WORLD RELIEF

WORLD RELIEF BURUNDI CHILD SURVIVAL PROJECT

DETAILED IMPLEMENTATION PLAN

Cooperative Agreement #: GHN-A-00-07-00011-00

Program Location: Kibuye Health District, Gitega Province, Burundi

Program Dates: September 30, 2007-September 30, 2012

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Annexes

Acronyms

ACT	Artesunate Combined Treatment
ADRA	Adventist Development and Relief Agency International
AFASS	Acceptable Feasible Affordable Sustainable Safe
ANC	Antenatal Care
ARI	Acute Respiratory Infection
ARM	African Revival Ministries
BCC	Behavior Change Communication
BF	Breastfeeding
BMI	Body Mass Index
BPS	Provincial Health Bureau (*Bureau Provincial de Santé*)
CAM	HC user fee waiver card (*Carte d'assurance de maladie*)
CBO	Community-Based Organization
CCM	Community Case Management
CDC	Center for Disease Control
CDD	Control of Diarrheal Disease
CG	Care Group
C-HIS	Community Health Information System
CHW	Community Health Worker
C-IMCI	Community-IMCI
CNLS	National AIDS Control Program
COGES	HC drug management committee (*Comité de Gestion*)
COSA	HC staff management committee (*Comité de Santé*)
CS	Child Survival
CSHGP	Child Survival & Health Grants Program
CSP	Child Survival Project
CV	Curriculum Vitae
DANIDA	Danish International Development Agency
DFID	Department For International Development
DGLV	Dark Green Leafy Vegetables
DHMT	District Health Management Team
DIP	Detailed Implementation Plan
DPT	Diptheria, Pertusis and Tetanus immunization
EBF	Exclusive Breastfeeding
ENA	Essential Nutrition Actions
EPI	Expanded Program on Immunization
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FMC	Free Methodist Church
FP	Family Planning
FVS	Families Conquering AIDS (*Famille pour Vaincre la SIDA*)
FY	Fiscal Year
GAVI	Global Alliance for Vaccines and Immunizations
GDP	Gross Domestic Product
HBM	Home-Based Management of Fever (suspected malaria)

HC	Health Center
HH	Household
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HN-TPO	Health Net-Transcultural Psychosocial Organization
HQ	Headquarters
IEC	Information, Education, and Communication
IDP	Internally Displaced Persons
IFA	Iron Folic Acid
IFRC	International Federation of Red Cross Societies
IMC	International Medical Corps
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IPT	Intermittent Preventive Treatment
IPTp	Intermittent Preventive Treatment in Pregnancy
IRC	International Rescue Committee
ITN	Insecticide Treated Net
IUD	Intra-Uterine Device
KHD	Kibuye Health District
LLINs	Long-Lasting Insecticide-treated Nets
LMTC	Lutte Contre Les Maladies Tramissible et Carantieles
LQAS	Lot Quality Assurance Sampling
MCH	Maternal Child Health
MICS	Multiple Indicators Cluster Survey
MIPAREC	Ministry for Peace and Reconciliation Under the Cross CBO
MMR	Measles, Mumps, Rubella Immunization
MOH	Ministry of Health
NGO	Non-governmental Organization
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
OVC	Orphans and Vulnerable Children
PADCO	Planning and Development Collaborative
PBF	Performance-based Financing
PD/Hearth	Positive Deviance/Hearth
PDI	Positive Deviance Inquiry
PEV	Expanded Program on Immunization
PLWA	Person Living With HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission of HIV
PNDS	National Health Plan (*Plan National de Développement Sanitaire*)
PNSR	National Reproductive Health Program (*Programme National Santé de la Reproduction*)
POU	Point-of-use Water Treatment
PPH	Postpartum Hemorrhage
PSI	Population Services International
PVO	Private Voluntary Organization
RFA	Request for Applications
SO	Strategic Objective

SP	Sulfadoxine-Pyrimethamine
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBA	Traditional Birth Attendant
TH	Traditional Healer
TPO	Transcultural Psychosocial Organization
TPS	Health Promotion Technician
TT	Tetanus
TRM	Technical Reference Materials
U5	Under five years-old
U5MR	Under Five Mortality Rate
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Educational Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing for HIV/AIDS
VST	Vestergaard Frandsen
VST	Vocational Skills Training
WHO	World Health Organization
WR	World Relief
WRA	Women of Reproductive Age

1.0 Executive Summary: World Relief Burundi CSP

Program location: Kibuye Health District in Gitega Province, Burundi. Kibuye Health District has four communes: Makebuko, Itaba, Bukirasazi and Buraza.

Problem statement: Burundi's estimated infant mortality rate is 156 per 1,000 live births and the under-five mortality rate is 231 per 1,000 live births[i]. Malaria accounts for almost half of child deaths nationwide; malnutrition is the second leading cause of death.[ii] Forty-one percent of rural children under five years are underweight.[iii] Baseline KPC survey found just 55.1% measles vaccination coverage as documented by card. Nearly one-fifth of children under-five surveyed had diarrhea in the past two weeks.[iv] The country context is transitioning from one of disaster relief to rehabilitation and development, following years of civil war and conflict.

Estimated project population: 169,747[v]. Women of reproductive age: **38,176**; children under five: **24,376** *(Estimated children 0-11 months: 6,688; children 12-23 months: 6,688; children 24-59 months: 11,000).*

Program goals:

- To significantly and sustainably reduce morbidity and mortality among children under-five and women of reproductive age.
- To model sustainable Community-Integrated Management of Childhood Illness (C-IMCI) implementation strategies for national scale.
- To strengthen links from household to health system, empowering communities to act on local data to improve their health.
- To build civil society in post-conflict Burundi, bringing people together with a shared vision for the future of their children.

Objectives, results and major strategies:
***Malaria*: (30%)** Community-wide education to improve malaria prevention and treatment seeking behaviors; improved access to LLINs.

- Increase the percentage of households with a child 0-23 months with an LLIN from 3.0% to 50.0%.
- Increase the percentage of children 0-23 months who slept under a treated net the previous night to from 8.0% to 50%.
- Increase the percentage of children 0-23 months with fever who receive appropriate antimalarial treatment within 24 hours from 17.1% to 60.0%.
- Increase percent of women who slept under an ITN during last pregnancy from 32.7% to 50.0%.

***Nutrition:* (40%)** Education of all caregivers to promote optimal infant and child feeding; community-based rehabilitation of malnourished children via the Hearth program.

- Increase the percent of newborns who were put to the breast within one hour of delivery and did not receive prelacteal foods from 62.0% to 75.0%.
- Increase the percent of infants and young children age 6-23 months fed according to minimum appropriate feeding practices from 25.6% to 50.0%.

- Achieve sustained adequate or catch-up growth in 60.0% of children who complete the Hearth program.

Control of Diarrheal Disease: **(20%)** Education to improve hygiene and home treatment of diarrhea using ORT; improved access to ORS and point-of-use water treatment (pending availability); promotion of handwashing stations.

- Increase percent of children 0-23 months with diarrhea who receive ORS or recommended home fluids from 43.7% to 80.0%.
- Increase percent of children 0-23 months with diarrhea who are offered continued feeding during illness from 63.4% to 80.0%.
- Increase percent of children 0-23 months with diarrhea who are offered increased fluids during illness from 32.4% to 70.0%.
- Increase percent of mothers of children 0-23 months who wash their hands with soap at appropriate times from 18.0% to 70.0%.

Immunization: **(10%)** Community mobilization to access EPI services.

- Increase coverage of DPT1 among children 12-23 months from 62.5% to 80.0%.
- Increase coverage of DPT3 among children 12-23 months from 61.0% to 80.0%.
- Increase coverage of measles among children 12-23 months from 55.1% to 80.0%.

Cross-cutting: C-IMCI

- Increase percent of mothers of children 0-23 months who recognize two or more danger signs of childhood illness from 62.2% to 80.0%.

Key strategies: Train 3,100 Care Group volunteers (1 for every 10 households) to saturate communities with promotion of key family practices using the Care Group Model. Coordinate rollout of C-IMCI with MOH, Kibuye Hospital and HealthNet TPO. Mobilize families to participate in MOH services including ante-natal care, MCH weeks, EPI outreach, routine immunization and growth monitoring and child health services. Collaborate with MOH partners to improve community access to treatment of common childhood illnesses. Improve community access to health commodities, including LLINs and ORS packets through volunteer distribution networks.

Local partners involved in program implementation:

- Health services providers: The Burundi MOH, Kibuye Hospital and 11 Health Centers in Kibuye Health District and the Free Methodist Church (Kibuye Hospital Administrator).
- Health services strengthening via performance based financing: HealthNet TPO.

CSHGP Application Category: STANDARD
Start and End Dates: Five years (Septemebr 30, 2007 - September 30, 2012).
Level of Funding: USAID contribution: $1,500,000; WRC match: $520,690.
USAID Mission Representatives: Jim Anderson, Country Representative, USAID/Burundi; Stephanie Lazar, Program Manager Burundi, USAID/East Africa.
Main Authors: *In Burundi* Chantal Inamahoro, MS; Jean-Baptiste Sibomana, MA. *In Baltimore.*: Alyssa Davis, MPH; Rachel Hower, MPH; Melanie Morrow, MPH; Anna West, MHS; Olga Wollinka, MSHSE.
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[i] UNICEF/Institut de Statistiques et d'Etudes Economiques du Burundi (ISTEEBU). *Enquête Nationale d'Evaluation des Conditions de vie de l'Enfant et de la Femme au Burundi (ENECEF-BURUNDI 2000)/Multi-Indicator Cluster Survey, Rapport Final.* Burundi 2000. [hereafter: **MICS 2000**]

[ii] Republique du Burundi/Ministere de la Santé Publique. *Plan National de Developpement Sanitaire, 2006-2010.* Bujumbura, November 2005 [hereafter: **PNDS 2005**]

[iii] World Food Program/UNICEF/Republique du Burundi/Ministere de la Santé Publique, Programme de Lutte Contre les Maladies Transmissibles et Carentielles. *Rapport de l'Enquête Nationale de Nutrition de la Population.* Bujumbura, May 2006. [hereafter: **WFP 2006**]

[iv] WFP 2006.

[v] Data from commune administrative heads used for KPC survey. The program will conduct its own census in the next quarter.

2.0 Child Survival and Health Grants Program Data Form

Child Survival and Health Grants Program Project Summary

Apr-10-2008

World Relief Corporation
(Burundi)

General Project Information:

Cooperative Agreement Number: GHN-A-00-07-00011
Project Grant Cycle: 23
Project Dates: (10/1/2007 - 9/30/2012)
Project Type: Standard

WRC Headquarters Technical Backstop: Alyssa Davis
Field Program Manager:
Midterm Evaluator:
Final Evaluator:
USAID Mission Contact: Stephanie Lazar

Field Program Manager Information:

Name:
Address:

Phone:
Fax:
E-mail:

Funding Information:

USAID Funding:(US $): $1,500,000 **PVO match:(US $)** $520,609

Project Information:

Description:

The program goals are (1) to reduce morbidity and mortality among children under five and women of reproductive age. (2)To stengthen links from household to health system, empowering communities to act on local data to improve their health. (3) To build civil society in post-conflict Burundi, bring peopel together with a shared vision for the future of their children. (4) To model sustainable C-IMCI implementation strategies for national scale in Burundi.
Key strategies include implementation of the Care Group Model in Kibuye health sector and intergration with MOH to introduce the C-IMCI in Burundi; modeling intenstive community mobilization for C-IMCI roll-out and scale-up; piloting community-case management of malaria and diarrhea in Burundi; synergy with perfomance-based finacing; and building civil society through mobilization for child health.

Location:

Kibuye Health Sector in southeastern Gitega Province in central Burundi.

Project Partners	Partner Type	Subgrant Amount
Ministry of Health	Collaborating Partner	
HealthNet TPO	Collaborating Partner	

General Strategies Planned:

Private Sector Involvement
Advocacy on Health Policy
Strengthen Decentralized Health System

M&E Assessment Strategies:

KPC Survey
Lot Quality Assurance Sampling
Community-based Monitoring Techniques
Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Interpersonal Communication
Peer Communication
Support Groups

Groups targeted for Capacity Building:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community
US HQ (CS unit) Field Office HQ CS Project Team	PVOs/NGOs (Int'l/US)	(None Selected)	National MOH Dist. Health System Health Facility Staff	Other CBOs CHWs

Interventions/Program Components:

Immunizations (10 %)
(IMCI Integration)
(CHW Training)
- Vitamin A
- Surveillance
- New Vaccines
- Mobilization
- Measles Campaigns

Nutrition (25 %)
(IMCI Integration)
(CHW Training)
- ENA
- Gardens
- Comp. Feed. from 6 mos.
- Hearth
- Cont. BF up to 24 mos.
- Growth Monitoring

Vitamin A (5 %)
(IMCI Integration)
(CHW Training)
- Supplementation
- Integrated with EPI
- Gardens

Control of Diarrheal Diseases (20 %)
(IMCI Integration)
(CHW Training)
- Hand Washing
- ORS/Home Fluids
- Feeding/Breastfeeding
- Care Seeking
- Case Mngmnt./Counseling
- Zinc

Malaria (30 %)
(IMCI Integration)
(CHW Training)
- Access to providers and drugs
- ITN (Bednets)
- Care Seeking, Recog., Compliance

Breastfeeding (10 %)
(IMCI Integration)
(CHW Training)
- Promote Excl. BF to 6 Months
- Peer support

Target Beneficiaries:

Infants < 12 months:	6,688
Children 12-23 months:	6,688
Children 0-23 months:	13,376
Children 24-59 months:	11,000
Children 0-59 Months	24,376
Women 15-49 years:	38,176
Population of Target Area:	169,747

Rapid Catch Indicators:

	Numerator	Denominator	Percentage	Confidence Interval
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child.	0	0	0.0%	0.0
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child	157	300	52.3%	9.9
Percentage of children age 0-23 months whose births were attended by skilled personnel	151	300	50.3%	10.4
Percentage of children age 0-23 months who received a post-natal visit from an appropriately trained health worker within 3 days after the birth of the youngest child	98	300	32.7%	8.4
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	70	81	86.4%	21.6
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months (Mother's recall)	179	219	81.7%	13.0
Percentage of children age 12-23 months who received a measles vaccination	121	136	89.0%	16.7
Percentage of children age 12-23 months who received a DPT1 vaccination before they reached 12 months	129	136	94.9%	16.5
Percentage of children age12-23 months who received a DPT3 vaccination before they reached 12 months	100	136	73.5%	16.2
Percentage of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	19	111	17.1%	10.4
Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids.	31	71	43.7%	19.2
Percentage of children age 0-23 months with chest-related cough and fast and/ or difficult breathing in the last two weeks	54	102	52.9%	17.1

health provider.				
Percentage of households of children age 0-23 months that treat water effectively.	5	300	1.7%	2.1
Percentage of mothers of children 0-23 months who live in a household with soap or a locally appropriate cleanser at the place for hand washing that and who washed their hands with soap at least 2 of the appropriate times during the day or night before the interview	161	300	53.7%	10.0
Percentage of children age 0-23 months who slept under an insecticide-treated bed net (in malaria risk areas, where bed net use is effective) the previous night. This indicator should be used for programs in Africa. In Asia, this indicator should be used in specific geographic areas where bed net use is recommended.	24	300	8.0%	4.4
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to WHO/NCHS reference population)	49	299	16.4%	6.2
Percent of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices.	56	219	25.6%	8.8

Comments for Rapid Catch Indicators

Please Note: In Burundi the government considers women of reproductive age to be 15-45 not 15-49. Therefore, WRA figure in beneficiaries is for women 15-44 years old.
Note:
Rapid Catch #1: Child Spacing is not a 2007 Rapid Catch Indicator.
Rapid Catch #15: The 2007 Rapid Catch Indicator for hand washing only asks about soap, not combined with hand washing practice. Numbers reported here are consistent with the 2007 Rapid Catch so only reflect possession of soap.

3.0 Revisions

3.1 Beneficiary Population Estimates

It should be noted that the population estimates for Kibuye Health District vary considerably, ranging from just under 170,000 to over 243,000, as originally quoted in the proposal. While larger figures are more often quoted at national and provincial levels, the most detailed population information, discovered in preparing the KPC survey sampling frame, came from commune administrative heads. The commune administrative offices had data for each commune going down to the level of the *subcollines* and even indicating the number of *nyumba kumi* in each *subcolline*. Since this information was the most specific at the lowest level of governmental population structure (*nyumba kumi*), it was determined that this information would be most likely to reflect the local reality. As a result, population figures quoted in the DIP are lower than those stated in the proposal. The project plans to conduct its own census of households and beneficiaries to confirm the number of volunteers needed and ensure inclusion of all eligible beneficiaries living within the district. These results should also inform whether or not the smaller population figures are indeed reflective of reality.

The beneficiary population is based on the estimated number of children under age five years and women of reproductive age living in Kibuye Health District, using the total population as collected from the four commune administrative officers. Therefore, the beneficiary population is currently estimated to include approximately 24,376 children under-five years (0-59months) of age (6,688 children between 0-11 months; 6,688 children between 12-23 months; 11,000 children between 24-59 months;) and 38,176 women of reproductive age (WRA). In Burundi, WRA is defined as women between the ages of 15-45, not up to 49 as is normative elsewhere. Thus population figures for WRA reflect the slightly narrower age range (see the Table of Beneficiaries in Section 1b). Regardless of population estimates, the CSP originally proposed to work throughout all of Kibuye Health District and still commits to doing so. The variation in beneficiary numbers is reflective of differences in population estimates, rather than changes in programmatic objectives or activities.

3.2 Project Targets and Indicators

Over the course of developing the DIP for this CSP, it became apparent that some revisions to the original project proposal would be necessary, based on the results of the baseline KPC data and the current policy context of Burundi. These necessary revisions do not impact the overall goals and strategies of the project, but do impact a few specific project objectives or the targets and indicators that will be feasible and useful to track throughout the life of the project. These changes are described according to the intervention areas and specific indicators below:

3.2.1 Control of Diarrheal Diseases/Water & Sanitation

- The increased percent of children with diarrhea who are offered continued feeding during illness from 63.4% to 80.0%. The indicator for this objective remains the same, but the target was increased from 70.0% to 80.0%, in order to move the target outside the confidence interval of the baseline.

- The percentage of mothers of children 0-23 mothers who have a covered latrine or toilet connected to a drainage system was added as a monitoring indicator, since it can serve as a process indicator for safe disposal of feces and because the project will be promoting households to cover their open latrines.

- The percentage of households of children age 0-23 months that treat water effectively (including boiling, chlorination, solar disinfection and filtration) will continue to be tracked as a monitoring indicator because it is a Rapid Catch 2007. However, it is no longer a project objective with a target, because Sur'eau (water treatment product) is no longer currently available in Burundi. Should a water treatment product become available again, then a target will once again be set for water treatment. Additionally, the process indicator of

community Sur'eau distribution will be tracked, if Sur'eau is made available and volunteers are able to distribute the product in the community.

- The percentage of children 0-23 months with diarrhea in the last two weeks who were not treated with antidiarrheals or antibiotics will no longer be tracked because the baseline KPC found this percentage to be extremely high (91.5%) without need for large improvement. Given the burden of data monitoring and reporting, the project needed to eliminate indicators that do not have evidence for concern in the community.

3.2.2 Nutrition

- The percentage of children 0-5 months who were exclusively breastfed during the last 24 hours was removed as a project objective, so it will now just be tracked for monitoring purposes. It was not possible to maintain this indicator as a project objective with a target, because the baseline figure of 86.4% was too high to set a target outside the baseline confidence interval.

- In an effort to maintain at least one specifically breastfeeding indicator, the percentage of newborns who were put to breast within one hour of delivery and did not receive prelacteal foods was adopted as a project indicator with the objective of raising immediate breastfeeding from 62.0% to 75.0%.

- For the project's nutrition intervention, conducting Hearth sessions will be a significant and time intensive activity for the project. In order to assess the effectiveness of this activity, in which so much project effort will be invested, it was determined that a project objective should be set in association with this activity. An objective stating that 60.0 % of children who complete the Hearth program will achieve sustained adequate (200-600 grams) or catch-up (over 700 grams) growth for at least two months after completion of Hearth was set for the project.

3.2.3 Malaria

- The project objective for ITN ownership was adjusted to specify long-lasting insecticide treated nets (LLINs) in the project indicator, since this is the kind of net that the project wants to promote in the project area. This also supports the MOH's objective to increase LLINs ownership throughout Burundi. Therefore, the project indicator will be the percentage of households with children 0-23 months that own at least one long lasting insecticide treated bed net (LLIN) and the objective will be to increase this indicator from 3.0% to 50.0%. Additionally, the number of LLINs distributed by Care Group volunteers will also be tracked as a process indicator, should LLINs become available and the Care Group volunteer network is solicited to help with community distribution.

- The project target for the percentage of children 0-23 months who slept under an insecticide-treated bed net the previous night (LLIN or ITN treated within the past six months) was adjusted to 50.0% from the target of 60.0% that was set at the time of the proposal. This was adjusted to be a slightly more reasonable target given that the baseline KPC survey found that only 8.0% of children were currently sleeping under an LLIN or ITN (treated in the past 6 months) the previous night.

- The project target for the percentage of children 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug (pending approval by the MOH) within 24 hours was adjusted from 65.0% to 60.0%. This slightly lowered project target was established to be a more reasonable considering that the baseline KPC survey found the current percentage to be quite low (17.1% of children with fever in the past weeks).

- The project target for the percentage of mothers of children 0-23 months who slept under an insecticide-treated bed night during their last pregnancy was raised from 40.0% to 50.0%, in order to ensure the target was outside the confidence interval of the baseline figure (32.7% of mothers).

3.2.4 Immunization

- The project indicators for access to immunization services (percentage of children 12-23 months who have received DPT1), health system performance regarding immunization services (percentage of children 12-23 months who received DPT3) and measles vaccine coverage (percentage of children 12-23 months who received a measles vaccination) were changed to be defined only by card verification at the time of survey, rather than the 2007 Rapid Catch definition, which includes mother's recall.

- After analyzing the baseline KPC survey data, it was determined that vaccination coverage as determined by mother's recall was of questionable validity. Often mothers would claim that their children had received vaccine antigens an unrealistic number of times or that their child had received a vaccine antigen or dosage that he or she should not have been eligible to receive yet (on the basis of age and vaccine schedule). The remaining key indicators of all other antigen and dose specific vaccine coverages as well as immunization drop out rates ((DPT1-DPT)/DPT3) were also adjusted based on this determination about mother's recall.

- Tracking ever or current possession of a vaccination card or health booklet was determined to be appropriate in this context, since the project will track immunization by card verification. Reporting immunization coverage by card verification is also of interest to the health centers who are concerned with maintaining accurate vaccination card documentation. This assumes an adequate supply of card stock in the health centers.

5.0 Program Site Information

5.1 Map and geographical information

The program will cover Kibuye Health District in the sourthern part of Gitega Province, which is located in the center of Burundi. Kibuye Health District has four communes: Makebuko, Itaba, Bukirasazi and Buraza. Please refer to province and district maps in Annex B.

5. 2 Beneficiary populations by age and sex

At 206.1 persons per sq. km., Burundi has the second-largest population density in Sub-Saharan Africa.[2] Burundi has a dense population of 8 million people (640 people per square km of arable land in rural areas[3]), almost half are under 14, and the growth rate is 3.7%.[4] Burundi is divided into 17 provinces and Gitega province had an estimated 2007 population of 847,400 in 11 communes.[5] The program will serve all 85 *collines* of the four communes that make up the Kibuye Health District (an estimated population of 169,747): Makebuko, Itaba, Bukirasazi and Buraza.

The most detailed population information, discovered in preparing the KPC survey sampling frame, came from commune administrative heads. Because the communes had data going down to the level of the *collines,* this information is more likely to reflect reality. As a result, population figures quoted in the DIP are lower than those stated in the proposal. The project plans to conduct its own census of households and beneficiaries to confirm the number of volunteers needed and ensure inclusion of all eligible beneficiaries living within the district. These results should also inform whether or not the smaller population figures are in fact reflective of reality.

The beneficiary population is based on the estimated number of children under age five years and women of reproductive age living in Kibuye Health District. This includes approximately 24,376 children under-five years (0-59months) of age (6,688 children between 0-11 months; 6,688 children between 12-23 months; 11,000 children between 24-59 months;) and 38,176 women of reproductive age (WRA). In Burundi, WRA is defined as women between the ages of 15-45, not up to 49 as is normative elsewhere. Thus population figures for WRA reflect the slightly narrower age range.

[2] http://www.state.gov/r/pa/ei/bgn/2821 htm
[3] World Bank 2006
[4] CIA World Factbook: Burundi, 2006. Available online: https://www.cia.gov/cia/publications/factbook/geos/by html [hereafter: CIA 2006]
[5] U.S. Census Bureau International Database

Table of Beneficiaries[6]

Beneficiaries (Children and Women)	Percentage	Population
Children 0-11 months	3.94%	6,688
Children 12-23 months	3.94%	6,688
Children 24-59 months	6.48%	11,000
Children 0-59 months	14.36%	24,376
Women 15-45 (Women of Reproductive Age)	22.49%	38,176
Total Beneficiaries		**62,552**

5.3 Overview of current health status

The top five causes of U5 health facility deaths are malaria (48%), malnutrition (15%), ARI (10%), anemia (8%) and diarrhea (5%).[7] In Gitega, malaria and respiratory infections cause most U5 mortality; and diarrheal diseases and malnutrition are the leading causes of morbidity.[8] In Kibuye, fever, cough, and diarrhea are the top reasons for care-seeking.[9] Burundi's health indicators are among the worst in the world, with a life expectancy of 44 years, an IMR of 156/1000 live births and U5MR of 231/1000 live births.[10] MMR is 1000/100,000 live births.[11]

Malaria

Malaria accounts for 48% of U5 mortality in Burundi and 40% of consultations in health centers (HC),[12] yet only 31% of children U5 with fever are treated with anti-malarials.[13] The disease is endemic to 68% of the country, and epidemics occur in another 17% of the country.[14] A national survey found the two week fever prevalence for children under 5 varies by age but was not less than 25%, the highest prevalence (43%) in those aged 12-23 months.[15] In Kibuye, 56% of women reported fever during their last pregnancy.[16] Malaria represents 49% of cases at Kibuye health facilities, but more cases stay home and the deaths go un-reported.[17] The WHO Burundi Malaria Control Officer stated that 80% of fevers never reach the health center. Traditional beliefs that malaria is caused by coldness and cheap treatments available from pharmacies probably influence this behavior.[18]

The MOH seeks a 25% reduction in malaria incidence by 2010, with long-lasting insecticide treated nets (LLINs) as the primary prevention strategy. The second strategy

[6] Desegregation percentages based on the 2005 Kibuye Health Sector Annual Report
[7] PNDS 2005
[8] HealthNet-TPO. *Rapport Definitif d'Enquete de Base du Secteur de Sante de Kibuye en Province Sanitaire de Gitega* (Baseline Survey of Kibuye Health Sector), July 2006. [hereafter: **HN-TPO 2006**]
[9] HN-TPO 2006
[10] MICS 2000.
[11] World Bank 2006; UNICEF Burundi Statistics. Available online http://www.unicef.org/infobycountry/burundi_statistics html
[12] PNDS 2005.
[13] World Bank 2006
[14] World Bank 2006
[15] WFP 2006
[16] HN-TPO 2006
[17] HN-TPO 2006
[18] Focus Group Discussion, 12 October 2006; HN-TPO 2006

recognized by the MOH is drug case management. *P. falciparum* resistance to chloroquine and sulfadoxine-pyrimethamine (SP) has been observed in Burundi, especially during the devastating epidemic of 2000 that left an estimated 10,000 dead.[19] The current treatment regimen of choice is Artesunuate and Amodiaquine. Drug supplies are uncertain at this point, as Burundi was not selected for funding during Global Fund Rounds Six or Seven.

The program conducted a KPC survey in February of 2008. Only 19 of the 111 cases (17.1%) identified in the baseline survey, received an effective anti-malarial within a 24 hour period. Only 8% of children 0-23 months of age slept under an ITN the night before the study, and only 2.7% of the 8% had slept under long lasting insecticide treated nets. Overall, only 9.7% of households owned either an LLIN or an ITN that had been treated in the past 6 months. Although 32.7% of mothers reported using an ITN during their last pregnancy, this could be over-reported, particularly when it comes to consistent use.

Malnutrition

Malaria, conflict, droughts and agricultural pests have led to significant food shortages. In 2005, malnutrition was the second highest cause of deaths and micronutrient-related anemia the fourth highest cause of death in children U5 in health facilities.[20] Rural households spend 75% of monthly income on food, and urban households spend 48%.[21] The number of meals per day and the number of different foods eaten are much lower in rural areas.[22] 41% of U5 rural children are underweight, (<-2 Z-scores, weight-for-age), and 22% of urban children. Severe malnutrition affects 14% of rural children (<-3 Z-scores, weight-for age).[23] In Gitega, 7% of children are wasted, and 42% are underweight. [24] Malnutrition is reported at 14% in Kibuye.[25]

A national nutrition survey found that childhood malnutrition was linked to feeding practices, fever and frequent diarrhea. Some mothers withhold liquids and food when children are sick.[26] The study recommends that interventions focus on behavior change and preventing and treating diseases, such as malaria, which is an important cause of anemia.[27]

According to the World Food Program, one-fifth of women aged 15-49 years in Burundi are underweight, contributing to low birth rates and high IMR. Gitega is one of the top 3 provinces for under-nourishment in women of reproductive age.[28] Vitamin A coverage among children 6-59 months is poor; in 2006, 28% of children 6-59 months had Vitamin

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[19] Roll Back Malaria. *World Malaria Report* 2005. Available online: http://www.rbm.who.int/wrm2005/html/2-1.htm [hereafter: **RBM 2005**]
[20] PNDS 2005.
[21] World Bank 2006
[22] WFP 2006
[23] WFP 2006
[24] WFP 2006
[25] HN-TPO 2006
[26] WHO/UNICEF/Republique du Burundi/Ministere de la Santé Publique/Coordination National de la Strategie Prise en Charge Integree des Maladies d'en l'Enfant (PCIME). *Plan Strategique de la PCIME Communautaire, 2006-2010.* (Community IMCI Strategic Plan). [hereafter: **C-IMCI 2006**]
[27] WFP 2006
[28] WFP 2006

A deficiency. Night blindness in children U5 is over 1%.[29] Coverage for post partum women is 26%. People sell the micronutrient-rich foods they grow, rather than consume them, which likely contributes to the deficiency.[30]

Burundi's Ministry of Agriculture is addressing household level food security, and the situation is improving.[31] Almost all households have access to arable land, though 75% of them have less than a hectare. In Kibuye, only 15% of families have non-agricultural income sources[32] and 57% have livestock, while monthly cash flow is less than $3.00 for 75% of households.[33]

In areas of food insecurity, World Food Programme (WFP) is providing food supplements at some health centers. The Free Methodist Church (FMC) provides supplementary feeding for a limited number malnourished children at Kibuye Hospital.

National exclusive breastfeeding (EBF) rates were 45% EBF of infants 0-6 months,[34] and in Gitega only 35-39% EBF of infants 0-6 months. Fifty percent of mothers initiate breastfeeding (BF) within the first 30 minutes after delivery.[35] Average duration of breastfeeding is 20 months in Gitega.[36] Under-nourishment often begins at weaning; only 46% of children 6-9 months receive appropriate complementary foods.[37] A 2003 household survey found that 47% of mothers stopped breastfeeding because of pregnancy.[38]

The project's KPC survey found the following: 16.4% (6.0-26.8%) of children surveyed were underweight (>2 SD) according to WHO standards. In a comparison of underweight children by sex, a larger proportion of males are underweight than females. The percent of children who were immediately breastfed with no pre-lacteal feeds was 62% (56-68%). Therefore, the project will change its original end of target goal of 60% to 75%. Baseline survey results showed that the percentage of children aged 0-5 exclusively breastfed during the last 24 hours was 86.4% (77-93%), already surpassing the end of project target of 70%. This is noticeably higher than national data cited above on exclusive breastfeeding though may be a reflection of different indicator definitions (KPC based on 24 hour dietary recall vs. lifetime recall). The CSP will work to maintain this high level of EBF in the community but not include it as a formal project objective.

Baseline results show that the percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices is 25.6 % (14.7-36.5%), half of the project target of 50%. Vitamin A coverage showed that the percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months through either verification

[29] WFP 2006
[30] C-IMCI 2006
[31] C-IMCI 2006
[32] HN-TPO 2006
[33] HN-TPO 2006
[34] UNICEF 2007
[35] C-IMCI 2006
[36] WFP 2006
[37] MICS 2000
[38] C-IMCI 2006

of an immunization card or a mother's recall is 81.7%. However, only 13.7% of these could be verified on the card. The CSP will therefore work to promote Vitamin A dosage including proper documentation and verification by CHWs.

Diarrhea

A national survey found that the two week diarrhea prevalence for children U5 years is 17%, 35% of whom are treated with ORS or a salt-sugar solution.[39] Almost one-third (32%) of children with diarrhea are given less to drink, and 75% are given less to eat.[40] Harmful practices include enemas for treatment and abrupt weaning due to the belief that defective breastmilk causes diarrhea.[41] Only one-third (35%) of rural Burundians have sustainable access to improved sanitation[42] and 78% have sustainable access to an improved water source.[43] It is commonly believed that children's feces do not carry diseases, so some people leave their feces in the open air.[44] A CDC study on dysentery in Kibuye found that being female, using a cloth rag after defecation, a history of recent weight loss, and not washing hands before preparing food were associated with contracting the disease. The study recommends community-based interventions to increase hand washing to control future Shigella epidemics.[45]

According to the February 2008 baseline KPC, 23.7% of children aged 0-23 months had an episode of diarrhea in the previous two weeks; 43.7% of those received treatment with ORS or recommended home fluids. While 63.4% of those with diarrhea received continued or increased feeding, only 32.4% were offered increased fluids. The program will work to increase these rates to 80 and 70 percent respectively. Currently only 18% of mothers wash hands their hands with soap at two or more appropriate times.

Vaccine Preventable Diseases

The standard immunization regimen for infants in Burundi includes the GAVI-supported pentavalent vaccine. EPI coverage estimates vary widely, a 2006 study found measles coverage of 12-23 month olds was 30%, significantly lower than the 75% estimates from 2004. [46] In Kibuye, 75.9% of children age 12-23 months have at least 3 vaccinations on their health cards.[47] Drug and vaccine stockouts are less frequent under a new arrangement, whereby the health centers report service statistics on care provided free to children U5 and pregnant women and are reimbursed in drugs. Provision of essential medicine kits by UNICEF also helps.[48] GAVI funds support continued supply of vaccines for EPI. Some health centers conduct EPI outreach while smaller centers offer immunizations only at facilities. Semi-annual Maternal and Child Health (MCH) Weeks provide Vitamin A and maternal iron supplementation, mebendazole (for de-worming), and recover immunization defaulters, but shortages of Vitamin A have disrupted this

[39] WFP 2006
[40] WFP 2006
[41] C-IMCI 2006
[42] World Bank 2006
[43] World Bank 2006
[44] C-IMCI 2006
[45] Birmingham ME, Lee LA, et al., *A household survey of dysentery in Burundi: implications for the current pandemic in sub-Saharan Africa.* Bulletin WHO, 1997; 75(1) 45-53.
[46] WFP 2006; World Bank 2006.
[47] HN-TPO 2006
[48] C-IMCI 2006

outreach mechanism. No nationally-directed MCH Week campaigns were held in 2006. Immunization defaulters are identified when a sick child is brought to the health center; staff check the child's health card and provide catch-up vaccines as needed.

The KPC Survey found immunization rates verified by card to be lower than maternal recall, but still reasonably high and corresponding to recent national-level data: 55.1% of children 12-23 months received measles vaccine (89% including maternal recall), 62.5% of children received DPT1 and 61% received DPT3 by card, and maternal recall for DPT1 was 94.9% and for DPT3 was 73.5%.

Maternal Care

Perceived quality of maternal care at health facilities is low, and most women give birth at home (79% in Kibuye) with the assistance of a traditional birth attendant (TBA) or family member.[49] As of May 2006, antenatal and delivery care are free; but staff report little increase in deliveries. Many women seek ANC only in the third trimester, and post-partum consultations are rare.[50] In Kibuye, 89% of women report at least one ANC visit, but only 35% attend during the first trimester, and only 30% are fully vaccinated (three doses) against tetanus.[51] TBAs in the community were trained by health center staff, and there are quarterly refresher trainings. TBAs refer women with a "high risk" symbol on their maternal health cards (marked by nurses during ANC) to HCs. If the HC cannot handle the delivery, they refer to Kibuye or Gitega hospitals. HealthNet TPO is providing a radio for each HC and an ambulance for Kibuye Hospital. Transportation costs are a challenge for families.

KPC Baseline results show that the percentage of mothers with children age 0-23 who received at least two tetanus toxoid vaccinations before the birth of their youngest child is 52.3% (46.5-58.1%). The percentage of children age 0-23 months whose births were attended by skilled personnel is 60.3% (54.6-65.9%). Of these skilled personnel (i.e. doctors, nurses or midwives), the majority of births, 54.7% (48.8-60.4%), were attended by either nurses or midwives.

Family Planning

Family planning utilization is low in Burundi (16%) and in Kibuye (8%).[52] Pills, injectables, IUDs, and male condoms are available at health centers; injectables are the preferred method. An estimated 3.3% of 15-49 year olds are HIV positive, and 150,000 people are currently living with HIV/AIDS, 20,000 of them children. Most women in Kibuye know HIV is sexually transmitted and have heard of voluntary HIV counseling and testing (VCT), but most are not aware of mother-to-child transmission nor have they been tested.[53] Availability of VCT within the project area is limited to Kibuye Hospital and two health centers, but they are often unable to provide VCT due to lack of reagent or trained staff. Some National Aids Control Program (CNLS)-trained community agents also work with a community-based organization called Families Conquering AIDS

[49] C-IMCI 2006
[50] C-IMCI 2006
[51] HN-TPO 2006
[52] World Bank 2006; HN-TPO 2006
[53] HN-TPO 2006

(*Familles pour Vaincre la SIDA* - FVS), a community-based organization that supports families affected by HIV/AIDS in Kibuye health district.

Acute Respiratory Infections

Acute Respiratory Infections (ARI) are the third leading cause of U5 mortality, causing 10% of child deaths nationwide. [54] In Gitega and Kibuye, ARI is the second leading cause of under-5 mortality, after malaria.[55] The death rate for children at home is likely higher; only 48% of families in Kibuye seek care from a health facility if a family member becomes ill.[56] Other contributing causes to ARI include Vitamin A deficiency, early weaning, and inappropriate complementary feeding. Health centers treat pneumonia with amoxicillin syrup; complicated cases are referred to Kibuye and Gitega Hospitals.

The KPC survey found that the percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider was 52.9% (42.8-62.9%). Please refer to Annex D1 for the complete baseline KPC survey report.

The quality of disease surveillance data tracked by the MOH in the province is poor and incomplete. Surveillance data from health centers in Kibuye district were reported for just six months of 2006 (February, July, August, October, November and December). Combined, malaria topped the list with 18,181 reported cases followed by pneumonia (5197), diarrhea (3852), ear infections (850), dysenterie (312), neonatal tetanus (286), AIDS (62), tuberculosis (59) and severe malnutrition (56). Note that malaria, dysenterie, AIDS and TB cases were not reported as being age specific whereas pneumonia, diarrhea and ear infections referred only to under-fives.

5.4 Factors influencing health

Including economic, social (religion, ethnicity, literacy, and status of women) and cultural beliefs and practices. Also, potential constraints to child survival activities unique to Gitega.

Recently emerging from over a decade of brutal civil war largely ignored by the international community, Burundi is one of the poorest countries in the world, ranking 169/177 in the Human Development Index, with 87.6% of its estimated 8.3 million people[57] living on less than US$2 per day.[58] The country has made little progress toward UN Millennium Development Goals. Almost half (46%) of the population is below 15years of age, and 18% are U5,[59] the total fertility rate is 6.8;[60] and adult literacy is 59%.[61] Most (90%) people live in rural areas, nearly all as subsistence farmers, making

[54] PNDS 2005
[55] HN-TPO 2006
[56] HN-TPO 2006
[57] US Census Bureau, International Database, Burundi 2007. http://www.census.gov/cgi-bin/ipc/idbagg
[58] UNDP. *Human Development Report.* Geneva, 2006. Available online: http://hdr.undp.org/statistics [hereafter **UNDP 2006**]; World Bank 2006
[59] US Census Bureau, International Database, Burundi 2007. http://www.census.gov/cgi-bin/ipc/idbagg
[60] World Bank 2006
[61] UNICEF. *State of the World's Children*. Washington, 2007. [hereafter: **UNICEF 2007**]

the nation highly vulnerable to drought and floods that cause food shortages, malnutrition and disease.[62] Fluctuations in international markets, particularly for coffee, create additional instability for households farming cash crops. Burundi's long history of internal conflict is mainly along ethnic lines: 85% Hutu, 14% Tutsi, 1% Twa (pygmy).[63] About two-thirds (67%) are Christian (62% Roman Catholic, 5% Protestant), 23% traditional, and 10% Muslim. [64] Burundi is a patrilineal society, and women are economically dependent on their husbands, though about a quarter (26%) of rural households are headed by women, and women now make up 30.5% of the Burundi national parliament.[65] Recent ceasefire agreements have ushered in a new era of stability and opportunity.[66]

5.5 Current status and overall quality of health care services in Gitega

The Burundi health system was neglected during the war, and only 2% of the government budget is spent on health care. [67] The government pays only 23% of total health expenditures, so people are left with significant out-of-pocket expenses, even with[68] external aid contributing 56% of the annual health budget.[69] Cost-recovery policies implemented in 2002 reduced access for many, particularly in rural areas with low cash flow. In May 2006, President Nkurunziza declared health care free for children U5 and pregnant women. Cost-recovery continues for all other patients; rural households spend 2% of monthly income on health.[70] Burundi has a shortage of qualified health personnel, with only 5 physicians per 100,000 people,[71] mostly in urban areas.[72] The war left much of the health center infrastructure and supplies damaged or stolen. HealthNet TPO has introduced performance-based financing (PBF) in Kibuye, and will provide mattresses and supplies to facilities.

The Ministry of Health (MOH) coordinates health policy and health services delivery. The MOH is divided into clinical care and health promotion, as well as several technical departments, including communicable diseases, reproductive health, HIV/AIDS, etc. The Provincial Health Bureau (*Bureau Provincial de Santé* - BPS) in Gitega Town coordinates health services for Gitega province. Provincial level authorities are responsible for in-service training, human resources, overseeing health service delivery, resource allocation, management of drugs and supplies, and coordination of NGOs with

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[62] World Bank 2006
[63] CIA 2006
[64] CIA 2006
[65] UNICEF 2007
[66] United Nations, Department of Public Information. Secretary General Welcomes Signing of Burundi Ceasefire Agreement. September 2006. Available online: http://www.un.org/News/Press/docs/2006/sgsm10624.doc htm
[67] WHO. Summary Country Profile for HIV/AIDS Treatment Scale-Up: Burundi, June 2005. Available online: http://www.who.int/3by5/support/june2005_bdi.pdf
[68] World Bank 2006
[69] United Nations/Office of Coordination of Humanitarian Affaires. Consolidated Appeals Process Burundi 2006. [hereafter: **CAP 2006**]
[70] World Bank 2006
[71] UNDP 2006.
[72] CAP 2006

health activities. Under the provincial level, communes are organized into health sectors, which correspond to a typical district in size (about 150,000 to 250,000 people).

Transition to a decentralized district system is underway. Some sectors will be re-zoned, but Kibuye health district will retain its boundaries. *Health facilities*: The sector chief supervises health center *titulaires* and oversees health center management committees, known as COSAs and COGES. Health centers are staffed by a *titulaire* (supervisor, A2 level nurse or higher), one or more trained nurses, and support staff (e.g. cleaner and/or guard). HC staff conduct outreach during nationally-directed maternal and child health weeks.

There are eleven health centers in Kibuye Health District, and three more are planned. Health Centers provide preventative and curative services, with varying capacity. Preventive services include immunization, antenatal care, family planning, growth monitoring; as well as less-available preventive services: postnatal care, vaccination of women of reproductive age and HIV & STI screening. Curative services vary depending on laboratory functionality and capacity for in-patient care.[73] Several centers lack equipment, particularly related to delivery care.[74] Kibuye Hospital, run by the Free Methodist Church (FMC), is the referral center for the health sector. Under a new arrangement facilitated by HealthNet-TPO, the FMC and the MOH share the cost of salary for the hospital's sole physician. The hospital has surgery facilities, delivery care, inpatient beds, a TB isolation ward, lab tests, and VCT for HIV when reagent is in stock. The following table shows staffing levels for health facilities in Kibuye Health District.

Kibuye health facilities staffing levels[75]

Kibuye Health District

Communes	Health Centers	Clinically Trained Staff	Support staff	Total Staff
Bukirasazi				
	Kibuye	11	38	49
	Bukirasazi	4	5	9
	Nyarunazi	2	5	7
Buraza				
	Buraza	3	6	9
Makebuko				
	Makebuko	7	8	15
	Murenda	4	5	9
	Bungere	9	6	15
	Maramvya	7	8	15
Itaba				
	Gisikara	3	4	7
	Buhinda	3	5	8
	Buhoro	2	7	9

[73] HN-TPO 2006
[74] HN-TPO 2006
[75] Kibuye Health District Personnel, Project documentation for HealthNet TPO, Gitega office Burundi

Health promotion: In each commune, a health promotion technician (TPS) supervises community health workers (CHWs) trained by the National Aids Control Program (CNLS) and the National Program on Reproductive Health (PNSR). Currently, there are 30-40 CHWs per commune conducting HIV prevention education, family planning promotion and distribution of condoms and spermicide. Some CHWs also work on immunization campaigns. TPS and CAs have limited interaction with health centers, and are accountable to the provincial health promotion supervisor based in Gitega. Previous community health worker programs experienced frequent interruptions due to the war. Key informant interviews with TPS and CAs revealed it takes 4-5 months for them to visit each household in their assigned areas; they welcome the prospect of additional health volunteers in Kibuye.

Health Net TPO is "a regional program focusing on rehabilitation of basic health services in three post-conflict countries in the Great Lakes Region and the Horn of Africa with an emphasis on malaria, sexual and reproductive health and HIV/AIDS." Next to the MOH, HN-TPO is a significant partner as they have been involved in rehabilitating health facilities and improving quality of services. Highlights from their October-December 2007 Health Net TPO program quarterly report are:

- All Kibuye health centers (infrastructure) are now rehabilitated according to national norms (at baseline in 2005 only six health facilities had been rehabilitated.) Six of the 12 health facilities have essential equipment and material needed. (Four at baseline.)
- Despite some efforts of government at recruitment, qualified staff for health centers is still very low (8%) The national goal is 70%. HN-TPO staff hope to recruit staff by offering PBF premium. "For example, at Kibuye Hospital there was only 2 qualified staff, and no medical doctor at the beginning of Performance-based financing (PBF). After one year of PBF, there are now 12 qualified staff with a permanent medical doctor and a surgical doctor who comes twice a week."
- Stock outs (primarily of Amoxicillin and aspirin, due to national level stock outs) are still significant (40% of the time during 4th quarter of 2007). HN-TPO plans to include an indicator for this in each Health Facility's PBF contract. (Stock-outs will cause the BDS to lose their premiums.)
- According to HN-TPO data collected from all 12 Health Centers: 14% of children under 5 were getting correct treatment for malaria within 24 hours, 46% of births were attended by skilled health personnel, 1% of target population received VCT for HIV (goal is 10%), 88% of children under one year received Vitamin A and recommended immunizations, 9% of women received two doses TT (this is probably higher, but when women are vaccinated during campaigns, that data is not recorded in the Health Center HMIS.)
- 69% of patients stated they had an ITN, 48% reported using it. 33% stated they used a modern method of family planning, but staff suspect some are irregular users, the actual figure is probably less. 59% of respondents knew about HIV transmission and prevention. The survey found that health IEC in mornings at health centers was rather low overall (this is an area where the CSP will help a great deal.)

Traditional health providers and household behaviors

Focus group participants said that healers are typically consulted for specific illnesses (e.g. convulsions), and may be consulted before or after a health clinic for common illnesses, such as diarrhea or malaria.[76] Traditional methods include cow dung and urine applications, rabbit hair on burns, powdered tetracycline, enemas for diarrhea, and removal of the uvula to treat coughing.[77] Household practices influencing child health outcomes include delay in care-seeking and giving inadequate treatment (e.g. sharing treatments among persons resulting in incomplete treatments, or using a mix of modern and traditional medicine).[78]

Access, barriers and utilization

Many (65%) rural households are less than one hour from a health center;[79] in Kibuye only 12.8% are more than two hours away.[80] As of 2005, Kibuye hospital serves 229,000 people, and each health center catchment area covers an average of 25,500 people.[81] Almost half (48.6%) of the people in Kibuye go to a health facility in case of sickness, and 26.8% buy treatments directly from private pharmacies or itinerant vendors.[82] The health facility patient load nearly doubles during the height of the rainy season (February to March), due to diarrhea and malaria. Distance is a barrier to care in emergencies, given the cost of transportation, and extreme poverty in Kibuye. User fees are a financial barrier for children over five and adults except pregnant women. The most recent HN-TPO survey found a survey patient satisfaction rate of 82%.[83]

In January 2008 HealthNet-TPO published a report on the health needs of internally displaced people (IDPs), including those in Gitega province[84]. HN-TPO determined the health status and access to health care services to be no worse for IDPs than for inhabitants of the host communities. However, as IDPs were still expected to use the fields in their home areas, many had to travel long distances to access them and reported increased crop damage and theft. Interviewees expressed varying degrees of continued insecurity and reluctance to return to their home areas after 14 years in IDP camps.

5.6 Baseline assessments still to be completed

Remaining assessments include a census of households and project beneficiaries (women of reproductive age and children under the age of five) in Kibuye Health District and additional qualitative data collection leading up to the development of BCC messages for each intervention area. The project census is a significant step towards developing Care

[76] Focus Group Discussion, 12 October 2006, WR staff and mothers
[77] C-IMCI 2006
[78] C-IMCI 2006
[79] World Bank 2006
[80] HN-TPO 2006
[81] Bureau Provincial Sanitaire, Gitega, Burundi. Kibuye Health Sector Annual Report 2005. [hereafter: BPS 2005]
[82] HN-TPO 2006
[83] HN-TPO October-December 2007 Quarterly report.
[84] TPO Uganda. Health Needs of IDPs: An Assessment of health services and health needs in identified areas in Southern Sudan, Burundi and DR Congo. January 2008.

Groups, assuring 100% coverage of households by volunteers, so that no household is left out of program activities and services. It takes time to meet with all the village leaders, explain the program to them and recruit volunteers for Care Groups from the communities, but this is a foundational participatory process for successful Care Group formation. The census was initiated in April 2008 and is expected to be completed by the beginning of June 2008. World Relief has been doing a census-based approach to Child Survival for over 20 years. The organization has expertise and experience in conducting a census as well as maintaining a census and tracking vital events data throughout the life of the project. This is an important step in gathering data to show changes in morbidity and mortality in the program area, especially as Kibuye Health District has no household-level data at present.

In depth interviews to collect qualitative data regarding health beliefs and behaviors will be conducted throughout the program area as each intervention is phased-in and curriculum is developed. Key informant interviews with local traditional healers, health center staff, and mothers and fathers and village leaders will all contribute to an understanding of how to change harmful health beliefs and behaviors. These focus groups and interviews will be carried out by trained project staff as needed. These qualitative assessments will follow an iterative process that leads to more learning and better questions as the project becomes established and trusted in the area. Instruments and a sample of data already collected on the first intervention area are included in Annexes D2 and D3.

5.7 Programming priorities that developed during the first six months of preparing for the KPC survey and DIP development

The KPC survey has confirmed overall priorities set during the proposal-writing stage.

The rate of prompt treatment for fever with an effective anti-malarial is extremely low at 17.1%. This indicates that concerted efforts are required to promote prompt care-seeking for fever and to increase access to services at health centers and through community-based strategies. ITN strategies will need to address a full spectrum of concerns including ownership, availability of LLINs in the project area, and consistent utilization by pregnant women and children under five. Depending on the availability of retreatment kits in Burundi, the project might consider a net retreatment campaign during the first year of the project as an interim strategy if procurement of LLINs by Global Fund and DFID is delayed.

The percentage of children determined to be underweight was lower than expected, given the food insecurity situation and the continued distribution of WFP supplemental rations at several health centers in the project area. This finding will help the project to determine whether Positive Deviance / Hearth is appropriate for the setting; however, further investigation of the extent of moderate malnutrition and variation among communities within the project area will be required.

Breastfeeding practices were better than expected and targets have been adjusted accordingly. The baseline estimate for immediate breastfeeding with no prelacteal foods was higher than expected; therefore, the project's original EOP target of 60% has been

increased to 75% for this indicator. Exclusive breastfeeding of children ages 0-5 months (based on 24 hour mothers' recall) already surpasses the EOP target of 70%; BCC messages will continue to encourage and support women to exclusively breastfeed, but the project will no longer set a target for this indicator. The program will strive to improve complementary feeding practices, as only a quarter of children 6-23 months were fed according to minimum appropriate feeding practices (in the 24 hours prior to the survey).

Case management for diarrhea (e.g. ORS use, increased fluids and continued feeding) leaves room for improvement. The project will continue to encourage the use of soap for hand washing, as well as emphasize the utility of determining a specific place of hand washing in the household in order to encourage consistent practice of this behavior by everyone in the household.

Changes made to specific objectives, indicators and targets are detailed in Section 3.0 Revisions.

5.8 Non-profit agencies doing complementary programming work in the province

World Relief's non- health sector work in Gitega includes the internationally recognized Turame community banking program, a Vocational Skills Training program, disaster relief, and agriculture program. World Relief's strategic approach emphasizes (a) engaging volunteers at the community level and (b) leveraging group solidarity for program implementation.

CARE, working on Capacity Building aimed at strengthening technical and organizational capacity of three local NGOs (SWAA, FVS, and OICO) to deliver relevant and quality HIV/AIDS services in Gitega province.

The **Organization for the Development of Gitega Archdiocese (ODAG)** runs health centers in four districts: **Kibuye** (Buhoro health center), **Gitega** (Murayi, Mushasha and Songa health centers), **Ryansoro** (Ntita, Nyangwa and Nyabiraba health centers) and **Mutaho** (Mugera health center).

GTZ is working on restoration and strengthening of social structures to the improvement of physical and economic living conditions in fifteen rural communities in Gitega province. GTZ is presently rehabilitating and building health centers and equipping them (eg. Makebuko, Gishubi and Mutaho health centers). They also build needed annexes such as maternity wards and morgues.

Healthnet TPO is a Dutch NGO is also working in Gitega Province to strengthen capacity and improve quality of health services through performance-based financing. Its activities began in July 2005 and funding is secured through the end of 2010. Its focused on supporting the Bureau Provincial de la Sante, strengthening management committees at health centers, ensuring availability of a doctor in Kibuye Hospital through the Ministry of Health, putting in place a referral system and establishing a performance based financing system in the health centers of the district to increase health service

delivery and staff motivation. For collaboration opportunities with these organizations refer to Section 2b. Prior to this CSP, WR Burundi's health work was primarily in the area of HIV/AIDS prevention and care.

Beyond Gitega, **Pathfinder International's** newly begun Maternal and Child Health Project works in Kayanza and Muyinga provinces to accelerate restoration of Burundi's health systems. Intervention areas with potential synergy prevention and treatment of childhood illnesses, maternal and young child nutrition, immunizations, household level water, sanitation and hygiene and strategic information capacity building to improve data usage for decision-making.

5.9 Plans to include ongoing USAID Mission input throughout the CSP

USAID classifies Burundi as a Limited Presence Country with oversight from USAID/East Africa. Thus, World Relief maintains communication with personnel both from USAID/Burundi and USAID/East Africa. World Relief Burundi is already in regular communication with both offices regarding its USAID-funded Vocational Skills Training program, Turame microfinance institution and microfinance sector strengthening activities. Thus it has been easy to concurrently provide updates regarding the child survival project.

Melanie Morrow, WR Director of Maternal & Child Health Programs, met with Jim Anderson, USAID/Burundi Country Representative and Alice Nibitanga, Program Development Specialist, when she was in Burundi in February 2008. They were very supportive in sharing information regarding USAID/Burundi and its partner activities, including the new Maternal and Child Health Project implemented by Pathfinder and Management Sciences for Health. They also shared that USAID/Burundi anticipated hiring a new Foreign Service National who would be responsible for monitoring and support of USAID/Burundi's health programming. World Relief was invited to commence regular communication with the new FSN once he or she is oriented to USAID.

Ms. Morrow also contacted Dr. Connie Davis, Senior Technical Advisor Infectious Diseases, USAID/East Africa to confirm communication protocols. Dr. Davis confirmed that once the new FSN would be on board, that that individual would be our primary point of contact. In the interim, she requested that World Relief submit DIP plans both to Jim Anderson and to Stephanie Lazar, Program Manager Burundi, USAID/East Africa.

6.0 Program Description

6.1 Description of Overall Strategy

The project's goal is to achieve significant and sustained reductions in mortality and morbidity among children under five years of age and women of reproductive age in Kibuye Health District, Gitega Province. These outcomes will be achieved through a comprehensive **Community Integrated Management of Childhood Illness (C-IMCI)** strategy, building on WR's extensive experience using the **Care Group Model** as an effective community mobilization approach for the implementation of an integrated package of C-IMCI interventions. WR will work with the MOH and other strategic partners to roll-out C-IMCI in Gitega Province, which the MOH intends as a pilot phase that will inform plans to scale up C-IMCI nationwide through incremental expansion. Thus, innovative strategies successfully deployed and documented by the CSP in Kibuye Health District have clear potential to influence national designs for C-IMCI implementation.

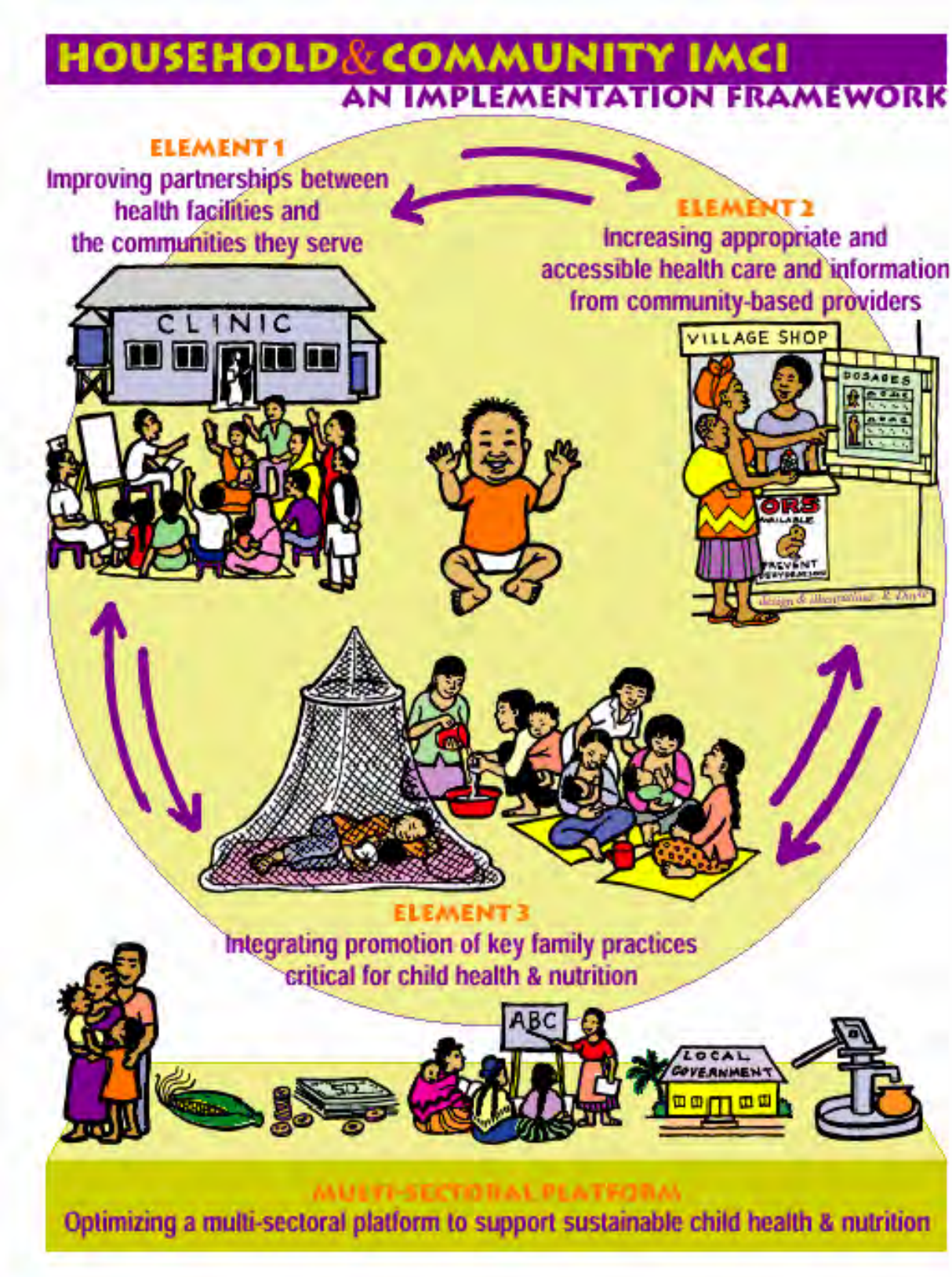
While most readers will be familiar with C-IMCI and some will have had previous exposure to the Care Group Model, we have nevertheless chosen to outline both concepts here, as they provide essential background for the detailed description of the program's Results Framework and strategies to achieve designated Intermediate Results that follows.

Community-IMCI

The framework for Household and Community IMCI (C-IMCI) was developed in 2001 and distills principles derived from decades of community health programming by NGOs and governments. The framework is composed of three elements and a multi-sectoral platform (MSP). The elements are labeled in the following illustration of the C-IMCI framework (Figure 1).

Burundi's MOH is now drawing up plans for C-IMCI implementation and intends to pilot the approach in Gitega Province, which includes Kibuye Health District, with additional activities in three other provinces. Planning conducted in Gitega in 2005 fed into a work plan for 2007, but very few of the planned activities have been carried out to date. At present, facility IMCI training and refreshers are planned for four focal provinces, including Gitega, using funding from GAVI-HSS. In addition, all commune-level TPS will be trained in C-IMCI, with support from UNICEF. Eventually, the approximately 80 community-level health agents in Kibuye who had been previously trained by the CNLS or PNSR, together with some COSA members, will also be trained in C-IMCI, also through UNICEF support. Implementation of C-IMCI appears to be solely through health education sessions in communities.

