyije n'ubusanzwe yanyoye ibingana bite ?	Moins que d'habitude.....1 Comme d'habitude.....2 Plus que d'habitude.....3 N'a rien donné à boire.....4 Ne sait pas.....8
25. Pendant l'épisode de la diarrhée lui avez vous donné à téter moins que d'habitude, comme habitude, plus que d'habitude ? Ugereranyije n'ubusanzwe kanaka igihe yahitwaga yaba yaronse bingana iki ?	Moins que d'habitude.....1 Comme d'habitude.....2 Plus que d'habitude.....3 A arrêté d'allaiter.....4 Etait déjà sevré.....5 Ne sait pas8
26. Pendant l'épisode de la diarrhée de cet enfant, lui avez vous donné à manger moins que d'habitude, comme d'habitude, plus que d'habitude ? Kanaka hari icyo mwamuhaye cyo kurya igihe yahitwaga ugereranyije n'ubusanzwe byanganaga iki ?	Moins que d'habitude.....1 Comme d'habitude2 Plus que d'habitude3 N'a rien donné à manger.....4 Ne sait pas.....8

27. Pendant l'épisode de la diarrhée avez vous cherché conseil ou traitement hors du domicile ? Igihe kanaka yahitwaga, mwaba mwarigeze mugisha inama cyangwa ngo mumuvuze ?	Dans un service de santé.....1 Chez le guérisseur traditionnel.....2 N'a pas cherché conseil ou traitement..3 Autres.....9
28. Demander à la mère de vous décrire les étapes de la préparation de la solution SRO, puis noter si la préparation est correcte ou pas Saba umubyeyi kububwira uko bategura urunvange rw'amazi avura umwuma wandike nibe igisubizo aricyo ayangwa ko atari cyo	Préparation correcte.....1 Préparation incorrecte.....2

SECTION 3 : PALUDISME.

29. Ton enfant a-t-il eu de la fièvre durant ces deux dernières semaines y compris au moment de l'enquête ? Kanaka uyu yigeze agira umuliro muby'umweru bibiri bishize ?	Oui.....1 Non.....2 (Q 31) Ne sait pas.....8.(Q 31)
30. Où avez-vous amené votre enfant pour demander conseils ou traitement quand il a eu de la fièvre ? Mwamuvurije he cyangwa mwagishije nde inama ?	Service de santé.....1 Guérisseur traditionnel.....2 Nul part.....3 Autre.....9
31. Comment attrape-t-on le paludisme ? Indwara ya malariya iterwa n'iki ?	Moustique.....A Consommer de l'eau sale.....B Autres (préciser).....X Ne sait pas.....Z.
32. Peux-tu me dire les signes et les symptômes du paludisme ? Ushobora kumbwira ibimenyetso bya malaria ?	Fièvre.....A Avoir froid.....B Frisson.....C Maux de tête.....D Vomissement.....E Diarrhée.....F Inappétence.....G Douleur dans les articulations.....H Ne sait pas.....Z Autres.....X

33. Avez-vous de la moustiquaire imprégnée dans votre maison ? Mwaba mufite inzitira mibu iteye umuti muli iyinzu ?	Oui.....1 Non2(Q36)
34. Qui a dormi sous la moustiquaire la nuit dernière ? N'inde wayiryamyemo ili joro ?	Les parents.....1 Les enfants2 Aucun.....3 Autres (spécifier).....9
35. A quand remonte la dernière imprégnation ? Iheruka guterwa umuti ryali ?	Moins de six mois.1 Plus de six mois2 Ne sait pas.....8

SECTION 4 : CONSULTATIONS PRENATALES

36. Avez-vous été à la consultation prénatale durant la grossesse de cet enfant ? Mwigeze mwipimisha mutwite kanaka ?	Oui.....1 Non2 .(Q 40)
37. Ou êtes-vous allé pour consulter ? N'iba ali yego mwipimishirije hehe ?	Centre de santé..... 1 Hôpital.....2 Accoucheuses traditionnelles.....3 Autres.....9
38. Combien de fois avez- vous consulté ? Ni kangaha mwaba mwaragiye kwipimisha ?	Une fois.....1 Deux fois.....2 Trois fois.....3 Aucune fois.....4
39. Durant la consultation avez-vous reçu les conseils sur : Icyo gihe hali uwaba yarabagiriye inama kuli ibi bikulikira ? (si oui 1) (non 2)	Préparation de l'accouchement 1 2 Allaitement 1 2 Espacement des naissances 1 2 Vaccination 1 2 Les signes de la grossesse 1 2 À haut risque
40. Quand vous étiez en grosse de cet enfant avez-vous reçus les comprimés de fer ? Igihe mwali mutwite uyu kanaka mwaba mwarahawe ikinini cya feri aribyo byongeraga amaraso ? (kimwereke)	Oui.....1 Non 2