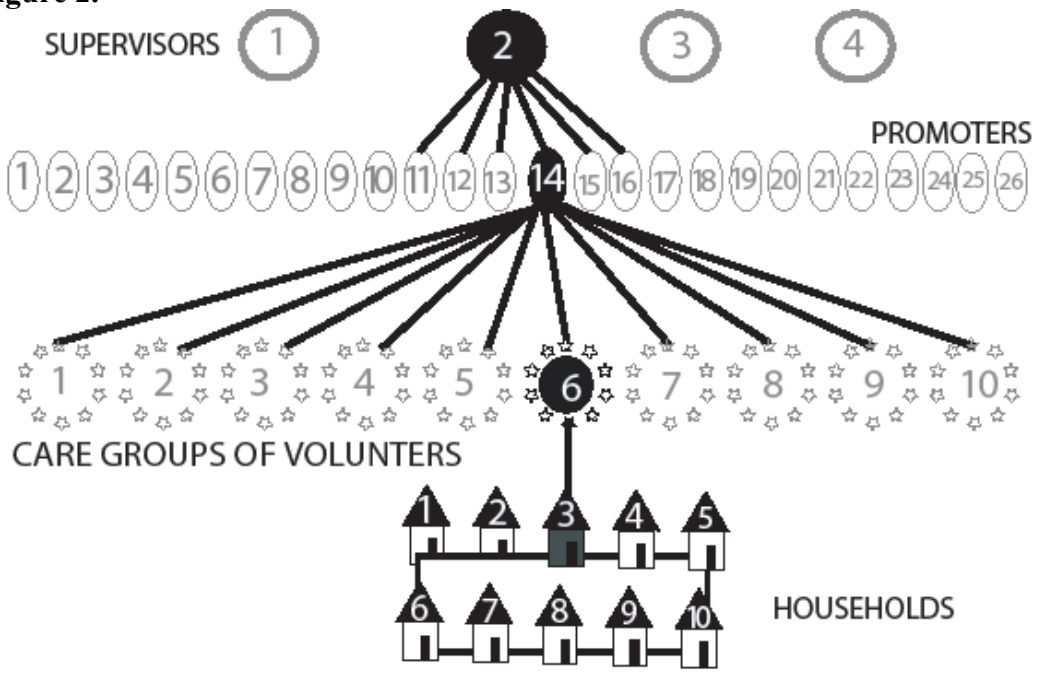
Figure 1.


HOUSEHOLD & COMMUNITY IMCI
AN IMPLEMENTATION FRAMEWORK
ELEMENT 1
Improving partnerships between health facilities and the communities they serve
ELEMENT 2
Increasing appropriate and accessible health care and information from community-based providers
CLINIC
VILLAGE SHOP
DOSAGES
ORS
ELEMENT 3
Integrating promotion of key family practices critical for child health & nutrition
ABC
LOCAL GOVERNMENT
MULTI-SECTORAL PLATFORM
Optimizing a multi-sectoral platform to support sustainable child health & nutrition

The Care Group Model[85]

The program description that follows relies on the readers' familiarity with the Care Group Model; thus, a description of the structure of Care Group volunteer training and supervision is included here. Numbers and ratios of staff vary somewhat across program sites; those provided here are specific for Kibuye Health District (Figure 2).

Figure 2.



A Care Group is made up of 13-15 volunteer community health educators who meet regularly with project staff for training, supervision and support. In Kibuye Health District, WR will mobilize, train, and supervise nearly 3200 female volunteers organized into approximately 221 Care Groups. Though volunteers are predominately female, Care Groups differ from typical mother's groups in that each volunteer is responsible for regularly visiting 10 of her neighbors, sharing what she has learned and facilitating behavior change at the household level. Care Groups create a multiplying effect to equitably reach every family with women of reproductive age (WRA) and/or children under five years of age with individualized BCC and social support. All family members, including fathers and grandmothers, are invited to participate in the biweekly home visits. As interventions are phased in, volunteers become neighborhood resource people for an integrated package of health education and referral services. The caring nature of the groups inspires trust between neighbors and works to strengthen the fabric of communities. Care Groups have been successfully established in several post-conflict settings, including Mozambique and Rwanda.

[85] Laughlin, M. *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators*. Eds. K. Bradbury, P. Ernst, R Heikdamp, W Long, M Morrow, L Nghatsane, and O Wollinka. Produced by World Relief with partial support from CORE and USAID, 2004.

Care Groups meet every two weeks with a paid promoter, who is trained in the technical interventions and in participatory education methods for adult learners. A total of 26 promoters will be recruited from the communities where they work. Care Groups make the supervision of large numbers of volunteers manageable because one paid promoter can train and mentor 8-10 care groups (approximately 120-150 volunteers), depending on population density. Though the volunteer to promoter ratio is high, the Care Group and *not the individual volunteer* is the promoter's primary unit of training and monitoring. Two or three promoters are affiliated with each health center, and are responsible for training and supervising 16-30 Care Groups in that HC's catchment area. Promoters work closely with HC staff to improve the frequency and quality of outreach services. Promoters communicate with local authorities and community leaders, building bridges to facilities to increase responsiveness to community members' needs, providing a crucial complement to the increase in service utilization achieved through Care Group volunteers' interaction with households.

Care Groups reflect communal values, provide encouragement and social support to the volunteers, and permit the extensive development of highly effective traditional educational methodologies (songs, drama, etc.). Training numerous volunteers in each village provides a critical mass to achieve and sustain behavior change through community-wide shifts in norms, manageable volunteer loads, supportive supervision, group solidarity, and high frequency of volunteer contacts. The larger number of volunteers also enables household-level mortality reporting and disease surveillance, which is valued by health officials but impossible to achieve without regular household-level contact. While initial Care Group mobilization and training is intensive, once the network is in place and linked to the health system, gains can be sustained with minimal maintenance.

WR CSPs using the CG Model have successfully mobilized volunteers in a wide variety of settings (Mozambique, Malawi, Cambodia, and Rwanda). Strong social support from community leaders and program staff results in high rates of volunteer retention. In the 2001-2006 Rwanda CSP, volunteer attrition was less than 6% over five years. Evidence from similar projects in Mozambique showed high levels of sustained volunteer activity even 20 months after CSHGP funding ended.

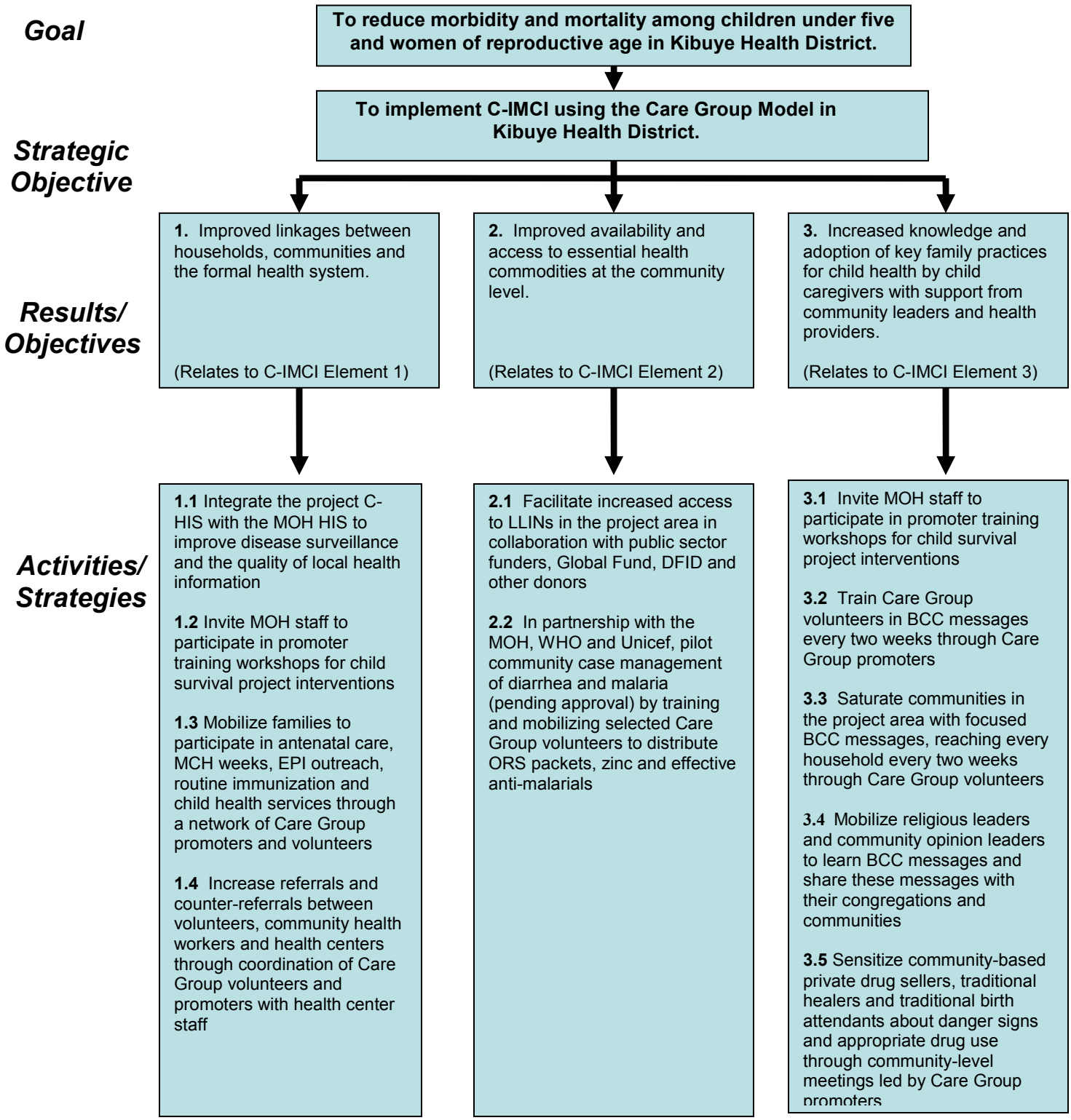
WR Experience: Using Care Groups to Implement C-IMCI

With support from the CORE Group, WR recently completed an internal review of experiences with implementation of the C-IMCI framework using the Care Group Model in three countries: Malawi, Mozambique, and Rwanda. Findings from this analysis inform aspects of the current program in Burundi as noted below. In addition to the Care Group Model, the current program in Kibuye Health District (KHD) draws inspiration from the success of World Relief's 2001-2006 CSP in the former Kibogora District in Rwanda and WR's current involvement in the Rwanda Expanded Impact Child Survival Program, particularly with regard to the introduction of home-based management of fever (HBMF), integrated community-case management (CCM), and partnership development between health center personnel and program staff.

The proposed MOH implementation strategy for C-IMCI relies on training approximately one CHW per 300 households. WR will work closely with local health authorities to implement a more concerted approach to C-IMCI in KHS, demonstrating the impact of training far larger

numbers of volunteers (approximately one Care Group volunteer per 10 households) to provide intensive health education and mobilize communities, enabling local ownership of C-IMCI activities and project objectives.

6.2 World Relief Burundi Child Survival Project Results Framework



6.3 Results Framework

IR1. Improved linkages between households, communities and the formal health system. (Relates to C-IMCI Element 1)

Intermediate Result 1 of the project's results framework is consistent with C-IMCI Element #1. Improved linkages between communities and the health system are necessary to increase service utilization and to promote health system responsiveness to conditions, needs, and priorities at the community-level. In this context, "linkages" are operationalized as various forms of communication. Thus, building trusting relationships, creating opportunities for dialogue, and increasing the flow of health information between communities and facilities are essential strategies to improve linkages. These themes appear throughout the four strategies that contribute to IR1.

Key relationships that contribute to IR1 include:

- Pairing 2-3 promoters with each health center, which enables frequent communication between health facilities and households, through the Care Group network
- Involving promoters in various forms of health center management committees (COSAs and COGES), which dramatically increases the flow of information between communities and their representatives and opens up new channels for collaboration and accountability.
- Pairing one project supervisor/coordinator with each commune-level health promotion supervisor (TPS).
- Partnership development between senior project staff and the DHMT through quarterly planning and coordination meetings.

Strategy 1.1: Integrate the project C-HIS with the MOH HIS to improve disease surveillance and the quality of local health information

Burundi will soon transition to a decentralized system of health districts. As the district's autonomy for planning and resource allocation increases, the CSP will strengthen local decision-making capacity by collecting, sharing, and encouraging the use of local health information for planning. The project will supply critical community health data to the district and health facilities through the following project information systems:

Community Health Information System (C-HIS): Care Groups provide the structure for a C-HIS to monitor vital events in the project area. Volunteers collect information on births, deaths (U5 and maternal), new pregnancies, and a small number of easily recognizable, vaccine-preventable diseases. Volunteers report this information *verbally* to the Care Group leader during each Care Group meeting. The small number of households per volunteer combined with the infrequency of vital events means that even illiterate volunteers can remember the data and report accurately. The literate CG leader records the information, sharing summary data including age at death and associated signs and symptoms with project staff. Promoters follow-up with any volunteers who may be absent to ensure comprehensive reporting. The data are discussed within the Care Group, where conversation focuses on problems that emerge within individual households as well as the community. Data are then aggregated and discussed at the facility, commune, and district levels to help all parties identify and address problems, overcome

barriers and measure progress. Aggregated findings are presented to local leaders, commune-level health promotion technicians, and district health authorities. Community involvement in the health information system is a catalyst for community-led action.

As distribution of LLINs and later HBMF are introduced, the C-HIS will expand to include information from community-based providers' case registries, referral books, etc. to track all community-level case management and commodities distributed. The project will coordinate with health facilities in the district to establish standardize case management indicators and aggregation of data at the facility and district levels, enabling analysis of trends in community-based and facility-based treatment data.

Project Health Information System (HIS): The project's overall monitoring system includes the C-HIS as well as household surveys at baseline, midterm, and final; continuous tracking of program inputs and activities documented using supervision forms and activity logs; mixed-methods midterm and final evaluations led by external consultants; and special assessments. All one-off assessment or evaluation activities and most routine monitoring activities will encourage participation of local partners in design, data collection, analysis, interpretation, and action planning. Dissemination to provincial and national authorities will be a joint endeavor of the project staff and the DHMT.

Across the board, information systems will adhere to the highest possible quality of indicator construction according to international standard definitions. Data will be aggregated and discussed at each level of the system: the Care Group, health center, commune, project office, and district (at quarterly coordination meetings). Hand tabulation using reporting templates will be used from Care Group to promoter, promoter to health center, health center to commune, and commune to project office. The project's main office will compile a computerized database of all C-HIS data as well as process information on program activities, training, supervision etc. The WR HQ technical unit will provide technical support to the field to build the necessary databases and train staff to use the databases for data entry, management, and analysis. Measures of data quality will be built into the information system, e.g. so that all numerators can be related to a denominator that conveys the number of units reporting on any given indicator for a specific period of time. Sustainability will be achieved by ensuring that data is reported through health centers, up to district level – this activity will be facilitated by promoters and supervisors/coordinators and institutionalized over time.

Coordination with partners is essential in order to develop information systems that are understood, valued, and can be sustained by local actors. Promoters will work closely with health center staff, supervisors with commune-level TPS, and senior project staff with district health officials to manage, analyze, and interpret data from the C-HIS and other sources of project information. In addition, the project will choose indicators and set up data systems in order that they be are maximally compatible with community-level performance contracting implemented by HN-TPO.

Strategy 1.2: Invite MOH staff to participate in promoter training workshops for child survival project interventions

Technical interventions will be phased in across one or more quarters. At the beginning of each new intervention cycle, training camps will be held for promoters. Training will be conducted by supervisors and the project's senior staff. Training activities will include a mix of participatory theater, role-playing, discussion, and viewing of UNICEF instructional videos on counseling caregivers.

Health center staff will be invited to participate as co-facilitators with project staff, depending on their availability and staffing considerations at individual health centers. Involving HC staff ensures that they understand the scope and purpose of the CSP's activities and is an important first step in relationship building for coordination and cooperative planning. Intervention training camps are also a time to build camaraderie. Training will include team building exercises involving promoters and health center personnel as small teams affiliated with a given health center.

Although HC staff will participate as co-facilitators out of respect for current professional status, it is anticipated that some of the technical content and most of the community mobilization content will be new to health personnel, who often lack formal training or experience in behavior change communication, key family practices for child health, community mobilization, and/or individual counseling. By involving HC staff as co-facilitators, they retain their professional status while reviewing technical content and building new skills for effective community health promotion. For example, both promoters and HC staff will benefit from training and skills-building for patient and caregiver education and counseling.

In addition to training camps at the beginning of each intervention, supervisors will hold bimonthly meetings with promoters for in-service training, to build problem-solving capacity through discussion of implementation challenges and successful solutions; and to discuss findings from the C-HIS and monitoring surveys. Health promotion technicians (TPS) and HC staff will be encouraged to participate regularly in these commune-level meetings, in order to (1) build leadership and supervision capacity of TPS; (2) to establish expectations and sustainable mechanisms for coordination of community-level health promotion and facility-level health services; and (3) to build the capacity of TPS and HC staff for evidence-based decision making using local data. TPS Supervisors will meet monthly to coordinate work plans and intervention schedules with the HC staff and health promotion technicians.

Strategy 1.3: Mobilize families to participate in antenatal care, MCH weeks, EPI outreach, routine immunization and child health services through a network of Care Group promoters and volunteers

Care Group volunteers will mobilize families to use preventive clinical services at facilities and outreach sites. Volunteers offer individualized, timely reminders to families regarding the need to seek specific services. Volunteers identify expectant mothers early during their pregnancies and encourage a range of important behaviors and service utilization (e.g. increased nutritional intake, IFA supplementation if available, ITN use, TT immunization, etc.). IPTp with SP is not

approved in Burundi; if this intervention becomes available, volunteers will mobilize women to attend ANC and ensure they receive at least two appropriately-timed doses of SP.

Care Group volunteers also closely follow newborns through their first year of life and encourage mothers to take young children to health centers for **routine immunization services** and **well child visits**. Care Group volunteers carefully follow the progress of all children in their 10 household group and encourage mothers to ensure they receive immunizations on schedule and are fully immunized by the child's first birthday.

An important aspect of C-IMCI Element #1 involves **outreach services** that periodically bring services closer to community members. This element has two critical dimensions: the *provision* of high quality outreach services and mobilization of community members to increase *utilization* of outreach services. The project will address both dimensions in the following ways:

a. **Increase provision of outreach services:** When resources or staff time are stretched thin, outreach is often among the first health center activities to fall by the wayside. In Burundi, national directives to conduct outreach through MCH Weeks have sometimes simply ceased for a year or more due to shortages of Vitamin A and ITNs. Working side by side with health center staff, promoters will ensure that outreach happens at regular, predictable intervals in appropriate locations. Outreach will include **EPI** and **Vitamin A** as available. Promoters will help HC staff to plan and carry out outreach sessions that are maximally compatible with caregivers' agricultural and household schedules and are offered in safe, neutral spaces. Where communities may have built up distrust of HC staff, promoters and Care Group volunteers will participate in outreach sessions in order to encourage a supportive, trusting atmosphere. Each pair or trio of promoters associated with a health center will share a motorbike; where necessary, promoters will physically facilitate the provision of outreach services by ferrying HC workers to outreach sites on project motor bikes, using their routine fuel allowance. Promoters will also help HC staff track outreach activities and report these to district authorities as needed; in light of HN-TPO's performance contracting, increased provision of outreach services may actually bring financial benefits to the health centers. These tangible collaborative activities strengthen health center relationships with promoters and mobilize HC staff support for other kinds of promoter-led activities, such as BCC, that have longer-term benefits.

b. **Increase utilization of outreach services:** CG volunteers mobilize families to participate in quarterly EPI outreach sessions and biannual MCH weeks where Vitamin A (and other appropriate commodities, as available) will be distributed. Promoters will use the Care Group network like a giant "phone tree" to disseminate information about upcoming outreach sessions in specific communities. Care Group volunteers will educate families about the need for the particular services to be provided, establishing motivation to seek care as well as appropriate expectations as to what will be available through the outreach event.

It is hoped that a new GAVI-funded initiative will strengthen EPI outreach and routine immunization in Burundi now and into the next three years. GAVI's first round of CSO proposals included a substantial sum for Burundi and the MOH plans to use GAVI-HSS funds for facility IMCI training for health center personnel in four focal provinces: Gitega, Bururi,

Mwaro, and Kayanza. WR will coordinate with the MOH to ensure resources for Gitega Province reach Kibuye Health District and are used as intended for training and supervision of facility IMCI. It is hoped that these activities will improve the actual and perceived quality of care at health centers, concurrent with the Care Group volunteers efforts to mobilize caregivers to utilize preventive and curative services for child health.

Strategy 1.4: Increase referrals and counter-referrals between volunteers, community health workers and health centers through coordination of Care Group volunteers and promoters with health center staff

Referrals are a form of communication that relies on (a) building trusting relationships and (b) establishing and making known channels for communication between key actors. Throughout the course of making home visits in their 10 household block, Care Group volunteers will make verbal referrals for services. Counter-referrals are uncommon on an individual basis, but promoters and COSAs can act as conduits for communication between HC staff and Care Group volunteers. They might, for example, pass along data from the health facility showing that utilization of key preventive or treatment services is increasing over time, which can demonstrate to CG volunteers that their mobilization to seek care is working. This kind of cumulative feedback can serve as powerful motivation to Care Group volunteers for household level promotion to increase service utilization.

As CHWs are introduced and/or some CG volunteers are selected to receive additional training in HBMF/CCM, referrals for treatment will be formalized using referral and counter-referral slips for severe cases or illnesses that CHWs are not equipped to treat. The information management system for CCM will be discussed in greater detail in IR 4.3. This system provides for more detailed tracking of individual families' adherence to referrals; and counter-referral helps the CHW to improve his or her own decision making about referral over time. Tracking adherence to referrals over time enables project and HC staff to note and further investigate barriers to referral care.

IR 2. Improved availability and access to essential health commodities at the community level (Relates to C-IMCI Element 2)

Low utilization of services is often a reflection of lack of access to services. Barriers may be geographic, financial, or social in nature. IR2 reflects the intent of C-IMCI Element #2, which focuses on increasing access through provision of community-based services. This element encompasses both preventive and curative interventions, emphasizing distribution or service provision mechanisms that include health-related commodities, ranging from ITNs and ORS to antimalarials and zinc. Community-based service provision, whether for preventive or curative interventions, addresses all obstacles. Geographic barriers are addressed by bringing services and commodities closer to households. Financial barriers are addressed by distributing subsidized or free commodities, providing free or highly subsidized curative consultations (for treatment or referral), eliminating transport costs, and reducing opportunity costs associated with seeking care at static health facilities Social barriers are addressed through the provision of services by community health workers elected by the neighbors they serve.

CSP staff will work with community health workers (CHWs), local administrators and community leaders, religious leaders, traditional healers, TBAs and private drug sellers to improve access to appropriate care at the community level and timely referrals to health facilities. The MOH C-IMCI strategy includes plans to train and deploy **volunteer CHWs**, with responsibility for an estimated 300 households per CHW. WR has successfully coordinated and collaborated with similar CHW programs in Malawi, Mozambique and Rwanda; past relationships have included pairing CHWs with Care Groups, sharing C-HIS data, and training CHWs in curative roles to complement Care Group volunteers' prevention and care-seeking messages. WR will actively participate in planning for the eventual roll out of the CHW program in Gitega Province. The specific coordination mechanisms for the CSP in Kibuye sector will be determined when the districts' plans for actually training and deploying CHWs begin to be realized.

Throughout community-based distribution of treatment and preventive commodities, quality of care is assured through careful training and supervision of community-based distributors who are responsible for preventive commodities and/or treatment. All community-based treatment will follow evidence-based clinical algorithms developed by the WHO, based on facility IMCI treatment guidelines, and refined in consultation with national and district-level representatives of the Burundi MOH. Children with IMCI danger signs and/or other manifestations of severe illness are assessed locally and referred for clinical care; in addition to general health education about care-seeking for sick children, families receive timely reinforcement of care-seeking messages from Care Group volunteers, formal referrals by CHWs, and support for care-seeking through the CG network.

Strategy 2.1: Facilitate increased access to LLINs in the project area in collaboration with public sector partners, Global Fund, DFID and other donors

For several years, Burundi has experienced a critical shortage of ITNs of any kind, and LLINs have been entirely unavailable in the country until very recently. Having failed in a bid for malaria funding in Round Six of the Global Fund proposal cycle, Burundi relies on rolling continuation funds supplied by the Global Fund as a follow-on to Round Two malaria funding. For the next four to fie years, this commitment will include 1.5 million LLINs to be purchased using Global Fund monies. In addition, DFID has committed to purchasing another 850,000 LLINs; these should become available as early as September 2008.

While clearly unable to solve the longer-term issues related to purchasing and procuring LLINS, WR is committed to ensuring that LLINs are available, equitably distributed, and consistently used throughout the project area. The project's LLIN strategy thus has four phases:

1. **Develop partnerships** at the national and provincial level to ensure that LLINs are delivered to health facilities in Kibuye Health District; coordinate with KHD, HN-TPO, local authorities, and health center staff to develop detailed plan for distribution to pregnant women and families with children under five years of age; could include modifying Road to Health card or developing a stamp to indicate receipt of LLIN through a campaign.

2. **Distribute LLINs** through Care Group networks, MCH Weeks and/or EPI outreach, sponsored together with health centers, to "catch-up" and achieve high levels of LLIN ownership. Incorporate appropriate indicators into the C-HIS data collected by Care Group volunteers to track LLIN ownership.
3. Collaborate with district MOH and health center personnel to **establish mechanisms for "keep-up"** based on delivery of nets through routine service channels, including antenatal care, immunization days, and IMCI consultations.
4. **Train Care Group volunteers to assist caregivers** in the correct and consistent **use of LLINs** to substantially reduce the risk of malaria transmission to children under five and pregnant women. Universal distribution campaigns have recently come under scrutiny for achieving high levels of LLIN ownership, while levels of utilization typically remain much lower. The CSP will ensure that Care Group volunteers develop practical skills for hanging nets in a variety of different housing conditions. Volunteers will help individual households hang nets while reinforcing utilization messages. Volunteers will also follow-up with new mothers to ensure newborns are protected. The project will **measure ownership, correct installation, and self-reported use of LLINs** through performance monitoring surveys as well as midterm and final household KPC surveys.
5. **Advocate for sustainable supply of ITNs** to program area by participating in any CSO proposals that may be submitted with Burundi's Round Nine proposal to the Global Fund.

Strategy 2.2: Pilot community case management for diarrhea and malaria (pending approval) in partnership with the MOH, WHO and UNICEF by training and mobilizing selected Care Group volunteers to distribute ORS, zinc, and effective anti-malarials

WHO's Burundi office is actively seeking to add home-based management of malaria and zinc for treatment of diarrhea in children to national treatment guidelines and expects these changes to be achieved in the next two years. Despite Rwanda's recent scale-up of HBM following a successful pilot in a similar setting, WHO senior malaria advisor in Burundi, Dr. Alain Toe, expressed his conviction that an NGO-led HBM pilot in Burundi would be needed to generate momentum required to achieve the desired policy change. WR has the strong support of WHO to pilot these initiatives in Kibuye Health District in partnership with local MOH entities.

The introduction of CCM activities requires advocacy for policy space, detailed collaborative planning across health system functions (e.g. training, supervision, pharmaceuticals, clinical care, referral systems, and M&E, etc.), careful implementation, and close monitoring of program activities. The project will draw on recommendations from *CCM Essentials*, which is currently available to field staff in draft form and will be published in late 2008.

The project will take the following steps to introduce CCM for malaria and diarrhea in Kibuye Health District:

Preparation and Planning

Step 1. Situation assessment to determine current level of access and utilization of appropriate treatment with first line antimalarial for fever in children under five. Documentation of malaria and diarrhea-related mortality and morbidity, using local MOH routine HIS and the project's C-HIS.

Step 2. Advocacy for CCM strategy, focusing on the MOH at multiple levels with the objective of obtaining permission to pilot the strategy in partnership with the MOH; advocacy for CCM financing, focusing on MOH, Central Medical Stores, Global Fund, and other donors.

Step 3. Program planning through partnership development and stakeholder consultation across all levels of MOH and donor technical advisors in Burundi.

Implementation

Step 4. Develop and pre-test treatment algorithms, job aids and data collection forms, adapting and refining materials developed by WHO, BASICS, and others.

Step 5. Establish drug procurement and packaging mechanisms through the Central Medical Stores; if possible, develop and pre-test packaging for CCM medicines in age-appropriate doses.

Step 6. Establish referral systems and orient health facility personnel to CCM program, CHW roles, and associated recording forms for monitoring referral adherence.

Step 7. Design and launch database to capture supervision and monitoring information collected through CCM system.

Step 8. Train community-based providers to assess, classify, treat and refer the project's target conditions (malaria and diarrheal disease in children under five years of age): Identify and train selected Care Group volunteers or other individuals identified in collaboration with MOH to serve as CCM providers (here referred to as CHWs).

Step 9. Implement supportive supervision of CHWs to assure high quality care is provided, and to motivate and encourage CHWs in their work.

Monitoring and Evaluation

Step 10. Ensure integration of C-HIS for CCM with MOH HIS for cases managed at facilities to develop comprehensive picture of service utilization and access to treatment in the project area.

Step 11. Assess achievements and challenges of pilot phase in KHD.

Step 12. Disseminate results to stakeholders; discuss findings, fine-tune program, and develop advocacy strategy for expansion.

Expand Scale and Scope of CCM Effort

Step 13. Having demonstrated feasibility of CCM strategy and concomitant increase in total number of cases of malaria and diarrhea treated, promote integration of CCM into national treatment guidelines and expansion of pilot program beyond KHD.

Step 14. Continue to monitor and evaluate operations at pilot site;

IR3. Increased knowledge and adoption of key family practices for child health by child caregivers with support from community leaders and health providers (Relates to C-IMCI Element 3)

The Care Group Model is a demonstrated and effective vehicle for implementation of a comprehensive **behavior change communication (BCC)** strategy. Project activities across the C-IMCI framework were carefully selected to best enable, complement, and reinforce key family practices and leverage the role of mothers as the primary producers of child and family health. BCC will focus on the evidence-based **key family practices for child health** that have been developed by UNICEF (with additional practices defined by the Burundi MOH), with particular emphasis on those practices related to the four technical intervention areas: nutrition, control of diarrheal disease, malaria prevention and case management, and immunization. These technical areas are consistent with MOH priorities for BCC and respond to felt needs identified through focus groups with mothers in the project area. The project will use multiple communicators, channels, and methods to reinforce BCC messages, namely:

***Communicators*:** during the course of the project, volunteers, health center staff, clergy and other community opinion leaders, traditional leaders, and COSA members will be trained to deliver the same essential messages consistent with C-IMCI protocols.

***Venue and repetition*:** people receive messages through multiple delivery channels: at home, church, village meetings, and celebrations.

***Method*:** multiple communication strategies will be used with caregivers to ensure they receive the most essential messages through interaction with community members, songs, drama, role play, dances, clinical consultations, religious gatherings, and community discussions.

Program strategies to achieve increased knowledge and adoption of the key family practices are described in the following paragraphs.

Strategy 3.1: Invite MOH staff to participate in promoter training workshops for child survival project interventions

As described in Strategy 1.2, encouraging HC staff to participate in promoter training is a critical capacity building strategy. With respect to the key family practices for child health, HC staff participation in these training modules ensures that they have up-to-date technical messages and appropriate counseling skills to share these messages effectively during consultations. Prevention messages will be shared and reinforced during well-child visits and at EPI outreach sites. Messages pertaining to appropriate home care during child illness will be shared and reinforced during IMCI consultations with sick children and their caregivers. Care Group volunteers' credibility is enhanced and overall program impact increases when volunteers and HC staff share consistent messages related to key family practices for child health.

Strategy 3.2: Train Care Group volunteers in BCC messages every two weeks through Care Group promoters

During biweekly Care Group meetings held in their communities, volunteers are trained in prevention, care seeking, and home management of childhood illness using culturally appropriate, participatory adult education techniques such as dialogue, story, song, drama and pictures. Training emphasizes technical behavior change messages as well as problem-solving skills to address a wide variety of barriers to behavior change due to a given household's physical or social environment. The volunteers use role plays to practice how they will accurately convey the information they learn with their neighbors. Volunteers are also empowered to help families solve problems or overcome obstacles to adopting key family practices for child health. For example, volunteers learn to prepare and administer ORS, to hang an ITN in a variety of housing and bed configurations, to set up hand washing stations using locally available materials and minimizing water consumption, among other skills. Volunteers learn counseling skills and problem-solving strategies to increase the self-efficacy of caregivers and families.

The curriculum for volunteer training will be developed by the senior project staff in consultation with CSP managers in other countries where WR has implemented programs using the Care Group Model. As interventions are phased in, CG volunteers will be trained to use simple job aids for BCC, which typically consist of laminated color drawings of caregivers practicing key behaviors or short story-boards illustrating care-seeking narratives with positive and negative outcomes. An example from Mozambique is in Annex E. Project staff will conduct formative research to develop locally appropriate messages related to the key family practices; the same research process will inform the development of job aids for household-level health education.

Strategy 3.3: Saturate communities in the project area with focused BCC messages, reaching every household every two weeks through Care Group volunteers

Care Group volunteers visit their assigned households every two weeks to share new health information, reinforce previous lessons, inquire about children's and mother's health, encourage care-seeking if children are sick, help mothers practice new or challenging behaviors, and provide individualized assistance to solve problems (such as hanging an ITN). Promoters

periodically supervise individual household visits to assess the quality of education and counseling provided and identify individual volunteers' strengths and weaknesses. Supervision down to the household level enables staff to provide timely refreshers and reinforce skills during bimonthly Care Group meetings.

The program will introduce new technical interventions (e.g., control of diarrheal disease, malaria prevention and case management, etc.) in phases. Individual messages related to technical intervention will be introduced slowly over several months of Care Group meetings in order to maximize retention and allow time for interactive discussions and problem solving. For example, when the CDD intervention is introduced, one meeting might focus on hand washing, another on safe disposal of children's stools, a third meeting on ORS, etc. At each meeting, volunteers also review existing knowledge and build counseling and problem-solving skills. During home visits, Care Group volunteers share the new message and reinforce previous messages, slowly building up a knowledge base, range of new skills and the problem solving strategies needed to implement the desired behaviors. Periodically, the Care Group may collect data on the intervention area from their households; these kinds of mini-assessments encourage investigation and problem solving skills as well as help the group to understand health information and practices within the practical context of their community.

Because of their geographic and social proximity, and the low ratio of households to volunteers, Care Group members are able to provide individualized, timely, and consistent support to new mothers or others attempting to adopt complex or challenging behaviors. Volunteers notice when children are sick and can make home visits to encourage care-seeking and to support appropriate home care for the sick child, such as offering increased fluids, continued feeding during illness, and catch-up feeding for two weeks after illness to break the cycle of malnutrition and infection.

Care Group volunteers are trained to use **job aids** for household level health education and behavior change counseling. Each volunteer is provided with a set of laminated pages that can be used to illustrate messages during household visits and in community meetings. Messages about normative behaviors will be based on UNICEF's 16 key family practices for child health. Program staff will conduct **formative research** to refine messages and materials so they are optimally suited to Kibuye's cultural, economic, and geographic context. Volunteer training materials and job aids for teaching and counseling families will be developed and produced locally, based on the formative research findings and on BCC materials previously developed by UNCIEF Burundi. The CSP leadership staff will participate in health promotion planning meetings at the national, provincial, and district level, and facilitate the exchange of ideas and experience between partner organizations active in the project area.

Message saturation is only one dimension. In order to achieve behavior change in individual households, consistent messaging through multiple channels and community-wide shifts in norms related to child health and development are needed. The volunteers themselves become role models and change agents in their communities. Through regular supportive contact with other Care Group members during bimonthly meetings, they receive encouragement and reinforcement regarding their important role as the vanguard of new norms and behaviors in their communities.

Strategy 3.4: Mobilize religious leaders and community opinion leaders to learn BCC messages and share these messages with their congregations and communities

Engaging **local administrators and community leaders** offers additional opportunities to reinforce key messages and increase volunteers' status and credibility with families, particularly among men. Chiefs of *nyumba kumi* (10 household clusters), *sub-collines*, *collines (*literally *"*hills*")*, and communes will be reached through meetings with COSAs, of which many local leaders are members, and in monthly meetings that promoters will hold with local development committees at the *colline* and commune levels. Local leaders will be encouraged to invite promoters and volunteers to speak at community gatherings, as well as share CS intervention messages themselves.

Religious leaders and other community opinion leaders will be oriented to the CG volunteers' roles and encouraged to support volunteers by validating their activities and lending credibility to the volunteers and their messages. **Religious leaders** also influence community beliefs and practices and are often called to pray for sick children. BCC messages will be reinforced through faith communities via the training of religious leaders in all intervention messages. Religious leaders will be organized into *Pastoral Care Groups* and will meet monthly with promoters. Clergy will communicate these messages to their congregations. Key informant interviews with Catholic and Protestant clergy affirmed their willingness to engage with project staff and community members to improve child health.

Religious institutions in Burundi are strongly hierarchical; some clergy in the project area have expressed a need for approval and support from their national leadership structures regarding their potential involvement in the CSP. WR's country office has strong relationships with the Free Methodist Church of Burundi (FMC) and the Fraternite Evangelique du Christ en Afrique au Burundi (FECABU). Staff in WR's country office will further develop existing relationships with provincial and national leaders of key denominations in order to facilitate active participation of local clergy in the CSP. Although WR's connections are stronger with Protestant denominations, the social development director of the Catholic diocese in Gitega was very receptive to the project in a visit during proposal writing. Health program staff will cultivate relationships with the social development office of the diocese in order to facilitate coordination of health-related activities in Kibuye Health District.

Strategy 3.5: Sensitize community-based private drug sellers, traditional healers and traditional birth attendants about danger signs and appropriate drug use through community-level meetings led by Care Group promoters

Private drug sellers and traditional healers are readily accessible and often consulted, despite harmful or ineffective practices and prescriptions. Traditional providers will be reached through small community-level meetings to introduce key messages about IMCI danger signs and encourage referrals to health facilities. Recognizing the important social roles played by traditional healers and TBAs in communities, the program will not attempt to re-socialize or retrain these individuals as formal CHWs. Field staff at other WR CSP sites feel strongly that a concerted effort to retrain traditional providers as CHWs is neither necessary nor desirable, as this approach risks enhancing their credibility in the community and may inadvertently give an

impression that the project is supportive of harmful practices which the CSP intends to discourage. Instead, the program emphasizes minimizing morbidity and mortality through (a) strengthening referrals to health facilities; (b) making services at facilities more attractive and easier to access; (c) training and supervising CHWs to provide treatment for key causes of child mortality closer to home (in the community); and (d) sensitizing families to reduce adoption of potentially harmful treatments or practices (including administering antidiarrheals or antibiotics for non-bloody diarrhea). Thus, this program component will focus equally, if not more so, on prospective *consumers* of traditional and biomedical services, rather than simply reaching out to *providers* of traditional and unregulated private sector services.

Program activities to address utilization of informal and traditional sector health services will begin with formative research to better understand the specific illnesses and conditions for which people seek care from various categories of providers. BCC messages will be developed, pre-tested, and introduced through the Care Group network and supporting channels for health education information.

Families will be taught to recognize IMCI danger signs for immediate referral and to seek care at a health facility or consult a Care Group volunteer for assistance, who will then accompany to the health center or otherwise facilitate the family to seek care from a trained provider. With this ongoing awareness of health and illness, volunteers can provide focused BCC messaging to reinforce messages about care-seeking and appropriate home care for the sick child. Volunteers encourage care-seeking and make informal referrals to health facilities for children with any IMCI danger signs and other serious conditions. Volunteers sometimes accompany mothers to health facilities or provide support (e.g. ensuring that the woman's other children are supervised and fed, etc.) that enables a mother to seek care. After families have been seen at a health facility, volunteers make follow-up visits to households to provide support for home care behaviors. As CCM is introduced, formal introduction of CHWs to their communities (with detailed guidance as to the type of care they are authorized to provide) will facilitate increased utilization of these services. Deliberate prospective management of CCM providers through community ceremonies and detailed explanations of community and CHW responsibilities have been critical to the success of WR's work with *socorristas* in Mozambique.

Health workers will also be sensitized to accept referrals from traditional providers; messages will emphasize openness toward receiving referrals from traditional healers so as to facilitate cooperation and ensure prompt, high-quality care for sick children.

6.4 Description of how the program will address issues of quality, access, equity and sustainability at all levels

At the **community and household levels**, **quality** of Care Group implementation (results framework activities 1.3, 1.4, 3.2, 3.3, 3.4) will be ensured through extensive training and continual supervision and support of promoters (by supervisors) and Care Group volunteers (by promoters). Review of intervention messages, practice teaching, and trouble shooting are part of each Care Group meeting. At the beginning of the project, strong volunteers will be paired with weaker volunteers to improve their skills. Spot checks will be conducted for the direct observation of intervention message delivery and adult participatory teaching techniques at Care

Group meetings and in households. Midterm and final evaluations will provide an overall indication of program performance through the use of both quantitative and qualitative data. Biannual monitoring surveys using LQAS methodology will measure improvements in health knowledge and behavior for each promoter's catchment area. The project leadership team and supervisors will be responsive to the results of these monitoring assessments, by providing extra assistance and supervisory visits to promoters in areas with weaker results (see section 4b). This routine data collection also enables project staff to respond to problems in a timely manner, or to adjust strategy, if the expected results are not being realized.

Quality of staff performance will be evaluated through various methods of testing including individual and peer assessments of knowledge and performance. **Promoters** will be evaluated with a standardized performance measure tool and ranked on a scale of 1 to 5 based on the following criteria: knowledge, personal example, training skills, volunteer performance and LQAS results. **Volunteers** will be verbally tested on knowledge. Each care group is expected to achieve an aggregate score of at least 70%; care groups that fail to achieve this score will be retrained and retested. Strong volunteers will be paired with weak volunteers during home visits until they gain confidence (see section 4b).

Senior project leadership and supervisors will meet monthly to discuss results and challenges. These meetings are opportunities for quality improvement as staff identify and define problems, establish desired outcomes and plan steps to achieve them. Supervisors will attend MOH staff meetings in their commune to coordinate local activities and share feedback on results. At the project level, the Project Manager, Training Officer and M&E Officer will participate in district and provincial health meetings to report on project results and engender MOH support for joint activities. The project will also bring together senior managers from local partners (MOH, HN-TPO, and FMC-Kibuye Hospital) for quarterly review and planning meetings.

The project will draw on the expertise of WR's microfinance staff and lessons learned from WR's Rwanda CSP and the current Expanded Impact Program in Rwanda to ensure quality in establishing systems for the sale/free distribution of health commodities in the community (activity 2.1) and training in financial management. Based on WR's Rwanda experience, promoters will help Care Groups register as formal community associations, a process which contributes to the development of local civil society and further disseminates the concept of Care Groups in Burundi. Volunteers will provide health commodities such as soap, and pending availability, Sur'Eau and LLINs, as well as, pending approval, anti-malarials, ORS, and zinc, to the community (2.2). Volunteers will be trained in management of associations and basic accounting principles; small profit margins on the sale of selected products will accrue to the care group association, enabling group savings or investment in small livestock. The project will work closely with the MOH, Vestergaard Frandsen, Global Fund, or other public-private partnerships on supply chain issues to avoid stock outs and generally make essential health commodities more readily available at the community level (activity 2.1).

Upon the approval of Community Case Management of fever (presumed malaria) by the MOH, the project will partner with the MOH, WHO and UNICEF in training, protocol adherence and monitoring (activity 2.2). World Relief will work closely with the MOH and HealthNet TPO to ensure that distributor performance is appropriately monitored using tools adapted from World

Relief's experience monitoring HBM (home based management of malaria) in Rwanda (in partnership with Concern Worldwide and IRC.)

Checklists, supervision, collection, analysis and interpretation of data, and communication will be integrated in the process for ensuring quality of care. The CSP will facilitate the communication of explicit standards and expectations. Supervision of volunteers selected and trained to provide anti-malarials will include the review of registers and drug supplies, as well as follow-up with recent clients to assess quality of work and identify areas for improvement. A supervision checklist will be used for these purposes.

All volunteers performing CCM will be certified by a training team based on a standardized test demonstrating ability to identify very sick children requiring referral, to diagnose and classify, to provide correct medications (drug and dose), and to counsel the caregiver. Volunteer performance will be reviewed and discussed during regular meetings with Project and MOH staff. Problems regarding application of care guidelines, drug supply, and interpersonal communications will be identified early and addressed during these meetings.

Care Group promoters will hold small community-level meetings to sensitize informal providers (i.e. private drug sellers, traditional healers and traditional birth attendants) in danger signs for immediate referral to a health facility. The project will experiment with job aids to train pharmacists in rational drug use (correct prescription of malaria medication and avoidance of anti-diarrheals and antibiotics). TBAs will also be sensitized to the importance of services offered as part of ANC. Training in appropriate drug use will follow MOH protocols (activity 3.5). The MOH is reluctant to offer official recognition to TBAs or drug sellers. The program will be training mothers to attend health centers and the hospital, and from previous programs we have found that by educating clients, they turned away from traditional medicine on their own, especially when combined with improvements in health services and expansion of services via outreach clinics. Already, the hospital is held in high regard, and it is the treatment of choice. Many focus groups respondents mentioned that traditional medicine was not preferred, they didn't trust it, and it seemed to be only older people that "went into the forest" for these medicines, not the younger people. At the midterm, CSP staff will hold community meetings with these informal providers as needed.

HealthNet TPO is already addressing **provider performance and quality of care at health facilities** with a performance-based incentive program. They conducted baseline studies and will be monitoring quality of care at health facilities. World Relief is aware of the new health facility assessment tool under development by USAID and CSTS, though we will first confer with HealthNet TPO before using any facility assessment tools of our own, to avoid duplication of effort.

The CSP will strengthen the quality of district level health information and disease surveillance data by using the project's extensive Care Group network of volunteers to collect household level health information. The project staff will work together with MOH CHWs, promoters, COSAs and health facilities to insure that this information is fully integrated into the district health information system over the life of the project (activity 1.1), so that these information systems will remain intact after project completion (see section 3a). Burundi has been undergoing a process of decentralizing its health system over the past year. This decentralization will give the health districts increased responsibility for managing their own health information, but also

increased opportunity to act on local data and be responsive to local health needs. This CSP will strengthen local decision-making capacity by collecting, sharing, and using local health information for planning. The community-based Health Information System is a significant component of the CSP- by involving beneficiaries directly in collecting and acting upon information at the Care Group (community) level. The program will improve communication between health centers and villagers, help decision-makers in setting priorities for health services delivery. This complements HealthNet TPO's efforts to improve health worker performance, drug management, and quality of clinical care in Kibuye district.

Access and equity are hallmarks of the Care Group model. Every household, including the most vulnerable, will be reached with all the intervention messages. The project will conduct a census that will identify and register every household with a woman of reproductive age or a child under age five. Promoters and volunteers live in the areas where they work, which makes access to the communities easy.

In general, access to health facilities is good in Kibuye, as 67% of households are less than one hour away from a facility, while 13% of households have to travel more than two hours to reach a facility (HN-TPO). However, the residents of Buraza commune have the farthest to travel, as there are only two health centers in the commune of 45,000 people (HN-TPO).

Additional health centers are planned in Kibuye Health District and should be functional during the life of the project, for a total of 13 or 14 health centers. The project will assist Health Center staff with transportation for EPI and other outreach services, and through Care Group volunteers, will mobilize the community to increase participation in these services. Volunteers will be trained to sell/distribute soap, ORS packets (pending approval from the MOH), and, pending availability, Sur'Eau and LLINs, expanding access to these products at the community level. In addition, the project is advocating for the approval of community-distribution of anti-malarials and zinc, which Care Group volunteers could also provide (if MOH approves), improving access to treatment for malaria and diarrhea. In response to the nationwide shortage of LLINs, the project is in discussions with Vestergaard-Frandsen regarding the sale (or possibly free distribution to pregnant women and mothers of young children) of their PermaNets by Care Group volunteers, in an attempt to increase access to LLINs (See malaria section for more details).

With **sustainability** as an imperative focus, World Relief has honed the Care Group model for implementing CSPs, in order to rapidly achieve behavior changes of critical mass. One of the most impressive hallmarks of this strategy is not that it allows the CSP to meet behavior change targets during the life of the project, but rather that it encourages the benefits of the project to be sustained after the project has ended. In fact, every activity is held up against the two standards of effectiveness and sustainability—with the project staff focusing their vision not simply on the end of project targets, but the long term health status of women and children in Kibuye Health District. The initial formation of Care Groups, representing the mobilization of approximately 3,200 community based volunteers, is an intense effort that will be accomplished through significant inputs from World Relief; however, once the Care Groups are established in the communities and are integrated into the district health system, Kibuye Health District will be able to effectively sustain this model of community mobilization. As C-IMCI is rolled out as a

pilot in Gitega Province, this is a significant opportunity to demonstrate the effectiveness of the Care Group Model, so that this strategy may even be scaled-up to the provincial or national level in the future.

The staff hired and trained to work in the CSP come from the district and are likely to stay in Kibuye Health District after the program ends. The CSP will enhance sustainability by instilling the skills, buy-in and time requisite for the MOH in KHD to sustain its newfound relationship with the community and corresponding performance indicators negotiated with HN-TPO. The CSP has budgeted for appropriate MOH employees to participate in trainings with CSP staff (activities 1.2, 3.1); project staff will also involve the MOH in analysis of C-HIS data (activity 1.1) and will model the supportive relationship with volunteers essential for earning their trust and dedication. Regular meetings for coordination and capacity building are described in the management section (activities 1.2, 3.1).

By Year 5, the lead volunteer from each Care Group will be equipped to relay new information for dissemination to her own group. HC staff and/or TPS will be able to hold at least one meeting per month with these Care Group leaders. This ongoing supervision and coordination with health centers will enable Care Group volunteers to continue as resources for national campaigns, BCC for additional C-IMCI messages as future components are rolled out, and continued C-HIS data collection to be used in local planning. World Relief has documented experience in Mozambique of communities sustaining Care Group volunteer activity, CHW curative services and C-HIS data collection beyond project end; these sustained activities were in addition to sustained behavior change as measured in follow-up surveys. The sales activities of CG associations in the current project will allow WR to explore whether the continued sale of health-related products may be an effective mechanism for sustaining volunteer incentives beyond the life of the grant. In Rwanda, the government MOH was able to hire at least half of the promoters to continue working with their Care Groups after the end of the CSP.

6.5 Description of objectives, indicators, targets and activities by technical area

Malaria

Malaria Objectives and Project Targets:
1) Increase the percentage of children 0-23 months who slept under an LLIN or an ITN (treated within the past 6 months) the previous night from 8.0% to 50.0%.
2) Increase the percentage of women who slept under ITN during last pregnancy from 32.7% to 50.0%.
3) Increase the percentage of children 0-23 months with fever who receive appropriate antimalarial treatment within 24 hours from 17.1% to 60.0%.
4) Increase % of households with a child 0-23 months who own an LLIN from 3.0% to 50.0%.

Program staff and volunteers will: (1) share BCC messages on prevention and prompt care-seeking through home visits by CG volunteers; (2) develop a public-private partnership to increase access to Long Life Insecticide-treated nets (LLINs); and (3) train community-based distributors for Community Case Management (CCM) of fever (suspected malaria) pending approval from MOH.

BCC Messages
Volunteers will raise awareness about the importance of malaria **prevention.** The CSP will help market LLINs and volunteers will actively help families hang nets correctly and prioritize their nightly use by children U5 and pregnant women. Volunteers will also promote early ANC, particularly so that expectant mothers will receive iron supplementation early in their pregnancies. Attending ANC also provides the mothers another opportunity to obtain an LLIN (at a subsidized cost during ANC visits, when in stock). Due to concerns of SP resistance, IPTp has been discontinued in Burundi, but the CSP will join with WHO in advocacy to reinstate IPTp in areas where SP is still effective. If IPTp is reinstated, volunteers will promote it as another benefit of ANC.

Volunteers' BCC messages for **care-seeking** will include: recognition of C-IMCI danger signs (listed below); care-seeking from a trained provider within 24 hours of fever; follow-up/referral if child does not improve after treatment; and continued breastfeeding and/or age-appropriate complementary foods and home fluids during illness.

C-IMCI danger signs:
- Looks unwell or not playing normally
- Not eating, drinking, or breastfeeding
- Lethargic or difficult to wake
- High temperature
- Fast or difficult breathing
- Vomits everything
- Convulsions
- Gets worse despite home care
- Looks dehydrated (dry mouth or no tears)

During home visits, volunteers will follow-up with children and pregnant women who had fever, report any problems to their assigned promoter, and counsel caretakers to seek further care if severe disease develops. Promoters will sensitize community based health providers (i.e. drug sellers, traditional healers, and TBAs) to the importance of quickly referring children with fever, convulsions, and C-IMCI danger signs.

The project has begun conducting qualitative assessments as a basis for effective BCC messages. Malaria prevention and treatment are strongly felt needs in the community. Those interviewed frequently mentioned malaria as the most common and most severe childhood illness. Many participants stated that malaria is caused by mosquitoes, especially mosquitoes coming from stagnant water and banana groves during rainy season. Some participants also identified "lots of heat" and environmental un-cleanliness as causes of malaria. Local terms for "malaria" and "fever" mean the same thing, but "high temperature" and "fever" are seen as two completely different things. "High temperature" is considered a sickness, which could perhaps turn into fever/malaria.

Convulsions are seen as a spiritual problem, so traditional healers are often consulted before treatment at the health center is considered. There is a belief that the health center does not have

a cure for such a problem, since it is distinctly spiritual. More in-depth investigations of barriers to LLIN use and local beliefs, practices, and terms relating to illness recognition and care seeking are planned prior to phase-in, during curriculum development.

Local Terms

English	***Kirundi***
Malaria	Mararіya
Fever	Ubushuhe ("hotness")
High temperature	Ubushuhe bwinshi ("much hotness") or Umuriro mwinshi ("much fire")
Convulsions	Igisahuzi
Anti-malarial	Umuti wa mararіya
Mosquito net	Umusegetera
ITN	Umusegetera urimwo umuti (Supanet*)
LLIN	Mama Supanet**

*Supanets are white and are given for free (when available) to families with children under 5 during child immunization campaigns

**Mama Supanets are blue and are sold for 500 burundian francs at ANC checkups

Proposed Public-Private Partnership for LLINs

The MOH seeks a 25% reduction in malaria incidence by 2010, with long-lasting insecticide treated nets (LLINs) as the primary prevention strategy. The two main strategies for LLIN distribution (integration into routine services, and universal net distribution through the national measles campaigns) have not been fully implemented in recent years. Burundi did not receive funding for malaria during Global Fund Round 6 or 7. Due to the nationwide shortages, health centers have experienced periodic stock outs of nets to distribute. On a national level the MOH recognizes the need to acquire more nets.

The MOH is receptive to working with various organizations in order to get more nets into the country through a variety of mechanisms, some of which provide nets to beneficiaries for free or at varying subsidized costs. Successful with the Global Fund Round 2 award, Burundi has been given RCC (Rolling Continuation Channels) funds, and according to a VF contact, Global Fund will purchase up to 1.5 million nets for Burundi in the next 4-6 years, to be distributed for free in conjunction with immunization campaigns. In the mean time, DFID will be providing 850,000 LLINs to be used in an MOH pilot for net distribution. World Relief will pursue opportunities to engage the care group network for LLIN/ITN distribution if programs overlap geographically. Proposals are due for Global Fund Round 8 in June of 2008 and World Relief has been actively exploring possibilities for involvement with a Global Fund proposal in conjunction with other partners.

Nationally, ITN use is estimated at 22% for children U5 and 23% for pregnant women. [86] However, the baseline KPC survey found that in Kibuye, only 8% of children 0-23 months of age slept under an ITN the night before the study, and only 2.7% of the 8% had slept under long lasting insecticide treated nets. Overall, only 9.7% of households owned either an LLIN or an ITN that had been treated in the past six months. Although 32.7% of mothers reported using an

[86] PNDS 2005

ITN during their last pregnancy, this could be over-reported recall bias, particularly when it comes to consistent use.

According to HN-TPO's baseline assessment in Kibuye, 80% of women believe that sleeping under an ITN helps prevent malaria, but only 17% use one. [87] About 9% of women getting prenatal care received an ITN on their third ANC visit, which is late for prevention, and represents only a fraction of the 41% of women who present for a third ANC visit.[88] Qualitative research revealed that people believe mosquito nets are meant to help prevent malaria, though some questioned their effectiveness (saying mosquitoes still bite them, even with regular ITN use). The blue LLIN, Mama Supanet, was mentioned specifically in key informant interviews. Both UNICEF and PSI distribute ITNs (Olyset) and LLINs (PermaNet) via health centers; PSI brands them (white ITNs are called "Supanets," blue LLINs are called "Mama Supanet"), but they are the same nets. In addition to offering nets at health centers, PSI also distributes them through private sellers. UNICEF distributes the nets for free when children get BCG and measles immunizations; they also distribute them to mothers when they come for ANC at a deeply subsidized price.

Distributing nets from both UNICEF and PSI at health centers has created some confusion, as people are not used to paying for ITNs and think health centers are stealing money when requiring payment for PSI nets. In spite of this, and in light of the national shortages, the MOH is pleased that PSI is increasing the availability of low cost nets. Currently, Healthnet-TPO is tracking net ownership as a community health indicator, but is not actively involved with securing more LLINs for the area. This may be another area for explored partnership, since securing more nets for Kibuye Health District addresses project concerns of both Healthnet-TPO and the CSP.

The project will assess the frequency and duration of net stockouts in Kibuye Health District, and will pursue public private partnerships to address the issue. MOH is open to additional sources of low cost LLINs, even if the nets are not free, because they recognize that more LLINs are needed. The project will coordinate its plans for LLIN distribution/sale with the PSI program to avoid duplication of effort and ensure that LLINs are consistently available in the community.

WR and Vestergaard-Frandsen, manufacturer of PermaNet LLIN, are committed to exploring partnership opportunities in Burundi. The partnership would aim to overcome near-term LLIN shortages in the project area as well as to establish a mechanism for long-term marketing of PermaNet in Burundi. CSP staff will be working with VF to identify wholesale partners for import to Burundi and tap into the Care Group network in Kibuye Health District to bring subsidized LLIN sales to the community. As was done in the Rwanda CSP where CordAid subsidized Care Group ITN sales, each Care Group association would receive training in financial management and basic accounting to track sales. Care group associations would then sell nets to the general public at deeply subsidized prices.

One possible scenario to fund the net subsidy would be for VF to link the CSP to interested LLIN donors who lack distribution capacity. Under the May 2006 Presidential Directive, key

[87] HN-TPO 2006
[88] HN-TPO 2006

health services, including LLINs, are to be provided free for children U5 and pregnant women. The CSP could set up a referral system with health centers so that pregnant women or mothers of young children eligible for a free LLIN would receive a voucher to take to a nearby Care Group in exchange for the net. Care Groups would keep track of vouchers and receive a small incentive from the supplier equivalent to the small profit on sales. Incentives from sales would accrue to the care group association, not the individual volunteers, and further contribute to building civil society capacity by enabling associations to save, invest, or expand their activities as a group. Note that with the anticipated provision of free ITNs via Rolling Continuation Channels, not all of the strategies described here may be necessary to increase access to ITNs.

MOH Malaria Policy

Treatment guidelines for case management

-1st line treatment is Artesunate Amodiaquine (AS + AQ)

-2nd line treatment is Quinine.

Prevention

-Vector control programme combining IRS (indoor residual spraying) and ITN (insecticide treated nets), but no SP (IPTp)

The first line of combination AS+AQ treatment has been in effect since 2002 (since the large malaria epidemic occurred in the Burundian highlands between October 2000 and March 2001).

Community Case Management of Fever (CCM)

In Burundi, only 31% of children U5 with fever are treated with anti-malarials.[89] The baseline KPC survey (February, 2008) showed that only 19 of the 111 children 0-23 months with fever (17.1%) received an effective anti-malarial within a 24 hour period. Malaria represents 49% of cases at Kibuye health facilities, but even more cases stay home.[90] The WHO Burundi Malaria Control Officer stated that 80% of fevers never reach the health center. The traditional belief that malaria is caused by coldness and the availability of cheap treatments at local pharmacies probably influence the low rates of care seeking for fever.[91]

The project will continue to is engaging in dialogue with the MOH to advocate for their approval of Community Case Management (CCM) of Fever. If MOH approval is secured, the project will partner with the MOH, WHO, and UNICEF to increase timely treatment by introducing CCM in Kibuye. WHO would likely serve as a technical partner for this pilot program. The project would also work closely with the *Lutte Contre les maladies Tranmissible et Carantielles*, which is the Malaria/Iron Deficiency Department of the MOH.

WR, the IRC, and Concern Worldwide carried out a successful CCM pilot in Rwanda (2004-2006), training and mobilizing community-based distributors to increase access to effective anti-malarials. In WR's Rwanda CSP, distributors were locally elected from among care group volunteers and government trained health animators in the project area, and grouped into distributor associations for training, supervision, and financial management. CCM increases access to care by bringing effective anti-malarials to villages without health facilities.

[89] World Bank 2006

[90] HN-TPO 2006

[91] Focus Group Discussion, 12 October 2006; HN-TPO 2006

In Kibuye, Program staff will negotiate the selection of distributors with the health district, drawing from among literate care group volunteers and MOH-trained CHWs.

CSP promoters and HC staff will train distributors in small groups, closely affiliated with health centers for continued supply of drugs and regular monitoring and reporting (see Quality section, above). The CCM algorithm will be used for children 6-59 months with simple malaria. Infants 0-5 months, and older children with severe malaria, will be referred. Danger signs for referral are: convulsions; loss of consciousness; vomiting more than three times or vomiting everything; inability to drink, breastfeed or eat; tiredness; inability to stand; cough with rapid or difficult breathing; and severe anemia or pallor.

If the MOH approves this protocol, distributors will be equipped with the same first line drug of treatment--ACTs (Amodiaquine + Artesunuate) available at health centers. WR will work with the MOH to develop distinct blister packs for HBM drugs given to children 6-35 months and 36-59 months. Distributors will observe the first dose of medication. Trained volunteers will also follow up with sick children at home to ensure the second dose is given correctly, and to check for signs of treatment failure or complications. Distributors and volunteers will use this opportunity to reinforce good nutrition messages, including continued breastfeeding and/or fluids, frequent small feeds, and catch-up feeding for the two works after the illness. Following a review of the pilot phase, WR will work closely with MOH to test and refine the CCM curriculum to use with CHWs in other areas of the country. If this program is allowed to pilot Community Case Management of fever, results will make a substantial contribution to developing the local evidence base and the tools needed to take CCM to scale in Burundi.

Control of Diarrheal Diseases

Objectives and Project Targets:
(1) Increase the percentage of caregivers of children 0-23 months who wash hands with soap/ash after defecation and at one other appropriate time from 18.0% to 70.0%.
(2) Increase the percentage of children 0-23 months with diarrhea who received continued or increased feeding during illness from 63.4% to 80.0%.
(3) Increase the percentage of children 0-23 months with diarrhea who are offered increased fluids from 32.4% to 70.0%.
(4) Increase the percentage of children 0-23 months with diarrhea who receive ORT: ORS or recommended home fluids from 43.7% to 70.0%.

The project will strengthen hygiene behaviors for prevention, improve home case management of diarrhea, encourage appropriate care-seeking from trained providers, discourage inappropriate use of anti-diarrheals and antibiotics, and advocate for increased access to ORT and zinc through community-based sale/distribution. Prevention strategies include proper hand-washing, water purification, and access to latrines. The project will use qualitative data from recently completed focus groups and in-depth interviews to develop highly effective BCC messages.

A national survey found that the two week **diarrhea** prevalence for children U5 years is 17%, 35% of whom are treated with ORS or a salt-sugar solution.[92] Almost one-third (32%) of children with diarrhea are given less to drink, and 75% are given less to eat.[93] Only one-third (35%) of rural Burundians have sustainable access to improved sanitation[94] and 78% have sustainable access to an improved water source,[95] Water quality in Kibuye seems erratic, with some people having access to piped (not pumped) water, and others still have unimproved surface water sources such as streams.

According to the February 2008 baseline KPC in Kibuye, 23.7% of children aged 0-23 months had an episode of diarrhea in the past two weeks; 43.7% of those received treatment with ORS or recommended home fluids. While 63.4% of those with diarrhea received continued or increase feeding, only 32.4% were offered increased fluids.

Prevention Strategies
Volunteers will promote **improved hygiene practices** such as hand washing with soap, safe disposal of stools, latrine use and maintenance, use of home-made dish racks, and safe food preparation and storage. While qualitative data suggest that community members understand the importance of **hand washing** to prevent disease ("sicknesses hide themselves in the dirt on those hands"), the KPC survey revealed that only 18% of mothers wash their hands with soap at two or more appropriate times. Because of a perception that the feces of small children do not carry infection, some believe that hand washing is not necessary after tending to a child who has defecated, and less care may be taken with the disposal of children's stool. Volunteers will address this and other misconceptions.

Soap appears to be widely available in the community and was present and easily accessible (near the place of hand washing) in many interviewed households; however, how often the soap is actually used is not clear. The cost of continually replacing soap, if used frequently, could be a barrier. Poor families, such as widows, may not even be able to afford soap most of the time. Soap will be among the health commodities the volunteers will have for sale/distribution. Currently, many families keep soap in a basin with water which they move around as convenient. Volunteers will help families establish 'hand washing stations' in their homes: a specific place with clean water and soap in a receptacle, such as a bottle or bucket with soap/ash (protected from animals that might eat it), that enable frequent hand washing without separate trips to a water source.

Many households (85%) in the community have **latrines**, but most are open pit. The most common open pit structure consists of a large hole with small logs/branches laid across the opening, with many openings between the logs (not just one small opening). The many openings provide ample opportunity for the movement of flies in and out of the latrine (more than a pit latrine with a small opening). This common latrine style with many openings is not child-friendly. Qualitative community research found that children are often not allowed to use the latrines when they are young, for fear that they will fall into the latrine. The absence of latrines

[92] WFP 2006
[93] WFP 2006
[94] World Bank 2006
[95] World Bank 2006

that small children can easily use may discourage the safe disposal of their feces. For these reasons, volunteers will explain to families the importance of covering latrines and will show them how to do so using local materials, with latrines in their own households as models. Promoters also live in the community they serve, so their homes also model the principles they are teaching (latrines, hand washing, storing dishes off the ground).

Volunteers will also promote safe transport, storage, and point-of-use treatment for **drinking water**. Qualitative research shows that people believe it is important for drinking water to be clean for good health, but the baseline KPC found that only 1.7% of those interviewed effectively treat their water. Water is collected from "ibito" (a piped water point that is believed to have some kind of purification filter), rivers, springs, and "imigazo" (stagnant water in an open trench between fields). The *ibito* is considered to supply the cleanest water, and people will travel far distances ("two hours while climbing a mountain") to collect it for drinking, using water from closer sources for washing. People also commonly drink water from springs and rivers, but those interviewed believe that river water is dirty because people wash clothes & dishes in it, animal dung goes in it, etc. Water from *imigazo* is used mostly for washing. People commonly use 30 liter jerry cans and buckets with covers to transport water, and believe that a dirty container or cup can contaminate water. Water from *ibito* pours directly into the container/bucket, but cups are used to scoop water from all other sources.

Many people have heard on the radio that boiling water makes it safer to drink, but none of those interviewed knew anyone who boils their drinking water. It takes too much time, warm water isn't good to drink, and people are poor and lack firewood or metal pots to boil it in. The project will explore the possibility of making fuel efficient stoves with local materials that would reduce the amount of firewood needed to boil water. WR will study appropriate technologies for water purification, and contact NGOs dedicated to these strategies for technical assistance with this problem.

Sur'Eau, a point of use (POU) water treatment product, is not currently available in Burundi. The PSI pilot project offering Sur'Eau was not able to overcome local misunderstandings of the product, including that the product would cause infertility or miscarriages among women. Improper use of the product was common (using water that had been treated more than 24 hours ago), because people did not want to waste a product they had paid for, indicating that not everyone understood that the product was ineffective after 24 hours. The project is maintaining discussions with PSI regarding the possibility of re-introducing Sur'eau. Partnering with World Relief would provide PSI the opportunity to combine their competencies in commodity procurement and social marketing with World Relief's expertise in BCC and community based mobilization and behavior change. If Sur'eau does become available again, the project will partner with PSI by expanding their sales force to include Care Group volunteers, who could promote and sell Sur'Eau with a small financial benefit to the Care Group association, based on a similar partnership with PSI Rwanda. CG volunteers could also model use of Sur'Eau to treat drinking water in their own homes.

Finally, volunteers will promote **immediate and exclusive breastfeeding** of children 0-5 months and **continued breastfeeding** of children under two years for prevention of diarrhea. Mothers will be encouraged to continue to breastfeed even if they become pregnant, to prevent

malnutrition, diarrhea and other illnesses in children under the age of two. While "artificial milk" is available in some large markets, women interviewed had a thorough understanding of the importance of exclusive breastfeeding (many learned from the radio), and the baseline KPC found that 86.4% of babies 0-5 months are exclusively breastfed (based on mother's 24 hour recall of liquids and foods given to the child), much higher than the 45% national rate[96]. One factor that may contribute to this significant difference in exclusive breastfeeding rates is the definition of the indicator used. The baseline KPC survey was based on an indicator of 24 hour diet recall by the mother, but other country data sources are based on less clearly defined indicators. Colostrum ("umuhondo") is considered "so good" for babies, and it is believed that breastfeeding immediately after birth helps mothers bleed less.

However, weaning can be abrupt, especially if the mother becomes pregnant or if the infant has diarrhea, as it is believed that a breastfeeding child of a pregnant woman will become malnourished, and diarrhea in breastfed children can be caused by the breastmilk ("umuwana agwaye iloere"=child sick from breastmilk). Respondents in focus groups agreed that the hospital or health centers could not cure this diarrhea caused by "defective milk," only traditional medicine could cure it. In fact, even a child that was no longer nursing could be identified as having the diarrhea that comes from bad breastmilk. Program staff will explore this condition more closely as the diarrhea and hygiene intervention is phased in. A 2003 household survey found that 47% of mothers stopped breastfeeding because of pregnancy.[97] Average duration of breastfeeding is 20 months in Gitega.[98] Under-nourishment often begins at weaning; only 46% of children 6-9 months receive appropriate complementary foods.[99] Women interviewed named vegetables, fruit, porridge, eggs and meat as appropriate "soft foods" to give to children over 6 months, though several mentioned that poverty prevents them from giving their children the variety of foods they would like.

Women go to the health center to get "porridge" when they have problems breastfeeding, especially if the problem is low milk supply. Other problems include abscess on the breast, and the disease that makes breastmilk "hot" and causes diarrhea in the child (mentioned above).

Case Management Strategies

Strategies to reduce morbidity associated with acute diarrhea, dehydration, and nutritional deprivation include appropriate home case management, care-seeking, and referrals. The health facility patient load nearly doubles during the height of the rainy season (Feb-March), due to diarrhea and malaria. Caregivers will be trained in **improved dietary management** during diarrheal episode through continued breastfeeding and/or small frequent feeds and increased fluids, followed by increased catch-up feedings for two weeks following to recover nutritional status.

While some women interviewed identified contaminated food as a source of diarrhea, it is also thought that "dusty" air and "hot" breastmilk can cause it. There is an understanding of the importance of feeding a child with diarrhea, as mothers want to replace the food that was "lost,"

[96] UNICEF 2007
[97] C-IMCI 2006
[98] WFP 2006
[99] MICS 2000

because otherwise the child will become "weak." However, some harmful practices also exist. As mentioned above, breastfed infants with diarrhea are sometimes abruptly weaned, if breastmilk is thought to be the cause of the illness. Children with diarrhea are sometimes given water enemas, which further stimulates the intestines. When a child is sick and does not feel like eating, some mothers stop feeding her, rather than encouraging her to eat: "a mother can tell that her child is sick when she doesn't want to eat."

Volunteers will promote **oral rehydration therapy (ORT)** for children with diarrhea, using home available fluids including a common cereal-based gruel, breastmilk, or ORS. Mothers will be encouraged to increase breastfeeding for all children with diarrhea who have not yet been weaned and not to wean infants with diarrhea. Rice, rice water ("amazi y'umuceri"), and watery porridge ("umusururu") are commonly given to children with diarrhea, as well as ORS made from free packets available at health centers. Volunteers will train caregivers in correct ORS preparation and administration. Distance and the difficulty of transporting sick children delay access to this life-saving intervention, so to increase equity of access, the project is seeking approval from the MOH to link volunteers to health centers for ORS supplies that volunteers distribute in the community.

The MOH has recently approved 14 days of **zinc therapy for the treatment for diarrhea**. Zinc is to be imported by UNICEF for distribution via health centers (managed by the IMCI manager), but it is not yet available to the communities in Kibuye. Volunteers will promote zinc supplementation for diarrhea treatment in children 6-59 months. The project will seek to increase access by obtaining approval from the MOH for zinc distribution by volunteers. If approved, the distribution would be linked either to the CCM distributor network described in the Malaria Strategy above or to ORS packet distribution.

Volunteers and caregivers will also be trained to **recognize C-IMCI danger signs requiring immediate referral** to a health center and be discouraged from using anti-diarrheals and antibiotics (except as prescribed at the HC). Volunteers will address practices that contribute to delay or inappropriate treatment, such as visiting a traditional healer or private drug seller. Qualitative research shows that traditional healers are more often consulted for illnesses believed to be spiritual in nature (such as convulsions) but may be consulted before or after a health clinic for common illnesses, such as **diarrhea** or malaria; treatment for diarrhea is more often sought at health centers. The project will focus first on stakeholders more likely to be supportive (mothers, fathers, pastors) and will work with drug sellers and traditional healers later.

Promoters and HC staff will sensitize traditional healers to the need for prompt referral for bloody diarrhea. Inappropriate antibiotics are occasionally used by community members to treat diarrhea. CSP staff will review rational drug use for diarrhea according to MOH and/or IMCI protocols, and target private drug sellers with rational drug use messages to reduce the inappropriate and potentially harmful use of antibiotics and anti-diarrheals.

MOH Policy on Prevention and Management of Diarrhea

-Acceptance of standard IMCI treatment guidelines as recommended by WHO.

Interventions for Prevention and Management of Diarrhea
1. Preventive Messages (Individual/Household level):
-Immediate use of ORS or ORT during diarrhea.
-Administration of 14 day zinc therapy for children with diarrhea.
-Recognition of danger signs that require immediate referral to health center
-Improved dietary management during diarrhea by continued breastfeeding and/or small frequent feeds
-Encourage catch up feeding for two weeks after diarrhea to improve nutritional status
- Prevent caretakers from practicing harmful practices
- Effective point of use water treatment and storage (pending availability of Sur'eau).
2. Essential Household Actions for Management of Diarrhea (Individual/household level):
-Proper disposal of stools of young children
-Promote hygienic storage practices for food (work with district leaders in charge of markets to keep food off the floor)
-Keep dishes and food off floor (promote dish racks)
-Hand washing: after defecation, before meal preparation, before feeding the child, after attending to a child who has defecated
-Latrine use when home and covering fecal matter when in the field
-Exclusive breastfeeding for 6 months, continued BF through two years
-Continue breastfeeding even when mother becomes pregnant with next child (with emphasis that the child is likely to be malnourished and more susceptible to disease if not breastfed for at least two years) and when child has diarrhea.
-Recognize danger signs and seek care at a health facility without delay
3. Increase access to ORS and introduce zinc
-Explore possibility of making packets available through community volunteers
-Introduction of zinc to health centers
4. Improve Rational Drug Use:
-Work with the district to review drug use practices at health facilities and MOH policies related to diarrhea
-Appropriate use of antibiotics or anti-diarrheals ONLY when prescribed by health center/hospital
- Promote rational drug use and referral for cases with danger signs by drug sellers and traditional healers

Nutrition (40%), Including Breastfeeding 10% and Vitamin A 5%

Objectives and Project Targets:
(1) Increase the percentage of children 6-23 months fed according to minimum appropriate feeding practices from 25.6% to 50.0%.
(2) Increase percentage of children 0-23 months who were immediately breastfed with no pre-lacteal foods from 62.0% to 75.0%.
(3) 60% of malnourished children who complete the *Hearth* program will achieve sustained adequate or catch-up growth for at least two months after *Hearth.*

Malaria, conflict, droughts and agricultural pests have led to significant food shortages in Burundi. In 2005, **malnutrition** was the second highest cause of deaths and micronutrient-related anemia the fourth highest cause of death in children U5 in health facilities.[100] Rural households spend 75% of monthly income on food,[101] and the number of meals per day and the number of different foods eaten are much lower in rural areas.[102] 41% of U5 rural children are

[100] PNDS 2005.
[101] World Bank 2006
[102] WFP 2006

underweight, (<-2 Z-scores, weight-for-age), severe malnutrition affects 14% of rural children (<-3 Z-scores, weight-for age).[103]

In Gitega, 7% of children are wasted, and 42% are underweight. [104] Malnutrition is reported at 14% in Kibuye.[105] A national nutrition survey found that childhood malnutrition was linked to feeding practices, fever and frequent diarrhea. Some mothers withhold liquids and food when children are sick.[106] **The study recommended that interventions focus on behavior change and preventing and treating diseases, such as malaria, which is an important cause of anemia**.[107] This CSP will focus on promoting optimal feeding practices for women and children to prevent malnutrition, as well as addressing malaria (see malaria section above).

One-fifth of women aged 15-49 years in Burundi are underweight, contributing to low birth rates and high IMR. Gitega is one of the top 3 provinces for under-nourishment in women of reproductive age.[108] Vitamin A coverage among children 6-59 months is poor; in 2006, 28% of children 6-59 months had Vitamin A deficiency. Night blindness in children U5 is over 1%.[109]

Vitamin A coverage for post partum women is 26%. One likely contributing factor to vitamin A deficiency is that people sell the micronutrient-rich foods they grow, rather than consume them.[110] Burundi's Ministry of Agriculture is addressing household level food security, and the situation is improving.[111] Almost all households have access to arable land, though 75% of them have less than a hectare. In Kibuye, only 15% of families have non-agricultural income sources[112] and 57% have livestock, while monthly cash flow is less than $3.00 for 75% of households.[113]

World Food Programme (WFP) is providing food supplements at some health centers. The Free Methodist Church (FMC) provides supplementary feeding for malnourished children at Kibuye Hospital.

Fifty percent of mothers initiate breastfeeding within the first 30 minutes after delivery.[114] Average duration of breastfeeding is 20 months in Gitega.[115] The February 2008 CSP KPC survey found that the percent of children who were immediately breastfed with no pre-lacteal feeds was 62% (56-68%). Therefore, the project will change its original end of target goal of 60% to 75%. The KPC also showed that the percentage of children aged 0-5 exclusively

[103] WFP 2006
[104] WFP 2006
[105] HN-TPO 2006
[106] WHO/UNICEF/Republique du Burundi/Ministere de la Santé Publique/Coordination National de la Strategie Prise en Charge Integree des Maladies d'en l'Enfant (PCIME). *Plan Strategique de la PCIME Communautaire, 2006-2010.* (Community IMCI Strategic Plan). [hereafter: **C-IMCI 2006**]
[107] WFP 2006
[108] WFP 2006
[109] WFP 2006
[110] C-IMCI 2006
[111] C-IMCI 2006
[112] HN-TPO 2006
[113] HN-TPO 2006
[114] C-IMCI 2006
[115] WFP 2006

breastfed during the last 24 hours was 86.4% (77-93%), which already surpasses the proposed program target of 70%. The CSP will therefore work to maintain this high level of EBF, but this will not be a specific project target. Under-nourishment often begins at weaning; only 46% of children 6-9 months receive appropriate complementary foods.[116] Additionally, a 2003 household survey found that 47% of mothers stopped breastfeeding because of pregnancy.[117]

Baseline results show that the percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices is 25.6 % (14.7-36.5%). The program will focus on improving complementary feeding of children as well as improving the feeding of sick children along with catch-up feeding after illness.

Baseline results show that the percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months through either verification of an immunization card or a mother's recall is 81.7%. However, only 13.7% of these could be verified on the card. The CSP will promote Vitamin A supplementation with proper documentation and verification by CHWs.

Program Activities to Achieve Results
The project will improve the nutritional status of children and women of reproductive age through behavior change communication on essential nutrition actions (ENA) related to breastfeeding, proper complementary feeding, feeding the sick child, and maternal nutrition. The Care Group volunteer model uses home visits by friends, which is a more natural and effective method than facility-based nutrition counseling. Additionally, the program will seek to find cases of malnourished children in villages and rehabilitate them using the PD/Hearth methodology. ENA messages will be introduced over a period of six months and reinforced over four years to achieve lasting shifts in community norms related to nutrition in U5s and pregnant women.

Essential Nutrition Actions
Volunteers will promote **immediate and exclusive breastfeeding** among all women of reproductive age in the project area and reinforce these messages with pregnant women, their families, and TBAs. Pregnant women will be identified through the care group pregnancy registry and specifically targeted with exclusive breastfeeding messages and maternal nutrition messages. Volunteers will promote **exclusive breastfeeding for children under six months and optimal maternal nutrition**. Volunteers will help mothers to plan field work and child care arrangements to maximize opportunities for on-demand breastfeeding; adopt correct positioning for proper attachment and suckling; and seek care if mastitis develops.

Volunteers will promote **continued breastfeeding** by all mothers for at least two years, and discourage early weaning due to child diarrhea or pregnancy. All breastfeeding promotion activities will be sensitive to the presence of **HIV/AIDS** in the target communities (3.3% national prevalence; lower in rural areas).[118] Access to VCT is limited, so very few people know their HIV status. Due to the low VCT coverage and lack of adequate breast milk substitutes, consistent exclusive and continued breastfeeding will be promoted.

[116] MICS 2000
[117] C-IMCI 2006
[118] WHO/UNAIDS Epidemiologic Fact Sheet on HIV/AIDS and STIs: Burundi, 2006.

IEC messages will address the following significant health beliefs regarding breastfeeding: Waiting a few hours to initiate breastfeeding does not significantly harm newborn. The understanding of time is more flexible, so the application of immediate breastfeeding is not necessarily exact. Some mothers had problems with milk coming right away. There is a belief that giving water with sugar or beer can be good for the newborn. Also, beer is seen as being beneficial for stomach pain ("Kurumatwa"). MOH policy is to promote breastfeeding within 30 minutes after delivery. There is a lack of knowledge about the importance of exclusively breastfeeding; many mothers have work responsibilities away from their child. It is also common to give banana beer or enemas ("Kwina") for stomach problems. Women believe it is bad for the fetus to continue breastfeeding an older child, so they wean when they get pregnant again. There is also a belief that the child breastfeeding will be receiving benefits that are supposed to be for the fetus. The project will address the belief that a child who is breastfeeding can get diarrhea from consuming the milk during pregnancy ("Kurwara ibere").

Volunteers will promote **age-appropriate complementary feeding** with locally available and affordable nutrient-rich foods. Volunteers will encourage caregivers to increase the frequency of feedings and continue frequent, on-demand breastfeeding through two years. Volunteers and caregivers will be trained in responsive feeding as part of a comprehensive strategy to increase community and household attention to infant and young child feeding. There is a lack of knowledge about age-appropriate nutritional recommendations for feeding children. Food security is a problem in Burundi, and it also takes time to prepare extra snacks of appropriate foods for smaller children. It also takes time to feed children and encourage active feeding.

During a home visit, the entire household is involved, messages can be tailored to the realities of each home, and lack of food and/or suboptimal child feeding practices are more evident to the observer. It is easier to see how households are distributing food and negotiation to increase food for a malnourished mother or child can be discussed with the people most likely to be able to enforce this distribution.

Volunteers will encourage caregivers to **continue feeding and offer increased food and fluids for sick children**. For infants, messages will be continued for breastfeeding while child under 6 months is ill. Mothers will also learn to give additional food in frequent catch-up feedings for two weeks after illness to recover weight and health.

There is a lack of knowledge that it is important to continue breastfeeding when the child is sick, and that it takes extra time and motivation to encourage a sick child to eat. Children often lose their appetite during illness, which can worsen malnutrition and the cycle of disease. In Gitega the average household cash flow per month is $3, so there are financial barriers to buying special foods that are beneficial during illness. Project IEC messages will address traditional beliefs about reducing food intake and giving enemas ("kwina") during diarrhea, which increase the diarrhea. Additionally, when the intervention curriculum is being developed, further focus groups and key informant interviews will elicit more beliefs and behaviors that need to be addressed.

Maternal Nutrition
Pregnant women will be identified through the care group pregnancy registry and specifically targeted with exclusive breastfeeding messages before delivery. In Burundi there is a belief that there are negative consequences for the fetus if a pregnant mother continues to breastfeed during pregnancy, so emphasizing the importance of continued breastfeeding during pregnancy is critical.

Volunteers will promote **optimal nutrition for women** via mobilization for early ANC, including **iron supplementation during pregnancy**, and community discussion of intra-household food allocation. Volunteers will teach pregnant and lactating women about the importance of "eating for two" and how maternal nutrition affects infant growth and development. During pregnancy mothers will be encouraged to eat an extra 285 calories per day, and during lactation, an extra 500 calories per day. Project messages will emphasize the importance of consuming foods from three major groups (protein, carbohydrates, and oils for vitamin A). Mothers will also be encouraged to increase protein intake during pregnancy and lactation (e.g., pulses, animal source foods, oilseeds).

There are many nutritious foods available in communities, but the need for cash means that families often sell these nutritious foods for income instead of consuming them. The decision-making for which foods will be sold and which will be available to family is often made by the husband. There are traditional beliefs about not mixing meat (source of protein) with potatoes (source of starch) or milk (from cows) with lentils, as then the cow will die. There are also traditional beliefs prohibiting mothers from eating eggs or liver. Mothers also give food priority to their children over themselves. Mothers only focus on the amount of food and satisfaction from hunger, not the total nutritional content of the foods.

Iron Supplements
The MOH freely provides iron/folic acid supplementation for all pregnant women. Mothers are given one month of iron tablets during each ANC visit. Pregnant women could get up to 90 tablets if they make 3 visits (another reason why it is important to track pregnant women and encourage early ANC). However, because traditionally, women do not make their pregnancy known until at least the sixth month, many mothers do not get antenatal care early, and therefore do not receive iron tablets. The time it takes to go to the health center for ANC to receive iron tablets and the low perceived benefit of going to the health center when they are healthy are barriers to early ANC. There is a lack of knowledge about the benefit of taking iron tablets when they are healthy. Also, the taste and effects of taking iron tablets are undesirable. It takes commitment to continue taking a pill for three months. Pregnant women will be taught strategies for taking iron tablets in a way that makes them more palatable and memorable, such as taking them after dinner each night and drinking more water.

Volunteers will promote **dietary diversification** and encourage families to plant kitchen gardens with foods rich in Vitamin A, iron, and other micronutrients to increase availability of nutritious foods for young children and WRA. Based on successful experiences with a similar initiative in the Rwanda CSP, volunteers will encourage fathers to become involved in child feeding by

identifying small, practical steps that will improve children's nutritional status, such as buying protein or micronutrient rich foods when available.

Some barriers to kitchen gardens are the extra time and effort it would take to cultivate a special "kitchen garden," the availability of appropriate space and seeds for the garden; lack of knowledge about benefits, and the desire to sell valuable produce to make income for the family. However, Healthnet-TPO is initiating a kitchen garden intervention, so they may be able to provide knowledge and assistance in the process. Also, most families would welcome growing additional food.

Vitamin A

The national Vitamin A supplementation strategy emphasizes semi-annual national campaigns and routine service points, but campaigns have been held infrequently in the last two years due to Vitamin A shortages. Presently, Burundi does not have shortages of Vitamin A for children, however, there is no Vitamin A for post-partum women. WR HQ staff will look into securing vitamin A for postpartum women, as this might also serve as a benefit that will make women more likely to get postpartum care for themselves, and a new baby checkup for their baby. WR will draw on its long-standing relationship with *Sight and Life* in Switzerland to secure donated Vitamin A for distribution to project beneficiaries, especially for post-partum women.

Promoters and supervisors will work with health district leaders and HC staff to reinvigorate **Maternal and Child Health Weeks** in Kibuye District. An integrated package of services (Vitamin A, mebendazole, and immunizations) will be offered by the MOH, and free of charge for children under 5. Volunteers will mobilize families to participate in MCH Weeks. Volunteers will also help families to identify locally available and affordable foods rich in Vitamin A, such as orange-fleshed sweet potatoes. Families will be encouraged to plant kitchen gardens with Vitamin A rich foods. Volunteers will also encourage women who deliver at home to visit a health center for post-partum check-up; promoters will work with health center staff to ensure that Vitamin A supplementation is provided at all postpartum visits.

Volunteers will be available in the community to mobilize communities for growth monitoring and to assist in outreaches. The MOH has placed growth monitoring as a high priority, but recognizes the challenges to follow through in the community. Presently, EPI outreaches are not happening with the frequency needed for adequate growth monitoring. We are not sure how much our volunteers would be able or allowed to participate in growth monitoring, but CSP staff will be in dialogue with MOH to see the feasibility of this. Training volunteers in anthropometry would require a great deal of time and training resources. During the Hearth program, at least, the project will conduct growth monitoring screenings in villages to find malnourished children for Hearth and monitor those participating. Usually, when there is a second Hearth cycle in the village, even more "late adopters" attend, after seeing the results of the first cycle in their neighbor's children.

There is a perception that once immunizations are finished there is no need to go to the health center or to participate in EPI outreach to receive Vitamin A for older children that have finished their immunizations, but still would benefit from Vitamin A supplementation.

The MOH has recently approved 14 days of **zinc therapy for the treatment for diarrhea**. Zinc is to be imported by UNICEF for distribution via health centers managed by the IMCI manager, but it is not yet available in Kibuye. When the zinc program is rolled out, volunteers will promote zinc supplementation for diarrhea treatment in children 6-59 months. The project will seek to increase access by obtaining approval from the MOH for zinc distribution by volunteers. If approved, the distribution would be linked either to the CCM distributor network described in the Malaria Strategy above or to ORS packet distribution. At this time, the program may add an indicator: "Increase percentage of children 0-23 months who were given zinc supplements."

Rehabilitation of Malnourished Children

A significant element of the nutrition strategy is the community-based Hearth model for rehabilitating malnourished children. As growth monitoring has not been regularly conducted on an outreach basis in the communities, there is not a clear picture of the actual rate of malnourished children. A 2006 World Food Program study of children found that in Gitega province, 42% were underweight and 7% wasted, and a HN-TPO study found that 17% of children in Kibuye were malnourished. The CSP will go into selected villages and weigh every child under age 3, with a preference first given to the most food insecure villages.

Hearth is a community-based approach where groups of mothers rehabilitate their children together using locally available foods contributed by the participants. Hearth builds caregiver's skills and increases awareness of child malnutrition in the community.

The food security situation varies within the project area, and some families may not be able to contribute food to a Hearth group. Thus, Hearth will be piloted in a subset of communities and closely monitored to assess program feasibility and to identify necessary adaptations to local factors. Project staff will conduct a qualitative inquiry into overall food security and seasonality of hunger in the various terrains within the project area. Pilot communities will be identified in consultation with local administrators, health center staff and communities, and positive deviant inquiries will be done in these areas to determine specific foods and behaviors to be promoted in each Hearth.

At the outset of Hearth, volunteers will visit every household in the selected communities and encourage high-risk children to be weighed during special growth monitoring sessions in their village. Program staff and trained Hearth volunteers will follow-up malnourished children (<-2 Z-scores, weight-for-age) in their homes and invite the caregivers to bring them to participate in a local Hearth cycle for two weeks.

Mothers of malnourished children will learn to recognize malnutrition and to treat it with supervised supplemental feedings of locally available, nutrient-dense foods. The Hearth program has even been found to prevent future recurring malnutrition in children who participate and to prevent it from happening to younger siblings. In addition to receiving supplemental food, children enrolled in Hearth will be linked to health center services for Vitamin A, iron supplementation, and mebendazole for de-worming. Anticipating that many of the most malnourished children will have been missed in the national MCH Weeks, project staff will work with the health center staff to bring these interventions to children enrolled in Hearth groups.

Following completion of two Hearth cycles in the pilot communities, the project will convene a meeting with local partners to review the program impact (via weight gain and "graduation rates" of children enrolled in each cycle), identify innovations and local solutions that emerged in pilot Hearth groups, and invite input from Hearth leaders, participants, and community members. Project managers and staff will then decide whether and/or how to expand Hearth to other communities in the project area.

Based on the results of the KPC baseline survey it appears that rates of malnutrition are not high enough (16.3% of children <-2SD) to warrant conducting Hearth sessions throughout the entire population. However, the project must address issues of consistent growth monitoring. Growth monitoring is currently available if caretakers bring their children to the health center for it, but this rarely happens. IMCI practices dictate that when the sick child visits the health center treatment should include assessment of the child's nutrition status. However, health center staff complain that they do not have time to weigh each child systematically. One possible solution that worked well in the Rwanda CSP could be for literate Care Group volunteers be trained to assist health center staff with monthly growth monitoring. Volunteers could make a significant contribution by mobilizing regular monthly growth monitoring.

The benefits of implementing Hearth compared to the present referral system are:

- It takes place in the community/close to home
- Women learn from other women in the community
- Short time commitment compared to going to the health center for a feeding program
- It strengthens bonds within the community
- Uses locally available foods
- Mothers see results within two week period.

Barriers to implementing Hearth are:

1. Lack of understanding of the benefit of changing practices rather than just using new ingredients
2. Overcoming the expectation that all food should be provided by the NGO
3. Changing food preparation practices
4. Acceptance of new taste of specially prepared foods
5. Time commitment of meeting consistently for 12 days.

From the MOH point of view, Hearth is a new program that is not part of current health policy. Current MOH policy is to refer underweight children to the health center. Present Growth monitoring services and referral of underweight children is limited by the lack of human resources. This could be overcome by training special a Growth Monitoring and Counseling Counselor (as in Rwanda), but they would need to be literate volunteers (to read growth monitoring cards in order to refer children).

Introducing systematic Growth Monitoring in communities on a regular basis is a significant area of partnership with the MOH to improve health services. WR has had positive experiences in other countries (Rwanda, Mozambique) with training and mobilizing volunteers to help with Growth Monitoring sessions, to decrease the burden of the workload for MOH staff to help prevent them from becoming demoralized and quitting. With help from volunteers to weigh, and

even in some cases track and counsel mothers, and seeing the increase in attendance as a result of the volunteers' community mobilization, MOH staff can be encouraged that their work is valuable and useful to the communities. Having access to an effective program to refer people to, like Hearth, is also a significant encouragement for MOH staff and mothers alike. In Mozambique, after Hearth sessions had run in communities for several cycles, even fathers and grannies learned how to recognize when a child was becoming malnourished and they would say "go to the Hearth mother" (the trained Hearth volunteer in their village) for teaching. In this way, hearth can become sustainable in a village.

WR HQ staff did not see any growth monitoring charts at all in Burundi and did not hear a great deal about growth monitoring activities happening in the community, except for with special supplementary feeding programs. Overcoming the assumption that the CSP is a feeding program will be one of the biggest challenges to implementation and building a relationship in the community. Many people in Gitega already assume that the project is focused on food security, because most of the child focused programs they have seen are feeding programs like those supported by the WFP. This will especially be a philosophical shift for participating in Hearth.

Immunization (10% Effort)

Immunization Objectives and Project Targets:
(1) Increase coverage of DPT1 (according to vaccination card or health booklet) among children 12-23 months from 62.5% to 80.0%.
(2) Increase coverage of DPT3 (according to vaccination card or health booklet) among children 12-23 months from 61.0 to 80.0%.
(3) Increase coverage of measles vaccine (according to vaccination card or health booklet) among children 12-23 months from 55.1% to 80.0%.

The standard immunization regimen for infants in Burundi includes the GAVI-supported pentavalent vaccine. A 2006 WFP study found measles coverage of 12-23 month olds was 30%, significantly lower than the 75% estimates from 2004. [119] In Kibuye, 75.9% of children age 12-23 months have at least three vaccinations on their health cards.[120]

The February 2008 KPC baseline survey carried out by program staff found 62% DPT1 coverage by card verification, but 95% when including mother's self-report; it should be noted that 62% coverage is well below the 80% minimum recommended by WHO to show access to EPI services. The DPT3 coverage was 61% by card verification and 73% when including mother's self-report. When using the mother's self-report based indicator for DPT1 and DPT3, the drop out rate is calculated to be also 20%, however it should be noted that mother's recall did not appear to be very reliable. Often mothers would report that their child had received a vaccination that the child was not old enough to receive according to the vaccination schedule or they would state that the child had received a much higher number of doses than what is scheduled for the antigen.

[119] WFP 2006; World Bank 2006.
[120] HN-TPO 2006

Qualitative data collected since the proposal was written have revealed the following current beliefs and practices related to EPI services in general:

- Women tend to hide their pregnancies, which leads to delayed attendance to ANC and consequently reduced TT doses.
- Vaccination is readily accepted.
- The MOH distributes a UNICEF "Yellow book" that ideally the mother keeps; a blue card stays in the health center records. The health workers have to copy the data in two places. This is a lot of work, so they are not inclined to restock the yellow books. When yellow books are out, they may give the blue card to the mother and write the child's name in a register at the health center, making follow up on any given child difficult.
- Vitamin A for children who are finished with immunizations (by 12 months of age) is not likely to be sought after.
- There are shortages of cards, many people just write doses given in a notebook.
- There is some anecdotal evidence from focus groups about measles cases in the communities; the C-HIS (and training volunteers about vaccine-preventable diseases) should increase quality of surveillance in villages.
- The hospital doesn't have a functioning lab, because of inadequate staffing. They also have difficulty keeping basic lab reagents in stock.

Drug and vaccine stockouts are less frequent under a new arrangement, whereby the health centers report service statistics on care provided free to children U5 and pregnant women and are reimbursed in drugs. The provision of essential medicine kits by UNICEF also helps.[121] GAVI funds support continued supply of vaccines for EPI. Some health centers conduct EPI outreach while smaller centers offer immunizations only at facilities. Semi-annual Maternal and Child Health (MCH) Weeks provide Vitamin A and maternal iron supplementation, mebendazole (for de-worming), and recover immunization defaulters, but shortages of Vitamin A have disrupted this outreach mechanism. No nationally-directed MCH Week campaigns were held in 2006. Immunization defaulters are identified when a sick child is brought to the health center; staff check the child's health card and provide catch-up vaccines as needed. However, if the health center does not have a yellow card for the child, unless the mother brings the child's blue card to the visit, the health worker may have no way of checking easily which vaccines the child has received, which means an opportunity may be lost.

Program Activities to Achieve Results

Key activities include partnering with the MOH in community mobilization to increase participation in EPI services, reviewing cold chain status with MOH and HN-TPO, helping the MOH establish regular outreach sessions in distant villages by advertising and training volunteers to help with tasks during the sessions (such as filling out EPI cards). Project motorcycles will be available to transport MOH staff, vaccines, and supplies to outreach sites. Care Group volunteers will train all the mothers and caretakers about the benefits of vaccination and risks of defaulting. They will also teach mothers to manage fever caused by immunization with paracetemol.

[121] C-IMCI 2006

Program staff will work with the health district to reinvigorate semi-annual **Maternal Child Health (MCH) Weeks.** MCH Weeks are organized by reproductive health and EPI programs to improve immunization coverage, Vitamin A supplementation when available, and increase community demand for outreach services. Currently the government provides vaccines, refrigerators and fuel for refrigerators with funds from GAVI. Healthnet TPO monitors cold chain and quality of vaccination services as a part of its performance-based financing activities in Kibuye Health District.

Program staff will also establish a community-based health information system (expressed at the community level by the Care Group registries) to track pregnancies, births, deaths and vaccine-preventable diseases. This will improve coverage by tracking new mothers and EPI defaulters. We have found from previous programming that it is very encouraging and motivating to communities and health workers to see improvements in health proven in this way. The near 100% coverage of households afforded by the Care Group network makes the C-HIS a very effective tool for surveillance and planning.

CSP staff will also support the MOH through regular meetings to coordinate activities and manage resources to help avoid stock-outs and improve coverage rates. CSP supervisors and the project director will also work with HC staff to reduce missed opportunities for recovering immunization defaulters at routine service points, ensuring that health cards are checked at all well child, sick child, and ideally also during sibling visits to a health center. Care Group volunteers will also check on pregnant women during home visits to ensure they have received two tetanus toxoid (TT) vaccinations before delivery, and referring women to the health facility for follow-up as needed. Health Net TPO is providing support to health centers to improve EPI services, CSP staff will be in continual contact with health center staff, inviting them to training sessions and coordinating meetings. This additional help in maintaining quality of cold chain and EPI services will help increase EPI coverage, particularly for TT and to reduce dropout rates. Additionally, volunteers will be taught to identify and refer immunization defaulters from among their households and be trained to recognize the clinical presentation of polio, tetanus, and measles, enhancing local surveillance.

MOH Policy /Immunization Schedule

Children		***Mothers***	
Period	***Vaccine***	***Period***	***Vaccine***
Birth	BCG, Polio 0	First consultation	VAT1
6 weeks	Polio 1 and DPT1/HB/HiB*	4 weeks later	VAT2
2.5 months	Polio 2 and DPT2/HB/HiB*	6 months later	VAT3
3.5 months	Polio 3 and DPT 3/HB/HiB*	1 to 3 years later	VAT4
9 months	Measles & Vitamin A	1 to 3 year later	VAT5
18 months	Vitamin A		
24 months	Vitamin A		
30 months	Vitamin A		
36 months	Vitamin A		
42 months	Vitamin A		
48 months	Vitamin A		
54 months	Vitamin A		
60 months	Vitamin A		

* Pentavalent vaccine has been introduced.

Summary of Activities and Messages for Immunization

1. **Education during household visits:**
   - Teach mothers to completely immunize by 12 months of age
   - Teach about benefits of immunization for children and mothers and risks of not being immunized.
   - Emphasize the importance of retaining immunization card, keeping it in a safe place and bringing it to health facility visits.
   - Prepare mothers to deal with side effects of vaccines.
   - Inform mothers when MOH immunization teams will be in area.
   - Encourage early ANC for promotion of TT.

2. **Track outbreaks of Vaccine Preventable Diseases through a community register:**
   - Report on immunization status of pregnant mothers and children during care group meetings (and refer defaulters for immunization). Follow up with any children identified by the health center that are behind in immunization.
   - Report suspected cases of select vaccine preventable diseases (measles, tetanus, polio) and follow up by medical personnel.

3. **Health center outreach:**
   - Coordinate transport to help health centers with outreach for immunization.
   - Promoters should help organize outreach sessions to make activities orderly, especially as growth monitoring is phased in.

4. **Other activities:**
   - Follow up with mothers who default on their or their children's immunizations.
   - Refer sick children who are EPI defaulters to health center for treatment and immunizations.
   - Create referral/counter referral system with cards designed by CSP, so volunteers can give card to child to send them to center for immunization.
   - Work with school children and clergy to get messages into homes.
   - Help advertise national immunization days for polio eradication.

6.6 Formal Partnerships with MOUs

World Relief comes alongside its partner, the MOH, in implementation of this CSP for improved health of children and families in Kibuye Health District. As outlined in the Memorandum of Understanding (Annex F1), World Relief will carry out its activities under the laws and health policies of Burundi. Examples of said activities include the training of personnel and volunteers to promote key family practices for health, promotion of access to preventive and curative services, and referral of immunization and family planning defaulters to MOH services. World Relief will provide quarterly reports to the MOH to facilitate planning and integration of community health activities. In turn, the MOH will participate in planning and evaluation of CSP activities and agrees to facilitate the importation of related pharmaceuticals and health materials.

It is the role of the MOH to pilot new approaches and activities. World Relief respects this position and offers to be supportive of opportunities for its staff and volunteers to assist the MOH in piloting approaches that relate to CSP objectives.

HealthNet-TPO is a Dutch NGO also working in Kibuye Health District. As stated in the MOU (Annex F2), its purpose is "to strengthen capacity and improve quality and quantity of health services through performance-based financing mechanisms." HealthNet TPO focuses on "establishing a performance based financing system in the health facilities and management of the district to increase health service delivery and staff motivation, strengthening management committees at health facilities, rehabilitating of some health facilities, putting in place a referral system, ensuring availability of qualified staff and a doctor in Kibuye Hospital through the Ministry of Health."

The work of the CSP and HealthNet TPO is highly complementary to one another and mutually supports common aims to improve the health of women and children. Practical areas of collaboration that have been identified thus far and enumerated in the MOU include a commitment to quarterly meetings for coordination of activities and information sharing, mutual sharing of monitoring data and other regular reports, and inclusion of appropriate staff members in relevant training hosted by each other's organization. A concrete example of the latter that has already been planned is for World Relief staff to participate in HealthNet TPO training on demonstration gardens. Additional points of specific collaboration include participation of CSP volunteers in quarterly assessments of the health facilities conducted by HealthNet TPO, joint participation in immunization campaigns (WR role is community mobilization) and coordination of responses to outbreaks detected in the community. These activities are illustrative of the nature of committed partnership between HealthNet TPO and World Relief.

6.7 Work Plan

WR Burundi Child Survival Project Work Plan

Result	Major Activities	Year 1				Year 2				Year 3				Year 4				Year 5				Personnel
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Project Design, Planning and Start-Up																					
IR 1-3	Incorporate feedback from technical and budget proposal review	X																				HQ Tech Unit, CS Project Manager
IR 1-3	Negotiate and sign cooperative agreement	X																				HQ Finance, HQ Tech Unit
IR 1-3	Contact/consult with USAID mission	X																				WR Country Director, HQ Tech Unit
IR 1-3	Contact/meet with key national level contacts at MOH, UNICEF, WHO	X																				WRB Country Director, WRB Director of Programs, CS Project Manger, HQ Tech Unit
IR 1-3	Secure formal agreements with MOH		X																			WRB Country Director, WRB Director of Programs, CS Project Manger, HQ Tech Unit
IR 1-3	Contact governmental leaders of collaborating communities (District, Commune, Colline)		X																			CSP Leadership Team
IR 1-3	Contact collaborating health facilities (Kibuye Hospital and Health Centers in Kibuye Health District)		X																			CSP Leadership Team
IR 1-3	Purchase vehicles		X																			WRB Logistics, WRB Country Director, WRB Director of Programs
IR 1-3	Furnish project office and guest house		X																			WRB Logistics, WRB Director of Programs, CS Project Manager
IR 1-3	Purchase office supplies and equipment			X			X		X		X		X		X		X		X		X	WRB Logistics, WRB Director of Programs, CS Project Manager
IR 1-3	DIP Preparation	X	X																			WRB Country Director, WRB Director of Programs, CS Leadership Team, HQ Techical Unit
	Management of Project Personnel																					
IR 1-3	Recruit and hire Project Manager, Training Officer and M&E Officer	X	X																			WRB Human Resources, WRB Director of Programs, WRB Director of Programs, WR HQ Tech Unit
IR 1-3	Recruit and Hire Supervisors and Promoters		X	X																		WRB Human Resources, CSP Leadership Team, WRB Director of Programs, WRB Director of Programs

Result	Major Activities	Year 1				Year 2				Year 3				Year 4				Year 5				Personnel
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
IR 1-3	Recruit and Hire Support Staff		X	X																		WRB Human Resources, CSP Leadership Team, WRB Director of Programs, WRB Director of Programs
IR 1-3	Quarterly Planning with Supervisors and Promoters			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Supervisors, Promoters, CSP Leadership Team
IR 1-3	Supervision of Promoters using Performance Checklists			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Supervisors, Training Officer
IR 1-3	Weekly Monitoring/Discussion Meetings with Promoters			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Supervisors, M&E Officer
IR 1-3	Selection of Volunteers for Mother and Pastoral Care Groups			X																		Promoters, Supervisors, CSP Leadership Team, WR Rwanda Consultant
IR 1-3	Formation of Care Groups			X																		Promoters, Supervisors, CSP Leadership Team, WR Rwanda Consultant
IR 1-3	Training and Supervision of Care Groups				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Training Officer, Supervisors, Promoters
IR 1-3	Distribute Annual Incentives to Volunteers					X				X				X				X				Promoters, Supervisors, CSP Leadership Team
IR 1-3	Care Group "Graduations"																		X	X		Promoters, Supervisors, CSP Leadership Team
	Curriculum and Teaching Materials Development																					
IR3	Develop curricula/teaching materials for CDD			X																		Training Officer, CS Project Manager
IR3	Develop curricula/training materials for Nutrition I				X																	Training Officer, CS Project Manager
IR3	Develop curricula/teaching materials for Nutrition II					X																Training Officer, CS Project Manager
IR3	Develop curricula/training materials for Immunization						X															Training Officer, CS Project Manager
IR3	Develop curricula/teaching materials for PD/Hearth								X													Training Officer, CS Project Manager
IR3	Develop curricula/teaching materials for Malaria										X											Training Officer, CS Project Manager
IR2	Develop curricula/training materials for HBM											X										Training Officer, CS Project Manager
IR2	Develop curricula/training materials for Financial Mgmt Training									X												Training Officer, CS Project Manager

Result	Major Activities	Year 1				Year 2				Year 3				Year 4				Year 5				Personnel
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
IR 1-3	Prepare and print teaching materials			X	X	X	X		X		X	X			X	X	X					Training Officer, CS Project Manager
IR 1-3	Review and update of curricula and teaching materials														X	X	X					Training Officer, CS Project Manager
	Training Sessions																					
IR 1-3	Supervision seminar for CSP Supervisors			X																		CSP Leadership Team, Supervisors
IR 1-3	Driver Education and Motorcycle Licensing			X																		WRB Logistics, Supervisors, Promoters, CSP Leadership
IR1	Orientation of HC Staff and COSAs			X																		CS Project Manager, Supervisors, Promoters
IR 1-3	Promoter Orientation (covers participatory methods/adult education & community mobilization)			X																		CSP Leadership Team, Supervisors, Promoters, WR Rwanda Consultant
IR 1-3	Survey Training & Refreshers		X		X								X								X	MCH Specialist, M&E Officer
IR 1-3	Conflict Resolution Training & Refresher			X											X							MIPAREC Consultant, CSP Team
IR 3	CDD Training Camp			X																		Training Officer, CSP Project Manager
IR 3	Nutrition Training Camp (in two sessions)				X	X																Training Officer, CSP Project Manager
IR 3	Immunization Training Camp						X															Training Officer, CSP Project Manager
IR 2	Financial Management & Accounting Training									X												CSP Accountant, Turame Consultant
IR 3	PD/HearthTraining Camp								X													Training Officer, External Consultant
IR 3	Malaria Training Camp										X											Training Officer, CSP Project Manager
IR 2	HBM Training Camp for Promoters (pending approval)											X										Training Officer, CSP Project Manager
IR 2	HBM Training for Distributors (pending approval)												X									Training Officer, CSP Project Manager
IR1 & IR3	Sensitize PDSs, THs and TBAs about danger signs and care seeking through small community level meetings												X	X								Promoters, Supervisors
IR 3	Refresher training on control of diarrheal disease															X						Training Officer, CSP Project Manager
IR 3	Refresher training on nutrition																X					Training Officer, CSP Project Manager
IR 3	Refresher training on malaria																	X				Training Officer, CSP Project Manager

Result	Major Activities	Year 1				Year 2				Year 3				Year 4				Year 5				Personnel
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Introduction of Child Survival Interventions																					
IR 1-3	Control of Diarrheal Disease				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All CSP Staff
IR 1-3	Nutrition					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All CSP Staff
IR 1-3	Vitamin A							X		X		X		X		X		X		X		All CSP Staff
IR 1-3	Immunization							X	X	X	X	X	X	X	X	X	X	X	X	X	X	All CSP Staff
IR 1-3	PD/Hearth								X		X		X		X							All CSP Staff
IR 1-3	Malaria Prevention and Care-Seeking										X	X	X	X	X	X	X	X	X	X	X	All CSP Staff
IR 2	Home-Based Management of Malaria (Pending Approval)													X	X	X	X	X	X	X	X	All CSP Staff
	Baselines, Monitoring & Evaluation, Reporting																					
IR 1	Review/Planning Meetings with MOH and HN-TPO (quarterly)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CSP Leadership Team
IR 1	Monthly Meetings with COSAs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Supervisors, Promoters
IR 1-3	Monthly and Annual Reporting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS Project Manager, Supervisors, Promoters
IR 1-3	KPC Household Surveys		X																		X	M&E Officer, HQ Tech Unit, Promoters
IR 1 & IR 3	Complete Census of All WRA and Children Under Five			X	X																	M&E Officer, Supervisors, Promoters
IR 1	Health Information System Monitoring Surveys (Data Collection)				X		X		X		X		X		X		X		X		X	M&E Officer, Supervisors, Promoters
IR 1	Health Information System Monitoring Surveys (Analysis)				X		X		X		X		X		X		X		X		X	M&E Officer
IR 1	Community-Health Information System (Data Collection)				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Promoters, Supervisors
IR 1	Community-Health Information System (Analysis)				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Promoters, Supervisors, M&E Officer
IR 1-3	Annual Retreat (Internal Evaluation)				X				X				X				X				X	WRB Leadership Team
IR 1-3	Midterm and Final Evaluations												X								X	HQ Tech Unit, CSP Leadership Team, External Consultant
IR 1-3	Implement Midterm Recommendations													X	X	X	X	X	X	X	X	CS Project Manager, MCH Specialist

Result	Major Activities	Year 1				Year 2				Year 3				Year 4				Year 5				Personnel
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Technical Assistance and Trips																					
IR 1-3	Managers and key partners visit CSP Umucyo site in Rwanda			X																		WR Rwanda Project Manager, HQ Tech Unit
IR 1-3	Visits by World Relief Rwanda Staff			X	X																	WR Rwanda Project Manager
IR 1-3	Visits by World Relief HQ Technical Advisors	X		X		X			X				X				X				X	MCH Specialist, Director of MCH
IR 3	Participatory Methods Trainer		X																			WR Rwanda Consultant
IR 1-3	Conflict Resolution Trainer					X									X							MIPAREC Consultant, CSP Team
IR 3	PD/Hearth trainer							X														External Consultant
IR 1	M&E Consultant for C-HIS start-up				X																	HQ Tech Unit, WR Rwanda Consultant
IR 2	Financial Management Training					X																CSP Accountant, WRB Turame

7.0 Program Monitoring and Evaluation Plan

7.1 Description of M&E System

The Burundian health system has been undergoing a process of decentralization, whereby health districts will function more autonomously in planning activities and allocating resources. Until now the health system has been functioning with a more top down approach, where the planning of activities, allocating of resources and managing of health information/disease surveillance data has been handled at the provincial level. This situation has produced some difficulties in ensuring the proper transmission of data from the district level to the provincial level and then the effective transmission of aggregated data and analysis back to the district level. Moreover, as was noted in the program site information, the comprehensiveness and availability of disease surveillance data in the project area is currently lacking.

This CSP will establish a monitoring and evaluation system, both to fulfill its programmatic needs during the life of the project, but also to help strengthen the local health system with collecting and sharing vital health information. The project will encourage the use of local health information, in order to strengthen the responsiveness of health facilities, COSAs and other components of the health system to the needs of communities in Kibuye Health District.

Community Health Information System (C-HIS): One of the CSP's essential contributions to improving Kibuye Health District's health information system will be the integration of the project's Community-Health Information System (C-HIS) with the district's health information system. The CSP's cadre of over 3,200 Care Group volunteers will monitor vital health events within their 10 households of responsibility throughout the project area and will report on these events during their Care Group meetings once per month. This is will allow the health system of the district to have access to household level health information for the first time.

Volunteers will collect information on births, deaths (U5 and maternal), new pregnancies, and a small number of easily recognizable, vaccine-preventable diseases. Volunteers will then report this information *verbally* to the Care Group leader during each Care Group meeting. The small number of households per volunteer combined with the infrequency of vital events means that even illiterate volunteers can remember the data and report accurately. The literate CG leader will record the information in the Care Group's registry. In the case of deaths, the CG leader will record the age of the mother or child at death, the signs and symptoms before death as well as the suspected or medically confirmed cause of death. The data are discussed within the Care Group, where conversation focuses on problems that emerge within individual households as well as the community. Reporting of vital events in the Care Group meeting is not just a necessary activity for collection of health information, but it also functions to spark discussion and learning among the Care Group volunteers. Community involvement in the health information system is a catalyst for community-led action as the Care Group volunteers

continue to develop their problem solving capabilities to address the concerns of their communities.

From the Care Groups the data will be transmitted through two primary data streams—one for the project's C-HIS system and one for the district's health information system. Through these data streams the information will be aggregated and discussed at the facility, commune, and district levels to help all parties identify and address problems, overcome barriers and measure progress. Aggregated findings will also be presented to local leaders, commune-level health promotion technicians, and district health authorities. The data transmitted by the two data streams will be compared when it is completely aggregated at the district level by the M&E Officer for the project's health information system and the Chief of the District for the district's health information system. This comparison will provide the opportunity to see if data has been transmitted accurately through the two channels and will ensure that the district health staff are experienced in collecting and managing their own data by the end of the CSP.

For the project's data stream, every month the promoters will collect the C-HIS information from all the Care Groups in their area of responsibility by referencing the Care Group registries maintained by the Care Group leader. The promoter will record the information on a C-HIS Monthly Promoter Data Form (see Annex G), which will be given to the promoter's supervisor during monthly commune level project meetings. The supervisors will then be responsible for aggregating the data for all the promoters in their supervision area, by recoding the information on a C-HIS Monthly Supervisor Data Form (Annex H). The supervisors will then submit these forms to the M&E Officer who is responsible for entering the data into the project's electronic database.

For the district's data stream, every month the CHWs will collect the C-HIS information from the 2-3 Care Groups that meet within their collines of responsibility. The CHWs will be able to collect this information when they attend the meetings of each Care Group at least once per month. If the CHW does not attend any of the Care Group's meetings that month, the lead volunteer will follow up and submit the data to the CHW. The CHWs will then submit this information to the commune-level health promotion technician, who will be able to share the data during monthly COSA meetings. This will allow the COSAs to review the most recent data during each monthly meeting and use it as a basis for discussing community health action plans.

Project Health Information System: In addition to the community collected component of the project's health information system, the project also collects baseline, midterm and final household KPC survey data; biannual monitoring survey data; continuous tracking of program inputs and activities documented using supervision forms and activity log (see Annex G & Annex H); mixed-methods midterm and final evaluations led by external consultants; and special assessments.

The biannual monitoring surveys will collect a few of the key project indicators that are associated with project objectives and targets, but will also collect process indicator data associated with key project objectives. The project will use Lot Quality Assurance

Sampling (LQAS), using the 11 health centers as the survey supervision areas, so that progress can be assessed and tracked in each catchment. The project supervisors will follow up with the 2-3 promoters associated with each of the health centers to address any intervention areas of weakness identified through the LQAS monitoring survey results. All evaluation activities and most routine monitoring activities will encourage participation of local partners in design, data collection, analysis, interpretation, and action planning. Dissemination to provincial and national authorities will be a joint endeavor of the project staff and the DHMT.

7.2 Monitoring & Evaluation Plan

Note: Targets are shown for those indicators that correspond to specific project objectives. Other indicators included in this diagram are either: (a) part of the Rapid CATCH 2007 or a key indicator for a project intervention area for which targets will not be set; or (b) process indicators or disease burden measures that the CSP will track to provide context for interpreting trends in project indicators for which targets have been set. Baselines are provided for all indicators where available. The first column describes which Intermediate Result (IR) from the Results Framework each indicator relates to.

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
CONTROL OF DIARRHEAL DISEASES/WATER & SANITATION						
IR3	Increase percent of children with diarrhea who receive ORS or recommended home fluids from 43.7% to 70.0%.	RC12: ORT: Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids	KPC/Baseline & Final Monitoring Survey /Biannual	43.7%	80.0%	Train volunteers and caregivers in ORT principles and use of ORS or recommended home fluids (including breast milk) for prevention of dehydration in children with diarrhea. To increase access to ORS, volunteers will distribute ORS packets to families of sick children in their communities (pending approval).
IR2	*For monitoring purposes, if volunteers are approved to distribute ORS packets.*	Community ORS Distribution: Number of ORS packets distributed by volunteers within Kibuye Health District each month.	Care Group Registries & Monthly Project Reports/Monthly	N/A	N/A	
IR2	*For monitoring purposes.*	Health Center ORS Stock: Percent of Health Centers without ORS stockouts each month.	Health Center Registries & Monthly Project Reports/Monthly	N/A	N/A	
IR3	Increase percent of children with diarrhea who are offered increased fluids during illness from 32.4% to 70.0%	Key Indicator: Increased fluid intake during diarrheal episode: Percentage of children 0-23 months with diarrhea in the last two weeks who were offered more fluids during the illness	KPC/Baseline & Final Monitoring Survey/ Biannual	32.4%	70.0%	Train volunteers and caregivers in the importance of increased fluid intake during diarrheal episode.

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR3	Increase percent of children with diarrhea who are offered continued feeding during illness from 63.4% to 80.0%	Key Indicator: Continued feeding during a diarrheal episode: Percentage of children 0-23 months with diarrhea in the last 2 weeks who were offered the same amount or more food during the illness	KPC/Baseline & Final Monitoring Survey / Biannual	63.4%	80.0%	Train volunteers and caregivers in the importance of continued feeding during diarrheal episode.
IR2	*Zinc not yet available in Kibuye Health District. Target will be set if/when zinc becomes available.*	Key Indicator: Zinc: Percentage of children age 0-23 months with diarrhea in last two weeks who were treated with zinc supplements.	KPC/Baseline & Final Monitoring Survey / Biannual	N/A	N/A	Zinc for treatment of diarrhea in children has been approved by the national MOH, but has not yet been rolled out. CSP project manager will advocate for the approval of community based distribution of zinc in national level C-IMCI meetings and in communications with MOH policy-makers. If zinc is made available, the project will: (a) Sensitize caregivers to benefits of zinc treatment for children with diarrhea and train volunteers to follow up on zinc regimen during home visits; (b) coordinate with sector leaders, HC *titulaires*, and health center management committees to ensure prompt implementation of treatment protocol and inclusion of zinc in drug supply monitoring mechanisms; and (c)train and equip community health workers to provide zinc treatment, to increase access at the community level (pending approval).
IR2	*For monitoring purposes, if zinc becomes available in Kibuye Health District.*	Community Zinc Distribution: Number of zinc treatment courses distributed by volunteers within Kibuye Health District each month.	Care Group Registries & Monthly Project Reports/Monthly	N/A	N/A	
IR2	*For monitoring purposes if zinc becomes available in Kibuye Health District.*	Health Center Zinc Stock: Percent of Health Centers without zinc stockouts every month.	Health Center Registries & Monthly Project Reports/Monthly	N/A	N/A	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR3	Increase percent of mothers of children 0-23 months who wash their hands with soap at appropriate times from 18.0% to 70.0%.	Appropriate hand washing practices: Percentage of mothers of children 0-23 months who live in a household with soap or a locally appropriate cleanser at the place for hand washing and who washed their hands with the cleanser after defecation and at one other appropriate time.	KPC/Baseline & Final Monitoring Survey/Biannual	18.0%	70.0%	Train volunteers to help households to establish hand washing stations. Reinforce BCC messages on hand washing through community opinion leaders.
IR2	*For monitoring purposes.*	RC 15: Soap at the place for hand washing: Percent of mothers of children ages 0-23 months who live in a household with soap at the place for handwashing.	KPC/Baseline & Final Monitoring Survey/Biannual	53.7%	N/A	Social marketing of soap by community-based agents.
IR3	*For monitoring purposes.*	Key Indicator: Safe feces disposal: Percentage of mothers of children 0-23 months who disposed of the youngest child's feces safely the last time s/he passed a stool. *Note: safe disposal includes dropped into toilet facility; water discarded into a toilet facility (except composting toilet); water discarded into sink or tub connected to drainage system (sewer, septic tank, or pit).*	KPC/Baseline & Final Monitoring Survey/Biannual	58.2%	N/A	Train volunteers and caregivers in safe disposal of child's feces.
IR3	*For monitoring purposes.*	Latrines: Percentage of mothers of children 0-23 months who have a covered latrine or toilet connected to a drainage system.	KPC/Baseline & Final Monitoring Survey/Biannual	9.0%	N/A	Mobilize households for latrine utilization and maintenance.
IR2	*Point-of-use water treatment (Sur'eau) is not currently available in Burundi. Target will be set if/when point-of-use water treatment product becomes available.*	RC14: Point of Use (POU): Percentage of households of children age 0-23 months that treat water effectively (includes boiling, chlorination, solar disinfection, and filtration).	KPC/Baseline & Final Monitoring Survey/Biannual	1.7%	N/A	Train volunteers and caregivers in safe transport and storage of drinking water. Introduce point-of-use water treatment and reinforce boiling as an effective water treatment

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR2	*For monitoring purposes, if Sur'eau becomes available in Burundi.*	Community Sur'eau Distribution: Number of Sur'eau units distributed by volunteers within Kibuye Health District each month.	Care Group Registries & Promoter Reports/Monthly	N/A	N/A	strategy. Social marketing of Sur'Eau by community-based agents (pending availability).
	Disease Burden Monitoring:	Two-week period prevalence of diarrhea: Percentage of children age 0-23 months who had diarrhea at any time in prior 2 weeks.	KPC/Baseline & Final Monitoring Survey/Biannual	23.7%	N/A	Conduct biannual monitoring surveys for project health information system.
NUTRITION						
IR3	Increase the percent of newborns who were put to the breast within one hour of delivery and did not receive prelacteal foods from 62.0% to 75.0%.	Key Indicator: Immediate and exclusive breastfeeding of newborns: Percentage of newborns who were put to the breast within one hour of delivery and did not receive prelacteal foods.	KPC/Baseline & Final Monitoring Survey/Biannual	62.0%	75.0%	Train volunteers to encourage immediate breastfeeding and discourage prelacteal foods. Sensitize TBAs, grandmothers, and other birth companions.
IR3	*For monitoring purposes.*	RC4: Exclusive breastfeeding: Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours	KPC/Baseline & Final Monitoring Survey/Biannual	86.4%	N/A	Train volunteers to encourage immediate breastfeeding and discourage prelacteal foods. Sensitize TBAs, grandmothers, and other birth companions.
IR3	Increase the percent of infants and young children age 6-23 months fed according to minimum appropriate feeding practices from 25.6% to 50.0%.	RC5: Infant and young child feeding: Percentage of infants and young children age 6-23 months fed according to minimum appropriate feeding practices	KPC/Baseline & Final Monitoring Survey /Biannual	25.6%	50%	Train volunteers and caretakers on importance of appropriate and adequate complementary feeding; importance of dietary variety; Vitamin A-rich foods; protein, etc. Promote kitchen gardens.
IR3	Achieve sustained adequate or catch-up growth in 60.0% of children who complete the Hearth program.	Hearth: Percent of children who completed the Hearth program achieve sustained adequate (200-600 grams) or catch-up (over 700 grams) growth for at least 2 months after Hearth.	Registers maintained by promoters and specially trained volunteers for each cycle of Hearth.	N/A	60.0%	Promoters and volunteers conduct community based Hearth sessions for underweight children.