41. Quand vous étiez en grosse de votre enfant, avez-vous reçu une injection au niveau du bras ? Mwaba mwarabonye urukingo igihe mwali mutwite uyu mwana ?	Oui.....1 Non2(Q 43) Complètement immunisé.....3(Q43)
42. Combien d'injection avez-vous reçu ? Mwakingiwe kangaha mutwite Kanaka ?	Une injection.....1 Deux injections.....2 Plus de deux injections....3 Aucune injection.....4
43. Avez-vous la carte de vaccination ? Si oui, demander la carte et vérifier si elle a reçu le VAT. Mufite ifishi mwipimishirijeho ? N'iba ali yego saba ifishi urebe n'iba yarabonye VAT	1. Oui.....1 2. Non.....2 3. VAT reçu.....3 4. VAT non reçu.....4
44. A quoi sert le vaccin que la mère enceinte recoit ? Urukingo umubyeyi utwite aterwa rumara iki ?	Protéger la femme enceinte.....A Protéger le fœtus.....B Protéger le nouveau-né.....C Ne sait pas.....Z Autres.....X

SECTION 5: ACCOUCHEMENT ET SOINS DU NOUVEAU-NE

45. Ou avez-vous accouché cet enfant ? Uyu kanaka mwamubyariye he ?	Hôpital.....1 Centre de santé.....2 Domicile.....3 (Q 47) Autre.....9(Q 47)
46. Qui vous y a envoyé ? Ninde wabohereje yo ? (Passez directement a la question 51)	Accoucheuse traditionnelle.....1 C'est dans mes habitudes.....2 Les conseils recus en consultation.....3 Autres.....9
47. Par qui avez-vous été assisté pendant l'accouchement de cet enfant ? Mwaba mwarafashijwe n'ande mukubya uyu kanaka ?	Accoucheuse traditionnelle.....1 Ami /parents.....2 Professionnel de santé.....3 Autre.....9
48. S'est il protégé les mains avec quelque chose ? Hari icyo yambaye muntoki agiye kugufasha kubya ?	Oui.....1 Non.....2(Q50) Ne sait pas.....8(Q 50)
49. Avec quoi ? Yakoresheje iki ?	Gants.....1 Sachets.....2 Ne sait pas.....8 Autres (préciser).....9

50. Le cordon a-t-il été coupe à l'aide de quoi ? (ne suggère pas la réponse). Bagenya uyu kanaka bakoresheje iki ?	Lame de rasoir (nouvelle).....1
	Tige végétale.....2
	Couteau.....3
	Ciseaux.....4
	Ne sait pas.....8
	Autres (préciser).....9

SECTION 6 SOINS POST-NATALS

51. Avez-vous été en consultation dans un service de santé dans le mois suivant la naissance de cet enfant ? Mwagiye Kwisuzumisha kwa muganga mukwezi kwakulikiye ivuka ry'uyu kanaka ?	Oui.....1 Non.....2 (Q 54)
52. Si oui, lors de la visite votre enfant a-t-il été également examiné ? Icyogihe umwana wawe nawe yarasuzumwe ?	Oui.....1 Non.....2
53. Lors de la visite avez-vous reçu des informations sur la planification familiale lors de cette consultation ? Muli iryo suzumwa baba barababwiye ibyo kuringaniza imbyaro ?	Oui.....1 Non.....2
54. Quels sont les signes de danger qui doivent vous amener à consulter après l'accouchement ? (ne suggère pas la réponse) N'ibihe bibazo byatera umubyeyi kujya kwa muganga akimara ku byara ?	Fièvre.....A Hémorragie.....B Pertes vaginales nauséabondes....C Douleurs abdominales.....D Prolapsus utérin.....E Autres (préciser).....X Ne sait pas.....Z
55. Quels sont les signes de danger chez le nouveau-né qui peuvent vous amener à faire consulter ? Ni ibihe bimenyetso byagaragaza ko uruhinja rukivuka rurwaye ?	Difficultés pour téter.....A Respiration rapide.....B Adynamisme.....C Rougeur autour du cordon.....D Yeux rouges/Sécrétion oculaire.....E Fièvre.....F Autres (préciser).....X Ne sait pas.....Z

SECTION 7 ESPACEMENT DES NAISSANCES

56. Combien de grossesse avez-vous eu au cour des cinq dernières années ? (1997 à nos jours) Mwagize inda zingaha muli ino myaka itanu ishize ?	Une grossesse.....1 Deux grossesses2 Trois grossesses ou plus.....3 Ne se rappelle pas.....8
57. Combien d'enfants de mois de 5 ans avez-vous y compris cet enfant ? Mufite abana bangahe bariho bafite imyaka ili muni y'itanu ushyizemo uyu kanaka ?	Un enfant.....1 Deux enfants.....2 Trois enfants.....3
58. Combien d'années qui séparent vos deux plus jeunes enfants ? Hagati y'uyu kanaka n'owo akulikira halimo igihe cy'ingana iki ?	< à une année.....1 Une année.....2 Deux ans.....3 Plus de 2 ans.....4
59. Si ça ne vous dérange pas de me le dire êtes-vous enceinte ? Niba bitababangamiye kubimbwira mwaba mutwite ?	Oui.....1 Non.....2 Ne sait pas.....8
60. Combien d'enfants voudriez vous avoir ? Mwifuzza kuzabyara abana bangahe ?	1 enfant.....1 2 enfants.....2 3 enfants.....3 4 enfants.....4 5 enfants ou plus.....5
61. Pouvez-vous me dire les complications que peut avoir une femme qui a eu plusieurs grossesses ? N'izihe ngorane umubyeyi ashobora kugira igihe yagize inda nyinshi ?	Fatigue chronique.....A Risques d'avortements.....B Maladies multiples.....C Autres.....X Ne sait pas.....Z
62. Quel moyen contraceptif votre couple utilise-t-il actuellement ? Hali uburyo bwo kulinganiza imbyaro mukoresha ? Niba ali yego n'ubuhe ?	Norplant.....1 Injections.....2 Pilule.....3 Stérilet.....4 Coit interrompu.....5 Préservatif.....6 Ligature de trompe.....7 Méthode de lactation (aménorrhée)..... Aucune méthode.....8 (64) Autre méthode (préciser).....9
63. Si oui où le trouvez-vous ? Niba ali yego ni hehe mubuvana ?	Centre de santé.....1 Pharmacie.....2 Animateur de santé.....3 Autres (préciser).....9

SECTION 8 : LES MALADIES SEXUELLEMENT TRANSMISSIBLES ET LE VIH/SIDA.

64. Avez-vous déjà entendu parler du SIDA ? Mwigeze mwunva bavuga indwara yitwa Sida ?	Oui.....1 Non.....2(Q66)
65. Si oui par quel canal ? Niba ari yego wabyumviye hehe ?	Radio.....A T.V.....B Réunions.....C Amis.....D Animateurs.....E Autres.....X
66. Comment peut-t-on attraper le VIH/SIDA ? SIDA vandure ite ?	Rapport dexuels non protégés.....A Voie sanguine.....B Transmission mère-enfant.....C Autres (préciser).....X Ne sait pas.....Z
67. Comment peut-on se prévenir contre le SIDA ? Umuntu ashobora kwirinda indwara ya SIDA gute ?	S’abstenir(éviter l’infidélité).....A Utiliser le préservatif.....B Eviter les relations sexuelles avec les prostituées.....C Eviter le baiser.....D Eviter le moustique.E Autres (préciser)X Ne sait pas.....Z
68. Une personne qui a le virus VIH/SIDA peut-elle guérir ? Umuntu wanduye indwara ya sida ashobora kuyikira ?	Oui.....1 Non.....2 Ne sait pas.....8
69. Quand est-ce que une mère séropositive peut transmettre le virus VIH /SIDA a son enfant ? Niryali umubyeyi wanduye indwara ya sida ashobora kuyanduza umwana we ?	Au cours de la grossesse.....A Au moment de l’accouchement...B Pendant l’allaitement.....C Autres (préciser).....X Ne sait pas.....Z
70. Vous êtes-vous déjà fait tester du VIH/SIDA ? Mwaba mwalipimishije indwara ya Sida ?	Oui.....1 Non.....2 (Q 72)
71. Avez-vous reçu le counselling avant le test ? Mwaba mwaragiriwe inama mbere yo kwipimisha ?	Oui.....1 Non.....2