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR3	*For monitoring purposes.*	Dietary diversity of foods consumed by young children: Mean number of food groups eaten in the last 24 hours by children age 6-23 months	KPC/Baseline & Final Monitoring Survey/ Biannual	3.2	N/A	Train volunteers and caregivers on importance of importance of dietary variety; Vitamin A-rich foods; protein, etc. Promote kitchen gardens.
IR1	*For monitoring purposes.*	RC6: Vitamin A supplementation in the last 6 months: Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months (care verified or mother's recall).	KPC/Baseline & Final Monitoring Survey/Biannual	81.7%	N/A	Train volunteers and pastors/community leaders on importance of Vitamin A supplementation; mobilize community to access Vitamin A from health centers and national campaigns
	Disease Burden Monitoring:	RC16: Underweight: Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to WHO/HCHS reference population).	Anthropometry during KPC/Baseline & Final; Monitoring Survey/Biannual	16.4%	N/A	Conduct biannual monitoring surveys for project health information system.
MALARIA						
IR2	Increase the percentage of households with a child 0-23 months with an LLIN from 3.0% to 50.0%.	Ownership of long lasting insecticide-treated bed net: Percentage of households of children 0-23 months that own at least one long lasting insecticide-treated bed net (LLIN).	KPC/Baseline & Final Monitoring Survey/Biannual	3.0%	50.0%	Coordinate with the MOH to assist in community based distribution of LLINs procured through DFID, Global Fund and other mechanisms. Continue to collaborate towards shared objectives with Vestergaard-Frandsen.
	For monitoring purposes.	Number of LLINs distributed by volunteers (pending availability).	Promoter distribution records/Monthly	N/A	N./A	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR2 IR3	Increase the percentage of children 0-23 months who slept under an LLIN or ITN the previous night to from 8.0% to 50%.	RC11: Child sleeps under an insecticide-treated bed net: Percentage of children age 0-23 months who slept under an insecticide-treated bed net the previous night (LLIN or ITN treated with the past six months).	KPC/Baseline & Final Monitoring Survey /Biannual	8.0%	50.0%	Train volunteers and community leaders to encourage mothers and children under five to sleep under insecticide-treated bed nets every night.
IR2 IR3	Increase the percentage of children 0-23 months with fever who receive appropriate antimalarial treatment within 24 hours from 17.1% to 60.0%.	RC10: Child with fever receives appropriate antimalarial treatment: Percentage of children 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began.	KPC/Baseline & Final Monitoring Survey /Biannual	17.1%	60.0%	Train volunteers and caregivers to recognize fever as presumptive diagnosis of malaria in children and to seek care from trained provider within 24 hours of onset of fever. Pending approval, train community-based distributors to provide effective anti-malarials for home-based management of fever (suspected malaria) in children 6-23 months. Sensitize traditional healers, pastors, and other community leaders for prompt referral of children with fever.
	For monitoring purposes.	Number of antimalarial treatment courses distributed by volunteers (pending approval).	Volunteer distributor registries and promoter reports/Monthly			
IR2 IR3	Increase percent of women who slept under an ITN during last pregnancy from 32.7% to 50.0%.	Key Indicator: ITN use by mothers during pregnancy: Percentage of mothers of children 0-23 months who slept under an ITN during their pregnancy with the youngest child.	KPC/Baseline & Final Monitoring Survey /Biannual	32.7%	50.0%	Encourage pregnant women to sleep under insecticide-treated bednets every night. Establish a voucher system to enable pregnant women to obtain a free net from a community-based distributor based on health worker referral at ANC visit.

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR3	*For monitoring purposes. Target will be set if/when IPT is approved.*	Key Indicator: IPT: Percentage of mothers of children 0-23 months who took effective antimalarials during the pregnancy with the youngest child	KPC/Baseline & Final Monitoring Survey/Biannual	N/A	N/A	IPT is not currently available for pregnant women. WHO is advocating for policy change to allow IPT in Burundi. If policy changes and drugs are available, the CSP will integrate IPT into malaria prevention messages for pregnant women and reinforce importance of early ANC.
	Disease Burden Monitoring:	Two-week period prevalence of fever: Proportion of children age 0-23 months with a report of fever in the last 2 weeks	KPC/Baseline & Final Monitoring survey/Biannual	37.0%	N/A	Conduct biannual monitoring surveys for project health information system.
IMMUNIZATION						
IR1	Increase coverage of DPT1 among children 12-23 months from 62.5% to 80.0%.	Access to Immunization Services: Percentage of children 12-23 months who received DPT1 according to the vaccination card by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	62.5%	80.0%	Partner with health sector leaders and health center staff to coordinate Maternal and Child Health Weeks for immunization outreach. Community mobilization to increase participation in MCH Weeks. Health workers to check immunization cards for all children who present at HC for well child, sick child, or sibling visits; recover defaulters.
IR1	*For monitoring purposes.*	RC8: Access to Immunization Services: Percentage of children 12-23 months who received DPT1 according the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	94.9%	N/A	
IR1	Increase coverage of DPT3 among children 12-23 months from 61.0% to 80.0%.	Health System Performance regarding Immunization Services: Percentage of children 12-23 months who received DPT3 according to the vaccination card or health booklet by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	61.0%	80.0%	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR1	*For monitoring purposes.*	RC9: Health System Performance regarding Immunization Services: Percentage of children 12-23 months who received DPT3 according to the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	73.5%	N/A	
IR1	Increase coverage of measles among children 12-23 months from 55.1% to 80.0%.	Measles vaccination: Percentage of children age 12-23 months who received a measles vaccination according to the vaccination card or health booklet by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	55.1%	80.0%	
IR1	*For monitoring purposes.*	RC7: Measles vaccination: Percentage of children age 12-23 months who received a measles vaccination according to the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring Surveys/Biannual	89.0%	N/A	
IR1	*For monitoring purposes.*	Key Indicator: Possession of a child vaccination card or health booklet – Ever had: Percent of mothers of children 0-23 months who were ever given a vaccination card or health book for their youngest child 0-23 months.	KPC/Baseline & Final Monitoring Surveys/Biannual	94.0%	N/A	Communicate existing shortage of health cards at health center level to sector and provincial level leadership. Train volunteers and mothers in the importance of storing immunization cards in a safe place, protected from the elements.
IR1	*For monitoring purposes.*	Key Indicator: Possession of a child vaccination card or health booklet – Currently have: Percent of mothers of children 0-23 months who currently possess a vaccination card or health book for their youngest child 0-23 months.	KPC/Baseline & Final Monitoring survey/Biannual	73.3%	N/A	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR1	*For monitoring purposes.*	Key Indicators: Antigen and dose specific coverage: Percent of children 12-23 months who received each antigen and dose that is part of the national immunization schedule by the time of the survey as verified by vaccination card or health booklet.	KPC/Baseline & Final Monitoring survey/Biannual *Specific targets are set for DPT1, DPT3 & measles as stated above. Other antigens will be tracked for monitoring purposes.*			Partner with health sector leaders and health center staff to coordinate Maternal and Child Health Weeks for immunization outreach Community mobilization to increase participation in MCH Weeks Encourage health workers to check immunization health cards for all children who present at HC for well child, sick child, or sibling visits and to provide vaccines as needed to bring children up-to-date with immunization schedule.
		BCG		72.0%	N/A	
		Polio0		69.7%	N/A	
		Polio1		65.3%	N/A	
		Polio2		61.7%	N/A	
		Polio3		56.0%	N/A	
		Measles		55.1%	80.0%	
		Pentavalent I (DPT1, Hib, and HepB)		62.5%	80.0%	
		Pentavalent 2 (DPT2, Hib, and HepB)		63.0%	N/A	
		Pentavalent 3 (DPT3, Hib, and HepB)		61.0%	80.0%	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
IR1	*For monitoring purposes.*	Drop-Out Rate: (DPT1-DPT3) / DPT1: (Percentage of children age 12-23 months who received DPT1 by 12 months according to vaccination card or health booklet - Percentage of children age 12-23 months who received DPT3 by 12 months according to vaccination card or health booklet) / Percentage of children age 12-23 months who received DPT1 by time of survey according to vaccination card or health booklet.	KPC/Baseline & Final Monitoring survey/Biannual	2.5%	N/A	
C-IMCI						
IR1 IR3	Increase the percent of mothers who recognize two or more danger signs of childhood illness from 62.2% to 80.0%.	Danger signs: Percentage of mothers of children age 0-23 months who know at least two signs for seeking immediate care when their child is sick	KPC/Baseline & Final Monitoring survey/Biannual	62.2%	80.0%	Train volunteers and caregivers to recognize danger signs of child illness that require immediate care seeking.

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
CAPACITY BUILDING & SUSTAINABILITY						
IR1 IR3	Mobilization of Community Volunteers through the Care Group Structure.	Care Group Attendance: Number and percent of Care Groups with at least 70% volunteer attendance per month.	Promoter & Supervisor Reports/Monthly	N/A	70%	
		Volunteer Attrition: Percent of volunteers who drop out for reasons other than death or movement out of the area per year (beginning year 2).	Promoter & Supervisor Reports/Annual	N/A	<10%	
		Care Group Performance: Number and percent of Care Groups averaging 70% or above on verbal tests of intervention knowledge.	Promoter & Supervisor Checklists/Once after each intervention	N/A	70%	
		Pastoral Groups: Number and percent of pastoral groups that meet per month.	Supervisor Monthly Reports/Monthly	N/A	70%	
IR1	Integration of Care Group Model with Existing Ministry of Health C-IMCI Structure	CHW Integration: Number and percent of Care Groups with a CHW in attendance in at least one meeting per month.	Promoter & Supervisor Reports/Monthly	N/A	70%	
		TPS Integration: Number and percent of TPS active in Care Group supervision per month.	Promoter & Supervisor Reports/Monthly	N/A	70%	
IR1	Institutionalization of Project Health Information System with District Health Information System	Institutionalization of C-HIS: Number and percent of health facilities involved in management of C-HIS per month.	Supervisor Monthly Reports/Monthly	N/A	80%	
		Institutionalization of Community-IMCI: Number and percent of COSAs involved in management of C-HIS per month.	Supervisor Monthly Reports/Monthly	N/A	80%	
		Institutionalization of Community-IMCI: Number and percent of COSAs with current action plans for community health.	Supervisor Monthly Reports/Monthly	N/A	80%	

IR	Objective/ Result	Indicators	Source/ Frequency	Baseline Value	EOP Target	Related Activities
ADDITIONAL RAPID CATCH 2007 INDICATORS						
N/A	*Additional Rapid Catch Indicators to be collected in accordance with CSHGP requirements.*	Pneumonia: Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider.	KPC/Baseline & Final	52.9%	N/A	
		TT Injections: of mothers with children age 0-23 months who received at least 2 tetanus toxoid vaccinations before the birth of their youngest child	KPC/Baseline & Final	52.3%	N/A	
		Skill Birth Attendance: Percentage of children age 0-23 months whose births were attended by skilled personnel.	KPC/Baseline & Final	60.3%	N/A	
		Post-natal Visit: Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after birth	KPC/Baseline & Final	32.7%	N/A	

7.3 CSHGP Required Indicators for Rapid Catch 2007

PRIORITY CHILD HEALTH INDICATORS FOR RAPID CATCH 2007

Maternal and Newborn Care

1. Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid before the birth of the youngest child
2. Percentage of children age 0-23 months whose births were attended by skilled personnel
3. Percentage of children age 0-23 months who received a post-natal visit from an appropriately trained health worker within three days after birth

Breastfeeding and Infant and Young Child Feeding

4. Percentage of children age 0-5 months who were exclusively given breastmilk the day prior to the interview
5. Percent of children age 6-23 months fed according to a minimum of appropriate feeding practices

Vitamin A Supplementation

6. Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall

Immunization

7. Percent of children aged 12-23 months who received measles vaccine according to the vaccination card or mother's recall by the time of the survey
8. Percent of children aged 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey
9. Percent of children age 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey

Malaria

10. Percentage of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began
11. Percentage of children age 0-23 months who slept under an insecticide-treated bed net the previous night

Control of Diarrhea

12. Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids

Acute Respiratory Infections

13. Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider

Water and Sanitation

14. Percentage of households of children age 0-23 months that treat water effectively
15. Percentage of mothers of children age 0-23 months who live in a household with soap at the place for hand washing

Anthropometrics

16. Percentage of children age 0-23 months who are underweight (-2SD for the median weight for age, according to WHO/NCHS reference population)

7.4 Sharing Results

Coordination with partners is essential developing information systems that are understood, valued, and can be sustained by local actors. Promoters will work closely with health center staff, supervisors/coordinators with commune-level TPS, and senior project staff with district health officials to manage, analyze, and interpret data from the C-HIS and other sources of project information. In addition, the project will choose indicators and set up data systems in order that they be maximally compatible with community-level performance contracting implemented by HN-TPO.

As described in the description of the M&E system above, promoters will give C-HIS to the supervisors, then supervisors will give to the data to the M&E Officer. In addition to CHWs sharing the data with the commune-level health promotion technicians, the CSP supervisors within each commune will be responsible for sharing the CHIS information with the HC centers in their commune. This will ensure that a CSP project staff person is following up with the district health system's integration of the Care Group generated data. This would happen on a monthly basis, because the volunteers will be reporting this information on a monthly basis. Of course, any significant outbreaks (cholera, measles, meningitis or any other sudden health changes) will be shared with the promoters as they are in the communities working with Care Groups on a daily basis. The promoter would then be responsible for informing their supervisor and the HC in the project area.

The M&E Officer will be compiling the data on a monthly basis, by preparing Quarterly C-HIS reports, so that the information can be shared with the district, provincial and national levels of the health system. These reports will be prepared in French as this is the language used at these levels of the government/health system. Across the board, information systems will adhere to the highest possible quality of indicator construction according to international standard definitions. Data will be aggregated and discussed at each level of the system: the Care Group, health center, commune, project office, and district (at quarterly coordination meetings). Hand tabulation using reporting templates will be used from Care Group to promoter, promoter to health center, health center to commune, and commune to project office. The project's main office will compile a computerized database of all C-HIS data as well as process information on program activities, training, supervision etc. The CSP will receive HQ technical unit assistance to build the necessary databases and train staff to use the databases for data entry, management, and analysis. Measures of data quality will be built into the information system, so that all numerators can be related to a denominator that conveys the number of units reporting on any given indicator for a specific period of time. Sustainability will be achieved by ensuring that data is reported through health centers, up to district level – this activity will be facilitated by promoters and supervisors/coordinators and institutionalized over time.

Supervisors will hold monthly meetings to discuss findings from the C-HIS and monitoring surveys with the promoters working in the commune. Health promotion technicians (TPS) and HC staff will be encouraged to participate regularly in these commune-level meetings, in order to (1) build leadership and supervision capacity of TPS; (2) to establish expectations and sustainable mechanisms for coordination of community-level health promotion and facility-level health services; and (3) to build the capacity of TPS and HC staff for evidence-based decision

making using local data. TPS Supervisors will meet monthly to coordinate work plans and intervention schedules with the HC staff and health promotion technicians.

7.5 Contributions to the CSHGP Program Results

PR1: Improved health status of vulnerable target populations

PR1.1: Increased knowledge and improved health practices and coverage related to key health problems and interventions.

The program will generate data to directly address this CSHGP program result via training community-based Care Group volunteers to share key health messages with all beneficiary households and help them adopt behaviors that are new or difficult. Please note that not every project indicator will be measured in every monitoring survey to reduce the monitoring burden.

Project Indicators	Data Source
ORS/ORT: Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids (ORT)	KPC/Baseline & Final Monitoring surveys
Increased fluid intake during diarrheal episode: Percentage of children 0-23 months with diarrhea in the last two weeks who were offered more fluids during the illness	KPC/Baseline & Final Monitoring surveys
Continued feeding during a diarrheal episode: Percentage of children 0-23 months with diarrhea in the last two weeks who were offered the same amount or more food during the illness	KPC/Baseline & Final Monitoring surveys
Appropriate hand washing practices: Percentage of mothers of children 0-23 months who live in a household with soap or a locally appropriate cleanser at the place for hand washing and who washed their hands with soap after defecation and at one other appropriate time..	KPC/Baseline & Final Monitoring surveys
Soap at the place for hand washing: Percent of mothers of children ages 0-23 months who live in a household with soap at the place for handwashing.	KPC/Baseline & Final Monitoring surveys
Safe feces disposal: Percentage of mothers of children 0-23 months who disposed of the youngest child's feces safely the last time s/he passed a stool. *Note: safe disposal includes dropped into toilet facility; water discarded into a toilet facility (except composting toilet); water discarded into sink or tub connected to drainage system (sewer, septic tank, or pit).*	KPC/Baseline & Final Monitoring surveys
Immediate and exclusive breastfeeding of newborns: Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal foods.	KPC/Baseline & Final
Exclusive breastfeeding: Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours	KPC/Baseline & Final Monitoring surveys
Infant and young child feeding: Percentage of infants and young children age 6-23 months fed according to minimum appropriate feeding practices.	KPC/Baseline & Final Monitoring surveys
Dietary diversity of foods consumed by young children: Mean number of food groups eaten in the last 24 hours by children age 6-23 months	KPC/Baseline & Final Monitoring surveys
Child sleeps under an insecticide-treated bed net: Percentage of children age 0-23 months who slept under an insecticide-treated bed net the previous night	KPC/Baseline & Final Monitoring surveys
ITN use by mothers during pregnancy: Percentage of mothers of children 0-23 months who slept under an insecticide-treated bed net during their pregnancy with the youngest child	KPC/Baseline & Final Monitoring surveys

Caretaker knows danger signs for seeking care: Proportion of caretakers of children age 0-59 months who know at least two signs for seeking immediate care when their child is sick.	KPC/Baseline & Final Monitoring surveys

PR1.2: Improved quality and accessibility of key health services at health facilities and within communities.

Project Indicators	Data source
Ownership of long lasting insecticide-treated bed net: Percentage of households of children 0-23 months that own at least one long lasting insecticide-treated bed net (LLIN).	KPC/Baseline & Final Monitoring surveys
Vitamin A supplementation in the last 6 months: Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months (card verified or mother's recall).	KPC/Baseline & Final Monitoring surveys
Child with fever receives appropriate anti-malarial treatment: Percentage of children 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began.	KPC/Baseline & Final Monitoring surveys
Access to Immunization Services: Percentage of children 12-23 months who received DPT1 according the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring surveys
Health System Performance regarding Immunization Services: Percentage of children 12-23 months who received DPT3 according to the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring surveys
Measles vaccination: Percentage of children age 12-23 months who received a measles vaccination according to the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring surveys
Possession of a child vaccination card or health booklet – Ever had: Percent of mothers of children 0-23 months who were ever given a vaccination card or health book for their youngest child 0-23 months.	KPC/Baseline & Final Monitoring surveys
Possession of a child vaccination card or health booklet – Currently have: Percent of mothers of children 0-23 months who currently possess a vaccination card or health book for their youngest child 0-23 months.	KPC/Baseline & Final Monitoring surveys
Antigen and dose specific coverage: Percent of children 12-23 months who received each antigen and dose that is part of the national immunization schedule by the time of the survey as verified by vaccination card or health booklet.	KPC/Baseline & Final Monitoring surveys
Health System Performance regarding Immunization Services: Percentage of children 12-23 months who received DPT3 according to the vaccination card or mother's recall by the time of the survey.	KPC/Baseline & Final Monitoring surveys
Drop-Out Rate: (DPT1-DPT3) / DPT1: (Percentage of children age 12-23 months who received DPT1 by 12 months according to vaccination card or health booklet - Percentage of children age 12-23 months who received DPT3 by 12 months according to vaccination card or health booklet) / Percentage of children age 12-23 months who received DPT1 by time of survey according to vaccination card or health booklet.	KPC/Baseline & Final Monitoring surveys

PR1.3: Increased capacity of communities, local governments and local partners to effectively address local health needs.
The program will train and mobilize approximately 3,100 community volunteers organized into village Care Groups. This increases the ability of communities to address local health needs. The program's local partners, notably the MOH and the Free Methodist Hospital in Kibuye, will be strengthened via access to program training sessions, as well as coordination with program staff on health activities such as EPI outreach. In addition, they will benefit from the C-HIS, which reports on vital events and tracks pregnant women. This information will help them in health program planning. The program will also focus on increasing access to health products such as ITNs, water purification products, and malaria treatment.

Project Indicator	Data source
Care Group Attendance: Percent of Care Groups with average attendance at least 70%.	Promoter & Supervisor Reports/Monthly
Volunteer Attrition: Percent of volunteers who drop out for reasons other than death or movement out of area, beginning year 2.	Promoter & Supervisor Reports/Monthly
Pastoral Groups: Number and percent of pastoral groups that meet monthly	Supervisor Monthly Reports/Monthly

PR2: Increased scale of health interventions

PR2.1: Increased population reached through the use of strategic partnerships and networks.
Care Groups are a network of volunteers that reach every household with an appropriate ratio of volunteer per household (1:10 or 1:15 maximum).

Care Group Network: Number of care groups; number of volunteers.	Promoter & Supervisor Records

PR2.2: Improved health systems and policies that support effective health programs and services at the national level.
The program is tracking "Integration of Care Group Model with existing Ministry of Health C-IMCI Structure" This program is also introducing into Burundi the Hearth model for community-based rehabilitation of malnourished children.

WR Program and HQ staff are keen to introduce to Burundi community case management of suspected malaria. USAID Rwanda funded three PVOs (Concern Worldwide, IRC and WR) to pilot CCM in their CSP districts. The success of the pilot led to a change in government malaria policy and scale-up of CCM to additional districts in Rwanda. The present expanded impact grant is funding the same three NGOs to help the MOH train CHWs in C-IMCI to cover six underserved districts in Rwanda, a population of 1.7 million people.

Although it is difficult to plan for influencing policy and health systems, WR will look for opportunities to serve the MOH and government of Burundi as they shape policies for effective health programming. The CSP will be an example of how effective community-based

methodologies can be, and it will generate reliable data that can be used for program planning even beyond the District level. CSP and WR HQ staff will remain alert to opportunities for scaling up successful program elements.

Project Indicator	Data source
CHW Integration: Number and percent of Care Groups with a CHW in attendance in at least one meeting per month.	Promoter & Supervisor Reports/Monthly
TPS Integration: Participation of TPS in promoter trainings and active involvement in Care Group supervision	Promoter & Supervisor Reports/Monthly

PR3: Increased contribution of CSHGP to the global capacity and leadership for child survival and health

PR3.1: Increased technical excellence.
The following indicators will help to document technical quality:

Number of presentations and publications on technical aspects of project.	Annual report

PR3.2: Improved recognition and visibility of PVO work in health.
The following indicators will serve to document the project's effectiveness in documenting PVO visibility in health:

Number of presentations and publications on technical aspects of project.	Annual report

PR3.3: Increased capacity of new partners of CSHGP to implement effective health programs.
World Relief would like to do more to document and create standardized tools used by CSPs using the Care Groups strategy. This documentation of best practices from World Relief's CSPs, including this one in Burundi, would assist other grantees and partners to implement effective health programs using the model. The ability to do this would be dependent on additional funding.

7.6 Contributions to the USAID Mission Program Results

USAID/Burundi is presently undergoing a strategic planning process. As of March 2008, Country Representative Jim Anderson anticipated that that it would be several more months before the plan's completion. Consequently, they did not have any current Strategic Objectives or Intermediate Results to share with the CSP. USAID/Burundi will share results as soon as they are available, at which time the CSP will identify those results that the CSP supports, indicators for their measurement and a reporting plan.

7.7 Evaluation Plan

The midterm evaluation will be planned to take place during the fourth quarter of Y3 (July-September, 2010) and the final evaluation will be planned to take place early in the fourth quarter of Y5 (July-August, 2012). External consultants with significant experience in the field of child survival will be hired for the midterm and final evaluations, so the exact dates of the evaluations will be partially determined by the availability of the consultant. The months of June through September are considered dry season in Burundi, so the weather conditions during the proposed evaluation dates should be conducive to conducting field work. The major holidays that would fall during the fourth quarter are as follows: primary and secondary schools are on holiday from the beginning of July to the middle of September; July 1st is Burundi's Independence Day and August 15th is the Day of Assumption for the Catholic Church, which is a religious holiday, but also a National Holiday. The exact timing for evaluations, particularly for field work in the communities will take these dates into consideration.

The evaluations will follow USAID CSHGP midterm and final evaluation guidelines with an emphasis on participatory methodology. The WR MCH Specialist (HQ technical backstop) supporting the CSP will be involved in the process of selecting an external evaluator, making arrangements for the evaluation with the field staff and will participate as a member of the Midterm and Final Evaluation Teams. After the evaluation, the MCH Specialist will be available on an ongoing basis to assist the project team in addressing any recommendations that emerge from the evaluation.

8.0 Program Management

8.1 Program Management Overview

The *Child Survival Project Manager* will have overall responsibility for program planning, implementation, and coordination with partners. The *Child Survival Project Training Officer* will be responsible for all training activities, including the development of curriculum, organization of promoter training camps and ongoing supervision of Care Group training. The *Child Survival Monitoring & Evaluation Officer* will be responsible for all aspects of project monitoring and evaluation, including the execution of baseline and final KPC surveys, management of the Community-Health Information System and Care Group process indicators as well as the reporting of project data. As members of the *Child Survival Project Leadership Team*, the Training Officer and M&E Officer will both assist the Project Manager in overall project management. Additionally, the CSP Leadership Team will develop quarterly, monthly and weekly work plans in accordance with the project DIP. The *World Relief Headquarters MCH Technical Unit* in Baltimore, USA, will provide technical direction and monitoring of the CSP and manage grant reporting relationships with USAID in Washington, DC.

The CSP will build technical and operational capacity within the health system through close partnership with the MOH, HealthNet-TPO, FMC-operated health facilities and the communities of Kibuye Health District. At the national level, the CSP will function in close consultation with MOH, UNICEF, and WHO counterparts involved with national plans for C-IMCI, CHWs, CCM, disease surveillance and policies specific to project interventions.

An overview of key personnel is provided in the Table of Personnel (Annex I) and reporting relationships are illustrated in the Project Organogram (Annex J).

CSP Leadership Team Logistics: The CSP will maintain an office in Kibuye, the center of the project area and a 30 minute drive from the provincial center, Gitega town, where banking and additional communication facilities are available. World Relief Burundi has signed a contract with Kibuye Hospital, operated by the Free Methodist Church of Burundi, to secure office space, a training room and a guest house for the CSP. The CSP Leadership Team (Project Manager, Training Officer, M&E Officer) and support staff (Project Accountant and Administrative Assistant) will be based at the CSP office in Kibuye. Additionally, the CSP Leadership Team will have access to office space in the WR Country Office in Bujumbura during visits to the capital for periodic coordination meetings with technical partners, advocacy activities, and national C-IMCI planning meetings.

CSP Implementation Team Logistics: Each of the four communes in Kibuye district will have a *CSP Implementation Team* consisting of one *Supervisor*, six to seven *Promoters*, and approximately 70 *Care Groups*. In order to maximize coordination with local government and MOH partners in the field, Supervisors will regularly visit the commune administration offices and two or more Promoters will be affiliated with each health

center. This structure facilitates close relationships, enables field-based supportive supervision for program staff, and strengthens integration and capacity building opportunities with MOH counterparts. All supervisors will meet weekly with the CSP Leadership Team to review activities, evaluate progress, plan, and address critical issues. Initially, the entire project staff will meet together at the beginning of each week to go over plans, address questions and solve problems that arise. As the Implementation Teams become more experienced, the meetings may become more decentralized, taking place at the commune level under the direction of each supervisor.

Partnership Coordination: WR approaches this CSP with the endorsement of its partners to develop and integrate a vibrant volunteer system for greater community participation in health promotion, which is central to the roll-out of C-IMCI in Burundi. There is enthusiasm for the CSP, though as the first of its kind in Burundi, many partners need to see the volunteer structure up and running before they will be able to fully visualize synergy with other programs. Partners are invited to participate in CSP staff trainings and/or Care Group meetings as appropriate to cultivate mutual understanding and appreciation for the approach.

Kibuye Health District Partners: The CSP partners include the *Ministry of Health (MOH)*, specifically the provincial medical director, provincial health promotion supervisor, health sector chief, HC staff, TPS, and CHWs; *HealthNet-TPO (HN-TPO)*, a Dutch NGO with expertise in health systems development currently working to improve health facilities and health worker performance in Kibuye sector; and the *Free Methodist Church (FMC)*, which runs Kibuye Hospital and is providing office space as a base for CSP activities. Partnership development mechanisms at this level will include: joint quarterly planning and program review meetings; capacity building for HC staff, TPS, and CHWs through training opportunities and mentoring by CSP counterparts; increased availability of local data for decision-making and health planning through monitoring surveys and C-HIS.

National Technical Partners: The CSP will include *WHO*, *UNICEF*, and *the specialized agencies of the MOH*, including the Director of Hygiene and Health Promotion, Director of Health Programs and Services (the coordinating agency for C-IMCI), the national EPI coordinator, and the National Malaria Control Coordinator. Further partnership mechanisms will include: involving technical agencies in review of CS intervention training materials; inviting agency representatives to participate in midterm and final evaluations; and coordinated advocacy on HBM, IPT, and zinc. Collaboration with USAID/Burundi is discussed more in Section 5.

Levels of Communication Among Partners

WR approaches this CSP with the full endorsement of its partners to develop and integrate a vibrant volunteer system for greater community participation in health promotion, central to the roll-out of C-IMCI in Burundi. Joint planning, mutual accountability and regular communication with all stakeholders will facilitate a

coordinated effort, united around a common vision for the future of Burundi's children. The following sections describe communication among partners from the highest level of the District to the most local level of the communities themselves.

Level 1: Health District Leadership, HealthNet TPO Managers, and CSP Director: Quarterly meetings at Kibuye Hospital for joint strategic planning and progress review will include CSP managers, HealthNet TPO community component manager, Kibuye health district chief, and Kibuye Hospital administrators. The Program Manager will also participate in multi-sectoral planning meetings at the health district level.

Level 2: Health Center *Titulaires*, Health Promotion technicians (TPS), Health Center Staff Management Committees (COSAs) and CSP Supervisors: Health Promotion technicians (TPS), health center *Titulaires* and COSAs will be invited to participate in promoter training on program strategy, the Care Group approach, and technical content of C-IMCI interventions. In addition to training camps at the beginning of each intervention, Supervisors will hold biweekly meetings with promoters for in-service training, to build problem-solving capacity through discussion of implementation challenges and successful solutions; and to discuss findings from the C-HIS and monitoring surveys. Health promotion technicians (TPS) and Health Center *titulaires* will be encouraged to participate regularly in these commune-level meetings, in order to (1) build leadership and supervision capacity of TPS; (2) to establish expectations and sustainable mechanisms for coordination of community-level health promotion and facility-level health services; and (3) to build capacity of TPS and *titulaires* for evidence-based decision-making using local data. TPS Supervisors will meet monthly to coordinate work plans and intervention schedules with the HC *titulaires* and health promotion technicians.

Level 3: Health Center Staff and Promoters: Depending on the size of each health center catchment area, one to three promoters will be recruited locally to work in coordination with each facility. The primary role of the promoter is to mobilize and train Care Groups of volunteers and church leaders. However, they will work closely with health center staff in three areas: (1) compile and analyze C-HIS data pertaining to the health center's population; (2) coordinate outreach activities, including MCH weeks, immunization outreach, and services for special populations, such as Hearth participants; (3) strengthen the integration of health promotion activities with health service provision at the facility level. For example, before Care Groups are trained to promote prompt care-seeking for fever, project staff will actively engage health workers in reviewing IMCI protocols for management of fever (suspected malaria) in children and confirming adequate drug supplies for treatment are on hand.

Level 4: Community Leaders, Community Health Agents, and Care Group Volunteers: Village-level collaboration will include village leaders and community development committees, churches, schools, health facility staff, health promotion supervisors, CHWs, traditional healers, TBAs, and private drug sellers. Existing community agents trained by CNLS and PNSR will be invited to join a Care Group in their village. The CSP will be

fully involved in the anticipated expansion of CHWs in the province as part of the national C-IMCI strategy.

8.2 Technical Assistance and Training Needs

The Burundi CSP has a number of technical assistance and training needs that will be necessary to address over the life of the project. These needs will be met through a combination of contributions from WR HQ technical staff, field staff of other WR CSPs, external consultants and graduate public health school interns. The WR HQ technical staff encourages and facilitates sharing of best practices across all WR CSPs. The Project Manager and Deputy Project Manager of the WR Rwanda CSP were involved in the proposal development phase for the WR Burundi CSP and have planned to continue providing support to the Burundi CSP, particularly throughout the start-up phase of the project.

Quantitative and Qualitative Baseline Assessments: The MCH Specialist backstopping the Burundi CSP spent one month in the field working with the Project Manager, M&E Officer and promoters (a total of 9 were hired by the time of the baseline assessments) to conduct the baseline Knowledge, Practice and Coverage Survey and qualitative community health research. This opportunity allowed the M&E Officer to work alongside the MCH Specialist throughout the entire process of questionnaire development (including translation, back translation, pre-testing), data collection, data entry and analysis as well as preliminary report writing. The MCH Specialist was also able to train the promoters on household selection, interviewing skills and documentation. Overall, this experience provided significant opportunities for relationship building (including relationships between HQ and field staff) as well as capacity building for field staff to conduct future quantitative and qualitative assessments.

Driver's Education and Motorcycle Maintenance: The primary mode of transportation for CSP staff during the normal work week will be by motorcycle. All members of the CSP staff will need to be able to operate and maintain the motorcycles for optimal safety. Currently, only driver's schools and the government police are certified to provide driver's education, so five days of training with be arranged with one of these two certified entities. Safety precautions will be emphasized; helmets and rain gear will be provided for all staff.

Care Group Model Orientation: The Care Group Model is new to the country of Burundi and to all of the newly hired Burundi CSP field staff. The WR HQ technical staff have provided extensive overview and resources about the Care Group Model to the Burundi CSP Leadership Team; however, it is recognized that there is no substitute for seeing the Care Group Model in action. Therefore, the CSP Leadership Team will be visiting the Rwanda CSP in Kibogora to meet with Rwanda CSP leadership staff and visit active Care Groups from the first WR Rwanda CSP. This will be a significant opportunity for the Burundi CSP Leadership Team to build relationships with the Rwanda CSP staff and learn from their wealth of experience in implementing the Care Group Model. It will also

provide the Burundi CSP Leadership Team the opportunity to catch a vision for what intensive community mobilization can accomplish through the Care Group Model.

Household Census, Volunteer Selection and Care Group Formation: The household census of beneficiaries and volunteer selection process are foundational activities to the solid formation of Care Groups in a project area. These are also enormous tasks for new CSP staff to successfully conduct in the beginning of project. A former project supervisor of the first Rwanda CSP will be visiting the Burundi CSP to provide practical field support and guidance for the initiation of the household census and volunteer selection process.

Adult Participatory Education: WR has found in previous CSPs that an emphasis on adult education techniques is critical for Care Group volunteers to learn essential child health information and be empowered to effectively convey the information to their neighbors. However, the use of interactive teaching techniques is not a fully developed skill or even a familiar concept to many teachers or community health workers. The Burundi CSP promoters need to learn how to develop and use culturally appropriate participatory teaching methods such as dialogue, story, song, drama and pictures for the success of Care Group trainings. Former Deputy Project Manager from the first WR CSP in Rwanda will come to Burundi to lead training in adult participatory education techniques and in working with Care Groups.

Conflict Resolution Training: All CSP program staff will participate in conflict resolution training with a local expert trainer from Ministry for Peace and Reconciliation Under the Cross CBO (MIPAREC), a Gitega-based CBO with expertise in curriculum development for peace and reconciliation, during Years 1 and 4. In the unlikely event that the project encounters challenges related to ethnic or social tensions among volunteers or within the beneficiary communities, WR will seek guidance from MIPAREC, as well as security advisors at WR HQ, in how best to address the situation. WR has a good relationship with MIPAREC, a Gitega-based Burundian organization that has developed reconciliation, communication, and peace curricula for children and youth.

Financial Management Training: WR is committed to exploring private or donor partnership opportunities in Burundi, in order to overcome near-term LLIN shortages in the project area as well as to establish a mechanism for long-term marketing of LLINs in Burundi. The CSP aims to identify wholesale partners for import of LLINs to Burundi and tap into the project Care Group network to bring subsidized LLIN sales to the community. As was done in Rwanda, where CordAid subsidized Care Group ITN sales, Care Groups could be formed into financial associations and would receive training in financial management and basic accounting to track sales. Alternatively, LLINs could become available for sale through more traditional microenterprise endeavors supported by Turame (World Relief's Microfinance Institution). Regardless, the potential for Care Goups to take on various income generating activities as a collective would benefit from elementary training in financial management. This kind of training will be provided by staff of Turame, which conveniently maintains an office in Gitega city.

Qualitative Research for Project Interventions: The CSP staff will need to conduct extensive qualitative research in the community for all project interventions. The MCH Specialist backstopping the Burundi CSP was able to assist the project staff in conducting qualitative research for the first intervention (Control of Diarrheal Diseases), but additional support in the areas of developing interview guides, conducting in-depth interviews, analyzing qualitative data and integrating findings into curriculum development would be beneficial. The MCH Specialist will continue to provide assistance in these areas, but WR plans to secure a graduate public health school intern with background in qualitative research to provide additional support to the CSP staff. The intern would work with the CSP staff on the ground for a minimum of 3 months, particularly to provide assistance in conducting the necessary qualitative research in preparation for the second intervention (Nutrition I). Several potential candidates for this internship have already been identified.

Community-Health Information System (C-HIS): The Project Manager and M&E Officer will continue to be in dialogue with WR Rwanda CSP Staff, particularly the Project Manager, to gather C-HIS tools that can be adapted for use in the Burundi CSP. The WR HQ technical unit also intends to secure a graduate public health school intern to work with the M&E Officer to interpret the C-HIS resources from the other CSPs and adapt the C-HIS tools to the local context and project needs.

Monitoring Surveys using LQAS: The monitoring surveys for the project will provide feedback on performance by supervision area. The first monitoring survey for the project, scheduled to be completed during the fourth quarter of Y1, will be the first time some of the project staff have participated in a CSP survey (not all project staff were hired before the baseline KPC survey) and it will be the first time any of the project staff have used the LQAS methodology. Therefore, the MCH Specialist backstopping the Burundi CSP will be present to assist in this first monitoring survey, in order to introduce the staff to the new methodology and provide training to build the capacity of the staff to conduct successive monitoring surveys for the remainder of the project.

Positive Deviance/Hearth: PD/Hearth will be introduced in Year 2 of the CSP. Options for training the staff are several. In neighboring Rwanda, the WR Umucyo CSP had a successful experience with PD/Hearth following training provided by Drs. Warren and Gretchen Berggren at a regional workshop organized by WR with partial support from CORE. Depending on the needs of other child survival programming in country at that time, a similar workshop in Burundi similarly could benefit WR and sister agencies. For linguistic reasons, using experienced practitioners from Rwanda and/or the Berggrens (who speak French) makes the most sense. World Relief has also worked in the past with consultants Donna Sillan and Linda Nghatsane, both of whom are experienced PD/Hearth trainers.

8.4 Staff Supervision

WR follows a matrix organizational structure in order to integrate decentralized and responsive line management along with technical supervision and support. The

management of the project is fully incorporated within the WR Burundi Country Office portfolio of programming while maintaining open communication with the HQ MCH team for technical support and matters directly related to the CSHGP. This structure enhances responsive decentralized decision-making and assures that the CSP is harmonized within the overall programmatic activities of WR Burundi.

WR Headquarters Staff: The *HQ MCH Technical Unit* in Baltimore, USA is responsible for project design, technical training and supervision, project monitoring and grant administration. Being free of the details of day-to-day management and administration allows the technical unit to focus on assuring the quality of the CSP health interventions. A MCH Specialist approved by USAID serves as official technical backstop for the project, though additional members of the team also provide support as needed. The WR HQ maintains human resources policies which include guidelines for Performance Management Plans. At the beginning of each calendar year, employees meet with their direct supervisors to establish annual performance expectations based on the principles of setting SMART (Specific, Measurable, Achievable, Results-Oriented, Time-Constrained) Goals. Process is reviewed six months later and then again at the end of the calendar year. Supervisors evaluate their direct reports based on performance and develop plans with them for ongoing professional development. An important part of professional development for those working in Child Survival includes participation in USAID and CORE Group affiliated workshops, meetings and technical updates.

WR International Field Staff: WR Burundi Country Office staff members are supervised through an in country, regional and international system of reporting. Within the WR Burundi Country Office in Bujumbura, the *CSP Project Manager* reports to *WR Burundi Director of Programs*, who provides support and coordination for all of World Relief Burundi's development programs and reports to the *World Relief Burundi Country Director*. The Director of Programs and Country Director will provide assistance in networking with USAID/Burundi and other NGOs working in country from the World Relief Burundi Country Office in Bujumbura. The WR Burundi Country Office maintains its own human resources policies consistent with local labor laws, including methods for formal staff performance reviews. The Country Director and Director of Programs maintain supportive in country relationships with members of the CSP Leadership Team with the aim of continually monitoring and supporting their capacities to successfully manage the CSP. On the regional and international levels, the *WR Burundi Country Director* in Bujumbura reports to the *WR Great Lakes Regional Director* in Nairobi, who reports to the *International Director of Field Operations* who reports to the S*VP for Programs* at the WR HQ in Baltimore.

WR CSP Staff: Within the Kibuye CSP Office, the *Training Specialist* and *M&E Specialist* along with all support staff will report to the *CSP Project Manager*. The project *supervisor* in each commune will provide supervision to a project implementation team consisting of six to seven *promoters,* who together provide training and supervision to approximately 70 *Care Groups* and 700 *Care Group Volunteers* throughout the commune. All supervisors will meet weekly with the CSP Leadership Team to review activities, evaluate progress, coordinate plans and address critical management issues. The supervisors will then be responsible for implementation of project priorities

throughout their commune of responsibility. The four supervisors officially report to the Program Manager who shares responsibility for their training and supervision with the Training and M&E Officers.

The project supervisors will spend a significant amount of their time in the project area observing and monitoring the activities of promoters in the field. Supervisors will visit their community field sites to assess progress through interviews and observations using supervisory checklists and project indicators. Checklists are updated periodically to match the current intervention topic. Supervisors will model the style of supportive feedback and joint problem solving that they expect the promoters to use with their Care Groups. The supervisors will regularly evaluate the demonstrated skills of promoters in the areas of Care Group facilitation, participatory training techniques, C-HIS management and modeling of desired health behaviors. A performance measurement tool ranks on a scale of 1 to 5. When weaknesses in the demonstrated skills of a promoter are identified, the supervisor will work directly with the promoter in the field to improve her skills and confidence.

The project promoters will periodically evaluate the performance of the volunteers within the Care Groups they facilitate. The volunteer's knowledge of health information associated with the interventions will be verbally tested and ranked. Strong volunteers will be paired with weak volunteers during home visits until they improve skills and gain confidence. Volunteers will not be informed of their strong or weak status, but they will be paired, strong with weak so that mentoring can happen naturally through their interactions with each other during household visits. Each Care Group is expected to achieve an aggregate score of at least 70%; Care Groups that fail to achieve this score will be retrained and retested.

The overall structure of implementation teams working together in each commune aims to facilitate close working relationships, so that supportive field-based supervision can be provided to all staff. The objective of this kind of supervision is truly to "support-a-vision," where each member of the project implementation team learns together and supports each other in skill building to ultimately accomplish project goals.

8.5 WR HQ Technical Support

The MCH Specialist will serve as technical backstop for the CSP and will provide ongoing technical support to the WRB Child Survival Leadership Team (Project Manager, Training Officer and M&E Officer) with supervision and input from the Director of MCH Programs. Most direct communication between the HQ technical staff and the CSP field staff will happen between the MCH Specialist and Project Manager. However, the MCH Specialist will also communicate directly with the Training Officer and M&E Officer when more extensive issues of training or M&E need to be addressed. The WR Burundi Director of Programs is to be kept informed of communication between HQ and field staff and assumes responsibility for administrative follow-up as needed from Bujumbura. The CVs for the Project Manager, MCH Specialist and MCH Director are included in Annex K.

The Project Manager will submit monthly progress reports to HQ, which will provide an overview of major activities, partner meetings, accomplishments and challenges from the previous month; support requests and action plans for the upcoming month; Care Group Activity Indicators and Community-Health Information System data from the previous month. Additionally, the MCH Specialist and Project Manager will maintain regular communication by email, fax or phone. This level of close communication will continually cultivate an understanding of field realities at HQ and technical priorities in the field. The HQ technical staff provide the CSP field staff with updates on technical information, promote publication and presentation of lessons learned from the project, disseminate best practices to other CSPs and identify opportunities for professional development and organizational growth.

The project will receive at least one technical support visit from HQ staff per year as follows: (1) two weeks in Y1 for program startup and planning; (2) six weeks in Y1 for baseline assessment support and DIP development; (2) four weeks at the end of Y1 for monitoring survey support and annual report documentation; (2) two weeks in Y3 for the Midterm Evaluation, (3) two weeks at the end of Y3 for annual report documentation, (4) two weeks for the Final Evaluation. Two other trips are included in the budget to allow for training and specialized technical support to meet needs that arise during the project lifetime.

Annex A. Response to Application Debriefing

USAID provided one critical observation in the Summary Feedback in response to World Relief's application. Specifically, it was noted that "The relationship between the Care Group volunteers and the government CHWs and Health Promotion technicians might present problems of coordination." World Relief recognizes that this is a challenge inherent to the nature of working with community volunteer networks. Please refer to relevant discussion in Section 2. Program Strategy where this issue is discussed.

GH/HIDN Child Survival and Health Grants Program
Debriefing Summary Sheet
FY 2007

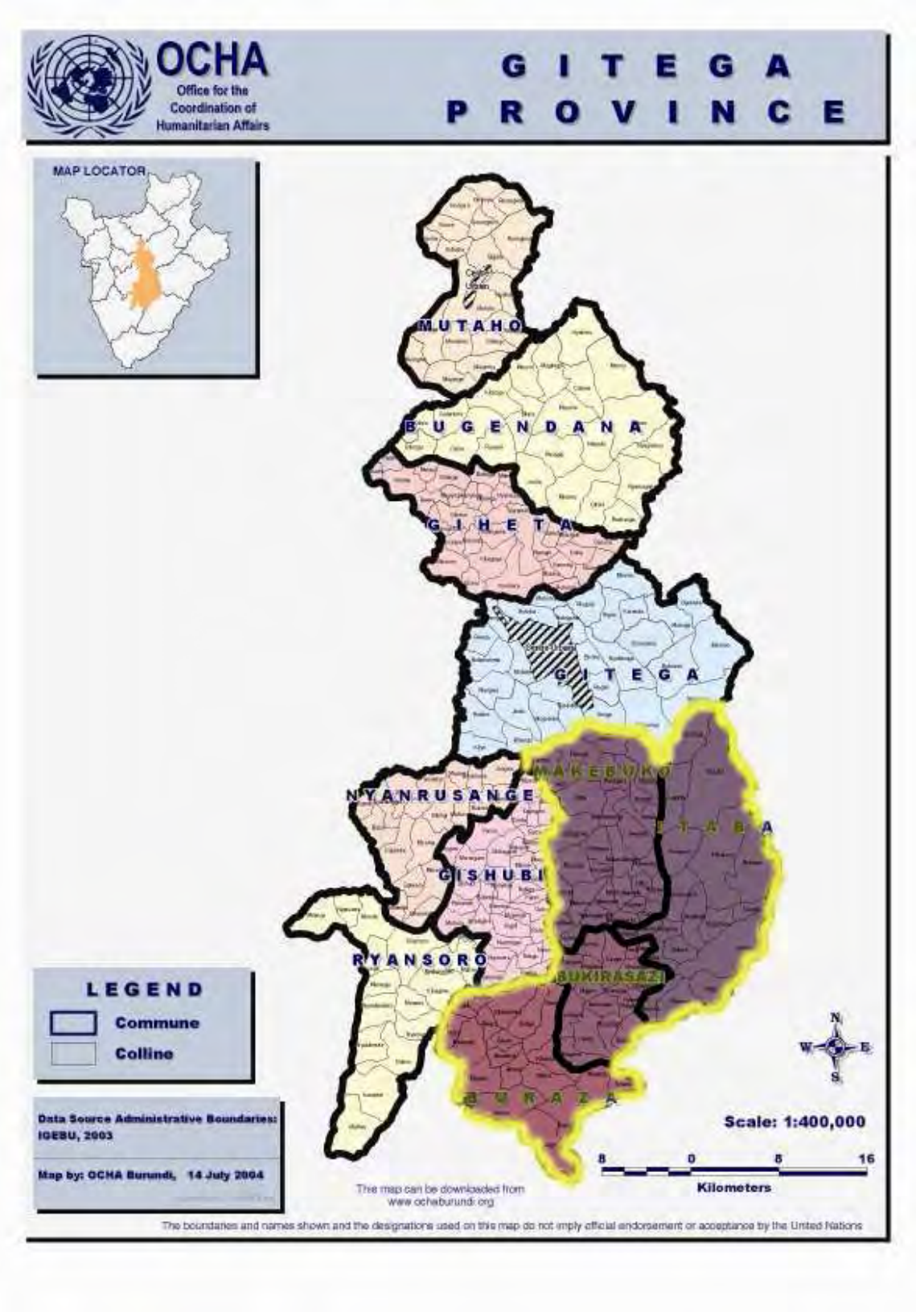
Applicant: World Relief
Country: Burundi
Category: Standard

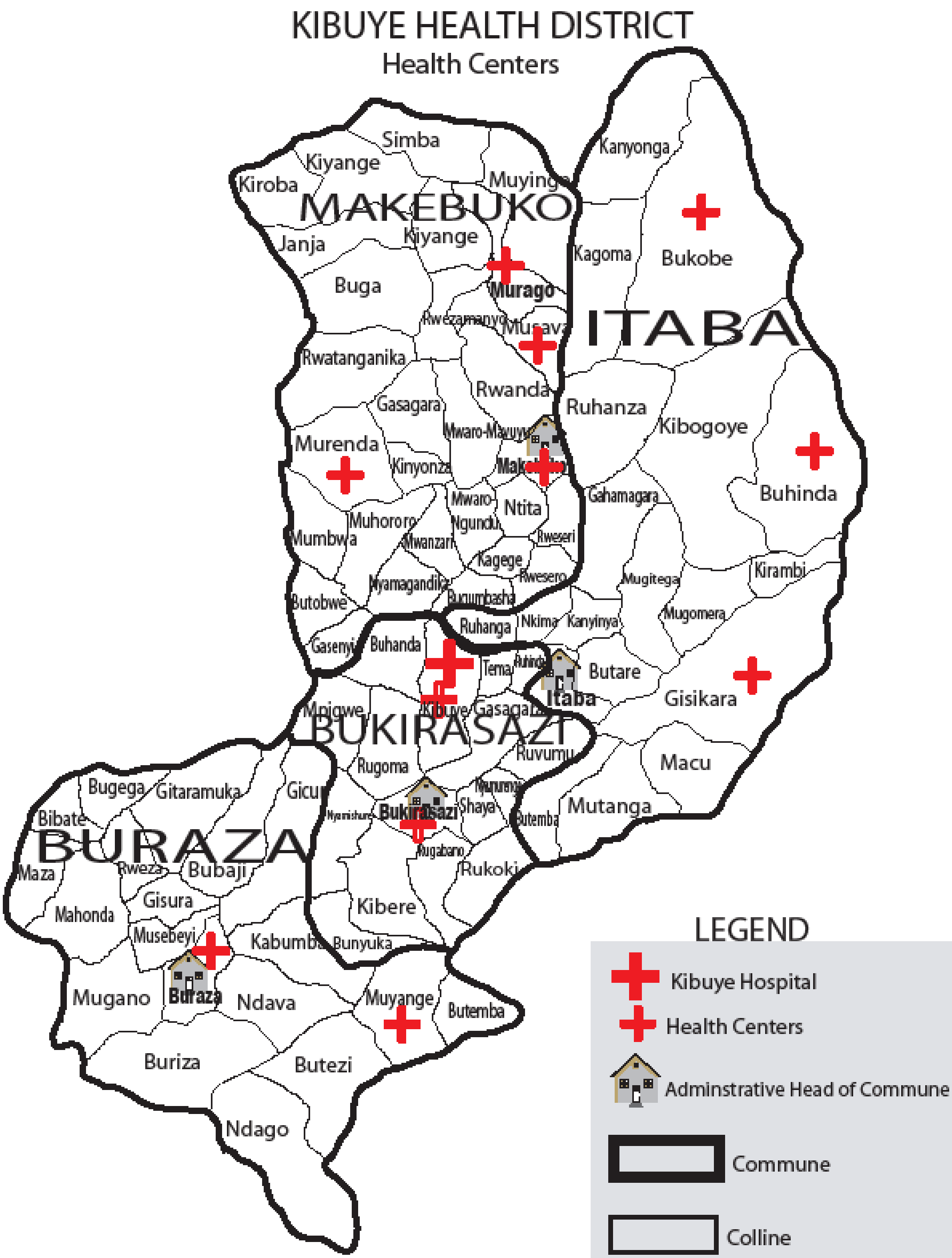
Categories	Entry	Standard	TB
Number reviewed		28	
Number funded		5	
Highest score		97.20	
Lowest score		52.00	
PVO App. Rank		1	
PVO App. Score		97.20	

WRC Burundi Summary Feedback

- The applicant proposes an innovative project in an underserved area, recovering from civil unrest. The applicant proposes to build on lessons learned during previous and ongoing CSHGP projects to introduce a state of the art community-based child survival approach to the area. Burundi as a country will learn a great deal from World Relief's approach as they plan to introduce C-IMCI.
- World Relief has a proven track record I nimproving the preventive health behaviors of mothers and other caregivers. In Burundi they seem to have found an ideal partnership, so that when mothers also improve their care seeking behavior this coincides with increased quality of care at the facility level and increased access to simple care at the community level (community case management of malaria).
- The relationship between the Care Group volunteers and the government CHWs and Health Promotion technicians might present problems of coordination.

Annex B. Maps of Project Area




KIBUYE HEALTH DISTRICT
Health Centers
MAKEBUKO
ITABA
BUKIRASAZI
BURAZA
Simba
Kiyange
Kiroba
Muyinga
Janja
Kiyange
Buga
Murago
Rwezamenyo
Musave
Rwatanganika
Rwanda
Gasagara
Mwaro-Mavuye
Murenda
Kinyonza
Makebuko
Mwaro-Ngundu
Ntita
Muhororo
Mumbwa
Mwanzari
Rweseri
Kagege
Rwesero
Nyamagandika
Butobwe
Bugumbasha
Gasenyi
Buhanda
Ruhanga
Nkima
Kanyinya
Kanyonga
Kagoma
Bukobe
Ruhanza
Kibogoye
Buhinda
Gahamagara
Mugitega
Kirambi
Mugomera
Tema
Butare
Itaba
Gisikara
Mpigwe
Kibuye
Gasagara
Ruvumu
Macu
Rugoma
Mutanga
Shaya
Butemba
Bukirasazi
Rugabano
Rukoki
Kibere
Bunyuka
Bugega
Gitaramuka
Gicu
Bibate
Maza
Rweza
Bubaji
Gisura
Mahonda
Musebeyi
Kabumba
Mugano
Buraza
Ndava
Muyange
Butemba
Buriza
Butezi
Ndago
LEGEND
Kibuye Hospital
Health Centers
Adminstrative Head of Commune
Commune
Colline

Annex C. Description of DIP Preparation Process

The World Relief Burundi Child Survival Project follows a long line of Child Survival Projects implemented by World Relief and based on the Care Group Model, including projects in Cambodia, Malawi, Mozambique and Rwanda. World Relief intends to apply lessons learned from its previous and concurrent projects to this new CSP in Burundi. However, it should be acknowledged that this CSP is a first phase project within a new country and context, which provides for a mix of its own unique opportunities and challenges.

The development of the Detailed Implementation Plan has been a cumulative effort that began in the proposal development phase. WR Rwanda staff visited Burundi in May 2006 to meet with prospective partners and discuss site selection in advance of a formal proposal development visit by HQ technical advisors in October 2006. Dr. Claudette Ndayikunda, Public Health Specialist in the Directorate of Health Programs and Services in the MOH, said a WR CSP was "welcome in Burundi" and suggested WR choose a site in Gitega Province, where the MOH would be introducing C-IMCI in the coming year. Additionally, the HQ technical advisors met with several national and provincial level MOH representatives and personnel from non-governmental organizations including: UNICEF, WHO, CordAid, International Medical Corps, Population Services International, HealthNet-TPO, the Free Methodist Church, and Food for the Hungry. Gitega was also identified as a USAID priority province in dialogue with USAID/Burundi and USAID/East Africa. Kibuye Health District within Gitega province was particularly attractive as HealthNet TPO's activities to strengthen health services were complementary to the CSPs emphasis on key family practices for prevention and appropriate care seeking. Additionally, Kibuye Hospital, run by the Free Methodist Church, is a sister facility to Kibogora Hospital in Rwanda, where World Relief implemented the Umucyo CSP from FY 2001-2006.

Since World Relief received notice of this CSP award, the MCH Technical Unit has been working intensely with the WR Burundi Country Office to move forward with start up activities and prepare for the DIP process. In November, the WR Vice President for Integration and Planning together with the MCH Specialist (technical backstop) made a field visit to orient Burundi Country Office staff about CSP strategies and initiate contact with key partners at the national level (MOH, Unicef, WHO and USAID/Burundi) as well as at the district level (HealthNet TPO, Kibuye Hospital, health center staff and local religious leaders). These initial meetings provided a solid foundation for moving forward with project start up and planning activities, but progress was impeded by substantial shifts in leadership within the WR Burundi Country Office as well as delays in identifying appropriately skilled staff for the CSP leadership positions. Fortunately, by late February the top candidates for the Project Manager and M&E Officer positions were successfully recruited and transitions in key leadership positions were completed by early March.

A significant component of the DIP process involved conducting a baseline knowledge, practice and coverage (KPC) survey in February 2008. The questionnaire used for this Burundi baseline KPC survey was adapted from KPC 2000+ and the Rapid Catch 2007; a 30-cluster random sampling methodology was used to select survey respondents. The KPC survey data was

particularly foundational to the development of the DIP as there has not been a Demographic and Health Survey (DHS) conducted in Burundi since 1987. The MCH Specialist and M&E Officer developed the KPC Survey questionnaire with input from district hospital and health center employees. The completed instrument was reviewed by CSTS and the Director of MCH before the MCH Specialist, M&E Officer and WRB Human Resources Manager conducted four days of training for interviewers and supervised the one week of data collection in the field. The WR Director of MCH, MCH Specialist and M&E Officer entered and analyzed the KPC Survey data in Epi Info 3.4. In an effort to consider all available sources of quantitative data for the immediate project area, HealthNet-TPO project documents, health facilities reports and the small amount of surveillance data available in Kibuye Health District was also reviewed by the CSP team.

After gaining a quantitative perspective of health at the household level in the project area, the CSP team embarked on a journey that will continue throughout the life of the project: listening to and learning from the communities of Kibuye Health District. The MCH Specialist and Child Survival Project Manager developed in-depth interview guides to be used to explore and better understand disease burden and health priorities from the perspectives of community members themselves, particularly related to the health of women and children. A total of 25 interviews were conducted with mothers and fathers throughout the 4 communes of Kibuye Health District. The questionnaires that were developed and the raw data collected from these interviews can be seen in annex D2. This was the first experience for many of the CSP promoters to conduct in-depth interviews, so it was an opportunity for the entire team to learn about the communities they will serve over the life of the project, while beginning to build their skills in collecting qualitative data.

In-depth interview guides were also developed focusing on the critical aspects of diarrheal disease control, the project's first area of intervention. Interview guides pertaining to this intervention, covering the topics of breastfeeding practices, hygiene, danger signs, care seeking, hygiene, water and sanitation, can be found in annex D3. Approximately 16 interviews for each interview guide were conducted throughout all four communes of the project area over the course of two weeks. The preliminary analysis of this data was used to inform the development of the diarrheal control intervention in the DIP. Additional rounds of formative research will be conducted before developing the curriculum for each of the project's interventions.

In addition to the baseline assessment activities, the Child Survival Project Manager and MCH Specialist met with key partners in Kibuye Health District. These discussions were a follow up to the many meetings that had taken place previously during proposal development and the WR HQ technical unit visit in November 2007. True partnership grows over time along with mutual understanding and trust. World Relief's experience with CSPs using the Care Group model is that partners have a difficult time conceptualizing of the volunteer network and seeing its full potential until the program is up and running. Thus, while we have commitments from the MOH and HealthNet TPO to work together, the finer details related to each activity and area of common interest will be worked out one step at a time. As the project proves its worth in the community and synergy with the health system through joint training and community impact, opportunity for collaboration involving increased complexity will evolve. The Child Survival Project Manager will continue to cultivate these relationships and collaborations in country over

the life of the project, in continued consultation with the MCH Specialist and WR Burundi leadership.

A list of staff persons involved and key contacts consulted can be seen below. The Country Office and CSP staff continued to follow up on information that was not available during the MCH Specialist's duration in the field. Communication between Burundi (in Bujumbura and in Kibuye) and Baltimore has been regular in the form of email, phone calls and instant messaging since the MCH Specialist returned from the field. At the WR headquarters, notes from the field were drafted into the final document with the help of all members of the MCH technical unit, including Melanie Morrow, MPH, Director of Maternal and Child Health; Alyssa Davis, MPH, Maternal and Child Health Specialist; Rachel Hower, MPH, Maternal and Child Health Specialist; Emmanual Opati, Grants Coordinator. Contributions to writing and editing were also made by former WR employees Olga Wollinka, MHSHE and Anna West, MHS.

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Dr. George Gahungu, MOH Director of Reproductive Health
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Connie Davis, Senior Technical Advisor Infectious Disease, USAID/East Africa

John Minto, Country Director, Concern Worldwide
Issa Sidibe, Country Director, Pathfinder

Administrative Heads of Communes Bukirasazi, Buraza, Itaba and Makebuko
Population Services International (PSI), Information Systems
Ministry of Health, Health Management Information Systems (HMIS)

Annex D. Reports on Baseline Assessments

D1. Baseline KPC Report
D2. Qualitative Community Needs Assessment
D3. Qualitative Tools for CDD Intervention.