72. Aimeriez-vous vous faire tester si vous en aviez le moyen? Mwaba mwifuza kwipimisha ?	Oui.....1 Non.....2
73. A part le SIDA, quelles sont les autres maladies sexuellement transmissibles que vous connaissez ? Usibye SIDA, ni izihe ndwara zindi zandurira mummyanya ndangabitsina waba uzi ?	Syphilis (Mburugu).....A Gonococcie (Imetezi).....B Chancre mou (Uburagaza).....C Aucun.....D Autres (préciser)X
74. Pour un homme quels sont les signes qui montrent qu'il a attrapé les maladies sexuellement transmissibles ? Kumugabo ni ibihe bimenyetso byerekana ko yanduye indwara zandulira mumibonano mpuza bitsina ?	Ecoulement urétral.....A Douleur à la miction.....B Bubon inguinal.....C Ulcère génital.....D Douleur au moment du coït.....E Autres (préciser).....X Ne sait pas.....Z
75. Pour une femme quels sont les signes qui montrent qu'elle a attrapé ces maladies ? Kumugore ni ibihe bimenyetso bigaragaza ko yanduye indwawra zandurira mumibonano mpuza bitsina ?	Ecoulement vaginal.....A Douleur à la miction.....B Douleur lors des rapports sexuels.....C Douleur au bas ventre.....D Autres (préciser)X Ne sait pas.....Z

Murakoze tubashimiye ubwihangane mwagize n'ibitekerezo byanyu byiza mwatugejejeho.

**Concern/MOH Kibilizi, Child Survival Program (gahunda yabana bafagutse)
Proposed questionnaire for KPC study Kibilizi**

December 2001

INTRODUCTION AND REQUEST FOR CONSENT

All questions are intended for 15-49 years old mothers with children between 0-11 months (12-23 months)

(read the following statement to the mother)

Good-morning/good-afternoon, my name is..... I am here representing Concern Rwanda and Kibilizi Health District (Minisante pour la District Sanitaire de Kibilizi).

This week we are conducting a survey on the health of mothers and children under 24 months in Kibilizi district, therefore we would like you to answer some questions. Your answer will help us, together with the HC and the community to improve the health of the Kibilizi people..

Your participation in this study is voluntary, meaning you can at any time withdraw from the study.

Your answer will be kept confidential.

Oral approval received _____ (interviewer place an “X” here if approval granted)

Start of interview _____

End of interview _____

Adm.district		Name of interviewer	
Sector		Name of supervisor	
Cell		Name of mother	
Cluster no		Age of mother	
Household no			

Identification of the child

Mother with a child 0-11 months

Mother with a child 12-23 months

Date		Date	
Month		Month	
Year		Year	
Age in month		Age in month	

MOTHERS BACKGROUND INFORMATION

1. Are you married?	Married	1
	Widow	2
	Separated/divorced	3
	Other (specify)	9
2. Who is the head of this household?	The father	1
	The mother	2
	Others	9
3. Can you read Kinyarwanda?	Yes	
4. Can you write Kinyarwanda?	No	
	2	
	Yes	1
	No	2
5. What is your educational background?	None	
	1	
	Adult education	2
	Primary	3
	Post primary (technical)	
	4	
6. Do you have any income generating activity	Secondary	5
	University	6
	Association	A
	Agriculture	B
	.Husbandry	C
	Small business	D
	Paid employment	E
	None	F
Other specify	X	

SECTION 1: BREASTFEEDING, NUTRITION AND GROWTH MONITORING

7. How long after birth did you first put (Name) to the breast?	Less than one hour.....	1
	Between one and eight hours.....	2
	After eight hours.....	3
	Other specify.....	9
8. Do you still breastfeed your child?	Yes.....	1(No 10)
	No.....	2
9. For how long did you breastfeed your child	Number of months.....	
10. At what age does a mother start to give a child other food than breast milk?	Before 4 months.....	1
	Between 4-6 months.....	2
	After 6 months.....	3
	I don't know.....	8

11. What kind of food did you child eat between yesterday and today?	Water.....A Milk other than maternal milk... ..B Fruit.....C Cereal (rice, sorghum, soja).....D Potatoes, sweet, cassavaE None.....F Other foods.....X
12. Did your child receive a dose of Vit A just like this one during the last six months? (show a Vit A to the mother)	Yes.....1 No.....2 (No 14)
13. On what occasion did your child receive this dose of Vit A?	National vaccination day.....1 During vaccination.....2 During growth monitoring.....3 Other circumstances.....4 I don't know.....8
14. Does your child have a vaccination card?	Yes.....1 No.....2 (No 16)
15. If yes, may I see it? Write the date of each vaccine	Day Month Year BCG...../...../ Polio 0...../...../ Polio 1...../...../ Polio 2...../...../ Polio 3...../...../ Polio 4...../...../ DPT 1...../...../ DPT 2...../...../ DPT 3...../...../ Measles...../...../ Booster...../...../
16. Does your child have a growth-monitoring card? If yes may I see it?	Document seen.....1 No document.....2
17. Was your child weighed within 8 days of birth?	Yes.....1 No.....2 I don't know.....8
18. How many times were your child weighed during the last three months?	None.....1 Once.....2 Twice.....3 Three times.....4 Four times and more.....5
19. Indicate if the weight at birth is registered on the document	Yes.....1 No.....2
20. What are the signs of illnesses that would make you take your child for consultation?	Fever.....A Coughing.....B Difficulty breathing.....C Vomiting.....D

	Loss of appetite.....E Dry mouth.....F Sunken eyes.....G Sunken fontanel.....H Blood in the stool?.....I Other specify.....X
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21. Tell me three signs of malnutrition that would require transfer ?	Skin becomes light and loose.....A Oedema.....B Growth retardation.....C Silky hair.....D Brown/red hair colour.....E I don't know.....X Others, specify.....Z
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SECTION 2: DIARRHOEAL DISEASES

22. Has this child had diarrhoea in the last two weeks?	Yes.....1 No.....2 (No 28) I don't know.....8 (No 28)
23. What kind of treatment did he/she receive during the diarrhoeal episode?	ORS.....1 Water, salt, sugar solution.....2 Syrup or tablets.....3 Iv fluids.....4 I don't know.....8 Other.....9
24. During the diarrhoeal episode did you give him/ her something to drink, less than usual, as usual, more than usual?	Less than usual.....1 As usual.....2 More than usual.....3 Did not give anything to drink.....4 I don't know.....8
25. During the diarrhoeal episode did you breast feed him/her less than normal, as normal, more than normal?	Less than usual.....1 As usual.....2 More than usual.....3 I had stopped to breastfeed.....4 Was already eating.....5 I don't know.....8
26. During the diarrhoeal episode did you feed him less than usual, as usual, more than usual,	Less than usual.....1 As usual.....2 More than usual.....3 Did not give anything to eat.....4 I don't know.....8

27. During the diarrhoeal episode did you look for advice or treatment outside of home?	At health center.....1 At traditional healer.....2 Did not look for advice or treatment...3 Other.....9
28. Ask the mother to describe how to prepare ORS (show her a sachet of ORS). Then indicate if the preparation is right or wrong	Preparation is corrects.....1 Preparation is incorrect.....2

SECTION 3: MALARIA

29. Has your child been sick with fever in the last two weeks?	Yes.....1 No.....2 (No 31) I don't know.....8 (No 31)
30. Where did you take your child for treatment/advice?	Health center.....1 Traditional healer.....2 No where.....3 Other.....9
31. How do you catch malaria?	Mosquito.....A Drinking dirty water.....B Other specify.....X I don't know.....Z
32. Can you tell me the main sign or symptoms of malaria?	Fever.....A Feeling cold.....B Shivering.....C Headache.....D Vomiting.....E Diarrhoea.....F Loss of appetite.....G Joint pain.....H I don't know.....Z Other specify.....X
33. Do you have an impregnated mosquito net in your house?	Yes.....1 No.....2 (No 36)
34. Who slept under the bed last night?	The parents.....1 The children.....2 None.....3 Others specify.....9
35. When was the net last impregnated?	Less than 6 months.....1 More than 6 months.....2 I don't know.....8