World Relief Burundi Child Survival Project
Kibuye Health District
Gitega Province
BURUNDI

Knowledge, Practice, and Coverage (KPC) Baseline Household Survey Report

April 11, 2008

AUTHORS:
Alyssa Davis, MCH Specialist
Melanie Morrow, Director of MCH
Erica Rosser, WR Intern
Jean-Baptiste Sibomana, M&E Officer

ACKNOWLEDGMENTS

We express our sincere gratitude to the many individuals who made this survey possible.

We would like to thank the Governor of Gitega for his permission to conduct the survey and his letter of support; the Kibuye Hospital Chief of Personel for lending Vitamin A and anti-malarial samples for use during the survey, and the cooperation and support of the many village leaders and community members who offered their assistance during the field work.

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ACRONYMS

ANC	Antenatal Care
ARI	Acute Respiratory Infection
CG	Care Group
CHW	Community Health Worker
C-IMCI	Community-IMCI
CNLS	National AIDS Control Program
CS	Child Survival
CSP	Child Survival Project
CSTS+	Child Survival Technical Support Team Plus
DPT	Diptheria, Pertusis and Tetanus immunization
EBF	Exclusive Breastfeeding
EPI	Expanded Program on Immunization
FMC	Free Methodist Church
FVS	Families Conquering AIDS (*Famille pour Vaincre la SIDA*)
GAVI	Global Alliance for Vaccines and Immunizations
HC	Health Center
HH	Household
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HN-TPO	Health Net-Transcultural Psychosocial Organization
HQ	Headquarters
IMCI	Integrated Management of Childhood Illness
ITN	Insecticide Treated Net
IUD	Intra-Uterine Device
KHD	Kibuye Health District
LLIN	Long-Lasting Insecticidal Net
MCH	Maternal Child Health
MICS	Multiple Indicators Cluster Survey
MMR	Measles, Mumps, Rubella Immunization
MOH	Ministry of Health
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PEV	Expanded Program on Immunization
PNSR	National Reproductive Health Program
POU	Point-of-use Water Treatment
STI	Sexually Transmitted Infection
TH	Traditional Healer
TPS	Health Promotion Technician
U5	Child under five years-old
U5MR	Under Five Mortality Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing (for HIV/AIDS)
WHO	World Health Organization
WR	World Relief

I. EXECUTIVE SUMMARY

The World Relief Burundi Child Survival Project (CSP) conducted a baseline knowledge, practice and coverage (KPC) survey in February 2008. The survey was conducted throughout the CSP's project area of Kibuye Health District, which is located in the southeastern region of Gitega Province in central Burundi and comprises of four communes: Bukirasazi, Buraza, Itaba, and Makebuko. The survey was designed to assess the knowledge and practices of mothers of children 0-23 months in diarrheal disease control, malaria control, pneumonia, infant and young child feeding, maternal care, immunization coverage, and growth monitoring. The questionnaire used for the Burundi baseline KPC survey was adapted from KPC 2000+ and the Rapid Catch 2007; a 30-cluster random sampling methodology was used to select survey respondents.

Indicators measured by the KPC baseline survey include:

- Percent of children aged 12-23 months who received DTP1
- Percent of children aged 12-23 months who received DTP3
- Percent of children aged 12-23 months who received measles vaccine
- Percent of children age 6-23 months who received a dose of Vitamin A in the last 6 months
- Percent of mothers with children age 0-23 months who received at least 2 tetanus toxoid vaccinations
- Percent of children aged 12-23 months whose births were attended by skilled personnel
- Percent of children aged 12-23 months who received a post-natal visit from an appropriate trained health worker within 3 days after birth
- Percent of children aged 12-23 months with chest-related cough and fast and/or difficult breathing in the last 2 weeks who were taken to an appropriate health provider
- Percent of children aged 12-23 months with a febrile episode during the last 2 weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began
- Percent of children aged 12-23 months with diarrhea in the last 2 weeks who received ORS and/or ORT
- Percent of children aged 12-23 months who slept under an insecticide-treated bed net the previous night
- Percent of households of children age 0-23 months that treat water effectively
- Percent of mothers of children age 0-23 months who live in households with soap at the place for hand washing
- Percent of children age 0-5 months who were exclusively breastfed during the last 24 hours
- Percent of children age 6-23 months fed according to a minimum of appropriate feeding practices
- Percent of children aged 12-23 months who are underweight

II. BACKGROUND

Recently emerging from over a decade of brutal civil war, Burundi is one of the poorest countries in Africa. The country has among the highest population densities in Sub-Saharan Africa. The population is made up of three major ethnic groups--Hutu, Tutsi, and Twa. In contrast to neighboring Rwanda, ethnic terms and labels persist in public discourse in Burundi despite similar histories of conflict and abuses of power. Kirundi is the most widely spoken language; however, French and Kiswahili are also widely spoken. Ninety percent of Burundi's

population live in rural areas, and the majority of these are engaged in subsistence agriculture, occasionally supplemented by petty trading or other small-scale commercial activity. Some households also produce cash crops, such as coffee. A decade-long civil war, rapid population growth, and environmental degradation, including erosion of fertile topsoil in agricultural areas, contribute to Burundi's dependence on food imports and foreign assistance.

Country Health Profile of Children Under Five Years of Age

Burundi's estimated infant mortality rate is 156 per 1,000 live births, with an under five mortality rate of 231 per 1,000 live births.[vi] Malaria accounts for almost half of child deaths in health facilities nationwide and malnutrition is the second leading cause of death.[vii] A staggering forty-one percent of rural children under five years of age are underweight.[viii]

Program Location

The Burundi CSP is based in southeastern Gitega Province in central Burundi. Gitega has an estimated population of 847,400 in 11 communes.[ix] The project area includes the 85 *collines,* organized into four communes, which together make up the Kibuye Health District: Makebuko, Itaba, Bukirasazi and Buraza. Estimates of the district's population vary widely, from 169,747 to as high as 243,006, depending on the source.

Target Beneficiary Population

The project targets women of reproductive age (defined as women 15-45 years of age in Burundi) and children under the age of five. Based on population data from the Commune Administrative heads, the project area would include the following beneficiary population:

Women of reproductive age (15-45)	**38,176**
Children under 5 years of age	**24,376**
0-11 months	*6,688*
12-23 months	*6,688*
24-59 months	*11,000*
Total direct beneficiary population	**62,552**

National Standards and Policies

Health Services

There are ten health centers (HCs) in Kibuye Health District (KHD). Eight HCs are MOH-affiliated and managed, while two HCs are private, mission-run facilities operated separately by the Catholic and Free Methodist Churches. Construction and staffing of three more health centers are planned during the next two years. HCs provide preventive and curative services, with varying capacity. Preventive services typically include immunization, antenatal care, family planning, and growth monitoring. Less commonly available preventive services include postnatal care, vaccination of women of reproductive age (with tetanus toxoid), as well as VCT for HIV and STI screening. Kibuye Hospital, run by the Free Methodist Church (FMC) of

Burundi, is the referral center for all 10 HCs in KHD. Under a new arrangement facilitated by HealthNet-TPO, the FMC and the MOH share the cost of salary for the hospital's sole physician. The hospital has an operating theater for surgical procedures, delivery care, inpatient beds, a TB isolation ward, lab tests, and (when reagent is in stock) VCT for HIV. In addition to the recent government roll-out of C-IMCI, the MOH also plans to expand enrollment and access to services provided by *mutuelles de santé*, a local health insurance scheme modeled after a successful initiative in Rwanda, which may reduce financial barriers to care seeking at the community level and lead to increases in service utilization.

Immunizations

The standard immunization regimen for infants in Burundi includes the GAVI-supported pentavalent vaccine. Drug and vaccine stockouts are less frequent under a new arrangement, whereby the health centers that report monthly statistics on health services provided for free to children U5 and pregnant women are reimbursed in the form of drugs rather than payments. Some health centers conduct EPI outreach, while smaller centers offer immunizations only at facilities. Semi-annual Maternal and Child Health (MCH) Weeks provide Vitamin A and maternal iron supplementation, mebendazole (for de-worming), and opportunities to recover immunization defaulters. Shortages of Vitamin A have disrupted this outreach mechanism in recent years. Immunization defaulters are identified when a sick child is brought to the health center for IMCI consultation; staff check the child's health card and provide catch-up vaccines as needed.

HIV/AIDS and Family Planning

In each commune, a health promotion technician (*Technicien de la Promotion de Santé* - TPS) supervises community health workers (CHWs) trained by the National Aids Control Program (CNLS) and the National Program on Reproductive Health (PNSR). Currently, there are 30-40 CHWs per commune conducting HIV prevention education, family planning promotion and distribution of condoms and spermicide. Availability of VCT within the project area is limited to Kibuye Hospital and two health centers, but they are often unable to provide VCT due to lack of reagent or trained staff. Some- community agents trained by CNLS also work with a community-based organization called Families Conquering AIDS (*Familles pour Vaincre la SIDA* - FVS), a community-based organization that supports families affected by HIV/AIDS in Kibuye health sector. Pills, injectables, IUDs, and male condoms are available at health centers.

Antenatal Care

According to the *National Plan of Health Development 2006-2010,* the MOH plans to improve pre-natal consultation services, and reinforce community sensitization about the availability of improved services. Antenatal and delivery care are provided free of charge. TBAs in the community are trained by health center staff, and receive quarterly refresher trainings. TBAs refer women with a "high risk" symbol on their maternal health cards (marked by nurses during ANC) to HCs. If the HC cannot handle the delivery, they refer the patient to Kibuye or Gitega hospitals. HealthNet TPO has provided a radio for each HC and an ambulance for Kibuye Hospital to strengthen the referral system for complicated deliveries and other emergencies.

Malaria

The MOH seeks a 25% reduction in malaria incidence by 2010, with long-lasting insecticidal nets (LLINs) as the primary prevention strategy. Drug case management is also high on the government of Burundi's list of priorities. The current recommended treatment regimen is Artesunuate and Amodiaquine (AS-AQ).

Acute Respiratory Infections

Health centers treat ARI (pneumonia) with amoxicillin syrup; complicated cases are referred to Kibuye and Gitega Hospitals.

Project Goals and Strategic Objectives

The project will implement the Care Group Model in Kibuye Health District in support of and in full coordination with the MOH's introduction of C-IMCI in four focal provinces, including Gitega. Please refer to Section 2.a of the Detailed Implementation Plan for a description of the Results Framework and selected strategies.

The program strategy was developed based on the Implementation Framework for Household and Community Integrated Management of Childhood Illness (HH/C-IMCI). Focal technical interventions address major causes of mortality and morbidity in the project area, are consistent with MOH priorities for initial implementation of C-IMCI, and respond to felt needs identified by caregivers and health workers.

Table 1: Intervention Mix and Level of effort

INTERVENTION MIX	LEVEL OF EFFORT
Malaria Prevention and Case Management	30%
Nutrition	25%
Control of Diarrheal Diseases	20%
Immunization	10%
Breastfeeding Promotion	10%
Vitamin A	5%

Intervention-Specific Objectives

1. Malaria Prevention and Case Management

- 60% of children with fever (suspected malaria) will receive appropriate anti-malarial treatment within 24 hours
- 50% of households with a child 0-23 months will own at least one LLIN
- 50% of children 0-23 months will have slept under an LLIN or ITN (treated within the past 6 months) the previous night
- 50% of women with a child 0-23 months will have slept under an ITN while they were pregnant with their youngest child

2. Nutrition including Breastfeeding Promotion and Vitamin A

- 75% of newborns will be immediately breastfed within one hour of delivery, and will receive no prelacteal feeds
- 50% of children 6-23 months will be fed according to minimum appropriate feeding practices.
- 60% of children who completed the *Hearth* program achieve sustained adequate or catch-up growth for at least two months following completion of *Hearth* session

3. Control of Diarrheal Disease

- 70% of mothers of children age 0-23 months will wash hands with soap or soap-substitute at least two of the appropriate times
- 70% of children with diarrhea in the past two weeks will receive ORS and/or ORT with recommended home fluids
- 70% of children with diarrhea in the past two weeks will be offered more fluids than usual during the illness
- 80% of children with diarrhea in the past two weeks will be offered the same amount or more food during a diarrheal illness

4. Immunization

- 80% of children 12-23 months will be immunized with DPT1.
- 80% of children 12-23 months will be immunized with DPT3.
- 80% of children 12-23 months will be immunized against measles.

5. Cross-Cutting:

- 80% of mothers of children 0-12 months will know two or more danger signs for seeking immediate care when their child is sick.

III. PROCESS AND PARTNERSHIP BUILDING

Several efforts were made to ensure that the KPC survey was a participatory process. Key program staff, including the Burundi Monitoring and Evaluation (M&E) officer and HQ MCH specialist worked closely to supervise training, data collection and analysis.

Commune administrative offices were informed in advance of intentions to conduct the survey in their communities. They in turn gave authorization for survey activities and informed local leaders of data collection plans. Commune heads provided population data for sampling purposes. Local leaders also assisted the survey team by helping them to navigate the community and legitimizing the team's presence during data collection. Health workers with long-term experience in the project area were also consulted on the survey questionnaire in an effort to make it more locally appropriate.

Constraints encountered in ensuring participatory nature of the KPC survey process were as follows: The small number of health center personnel in the district and limited availability of higher-level MOH employees made it difficult involve them directly in data collection and supervision of interviewers. At the time of the survey, the project was still in the process of recruiting and hiring field staff; thus it was not possible for all project staff to fully participate in the data collection, analysis and report writing process. Additionally, since there were no project staff hired in great advance of the KPC field work, it was difficult to arrange additional opportunities to engage local partners before the data collection took place.

IV. METHODS

The purpose of this KPC survey is to provide a baseline against which the CSP will measure the impact of project activities at midterm and end of project (EOP). Baseline measures for key indicators help project staff determine which behaviors and services must be strengthened in order to meet EOP targets and help the project to assign appropriate levels of effort to specific technical interventions.

The baseline KPC questionnaire is administered to mothers of children 0-23 months; the design is based on the KPC 2000+ modules that include the newly revised Rapid CATCH indicators as well as project indicators. Some project indicators are associated with EOP targets, as shown above, while others are collected for monitoring purposes. Previous field experiences with similar surveys helped staff to formulate detailed response choices that enable interviewers to

more accurately record caregivers' responses. For example, in order to address surveyor confusion over whether increasing breastfeeding during illness was considered increased feeding or increasing fluids, a new field specific to the amount of breast milk given during illness was added to the questionnaire. The nutrition section of the survey was also adapted to include locally available foods. The questionnaire was reviewed by Melanie Morrow, the WR Director of MCH and Jennifer Luna from CSTS+. The approved questionnaire was developed in English and then translated into the local language, Kirundi, by the M&E Officer, and then back translated by another staff member to assess accuracy of the initial translation. Discrepancies in translation were resolved through discussion amongst bilingual staff. (See Appendices B and C for the survey questionnaires.)

The survey was pre-tested in two sub-collines from within the project area that had not been randomly selected to be a part of the 30 cluster random sample. These sub-collines are culturally, economically, and geographically similar to the rest of the project area. Survey staff conducted 2 interviews each and then came back to discuss any problems with asking questions or coding responses; the survey instrument was then adapted based on their experiences and the discussion.

The questionnaire contains 56 questions that cover the following topics:

Question	Topics
1	Identification and ages
2-13	Maternal and Newborn Care
14-16	Breastfeeding and nutrition
17-28	Vitamin supplementation and Immunization
29-34	Illness recognition
35-39	Diarrhea control
40-43	Pneumonia treatment
44-50	Water and Sanitation
51-55	Malaria prevention
56	Growth monitoring

Rapid CATCH 2007 Indicators:

INTERVENTION AREA	INDICATOR DEFINITIONS
CONTROL OF DIARRHEAL DISEASES	Percentage of children aged 0-23 months with diarrhea in previous 2 weeks who were given ORS and/or recommended home fluids.
PNEUMONIA MANAGEMENT	Percentage of children aged 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider
WATER AND SANITATION	Percentage of mothers of children aged 0-23 months who live in households with soap at the place for hand washing.
	Percent households of children aged 0-23 months that treat water effectively
CONTROL OF MALARIA	Percentage of children aged 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began.
	Percentage of children aged 0-23 months who slept under an ITN last night.

IMMUNIZATION	Percentage of children aged 12-23 months who received measles vaccine according to the vaccination card or mother's recall by the time of the survey
	Percentage of children aged 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey
	Percentage of children aged 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey
NUTRITION	Percentage o of children aged 0-5 months who were exclusively breastfed during the last 24 hours
	Percentage of children aged 6-23 months fed according to a minimum of appropriate feeding practices
VITAMIN A SUPPLEMENTATION	Percentage of children aged 6-23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall
GROWTH MONITORING	Percentage of children aged 0-23 months who are underweight (-2 SD for the median weight for age, according to WHO/NCHS reference population)
MATERNAL AND NEWBORN CARE	Percentage of mothers with children aged 0-23 months who received at least 2 tetanus toxoid vaccinations before the birth of their youngest child
	Percentage of children aged 0-23 months whose births were attended by skilled personnel
	Percentage of children aged 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after birth

Sampling Design

The survey team used a standard 30-cluster sampling methodology with 10 households per cluster. The populations of all sub-collines within each of the 4 communes of Kibuye Health District were obtained from commune heads; 30 sub-collines were randomly selected and then 10 households from each sub-colline were randomly selected to participate in the survey. The total sample of 300 was large enough to provide adequate denominators for calculating indicators for subgroups (such as sick children or children within a particular age group). The sampling framework can be found in Appendix A.

Sample Size Calculation

Sample size was calculated using the following formula:

$$n=z^2(pq)d^2$$

where n = sample size; z = statistical certainty chosen; p = estimated prevalence/coverage rate; q = 1 - p; and d = degree of precision.

The p value was defined by the coverage rate that requires the largest sample size (p = 0.5). The margin of error or d value was set at 0.1. The statistical certainty chosen was 95% (z = 1.96). The resulting sample size needed (n) was determined to be:

n = (1.96 X 1.96)(.5 X .5)/(.1 X .1)
n = (3.84)(.25)/.01
n = 96

In order to compensate for bias which enters the survey from interviewing persons in clusters (rather than randomly selecting 96 persons), the sample size of 96 should be doubled. However, experience has shown that a minimum sample of 210 (7 per cluster) should be used with the given values of p, d and z. To further eliminate bias and to take into account possible non-respondents, the sample size of 300 was chosen (10 per cluster).

Confidence limits were calculated using the following formula, assuming a conservative design effect of 2^x:

$P = p \pm z \sqrt{(pq/n')}$, where n' = the *effective sample size* of the sample or sub sample.

Effective Sample Size (n') = n/e, where:

n = size of survey sample or sub-sample

e = *design effect*. The design effect is a value corresponding to how much the cluster survey departs from the assumptions of a simple random sample. The design effect is used to correct the value of n used to calculate the confidence limit of a cluster survey.

EXAMPLE: Assume p = .4, q = .6, n = 210, design effect (e) = 2, z = 1.96

$P = p \pm Z \times \sqrt{(pq/n')}$

$P = p \pm 1.96 \times \sqrt{[(.6 * .4)/(210/2)]}$

$P = p \pm 1.96 \times \sqrt{(.24/105)}$

$P = p \pm .09$

$P = .4 \pm .09 = .31 \leq p \leq .49$

Conclusion: We are 95% confident that the true proportion in the population is between 31% and 49%. The best estimate for the true proportion in the population is 40%.

Household Selection

The starting point for each cluster was determined in the following manner: the survey team asked village leaders to identify the center of the village. From that central point, a random direction was selected by spinning a bottle. Surveyors then walked in a straight line in the randomly chosen direction until they reached a house with a child under 24 months, which became the first mother interviewed. The second and subsequent households were selected by continuing in the same direction in a straight line, until a second house with a child under 24 months, then a third house, and so forth

In each cluster, 10 mothers were interviewed. In cases where the mother was not available at the time the interviewer arrived at the home, the interviewer would return to the same house later in the day. If the mother was still not available by the end of the day, then the house was skipped. In the case where there were two children under 24 months, the younger child was selected. In the case of twins, the second born of the two was selected. Mothers were interviewed alone unless the husband objected, in which case he was allowed to be present as well; this occurred in very few instances.

Interviewer Recruitment

The 12 interviewers were recruited from among a pool of candidates being considered for full-time positions as promoters and supervisors with the Burundi CSP. All surveyors therefore matched the CSP job qualifications and had completed secondary school as well as some level of higher technical education. The interviewers were of a variety of ages between 20 and 40 years of age; all were female. All interviewers were fluent in the local language, Kurundi. The surveyors came from a wide range of professional backgrounds; however, several of the surveyors were experienced nurses and had experience working in the community.

Interviewer and Supervisor Training

The surveyors completed four days of training conducted by the World Relief HQ MCH Specialist with previous experience working with WR's child survival projects and recent experience with field work and data analysis of KPC surveys in other countries. The M&E Officer assisted with the training sessions for the surveyors. Interviewer training covered the objectives of the KPC survey, the process and rationale of 30 random cluster methodology, basic survey interview techniques and an in-depth review of the survey content. In pairs, surveyors practiced reading the questionnaire and coding responses accurately. In addition, supervisors received training on how to monitor interviewers and check for accurate coding on survey questionnaires.

Pre-testing of the questionnaire that took place in neighboring sub-collines and provided interviewers with an additional opportunity to practice conducting the survey and coding responses on the survey form. It also allowed the supervisors to practice using the supervisor forms, to take note of potential problems that may be encountered in the field, and to strategize ways to overcome the identified challenges. An additional half day of training was conducted after pre-testing to review the revised questionnaire form and to discuss problems that were observed in the field or in the coding of the questionnaires.

Overall, the survey coordinators were pleased with the interviewers' performance during the KPC survey. Nine of the twelve interviewers were eventually hired as full time staff for the CSP. The training that they received during this baseline survey will provide a platform from which to continue future project monitoring and evaluation activities.

Data Collection and Analysis

Interviews required approximately 30-45 minutes per household to complete. Five and a half days were needed to complete all the data collection for the 300 households. There were a number of infrastructural challenges in the field (i.e. poor roads, bridges, lack of cellular phone network, automotive problems) that slowed progress. The three supervisors reviewed each completed KPC survey in the field before leaving the village in which data had been collected, in order to ensure the completeness and accuracy of the survey forms. In the event of missed data, interviewers returned to the households to gather the necessary information.

The data entry and analysis team consisted of the WR Burundi CSP M&E Officer, World Relief HQ MCH Specialist, the World Relief HQ MCH Director and a visiting WR Rwanda MCH Intern. The experience served as a practical opportunity for the M&E Officer to be trained by the MCH Specialist in entering and analyzing data with EPI INFO. The coded survey responses

were entered into a standardized EPI INFO template. For quality control purposes, the data from survey forms was compared with data entered into EPI INFO by a second individual, so that conflicts between the two could be investigated and resolved. Responses entered into the "other" fields were translated into English by the M&E Officer. Basic statistical analyses, primarily frequencies and ranges, were conducted to identify any inconsistencies, so that the data could be cleaned accordingly. The Rapid Catch 2007 indicators and other project indicators were then calculated.

RESULTS

Table 1. Basic Demographics of Children Surveyed

Sex	Survey Population Frequency (%)
Male	144 (48.3%)
Female	154 (51.7%)
Age (Months)	
0-5	81 (26.9%)
6-11	83 (27.6%)
12-23	136 (45.5%)

Table 2. Summary of KPC Survey Indicators

INDICATOR	NUMERATOR	DENOMINATOR	PERCENT	95% CONFIDENCE INTERVAL
IMMUNIZATION				
% of children aged 12-23 months who received measles vaccine according to the vaccination card or mother's recall by the time of the survey	121	136	89.0%	82.5-93.7%
% of children aged 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey	129	136	94.9%	89.7-97.9%
% of children aged 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey	100	136	73.5%	65.3-80.7%
MATERNAL AND NEWBORN CARE				
% of mothers with children age 0-23 months who received at least 2 tetanus toxoid vaccinations before the birth of their youngest child	157	300	52.3%	46.5-58.1%
% of children age 0-23 months whose births were attended by skilled personnel	181	300	60.3%	54.6-65.9%
% of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after birth	98	300	32.7%	27.4-38.3%
NUTRITION				
% of children age 0-5 months who were exclusively breastfed during the last 24 hours	70	81	86.4%	77.0-93.0%
% of children age 6-23 months fed according to a minimum of appropriate feeding practices	56	219	25.6%	14.7-36.5%
VITAMIN A SUPPLEMENTATION				
% of children age 6-23 months who received a dose of Vitamin A in the last 6 months by card verification or mother's recall	179	219	81.7%	75.5-87.9%
GROWTH MONITORING				
% of children age 0-23 months who are underweight (-2SD for the median weight for age, according to WHO/NCHS reference population)	49	299	16.4%	6.0-26.8%
MALARIA				
% of children age 0-23 months who slept under an insecticide-treated bed net the previous night	24	300	8.0%	5.2-11.7%
% of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	19	111	17.1%	0.0-39.5%
CONTROL OF DIARRHEA				
% of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution and/or recommended home fluids	31	71	43.7%	31.9-56.0%
WATER AND SANITATION				
% of households of children age 0-23 months that treat water effectively	5	300	1.7%	0.5-3.8%
% of mothers of children age 0-23 months who live in households with soap at the place for hand washing	161	300	53.7%	47.8-59.4%
PNEUMONIA				
% of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider	54	102	52.9%	42.8-62.9%

Table 3. Summary of Project Indicators and Targets*

INDICATOR	NUMERATOR	DENOMINATOR	PERCENT	95% CONFIDENCE INTERVAL	PROJECT TARGET
CONTROL OF DIARRHEA					
% of mothers of children age 0-23 months who wash hands with soap at two or more appropriate times	54	300	**18.0%**	13.8%-22.8%	**70.0%**
% of children 0-23 months with diarrhea who are offered increased fluids	23	71	**32.4%**	21.8-44.5%	**70.0%**
% of children 0-23 months with diarrhea who received continued or increased feeding	45	71	**63.4%**	51.1-74.5%	**80.0%**
% of children 0-23 months with diarrhea who receive oral rehydration solution and/or home recommended fluids	31	71	**43.7%**	31.9-56.0%	**70.0%**
NUTRITION					
% of children age 6-23 months fed according to a minimum of appropriate feeding practices	56	219	**25.6%**	14.7-36.5%	**50.0%**
% of children who were immediately breastfeed with no prelactal feeds	186	300	**62.0%**	56.2-67.5%	**75.0%**
% of children who completed the *Hearth* program achieve sustained adequate (200-600 grams)or catch-up (over 700 grams) growth for at least 2 months after *Hearth*	NA	NA	**NA**	NA	**60%**
MALARIA					
% of households with a child 0-23 months who own an LLITN	9	300	**3.0%**	1.4-5.6%	**50.0%**
% of children age 0-23 months who slept under an LLITN or an ITN treated within the past 6 months the previous night	24	300	**8%**	5.5-11.7%	**50.0%**
% of women who slept under an ITN during last pregnancy	98	300	**32.7%**	27.4-38.3%	**50.0%**
% of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	19	111	**17.1%**	0.0-39.5%	**60.0%**
IMMUNIZATION					
% of children aged 12-23 months who received measles vaccine according to the vaccination card by the time of the survey	75	136	**55.1%**	46.4%-63.7%	**80.0%**
% of children aged 12-23 months who received DTP1 according to the vaccination card by the time of the survey	85	136	**62.5%**	53.8-70.6%	**80.0%**
% of children aged 12-23 months who received DTP3 according to the vaccination card by the time of the survey	83	136	**61.0%**	52.3-69.3%	**80.0%**
C-IMCI					
% of mothers of children age 0-23 months who know at least two signs for seeking immediate care when their child is sick	186	299	**62.2%**	56.4-67.7%	**80.0%**

**This table includes all intervention specific project indicators and targets, some of which are the same as Rapid Catch 2007 indicators.*

Malaria Prevention and Case Management

Case management: The EOP target for malaria treatment is consistent with RBM Abuja target for case management: at least 60% of all children with a febrile episode will receive treatment with an effective anti-malarial drug within 24 hours. At the time of the survey, mothers reported that 111 of 300 children (37.0%; 95% CI: 31.5-42.7%) had experienced a fever in the past two weeks. Of these, only 19 children (17.1%, 95% CI: 0-39.5%) received an effective anti-malarial within 24 hours of the onset of fever.

Prevention: Substantial increases in ITN use are needed in order to reach the EOP target of 60% use among children under 0-23, which is consistent with RBM Abuja targets for ITN use. A surprising 185 out of 300 households (61.7%; 95% CI: 55.9-67.2%) reported owning an ITN. However, only 20 households (6.7%; 95% CI: 4.1-10.1%) owned an ITN that had been treated within the past six months, and an additional 9 households (3.0%; 95% CI: 1.4-5.6%) owned an LLIN. Only 24 out of 300 children surveyed (8.0%; 95% CI: 5.2-11.7%) slept under an LLIN or an ITN treated within the past six months. At the time of the survey only 8 out of 300 children (2.7%; 95% CI: 1.2-5.2%) slept under an LLIN the previous night. Among mothers of children 0-23 months, 98 out of 300 mothers (32.7%; 95% CI: 27.4-38.3%) reported sleeping under an ITN all or most of the time during the pregnancy with their youngest child; specific data on when nets had previously been treated with insecticide was not available.

Nutrition, Breastfeeding Promotion, and Micronutrients

Nutritional status: Of the 299 children weighed, 49 children (16.4%; 95% CI: 6.0-26.8%) were underweight (> - 2 standard deviations, weight-for-age), according to WHO standards.

Exclusive Breastfeeding: Just under two thirds, or 186 out of 300 children surveyed (62.0%; 95% CI: 56.2-67.5%) were immediately breastfed within one hour of delivery and received no prelacteal feeds. Among 81 children who were age 0-5 months at the time of the survey, 70 infants (86.4%; 95% CI: 77.0-93.0%) were exclusively breastfed during the last 24 hours (based on mothers' recall). Complementary feeding leaves considerable room for improvement: only 56 of 219 children (25.6 %; 95% CI: 14.7-36.5%) in the 6-23 months age group were fed according to a minimum of appropriate feeding practices.

Vitamin A Supplementation: When mothers recall and verification on an immunization card were considered together, 179 out of 219 children (81.7%; 95% CI: 75.5-87.9%) had received Vitamin A supplementation in the previous six months. However, card verification for Vitamin A supplementation was available for only 30 children (13.7%) among this group.

Control of Diarrheal Disease

The two week period prevalence of diarrhea episodes in children age 0-23 months, as reported by mothers, was 23.7% (71 out of 300 children).

Case management: Of these, 53 children (74.6%; 95% CI: 62.9-84.2%) had received treatment with ORS or ORT with recommended home fluids (including breastmilk). About a third, or 27 children (38.0%; 95% CI: 26.8-50.3%) had received ORS. Findings on essential nutrition actions for sick children are as follows: among 71 children with diarrhea in the past two weeks,

23 children (32.4%; 95% CI: 21.8-44.5%) received increased fluids (this includes EBF children who received increased breastmilk and non-EBF children who received increased breastmilk and/or other increased fluids). Among the group with diarrhea in the past two weeks, 45 children (63.4%; 95% CI: 51.1-74.5%) received continued feeding (this includes children who received the same or more breastmilk and any non-EBF children who received the same or more food).

Prevention: At the time of the survey, only 54 of 300 mothers surveyed (18.0%; 95% CI: 13.8-22.8%) report washing their hands with soap at two (including after defectation) or more appropriate times.

Immunization

Using the Rapid CATCH indicator definition of "as checked by vaccination card or mother's recall," immunization rates were found to be substantially higher rates than rates calculated using the project indicator definition "as checked by card." Both definitions are defined as "by the time of the survey" rather than by the child's first birthday, thus, the reported rates will likely be somewhat higher than a more strict definition that looks only at full immunization by one year of age. The following table compares the findings on immunization using the project's definition and the Rapid CATCH indicator definition.

Vaccination	KPC Definition	Project Definition	Project Target
Measles	89%	55%	80%
DTP1	95%	63%	80%
DTP3	74%	61%	80%

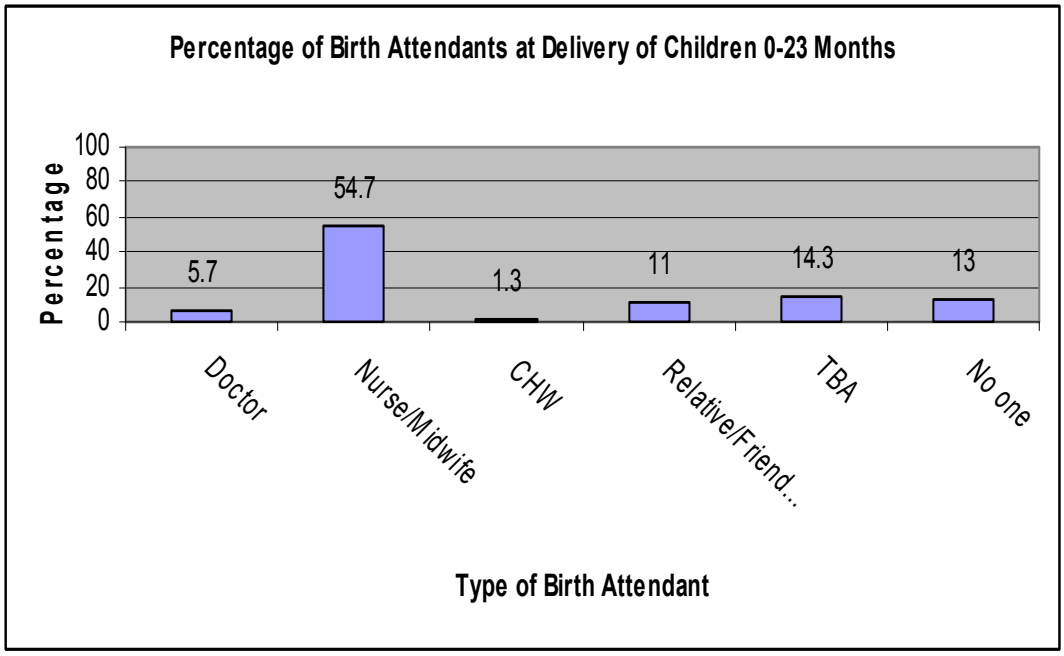
The survey team was concerned that mothers' recall is not accurate enough to provide an accurate picture of immunization coverage, particularly for specific antigens. Thus, the project will measure its progress using based on the indicator that includes verification of the immunization card.

Reporting of Results for Other Rapid CATCH Indicators

Maternal and Newborn Care

Baseline results show that just over half or 52.3% (46.5-58.1%), of mothers of children age 0-23 months received two or more tetanus toxoid vaccinations before the birth of their youngest child.

Well over half, or 60.3% (54.6-65.9%), of children age 0-23 months whose births were attended by skilled personnel is. Of these skilled personnel (i.e. doctors, nurses or midwives), the majority of births, 54.7% (48.8-60.4%), were attended by either nurses or midwives.



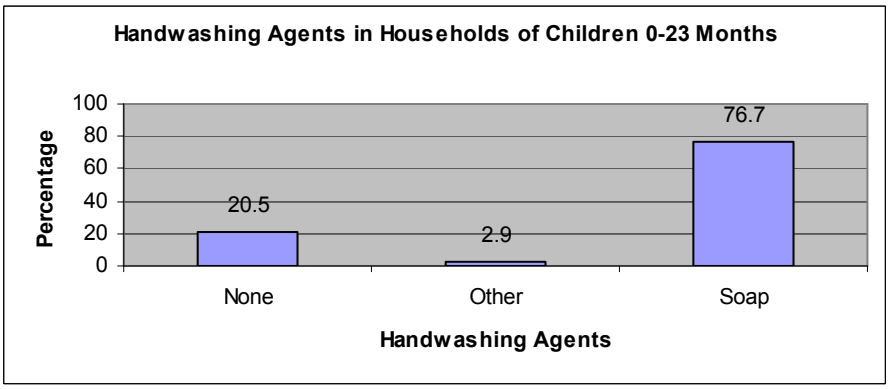
Baseline results show that 32.7% (27.4-38.3%) of children age 0-23 months received a post-natal visit from an appropriate trained health worker within three days after birth.

Pneumonia Care-seeking

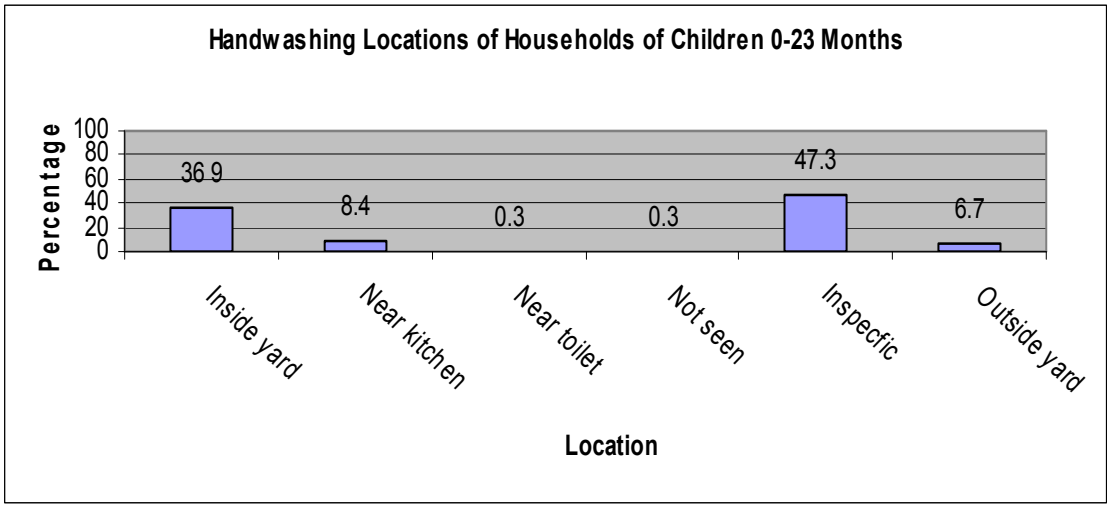
A little more than half, or 52.9% (42.8-62.9%), of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks were taken to an appropriate health provider.

Water and Sanitation

Just over half, or 53.7% (47.8-59.4%), of children age 0-23 months live in households with soap at a designated place for hand washing. Self-reported hand washing with soap was 76.7% (70.4-82.2%) at two or more appropriate times, suggesting that either (a) more mothers practice hand washing with soap but could not produce the soap within one minute, as requested by surveyors, or more likely (b) mothers are aware that hand washing with soap is a socially desirable behavior and thus over report the extent of their hand washing activities.

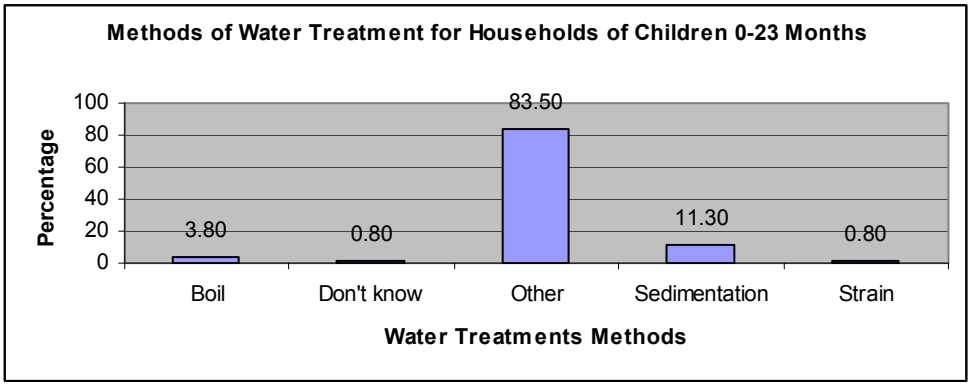


It is important to note that 47.3% (41.5-53.2%) of households did not have a specific hand washing station and therefore were not included in the denominator for this indicator.



Through observation during interviews the survey team was able to learn that many people in the community keep soap in a basin with water which they move around as convenient. The project will continue to encourage the use of soap, as well as emphasize the utility of determining a specific place of hand washing in the household in order to encourage consistent practice of this behavior by everyone in the household.

Only 1.7% (0.5-3.8%) of households with children age 0-23 months effectively treat drinking water; this is very low compared to the project target (40%) suggesting that substantial emphasis should be placed on effective treatment and safe storage of drinking water. Of the accepted means of water treatment (i.e. boiling water, adding chlorine or bleach, solar irradiation, etc.), only boiling water was mentioned.



DISCUSSION

Ideally, results of the baseline KPC could be compared with other available sources of data for key health indicators in Burundi. The relative lack of HIS infrastructure in Burundi, makes it difficult to interpret survey findings in light of routine health statistics. Furthermore, the most recent DHS conducted in Burundi, dates back to 1987; considering that 21 years and a civil war

have passed since then, comparisons between DHS and KPC data make little sense and appropriate interpretation of differences is nearly impossible.

Despite these constraints, more recent national data is available from other reputable sources, including the World Food Programme (WFP) and the World Bank. These sources do not collect and report data for all the same indicators as the baseline KPC, but there are several that are similar and can be used for comparison. As can be seen in the table below, the project area is behind in some indicators, but has actually surpassed the national averages in others.

Comparison of WR CSP Baseline KPC (Feb 2008) and Other Available Data Sources for Key Health Indicators

Indicator	KPC 2008	National statistics	Reference
2 week prevalence of fever (children 12-23 months)	37%	43%	WFP 2006
Underweight children (0-23 months)	16.4%	41%	WFP 2006
Exclusive breastfeeding (infants 0-5 months)	86.4%	45%	UNICEF 2007
Mothers of children (0-23months) who initiate breastfeeding within the first 30 minutes after delivery	64%	50%	C-IMCI 2006
2 week diarrhea prevalence (0-23 months)	23.7%	17%	WFP 2006
Children (0-23 months) with diarrhea treated with ORS or a salt-sugar solution[xi]	40.8%	35%	WFP 2006
Children (0-23 months) with diarrhea are given less to drink	46.5%	32%	WFP 2006
Children (0-23 months) with diarrhea given less to eat	67.4%	75%	WFP 2006
Percent of children 0-23 months with suspected pneumonia taken to an appropriate health provider	52.9%	40%	MICS 2000
Measles coverage (0-23 months)	89.0%	30%	WFP 2006; World Bank 2006
ITN use (0-23 months)	8.0%*	26.6%	RBM 2006
Household ITN ownership	61.7%	8%	MICS 2005
Children with fever receiving an effective anti-malarial drug within 24 hours	17.1%	19%	MICS 2005
Measles vaccination coverage among 12-23 months	89%	75%	UNICEF and WHO 2005
DPT3 vaccination coverage among 12-23 months	73.5%	74%	UNICEF and WHO 2005
Children 12-23 months of age who received Vit A supplementation	89%	89.2%	WHO 2002
Proportion of births attended by skilled health personnel	60.3%	25%	WHO 2000

* Children 0-23 months slept under an LLIN or an ITN treated in the past 6 months.

There are six categories listed above with very different rates than those reported in the KPC survey: underweight children (16% vs 41%), exclusive breastfeeding (86% vs. 45%), measles coverage (89% vs. 30%), ITN use (8%, 27%), ITN ownership (62%, 8%) and proportions of births attended by skilled health personnel (60% vs 25%). With the exception of underweight children and ITN use, the percentages reported in previous were often substantially lower than those in the KPC. These differences are likely due to variations in how the indicators are defined rather a marked improvement in only the last 1 to 2 years. Unfortunately, the other institutions did not provide information on precise definition of indicators. Regional and seasonal variations

may also contribute to the differences observed. For example, a possible exception is the proportion of births attended by skilled health personnel, as it is quite possible that this service could have improved dramatically since 2000, although highly variable definitions of "skilled health personnel" might explain the difference observed. The differences in the indicator for underweight among children may be due to the differences in the age of children weighed (0-23 months vs. 0-5 years), undocumented differences in sampling methodology, etc., and/or regional variation between Gitega and sites included in the WFP study.

Programmatic implications of the survey findings

The findings reaffirm most of the project's priority areas for intervention. In particular, the rate of prompt treatment for fever with an effective anti-malarial is extremely low at 17.1%. This indicates that concerted efforts are required to promote prompt care-seeking for fever and to increase access to services at health centers and through community-based strategies. ITN strategies will need to address a full spectrum of concerns including ownership, availability of LLINs in the project area, and consistent utilization by pregnant women and children under five. Depending on the availability of retreatment kits in Burundi, the project might consider a net retreatment campaign during the first year of the project as an interim strategy if procurement of LLINs by Global Fund and DFID is delayed.

The percentage of children determined to be underweight was lower than expected, given the food insecurity situation and the continued distribution of WFP supplemental rations at several health centers in the project area. This finding will help the project to determine whether Positive Deviance / Hearth is appropriate for the setting; however, further investigation of the extent of moderate malnutrition and variation among communities within the project area will be required.

Breastfeeding practices were better than expected and targets have been adjusted accordingly. The baseline estimate for immediated breastfeeding with no prelacteal foods was higher than expected; therefore, the project's original EOP target of 60% has been increased to 75% for this indicator. Exclusive breastfeeding of children ages 0-5 months (based on 24 hour mothers' recall) already surpasses the EOP target of 70%; BCC messages will continue to encourage and support women to exclusively breastfeed, but the project will no longer set a target for this indicator. The program will strive to improve complementary feeding practices, as only a quarter of children 6-23 months were fed according to minimum appropriate feeding practices (in the 24 hours prior to the survey).

Card-verified Vitamin A supplementation was extremely low; therefore the CSP therefore work to promote Vitamin A dosage including proper documentation and verification by health workers.

Case management for diarrhea (e.g. ORS use, increased fluids and continued feeding) leaves room for improvement. The project will continue to encourage the use of soap for hand washing, as well as emphasize the utility of determining a specific place of hand washing in the household in order to encourage consistent practice of this behavior by everyone in the household.

Future research

While the information gathered during the baseline KPC has provided a useful foundation on which to make decisions for program activities in Kibuye Health District, the MCH team is committed to pursuing qualitative formative research to better understand the context of access, service utilization, and behaviors in the project area in order to develop maximally appropriate strategies for health education and service delivery.

Community feedback and dissemination of findings

The preliminary survey results were shared with the CSP project staff, which included surveyors who participated in the data collection. This provided the opportunity for team discussion of the findings in the context of local knowledge and field observations. These preliminary results were also shared with colleagues at HealthNet-TPO and the MOH.

The full baseline KPC survey report will be shared with all partners at HealthNet TPO, Kibuye Hospital and the national, provincial and district levels of the MOH. It is hoped that this report will help to stimulate discussion among partners by providing a new source of local data on community health in Kibuye and by promoting standardization of indicator definitions across implementing agencies and in accordance with international norms.

When promoters and supervisors commence work in communities in the project area, the results of the baseline KPC survey will also be shared through various community fora, including meetings with leaders at the commune, colline and *nyumba kumi*-level, local religious, and meetings with Care Group volunteers.

References

[vi] UNICEF/Institut de Statistiques et d'Etudes Economiques du Burundi (ISTEEBU). *Enquête Nationale d'Evaluation des Conditions de vie de l'Enfant et de la Femme au Burundi (ENECEF-BURUNDI 2000)/Multi-Indicator Cluster Survey, Rapport Final.* Burundi 2000. [hereafter: **MICS 2000**]

[vii] Republique du Burundi/Ministere de la Santé Publique. *Plan National de Developpement Sanitaire, 2006-2010.* Bujumbura, November 2005 [hereafter: **PNDS 2005**]

[viii] World Food Program/UNICEF/Republique du Burundi/Ministere de la Santé Publique, Programme de Lutte Contre les Maladies Transmissibles et Carentielles. *Rapport de l'Enquête Nationale de Nutrition de la Population.* Bujumbura, May 2006. [hereafter: **WFP 2006**]

[ix] U.S. Census Bureau International Database

[x] KPC 2000+ October 2000 edition, CSTS/CORE. "Writing the KPC Survey Report"

[xi] WFP 2006

Appendix A. Kibuye Health District Sampling Frame

COMMUNES	SUBCOLLINE	POP	SUM	CLUSTERS		
					Random #	790
BUKIRASAZI	**Bukirasazi**	**2082**	**2082**	**1**	2	6448
	Muremera	429	2511		3	12106
	Nyabiziba	565	3076		4	17764
	Kinanari	659	3735		5	23422
	Rwatwenzi	486	4221		6	29080
	Muvumera	693	4914		7	34738
	Bunyuka	702	5616		8	40396
	Kamusase	558	6174		9	46054
	Gakindo	**579**	**6753**	**2**	10	51712
	Kiramba	460	7213		11	57370
	Gasongati	743	7956		12	63028
	Kibere	1218	9174		13	68686
	Kanyenzi	865	10039		14	74344
	Bijo	880	10919		15	80002
	Kirambi	831	11750		16	85660
	Murambi	**954**	**12704**	**3**	17	91318
	Muringa	605	13309	Pretest	18	96976
	Buraza	419	13728		19	102634
	Muyaga	448	14176		20	108292
	Nyabuhoro	280	14456		21	113950
	Gikobe	523	14979		22	119608
	Gikombe	265	15244		23	125266
	Kidida	808	16052		24	130924
	Kinyonza	416	16468		25	136582
	Nunga	514	16982		26	142240
	Nyambuye	588	17570		27	147898
	Kivumu	**556**	**18126**	**4**	28	153556
	Mihama	1150	19276		29	159214
	Nyamisure	246	19522		30	164872
	Nyamugari	943	20465			
	Cogo	871	21336			
	Magamba	444	21780			
	Rugabano	776	22556			
	Gatongati	550	23106			
	Kiryama	**493**	**23599**	**5**		
	Mwambi	534	24133			
	Rima	423	24556			
	Ruhinda	597	25153			
	Kamanda	1445	26598			
	Jondi	640	27238			
	Rukoki	564	27802			
	Gihogoro	305	28107			
	Nyamurenge	406	28513			
	Ruhwama	494	29007			
	Rwinyana	**792**	**29799**	**6**		
	Shaya	390	30189			
	Gatumba	279	30468			
	Gishanga	350	30818			

BURAZA	Kabaragaza	658	31476	
	Bibate	423	31899	
	Nyarubungo	1024	32923	
	Bubazi	781	33704	
	Kinama	395	34099	
	Mponyi	508	34607	
	Kivoga	**1141**	**35748**	**7**
	Bugega	796	36544	
	Buraza	2337	38881	
	Mutara	904	39785	
	Ruvumu	119	39904	
	Buriza	449	40353	
	Kirama	**571**	**40924**	**8**
	Rugegene	587	41511	
	Butemba	808	42319	
	Nyakabuye	1071	43390	
	Nyangungu	1191	44581	
	Buteri	894	45475	
	Mpunju	498	45973	
	Nyakarenda	**542**	**46515**	**9**
	Nkunda	956	47471	
	Gisera	414	47885	
	Ndaro	494	48379	
	Ngoringori	880	49259	
	Muyejuru	880	50139	
	Gitaramuka	**1669**	**51808**	**10**
	Rutobe	503	52311	
	Rabiro	658	52969	
	Kabumbe	483	53452	
	Mahonda	1266	54718	
	Kirambi	1373	56091	
	Karunyenya	1029	57120	
	Buhogo	**640**	**57760**	**11**
	Muyange	646	58406	
	Rubera	1115	59521	
	Rufunzwe	663	60184	
	Rango	965	61149	
	Gihete	880	62029	
	Gitaba	420	62449	
	Ndava	423	62872	
	Mirende	**450**	**63322**	**12**
	Rweza	284	63606	
	Manege	382	63988	
	Nenge	258	64246	
MAKEBUKO	Bitaka	1291	65537	
	Kanyinya	711	66248	
	Musenyi	930	67178	
	Bugumbasha	408	67586	
	Kivoga	1088	68674	
	Butobwe	**872**	**69546**	**13**
	Mwumba	429	69975	
	Gasagara	927	70902	

Kibere	592	71494	
Nyakivumvu	645	72139	
Gasasa	851	72990	
Gitega	651	73641	
Gasenyi	**807**	**74448**	**14**
Sumo	295	74743	
Kayinajanja	1037	75780	
Muhurika	930	76710	
Nyamirambo	867	77577	
Runanku	369	77946	
Kabingo	266	78212	
Kagege	324	78536	
Gasenyi	611	79147	
Gikombe	**1163**	**80310**	**15**
Karoba	805	81115	
Kinyonsa	538	81653	
Nyabwigungo	518	82171	
Gaterama	597	82768	
Kababaza	666	83434	
Kiyange	836	84270	
Nyarusange	1184	85454	
Buyegamo	**1078**	**86532**	**16**
Gitanga	296	86828	
Makebuko	329	87157	Pretest
Muhororo	1067	88224	
Nyamurenge	675	88899	
Murago	667	89566	
Gakonko	86	89652	
Burarana	1087	90739	
Murenda	**733**	**91472**	**17**
Maramvya	474	91946	
Musave	856	92802	
Muyange	510	93312	
Ncana	379	93691	
Rutovu	1289	94980	
Mitari	432	95412	
Mwanzari	449	95861	
Nkingu	527	96388	
Buja	**811**	**97199**	**18**
Mwaro-Mavuvu	526	97725	
Rwengo	609	98334	
Munyinya	337	98671	
Mwaro-Ngundu	260	98931	
SITE	1371	100302	
Karambi	1078	101380	
Mwumba	630	102010	
Kibenga	**740**	**102750**	**19**
Nyamagandika	675	103425	
Ntita	701	104126	
Taba	449	104575	
Rubimba	810	105385	

	Rukinya	1450	106835	
	Rusagara	439	107274	
	Kanyami	**1082**	**108356**	**20**
	Nyagasozi	846	109202	
	Nyamishiha	558	109760	
	Rutanganyika	1035	110795	
	Gitaba	758	111553	
	Kabukaro	338	111891	
	Rwanda	697	112588	
	Kajenda	672	113260	
	Kidasha	**741**	**114001**	**21**
	Buhunja	524	114525	
	Bumba	285	114810	
	Buye	262	115072	
	Gatwaro	818	115890	
	Simba	691	116581	
	Nyakara	494	117075	
ITABA	Buhanga	374	117449	
	Rango	453	117902	
	Buhinda	361	118263	
	Gakombe	382	118645	
	Rugabo	563	119208	
	Runazi	348	119556	
	Ruvumu	**320**	**119876**	**22**
	Karama	400	120276	
	Kibasi	263	120539	
	Sakanyege	457	120996	
	Gahonyi	409	121405	
	Karuguta	537	121942	
	Nyagifu	393	122335	
	Gikombe	640	122975	
	Ngarama	524	123499	
	Gihamagara	583	124082	
	Mujejuru	**1523**	**125605**	**23**
	Kabanga	589	126194	
	Bigera	428	126622	
	Gashingwe	361	126983	
	Kabago	216	127199	
	Kinovu	473	127672	
	Kinyaruko	260	127932	
	Muhoza	490	128422	
	Murambi	689	129111	
	Musenga	1571	130682	
	Nyakabuye	**449**	**131131**	**24**
	Rusange	307	131438	
	Kabago	630	132068	
	Muhweza	487	132555	
	Mutumba	599	133154	
	Nyarusange	377	133531	
	Shungwe	800	134331	
	Kanyinya	379	134710	
	Gisoro	237	134947	

Vyisure	220	135167	
Cari	695	135862	
Kigarama	**760**	**136622**	**25**
Murore	298	136920	
Ndaro	143	137063	
Ngoma	929	137992	
Ruvumu	1113	139105	
Karemba	604	139709	
Gitaba	658	140367	
Kivoga	971	141338	
Kibogoye	629	141967	
Buzige	**273**	**142240**	**26**
Gashwabure	817	143057	
Gishiga	461	143518	
Kanyinya	321	143839	
Kidonzi	476	144315	
Kiremba	326	144641	
Muzenga	700	145341	
Pfunyangeso	679	146020	
Rusasa	473	146493	
Rwaza	329	146822	
Kiniha	862	147684	
Kivoga	**278**	**147962**	**27**
Munyegera	495	148457	
Muramba	273	148730	
Nyabikinja	294	149024	
Nyamurenge	512	149536	
Nyarubimba	516	150052	
Rusabe	505	150557	
Gaterama	374	150931	
Kaburanjwiri	504	151435	
Nyarubungo	351	151786	
Mutanga	735	152521	
Kigera	505	153026	
Nzigi	**613**	**153639**	**28**
Rango	399	154038	
Rwimvura	245	154283	
Ruhanza	267	154550	
Buramba	444	154994	
Mutumba	237	155231	
Muyange	488	155719	
Muyogoro	330	156049	
Mwenene	463	156512	
Rukuku	578	157090	
Rutyazo	426	157516	
Nyabushishi	696	158212	
Rukobe	372	158584	
Bwinjira	577	159161	
Gihamba	**664**	**159825**	**29**
Nyarurambi	672	160497	
Sesero	833	161330	
Buhoro	1275	162605	

	Gasunu	1185	163790	
	Kigozi	**1102**	**164892**	**30**
	Rutegama I	554	165446	
	Rutegama II	1044	166490	
	Site Buhoro	645	167135	
	Site Gihamagara	822	167957	
	Site Gisikara	1790	169747	
Total Pop in the District			169747	**5658.233333**

Total number of clusters in the survey is 30
Sampling Frame is 5,658

Appendix B. Baseline KPC Survey Questionnaire (English)

Introduction

My name is _____ and I am working with World Relief. We are conducting a survey to learn about the health of mothers and children in this area. I would like to ask you some questions about your health and the health of your child. This information will help World Relief to improve the health of mothers and children in this area. The information you share with me will be kept confidential.

Ask the mother if she has a child under 24 months who lives with her. If yes, ask to proceed with the interview. If no, thank the mother and end the interview.

Identification Section

Commune: _____ **Name of Interviewer: _____**

Colline: _____ **Name of Mother: _____**

Subcolline: _____ **Date of Interview: __ __/ __ __/ __ __ __ __**
Day/Month/Year

Household Number: __ __

Checked by Supervisor (Signature): _____

Demographic Section

1. What is the name, sex, and date of birth of your youngest child that is still alive? **Calculate the child's age in months and record the number.**

NAME	SEX	DATE OF BIRTH	Months
	A. MALE B. FEMALE	__ __/__ __/__ __ __ __ Day/Month/Year	__ __

Maternal and Newborn Care

2. During your pregnancy with (name of child) did you sleep under a mosquito net?

   A. Yes
   B. No → **Go to Question 4**
   C. Don't know → **Go to Question 4**

3. Did you sleep under the net all the time, most of the time, some of the time, or occasionally?

   A. All of the time
   B. Most of the time
   C. Some of the time
   D. Occasionally

4. During your pregnancy with (name of child) did you receive an injection in the arm to prevent the baby from getting tetanus, that is convulsions after birth?

A. Yes
B. No → **Go to Question 6**
C. Don't know → **Go to Question 6**

5. While pregnant with (name of child), how many times did you receive such an injection?

A. One
B. Two
C. Three or more
D. Don't know

6. Did you receive any tetanus toxoid injection at any time before that pregnancy?

A. Yes
B. No → **Go to Question 8**
C. Don't know → **Go to Question 8**

7. How many times did you receive that injection?

A. One
B. Two
C. Three or more
D. Don't know

8. Who assisted with the delivery of (name of child)? **Probe for the type(s) of person(s) and circle all mentioned.**

A. Doctor
B. Nurse/Midwife
C. Traditional birth attendant
D. Community health worker
E. Relative/Friend/Neighbor
F. No one (the mother was alone)

9. How long after birth did you first put (name of child) to the breast?

A. Immediately/within first hour after delivery
B. After the first hour after delivery
C. After eight hours after delivery
D. Don't know

10. Did you give anything to (name of child) before breastfeeding?

A. Yes
B. No
C. Don't know

11. After (name of child) was born, did any person come to check on health of you and (name of child)?

A. Yes
B. No → **Go to Question 14**
C. Don't know → **Go to Question 14**

12. After how many hours, days or weeks did the first check of the baby take place?

A. Hours __ __
B. Days __ __
C. Weeks __ __
D. Don't know

13. Who checked on (name of child's) health at that time? **Circle all persons mentioned.**

A. Doctor
B. Nurse/Midwife
C. Traditional birth attendant
D. Community health worker
E. Relative/Friend/Neighbor
F. No one (the mother was alone)

Nutrition

14. Now I would like to ask you about liquids or foods (name of child) had yesterday during the day or at night. **Read the list of liquids to the mother and place a check mark to indicate her response.**

Did (name of child) drink/eat the following:

	YES	NO	DK
A. Breastmilk?			
B. Plain water?			
C. Commercially produced infant formula?			
D. Soy milk?			
E. Any fortified, commercially available infant and young child food (e.g. Cerelac)?			
F. Any (other) porridge?			

15. Now I would like to ask you about (other) liquids or foods that (name of child) may have had yesterday during the day or at night. I am interested in whether your child had the item even if it was combined with other foods. **Read the list of foods to the mother and place a check mark to indicate her response.**

Did (name of child) drink/eat the following:

Group 1: Dairy	**YES**	**NO**	**DK**
A. Commercially produced infant formula?			
B. Milk such as tinned, powdered, or fresh cow milk?			
C. Yogurt or other milk products?			
Group 2: Grain	**YES**	**NO**	**DK**
D. Any fortified, commercially available infant and young child food (e.g. Cerelac)			
E. Any other porridge?			
F. Bread, rice, maize or other foods made from grains (uburo, amasaka, ingano)?			
G. White potatoes, white yams, cassava, or any other			

foods made from roots?			
Group 3: Vitamin A Rich Vegetables	**YES**	**NO**	**DK**
H. Squash, carrots or sweet potatoes that are yellow or orange inside?			
I. Any dark green leafy vegetables (irengarenga, isombe, umusoma, epinari, isogo, inyabutongo, umukubi)?			
J. Ripe mangoes, papayas or tomato?			
K. Foods made with red palm oil?			
Group 4: Other Fruits and Vegetables	**YES**	**NO**	**DK**
L. Any other fruits or vegetables like oranges, (ibicoco, intore), mushroom, pineapple, (amatunda), eggplant, avocado or banana?			
Group 5: Eggs	**YES**	**NO**	**DK**
M. Eggs?			
GROUP 6: Meat, Poultry, Fish	**YES**	**NO**	**DK**
N. Liver, kidney, heart or other organ meats?			
O. Blood from cows (Ikiremve)			
P. Any meat, such as beef, pork, goat, lamb, chicken, duck, rats, gopher, rabbit, dove or quail?			
R. Fresh or dried fish?			
S. Grubs, snails or insects (inswa, isenene, ubunyabobo, ibikenya, ibinyagu)?			
GROUP 7: Legumes/Nuts	**YES**	**NO**	**DK**
T. Any foods made from beans, peas, nuts (inkore, soja) and lentils (intengwa)?			
GROUP 8: Oils/Fats	**YES**	**NO**	**DK**
U. Any kinds of oils (ibiyoba, ibihoke, isoya), fats, butter, or foods made with any of these?			
GROUP 9: Other Foods	**YES**	**NO**	**DK**
V. Tea or coffee?			
W. Any other liquids (such as banana juice)?_____			
Y. Any sugary foods, sweets, pastries, donut, biscuits, pop/soda, sugar cane, or honey?			
Z. Any other food not mentioned? _____			

16. How many times did (name of child) eat foods (other than liquids) yesterday? **Use probing questions to help the mother remember all the times the child ate yesterday.**

We want to find out how many times the child ate enough to be full. Small snacks and small feeds, such as one or two bites should not be counted. Liquids do not count for this question. Do not include thin soups or any other liquids.