SECTION 4: PRENATAL CARE

36. Did you see anyone for prenatal care when you were pregnant with this child?	Yes.....1 No.....2 (No 40)
37. Where did you go for your consultation?	Health center.....1 Hospital.....2 TBA.....3 Other.....9
38. How many times did you go for consultation?	Once.....1 Twice.....2 Three times.....3 None.....4
39. During consultation, did you receive advice on: If yes 1 If no 2	Delivery preparation 1 2 Breast feeding 1 2 Birth spacing 1 2 Vaccination 1 2 The sign of a high risk pregnancy 1 2
40. When you were pregnant did you receive iron tablets (show the mother an iron tablet)	Yes.....1 No.....2
41. When you were pregnant did you receive any vaccine by injection?	Yes.....1 No.....2 (No 43) Completed the five TT.....3 (No43)
42. How many injections did you receive?	One injection.....1 Two injections.....2 More than two injections.....3 No injection.....4
43. Do you have the vaccination card (antenatal card)? (If yes, ask for the card and verify if she has received the TT)	Yes.....1 No.....2 TT received.....3 TT not received.....4
44. What is the purpose of the vaccine received by the pregnant mother?	Protect the pregnant mother.....1 Protect the foetus.....2 Protect the new-born.....3 I don't know.....Z Others.....X

SECTION 5: DELIVERY AND CARE OF THE NEWBORN

45. Where did you deliver this child?	Hospital.....1 Health center.....2 At home.....3 (No 47)
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	Other.....9(No 47)
46. Who transferred you there? (go to Question 51)	TBA.....1 It's where I usually go.....2 Advice received in consultation.....3
47. Who assisted you during delivery?	TBA.....1 Friends/parents.....2 Health center staff.....3 Others.....9
48. Did he/she protect his/her hands with something?	Yes.....1 No.....2 (No50 I don't know.....8(No 50)
49. With what?	Gloves.....1 Plastic bag.....2 I don't know.....8 Other specify.....9
50. With what did he/she cut the umbilical cord?	New razor blade.....1 Plant stem.....2 Knife.....3 Scissor.....4 I don't know.....8 Other specify.....9

SECTION 6: POST NATAL CARE

51. Did you see any for prenatal care within a month after delivery of this child?	Yes.....1 No.....2(No 54)
52. If yes, was the child also examined?	Yes.....1 No.....2
53. During that consultation did they tell you about FP?	Yes.....1 No.....2
54. What kind of danger signs can cause the mother to go to the HC/Hospital after delivery?	Fever.....A Bleeding.....B Vaginal discharge.....C Abdominal pain.....D Prolapsed of uterus.....E Other specify.....X I don't know..... Z
55. Which dangerous signs shows that the newborn has a disease?	Difficulty sucking.....A Fast breathing.....B Passive.....C Redness around the cord.....D Red eyes/secretion from eyes.....E Fever.....F Other, specify.....X

	I don't know.....Z
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SECTION 7: BIRTH SPACING

56. How many pregnancies did you have during the last five years (1997 until today)?	One pregnancy.....1 Two pregnancies.....2 Three pregnancies or more.....3 I do not remember.....8
57. How many children, including this one do you have under 5 years?	One child.....1 Two children.....2 Three children.....3
58. What is the age gap between this child and the one before?	Below one year.....1 One year.....2 Two years.....3 More than two years.....4
59. Could you tell me if you are pregnant now?	Yes.....1 No.....2 I don't know.....8
60. How many children would you like to have?	One child.....1 Two children.....2 Three children.....3 Four children.....4 Five or more.....5
61. What kind of complications do mothers face with many pregnancies?	Chronically tired.....A Risk of abortion.....B Many diseases.....C Others.....X I don't know.....Z
62. At present, do you use any kind of contraceptive? If no Circle 8 (no methods) If yes ask which methods	Norplant.....1 Injection.....2 Pills.....3 Coil.....4 Interrupted intercourse.....5 Condoms.....6 Ligature of tube.....7 Breastfeeding methods.....8 No methods.....9 (No 64) Other methods, specify.....10
63. If yes where did you get if from?	Health Center.....1 Pharmacy.....2 Community health worker.....3 Others, specify.....9