A. Number of times: __ __
B. Don't know

Vitamin A Supplementation & Child Immunizations

17. Has (name of child) ever received a Vitamin A dose (like this/any of these)? **Show common types of ampules/capsules/syrups.**

A. Yes
B. No → **Go to Question 19**
C. Don't know → **Go to Question 19**

18. Did (name of child) receive a Vitamin A does within the last 6 months?

A. Yes
B. No
C. Don't know

19. Did you receive a card or child health booklet where (name of child's) vaccinations and Vitamin A doses can be written down? If so, can I see the card?

A. Yes, interviewer sees the card
B. Yes, but card is missing or lost → **Go to Question 22**
C. No, never had a card → **Go to Question 22**
D. Don't know → **Go to Question 22**

20. **Copy the following vaccination dates from the card or booklet. If vaccines are not recorded in the child health card or booklet, fill in 99/99/9999.**

	Day		Month		Year			
BCG								
Polio 0								
DPT 1 + Hep + Hib								
DPT 2 + Hep + Hib								
DPT 3 + Hep + Hib								
Polio 1								
Polio 2								
Polio 3								
Measles								
Vitamin A								
Vitamin A								
Vitamin A								

21. Has (name of child) received any vaccinations recorded on a card?
A. Yes → **Go to Question 23**
B. No → **Go to Question 29**
C. Don't know → **Go to Question 29**

22. Has (name of child) received any vaccinations?
A. Yes
B. No → **Go to Question 29**
C. Don't know → **Go to Question 29**

23. Has (name of child) received a BCG vaccination against tuberculosis, that is, an injection in the arm that usually causes a scar?
A. Yes
B. No
C. Don't know

24. Has (name of child) received a polio vaccine, that is, drops in the mouth that look like these? **Show the example of the polio drops.**

A. Yes
B. No → **Go to Question 26**
C. Don't know → **Go to Question 26**

25. Home many times?

A. Number of times: __ __
B. Don't know

26. Has (name of child) received a DPT vaccination, that is, an injection given in the thigh, sometimes at the same time as polio drops? **Only ask if child is 1 month or older**

A. Yes
B. No → **Go to Question 28**
C. Don't know → **Go to Question 28**

27. Home many times?

A. Number of times: __ __
B. Don't know

28. Did (name of child) ever receive an injection in the arm to prevent measles? **Only ask if child is 9 months or older.**

A. Yes
B. No
C. Don't know

Illness Recognition

29. Sometimes a child gets sick and needs to receive care or treatment for illnesses. What are the signs of illness that would indicate your child needs treatment**? Do not prompt. Circle all mentioned**.

A. Don't know
B. Looks unwell or not playing normally
C. Not eating, drinking, or breastfeeding
D. Lethargic or difficult to wake
E. High temperature
F. Fast or difficult breathing
G. Vomits everything
H. Convulsions
I. Gets worse despite home care
J. Looks dehydrated (dry mouth or no tears)
K. Other _____
(SPECIFY)

Treatment of High Temperature (Suspected Malaria)

30. Has (name of child) been ill with high temperature at anytime in the last 2 weeks?

A. Yes
B. No → **Go to Question 35**
C. Don't know → **Go to Question 35**

31. Did you seek advice or treatment for the high temperature?

A. Yes
B. No → **Go to Question 35**
C. Don't know → **Go to Question 35**

32. How many days after the high temperature began did you first seek treatment for (name of child)?

A. Same day
B. Next day
C. Two days or more
D. Don't know

33. At any time during the illness did (name of child) take any medicine for high temperature?

A. Yes
B. No → **Go to Question 35**
C. Don't know → **Go to Question 35**

34. What drugs did (name of child) take? Any other drugs? How long after the fever started did (name of child) start taking the medicine? **Record all mentioned.**

Ask probing questions to find out which medicine was given. If the medicine is still unknown, show the examples of the medicines below.

	Same Day	Next Day	Two Days or More	Don't Know
ANTI-MALARIALS				
Amodiaquine+ Artesenuate (AS+AQ)				
Quinine				
OTHER DRUGS				
Paracetamol				
Other _____ _____				

Control of Diarrhea

35. Has (name of child) had diarrhea in the last two weeks?

A. Yes
B. No → **Go to Question 40**
C. Don't know → **Go to Question 40**

36. **If the child is exclusively breastfeed (only taking breastmilk), ask only this question and then skip to Question 39.** When (name of child) was sick, was s/he offered more breastmilk than usual, about the same amount, or less than usual?

A. Less than usual → **Go to Question 39**
B. Same amount → **Go to Question 39**
C. More than usual → **Go to Question 39**

37. When (name of child) was sick, was s/he offered less than usual to drink, about the same amount, or more than usual to drink?

A. Less than usual
B. Same amount
C. More than usual

38. When (name of child) was sick, was s/he offered more than usual to eat, about the same amount, or less than usual to eat?

A. Less than usual
B. Same amount
C. More than usual

39. Was s/he given any of the following to drink at any time s/he started having diarrhea? **Read the choices to the mother and circle all mentioned:**

A. A fluid made from a special packet called (local name for ORS packet)?
B. Sugar and salt water
C. Cereal based ORT (rice water, maize water)
D. Medicine **Probe for the kind of medicine and describe here:**
_____

Pneumonia Treatment

40. Has (name of child) had any illness with a cough at anytime in the last two weeks?

A. Yes
B. No → **Go to Question 44**
C. Don't know → **Go to Question 44**

41. When (name of child) had an illness with a cough, did s/he have trouble breathing or breathe faster than usual?

A. Yes
B. No → **Go to Question 44**
C. Don't know → **Go to Question 44**

42. Did you seek advice or treatment for the cough/fast breathing?

A. Yes
B. No → **Go to Question 44**

43. Who gave you advice or treatment? Anyone else? **Record all mentioned.**

A. Doctor
B. Nurse
D. Community Health Worker
E. Other _____

Water and Sanitation

44. Do you treat your water in any way to make it safe for drinking?

A. Yes
B. No → **Go to Question 46**

45. If yes, what do you usually do to the water to make it safer to drink?

A. Let it stand and settle/sedimentation
B. Strain it through cloth
C. Boil
D. Add bleach/chlorine
E. Other _____
F. Don't know

46. When do you wash your hands? **Do not prompt. Circle all mentioned.**

A. Never
B. Before food preparation
C. Before feeding child
D. After defecation/visiting the toilet
E. After attending to a child who has defecated/soiled
F. Other _____

47. Can you show me where you usually wash your hand and what you use to wash your hands? **Ask to see and observe.**

A. Inside/near toilet facility
B. Inside/near kitchen/cooking place
C. Elsewhere in yard
D. Outside yard
E. No specific place → **Go to Question 49**
F. No permission to see → **Go to Question 49**

48. OBSERVATION ONLY: Is there soap or detergent or a locally used cleansing agent? **This item should be either in place or brought by the interviewee within one minute. If the item is not present within one minute circle "None," even if brought out later.**

A. Soap
B. Detergent
C. Ash
D. Mud/sand
E. None
F. Other _____

49. What kind of toilet facility do you have? Can I see it?

A. No toilet facility
B. Open latrine
C. Closed latrine
D. Flush toilet
E. No permission to see

50. The last time (name of child) passed stools, where were the feces disposed of? Probe to find the location.

A. Disposed into a latrine or toilet facility
B. Disposed into a garbage/trash bin
C. Disposed of somewhere near the house
    C1. Dug and buried?
    C2. Did not bury
D. Disposed of somewhere far from the house
    D1. Dug and buried?
    D2. Did not bury
E. Other _____
F. Don't know

Malaria Prevention

51. Does your household have any mosquito nets that can be used while sleeping?

A. Yes
B. No → **Go to Question 56**

52. Which brand of bed net do you own?

A. Supanet (White)
B. Mama Supanet (Blue)
C. Other kind of net _____
D. Don't know

53. Was the bed net ever soaked or dipped in a liquid treated to repel mosquitoes or bugs?

A. Yes
B. No → **Go to Question 55**
C. Don't know → **Go to Question 55**

54. How long ago was the net last soaked or dipped in a liquid treated to repel mosquitoes or bugs? **If less than 1 month ago, record 00 months. If less than 2 years ago, record the number of months. If 12 months ago or l year ago, probe for the exact number of months.**

A. Months __ __
B. More than 2 years ago
C. Don't know

55. Who slept under a bed net last night? **If anyone other than the child is mentioned, circle "Other."**

A. No one
B. (Name of child)
C. Other _____

Anthropometrics

56. May I weigh (name of child)?

A. Yes → **__ __ . __ Kilograms**
B. No → **Go to END**

Thank the mother for the interview.

Appendix C. Baseline KPC Survey Questionnaire (Kirundi)

Intangamarara

Jewe nitwa _____ kandi nkorana n'ishirahamwe ryitwa World Relief. Turiko turagira rusansuma kugira tumenye ivyerekeye amagara y'abavyeyi n'abana babo muri iyi micungararo. Nagomba ndababaze ibibazo bijanye n'amagara yawe n'umwana wawe. Ibizova muriyi rusansuma bizofasha World Relief gufasha abantu kugira amagara abe meza. Inkuru zose uzakumbarira n'akabanga hagati yacu.

Baza umuvyeyi nimba afise umwana amaze imisi iri musi yamezi 24 akaba abana nawe. Inyishu ari ego, saba umuvyeyi ko wobandanya ibibazo. Ari oya, shimira uwo muvyeyi maze ugeze ngaho ibibazo.

Ukwidondora

Komine: _____ **Izina ry'uwubaza _____**

Umusozi: _____ **Izina ry'umuvyeyi: _____**

Agacimbiri: _____ **Itariki yo kubarizwako: __ __/ __ __/ __ __ __ __**
Umusi/Ukwezi/Umwaka

Inomero y'urugo: __ __

Bisuzumwe n'uwuhagarikiye ibikorwa: _____

Inkuru zijanye n'Umwana

1. Uyo mwana wawe muto yitwa nde, ni igitsina nyabaki, kandi wamuvyaye ryari?

IZINA	IGITSINA	ITARIKI Y'AMAVUKO	Amezi
	A. UMUHUNGU B. UMUKOBWA	__ __/__ __/__ __ Umusi/ukwezi/Umwaka	___ ____

Ukwitwararika uwuvutse n'umuvyeyi

2. Mugihe c'imbanyi y'uwo mwana (**vuga izina ry'umwana**) warigeze uryama mumusegetera?

A. Ego
B. Oya → **Genda kukibazo ca 4**
C. Sinzi → **Genda kukibazo ca 4**

3. Mugihe c'imbanyi y'uwo mwana (vuga izina) waryama mu musegetera igihe cose, kenshi, rimwe rimwe canke gake?

A. Igihe cose
B. Kenshi
C. Rimwe rimwe
D. Gake

4. Mugihe c'imbanyi yuwo mwana (vuga izina ry'umwana) warigeze uhabwa urucanco rukingira umwana tetanusi biseruka mukudadara kw'umwana yavutse?

A. Ego
B. Oya → **Genda kukibazo ca 6**
C. Sinzi → **Genda kukibazo ca 6**

5. Igihe wari ufise inda yuwo mwana (muvuge izina) waronse urwo rucanco rwa tetanusi kangahe?

A. Rimwe
B. Kabiri
C. Gatatu canke kenshi
D. Sinzi

6. Mbega warigeze uterwa urwo rucanco rukingira Tetanusi igihe icarico cose imbere yuko wibungenga?

A. Ego
B. Oya → **Genda ku kibazo ca 8**
C. Sinzi → **Genda ku kibazo ca 8**

7. Mbega none wazitewe kangahe?

A. Rimwe
B. Kabiri
C. Gatatu canke kenshi
D. Sinzi

8. Mugihe co kwibaruka y'uwo mwana (vuga izina ryuwo mwana) Ninde yakwakiriye? **Baza neza ukoresheje ibibazo bidashoka bitanga inyishu, ushire akanzingi kubavuzwe bose.**

A. Dogiteri
B. Umuforoma/umuforomakazi canke Umwakirizi wo kwamuganga
C. Umwakirizi wo mu kirundi
D. Abaremeshakiyago
E. Incuti/Umugenzi/Umubanyi
F. Ntanumwe (umuvyeyi yari wenyene)

9. Uhejeje kwibaruka watanguye kwonsa umwana wawe (muvuge izina) ryari?

1. Ubwo nyene mw'isaha yambere nibarutse
2. Isaha imwe iheze avutse niho yonka
3. Amasaha munani aheze avutse
4. Sinzi

10. Harico wagaburiye umwana (Vuga izina ryiwe) imbere yuko utangura kumwonsa?

A. Ego
B. Oya
C. Sinzi

11. Mbega uhejeje kwibaruka hoba hariho umuntu yasuzumye amagara yawe nay'umwana (muvuge izina)?

A. Ego
B. Oya → **Genda kukibazo ca 14**
C. Sinzi → **Genda kukibazo ca 14**

12. Haciye amasaha angahe, imisi ingahe canke indwi zingahe imbere yuko umwana asuzumwa?

A. Amasaha __ __
B. Imisi __ __
C. Indwi __ __
D. Sinzi

13. Nibande basuzumye amagara y'uwo mwana (muvuge izina) muri ico gihe? **Shira akazingi kubantu bose bavuzwe.**

A. Dogiteri
B. Umuforoma/umuforomakazi canke Umwakirizi wo kwamuganga
C. Umwakirizi wo mu kirundi
D. Abaremeshakiyago
E. Incuti/Umugenzi/Umubanyi
F. Ntanumwe (umuvyeyi yari wenyene)

Ingaburo ibereye

14. Ubu naho nagomba ndakubaze ivyerekeye ibinyobwa n'imfungurwa uyo mwana (vuga izina ry'umwana) yafashe ejo kumurango canke mw'ijoro. **Somera umuvyeyi urutonde rw'ibinyobwa uce ushira akamenyetso mu kibanza c'inyishu itanzwe.**

Mbega uyo mwana (vuga izina ryuyo mwana) yaranyoye canke yarafunguye ibikurikira:

	EGO	OYA	SINZI
A. Amaberebere?			
B. Amazi?			
C. Amata yahinguwe mugabo agurishwa?			
D. Amata y'isoya			
E. Imfungurwa zose zateguriwe, zigahingurirwa inzoya n'abana (akarorero: Serelake)?			
F. Umusururu uwariwo wose?			

15. Ubu nagomba ndakubaze ivyerekeye (ibindi) binyobwa n'imfungurwa uyo mwana (muvuge izina) yoba yarafashe ejo kumurango canke mw'ijoro. Nkeneye kumenya ko uwo mwana yaronse ico kintu naho vyoba vyari bivanze n'ibindi vyokurya. **Somera umuvyeyi urutonde rw'ibinyobwa uce ushira akamenyetso mu kibanza c'inyishu itanzwe.**

Mbega (vuga izina ryuyo mwana) yaranyoye canke yarafunguye ibikurikira:

Umurwi wa 1	**EGO**	**OYA**	**SINZI**
A. Amata yateguwe,akorwa kugira agurigwe umwana?			
B. Amata ari mumagopo, y'ifu (Nido) canke amata y'inka?			
C. Imfyufyu, Ikivuguto, amata y'inka canke ibiva mu mata yinka bindi?			
Umurwi wa 2	**EGO**	**OYA**	**SINZI**
D. Imfungurwa zose zateguriwe , zigahingurirwa inzoya n'abana (akarorero: Serelake)?			
E. Umusururu (ubuyi)?			
F. Umukate, umuceri, ibigori canke izindi mfungurwa zakozwe mu ntete (uburo, amasaka, ingano)?			
G. Ibiraya (vyera imbere), Ibire (ibisunzu) canke amateke (vyera imbere), inumpu, umwumbati canke ibindi biterwa twamura imizi yavyo?			
Umurwi wa 3:	**EGO**	**OYA**	**SINZI**

H. Umwungu, amakaroti, ibijumpu bisa n'umuhondo canke bisa nk'imbere mumucungwe?			
I. Imbogaboga zibabi zisa n'urwatsi rutoto (irengarenga, isombe, umusoma, epinari, isogo, inyabutongo, umukubi)?			
J. Imyembe ihiye, I papayi canke itomate?			
K. Ibifungurwa vyakozwe mu mamesa?			
Umurwi wa 4:	**EGO**	**OYA**	**SINZI**
L. Ibindi vyamwa canke imboga nk'imicungwa, ibicoco, intore, ibizinu, inanasi, amatunda, ibitore vy'ikizungu amavoka, igitoke?			
Umurwi wa 5:	**EGO**	**OYA**	**SINZI**
M. Amagi?			
Umurwi wa 6:	**EGO**	**OYA**	**SINZI**
N. Amahaha, igitigu, umutima canke inyama zo munda?			
O. Ikiremve			
P. Inyama yose nk'inka, ingurube, impene, intama, inkoko canke imbata, imbeba, ifuku, inkwavu, inuma, inkware?			
R. Ifi zumye canke mbisi?			
S. Inswa, isenene, ubunyabobo, ibikenya, ibinyagu?			
Umurwi wa 7:	**EGO**	**OYA**	**SINZI**
T. Indya zoze zivuye mu biharage, ubwishaza, ivyema, inkore n'izindi ntete, I soja, intengwa?			
Umurwi wa 8:	**EGO**	**OYA**	**SINZI**
U. Amavuta y'ubwoko bwose, y'inka (amasoro), amavuta y'ibiyoba, y'ibihoke, y'isoya, ibinure, n'indya zose zavuye muri ayo mavuta?			
Umurwi wa 9:	**EGO**	**OYA**	**SINZI**
V. Icayi canke ikawa?			
W. Ibindi binyobwa vyose (nk'amake)?_____			
Y. Ibifungurwa vyose bifise isukari, imbombo, ibisuguti, ibitumbura, ifanta, imisigati, ubuki?			
Z. Izindi mfungurwa zitavuzwe? _____			

16. Ejo wagaburiye umwana kangahe agahaga? (nimfungurwa zitandukanye n'ibinyobwa canke ivyo bamusemuriye)? **Baza neza ukoresheje ibibazo bidashoka bitanga inyishu kugirango uwishura ashobore kwibuka ibihe vyose umwana yaraye ariye.**

Tugomba kumenya incuro uko zingana umwana yariye ibikwiye agahaga. Imfungurwa umwana yagiye ahabwa aruko bamubegeyeko agasemura gato ntizirimwo. Ntimushiremwo umufa wivyokurya muriki kibazo canke ibindi binyobwa vyose.

A. Incuro zingahe: __ __
B. Sinzi

Kwongera Vitamine A & N'ugucandagisha umwana

17. Mbega uyu mwana (vuga izina ry'umwana) yoba yararonse vitamine A nkizi canke izindi? **Erekana uko ivyo binini vyongereza vitamine bisa.**

A. Ego
B. Oya → **Genda ku numero ya 19**
C. Sinzi → **Genda ku numero ya 19**

18. Mbega uyu mwana (vuga izina ryiwe) yoba yararonse vitamine A muraya mezi 6 aheze?

A. Ego
B. Oya
C. Sinzi

19. Woba wararonse ikaye canke ikarata ivuga ivy'amagara meza y'umwana (vuga izina ry'umwana) aho yagiye acandagishirizwa naho yaronkeye Vitamine A bikaba vyaranditswe? Ni mba uyifise, urashobora kuyinyereka?

A. Ego, uwubaza narabe iyo karata
B. Ego, mugabo ikarata yaratakaye, narayibuze → **Genda kukibazo ca 22**
C. Oya, sinigeze ndonka ikarata → **Genda kukibazo ca 22**
C. Sinzi → **Genda kukibazo ca 22**

20. **Andika amatariki yo gucandagishirizwamwo wimure bivuye mwikaye canke ikarata ya BCG, DTC Hep+Hib1, Polio 1, Vitamine A… Nimba ugucandagwa kwikibondo kutagiyekwandikwa mwikaye canke mwikarata, niwuzuze 99/99/9999.**

	Umusi		Ukwezi		Umwaka			
BCG (Urucanco rw'igituntu)								
Polio O (Ubukangwe)								
DTC Hep+Hib1								
DTC Hep+Hib2								
DTC Hep+Hib3								
Polio 1 (ubukangwe)								
Polio 2 (ubukangwe)								
Polio 3 (ubukangwe)								
Agasama								
Vitamine A								
Vitamine A								
Vitamine A								

21. Umwana (muvuge izina) yoba yararonse incanco zitigeze zandikwa muri iyo karata?
A. Ego → **Genda ku numero ya 23**
B. Oya → **Genda ku numero ya 29**
C. Sinzi → **Genda ku nimero ya 29**

22. Mbega uyo mwana yoba yarigeze kuronka incanco?
A. Ego
B. Oya → **Genda ku numero ya 29**
C. Sinzi → **Genda ku nimero ya 29**

23. Mbega uyo mwana (muvuge izina) yoba yararonse urucanco rwitwa BCG rukingira igituntu rukaba ruterwa kukuboko rugasiga inkovu?
A. Ego
B. Oya
C. Sinzi

24. Mbega umwana (vuga izina) yoba yararonse urucanco rukingira ubukangwe rukaba rutangwa nkamama basuka mu kanwa? **Erekana akarorero kayo mama akingira ubukangwe.**

A. Ego
B. Oya → **Genda ku numero ya 26**
C. Sinzi → **Genda ku nimero ya 26**

25. Kangahe?

A. Incuro zingahe: __ __
B. Sinzi

26. Uyo mwana wawe yoba yararonse incanco (urushinge batera kubibero) bagaca batanga uwo mwanya nyene incanco y'ubukangwe (batanga nk'ima mu kanwa)? (**Baza iki kibazo igihe umwana afise ukwezi kumwe canke arenza**)

A. Ego
B. Oya → **Genda ku numero ya 28**
C. Sinzi → **Genda ku numero ya 28**

27. Kangahe?

A. Incuro zingahe: __ __
B. Sinzi

28. Uyo mwana yoba yaratewe inshinge ituma yirinda agasama? **(Ubaze iki kibazo umwana afise amezi 9 canke arenga)**

A. Ego
B. Oya
C. Sinzi

Kumenya indwara

29. Hariho ibihe umwana agwara maze agakenera kuvurwa. Mbega uramenya ibimenyetso bikwereka ko umwana wawe akeneye kuvurwa?

A. Sinzi
B. Igihe asa nkuwugwaye kandi adashobora gukina neza
C. Igihe atariko ararya, anywa, canke yonka
D. Arushe canke bigoye kwavyuka
E. Afise ubushuhe bwinshi
F. Ahemagurika canke vyanka ko ahema
G. Adahwa igihe cose
I. Igihe umwana adadaraye
J. Aguma aremba naho yitwararitswe cane I muhira
K. Asa nkuwatakaje amazi muri we (umunwa wumye canke atamosozi)
L. Ibindi_____

Kuvura ubushuhe burenze (Malariya yiketswe)

30. Mbega uyo mwana (nuvuge izina) yoba yigeze kugira ubushuhe burenze muri aya mayinga abiri aheze?

A. Ego
B. Oya→ **Genda ku kibazo ca 35**
C. Sinzi → **Genda kukibazo ca 35**

31. Woba waramuvuje canke wararondeye impanuro kubera ubwo bushuhe burenze?

A. Ego
B. Oya→ **Genda kukibazo ca 35**
C. Sinzi→ **Genda kukibazo ca 35**

32. Kuva atanguye gushuha, wamujanye kwamuganga haciye imisi ingahe?

A. Uyo musi nyene
B. Umusi ukurikira
C. Mu misi ibiri canke irenga
D. Sinzi

33. Mbega mugihe cokugwara umwana (vuga izina ryiwe) yoba yarafashe Imiti yokugabanya umuriro?

A. Ego
B. Oya→ **Genda kukibazo ca 35**
C. Sinzi → **Genda kukibazo ca 35**

34. Mbega yafashe imiti nyabaki? Ntayindi miti yafashe? Mbega umwana (muvuge izina) yatanguye gufata imiti ryari kuva ubushuhe butanguye? **Andika ibintu vyose bidondaguwe**.

Nubaze kugira ngo umenye yuko ubwo bwoko bw'imiti izwi. Ubwo bwoko bw'imiti butamenywe, erekana akarorero k'umuti urwanya marariya.

	Uwo musi nyene	Umusi ukurikira	Imisi 2 canke irenga	sinzi
IYIRWANYA MALARIYA				
Amodiaquine+ Artesenuate (AS +AQ)				
Quinine				
IYINDI MITI				
Paracetamol				
Iyindi _____ _____				

Kurwanya ugucibwamwo

35. Mbega uyo mwana (muvuge izina) yaragwaye ugucibwamwo mundwi zibiri ziheze?

A. Ego
B. Oya→ **Genda kukibazo ca 40**
C. Sinzi → **Genda kukibazo ca 40**

36. **Nimba umwana ariko yonswa atakindi afungura (Atari ukwonka), nubaze iki kibazo gusa uce usimbira kukibazo c'inomero ya 39.** Igihe uyo mwana (muvuge izina) yari arwaye yoba yonkejwe kuruta uko vyahora, canke yarongereje, canke yaragabanije?

A. Musi yuko vyahora → **Genda kukibazo ca 39**
B. Angana nuko vyahora → **Genda kukibazo ca 39**
C. Aruta uko vyahora → **Genda kukibazo ca 39**

37. Igihe uyo mwana (muvuge izina) yari arwaye, yoba yahawe ibinyobwa ivyarivyo vyose bike kurusha uko vyahora, canke bingana nuko vyahora canke biruta uko vyahora?

A. Musi yuko vyahora
B. Bingana nuko vyahora
C. Biruta uko vyahora

38. Igihe uyo mwana yari arwaye, yoba yaragaburiwe imfungurwa kuruta uko vyahora, canke zingana nuko vyahora canke ziri musi yuko vyahora?

A. Musi yuko vyahora
B. Zingana nuko vyahora
C. Ziruta uko vyahora

39. Yoba yarahawe kimwe mubikurikira kugira ngo anywe umwanya uwariwo wose atanguye gucibwamwo? **Somera umuvyeyi ibidondaguwe aho musi:**

A. Ivyunyunyu vyatanzwe kwamuganga?
B. Amazi arimwo umunyu n'isukari
C. Ibinyobwa bifasha uwucibwamwo (amazi y'umuceri, amazi y'ibigori)
D. **Baza udatanga inyishu uyo muvyeyi kugira umenye imiti yoba yarahawe murico gihe kandi usigure ubwoko bwayo :**

_____

Kuvura Umusonga

40. Mbega uyo mwana (muvuge izina) yoba yaragwaye inkorora muri aya mayinga abiri arenganye?

A. Ego
B. Oya→ **Genda kukibazo ca 44**
C. Sinzi → **Genda kukibazo ca 44**

41. Igihe (vuga izina ry'umwana) yagira indwara yo gukorora, mbega yaragize ingorane zo guhemagurika adashikana?

A. Ego
B. Oya→ **Genda kukibazo ca 44**
C. Sinzi → **Genda kukibazo ca 44**

42. Woba waramuvuje canke ugasaba impanuro kugirango ngo umwana avugwe iyo nkorora n'uguhemagurika?

A. Ego
B. Oya → **Genda ku numero ya 44**

43. Ninde yaguhanuye canke yavuye umwana wawe (vuga izina)? Ntawundi? **Andika ibivuzwe vyose.**

A. Dogiteri
B. Umuforoma/ umuforomakazi
C. Abaremeshakiyago
D. Abandi _____

Amazi n'isuku

44. Hariho isuku ugirira amazi yawe kugirango abe meza yo kunywa?

A. Ego
B. Oya→ **Genda ku nimero ya 46**

45. Nimba inyishu ari ego, mbega none ukorera ibiki amazi kugira ngo abe ayisuku kugira ashobore kunyobwa?

A. Kurindira amazi atonganuke/ yireke
B. Kuyayungurura ukoresheje agahuzu/ kuyamimina
C. Amazi yabize/ guteka amazi
D. Gushiramwo umuti (Sur eau)
E. Ibindi _____
F. Sinzi

46. Niryari woza iminwe yawe? **NUBAZE UDATANGA INYISHU. CA AKAZINGI MUSI YIBIDONDAGUWE.**

A. Ntanarimwe
B. Ngomba ntangure guteka
C. Ngomba ngaburire umwana
D. Mpejeje kwituma
E. Mpejeje kwoza umwana yitumye
F. Ibindi_____

47. Urashobora kunyereka aho wama ukarabira nico ukarabiramwo? **Nusabe ahakwereke maze uhagenzure.**

A. Hafi yakazu ka sugumwe
B. Hafi yigikoni
C. Kumbuga
D. Kure yo kumbuga
E. Ntanahamwe hama hateguwe → **Genda kukibazo ca 49**
F. Ntaruhusha ruriho rwokuhabona → **Genda kukibazo ca 49**

48. UMWIHWEZO GUSA: Hoba hariho isabuni, canke ikintu cose gikoreshwa mu kugira isuku? **Iki gikoresho gitegerezwa kuzanwa ubwonyene na nyene kubazwa canke herekanwe aho kiri. Kitazanywe ubwo nyene canke kizanywe munyuma shira akazingi Kuri "Ntakomfise."**

A. Isabuni
B. Omo
C. Umunyota
D. Urwondo/umusenyi
E. Ntakomfise
F. Ibindi _____

49. Akazu kasugumwe mufise kameze gute? Ndashobora kukabona?

A. Ntakodufise
B. Ntigafundikiye
C. Karafundikiye
D. Nakikizungu
E. Ntaruhusha ufise rwokukaraba

50. Igihe umwana (vuga izina ry'umwana) aheruka kwituma washize hehe umwanda wiwe? Baza neza kugirango umenye aho bawushize.

A. Twawutaye mwiwese
B. Twawutaye aho duta umwavu
C. Twawushize iruhande y'inzu
    C1. Narawimbiye ndawufurira?
    C2. Canke sinawimbiye?
D. Twawushize kure y'inzu
    D1. Narawimbiye ndawufurira?
    D2. Canke sinawimbiye?
E. Ahandi _____
F. Sinzi

Kwirinda Malariya

51. Mbega urugo rwawe rwoba rutunze imisegetera ishobora gukoreshwa mugihe abantu baryamye?

A. Ego
B. Oya → **Genda ku numero ya 56**

52. N'ubwoko ubwahe bw'imisegetera uyo mwana (vuga izina ryiwe) yakoresheje mu buryamo bwiwe?

A. Supanet (Wera)
B. Mama Supanet (Usa n'ubururu)
C. Imisegetera yindi_____
D. Sinzi

53. Mbega uwo musegetera woba warabombetswe mu muti wirukana imibu n'ibihere?

A. Ego
B. Oya → **Genda ku numero ya 55**
C. Sinzi → **Genda ku numero ya 55**

54. Mbega uwo musegetera umaze igihe kingana gute utabombetswe mu muti wirukana imibu n'ibihere? **Nimba ari musi y'ukwezi kumwe guheze, andika amezi 00. Nimba ari musi y'amezi 2 aheze, andika igitigiri c'ukwezi. Nimba ari amezi 12 aheze canke umwaka uheze, baza ibibazo bidatanga inyishu kugirango umenye igitigiri nyakuri c'amezi aheze.**

A. Amezi __ __
B. Imyaka irenze ibiri
C. Sinzi

55. Nibande baryamye mumusegetera n'ijoro**? Nimba hari uwundi muntu avuzwe atari umwana, shira akazingi ku "abandi".**

A. Ntanumwe
B. Izina ry'umwana
C. Abandi _____

Gupima uburemere

56. Ndashobora gupima uburemere bwuwo mwana (Muvuge izina)?

A. Ego → **__ __ , __ Kg**
B. Oya → **Heza ibibazo**

Shimira umuvyeyi kuko yishuye ibibazo

Appendix D.

Manual Tabulation Tables of Raw Data

- DEMOGRAPHIC DATA

1) Sex of youngest child :

Sex	Frequency	Percent	Cum Percent	
Female	154	51.7%	51.7%	
Male	144	48.3%	100.0%	
Total	298	100.0%	100.0%	

Age of youngest child:

Months	Frequency	Percent	Cum Percent	
0	13	4.3%	4.3%	
1	15	5.0%	9.3%	
2	10	3.3%	12.7%	
3	16	5.3%	18.0%	
4	12	4.0%	22.0%	
5	15	5.0%	27.0%	
6	18	6.0%	33.0%	
7	12	4.0%	37.0%	
8	15	5.0%	42.0%	
9	16	5.3%	47.3%	
10	16	5.3%	52.7%	
11	6	2.0%	54.7%	
12	14	4.7%	59.3%	
13	13	4.3%	63.7%	
14	15	5.0%	68.7%	
15	12	4.0%	72.7%	
16	14	4.7%	77.3%	
17	14	4.7%	82.0%	
18	9	3.0%	85.0%	
19	11	3.7%	88.7%	
20	14	4.7%	93.3%	
21	9	3.0%	96.3%	
22	8	2.7%	99.0%	
23	3	1.0%	100.0%	
Total	300	100.0%	100.0%	

B. MATERNAL AND NEWBORN CARE

2. During your pregnancy with (name of child) did you sleep under a mosquito net?	Frequency	Percent	Cum Percent	
No	190	63.3%	63.3%	
Yes	110	36.7%	100.0%	
Total	300	100.0%	100.0%	

3. Did you sleep under the net all the time, most of the time, some of the time, or occassionally?	Frequency	Percent	Cum Percent	
All	80	73.4%	73.4%	
Most	18	16.5%	89.9%	
Occasionally	4	3.7%	93.6%	
Some	7	6.4%	100.0%	
Total	109	100.0%	100.0%	

4. During your pregnancy with (name of child) did you receive an injection in the arm to prevent the baby from getting tetanus, that is convulsions after birth?	Frequency	Percent	Cum Percent	
Don't know	4	1.3%	1.3%	
No	70	23.4%	24.7%	
Yes	225	75.3%	100.0%	
Total	299	100.0%	100.0%	

5. While pregnant with (name of child), how many times did you receive such an injection?	Frequency	Percent	Cum Percent	
Don't know	5	2.2%	2.2%	
One	63	28.0%	30.2%	
Three or more	84	37.3%	67.6%	
Two	73	32.4%	100.0%	
Total	225	100.0%	100.0%	

6. Did you receive any tetanus toxoid injection at any time before that pregnancy?	Frequency	Percent	Cum Percent	
Don't know	6	2.0%	2.0%	
No	136	45.5%	47.5%	
Yes	157	52.5%	100.0%	
Total	299	100.0%	100.0%	

7. How many times did you receive that injection?	Frequency	Percent	Cum Percent	
Don't know	15	9.6%	9.6%	
One	17	10.8%	20.4%	
Three or more	101	64.3%	84.7%	
Two	24	15.3%	100.0%	
Total	157	100.0%	100.0%	

8. Who assisted with the delivery of (name of child)?	Frequency	Percent	Cum Percent	
Community health worker	4	1.3%	1.3%	
Doctor	17	5.7%	7.0%	
No one	39	13.0%	20.0%	
Nurse/Midwife	164	54.7%	74.7%	
Relative/friend/neighbor	33	11.0%	85.7%	
Traditional birth attendant	43	14.3%	100.0%	
Total	300	100.0%	100.0%	

9. How long after birth did you first put (name of child) to the breast?	Frequency	Percent	Cum Percent	
After eight hours	36	12.0%	12.0%	
After first hour	65	21.7%	33.7%	
Don't know	7	2.3%	36.0%	
Immediately	192	64.0%	100.0%	
Total	300	100.0%	100.0%	

10. Did you give anything to (name of child) before breastfeeding?	Frequency	Percent	Cum Percent	
Don't know	4	1.3%	1.3%	
No	262	87.3%	88.7%	
Yes	34	11.3%	100.0%	
Total	300	100.0%	100.0%	

11. After (name of child) was born, did any person come to check on the health of you and (name of child)?	Frequency	Percent	Cum Percent	
Don't know	13	4.3%	4.3%	
No	170	56.7%	61.0%	
Yes	117	39.0%	100.0%	
Total	300	100.0%	100.0%	

12) After how many _____ did the first check of the baby take place ?

Hours	Frequency	Percent	Cum Percent	
0	47	45.2%	45.2%	
1	28	26.9%	72.1%	
2	14	13.5%	85.6%	
3	4	3.8%	89.4%	
4	3	2.9%	92.3%	
5	3	2.9%	95.2%	
6	1	1.0%	96.2%	
8	1	1.0%	97.1%	
12	3	2.9%	100.0%	
Total	104	100.0%	100.0%	

Days	Frequency	Percent	Cum Percent	
1	4	66.7%	66.7%	
3	1	16.7%	83.3%	
4	1	16.7%	100.0%	
Total	6	100.0%	100.0%	

Weeks	Frequency	Percent	Cum Percent	
1	1	25.0%	25.0%	
2	1	25.0%	50.0%	
6	1	25.0%	75.0%	
0	1	25.0%	100.0%	
Total	4	100.0%	100.0%	

Don't know	Frequency	Percent	Cum Percent	
Yes	5	1.7%	1.7%	
No	295	98.3%	100.0%	
Total	300	100.0%	100.0%	

13. Who checked on (name of child's) health at that time?	Frequency	Percent	Cum Percent	
Doctor	6	5.1%	5.1%	
No one	1	0.9%	6.0%	
Nurse/Midwife	98	83.8%	89.7%	
Relative/friend/neighbor	1	0.9%	90.6%	
Traditional birth attendant	11	9.4%	100.0%	
Total	117	100.0%	100.0%	

C. NUTRITION

14) Did the child drink/eat any of the following:

A. Breastmilk	Frequency	Percent	Cum Percent	
No	11	3.7%	3.7%	
Yes	289	96.3%	100.0%	
Total	300	100.0%	100.0%	

B. Plain water	Frequency	Percent	Cum Percent	
No	111	37.0%	37.0%	
Yes	189	63.0%	100.0%	
Total	300	100.0%	100.0%	

C. Commercially produced infant formula	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	295	98.3%	98.7%	
Yes	4	1.3%	100.0%	
Total	300	100.0%	100.0%	

D. Soy milk	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	299	99.7%	100.0%	
Total	300	100.0%	100.0%	

E. Any fortified, commercially available infant and young child food (e.g. Cerelac)?	Frequency	Percent	Cum Percent	
No	298	99.3%	99.3%	
Yes	2	0.7%	100.0%	
Total	300	100.0%	100.0%	

F. Any other porridge?	Frequency	Percent	Cum Percent	
No	254	84.7%	84.7%	
Yes	46	15.3%	100.0%	
Total	300	100.0%	100.0%	

15) Did the child drink/eat any of the following:

A. Commercially produced infant formula	Frequency	Percent	Cum Percent	
No	298	99.3%	99.3%	
Yes	2	0.7%	100.0%	
Total	300	100.0%	100.0%	

B. Milk such as tinned, powdered, or fresh cow milk	Frequency	Percent	Cum Percent	
No	297	99.0%	99.0%	
Yes	3	1.0%	100.0%	
Total	300	100.0%	100.0%	

C. Yogurt or other milk products	Frequency	Percent	Cum Percent	
No	293	97.7%	97.7%	
Yes	7	2.3%	100.0%	
Total	300	100.0%	100.0%	

D. Any fortified, commercially available infant and young child food	Frequency	Percent	Cum Percent	
No	298	99.3%	99.3%	
Yes	2	0.7%	100.0%	
Total	300	100.0%	100.0%	

E. Any other porridge?	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	250	83.3%	83.7%	
Yes	49	16.3%	100.0%	
Total	300	100.0%	100.0%	

F. Bread, rice, maize or other foods made from grains (uburo, amasaka, ingano)	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	242	80.7%	81.0%	
Yes	57	19.0%	100.0%	
Total	300	100.0%	100.0%	

G. White potatoes, white yams, cassava, or any other foods made from roots	Frequency	Percent	Cum Percent	
No	200	66.7%	66.7%	
Yes	100	33.3%	100.0%	
Total	300	100.0%	100.0%	

H. Squash, carrots or sweet potatoes that are yellow or orange inside	Frequency	Percent	Cum Percent	
No	227	75.7%	75.7%	
Yes	73	24.3%	100.0%	
Total	300	100.0%	100.0%	

I. Any dark green leafy vegetables (irengarenga, isombe, umusoma, epinari, isogo, inyabutongo, umukubi)	Frequency	Percent	Cum Percent	
No	165	55.0%	55.0%	
Yes	135	45.0%	100.0%	
Total	300	100.0%	100.0%	

J. Ripe mangoes, papayas or tomato	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	283	94.3%	94.7%	
Yes	16	5.3%	100.0%	
Total	300	100.0%	100.0%	

K. Foods made with red palm oil	Frequency	Percent	Cum Percent	
Don't know	5	1.7%	1.7%	
No	165	55.4%	57.0%	
Yes	128	43.0%	100.0%	
Total	298	100.0%	100.0%	

L. Any other fruits or vegetables like oranges (ibicoco, intore), mushroom, pineapple, amatunda, eggplant, avocado or banana	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	190	63.3%	63.7%	
Yes	109	36.3%	100.0%	
Total	300	100.0%	100.0%	

M. Eggs	Frequency	Percent	Cum Percent	
Don't know	3	1.0%	1.0%	
No	290	96.7%	97.7%	
Yes	7	2.3%	100.0%	
Total	300	100.0%	100.0%	

N. Liver, kidney, heart or other organ meats	Frequency	Percent	Cum Percent	
No	296	98.7%	98.7%	
Yes	4	1.3%	100.0%	
Total	300	100.0%	100.0%	

O. Blood from cows (ikiremve)	Frequency	Percent	Cum Percent	
No	299	100.0%	100.0%	
Total	299	100.0%	100.0%	

P. Any meat, such as beef, pork, goat, lamb, chicken, duck, rats, gopher, rabbit, dove or quail	Frequency	Percent	Cum Percent	
No	288	96.0%	96.0%	
Yes	12	4.0%	100.0%	
Total	300	100.0%	100.0%	

R. Fresh or dried fish	Frequency	Percent	Cum Percent	
Don't know	2	0.7%	0.7%	
No	232	77.6%	78.3%	
Yes	65	21.7%	100.0%	
Total	299	100.0%	100.0%	

S. Grubs, snails or insects (inswa, isenene, ubunyabobo, ibikenya, ibinyagu)	Frequency	Percent	Cum Percent	
Don't know	7	2.3%	2.3%	
No	291	97.3%	99.7%	
Yes	1	0.3%	100.0%	
Total	299	100.0%	100.0%	

T. Any foods made from beans, peas, nuts (inkore, soja) and lentils (intengwa)	Frequency	Percent	Cum Percent	
No	136	45.3%	45.3%	
Yes	164	54.7%	100.0%	
Total	300	100.0%	100.0%	

U. Any kinds of oils (ibiyoba, ibihoke, isoya), fats, butter, or foods made with any of these	Frequency	Percent	Cum Percent	
No	283	94.3%	94.3%	
Yes	17	5.7%	100.0%	
Total	300	100.0%	100.0%	

V. Tea or coffee	Frequency	Percent	Cum Percent	
No	288	96.0%	96.0%	
Yes	12	4.0%	100.0%	
Total	300	100.0%	100.0%	

W. Any other liquids (such as banana juice)	Frequency	Percent	Cum Percent	
Banana beer	10	30.3%	30.3%	
banana juice	15	45.5%	75.8%	
drank juice	1	3.0%	78.8%	
powdered juice	1	3.0%	81.8%	
Took banana juice	1	3.0%	84.8%	
traditional beer	4	12.1%	97.0%	
yes (not specified what)	1	3.0%	100.0%	
Total	33	100.0%	100.0%	

Y. Any sugary foods, sweets, pastries, donut, biscuits, pop/soda, sugar cane or honey?	Frequency	Percent	Cum Percent	
Don't know	1	0.3%	0.3%	
No	268	89.3%	89.7%	
Yes	31	10.3%	100.0%	
Total	300	100.0%	100.0%	

Z. Any other food not mentioned	Frequency	Percent	Cum Percent	
cabbage	1	14.3%	14.3%	
normal sweet potatoe	1	14.3%	28.6%	
sugarcane	1	14.3%	42.9%	
Sweet patatoes that are white in the inside	1	14.3%	57.1%	
sweet patatoes with a white colour inside	1	14.3%	71.4%	
the baby is breastfeed only	1	14.3%	85.7%	
vegetable and bean soup	1	14.3%	100.0%	
Total	7	100.0%	100.0%	

Nutrition Summary: Food Diversity (Child consumed foods from how many food groups?)	Frequency	Percent	Cum Percent	
0	82	27.3%	27.3%	
1	21	7.0%	34.3%	
2	43	14.3%	48.7%	
3	58	19.3%	68.0%	
4	59	19.7%	87.7%	
5	30	10.0%	97.7%	
6	4	1.3%	99.0%	
7	2	0.7%	99.7%	
8	1	0.3%	100.0%	
Total	300	100.0%	100.0%	

16. How many times did (name of child) eat foods (other than liquids) yesterday?	Frequency	Percent	Cum Percent	
0	80	26.7%	26.7%	
1	39	13.0%	39.7%	
2	79	26.3%	66.0%	
3	52	17.3%	83.3%	
4	13	4.3%	87.7%	
5	2	0.7%	88.3%	
Don't know	35	11.7%	100.0%	
Total	300	100.0%	100.0%	

16. How many times did (name of child) eat foods (other than liquids) yesterday?	Frequency	Percent	Cum Percent	
0	80	26.7%	26.7%	
1	39	13.0%	39.7%	
2	79	26.3%	66.0%	
3	52	17.3%	83.3%	
4	13	4.3%	87.7%	
5	2	0.7%	88.3%	
Don't know	35	11.7%	100.0%	
Total	300	100.0%	100.0%	

D. SUPPLEMENTATION AND IMMUNIZATIONS

17. Has (name of child) received a Vitamin A dose (like this/any of these)?	Frequency	Percent	Cum Percent	
Don't know	3	1.0%	1.0%	
No	61	20.4%	21.4%	
Yes	235	78.6%	100.0%	
Total	299	100.0%	100.0%	

18. Did (name of child) receive a Vitamin A dose within the last 6 months?	Frequency	Percent	Cum Percent	
Don't know	5	2.1%	2.1%	
No	35	14.6%	16.7%	
Yes	200	83.3%	100.0%	
Total	240	100.0%	100.0%	

19. Did you receive a card or child health booklet where (name of child's) vaccinations and Vitamin A doses can be written down? If so, can I see the card?	Frequency	Percent	Cum Percent	
No	18	6.0%	6.0%	
Yes, card NOT seen	62	20.7%	26.7%	
Yes, card seen	220	73.3%	100.0%	
Total	300	100.0%	100.0%	

20) Copy the vaccination dates from the card.

BCG	Frequency	Percent	Cum Percent	
Total	216	100.0%	100.0%	

DPT 1 + Hep + Hib	Frequency	Percent	Cum Percent	
Total	201	100.0%	100.0%	

DPT 2 + Hep + Hib	Frequency	Percent	Cum Percent	
Total	189	100.0%	100.0%	

DPT 3 + Hep + Hib	Frequency	Percent	Cum Percent	
Total	171	100.0%	100.0%	

Measles	Frequency	Percent	Cum Percent	
Total	98	100.0%	100.0%	

Polio 0	Frequency	Percent	Cum Percent	
Total	209	100.0%	100.0%	

Polio 1	Frequency	Percent	Cum Percent	
Total	196	100.0%	100.0%	

Polio 2	Frequency	Percent	Cum Percent	
Total	185	100.0%	100.0%	

Polio 3	Frequency	Percent	Cum Percent	
Total	168	100.0%	100.0%	

Vitamin A	Frequency	Percent	Cum Percent	
Total	62	100.0%	100.0%	

Vitamin A 2	Frequency	Percent	Cum Percent	
Total	7	100.0%	100.0%	

21. Has (name of child) received any vaccinations that are not recorded on a card?	Frequency	Percent	Cum Percent	
No	192	87.7%	87.7%	
Yes	27	12.3%	100.0%	
Total	219	100.0%	100.0%	

22. Has (name of child) received any vaccinations?	Frequency	Percent	Cum Percent	
No	12	14.6%	14.6%	
Yes	70	85.4%	100.0%	
Total	82	100.0%	100.0%	

23. Has (name of child) received a BCG vaccination against tuberculosis?	Frequency	Percent	Cum Percent	
No	1	1.0%	1.0%	
Yes	95	99.0%	100.0%	
Total	96	100.0%	100.0%	

24. Has (name of child) received a polio vaccine?	Frequency	Percent	Cum Percent	
Don't know	3	3.1%	3.1%	
No	5	5.2%	8.3%	
Yes	88	91.7%	100.0%	
Total	96	100.0%	100.0%	

25. How many times?	Frequency	Percent	Cum Percent	
1	5	5.7%	5.7%	
2	16	18.2%	23.9%	
3	32	36.4%	60.2%	
4	15	17.0%	77.3%	
5	5	5.7%	83.0%	
Don't know	15	17.0%	100.0%	
Total	88	100.0%	100.0%	

26. Has (name of child) recieved a DPT vaccinations?	Frequency	Percent	Cum Percent	
Don't know	2	2.1%	2.1%	
No	10	10.4%	12.5%	
Yes	84	87.5%	100.0%	
Total	96	100.0%	100.0%	

27. How many times?	Frequency	Percent	Cum Percent	
1	7	8.2%	8.2%	
2	28	32.9%	41.2%	
3	29	34.1%	75.3%	
4	9	10.6%	85.9%	
Don't know	12	14.1%	100.0%	
Total	85	100.0%	100.0%	

28. Did (name of child) ever receive an injection in the arm to prevent measles?	Frequency	Percent	Cum Percent	
Don't know	1	1.1%	1.1%	
No	13	14.8%	15.9%	
Yes	74	84.1%	100.0%	
Total	88	100.0%	100.0%	

E. ILLNESS RECOGNITION

29) What are the signs of illness that would indicate your child needs treatment ? Circle all mentioned.

A. Don't know	Frequency	Percent	Cum Percent	
Yes	4	1.3%	1.3%	
No	296	98.7%	100.0%	
Total	300	100.0%	100.0%	

B. Looks unwell or not playing normally	Frequency	Percent	Cum Percent	
Yes	62	20.7%	20.7%	
No	238	79.3%	100.0%	
Total	300	100.0%	100.0%	

C. Not eating, drinking or breastfeeding	Frequency	Percent	Cum Percent	
Yes	95	31.7%	31.7%	
No	205	68.3%	100.0%	
Total	300	100.0%	100.0%	

D. Lethargic or difficult to wake	Frequency	Percent	Cum Percent	
Yes	24	8.0%	8.0%	
No	276	92.0%	100.0%	
Total	300	100.0%	100.0%	

E. High temperature	Frequency	Percent	Cum Percent	
Yes	259	86.3%	86.3%	
No	41	13.7%	100.0%	
Total	300	100.0%	100.0%	

F. Fast or difficult breathing	Frequency	Percent	Cum Percent	
Yes	37	12.3%	12.3%	
No	263	87.7%	100.0%	
Total	300	100.0%	100.0%	

G. Vomits everything	Frequency	Percent	Cum Percent	
Yes	87	29.0%	29.0%	
No	213	71.0%	100.0%	
Total	300	100.0%	100.0%	

H. Convulsions	Frequency	Percent	Cum Percent	
Yes	8	2.7%	2.7%	
No	292	97.3%	100.0%	
Total	300	100.0%	100.0%	

I. Gets worse despite home care	Frequency	Percent	Cum Percent	
Yes	13	4.3%	4.3%	
No	287	95.7%	100.0%	
Total	300	100.0%	100.0%	

J. Looks dehydrated	Frequency	Percent	Cum Percent	
Yes	12	4.0%	4.0%	
No	288	96.0%	100.0%	
Total	300	100.0%	100.0%	

K. Other	Frequency	Percent	Cum Percent	
allergy	1	0.5%	0.5%	
allergy on the skin, diarrhea	1	0.5%	1.0%	
can't breastfeed as usual	1	0.5%	1.5%	
can't go to the toilet, cough	1	0.5%	2.0%	
conjonctivite	1	0.5%	2.5%	
constipation	1	0.5%	2.9%	
cough	6	2.9%	5.9%	
cough, cries	1	0.5%	6.4%	
cough, diarrhea	4	2.0%	8.3%	
cough, diarrhea, worms	1	0.5%	8.8%	
cough, flu	1	0.5%	9.3%	
cough, swollen face, diarrhea	1	0.5%	9.8%	
cough, worms	1	0.5%	10.3%	
coughing	9	4.4%	14.7%	
coughing and diarrhea	1	0.5%	15.2%	
coughing, cries a lot, loses weight	1	0.5%	15.7%	
coughing, diarrhea	5	2.5%	18.1%	
coughing, diarrhea, allergy on the body	1	0.5%	18.6%	
Coughing, flu	1	0.5%	19.1%	
coughing, has flu, constipation	1	0.5%	19.6%	
coughing, keeps on crying, sores and wounds in the mouth	1	0.5%	20.1%	
coughing, refusing breastmilk	1	0.5%	20.6%	
coughing, shaking	1	0.5%	21.1%	
coughing, stretching everytime	1	0.5%	21.6%	
cries a lot	3	1.5%	23.0%	
cries a lot, diarrhea	1	0.5%	23.5%	
cries a lot, loses weight	1	0.5%	24.0%	
cries and diarrhea	1	0.5%	24.5%	
cries, coughs	1	0.5%	25.0%	
cry everytime, stretching, diarrhea, coughing	1	0.5%	25.5%	
cry, cough, cold, no other sicknesses he has ever got--firstborn (appears to have misunderstood the question)	1	0.5%	26.0%	
crying	2	1.0%	27.0%	
crying a lot	1	0.5%	27.5%	

crying, coughing	2	1.0%	28.4%	
crying, diarrhea	1	0.5%	28.9%	
crying, stretching, diarrhea	1	0.5%	29.4%	
crying, weak	1	0.5%	29.9%	
diarhea, swollen/full stomach, constipation	1	0.5%	30.4%	
diarrhea	34	16.7%	47.1%	
diarrhea a lot	1	0.5%	47.5%	
diarrhea stomachache	1	0.5%	48.0%	
diarrhea, allergy	2	1.0%	49.0%	
diarrhea, constipation, coughing	1	0.5%	49.5%	
diarrhea, cough	4	2.0%	51.5%	
diarrhea, cough, allergy	1	0.5%	52.0%	
diarrhea, cough, allergy on the skin	1	0.5%	52.5%	
diarrhea, cough, sudden waking up, lots of sweat	1	0.5%	52.9%	
diarrhea, coughing	6	2.9%	55.9%	
diarrhea, crying	1	0.5%	56.4%	
diarrhea, has allergy on the head	1	0.5%	56.9%	
diarrhea, headache, stomachache, when eyes are reddish	1	0.5%	57.4%	
diarrhea, keeps on crying	3	1.5%	58.8%	
diarrhea, keeps on crying in an usual way	1	0.5%	59.3%	
diarrhea, keeps sleeping	1	0.5%	59.8%	
diarrhea, pain on the side	1	0.5%	60.3%	
diarrhea, shaking, cold	1	0.5%	60.8%	
eye problem, he has never been sick (may have misunderstood the question)	1	0.5%	61.3%	
flu	2	1.0%	62.3%	
full stomach	1	0.5%	62.7%	
he doesn't want to go down	1	0.5%	63.2%	
he has eye sickness often	1	0.5%	63.7%	
jumping	1	0.5%	64.2%	
Keeps being cold, keeps on crying	1	0.5%	64.7%	
keeps crying	9	4.4%	69.1%	
keeps crying all the time, wakes up violenltly while sleeping, or when sick in the ears	1	0.5%	69.6%	
keeps crying, coughing	1	0.5%	70.1%	
keeps crying, diarrhea	2	1.0%	71.1%	
keeps crying, diarrhea, keeps losing weight	1	0.5%	71.6%	
keeps crying, keeps sleeping, diarrhea	1	0.5%	72.1%	
keeps grumbling	1	0.5%	72.5%	
keeps on crying	14	6.9%	79.4%	
Keeps on crying diarrhea too	1	0.5%	79.9%	
Keeps on crying, diarrhea	2	1.0%	80.9%	

keeps on crying, hates other people	1	0.5%	81.4%	
Keeps on crying, when no one can take her except the mother	1	0.5%	81.9%	
Keeps on crying,when eyes are sick	1	0.5%	82.4%	
keeps on opening widely the mouth	1	0.5%	82.8%	
keeps on wanting water to drink	1	0.5%	83.3%	
looks weak, coughing, diarrhea	1	0.5%	83.8%	
lose weight, coughing	1	0.5%	84.3%	
losing weight	1	0.5%	84.8%	
lots of diarrhea, cough	1	0.5%	85.3%	
never got sick yet	1	0.5%	85.8%	
not breastfeeding well	1	0.5%	86.3%	
not moving, diarrhea, sticks on the mother	1	0.5%	86.8%	
not sickly often	1	0.5%	87.3%	
only allergies on the skin	1	0.5%	87.7%	
refuses to be breastfed	1	0.5%	88.2%	
shakes and cough	1	0.5%	88.7%	
shakes, keeps drinking	1	0.5%	89.2%	
sharp stomach pain	1	0.5%	89.7%	
she cries all the time	1	0.5%	90.2%	
shivering	1	0.5%	90.7%	
sick in the ears	1	0.5%	91.2%	
sickness in the mouth	1	0.5%	91.7%	
skin allergy	1	0.5%	92.2%	
stomachache	1	0.5%	92.6%	
waking up violently	1	0.5%	93.1%	
weak	1	0.5%	93.6%	
when baby can't go to toilet	1	0.5%	94.1%	
when child has skin disease like pimples	1	0.5%	94.6%	
when cough starts	1	0.5%	95.1%	
when cries a lot	1	0.5%	95.6%	
when she is underweight	1	0.5%	96.1%	
when the baby doesnt gain weight	1	0.5%	96.6%	
When the baby refuses to go down	2	1.0%	97.5%	
when the child doesn't go to the toilet	1	0.5%	98.0%	
when the heart is beating hard/jumping	1	0.5%	98.5%	
when weak	1	0.5%	99.0%	
while cryinng	1	0.5%	99.5%	
wound, after being burnt, eye sickness	1	0.5%	100.0%	
Total	204	100.0%	100.0%	

F. TREATMENT OF HIGH TEMPERATURE

30. Has (name of child) been ill with high temperature at anytime during the last 2 weeks?	Frequency	Percent	Cum Percent	
No	189	63.0%	63.0%	
Yes	111	37.0%	100.0%	
Total	300	100.0%	100.0%	

31. Did you seek advice or treatment for the high temperature?	Frequency	Percent	Cum Percent	
No	48	43.2%	43.2%	
Yes	63	56.8%	100.0%	
Total	111	100.0%	100.0%	

32. How many days after the high temperature began did you first seek treatment for (name of child)?	Frequency	Percent	Cum Percent	
Don't know	2	3.2%	3.2%	
Next day	32	50.8%	54.0%	
Same day	6	9.5%	63.5%	
Two days or more	23	36.5%	100.0%	
Total	63	100.0%	100.0%	

33. At any time during the illness did (name of child) take any medicine for high temperature?	Frequency	Percent	Cum Percent	
Don't know	3	4.8%	4.8%	
No	1	1.6%	6.3%	
Yes	59	93.7%	100.0%	
Total	63	100.0%	100.0%	

34) What drugs did the child take ?

Amodiaquine + Artesenuate (AS + AQ)	Frequency	Percent	Cum Percent	
Yes	16	5.3%	5.3%	
No	284	94.7%	100.0%	
Total	300	100.0%	100.0%	

Quinine	Frequency	Percent	Cum Percent	
Yes	12	4.0%	4.0%	
No	288	96.0%	100.0%	
Total	300	100.0%	100.0%	

Paracetamol	Frequency	Percent	Cum Percent	
Yes	42	14.0%	14.0%	
No	258	86.0%	100.0%	
Total	300	100.0%	100.0%	

Other	Frequency	Percent	Cum Percent	
a drug with a line in the middle (cannot distinguish between quinine or paracetamol, gave twice	1	2.7%	2.7%	
albendazole	1	2.7%	5.4%	
amoxicilin powder	1	2.7%	8.1%	
amoxicilin syrop	1	2.7%	10.8%	
amoxiciline	2	5.4%	16.2%	
amoxicillin	2	5.4%	21.6%	
Amoxy	1	2.7%	24.3%	
amoxycilin	1	2.7%	27.0%	
amoxycilin powder for oral suspension	1	2.7%	29.7%	
amoxycillin	2	5.4%	35.1%	
Ampiciline Syrup	1	2.7%	37.8%	
Antibiotic	1	2.7%	40.5%	
antibiotics	1	2.7%	43.2%	
bactrim	2	5.4%	48.6%	
cotrimoxazole, erythromycin	1	2.7%	51.4%	
cough medicine	4	10.8%	62.2%	
don't know	1	2.7%	64.9%	
erythromycin	1	2.7%	67.6%	
erythromycin, albendazole	1	2.7%	70.3%	
gave injection	1	2.7%	73.0%	
gave traditional medicine	1	2.7%	75.7%	
mbendazole, amoxicilin	1	2.7%	78.4%	
mbendazole, oral suspension	1	2.7%	81.1%	
Mebendazole, Amoxycyline	1	2.7%	83.8%	
medicine to drink	1	2.7%	86.5%	
She was given drugs and a kind of medecine in a small bottle that turns yellow once mixed with water	1	2.7%	89.2%	
She was given drugs and cough medecine	1	2.7%	91.9%	
small drugs	1	2.7%	94.6%	
traditional medicine	1	2.7%	97.3%	
vermox	1	2.7%	100.0%	
Total	37	100.0%	100.0%	

34b. How long after the fever started did (name of child) start taking the medicine?	Frequency	Percent	Cum Percent	
Don't know	2	3.4%	3.4%	
Next day	20	34.5%	37.9%	
Same day	20	34.5%	72.4%	
Two days or more	16	27.6%	100.0%	
Total	58	100.0%	100.0%	

G. DIARRHEA CONTROL

35. Has (name of child) had diarrhea in the last two weeks?	Frequency	Percent	Cum Percent	
No	229	76.3%	76.3%	
Yes	71	23.7%	100.0%	
Total	300	100.0%	100.0%	

36. When (name of child) was sick, was s/he offered more breastmilk than usual, about the same amount, or less than usual?	Frequency	Percent	Cum Percent	
Less	25	37.9%	37.9%	
More	13	19.7%	57.6%	
Same	28	42.4%	100.0%	
Total	66	100.0%	100.0%	

37. When (name of child) was sick, was s/he offered less than usual to drink, about the same, or more than usual to drink?	Frequency	Percent	Cum Percent	
Less	20	46.5%	46.5%	
More	14	32.6%	79.1%	
Same	9	20.9%	100.0%	
Total	43	100.0%	100.0%	

38. When (name of child) was sick, was s/he offered more than usual to eat, about the same amount, or less than usual to eat?	Frequency	Percent	Cum Percent	
Less	29	67.4%	67.4%	
More	2	4.7%	72.1%	
Same	12	27.9%	100.0%	
Total	43	100.0%	100.0%	

39) Was s/he given any of the following to drink at the time she started having diarrhea?

A)

ORT	Frequency	Percent	Cum Percent	
Yes	1	0.3%	0.3%	
No	299	99.7%	100.0%	
Total	300	100.0%	100.0%	

B)

ORS	Frequency	Percent	Cum Percent	
Yes	27	9.0%	9.0%	
No	273	91.0%	100.0%	
Total	300	100.0%	100.0%	

C)

Sugar and salt solution	Frequency	Percent	Cum Percent	
Yes	2	0.7%	0.7%	
No	298	99.3%	100.0%	
Total	300	100.0%	100.0%	

D)

Medicine	Frequency	Percent	Cum Percent	
amoxicilin	1	3.7%	3.7%	
chloramphenicol oral, paracetamol oral suspension	1	3.7%	7.4%	
gave a vegetable	1	3.7%	11.1%	
Got better on own	1	3.7%	14.8%	
I gave nothing, because I knew that teeth were growing	1	3.7%	18.5%	
I gave paracetamol and the baby got healed	1	3.7%	22.2%	
it just disappeared	1	3.7%	25.9%	
just stopped	1	3.7%	29.6%	
no assistance sought	1	3.7%	33.3%	
No medecine given	1	3.7%	37.0%	
No medecine taken	1	3.7%	40.7%	
No medicine given but sickness healed by itself	1	3.7%	44.4%	
no medicine was given	1	3.7%	48.1%	
nothing given even now has diarrhea for 3 days now	1	3.7%	51.9%	
She gave him capsules (taramusini) only as medecine	1	3.7%	55.6%	
she gave the baby the medicine that the health center gave to her	1	3.7%	59.3%	
stopped by itself	1	3.7%	63.0%	

they gave medicine from a bottle using the cover as a measure	1	3.7%	66.7%	
Took no medecine and the sickness stopped	1	3.7%	70.4%	
traditional medicine	5	18.5%	88.9%	
We were given a medicine that was in a small red bottle	1	3.7%	92.6%	
went away by itself	1	3.7%	96.3%	
white drugs and yellow drugs	1	3.7%	100.0%	
Total	27	100.0%	100.0%	

E. PNEUMONIA TREATMENT

40. Has (name of child) had any illness with a cough at anytime in the last two weeks?	**Frequency**	**Percent**	**Cum Percent**	
Don't know	2	0.7%	0.7%	
No	115	38.3%	39.0%	
Yes	183	61.0%	100.0%	
Total	300	100.0%	100.0%	

41. When (name of child) had an illness with a cough, did s/he have trouble breathing or breathe faster than usual?	**Frequency**	**Percent**	**Cum Percent**	
No	81	44.3%	44.3%	
Yes	102	55.7%	100.0%	
Total	183	100.0%	100.0%	

42. Did you seek advice or treatment for the cough/fast breathing?	**Frequency**	**Percent**	**Cum Percent**	
No	46	44.7%	44.7%	
Yes	57	55.3%	100.0%	
Total	103	100.0%	100.0%	

43) Who gave you advice/treatment?

A)

Doctor	**Frequency**	**Percent**	**Cum Percent**	
Yes	1	0.3%	0.3%	
No	299	99.7%	100.0%	
Total	300	100.0%	100.0%	

B)

Nurse	**Frequency**	**Percent**	**Cum Percent**	
Yes	54	18.0%	18.0%	
No	246	82.0%	100.0%	
Total	300	100.0%	100.0%	

C)

Community health worker	Frequency	Percent	Cum Percent	
No	300	100.0%	100.0%	
Total	300	100.0%	100.0%	

D)

Other	Frequency	Percent	Cum Percent	
asked neighbors for medicine and child got better	1	14.3%	14.3%	
child's grandmother	1	14.3%	28.6%	
gave traditional medicine already on hand	1	14.3%	42.9%	
I gave a citrus and wiped the baby with citrus water	1	14.3%	57.1%	
myself, because I had previous medicine that I used when I had a cough and flu	1	14.3%	71.4%	
neighbors gave the baby an orange	1	14.3%	85.7%	
parents	1	14.3%	100.0%	
Total	7	100.0%	100.0%	

F. WATER AND SANITATION

44. Do you treat your water in any way to make it safe for drinking?	Frequency	Percent	Cum Percent	
Yes	134	44.7%	44.7%	
No	166	55.3%	100.0%	
Total	300	100.0%	100.0%	

45. What do you usually do to the water to make it safer to drink?

45. What do you usually do to the water to make it safer to drink?	Frequency	Percent	Cum Percent	
Boil	5	3.8%	3.8%	
Don't know	1	0.8%	4.5%	
Other	111	83.5%	88.0%	
Sedimentation	15	11.3%	99.2%	
Strain	1	0.8%	100.0%	
Total	133	100.0%	100.0%	

46) When do you wash your hands ?

After attending to a child who has defecated/soiled	Frequency	Percent	Cum Percent	
Yes	28	9.3%	9.3%	
No	272	90.7%	100.0%	
Total	300	100.0%	100.0%	

After defecation/visiting the toilet	Frequency	Percent	Cum Percent	
Yes	51	17.0%	17.0%	
No	249	83.0%	100.0%	
Total	300	100.0%	100.0%	

Before feeding child	Frequency	Percent	Cum Percent	
Yes	130	43.3%	43.3%	
No	170	56.7%	100.0%	
Total	300	100.0%	100.0%	

Before food preparation	Frequency	Percent	Cum Percent	
Yes	116	38.7%	38.7%	
No	184	61.3%	100.0%	
Total	300	100.0%	100.0%	

Never	Frequency	Percent	Cum Percent	
Yes	1	0.3%	0.3%	
No	299	99.7%	100.0%	
Total	300	100.0%	100.0%	

47. Can you show me where you usually wash your hands?	Frequency	Percent	Cum Percent	
Inside yard	110	36.9%	36.9%	
Near kitchen	25	8.4%	45.3%	
Near toilet	1	0.3%	45.6%	
No permission to see	1	0.3%	46.0%	
No specific place	141	47.3%	93.3%	
Outside yard	20	6.7%	100.0%	
Total	298	100.0%	100.0%	

48. Is there soap, detergent or a locally used cleansing agent observed?	Frequency	Percent	Cum Percent	
None	43	20.5%	20.5%	
Other	6	2.9%	23.3%	
Soap	161	76.7%	100.0%	
Total	210	100.0%	100.0%	

48) Other

Other (specify)	Frequency	Percent	Cum Percent	
a peice of brick	1	2.6%	2.6%	
a stone	3	7.9%	10.5%	
also mud/sand	1	2.6%	13.2%	
also said something to wash dishes like a net or a stone	1	2.6%	15.8%	
and a stone to remove callous	1	2.6%	18.4%	
detergent too	1	2.6%	21.1%	
i don't use it every time i want to wash	1	2.6%	23.7%	
only water	2	5.3%	28.9%	
Palm oil	1	2.6%	31.6%	
small sponge	1	2.6%	34.2%	
sponge	9	23.7%	57.9%	
sponge, stone	1	2.6%	60.5%	
stone	14	36.8%	97.4%	
stone and cob	1	2.6%	100.0%	
Total	38	100.0%	100.0%	

49. What kind of toilet facility do you have? Can I see it?	Frequency	Percent	Cum Percent	
Closed latrine	25	8.3%	8.3%	
Flush toilet	2	0.7%	9.0%	
No permission to see	8	2.7%	11.7%	
No toilet facility	10	3.3%	15.0%	
Open latrine	255	85.0%	100.0%	
Total	300	100.0%	100.0%	

50. The last time (name of child) passed stools, where were the feces disposed of?	Frequency	Percent	Cum Percent	
Far from house	20	6.7%	6.7%	
Garbage	23	7.7%	14.4%	
Latrine	174	58.2%	72.6%	
Near house	11	3.7%	76.3%	
Other	71	23.7%	100.0%	
Total	299	100.0%	100.0%	

G. MALARIA PREVENTION

51. Does your household have any mosquito nets that can be used while sleeping?	Frequency	Percent	Cum Percent	
Yes	194	64.7%	64.7%	
No	106	35.3%	100.0%	
Total	300	100.0%	100.0%	

52. Which brand of bed net do you own?	Frequency	Percent	Cum Percent	
Mama supanet	9	4.6%	4.6%	
Supanet	185	95.4%	100.0%	
Total	194	100.0%	100.0%	

53. Was the bed net ever soaked or dipped in a liquid treated to repel mosquitoes or bugs?	Frequency	Percent	Cum Percent	
Don't know	19	9.8%	9.8%	
No	142	73.2%	83.0%	
Yes	33	17.0%	100.0%	
Total	194	100.0%	100.0%	

54. How long ago was the net last soaked or dipped in a liquid treated to repel mosquitoes or bugs?	Frequency	Percent	Cum Percent	
Don't know	2	6.1%	6.1%	
Months	31	93.9%	100.0%	
Total	33	100.0%	100.0%	

55) Who slept under a bed net last night ?

A)

No one	Frequency	Percent	Cum Percent	
Yes	28	9.3%	9.3%	
No	272	90.7%	100.0%	
Total	300	100.0%	100.0%	

B)

(Name of child)	Frequency	Percent	Cum Percent	
Yes	157	52.3%	52.3%	
No	143	47.7%	100.0%	
Total	300	100.0%	100.0%	

C)

Other (specify)	Frequency	Percent	Cum Percent	
all family	1	0.6%	0.6%	
all household	1	0.6%	1.2%	
All in the house	2	1.2%	2.5%	
all members of the household	5	3.1%	5.5%	
all of family	1	0.6%	6.1%	
all of us	1	0.6%	6.7%	
all of us in the house	13	8.0%	14.7%	
all other children	1	0.6%	15.3%	
all others in the house	2	1.2%	16.6%	
all people	2	1.2%	17.8%	
all the members of the household	1	0.6%	18.4%	
all the people in the house	1	0.6%	19.0%	
All the people in the household	1	0.6%	19.6%	
brother of the child	1	0.6%	20.2%	
brothers and sisters	1	0.6%	20.9%	
brothers and sisters, parents	1	0.6%	21.5%	
child interviewed (mama supanet), rest of family (supanet)	1	0.6%	22.1%	
child interviewed slept under the mama supanet, all others in family slept under supanet	1	0.6%	22.7%	
everyone in house	1	0.6%	23.3%	
everyone in the home	1	0.6%	23.9%	
father & mother	1	0.6%	24.5%	
father, child, mother	1	0.6%	25.2%	
father, mother, other kids	1	0.6%	25.8%	
kids, mother	1	0.6%	26.4%	
moth	1	0.6%	27.0%	
mother	12	7.4%	34.4%	
mother and another person in the household	1	0.6%	35.0%	
mother and father	2	1.2%	36.2%	
mother and other family members	2	1.2%	37.4%	
mother too	1	0.6%	38.0%	
mother, another male family member	1	0.6%	38.7%	
mother, brothers, sisters	1	0.6%	39.3%	
mother, father	2	1.2%	40.5%	
mother, father, other child	1	0.6%	41.1%	
other children	1	0.6%	41.7%	
other household member	2	1.2%	42.9%	
other household members	5	3.1%	46.0%	
others	1	0.6%	46.6%	

parents	58	35.6%	82.2%	
parents & other kids	1	0.6%	82.8%	
parents and all children	2	1.2%	84.0%	
parents and child	1	0.6%	84.7%	
parents and kids	1	0.6%	85.3%	
parents and other children	2	1.2%	86.5%	
parents and other kids	2	1.2%	87.7%	
parents and others, except for those sleeping with their grandmother	1	0.6%	88.3%	
parents and the child interviewed slept under the mama supanet	1	0.6%	89.0%	
parents, all children	5	3.1%	92.0%	
parents, elder brother	1	0.6%	92.6%	
parents, other child	1	0.6%	93.3%	
parents, other children	2	1.2%	94.5%	
parents, other kids	1	0.6%	95.1%	
the baby's mother	1	0.6%	95.7%	
The rest of the family	2	1.2%	96.9%	
The rest of the family, they have 2 mosquito nets	1	0.6%	97.5%	
the whole family	1	0.6%	98.2%	
they removed it because it made them hot	1	0.6%	98.8%	
whole family	2	1.2%	100.0%	
Total	163	100.0%	100.0%	

H. GROWTH AND MONITORING

56. May I weight (name of child)?	**Frequency**	**Percent**	**Cum Percent**	
Yes	299	99.7%	99.7%	
No	1	0.3%	100.0%	
Total	300	100.0%	100.0%	

D2. Qualitative Community Needs Assessment.

In addition to the CSHGP required baseline KPC Survey data collection, the CSP conducted qualitative research throughout communities in all four communes of Kibuye Health District. For two and a half weeks, eight promoters worked together in pairs. One promoter would be given the task of asking the interviewee questions and the other of recording responses along with additional probes. The CSP team discussed their experiences out in the field, in order to share lessons learned about the community and helpful strategies for capturing richer qualitative data. This practice also set precedence for establishing the culture of a "learning community" among the members of the CSP team, where each member sees the community members as her first set of "teachers" and the other members of the CSP team as her second set of "teachers." The foundation of this principle is that all members of the CSP team should take a receptive learning posture when working with the community, rather than a dominating didactic approach.

The Child Survival Project Manager and MCH Specialist developed in depth interview guides to be used to explore and better understand disease burdens, health priorities and community resources, particularly related to the health of women and children. A total of 25 interviews were conducted with mothers and fathers throughout the four communes of Kibuye Health District. The questionnaires that were developed and illustrative data collected from these interviews follow here. This was the first experience for many of the CSP promoters in conducting in-depth interviews, so it was an opportunity for the entire team to learn about the communities they will serve over the life of the project, while building their skills in collecting qualitative data.

Community Health Needs, Priorities and Resources

		Responses	
Topic	**Question**	**Mothers**	**Fathers**
Child's Health			
Child's Health	**1. Can you tell me about the different kinds of health problems young children have in your community?**	Malaria, diarrhea, cough Worms, malaria, diarrhea, vomiting, cough a. worms, diarrhea, malaria because of lack of money to buy medicine and lack of medicine of immunization. b. Diarrhea, cough, malaria because of lack of money to go to hospital or to use traditional medicine and many times, it is poverty. The sicknesses that are against children in this commune are cough, malaria, measles (the sickness that shows itself from the inside of the body), diarrhea. Malaria, diarrhea, worms, eye sicknesses, this is the eye sicknesses (amaso) that have attacked and you have to get glasses. The disease we have is eye sickness, diarrhea, coughing, malaria. Malaria, flu. The mother wakes up and sees the baby sick but never knows what the baby is suffering from. Worms, measles. Now that I see there is measles that attack some one who never got a vaccine, you never got it here?	The sicknesses that are severe to children are malaria, cough that comes with high temperature, worms, mouth, teeth sicknesses and have allergy on the tongue, diarrhea. The sickness that are against children, malaria, diarrhea, skin rash, malnutrition and eye sickness. Malaria, diarrhea, worms and cough. The causes I think is the mosquito, which is coming from the banana leaves and the bushes. →*You can tell us why they are having diarrhea?* For diarrhea it is hard to know it, but the worm is coming from the food, which the children are eating without washing it and those kinds that they are getting outside of home. Malaria, skin diseases, cough. What did you do to that sick child of skin disease? I took the baby to hospital. Mucus in the eyes, malaria, worms.

		The one who gets sick is the one who never got the immunization. Malaria, diarrhea, measles, cough. →*Only those? Do kids here get worms?* Yes they do and have eyes sicknesses. I only see malaria and diarrhea. →*What do you when they have diarrhea?* We go to hospitals. But there is cough. →*Can you know why?* No. →*Is there any other thing you give to the baby when the baby has diarrhea?* I only know the medical assistance because in the traditional place when the sickness is of the hospital, it can never get healed. Malaria, cough, a child can be born with cough. Since when the baby was born, the baby keeps snoring to the point that the child can be too sick and scaring. →*Are there other sicknesses?* All of those sicknesses of diarrhea, stretching themselves, crying but it is not only during dry season but even during rainy season it happens. I can start with where I live, all of them have high temperature, cough, and has throat soar. I cannot even spend one hour without going to a hospital. →*Where do you think those sicknesses come from?* I just see them becoming sick that way, then I go to hospital. When you see that a child	Other kids suffer from kwashiorkor and diarrhea. Malaria is very dangerous to people in this place. Nothing else? Mucus in the eyes is very dangerous in this place. That is what I can say because may of them suffer from the eye sicknesses. Many people suffer from eye problem and do not get financial possibility to treat them. But young kids get free medication and treatment. Yes those below 5 years get a free treatment.

		is not eating and has high temperature, you go to hospital. So, I only know my case even if I may talk to others. That happens because you may not have what to help and assist the baby.	
	1a. Out of all of these health problems, which one is the most common health problem for children in your community? Why is this one the most common?	Malaria, cough, because that is what happens many times. The ones that are obvious are malaria and cough,, because even my children are vulnerable to those What they see often is malaria and diarrhea. These are the ones that attack the children. Many people go to traditional healer, although the treatment is go to go medical center. All of these are common. Only rash is not common Malaria, flu, worms. Because that is what makes us miserable and children get sick from those sicknesses. A.Cough does not heal especially with malaria that comes with coughing. →*Why did you say that it is malaria and cough?* Because those are the ones that attack my family. →*What do you do when you see that your child has cough and malaria?* I take the baby to hospital.	what is mostly see is malaria and diarrhea. because even those sicknesses are all over even to neighbors. Malaria, diarrhea, eye sickness Malaria, because even in health centers there are many who has malaria. Malaria, cough and those sicknesses of the skin. →*Besides taking the baby to hospital, is there any other thing you do?* We are Christians and we attend a Pentecostal church, we take kids to health centers and they get healed. The problems that make children suffer: malaria, measles, worms and kwashiorkor. Because those are the main sicknesses for the family.

		→*You take the child immediately to hospital or you wait?* When the day has gone by and I see that the baby is still sick, I take the child to hospital. →*Which hospital do you go to?* Bukirasazi. *Are they treating you well?* →*Do you pay the treatment?* Yes they are good medical people and treat well. Again, there is no payment there for treatments of babies. Malaria, diarrhea and vomiting. Because that is what we see often. *Kids get malaria so often?* Yes even more. Those sicknesses are malaria, diarrhea and cough. →*Are these the only ones here?* Yes they are because those are the ones that expose themselves often. →*Can you see the signs that show you those sicknesses that expose themselves often?* We cannot spend 2 months with healthy babies. There is no even one month, myself I believe that even 2 weeks do not end with a healthy child. What I see mostly are malaria that bring soar in the throat and make children cough a lot. Those are the ones that I see. Even yesterday I went to hospital and could not get a paper. →*What is the use of that paper?* The paper to go to hospital because I gave birth to this kid when his/her father was not here.	

		→*Can't you go to register your baby in the commune while the father is still alive?* Not really, it is difficult. The father is looking for beans because here we cultivate and never harvest. →*So to register the baby is very difficult. So you mean it is not possible for a mother to register by herself her baby?* No because only the father can do that.	
	1b. Out of all of these health problems, which one is the most severe health problem for children in your community? Why do you think this one is the most severe?	Malaria: the reason is that it makes them worse, the mothers do not have enough cleanness, near the house there is stagnant water always. Those that are very very dangerous are malaria and cough. Because when the child coughs, the child has a high temperature and becomes worse, but when we get medicine the children get healed. The reason that I saw this is because I am seeing it often. Malaria: because kids are vulnerable on that and they get sick a lot from that. Cough and malaria. →*How do you know that a baby has cough or malaria?* The baby has high temperature and coughs. →*When the baby was coughing, was it the one*	The most dangerous ones are malaria and diarrhea. The reason is that they follow the times of climate like in the rainy season, the sicknesses become very painful and hard. Diarrhea, malaria, cough. The reasons are many The sever one is malaria, cough, that is what I have chosen, because many of them have those two disease. B) worms, malaria. →*How do you know that the child has worms?* The baby has a swollen stomach and lose appetite. →*What shows you that the baby has malaria?* That child has high temperature mixed with cold. →*Is there any advice you ask at the hospital to reduce malaria?* Like now,

		that makes you spit or does not make you spit? The baby coughs to the point where it seems the baby's noses are blocked. →*Why?* Because those are the ones that kids have often. →*Nothing else?* No. We do not know the reason. But even if I told you that there are no other sicknesses I have a child that has a skin problem for 4 years without any cure and that disease came to the baby after breastfeeding. →*Did you take that baby to hospital?* Yes, even in the Gitega hospital, I went there. In this commune, sicknesses are too different. If I can start by myself or where I can see, malaria, cough and diarrhea are very dangerous to children. I think it is because I never got a mosquito net. Those who have mosquito nets are doing well. Cough and malaria. Those are the ones that are very severe and dangerous. Like now malaria comes from malnutrition and exhaustion.	we were given mosquito nets but those that we were given lose the medicine quickly. But the strange thing is that even those that we buy lose their medicine quickly. The mosquito net has a big help to us because since I got that mosquito net, my kids never became sick again. →*How many mosquito nets do you have?* The one we parents use and the one kids use. →*How do you fight against cough since you said that kids are allergic to cough?* There is a sweet I give them when cough attacks. Malaria is very dangerous in this place. →*Why?* Many people are sick from malaria What make them suffer to much are malaria, measles because those are the ones that we see here and when the baby is sick with high temperature, malaria case is in there.

	2. What are the main reasons that children die in this community?	When the child is sick and you do not go to hospital immediately, the child dies. To take the child to hospital when the baby is worse because of lack of money and lack of medicine for immunization. The reasons for death of children here are that they don't know which medical personal to go to, because they don't know well what they are suffering from. Then they take that child to the traditional healer, but that sickness should be treated at the medical clinic. But this is done by a few people when they are just going traditional healer expecting to be healed, but many times they die there. Even when you go to a medical clinic and the sickness is from a traditional healer the child dies anyway. She thinks that the reason is that the sickness attacks the children (little ones), because they are still small and cannot fight for themselves. Another reason is that they are not well fed. I don't know, but sometimes malaria come as bringing the convulsion and the mother at the first time they are not going to the health center. They are first going to the traditional healer, but then they are going to the health center, so they are mixing them. →*Is there some people who are still going to the traditional healers?* Yes, of course, that is	What makes people die, it is a lot. What I know if I can observe in this short time I have been here, I think that all depends on not taking them for treatment. They are killed by epidemic sicknesses. We don't have the money to go for the checkups. Our lack of knowledge. We keep on going to the traditional healers. →*Why?* Because the poverty that we have and the lack of knowledge. Many times it is malaria that kills children. It is malaria who killed children when they are not bringing them to the health center, but the mortality has reduced, because now they are getting the medicine freely. There are now few who are not bringing their children to the health center. Some parents get afraid when they realize that their kids are sick. They take them to traditional healers. →*Do traditional healers have lots of responsibilities in this community more than medical people?* No, because many go to hospital. →*Have you ever seen the difference*

		why they are dying, because even you are giving them advice they are seeing you as the enemy. So they are sending their children when they are very sick to the health center. Children and adults die all of them. We misunderstand each other and we die? →*How do you do that?* When a child is bewitched and no one is there to give a traditional medicine to fight that witchcraft, the child has to die. When the baby has cough or malaria and the mother does not take the baby to hospital. →*What are the main hindrances that stop mothers to take their babies to hospital?* Many people think about the things of this world, and the child dies. →*What are those things of the world? How are they?* Many people think that those are traditional sicknesses. →*What are they?* They think it is poison or witchcraft. →*How do they know that it is poison?* When they go for a check up. *Where?* In the traditional place, there are people who do that. →*Is there any person that after treatment, it is obvious that it is poison?* I have never got that case but others say that they go and get treated and get healed. I do not know. I think that that time, **it is time to die**.	*between going to traditional healers and health medical people?* When you go to hospital, the baby is well taken care of because they know what the baby is suffering from? People get to respond to the compain of immunization. →*Do you see any importance of those immunization?* Yes they are more benefit because kids get to be healthy. The child when is sick, there is a problem of breathing, or they take the baby to witch doctors and the baby dies later once at the hospital. →*Why do they go to the witch doctor?* They think that the kids have been bewitched. →*What makes them think of going to hospital?* It is because the witch doctors failed. For example, there are people who are capable to make people vomit poison but the bad thing is that children are taken to hospital first and yet those people are capable to make vomit the charm. →*Are there those that get healed just because of being helped to vomit the poison?* Yes, in many places people get healed. →*How do they make people vomit?* They make a traditional medicine and

		There are those who are taken by things of this world. →*How?* When a child has a sickness, they say this is not malaria, then they go immediately to a traditional healer. →*Do we have many traditional healers?* Yes. →*Do people go to them and yet we know that children get treated for free?* Yes. There are even those who pass by a traditional healer from a hospital before reaching home. →*Can we say that they never trust medical people?* I don't know. Sometimes before going to hospital, a mother goes to a traditional healer. →*So you mean traditional healers are more powerful than medical people?* No, it is just foolishness. The reason why they die, we never know that but we see them die only. In these days we have a little bit of breakthrough. →*You think your breakthrough came from where?* Because measles reduced, parents made their kids immunized, and could not delay because before, that sickness could kill them. For example now, I feel as if I need money to make sure that I treat my baby in full. Even **ibihara** reduced because of vaccination. →*They eat poorly to the point that this makes them sick?* Yes, that happens.	make them drink it and some times they can get healed. Those who do not get healed go to hospital. →*What else make these kids die?* Polio. →*In this community, you have polio?* Yes, sometimes you see a child who struggles to stand up and people think it is polio. →*When the baby is sick in that way, what do you do?* We take the baby to hospital. The main reasons are ignorance, lack of knowledge. Many times people go to traditional healers and yet it is measles or malaria and that make them die. There are those who can get another baby fast and that makes the other baby have kwashiorkor and dies.

	3. Are there different health problems for children during certain times of year, like rainy season or dry season? Harvesting season? Other times of year?	In the dry season, they have sickness of worms because there is a lot of dust and children keep on eating it. In times of rain season, malaria is prevalent because mosquitoes are many where there is stagnant water. In times of dry season, there stagnant water gets dry and even in the banana plantations there is light and malaria reduces because mosquitoes are few. In the rainy season, mosquitoes are many because stagnant water and even in the banana plantations there are lots of hiding mosquitoes. In Dry season, worms because children eat the dust (soil). It is malaria because of lots of heat and they become weak. In rainy season, it is diarrhea because of dirty water they drink mixed with mud. To cough because of high fever and the wind that brings dust. The sickness that are against children in times of rain are malaria, cough, sharp pain in side/chest (when breathing), because there is cold and many times children are under rain with their mothers. In times of dry season, it's diarrhea, because when they are having high temperature, they are getting diarrhea and many times they eat soil. This makes them have diarrhea. In the times of rain and the times of dry season,	In dry season, there are no many sicknesses because there are lots of food and vegetables. The sickness that we see in dry season, it is dehydration and flu. In the rainy season it is malaria and diarrhea. And sickness in the mouth and flu. In rainy season, it is malaria and cough. In dry season, it is diarrhea. The difference is that in dry season, malaria reduces. In rainy season, we have a lot of mosquitoes and we have a lot of malaria. Because those seasons are different During rainy season children cough, because it's cold. During dry season children have malaria, because it's warm. During dry season they have malaria. During rainy season they have cough. That will depend on the environment (warm climate, cold climate). In the rainy season, malaria and diarrhea are too prominent. Breastfed kids in times of dry season they are the same.

		sicknesses do not look alike, because in times of rain they get malaria and in times of dry season they get diarrhea. Those sicknesses are different, because even the times are not the same and even the kinds are not the same. In the time of dry season, it is very hot, but in times of rain, it is cool very cool. In the times of rain, it's malaria, because even if they get food it's not like dry season. Rainy season is during the time of farming, so they are busy with working and they get sick with worms and diarrhea. During the rainy season, the children have the same disease, but during the dry season children have diarrhea. During rainy season, they have malaria. In the rainy season, the child suffers from malaria especially when the baby was wet because of rain. In dry season because of dust, the child gets cough and diarrhea, because of lots of sun to young children like the one who just starts to eat. →*So, you think it happened because of what?* Because of lots of sun and the baby is not yet used to eating. That is how we hear them saying it. A child can be sick of malaria whether in dry or rainy season.	→*They were vulnerable in all times before I got the mosquito nets?* Why do those sicknesses very dangerous to children. I do not know why they say that it is the breast milk that brought a problem. Normally mosquitoes like to be in a place where there is stagnant water and bushes, do you see that the same during the dry season and at night. In the day, mosquitoes are not dangerous but those that carry malaria are the ones of the night. →*So do those mosquito nets chase the mosquitoes?* Yes, we sleep in the mosquito nets. →*Now that you said that in the rainy and dry season malaria remains the same?* I gave my own example because since when I got those mosquito nets, malaria reduced. In rainy season, there are worms. →*Nothing else?* Malaria because there are lots of mosquitoes. →*What about in dry season?* Worms and diarrhea. To separate, malaria is very tough during rainy season more than in the dry season because during rainy season, in the banana plantation and in the valleys, there are lots of mosquitoes.

		In rainy season: cough and malaria. In dry season: cough and diarrhea. All seasons are the same. In dry season, diarrhea is more prominent. →*Why?* Because it is very hot. →*Is that the only thing that shows that in dry season people are more prone to sickness?* Yes. →*Why do people are more vulnerable in rainy season from cough and malaria?* Because it is too cold. In rain season it is very cold and in dry season it is very hot. →*Is that all?* Yes. We only have those for malaria and cough (in times of malaria). →*Are there others?* No. In times of dry season, children get diarrhea. In times of rain, they say that coughing is caused by cold. →*When that child has malaria? What do you do?* We go to hospital immediately. →*Don't you get mosquito nets?* No, they are given to mothers who just gave birth. In these last days, even kids were give the mosquito nets but they were enough for them. They are different indeed. Because when the baby coughs or becomes hot, or has nightmares but even if there is high temperature, the baby keeps on being cold. →*Does the baby with malaria become cold?* Yes, the baby keeps on being in need of sunshine. In times of rain, malaria is caused by	Because in rainy season there are many mosquitoes and in dry season, mosquitoes reduce. →*During that time, what do you do to reduce malaria?* We prune banana trees so that we may clear the environment. The holes that maintain water, we cover them so that water will not stay there stagnant. *Is there any other thing you do?* The bush that is close to where you are, you try to remove it. The main sickness during rainy season: Malaria because it is cold. The ones in dry season are measles and diarrhea. They are different because times are different. In times of dry season, there is too much heat, and that makes blood malfunction in circulation. →*How does that happen?* That time, there is a stream of blood that stops and other flows but in less quantity, then that makes the baby sick.

		mosquitoes. →*Do you have mosquitoes here in this area?* Yes. Like now, when the sun sets, mosquitoes start to attack people and you can leave this place swollen. →*What do you do so that you may reduce mosquitoes?* You can help us to get mosquitoes so that they may remain here outside and eat us up here outside but not on bed. →*If I can go inside now, can't I see a mosquito net?* Oh, you can enter even now because on this street, not even 3 people got the mosquito net. There is nothing else to be done if you do not help us with medicine. In dry season, there is no parent that you can find without a child with diarrhea. I think it is because of heat. But mostly, kids who are breastfeeding are the ones who are vulnerable to diarrhea often. →*Why do you think it happens that way?* Mostly, it is because when the mother stays under the sun, the breast milk becomes warm and the baby gets diarrhea. →*How can you prevent that?* You are the only ones to help us. In rainy season, there is malaria because mosquitoes are many that time. →*What do you think is the cause of malaria?* I don't know. →*Are there other severe sicknesses?* No. Or you can see kids with ameba or allergy because it is very cold.	

		→*Is there any cause?* I think it is because it is very cold. →*Do you know the signs of ameba?* Yes, when I see allergy. In dry season, there is diarrhea that is too severe in small kids. →*Why?* Because of the sun, and when the breast milk is hot, it is not useful anymore to the child. →*How old are the kids who are vulnerable to that sickness?* Those who are breastfeeding. In dry season, you just found the very young baby have diarrhea. I do not know why that happens. In rainy season: according to that difference, you can guess, that is when children get sick so often. There are times you think, "if only the rain can come I think my baby can feel better". In dry season, you find all mothers concerned with one same sickness that their babies have at the hospital. When it is raining it is not like during the rain. →*Why do sicknesses so aggressive during dry season?* Ohh, people get sick anytime, I keep on seeing my children sick all the times. In rainy season, children suffer from worms because they eat mud. They also get malaria and tremble too much. In dry season we see them have high temperature, diarrhea in August and we take them to hospitals. →*What is the reason according to you?* We think that depends on the heat because in dry	

		season it is very hot. They are different because when you go to hospital and they give you medicine, you find that the kid heals. In dry season kids have diarrhea, and in rainy season, there is no hot sun like in the dry season. But children suffer from worms mainly because of the mud that they eat (or dust). It is because the parents keeps on running and the baby gets sick because the baby becomes very exhausted whether in rainy or dry season. But mostly, it is very hard in the rainy season. →*Why?* Because of being wet from the rain and the child also is wet and has malnutrition.	
		It's cold in June and malaria comes so often and flu. Because malaria comes so often during dry season they have enough food. Malaria reduces, but the flu becomes worse. Sometimes they get enough food and other times less. →*What about during dry season?* During dry season, there is a lot of shining sun, but during the rainy season it is just that the immune system of the children are weak.	

	4. What symptoms cause you to worry about the health of your child? Why do these symptoms cause you to worry?	High fever and cough cause malaria and diarrhea. High fever, vomiting, feels unwell, feels very weak and diarrhea. The signs of sickness that arrive to a child and make them to be afraid are high temperature, very tough cough, and vomiting and waking up suddenly while whispering words even when the child is not awake. When the child is coughing and the child starts to have high fever and starts coughing. High temperature, weak, vomiting and had stomach ache. There is that one of diarrhea, then coughing, then a lot of fever. To speak words that nobody understands, to be very tired, keeps on sleeping, to have nightmare, to have high temperature and diarrhea. →*What makes you afraid and makes you know that the baby has diarrhea?* I have never taken my child to hospital because of diarrhea. The reason is that when there is diarrhea today, tomorrow the child is well. Then I give up going to hospital. The child has high temperature and gets nightmares.	Children's sicknesses, we can differentiate them according to the season: dry and rainy season. Because in the dry season it is cool and children do not get sick often. But in rainy season, it is cold and made the teat of that time bring sicknesses that will be made worse by the present cold. The signs of sicknesses that go to children and scare us are: high temperature, and refuses to be breastfed and even once breastfed, the baby vomits. The baby becomes weak and has no force. High temperature, diarrhea, vomiting and coughing. I cannot wait when children have fever, I go immediately to the health center. There are sometimes when *Topic*: the child can tell you he or she has headache or nausea and even malaria is coming with coughing. When the child has high temperature, when the child is unhappy, when the child has skin disease, when the child coughs but we never get the medicine for that. →*Don't you get afraid of the child who has diarrhea?* Now I check to see if that kid goes often to the toilet

		→*Only those?* When a child is breast fed, then the baby keeps on refusing the breast milk. →*Are there any other signs?* The child keeps on crying without reason. →*When the baby keeps on crying, what do you do? How do you hold all things together?* I can see that the baby is sick and I take him/her to hospital. Malaria is also scary; when you see how it treats a baby, makes the baby uncomfortable, shaking and having nightmares, the mother becomes afraid and the child keeps on murmuring during the night. The baby refuses to eat and yet he/she spent 2 days without eating. →*During that time, what do you do?* You just take the baby to hospital. I fear so much malaria, cough and diarrhea. The cough of this child comes from the inner part of the noses and the child has difficulties in breathing. The baby breathes difficultly and has high fever and vomits. Sometimes I can feel that the child is very weak but very cold. When you take him/her to hospital they find out that the child has malaria. →*Is there anything else?* No. Sometimes cough comes with malaria. The child that misses what to eat gets sick. When the baby has high temperature I lack peace because even when it is time to eat I do	and then I take the baby to hospital. →*So what do you do as a father of the child?* What I do is to give water only. →*When you go to hospital and you are given ORS?* I never had the case of diarrhea in my kids except one only who went to hospital after all. →*Now that you said you give the baby the liquids, what do you give the baby?* Sometimes when I have water I give that child. →*So why do you give the fluids?* I give the baby so that he/she may not be dehydrated. →*When the child has diarrhea, do they give medicine without check ups?* →*Why do we have that case of diarrhea?* That sickness is obvious to breastfed kids and they say that it is the sickness of the breast. But when you have dysentery, and big worm, you can have tough diarrhea. That can happen when the mother gives the worms to the child. →*Where do you get that worm that you pass on to your child?* You just see those worms come to you without knowing where it comes from. But they say that when you eat maize then you have dangerous worms. But

		not make it. When I do not have what to feed the baby and yet the baby has malnutrition. The other thing is that the baby has diarrhea but when I went to a traditional healer, I was told that the baby suffers from "big worms". But I took that baby to hospital, and I found out that the baby had a lot of malaria that they treated later on. The baby was about to be killed by malaria. There are witches here. People kill each other here. But you can treat the wrong disease because of lack of knowledge. →*How do you get that sickness of "Big worms"?* The child who has it changes the color of the hair, and all hair can be removed, and get swollen legs and even if you can get eggs, the baby never get healed. →*Even when you go to a traditional healer?* Yes, that can be healed. It is healed in the traditional system. →*Question: what do you do when the child has diarrhea?* a. I have ORS that I give the baby before taking him/her to hospital. b. Even when the child has high fever, and I am at work in the farm, I take the sick baby to hospital.	I always eat them but now I am strong. The water we drink is from the taps and that diminish the sicknesses. →*Do you eat fruits?* Yes, an avocado, a banana. →*So the food you eat, is there any qualitative foods?* Yes, we get protein and other kinds of food, and we wash the avocado first. →*Why do you wash it?* It is when you protect yourself from the diarrhea sicknesses. A child who is lazy, cold, has difficulty in breathing, has high temperature, a child that is very weak. →*Is there any other sign?* Sometimes the child keeps on crying and the mother never knows why. →*What do you do when you see one of these signs?* They the mother goes to hospital, not going immediately to the traditional healer. →*How many days go by before going to hospital?* For example a child becomes sick this night, she must check up on the baby and decided to go to hospital the next day. The signs that scare us (make us worry): to shake because of the medicine of the hospital especially

			the immunization; there is a sign of diarrhea. There is a time the baby gets hot one side and the other is cold. That time it is a traditional sickness.
	5. If the children in your community could be free of any one health problem, which one would you like it to be? Why?	Malaria, because there are many banana plantations and yet they are very important to us. If we other ways to fight against malaria it can be good. Malaria, dysentery because the baby becomes very sick and cannot eat, has high fever and the lack of money to take the baby to hospital and it can kill in a short time. The sickness that I really really want to be removed is malaria and cough (deep cough). Also the worms, because that is the sickness that usually effects little children. Do I choose one or do I choose two? It is malaria and worms, because these are the ones that I see are dangerous to children. For us we want all of the disease to be eradicated, but first diarrhea and cough, because even if you are treating the children they delay to cure and then the child can even die.	The sickness that I want to be eradicated is malaria because it is very dangerous to children in this area. Malaria, because many are sick of malaria and many children are killed by malaria. Malaria, because it is a severe disease in our community. Then measles and then eye sickness are also severe to our children. I want to eradicate malaria and eye sickness. I think those diseases have come with war. Eye disease has come with the polluted air. Many persons are killed malaria that is why you can eradicate it, because it has a consequence to our production. →*Which consequence do you see to the production?* Mother cannot be able to dig, because she is going always often to

		Malaria kills many people and many people at the hospital get malaria treatment. When you have malaria, it is expensive to treat and it is contaminating. When one gets its, the other also receives it. Even the work in the household stops. Mostly it is cough, diarrhea, malaria and eyes problem. →*All of those? Tell us the one that is more dangerous than others?* Cough and malaria. Because sometimes, they are very dangerous. Malaria is the one that should be totally eradicated because it scares us. When you go to look for food and you come back swollen. And even that cough is dangerous to both children and adults. Even if we may eradicate them, other sicknesses might come. But if we can get rid of malaria, cough and diarrhea, that would be great. Please help us and speak for us to the authorities so that we may be helped to eradicate malaria. The sickness that is dangerous here is malaria. We are killed by lack of knowledge because may take unofficial medicines. Because malaria does not appear in the same way, then many people go to traditional healers. Malaria can kill. Even traditional	the health center. Famine enters to the house, so many of them become thieves. Malaria comes first and if we can get those mosquito nets, that sickness, skin disease, cough. If we can have an immunization of flu, that would help us a lot. →*Why did you choose malaria in the first place?* Because my kids were attacked by those sicknesses before. →*You said malaria and skin disease, now if I can visit 4 households and get to realize that nobody else has skin disease, that plan of healing that disease can become yours alone?* I think that you cannot pass 4 households without finding those sickness. Mainly, I see that it is good to eradicate malaria and diarrhea because those sicknesses attack so much children and adults but the most dangerous is malaria. The sicknesses that can be eradicated are malaria and measles. Because those are the ones that are dangerous and attack children. Children living in this area, when there is diarrhea it is a problem of

		sicknesses are mistreating us. Kwashiorkor comes because there is malnutrition. Even worms mistreat us.	breast milk. →*Do you get vaccination of babies here since you said measles?* They get sick of measles but it is not too dangerous. →*How do you know that it is measles?* The baby has high temperature and when you take that baby to hospital the skin becomes itchy (allergy) because of the medicine given. →*When there is that allergy, is there any other medicine they give?* There is nothing that has to be done because when the skin has that kind of allergy then the baby is healed.
	6. What do you or the people in your community do now to improve the health of children in your community?	They are cleaning where they fetch water so that those children may drink clean water. To look for enough food for children to eat well. Nothing, I do not see any thing because there are no NGOs to help us for us to be able. What we as the community people are doing is building the hospitals, taking care of our children, especially the cleanliness. What I think they are looking for the good future of the children.	What people in the community are doing to improve health of their children is that we do the farming, we clean the baby by giving him shower, we make the kids sleep under a mosquito nets, we attend medical and health training, to cut trees and remove the bush or forest near our homes. Take them to vaccination. →*Nothing else?* Cleanliness of our children.

		For me I am happy, because now the mothers are sending children to the health center and I don't see anything else we can do. In my opinion, I need to have more available health workers who can help us. The mother also must bring her children to the health center very quickly. Again, you can do the hygiene at home, then we can improve the health of the children. We are in associations of farming so that we may see if our children can feed well and not have kwashiorkor. We have those associations to keep goats. In those associations, we are encouraged to immunize our children, and protect them from TB, measles and strong cough. They treat our kids for free; they give us mosquito nets to fight against malaria, and when you go to get the immunization for the 9th months, we are given mosquito nets. Even when you go to do prenatal check ups, they give you the mosquito net. What we do is more of hygiene to the babies. →*How do you do that hygiene?* Even the baby who crawls keep on eating the dust and get warms. →*Do you stop that baby from crawling?* No, but you need to keep an eye on the baby. →*Is there any other thing you do for the child's hygiene?* Wash hi/her, anoint, wash his/her clothes, wash the hands before giving food.	That one is hard to answer, really I am seeing that there is nothing that they are doing. We got the mosquito net and we are using it, but we still have often malaria, but I'm thinking that we have a lot mosquito and often during rainy season. We are bringing mosquito net to treat it. I am thinking that mosquitoes are biting us when we are out in the field. People like to invite us to see immunization and practice it, they do that people may take their kids to hospital fast. →*For the issue of diarrhea, they do not tell any thing?* No. Even the people of health cannot be seen here in our community. We do not know them. →*Concerning clean water, they do not tell you anything?* They tell us that. *Do you know about health people?* Not yet. Maybe they visit their homes and ours? →*Do you know the medical specialist in your commune?* No What we do is to mobilize so that whenever a person has malaria, it is good to go to hospital and not to traditional healer. →*How do you mobilize them?* When

		→*Nothing else?* No. I do not see anything that they are doing. I have never heard, even any time people speak about malaria. →*Even in the meetings?* Even in the meetings, nothing is said about malaria. Like now, all of those mosquito nets could have been distributed to all of us. But only few got them. →*Now that you told us that malaria is never been spoken in the meetings, can't you speak it yourselves?* No, if not our representatives who say it, nobody can listen to us except those that have responsibilities of bringing development in our area. →*What can we do?* What can help us with those mosquito nets. →*Is there any other thing that can be done?* No, in those days, the nets were given but we did not get them all. →*What were their ways of distribution?* Nothing. Why didn't you get all. Mosquito nets were few. I do not see what the people in this area are doing. →*What do you mean by cleanliness?* I mean to feed well the baby, wash the cloths, so that the problems can reduce. The medical people can get few sicknesses to treat. And when that happens, then children cannot get	she goes in the household, and finds a sick person, he asks them to go to hospital after they have told the health people what the sick suffers from. When it is hard, they gather and carry the sick to hospital. →*Is there any other thing you can do so that the health of kids may be well?* It is to clean everything, to feed them in a clean plate and wash cups. Is there any other health activity you do for the baby: to cut their hair, to clean them, to wash them, you see if the baby has a nice clean clothe and you feed the baby well. →*How do you feed well the baby?* You give the food that has passed through the fire. →*When the baby is small, how can you feed the baby?* You give porridge and fruits and if possible you look for milk to feed the baby. What the people in the community are doing: They take the baby to hospital and try to maintain hygiene. →*What kind of hygiene?* To remove bushes, to clear stagnant water near the house, to make clean the place where to sleep. How do you prepare well the place where you sleep? In making the bed, wash the sleeping sheets and take shower.

		sick so often. But we give them shower in the evening and then we anoint them with oil, because that's when we have time. →*When do you feed the baby and yet you are in the field?* We come home first, then we go back to dig the soil. A child doesn't get good food, that child gets sick, especially worms. →*So you give the child sweet potatoes or something that is fast?* No, we don't give that, because the child can have severe malnutrition (kwashiorkor). So we give the baby porridge in the morning and then we give food that has vegetables and other.	→*Do you really wash your babies regularly?* We wash them but sometimes they refuse. But because the parent knows what he/she is looking for, he/she washed the baby by force like twice a day: that means like at 10 am and during the night before sleeping.
	7. Do you have any ideas for how you and your community could help improve the health of children in your community?	The good thing is that children are having free medical treatment so that there will not be any excuse that they never got means to go to hospital. To look for an NGO to help us (to work together), to remove the stagnant water, to cut the grass near my house. Like a NGO in Makebuko, we can focus on children's health. We can contribute 100 or 200 fr for us to be able to help our children. The idea that we have to improve the health of child, we will continue to have cleanliness,	The ideas that the population has to improve the children's health is that when we can help each we can build a nearest hospital. What we can help is to help in that construction, to fetch water and to bring stones and the sand. People have to be used to take their kids to the hospital to get the medicine for worms, to give porridge and to feed them well. What the government can do is provide that medicine, because many

		especially in giving shower in the evening. We don't do that in the day, because then the children get in the mud. The rest please teach us how to do it. What she did was she looked for a nice place for them to live, feed them well, and buy mosquito net to prevent mosquitoes. I take children to hospital to fight from worms every three months. What I do for them to have good health is to feed them vegetables, fish, and give porridge when I am financially able. We need beans to cultivate in our farms. We need blankets to fight against cold. We need mosquito nets to fight against mosquitoes. We need lots of hospitals near home so that whenever a child is sick, we take that baby to hospital before it is worse and we can keep on get treatment in the hospitals. We need taps that have nice water. I can contribute my strength especially when it is time to clean the road. We need people who can contribute to buy an ambulance. To carry all the stones and bricks to build taps and get clean water. We need to have hygiene for our children. *Nothing else?* No but there are times when we think of taking them to vaccination. →*Is there any other thing that you can do except hygiene?* I think we need to prepare well the food of children. →*How do you plan that?* I wash my hands well	times there are stockouts. For us we can do hygiene in our house and we can avoid leaving water that is stagnant. For coughing, we can bring children to the health center. Since measles has been eradicated many children are not dying. →*Why?* Mothers care about bringing children to immunization. Even kwashiorkor has been reduced. Worms are due to the children who are eating the dust, but we are trying to forbid them. Like mosquito net, I use it with its needs. They get avocadoes. If we can have a mosquito net that has the medicine for a very long time. →*If we can have the medicine of flu and skin disease. What time do you get before you go to* hospitals? 45 min or 1 hour. →*Do you have any idea or plan to start a medical clinic near?* I have a land nearby, if we can get people to build the medical clinic, we can allow them. In the communes how can we motivate people to build a clinic: it is from bringing stones and sand. →*What do you when the baby is sick?* I put the baby on the bile and

		before feeding the baby. How do you think you can feed your kid. I give beans, vegetables and soup and check well that food was really ready. If only we could get mosquito nets to protect against mosquitoes and help us to fight against cough. →*How can you be helped?* You are the only ones to request that for us. Mosquito nets can be found if only you can be involved. →*Do you have associations here?* →*Are you involved in any association here?* No. →*Do you think that you need association?* Yes very much, if someone can bring it we can participate in it, we are in great need of it, we can gather our strength and fight against malaria. You are the only ones who can help us by telling leaders on top so that we may get medicine and tell people who deal with development to come to us. I wish you could bring an organization that can help treating our children, that would be very important. →*Do you need an association?* Yes. →*Don't you have any women's associations?* Only one. Like this year, we only had associations that teach how to craft. In my heart I hope that this organization would come to teach us so that we can develop and	take the baby to hospital. We can have clean water. →*Where do you fetch water and how does it look like?* We fetch from the flowing river because the springs that they had have been blocked. →*What can you do so that the springs can come back?* What we can do, we can be told to bring sand and stones and they can support in giving us cement and the builder, or give us the taps. What other idea you have? It is because there are people who do have mosquito nets. In case all can receive that, malaria can be reduced. Something else is that our children, when they are taken to hospital and give enough medicine, there are times the medical people neglect them and you find children worse and yet they came early. →*Is there any other thing?* Something else, people need top have clean toilets. →*How good they can be?* They need to build them roof them and keep on covering so that the flies cannot go to plates we use while eating. The ideas people have: people need to have a nearby hospitals, to have mosquitoes and porridge.

		be healthy. You can teach us how to have our own associations. We request for nearest hospitals because we take long journeys to go to hospital to the point that we walk using our knees. Like now when it is labor time for a pregnant woman, it is hard time even to the traditional midwife to take us there. Really we are in pain. Oh no, we want to learn from each other →*So when the child has malaria, then what do you do?* We put lots of cloths on the child to warm the child up. We wash the child with cold water, because the baby is warm. We clothe the child in thick clothes that are clean. In general, we strengthen cleanliness. We take children to medical clinic right when the child is sick. To buy the mosquito net, especially Mama Supanet. →*Before you said that measles is a lot here, how do you prevent it?* Right after birth we go for immunization, so that…. →*So your child goes to that immunization?* Yes. →*So what about that cleanliness that you are speaking about?* The cleanliness of food, cleanliness of cloth, cleanliness of where we sleep, the mosquito net that has the color of blue. But there are poor people who do not even have soap to wash or those who don't have cloth to wear or those who do not have brooms. Those days a long time ago we used to use the leaves to clean and even when I was young we used to use them, but now days	→*In this era, you don't have mosquito nets?* Some have them and others do not have them because not everybody gets it. →*Why not everyone gets it?* The ones that get them are the pregnant women and those mothers who have very young kids. → *In your ideas, you need to have porridge, don't you cultivate wheat or maize or sorghum for porridge?* The only issue is that we do not know how to manufacture it because we think that there is something else that they mix with. →*What do you think they have to mix with?* Cotton oil. →*When you do not put in the cotton oil, can't you make nice porridge that you can use to feed your kids?* There are those that harvest them and cannot get oil to mix and others who do not harvest them and cannot have money to get anything. Others keep on working hard and do not get time to prepare that porridge for kids. A plan comes from above If there is no one who supports the subcolline, the health people also need to assist people on a colline. Now Buraza is far, Bukirasazi is far and even Rutana is far. We would like to have a clinic

		we do not find them. But we don't have soap. →*But there are those who use ashes and sand?* No, ashes and sand are only used to wash the pots. The ideas that I have is to have good health and to develop health, to keep on cleaning utensils and the toilet. To farm, to fight from famine, so that they can have enough food. If you can teach us what we can do, we can understand, but about my problem about having arthritis what can I do, because I don't have money? I can do the hygiene even though you are seeing that I didn't clean today. We can ask for them to give us medicine and giving us some advisors or trainers. We want an organization, a true organization, which can bring an improvement of maternal health. Improving the motivation to go to the health antenatal care and then motivate them to delivery at the health center. I don't have any opinion. They can construct a health center nearby, because there is sometimes when I fell sick and I reach the hospital late when you have already had the severe disease. The other thing is to increase the health workers in the constructed health center. Another thing is that they want to have	center here in our place because it happens that mothers die while being pregnant during pregnancy because of those big questions. They give birth on the way going to hospital because it is far away. How do people develop themselves (especially women)? It never happens unless once when people were gathering in an association. But you need them right? We can receive well that idea. We request that we might be given roads so that the cars might arrive to where we live.

		safe water nearby from a spring. If there is someone who can help us, we can just use our hands and do everything that we are able to do. I am seeing that the malaria can be freely treated. For me I am thinking that I can try to get the way of having a good life. →*What can help you?* To search for the food, because we don't have safe water. We can use our hands to bring dust and stones, if we have someone who can give us cement and someone who can build, we can have safe water and then the health of the mother can be improved.	
Women's Health			
	1. Can you tell me about the different kinds of health problems women have in your community?	The sicknesses that attack mothers are malaria, hernia, lots of saliva and vomiting. Malaria and flu. Malaria and arthritis. Malaria, diarrhea, nausea and pain in the thigh. Malaria, flu, many times it is due to bad nutrition, because they select some food when they are pregnant.	In this commune, malaria comes in the first place. And malnutrition follows. There is dysentery in this place. →*Is there any dysentery here?* Yes. When someone has malnutrition or has just given birth (like now my wife gave birth recently) she keeps on having nightmares, she runs away when she sees me, but when she is with her mother she is quite. Now, I cannot sell a farm for me to treat her at the hospital because maybe the

		→*It's not possible to eat all of the food?* No, it's not possible, because you can vomit it. →*It's not possible to go to the health center to get the treatment to that vomiting?* Even the health workers cannot cure it. That's the way it must be up to six months. After six months it can go naturally. Malaria, hernia, coughing. →*That is all?* Swollen legs, malnutrition, if he is eating bad food then she can have malnutrition.	mother has given birth to a boy(boys need farms as they grow so I cannot sell farms). I do not have any way to assist her in the medical treatment. →*Is there any other sickness?* Normally there are sicknesses that are epidemic and you find people looking for witchdoctors. *What is the name of that epidemic sickness?* Like TB. *Do you know the symptoms of TB?* No. There is a people given TB (poison) and when you go to hospital and you have to die there. →*Do witchdoctors treat that kind of TB?* No because you can go to the person who gave it to you and he/she kills you immediately. →*Does that happen here?* Yes.
	1a. Out of all of these health problems, which one is the most common health problem for women in your community? Why is this one the most common?	what we see mostly in the case of women it is malaria and hernia because those are sicknesses that attack them even myself Malaria, because that's what she likes to have. Headache, malaria and arthritis. She doesn't know another disease, but at the health center they are giving some health information and health education. Malaria and something which is paining in the	Malaria is the most common. Because like me who has a sick person, she gave birth on Sunday and now she is feeling totally bad. So, there is malaria of 3 kinds. →*What kinds?* There is malaria that gets you today and you are healed tomorrow especially when you take headache and malaria (quinine) medicine. Those are the medicines that reduce pain. There is another kind of malaria that you can sleep and cover yourself with a blanket,

		leg. Because I'm seeing this is what we are often coming to the health center for treatment. →*That disease of hernia, what is it like? How does it come?* When you are pregnant you can have swollen legs and that one can bring diarrhea and to have a pain of kidneys.	after taking few quinine and paracetamol, when you sweat that malaria is gone. →*Is there any name for that kind?* No. There is another one that attacks someone and he/she keeps on speaking lots of words. That is a malaria of being crazy (severe malaria). →*What do people do when they have malaria?* Here in this community, people do not love each other, nobody helps the other. If I find that the love is fake, I realize that nothing he has more than what I have. If you do not help yourself seriously, you die. We are poor.
	1b. Out of all of these health problems, which one is the most severe health problem for women in your community? Why do you think this one is the most severe?	the most dangerous one is malaria. The reason is that because we do not have mosquito nets. Some get them and sell them or they do not use them when they have them. The most common disease is malaria, because it's the disease that they see in their commune often. Malaria, especially that is what she suffered from, but also witchcraft. For me my big concern is malaria. Other people will tell you about other diseases, but my big concern is malaria, because I get it	Especially malaria because of malnutrition because now, we are in famine. You see like someone who is used to drink beer. →*Can you explain the meaning of drinking?* Yes, one who was used to take beer needs to mix with fanta and even the other traditional medicine. If not, the person dies. But I forgot the other kind of worm? (Gastride). You said it comes how? This is a sickness that attacks you and when you vomit, you cannot be able to eat any other thing.

		often. When I am pregnant I have the same disease. Because this is the thing that I am getting often in our commune. Malaria, hernia, coughing, because it is that disease that is severe to the pregnant mother.	
	2. What are the main reasons that women die in your community?	What kills mothers most here that I saw is that elderly people die most because I have been here for a short time (I just repatriated recently). Witchcraft and malaria. Before they used to die during pregnancy, because they couldn't go to the hospital, but because they have free medical services they go to hospital. You see that the mother are sick and she died. When she's pregnant the pregnancy can just kill her when God has planned for that. Dying because poverty and having a bad husband who cannot accept to bring the wife to the health center. There is no many mothers who are dying in that commune. But the problem is that some of them don't like to go to health center for antenatal care and the consequence is that they delivery without knowing the problem that they have. That can bring the death of the	The reasons are: we don't have nearby hospitals. No people who did medical schools here. →*Why?* Because all of us have been mistreated and could not be able to study. →*How did it happen?* Because we do not have even a teacher who was born here. People from Bururi, people from Rutana, people from Mugamba are the only leaders here. →*The fact that you do not have medical people, are there some consequences?* Yes, if only we can get some people from here who lead us, they can listen to us without partiality.

		mother. →*Which kind of disease causes that death?* When the fetus has a bad position. When the placenta can be retained when the child has already come. Umbilical cord can kill the baby. There are many times when mothers have malaria and they go to the traditional healer and this can bring the death of the pregnant mother. In all ways, when the pregnant mother or when they are not pregnant they can die due to malaria, because they are ignorant. →*How are they eating bad foods?* Foods are not available, because she is not having good food of protein, lipids, and glucose. →*What else?* When it's the time of the mother to go to the health center and they stopped her from going to the health center. That they can deliver at home and that can cause the death of the mother. →*What else?* Witchcraft exists and also another kind of witchcraft that they can bring the mother to die. →*In your place the pregnant mother delivered in health center?* Yes, many times.	

	3.Are there different health problems for women who are pregnant, women who are giving birth or women who have recently given birth?	The sickness that come to a pregnant woman is lots of saliva, vomiting, malaria and worms. Worms are many here but in my case, I am attacked to malaria and yet I use a mosquito net every time. Whether it is in dry season or rainy season, she often has malaria, but it is worse during rainy season, because of mosquitoes. The disease that is suffer to the mother are the disease which are stopping them to work, but they can go to the health center and get the medicine and that can be cured. →*Why?* I didn't know it, because even in the health center they didn't tell me the causes. →*What about during delivery?* She can see the hernia coming during delivery or hemorrhage still coming for many days without stopping. →*Why?* That can be by the negligence of the mother, because he didn't do the antenatal care, because when he did antenatal care they are following up on her and they gave her the medicine. →*What about postpartum?* There are sometimes when she has been wounded by during delivery in the genital area, so it can become infected and it smells bad up until she goes to the health center. →*Why does the infection happen?* It can happen due to the disease that is in her body. →*Which kind of disease?*	Pregnant mothers: There is pain in the back, in the womb.

		Bad skin due to bad immune system. Or it can be a tradition birth attendant who begins by bringing the leg rather than the head. Then the mother gets cut. Or it can be a problem by getting the vagina open big by cutting the mother.	
	3a. What kinds of health problems do women have when they are pregnant? Why?	→*What is the cause of lots of saliva (ikirungurira)?* It is from worms. She doesn't know the differences of the sicknesses, because during dry or rainy season she suffers from malaria only. Malaria, arthritis, diarrhea, a lot of work, fatigue. Malaria, having blood during pregnancy (hemorrhage), or during pregnancy you have a severe disease, which can bring to mother to stay at home all the time. Sharp pain in the thigh. Malaria, hernia, cough. →*What else?* No. →*Why?* I think that it's because the mothers are weak and doesn't have enough immune system to fight against the disease. Another thing is that sometimes you want to select food and yet you are not able to buy the food which you want. →*When mother has fatigue, what will be the consequence of the fatigue?* She can be sick	→*why is that?* Only the medicine personnel knows that.

		or abort the fetus	
	3b. What kinds of health problems do women have during delivery? Why?	A pregnant who gives birth and has lots of blood till the blood dries up. Pain or that is how the mother is. I don't know. There fetuses that are not well positioned in the abdominal during pregnancy. Mother who didn't get the vaccination of TT can die by tetanus and even the children can die. Hernia can come when she is during the delivery time. Here mothers are accepting the vaccination of TT.	Give birth: pain.
	3c. What kinds of health problems do women have after delivery? Why?	The mother that gave birth recently, the blood was much, and malaria follows and I do not know why. When the mother has finished in that time he becomes swollen, because food is not available in quantity. In addition to that when the mother has finished delivery there are sometimes when she is not able to eat and she gets malaria that can bring the death of the mother. In that area her husband doesn't care about giving to the mother the food, which she	Right after birth: Stomachache, malaria. I do not know.

		can be able to eat. He's trying that sometimes mother is not able to eat. →*Why?* Kuberiki? Because of the weakness she has. →*When the mother is swollen does she go to the health center?* Yes, because when she didn't go to the health center the disease can become severe and the mother can die. →*Do you go to seek a treatment when you have hernia?* Yes, we go to the health center, because they are treating it.	
		There are some people that even after having abdominal pain they saw blood, but when they go to the health center the health center the symptom is cured. Malaria, lack of food in quantity and quality.	
	4 . If the women in your community could be free of any one health problem, which one would you like it to be? Why?	The sign of the disease that happens to you and scares you. Trembling a lot, cold in the body and high fever Vomiting, headache, goose bumps. →*When does she have that abdominal pain or back pain?* When she's sick, she can go to the health center, when she has the abdominal pain even malaria can come in.	There is pain or vomit, to have pain in the bladder, to suffer when it is time to walk. Other problems here are that people here do not come to assist the mother who is to give birth (to take her to hospital)

		When you are pregnant and you see the blood you need to go immediately to the health center or when you are feeling bad. Having the blood during pregnancy, seeing blood when you want to deliver, fever, headache, shaking, having back pain. The symptom of backache, feel the sharp pain when breathing and it stops the mother from doing some movement. If the mother is pregnant and has hernia she is going to the health center. →*How is the hernia coming?* There is some hernia that are coming that come as a rash, which is like a contraction and that one can bring to deliver early. →*What else?* When hemorrhage during pregnancy, you can abort. In that time you must go to the health center. The symptom of malaria you can shake, have a high temperature, and you have backache, headache and nausea. →*There is no other symptom?* No.	