SECTION 8: HIV/AIDS AND OTHER SEXUAL TRANSMITTED DISEASES

64. Have you heard about HIV/AIDS?	Yes.....1 No.....2 (No 66)
65. If yes, where did you hear about it?	Radio.....A T.V.....B Meetings.....C Friends.....D Community Health workers.....E Health center.....F Other.....X
66. How is HIV/AIDS transmitted?	Unprotected sex.....A Through blood.....B Transmission from mother to child...C Other, specify.....X I don't know.....Z
67. How is HIV/AIDS prevented?	Abstain from sex...(infidelity).....A Use of condom.....B Avoid sex with prostitutes.....C Through kissing.....D Through mosquito.....E Other, specify.....X I don't know.....Z
68. Can a person with HIV/AIDS be cured?	Yes.....1 No.....2 I don't know.....8
69. When is HIV/AIDS transmitted from mother to child?	During pregnancy.....A During delivery.....B During breastfeeding.....C Other.....X I don't know.....Z
70. Have you been tested for HIV/AIDS	Yes.....1 No.....2 (No.72)
71. Did you receive counselling before the test?	Yes.....1 No.....2
72. If you had the possibility, would you like to be tested for HIV?	Yes.....1 No.....2
73. Apart from HIV/AIDS what other sexual transmitted diseases do you know?	Syphilis.....A Gonorrhoea.....B Chancroid.....C None.....D Other, specify.....X

74. In a man, what sign and symptoms would lead you to think that he has such a disease	Foul smelling discharge.....A Burning pain during urination.....B Genital ulcers.....C Pain during sex.....D Other, specify.....X I don't know.....Z
75. In a woman, what signs and symptoms would lead you to think that she has such a disease?	Genital discharge.....A Burning pain during urination.....B Pain during sexual intercourse.....C Lower abdominal pain.....D Other, specify.....X I don't now.....Z

Thank you for your patient and your contribution

Appendix II

JOURS	DATES	SECTEURS	GRAPPE N0:	GROUPES
JEUDI	Le10/1/2002	. Liba Buvumu	1.Kinteko 2.Mubuga 3.Nyamirama 4.Rutare 5.Rwintebe 6.Kirama	I II I+II III IV III+IV
VENDREDI	Le 11/1/2002	Kansi Linganwe	7.Gatare 8.Kanserege 9.Rugarama 10 Kinyonzwe 11.Mwanganshuro 12.Nkomero	I II I+II III IV III+IV
LUNDI	Le 14/1/2002	Fugi Karama	13 Nteko 14.Rushubi 15.Ruli 16Gatete 17Shyombo 18.Nyabikenke	I II I+II III IV II+IV
MARDI	Le 15/1/2002	Dahwe Nyabitare	19.Gahondo 20.Gitura 21.Nyarusange 22.Nyirakanywero 23.Mutobo 24.Hemba	I II I+II III IV III+IV
MERCREDI	Le 16/1/2002	Runyinya Joma.	25.Kirembwe 26.Agashuru 27.Nyabitare 28.Gitega 29.Nyamabuye 30.Rebero	I II I+II III IV III+IV

Appendix III
List of participants for the KPC study
Kibizi January 7-14th, 2002

Core team

Name	Job title	Area
Dr. Nicolas Militisi	DMO	Kibizi Health District
Benjamin Byabagabo	Provincial Health Administrator	Kibungo Province
Martin Munyemana	Provincial Health Supervisor	Butare Province
Clemence Murekatete	Research and Documentation Officer	CSP/Concern

Validators

Name	Job title	Area
Benjamin Bysbagabo	Provincial Health Administrator	Kibungo Province
*Martin Munyemana	Provincial Health Supervisor	Butare Province
Clemencé Murekatete	Research and Documentation Officer	CSP/Concern

* Martin was not present the last three days due to a Gender training workshop in Cyangugu Province

Interviewers

Name	Job title	Area
Theogene Niyongana	Titulaire	Kibayi HC
Theophile Hakizimana	Health Assistant	Kigembe HC
Denyse Niyigaba	Nurse	Kansi HC
Jean Baptiste Murwanashayaka	Lab Technician	Gikore HC
*Gloriose Kudusenge	Social worker at feeding center	Mugombwa HC
Vinantia Mukamana	Nurse	Kibizi HC
Jean Baptiste Munyantore	Titulaire	Kirarambogo HC
Gorethie Ukubereyimfura	In charge of Gender and Women Development	Kibingo District
Yolanda Usabyimana	In charge of Gender and Women Development	Mugombwa District
Innocent Manariho	In charge of Youth, Culture and Sport	Kibingo District
Assumpta Mukafurika	In charge of "Project of Poverty Reduction in Favour of Women"	Kibingo District
Moses Muhwezi	Medical student	Butare University

Hubert Mutebutsi	Degree in Public Health (Participated at KPC IRC Kibungo)	Kibungo Province
Immaculee Mukashyaka	Secretary DHMT	Kibilizi Health District
Daniella Kayitesi	Degree in Public Health	Butare
Faustin Rwakazi	CBHA CSP/Concern	Gikore HC
Charles Lwanga	CBHA CSP/Concern	Kirarambogo HC
Pascal Nkuru	CBHA CSP/Concern	Kigembe HC
Phocas Ntahorugiye	CBHA CSP/Concern	Kibayi HC
Christophe Habiyambere	CBHA CSP/Concern	Mugombwa HC
Madeleine Muhozali	CBHA CSP/Concern	Kibilizi HC
Petronille Uwizeye	CBHA CSP/Concern	Kansi HC

*Gloriose only attended for two days during the training

Supervisor (team leaders for interviewing teams)

Name	Job title	Area
Domitille Kanziga	Supervisor DHMT	Kibilizi Health District
Naphtalie Nzibaliza	Administrator DHMT	Kibilizi Health District
Jean Pierre Ayingoma	Human Resources Officer	CSP/Concern
*Beatrice Mukankusi	Gender Development Officer	CSP/Concern

* Due to a Gender training workshop Beatrice was for the last three days replaced by an interviewer (Assumpta Mukafurika)

Appendix IV

**KIBILIZI KPC TRAINING/DATA COLLECTION SCHEDULE
January 2002**

<u>Date</u>	Areas covered	Responsible
1. Monday, Jan 7	Welcome Short background introduction to Concern CSP Outline the training and data collection schedule Aim/objectives and methodology of KPC study Review of questionnaire Review/validation of questionnaire translation	Dr. Militisi Jean Pierre Anni Benjamin Benjamin
2. Tuesday, Jan 8	Review of supervisor, interviewers and core team roles and responsibilities Sampling technique Household selection Interviewing technique including role play Feedback on role play and validation of questionnaire Explain Quality control checklist	Clemence Benjamin Benjamin Benjamin Benjamin Clemence
3. Wednesday Jan 9	*Pilot testing of questionnaire including use of quality control checklist At least one questionnaire done by each interviewer Review of difficult areas Feedback on quality control checklist Evaluation of training Drafting of final questionnaire	Core team and supervisors Benjamin Benjamin/Clemence
4. Thursday Jan. 10	Data collection	
5. Friday Jan. 11	Data collection	
6. Monday Jan. 12	Data collection	
7. Tuesday Jan. 13	Data collection	
8. Wednesday Jan. 14	Data collection Summary, lesson learned, closing speeches	Benjamin/Clemence

* The pilot testing was done in Mumbeho Umudugudu (settlement), Gitwa cell, Kibilizi district), was chosen of convenience due to the short distance from the training place

During the training we had a visit from USAID and World Relief Kigali, which was very encouraging for the participants.

Appendix V

KPC quality-control checklist (Jan. 2002)

Name of interviewer: _____

Name of supervisor: _____

Cluster location: _____

Date: ____/____/____
DD/MM/YY

	DID THE INTERVIEWER...	Performed correctly	
		Yes	No
1.	Select the household correctly?		
2.	Select the respondent correctly?		
3.	Introduce him/herself correctly?		
4.	Read the content statement at the beginning of the interview? (Confidentiality)		
5.	Ask for oral consent?		
6.	Correctly record information on cover page (such as interview data, name of community, child's name, mothers age)?		
7.	Speak clearly during the interview?		
8.	Maintain eye contact with the mother?		
9.	Have neutral facial expression/body language (did not react positively or negatively to the respondent's answer)?		
10.	Read the questions exactly as they were written?		
11.	Follow the skip pattern correctly?		
12.	Prompt the mother for all answers (say "anything else?" for questions that allow multiple responses?)		
13.	Thank the mother for her participation?		

Approximate duration of interview: _____ minutes

General notes: _____

Supervisor's signature _____

Source: CSTS draft KPC field guide April 2001