	5 . What do you or the people in your community do now to address the health problems of women in your community?	If I can choose the sickness that has to be eradicated it is malaria because it attacks many people. Malaria, because that is what she often suffers from. Each kind of pain that I have. Malaria, even I want to eradicate it. Even there is another disease and there is arthritis. If they can just eradicate it, I can be happy and I can give thanks to them. Malaria with the pain in the thigh. We eradicate malaria, because I always have it when I'm pregnant. Malaria, because it is a common disease, which is severe, because it is that one that causes a lot health problems to all persons. →*How do you know that it's malaria?* Shaking, weakness, when she is not able to do anything, and coldness. →*When you saw all of those symptoms, what did you do?* For me I'm going to the health center, but there are others who are going to the traditional healers.	I can see only malaria here, but even yourself you can join us to fight malaria.

	6 . Do you have any ideas for how you or your community could help improve the health of women in your community?	What people here are doing so that mothers' health may improve, it is to cultivate to look for food to fight against famine. To keep on getting information and training on how to fight against HIV/AIDS. *For example, on those sicknesses that attack you,* →*how can you prevent them?* To keep on cleaning the toilet, to clear the house environment, to wash dishes, to wear washed clothes They are cultivating to fight off famine, so that they can have enough food. They sleep in mosquito nets for them to prevent malaria. I'm seeing that health center are trying their best. →*How are they trying their best?* They are teaching us about hygiene, they are giving us advice, they are giving us vaccine, and they are telling us how we can do antenatal care, but even if they are teaching us we just leaving everything in the same place (forgetting), but some are trying practice it. We need to advise each other in the household to improve our wisdom. →*How?* Because if they can put some people who can give some advice. They are taking care of going to the health center, doing the hygiene. →*Which kind of hygiene?*	There is nothing they are doing. The reason is that we do not have nearby hospitals; there are no people who love us (medical people).

		Washing the clothes, washing our body, washing the dishes. What we can do, we need to search what we can eat and getting the advice from each other, going to health center when someone is sick. And what we asking to our donors, they can give us the mosquito net to reduce malaria. Other thing, they are going to the association, because they want to help each other to see if they can reduce malnutrition. →*What do you do in that association?* They are digging, they are farming, and they are helping us to do the small project which can help us to improve our health. →*Which kind of project they are helping you?* I told you already it is digging and farming.	

D3. Qualitative Guides for Diarrhea and Hygiene Intervention

In-depth interview guides were also developed for critical aspects of diarrheal disease control, the project's first area of intervention. Interview guides pertaining to this intervention, covering the topics of breastfeeding practices, danger signs & care seeking for diarrhea, hygiene, water and sanitation follow below. Approximately 12-16 interviews were conducted with each interview guide throughout all four communes of the project area. The preliminary analysis of this data was used to inform the development of the diarrheal control intervention in the DIP. Further analysis of the qualitative data will be conducted as the CSP leadership team, led by the Training Specialist, develops curriculum to be used for the diarrheal control intervention. Additional rounds of formative research will be conducted before developing the curriculum for each of the project's interventions.

Community Health Needs, Priorities and Resources
Health of Children
Wednesday—March 5th, 2008

1. Can you tell me about the different kinds of health problems young children have in your community? *Please tell me about all the different kinds of health problems you can think of.*

1a. Out of all of these health problems, which one is the most common health problem for children in your community? Why is this one the most common?

1b. Out of all of these health problems, which one is the most severe health problem for children in your community? Why do you think this one is the most severe?

2. What are the main reasons that children die in this community?

3. Are there different health problems for children during certain times of year, like rainy season or dry season? Harvesting season? Other times of year?

3a. How are the health problems of children different during these times?

3b. Why are the health problems of children different during these times?

4. What symptoms cause you to worry about the health of your child? Why do these symptoms cause you to worry?

5. If the children in your community could be free of any one health problem, which one would you like it to be? Why?

6. What do you or the people in your community do now to improve the health of children in your community?

7. Do you have any ideas for how you and your community could help improve the health of children in your community?

Community Health Needs, Priorities and Resources
Health of Children
Wednesday—March 5th, 2008

1. Tubwire indwara zose zibangamira amagara y'abana muri iyi komine.

1a. Murizi ndwara zose, nizihe mwama mubona kenshi mu bana aha iwanyu? Nikuberiki uvuze ko arizo mwama mubona?
1b. Murizi ndwara zose, nizihe zibangamiye cane amagara y'abana muri iyi komine? Wotubwira impamvu itumye uhitamwo izo?

2. Wotubwira ibituma bikuru bikuru bituma abana bapfa muri iyi micungararo?

3. Nizihe ndwara zibangamira abana mugihe c'imvura? No muci?
3a. Muri ivyo bihe vyose, indwara z'abana zitandukanye gute?
3b. Nikuberiki murivyo biher izo ndwara zitandukanye?

4. Mbega wotubwira ibimenyetso vy'indrwara bishikira umwana wawe bikagutera ubwoba ?

5. Uwoguhitishamwo Niyihe ndwara ibangamye gose wokwipfuza ko yoranduranwa n'imizi muri iyi komine? Kuberiki?

6. Nigiki abanyagihugu bariko barakora kugira bateze imbere amagara y'abana muri iyi komine?

7. Hoba hari ivyiyumviro ufise canke abandi bafise mwokora kugira ngo muteze imbere amagara y'abana muri iyi commune?

Community Health Needs, Priorities and Resources
Health of Women

Wednesday—March 5th, 2008

1. Can you tell me about the different kinds of health problems women have in your community? *Please tell me about all the different kinds of health problems you can think of.*

1a. Out of all of these health problems, which one is the most common health problem for women in your community? Why is this one the most common?

1b. Out of all of these health problems, which one is the most severe health problem for

2. What are the main reasons that women die in your community?

3. Are there different health problems for women who are pregnant, women who are giving birth or women who have recently given birth?

3a. What kinds of health problems do women have when they are pregnant? Why?

3b. What kinds of health problems do women have during delivery? Why?

3c. What kinds of health problems do women have after delivery? Why?

4 . If the women in your community could be free of any one health problem, which one would you like it to be? Why?

5 . What do you or the people in your community do now to address the health problems of women in your community?

6 . Do you have any ideas for how you or your community could help improve the health of women in your community?

Community Health Needs, Priorities and Resources
Health of Women

Wednesday—March 5th, 2008

1. Tubwire indwara zose zibangamira amagara y'abavyeyi muri iyi komine.

1a. Murizi ndwara zose, nizihe mwama mubona kenshi mu bavyeyi aha iwanyu? Nikuberiki uvuze ko arizo mwama mubona?

1b. Murizi ndwara zose, nizihe zikaze gose ku bavyeyi muri iyi komine? Wotubwira impamvu zitumye wibaza ko izo arizo zikaze?

2. Wotubwira ibituma bikuru bikuru bituma abavyeyi bapfa muri aka karere?

3. Mwotubwira indwara zishikira abavyeyi bibungenze, abavyeyi bariko baribaruka canke abavyeyi baherutse kwibaruka?

3a. N'indwara izahe zishikira abavyeyi bibungenze? Kuberiki?

3b. N'indwara izahe zishikira abavyeyi mugihe cokwibaruka? Kuberiki?

3c. N'indwara izahe zishikira abavyeyi bahejeje kwibaruka? Kuberiki?

4 . Uwoguhitishamwo Niyihe ndwara ibangamye gose wokwipfuza ko yorandurwa n'imizi mubavyeyi? Kuberiki?

5 . Nigiki abanyagihugu bariko barakora kugira bateze imbere amagara y'abavyeyi muri aka karere?

6 . Hoba hari ivyiyumviro ufise wewe canke abantu muri aka karere bokora kugira ngo bateze imbere amagara y'abavyeyi muri aka karere?

Causes, Danger Signs and Care Seeking

1. Is diarrhea considered an important problem for children in your community?

2. What are the different types of diarrhea for children in your community?

3. What are the symptoms that children have for the different kinds of diarrhea?

4. What are the causes of the different types of diarrhea?

5. What are the treatments for diarrhea? Are there different kinds of treatment for the different kinds of diarrhea? Where do you find these kinds of treatments? *Are there traditional practices? Are there medications?*

6. What kinds of treatments for diarrhea do you prefer?

7. Which treatments for diarrhea are most popular in your community?

8. Which treatments for diarrhea are most effective?

9. How do you know when a treatment for diarrhea has been effective?

10. What kind of treatment for diarrhea is most difficult to use?

11. What do you think about treatment of diarrhea with ORS? Are ORS packets easy to find? Is ORS easy to administer? Is ORS effective?

12. What signs indicate that the child's diarrhea is serious?

13. How do you decide when to seek treatment for a child with diarrhea?

14. Who do you go to for treatment when a child has diarrhea?

15. Who makes the decision to seek treatment for the child with diarrhea?

16. Are there any external factors that prevent you from seeking treatment for the child outside?

17. Are there any external factors that prevent you from giving treatment to the child at home?

18. What can the community do to alleviate the causes of diarrhea that you mentioned?

19. What are all the different ways you can prevent children from getting diarrhea?

Causes, Danger Signs and Care Seeking

1. Mbega ugucibwamwo kwoba kuri mungorane nini zibangamira amagara y'abana muriyi micungararo yanyu?

2. Tubarire ubwoko buriho bwo gucibwamwo kubana banyu aha mubaye.

3. Nibihe bimenyetso abana bagira vyerekana ubwoko butandukanye bwo gucibwamwo?

4. Tubwire ibitera amoko atandukanye yo gucibwamwo.

5. Niyihe miti muvuza gucibwamwo? Hoba hariho ubwoko bwinshi bw'imiti buvura ubwo bwoko butandukanye bwo gucibwamwo? Iyo miti muyikura hehe? Hoba hari imigenzo y'ikirundi mukoresha umwana arwaye ugucibwamwo? Hoba hari imiti mubivuriza?

6. Nubuhe bwoko bwokuvura ugucibwamwo muhitamwo?

7. Nubuhe bwoko bwokuvura ugucibwamwo abantu bakoresha kenshi muri iyi komine?

8. N'ubuhe bwoko bwokuvura ugucibwamwo mwemera cane gusumba ubundi?

9. Mumenya gute ko umuti mwakoresheje mukuvura wagize akamaro?

10. Nubuhe bwoko bwokuvura ugucibwamwo bugoye gukoresha?

11. Mbega wiyumvira iki kuvyerekeye kuvura ugucibwamwo ukoresheje amazi y'ubuzima?

12. Mbega n'ibihe bimenyetso vyerekana ko ugucibwamwo kw'umwana gukomeye?

13. Niryari uhitamwo kuja kuvuza umwana igihe ariko aracibwamwo?

14. Mbega uhora uja kuvuza kwande igihe umwana arwaye iundwara yo gucibwamwo?

15. Ninde afata ingingo yokuvuza umwana igihe arwaye indwara yo gucibwamwo?

16. Mbega hoba hari impamvu zitakuvako (zo hanze) zikubuza kuvuza umwana iyo arwaye indwara yo gucibwamwo?

17. Mbega hoba hari impamvu zitakuvako (zo hanze) zikubuza kuvurira umwana imuhira iyo arwaye indwara yo gucibwamwo?

18. Mbega abanyagihugu bokora iki kugira barwanye impamvu zitera iyo ndwara yo gucibwamwo mwatubariye?

19. Tubwire uburyo butandukanye mwokoresha mugukingira umwna ngo ntafatwe n'indwara yo gucibwamwo.

Feeding Practices Interview Guide (Mothers)

1. After you gave birth to your child did you breastfeed the child immediately? Why? Why not?
2. Who do mothers go to for help with breastfeeding when they have problems?
3. What do you know about colostrum? Is it good or bad for the newborn baby?
4. How often do you breastfeed your child when s/he is under 6 months of age?
5. Until what age are children breastfeed in your community? Why?
6. When is breastmilk considered insufficient nutrition for the child?
7. What do mothers do if they think their breastmilk is not enough for the child?
8. Is breastmilk even considered harmful or a cause of illness? When? Why?
9. How does breastfeeding practice change when the infant is sick? Why? Does this depend on the type of illness or cause of illness?
10. How does breastfeeding practice change when the mother is sick? Why? Does this depend on the type of illness or cause of illness?
11. Do mothers breastfeed when they are pregnant? Why? Why not?
12. What are the advantages and disadvantages of breastfeeding? Does breastfeeding take away your time from other duties?
13. When do you start giving water to a young child? How much? When? Why?
14. What else do you give to children under 6 months of age?
15. What foods and liquids are considered to be appropriate for children over 6 months of age? Why?
16. Do you try to feed even small amounts to children during diarrhea? Why? Why not?
17. What do you try to feed children during diarrhea? Do you give any special foods?
18. What do you give children to drink during diarrhea? Do you give any special liquids? How much liquid do you give the child during diarrhea? Why? *Probe to know if the mother is giving less, the same or more liquids than usual.*
19. After your child has had diarrhea, what do you feed the child? Is there any special way that you feed the child after having diarrhea? Why? *Probe to know about the quantity and quality of the food.*

Feeding Practices Interview Guide (Fathers)

1. After your wife gave birth did she breastfeed immediately? Why? Or why not?
2. What do you know about colostrum? Is it good or bad for the newborn baby?
3. Until what age are children breastfeed? Why?
4. When is breastmilk considered insufficient nutrition for a child?
5. What do you do if you think breastmilk is not enough for the baby?
6. Is breastmilk even considered harmful or a cause of illness? When? Why?
7. Do breastfeeding practices change when the infant is sick? Why? Does this depend on the type of illness or cause of illness?
8. Do breastfeeding practices change when the mother is sick? Why? Does this depend on the type of illness or cause of illness?
9. Do mothers breastfeed when they are pregnant? Why? Why not?
10. Do you think that breastfeeding takes the mother's time away from other duties?
11. When do you start giving water to a young child? How much? When? Why?
12. What else do you give to children under 6 months of age?
13. What foods are considered to be appropriate for children over 6 months of age? Why?
14. Do you try to feed even small amounts to children during diarrhea? Why? Why not?
15. What do you try to feed children during diarrhea? Do you give any special foods?
16. What do you give children to drink during diarrhea? Are there any special liquids given? How much of the liquids are given? Why? *Probe to know if the mother is giving less, the same or more liquids than usual.*
17. After having diarrhea, what do you feed the child? Is there any special way you feed the child? Why? *Probe to know about the quantity and quality of the food.*

Feeding Practices Interview Guide (Mothers)

1. Igihe wibaruka waciye wonsa umwana ubwonyene? Kuberiki?

2. Mbega abavyeyi bonsa baja kurondera imfashanyo kwande iyo ivyo kwonsa bibagoye?

3. Harico woba uzi kuvyerekeye amaberebere y'umuhondo? Mbega yoba ari meza canke mabi kumwana avutse?

4. Mbega wonsa umwana wawe kangahe kumusi igihe ari musi y'amezi atandatu?

5. Mbega abana banyu muriyi komine mu bonsa gushika ryari? Kuberiki?

6. Niryari mubona ko amaberebere adahagije mu ngaburo y'umwana?

7. Mbega abavyeyi bakora iki iyo babonye ko amaberebere adahaza umwana?

8. Mbega hoba hariho igihe amaberebere ashobora guitera indwara canke ingorane kumwana? Ryari? Kuberiki?

9. Mbega uburyo mwonsa umwana buhinduka gute iyo umwana arwaye? Kuberiki? Mbega biva kubwoko bw'indwara canke kumpamvu y'indwara?

10. Mbega uburyo mwonsa umwana buhinduka gute igihe umuvyeyi arwaye? Kuberiki? Mbega biva kubwoko b'indwara canke kumpamvu z'indwara?

11. Mbega abavyeyi baronsa igihe bibungenze? Kuberiki?

12. Mbega mwotubwira inyungu canke ubuhombe bwo kwonsa? Mbega kwonsa vyoba bibatwara umwanya wogukora ibindi bintu? Nkibihe?

13. Niryari mutangura guha amazi inzoya? Kangahe? Ryari? Kuberiki?

14. Mbega mwotubwira ibindi bintu muha (mugabura) abana bari musi y'amezi atandatu?

15. Nizihe mfungurwa canke ibinyobwa bizwi ko bikwiriye kubana barenza amezi atandatu? Kuberiki?

16. Uhora ugerageza kugaburira abana igihe bariko bacibwamwo? Kuberiki?

17. Nibiki uhora ugerageza kugaburira umwana igihe acibwamwo? Mbega hoba hari ubwoko bundi bw'imfungurwa atamenyereye mumugaburira?

18. Nibihe binyobwa uha umwana iyo acibwamwo? Mbega hoba hari ubwoko bw'ibinyobwa atamenyereye mumuha? Mbega mumuha nkibinyobwa bingana gute iyo umwana acibwamwo? Kuberiki? *Dukeneye kumenya ko amuha vyinshi, canke ivyo yaramenyereye canke bike*.

19. Umwana wawe agikize gucibwamwo, nibiki muca mumugaburira? Hoba hariho uburyo butamenyerewe mugaburira umwana w'umukiruke wo gucibwamwo? Kuberiki? *Dukeneye kumenya quantite canke qualite y'ivyo yafunguye.*

Feeding Practices Interview Guide (Fathers)

1. Igihe umukenyezi wawe yibaruka yaciye yonsa umwana ubwonyene? Kuberiki?

2. Harico woba uzi kuvyerekeye amaberebere y'umuhondo? Mbega yoba ari meza canke mabi kumwana avutse?

3. Mbega abana banyu muriyi komine bonka gushika ryari? Kuberiki?

4. Niryari mubona ko amaberebere adahagije mu ngaburo y'umwana?

5. Mbega abavyeyi bakora iki iyo babonye ko amaberebere adahaza umwana?

6. Mbega hoba hariho igihe amaberebere ashobora gutera indwara canke ingorane kumwana? Ryari? Kuberiki?

7. Mbega uburyo umwana yonswa buhinduka gute iyo umwana arwaye? Kuberiki? Mbega biva kubwoko bw'indwara canke kumpamvu y'indwara?

8. Mbega uburyo umwana yonka buhinduka gute igihe umuvyeyi arwaye? Kuberiki? Mbega biva kubwoko b'indwara canke kumpamvu z'indwara?

9. Mbega abavyeyi baronsa igihe bibungenze? Kuberiki?

10. Mbega kwonsa vyoba bibatwara umwanya wogukora ibindi bintu? Nkibihe?

11. Niryari mutangura guha amazi inzoya? Kangahe? Ryari? Kuberiki?

12. Mbega mwotubwira ibindi bintu muha (mugabura) abana bari musi y'amezi atandatu?

13. Nizihe mfungurwa canke ibinyobwa bizwi ko bikwiriye kubana barenza amezi atandatu? Kuberiki?

14. Uhora ugerageza kugaburira abana igihe bariko bacibwamwo? Kuberiki?

15. Nibiki uhora ugerageza kugaburira umwana igihe acibwamwo? Mbega hoba hari ubwoko bundi bw'imfungurwa atamenyereye mumugaburira?

16. Nibihe binyobwa uha umwana iyo acibwamwo? Mbega hoba hari ubwoko bw'ibinyobwa atamenyereye mumuha? Mbega mumuha nkibinyobwa bingana gute iyo umwana acibwamwo? Kuberiki? *Dukeneye kumenya ko amuha vyinshi, canke ivyo yaramenyereye canke bike*.

17. Umwana wawe agikize gucibwamwo, nibiki muca mumugaburira? Hoba hariho uburyo butamenyerewe mugaburira umwana w'umukiruke wo gucibwamwo? Kuberiki? *Dukeneye kumenya quantite canke qualite y'ivyo yafunguye.*

Sanitation

1. Some people have open latrines and others have closed latrines. Why do you think some people choose to have open latrines? Why do you think some people choose to have closed latrines?

2. What do you think are the advantages of having an open latrine? What do you think are the disadvantages with having an open latrine?

3. What do you think are the advantages of having a closed latrine? What do you think are the disadvantages with having a closed latrine?

4. How do people dispose of a young child's feces in this community? Why do they dispose of it in that way?

5. What are the advantages or disadvantages of disposing the feces in a latrine?

6. What are the advantages or disadvantages of disposing the feces by digging and burying it?

7. What are the advantages or disadvantages of disposing the feces by just throwing it somewhere in the yard?

8. When do young children start using the latrine? Why?

Additional Questions for Fathers:

9. Do you know how to make a latrine closed? How do you do it?

10. What materials do you need to make a latrine closed? How available are these materials in your community?

11. Are there any challenges or difficulties in making a latrine closed?

12. If you do not already have a closed latrine, would you ever consider making your latrine closed? Why?

Sanitation

1. Abantu bamwe bamwe bafise akazu kasugumwe (imisarani) kuguruye abandi nabo bafise akugaye.Mbega wiyumvira ko ari kuberiki bantu bamwe bahitamwo akazu kasugwumwe kuguruye abandi kugaye?

2. Tubwire inyungu zokugira akazu kasugumwe kuguruye? Tubwire ubuhombe bwokugira akazu kasurwumwe kuguruye?

3. Tubwire inyungu zokugira akazu kasugumwe kugaye? Tubwire ubuhombe bwokugira akazu kasurwumwe kugaye?

4. Mbega abantu muriyi micungararo bata gute umwanda w'umwana? Kuberiki bakoresha ubwo buryo?

5. Mbega nizihe nyungu canke ubuhombe bwo guta umwanda w'umwana mu kazu kasugumwe?

6. Mbega nizihe nyungu canke ubuhombe bwo guta umwanda w'umwana mukinogo ukawufurira?

7. Mbega nizihe nyungu canke ubuhombe bwo guta umwanda w'umwana ahariho hose ubonye kumbuga?

8. Mbega ni ryari abana bato batangura gukoresha akazu kasugumwe muri iyi micungararo? Kuberiki?

Additional Questions for Fathers:

9. Mwoba muzi ingene bubaka akazu ka sugumwe kugaye? Mukubaka gute?

10. Mukeneye ibihe bikoresho ngo mwubake akazu kasugumwe kwugaye? Mbega ivyo bikoresho bwokwubaka atuzu twasugumwe biraboneka muri iyi micungararo?

11. Hoba hariho intambanyi canke ingorane zituma batubaka akazu kasugumwe kwugaye?

12. Nimba udagise ako kazu kasugumwe kwugaye, woba wipfuza kuzokwubaka ako kazu kasugumwe kwugaye? Kuberiki?

Water and Hygiene

1. Do you always have soap in your house? Why? Why not? How much does it cost? Where do you find it?

2. Do you keep the soap near the place where you wash your hands? Why? Why not?

3. What are the most important times to wash your hands? Why?

4. What are the advantages or inconveniences of washing your hands with soap?

5. How do you dry your hands?

6. Where can people collect water in your community?

7. Where do you usually go to collect water for drinking? Why do you choose that place rather than another place?

8. How do you collect the water?

9. How often do you collect water? How far must you go to collect the water?

10. What do you use for water storage?

11. Do you know about any ways to make your water safer to drink?

12. Do you use any of these ways to make your water safer to drink? Why? Why not?

13. Some people boil their water to make it safer to drink. What do you think are the advantages or difficulties with boiling water?

14. Have you ever heard of the water treatment product called "Sur'eau"? What do you think about it? Would you ever want to use it? Why? Why not?

15. How do you wash your dishes? What do you use to wash your dishes?

16. How do you store food in your house? What are the best ways of storing food? Why is it important?

Water and Hygiene

1. Mbega wama ufise isabuni imisi yose munzu yawe? Kuberiki?Isabuni igurwa angahe? Muyigurira hehe?

2. Muhora mubika isabuni hafi yaho mukarabira? Kuberiki?

3. N'ibihe bihe nyamukuru mukarabamwo intoke? Kuberiki?

4. N'izihe nyungu n'ubuhombe bwo gukaraba intoke n'isabuni?

5. Mbega nigute mwumisha intoke zanyu muhejeje gukaraba?

6. Mbega n'ihe abantu bavomera amazi muri iyi micungararo?

7. Mbega muvomera amazi yokunywa hehe? Kuberiki muhitamwo kuvomera muri ico kibanza ntimuje mukindi kibanza?

8. Ni gute muvoma amazi?

9. Ni kangahe muja kuvoma? Mbega aho muvomera hareha gute, muhagenda umwanya ungana gute?

10. N'igiki mubikamwo amazi?

11. Mwoba muzi uburyo ubwaribwo bwose mwokoresha kugira muronke amazi meza?

12. Mbega mwoba mukoresha ubwo buryo kugira ngo muronke amazi meza? Kuberiki?

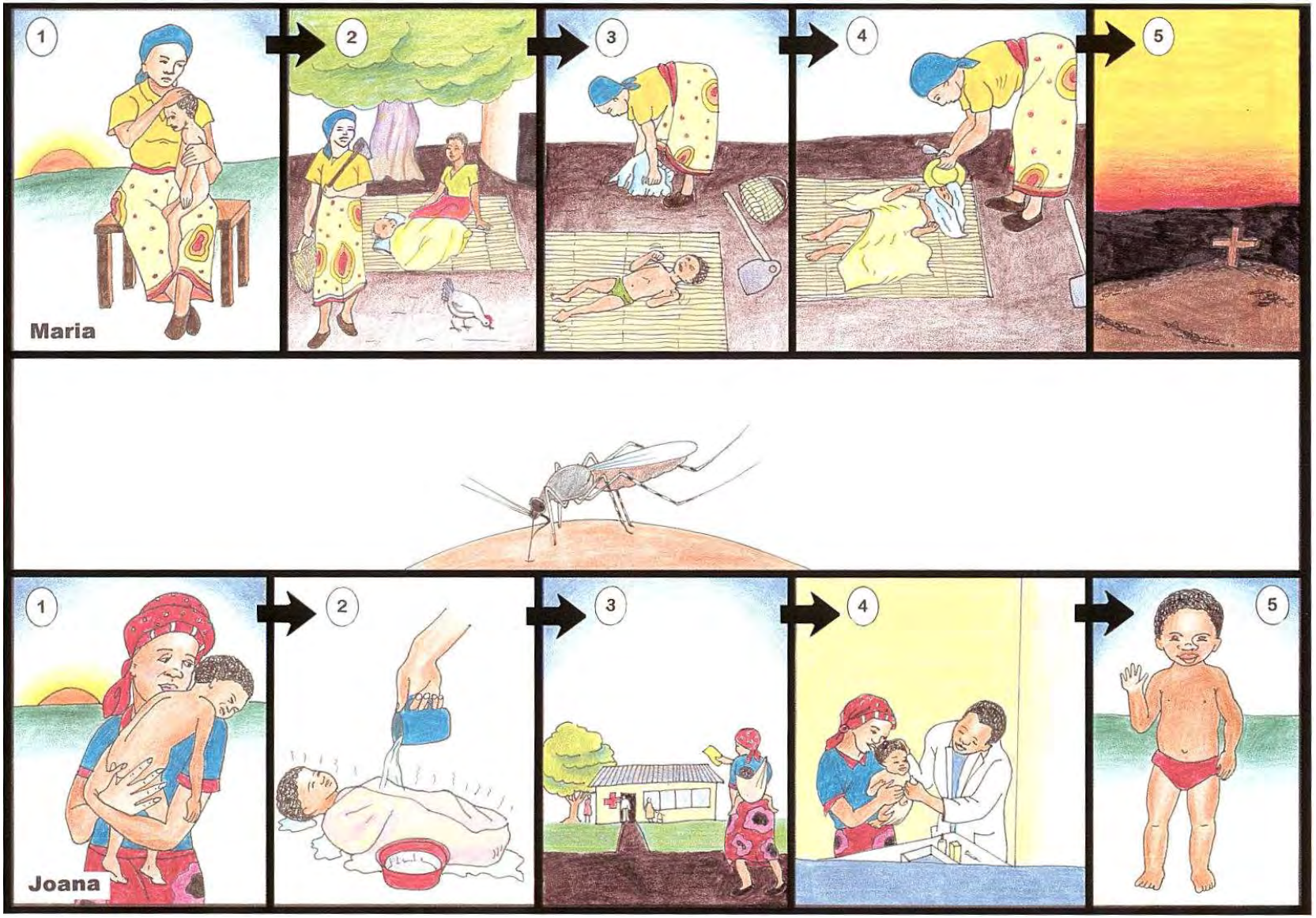
13. Abantu bamwe barateka amazi yabo kugira bashobore kuyanywa ari meza. None wotubwira inyungu canke ingorane zo guteka amazi?

14. Mbega mwarigeze kwumva umuti w'amazi witwa "Sur eau"? Uwiyumvira kw'iki? Woba warigeze wipfuza kuwukoresha? Kuberiki?

15. Mbega nigute woza amasahani? Ukoresha iki mu kwoza ayo masahani?

16. Mbega ubika gute imfungurwa mu nzu iwawe? Nubuhe buryo bwiza bwokubika imfungurwa? Nikuberiki vyoba bifise akamaro?

Annex E. Sample Teaching Aid from Mozambique



Annex F. Agreements

F.1. MOU with MOH

THE REPUBLIC OF BURUNDI **WORLD RELIEF BURUNDI**

THE MINISTRY OF PUBLIC HEALTH AND THE FIGHT AGAINST AIDS

WORLD RELIEF BURUNDI

IMPLEMENTATION PROTOCOL FOR THE CHILD SURVIVAL PROGRAM

The present Protocol of Implementation for the program is agreed upon:

By

The Ministry of Public Health hereafter called **"The Ministry,"** represented by the Minister of Public Health and the Fight Against AIDS, on the one hand,

And

"World Relief Burundi", hereafter denoted in initials "**WRB**," represented by the Legal Representative, on the other:

PREAMBLE

Anxious to promote the profitable co-operation in health and in consideration that World Relief Burundi wishes to take part in the primary healthcare programs for the population of Burundi by bringing a technical and financial contribution:

Considering that many children die in communities without having access to the benefits of qualified personnel. To obtain the best impact, key family practices that contribute to survival, growth and

development of the child have been identified in this project for Burundi and more particularly in the District of Kibuye.

In consideration that this participation will be able to progressively extend to more than one health district, according to the needs evaluated by the health authorities and World Relief Burundi within the limit of its means;

In consideration that this cooperation necessitates a detailed framework of the goals, means and reciprocal obligations of the parties;

In consideration that for the harmony of the health activities, it is necessary to coordinate the technical and non-technical components at the disposal of World Relief Burundi with the Ministry of Public Health and the Fight Against AIDS.

AGREEMENT AS FOLLOWS:

COMMITMENT OF WORLD RELIEF BURUNDI

Article 1: World Relief Burundi commits to join the health system of Kibuye Health District in the health province of Gitega to engage in the manner delineated in the present agreement.

Article 2: World Relief Burundi commits to put in place a program of Child Survival in Kibuye Health District, Gitega Province that will bring the support of improving family and community practices in regards to health.

Article 3: World Relief Burundi commits to promote curative, preventive and promotional activities in the communities where the majority of the population does not have access to basic health services, especially children, even if the services seem to be available. It commits to contribute to as best it can to improve the access of primary health care to the population.

Article 4: World Relief Burundi commits to take part in the integration of child health at the level of the community, by improving the knowledge of the community on the family practices for the health of children less than five years and women of reproductive age.

Article 5: World Relief Burundi commits to join the health centers of the Kibuye Health District in recovering the drop-outs of family planning and vaccination. World Relief Burundi commits to encourage pregnant women to make an antenatal consultation in the first quarter of the pregnancy, identify children with signs of malnutrition as well as the general signs of danger which necessitate seeking health care by conveying them to the health center.

Article 6: World Relief Burundi commits to contribute to capacity building, in regards to the improvement of health supervision by training 4 supervisors, 22 promoters of health and 3200 volunteers. The latter will make regular visits to dispense acquired knowledge to their neighbors, in order to facilitate social behavior change.

Article 7: World Relief Burundi agrees to collaborate with all officially recognized national associations that have the same objectives in the field of integrating child health in the community.

Article 8: World Relief Burundi will work within the framework of the action plan of the Ministry of Public Health and the Fight Against AIDS in the field of health and will strictly follow the health policy established by the same ministry.

Article 9: World Relief Burundi commits to indicate to the Ministry of Public Health and the Fight Against AIDS the budget designated for this intervention.

Article 10: World Relief Burundi commits to furnish the Ministry of Health and the Fight Against AIDS, in collaboration with the Chief Doctor of the Health District, quarterly reports of activities in order to make available the health statistics and the follow-up of the program by the Ministry as well as the coordination of activities.

Article 11: World Relief Burundi will be sure that each time the program operates, it will be according to the law of the Republic of Burundi and the regulations of the Ministry of Health and the Fight Against AIDS.

COMMITMENTS OF THE MINISTRY OF PUBLIC HEALTH AND THE FIGHT AGAINST AIDS

Article 12: The Ministry of Public Health and the Fight Against AIDS commits to collaborate with World Relief Burundi in its Health Program in the outlines of its action plan.

Article 13: The Ministry of Public Health and the Fight Against AIDS, guarantor of follow up and the coordination of the health services, commits to regularly meet the partners of this program for evaluations, recommendations or reorientations of the program on the basis of respect for the health policy of the government of Burundi.

Article 14: The Ministry of Public Health commits to facilitate the importation of pharmaceutical products and medical/health material. However, the list of the requirements in materials and pharmaceutical products to import will be validated by the qualified services of the Ministry before the order is effective.

FINAL PROVISIONS

Article 15: The present convention is concluded for the duration of five years to be renewable by tacit agreement. It could be denounced by one or the other of the two parties with the notice of 3 months (ninety days), by means of a letter of advisement. If the agreement is denounced partly, a new agreement will be signed for the part remaining in force.

Article 16: The present agreement between the two parties is in force the day of the signature of the two parties.

Article 17: In the event of dissension in the implementation of this convention, the parties commit to meet in search for a solution. If a solution cannot be found, the issue will be brought before the judicial courts in the matter.

FOR	FOR
THE MINISTRY OF PUBLIC HEALTH AND THE FIGHT AGAINST AIDS	WORLD RELIEF BURUNDI
D GIKORO Emmanuel	Josephat NGARA MUSUMBA
Ministry	Legal Representative

REPUBLIQUE DU BURUNDI

MINISTERE DE LA SANTE PUBLIQUE
ET DE LA LUTTE CONTRE LE SIDA

WOLRD RELIEF BURUNDI

WOLRD RELIEF BURUNDI

PROTOCOLE DE MISE EN OEUVRE DU PROGRAMME DE SURVIE DE L'ENFANT

Le présent Protocole de mise en oeuvre est convenu:

Entre

Le Ministère de la Santé Publique ci-après dénommé **"LE MINISTERE"** représenté par le Ministre ayant la santé Publique et de la lutte contre le SIDA dans ses attributions, d'une part.

ET

World Relief Burund "WRB" en sigle ci-après dénommé **"WORLD RELIEF BURUNDI"** représenté par le Représentant Légal, d'autre part.

PREAMBULE

Soucieux de promouvoir la coopération fructueuse dans le domaine de la santé;
Considérant que World Relief Burundi souhaite participer aux programmes de soins de santé primaires en faveur de la population du Burundi en apportant un concours technique et financier;

Vu que beaucoup d'enfants meurent dans les communautés sans avoir eu accès à un prestataire qualifié. Pour obtenir le meilleur impact, quelques pratiques clés familiales qui contribuent à la survie, à la croissance et au développement de l'enfant ont été retenues dans ce projet pour le Burundi et plus particulièrement dans le District de Kibuye.

Considérant que cette participation pourra s'étendre progressivement a plus d'un district sanitaire selon les besoins évalués par les autorités sanitaires et World Relief Burundi dans la limite de ses moyens ;

Considérant que cette coopération nécessite un cadre détaillé quant aux buts, moyens et obligations réciproques des parties ;

Considérant qu'il faut pour harmoniser les activités sanitaires, co gérer avec le Ministère de la Santé Publique et de la lutte contre le Sida les moyens techniques et non techniques mis à la disposition de ce dernier par World Relief Burundi,

CONVIENNENT CE QUI SUIT :

ENGAGEMENTS DE WORLD RELIEF BURUNDI

Article 1: World Relief Burundi s'engage à s'associer aux structures sanitaires du District sanitaire de Kibuye dans la province sanitaire de Gitega pour apporter son appui tel que décrit dans la présente convention.

Article 2: World Relief Burundi s'engage à mettre en place un programme de la « Survie de l'Enfant » dans le District sanitaire de Kibuye, Province de Gitega, qui apportera son appui à l'amélioration des pratiques familiales et communautaires en matière de santé.

Article 3: World Relief Burundi s'engage à promouvoir des activités curatives, preventives et promotionnelles dans les communautés où réside la majorité de la population qui n'a pas accès aux services de santé de base, surtout les enfants même si le service semble être disponible. Elle s'engage à contribuer e mieux possible à améliorer l'accès de la population aux soins de santé primaires,

Article 4: World Relief Burundi s'engage à participer à l'amélioration de la prise en charge intégrée de l'enfant au niveau de la communauté en

améliorant les connaissances de la communauté sur les pratiques familiales qui sont néfastes à la santé des enfant de moins de cinq ans et des femmes en âge de procréer

Article 5: World Relief Burundi s'engage à s'associer aux centres de santé du District sanitaire de Kibuye pour récupérer les abandons en planning familial et en vaccination. World Relief Burundi s'engage à inciter les femmes enceintes à faire une consultation prénatale précoce dans le premier trimestre de la grossesse et à identifier les enfants avec les signes de malnutritions ainsi que les signes généraux de dangers qui nécessitent de chercher les soins de santé en les acheminant au centre de santé

Article 6 World Relief Burundi s'engage à contribuer au renforcement des capacités en matière de santé par l'amélioration de la supervision et la formation de 4 superviseurs, 22 promoteurs de la santé et 3200 volontaires. Ces derniers feront des visites régulières de partage des connaissances acquises à leurs voisins pour faciliter le changement de comportement de la société.

Article 7: World Relief Burundi accepte de collaborer avec toutes associations nationales reconnues officiellement et ayant les mêmes objectifs que lui sur le plan de la prise en charge intégrée de l'enfant dans la communauté.

Article 8: World Relief Burundi travaillera dans le cadre du plan d'action du Ministère de la Santé Publique et de la lutte contre le Sida dans le domaine de la santé et suivra strictement la politique Sanitaire établie par le même ministère.

3

Article 9: World Relief Burundi s'engage à indiquer au Ministère de la Santé Publique et de la lutte contre le Sida l'enveloppe budgétaire destinée à cette intervention.

Article 10: World Relief Burundi s'engage à fournir au Ministère de la Santé Publique et de la lutte contre le Sida en collaboration avec le Médecin Chef du District Sanitaire des rapports trimestriels des activités pour rendre disponibles les statistiques sanitaires, le suivi du programme par le Ministère ainsi que la coordination des activités.

Article 11: World Relief Burundi s'assurera chaque fois que le programme opère selon la loi de la République du Burundi et les règlements du Ministère de la Santé et de la lutte contre le Sida.

ENGAGEMENTS DU MINISTERE DE LA SANTE PUBLIQUE ET DE LA LUTTE CONTRE LE SIDA

Article 12: Le Ministère de la Santé Publique et de la lutte contre le Sida s'engage à associer World Relief Burundi dans son Programme de Santé définie dans son plan d'action.

Article 13: Le Ministère de la Santé Publique et de la lutte contre le Sida, garant du suivi et de la coordination des services de santé s'engage à rencontrer régulièrement les partenaires de ce programme pour évaluer, donner ces recommandations ou des réorientations du programme sur base du respect de la politique Sanitaire du gouvernement du Burundi.

Article 14: Le Ministère de la Santé Publique s'engage à faciliter l'importation des produits pharmaceutiques et le matériel médico-sanitaire. Toutefois, la liste des besoins en matériel et produits pharmaceutiques à importer sera validée par les services compétents du Ministère avant la commande effective.

DISPOSITIONS FINALES

Article 15: La présente convention est conclue pour une durée de cinq ans renouvelable par tacite reconduction. Elle pourra être dénoncée par l'une ou l'autre des deux parties moyennant un préavis de 3 mois (nonante jours) signifié à l'autre par une lettre recommandée. Si la convention est dénoncée en partie, une nouvelle convention sera signée pour les parties restant en vigueur.

Article 16: La préserte convention entre en vigueur le jour de sa signature par les deux parties

Article 17: En cas de désaccord dans la mise en oeuvre de cette convention, les parties s'engagent à se rencontrer pour la recherche d'une solution. Si une solution ne peut pas être trouvée, le différend sera porté devant les juridictions compétentes en la matière.

Fait à Bujumbura, le / / 2008

POUR	POUR
LE MINISTERE DE LA SANTE PUBLIQUE ET DE LA LUTTE CONTRE LE SIDA	WORLD RELIEF BURUNDI
DR SIKORO Emmanuel,	Josephat NGAIRA MUSUMBA
Ministre	Représentant Légal

5

Memorandum of Understanding
between
World Relief and HealthNet TPO

Kibuye Health District, Gitega Province, Burundi

1. Purpose
This memorandum of understanding is to clarify expectations between World Relief Burundi and HealthNet TPO related to implementation of the World Relief Burundi Child Survival Project in Kibuye Health District, Gitega Province, Bururdi.

2. World Relief Organization and Activities
World Relief is a Private Voluntary Organization based in the United States with funding from the United States Agency for International Development and private donors for the express purpose of implementing a Child Survival Project (CSP) in Kibuye Health District from October 1, 2007 to September 30, 2012. The CSP is focused on Community-IMCI interventions and will work through a network of local volunteers to reach individual households with behavior change communication. It will collaborate with those entities that most directly influence health in the geographic area, including the Ministry of Health (MOH) and its service providers and HealthNet TPO.

3. HealthNet TPO Organization and Activities
HealthNet TPO is a Dutch NGO also working in Gitega Province to strengthen capacity and improve quality and quantity of health services through performance-based financing mechanisms implemented under the so-called TMF Project. Its activities began in July 2005 and funding is secured through the end of 2010. From 2009, TMF will be changed in MFS Project[1]. Its main activities have focused on establishing a performance based financing system in the health facilities and management of the district to increase health service delivery and staff motivation, strengthening management committees at health facilities, rehabilitating of some health facilities, putting in place a referral system, ensuring availability of qualified staff and a doctor in Kibuye Hospital through the Ministry of Health.

4. Partnership
As both World Relief and HealthNet TPO have parallel aims to improve the health status of population particulary women and children in Kibuye Health District, we will collaborate to promote synergy and eliminate the duplication of efforts. Collaboration will be ongoing and may evolve over time in response to community and programmatic needs. Examples include:

4.1 Quarterly meetings for coordination of activities and information sharing.

4.2 Mutual sharing of monitoring data and other regular reports.

[1] TMF and MFS are funding mechanisms in the Dutch Ministry of Foreign Affairs.

4.3 Inclusion of appropriate staff members in relevant training hostec by the other organization. For example, World Relief staff will participate in HealthNet TPO training on demonstration gardens for the express purpose of disseminating information to the community during the CSP's nutrition intervention, which includes the development of kitchen gardens.

4.4 CSP volunteers will participate in quarterly quality assessments of the health facilities conducted by – or on behalf of - HealthNet TPO.

4.5 In collaboration with HealthNet TPO, CSP staff and volunteers will assist with community mobilization for immunization campaigns led by the MOH.

4.6 Coordination of responses to outbreaks detected in the community.

5. Conclusion

This partnership between World Relief and HealthNet TPO in Kibuye Health District, Gitega Province, Burundi represents a significant opportunity to bring together World Relief's expertise in community mobilization with HealthNet TPO's expertise in performance based financing. The synergy of these approaches is expected to lead to substantial improvements in quality of care, service utilization, and health status of the beneficiary population, demonstrating the benefits of pairing these approaches as Community-Integrated Management of Childhood Illness (C-IMCI) and performance based financing is expanded in Burundi.

SIGNATURES

For HealthNet TPO:

Herman NDAYISABA

signature:

Done at Bujumbura

For the World Relief BURUNDI:

Josephat NGAIRA

signature:

Done at Bujumbura, date 10/04/2008

Annex G. C-HIS Monthly Promotor Data Collection Form& Care Group Activity Indicators

Community-Health Information System (C-HIS)

Monthly Promoter Data Collection Form

_____/_____

Month Year

Name of Promoter: _____ **Date: _____**

Area of Responsibility: _____

Total Number of Care Groups: _____

Total Number of Volunteers: _____

		Population Served			Vital Health Events			
Care Group	Total Number of Volunteers	Total Number of Households	Total Number of Women <49	Total Number of Children <5	Number of Pregnant Women	Number of Births	Number of Child < 5 Deaths	Number of Maternal Deaths
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
Totals =								

Promoter Monthly Report-DRAFT

Care Group Activity Indicators

Care Group	Total Number of Care Group Volunteers	Total Number of Care Group Meetings	Attendance of Meeting #1			Attendance of Meeting #2			Attendance of Meeting #3		
			Care Group Volunteers	Village or NK Leaders	Ministry of Health CHWs	Care Group Volunteers	Village or NK Leaders	Ministry of Health CHWs	Care Group Volunteers	Village or NK Leaders	Ministry of Health CHWs
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											

Annex H. C-HIS Monthly Supervisor Data Collection Form & Care Group Activity Indicators

Community-Health Information System (C-HIS)

Monthly Supervisor Data Collection Form

_____/_____

Month Year

Name of Supervisor: _____ **Date:** _____

Area of Responsibility: _____

Total Number of Promoters: _____

Total Number of Care Groups: _____

Total Number of Volunteers: _____

			Population Served			Vital Health Events			
Promoter Responsibility Area	Total Number of Care Groups	Total Number of Volunteers	Total Number of Households	Total Number of Women <49	Total Number of Children <5	Number of Pregnant Women	Number of Births	Number of Child < 5 Deaths	Number of Maternal Deaths
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
Totals =									

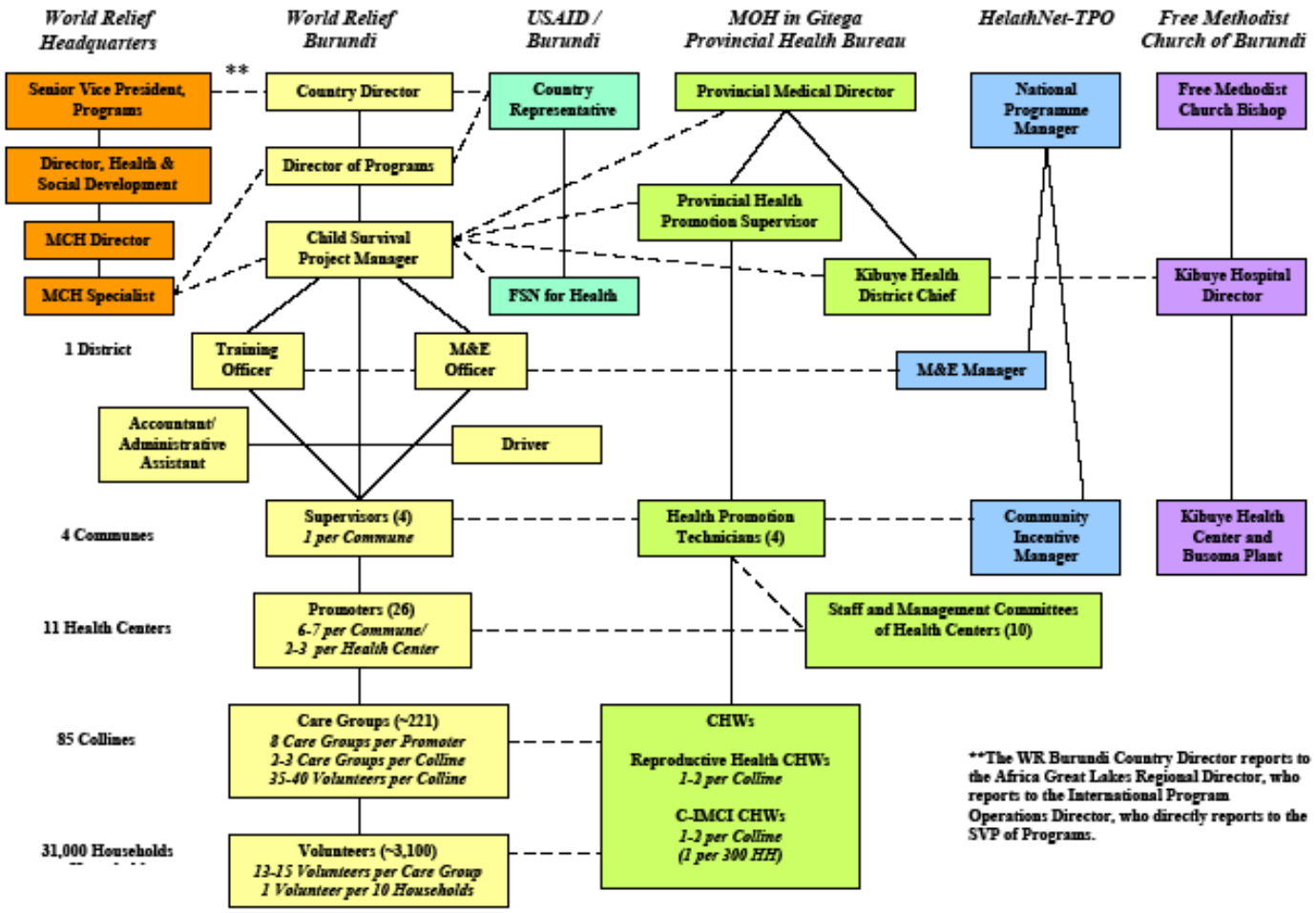
Monthly Supervisor Report-DRAFT
Care Group Activity Indicators

Promoter Responsibility Area	Total Number of Care Groups	Care Groups with >70% Volunteer Attendance		Care Groups Meeting 2 or More Times		Care Groups with Village or NK Leader Participation		Care Groups with CHW Participation	
		#	%	#	%	#	%	#	%
1.									
2.									
3.									
4.									
5.									
6.									
7.									
Total=									

Annex I. Key Personnel Table.

Affiliation	Position/Type	Qty (*est)	Main Responsibilities	Project LOE	Entity responsible for remuneration
WR CSP	Project Manager	1	Oversee project implementation.	100%	WR
	Training Officer	1	Oversee curriculum development and training activities.	100%	WR
	Monitoring and Evaluation Officer	1	Lead project M& E activities, including CHIS, monitoring surveys, MTE and FE surveys, and operations research.	100%	WR
	Supervisors	4	Supervise promoters.	100%	WR
	Promoters	26	Supervise/train care group volunteers.	100%	WR
	Project Accountant	1	Track project finances.	100%	WR
	Logistics Coordinator	1	Manages logistics for procurement, communication, etc.	100%	WR
	HR/Administrative	1	Office administration services.	100%	WR
	Driver	1	Drive vehicle.	100%	WR
	Guard	2	Guard project office and guest house.	100%	WR
Community Health Workers	Care Group Volunteers	3,000*	Promote project BCC in the community.	10%	Volunteer, annual incentive from WR
	Church leaders	200*	Promote project BCC at church meetings.	5%	Volunteer
Private Sector Providers	Traditional Healer	85*	Sensitized and trained on importance of referrals.	5%	Paid by clients
	Private Drug Vendors	85*	Sensitized and trained on importance of referrals.	5%	Paid by clients
	TBAs	85*	Sensitized and trained on importance of referrals.	5%	Paid by clients
MOH	HC Titulaires	9-13	Attend monthly meeting with promoters for skills building/sustainability.	5%	MOH
	COSAs	20*	Attend monthly meeting with promoters for skills building/sustainability.	5%	MOH
	Health Center staff	9-13	Attend monthly training with promoters for skills building/sustainability.	10%	MOH
	TPS—health promotion	4	Attend monthly meeting with promoters for skills building/sustainability.	10%	MOH
	CHWs	160*	Promote MOH IMCI BCC in the community. Attend CG meetings for promotion of project BCC in the community.	10%	Volunteer; incentives from MOH health promotion
FMC	Hospital Administrator	1	Attend quarterly planning and coordination meetings.	5%	FMC
	Kibuye health center staff	1	Attend CSP intervention trainings (TOT)	10%	FMC
HealthNet TPO	National Program Manager	1	Attend quarterly planning and coordination meetings.	5%	HealthNet TPO
	Community Incentive Mngr.	1	Attend planning/coordination meetings for overall program coordination.	10%	HealthNet TPO
	M&E Manager	1	Coordinate/review M&E tools with CSP M&E Specialist	5%	HealthNet TPO
WR Country Office	Country Director	1	Overall support to project.	10%	WR
	Director of Programs	1	Overall support to project.	21%	WR
	Financial Manager	1	Support for project financial management.	16%	WR
	HR/Admin manager	1	Support for project HR issues.	13%	WR
	HR Officer	1	Support for project HR issues.	13%	WR
	Admin Officer	1	Support for project administrative issues.	13%	WR
	Logistics officer	1	Support for project logistics.	13%	WR
	IT Technician	1	Support for project IT needs.	12%	WR
WR HQ	MCH Specialist	1	Technical support to project.	36%	WR
	Director of MCH	1	Overall CS Program coordination.	22%	WR

Annex J. Organizational Chart and Project Organigram.



Annex K. Key Personnel Resumes.

Chantal INAMAHORO, MS
Curriculum Vitae-Abbreviated Version

EDUCATION

Uganda Martyrs University
Master of Science in Health Services Management

Université du CEPROMEC (Institut supérieur de Gestion et de Management)
Bachelor of Community Health Sciences and Development

Institut Nationale de Santé Publique (INSP)
Diploma of Superior Technician in Public Health

PROFESSIONAL EXPERIENCE

Project Manager, World Relief Burundi Child Survival Project, February 2008-Present

- Lead USAID-funded Child Survival Project using the Care Group Model for roll-out of Community-IMCI in Kibuye Health District, Gitega Province

Counselor with Health Services and Programs of the National Ministry of Health, 2007-2008

- Train and supervise service providers at the national level in IMCI and C-IMCI
- Follow up and evaluate MOH reforms in decentralization and performance based financing
- Assist provinces in developing provincial MOH plans
- Develop qualitative and quantitative health indicators for national policy of performance based financing

Public Health Supervisor and Consultant for Cibitoke Province (41 Health Services) with the European Development Fund, 2005-2006

- Supervision of all health centers
- Train and retrain health center nurses
- Improve capacity management of programs in health sector

Supervisor of 15 provincial health centers in Bujumbura and rural Bujumbura, 2003-2005

- Organization and planning of health sector activities
- Supervision of prevention and cure activities
- Collect, analyze, interpret health center reports

Association Manager of Action Chrétienne auprès des Victimes du SIDA, 2002-2003

- Plan, organize, coordinate and control activities of association.
- Coordinate counseling services and HIV tests
- Training local prsonnel in home care of PLWAs
- Coordination of social and medical care

Nurse Ministère du Réveil en Afrique, 1998-2002

- Prevention and curative services
- Follow up of hospitalized people
- Midwifery

Chantal INAMAHORO, MS
Curriculum Vitae-Abbreviated Version

Nurse at CHUK (facility for infants with gastroenteritis), 1994-1998

Main nurse, Kigobe Health Center, 1992-1994
- Staffing manager
- Coordination of preventive and curative actions
- Participation and training of workshops

Relevant Workshop Training
- Training of trainers in the Burundi sanitary districts and the national policy of Contractualisation
- Training of trainers on the integrated care of children sicknesses (PCIME clinic) at a national level: Certificate
- Training of trainers on the facilitation techniques in the PCIME clinic at a national level : Certificate
- Training of trainers on the community PCIME
- 3 trainings on the malaria protocol level
- 2 trainings on the strategy, symptom, diagnosis and treatment;
- 2 trainings on medicines management;
- 1 workshop on nutrition
- 3 workshops on breastfeeding : certificate
- 3 workshops on babies diarrhea: certificate
- Training in African Community of Practice on Managing for Development Results (COP-MFDR AFRICAT): Certificate
- Training in Monitoring and Evaluation for the program of Maternal child health (MCH): Certificate
- Training in Monitoring and Evaluation on Managing for Development Results : Certificate

PUBLICATIONS
- 25/07/2003: Presentation of an end of study work entitled: **Contribution à l'Etude des facteurs de vulnérabilité des femmes au VIH/SIDA, cas des clientes séropositives de l'association A.C.V.S.**
- 29/07/2005: Presentation of a dissertation entitled: **Contribution à l'étude des effets des conflits ethniques et armes sur le Développement Humain Durable au Burundi**
- 15/08/2007: Presentation of a dissertation entitled: **The impact of armed conflict ethniques on health services in Cibitoke Province, Burundi**

OTHER SKILLS
- **Fluent languages:** Francais, Kirundi, English, Swahili
- **Computer:** Microsoft Word, Excel, Power Point, Gesis

Alyssa L. Davis, MPH

Curriculum Vitae-Abbreviated Version

EDUCATION

EMORY UNIVERSITY, Rollins School of Public Health, ***Atlanta, GA*** ***May 2007***
Master of Public Health, Department of Global Health, Community Health and Development Concentration
Graduate Thesis: Sustainability of Benefits in Community-Based Maternal and Neonatal Health Programs

WHEATON COLLEGE, ***Wheaton, IL*** ***August 2005***
Bachelor of Science, Biology Major, Human Needs and Global Resources Program Certificate
Undergraduate Thesis: Transmission Study of Water Borne Diseases in Rural India

PROFESSIONAL EXPERIENCE

Maternal and Child Health Specialist**, World Relief,** ***Baltimore, MD*** ***August/07-Present***
Maternal and Child Health Program

- Providing technical support to World Relief's Maternal and Child Health programming, including USAID-funded child survival projects in Africa and Asia
- Monitoring progress of project objectives through field visits and regular communication with field staff
- Conducting KPC surveys and qualitative research with field staff and providing training in relevant skill areas to build local capacity
- Preparing Detailed Implementation Plans, annual reports, final evaluations and other reports as required by donors

Graduate Summer Fellow**, The Task Force for Child Survival and Development,** ***Decatur, GA*** ***June/07-Aug/07***
Collaboration in Global Health Program

- Developed concept papers for submission to the Bill & Melinda Gates Foundation and the Centers for Disease Control
- Assisted in the design of data analysis tool for presenting costs and benefits of integrating child health information systems
- Prepared printed materials for publication and distribution at international professional conferences

Community Health Researcher**, Shramik Bharti,** ***Kanpur, UP, India*** ***May/06-May/07***
Sustainability of Benefits in Community-Based Maternal and Neonatal Health Programs

- Evaluated the sustainability of benefits in a community-based maternal and neonatal health program among rural communities in Maitha Block, Kanpur Dehat, U.P. India
- Designed qualitative data collection instruments and study protocol with field staff
- Conducted interviews and focus groups with community stakeholders
- Analyzed qualitative data using grounded theory approach and MAXqda2 software

International Affairs Program Associate, **American Cancer Society,** ***Atlanta, GA*** ***Sept/06-May/07***
India Worksite Initiative

- Researched current trends in corporate outsourcing and employee health programs to identify opportunities for initiating workplace cancer prevention programs in partnership with corporations across India
- Adapted and edited health communication and education materials on tobacco cessation, physical activity and nutrition
- Provided technical support to program managers and field staff by designing surveys and managing databases

Ten Year Strategic Planning Initiative

- Conducted research and analysis of national cancer control policies and programs worldwide for use in international collaborations between the American Cancer Society, International Union Against Cancer, and Centers for Disease Control
- Compiled comprehensive database of resources for national cancer control policy development and implementation for low-middle income countries

Alyssa L. Davis, MPH

Curriculum Vitae-Abbreviated Version

Human Rights Program Intern*, The Carter Center, *Atlanta, GA ***Sept/06-Dec/06***

Programmatic Support

- Monitored global media on human rights issues related to vulnerable populations, particularly women, children and refugees
- Prepared policy analysis reports for senior staff members related to social, economic and cultural rights
- Assisted in public communications and provided administrative assistance

Human Rights Defenders Website

- Produced primary content in the form of country assessments and human rights defender profiles
- Collaborated with technical consultants and human rights defenders to design website

Graduate Research Assistant*, Rwanda Zambia HIV Research Group**, ***Atlanta, GA ***Oct/05-May/06***

- Managed samples and database inventory for world's longest-standing and largest heterosexual HIV-discordant couples' cohort
- Cleaned and analyzed primary quantitative data for use in family planning and HIV-discordant couple transmission studies
- Developed evaluation and training tools for use by clinical and laboratory field staff in Rwanda and Zambia

Graduate Research Assistant,* International Rescue Committee*, Atlanta, GA ***Jan/06-May/06***

- Collaborated with International Rescue Committee, local refugee healthcare providers, and Rollins School of Public Health students to identify health education needs of diverse refugee population living in greater Atlanta area
- Developed health communication and education materials for use in education classes for mothers

Health Program Assistant,* Center for Pan Asian Community Services*, Doraville, GA ***Oct/05-May/06***

- Provided facilitation and administrative support for creation of the Georgia Asian Pacific Islander Community Coalition
- Conducted grant application research for community health and development programs

Community Health Researcher*, Emmanuel Hospital Association*, Chhatarpur, MP, India ***Jun/04-Dec/04***

Transmission Study of Water Borne Diseases in Rural India

- Designed a study to analyze prevalence of water born diseases among rural hospital patient population in Chhatarpur, M.P. India
- Developed quantitative survey instruments and directed data collection process
- Applied research results to maternal health concerns of Emmanuel Hospital Association
- Directed applications to improve maternal patient care and community development strategies

RELEVANT SKILLS

- **Computer Skills:** Epi Info, SAS, MAXqda2
- **Certifications:** Client-Centered HIV Testing and Counseling (AIDGwinnett)
- **Language Skills:** French and Hindi (Intermediate Language Proficiencies)

Melanie M. Morrow, MPH
Curriculum Vitae-Abbreviated Version

EDUCATION

The Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD
Department of International Health, MPH, *Delta Omega Honor Society*, 1998

The College of William and Mary, Williamsburg, VA
Major: Anthropology; Minor: Biology, BA, *Magna Cum Laude*, 1995

PROFESSIONAL EXPERIENCE

Director of Maternal and Child Health, World Relief, Beginning October 2005
- Lead in the development and expansion of community-based maternal and child health (MCH) programs of World Relief and its partner agencies.
- Assure continued excellence of MCH programs through technical support and management.

Monitoring and Evaluation Specialist, World Relief, 5/04-9/05
- Established and assured implementation of an integrated monitoring and evaluation (M&E) system for the Mobilizing Youth for Life grant within the context of World Relief's HIV/AIDS and Maternal and Child Health programs.
- Trained staff in Haiti, Kenya, Rwanda and Mozambique in operation of said system and developed M&E technical capabilities in the regional offices.

Child Survival Specialist, World Relief, 2/00-5/04
- Provided technical support to USAID funded CS projects in Africa, Asia and Central America.
- Worked with field to produce annual reports, detailed implementation plans, surveys and proposals.

Content Development Manager, National Health Information Center, 3/99-2/00
- Managed development of government websites for the U.S. Office of the Surgeon General and the Healthy People 2010 Initiative.

Consultant, **Quality Assurance Project,** JHSPH, Division of Health Systems, 10/98-3/99
- Researched, wrote, and edited papers and proposals on topics including micronutrient deficiency, job aids and the role of community participation in improving the quality of health services.

Program Assistant, JHU Center for Communication Programs, Latin America, 6/98-9/98
- Wrote reports on Youth Mobilization component of Nicaraguan National Reproductive Health Campaign and Bolivia's Gender Series Project, two "enter-educate" television series.

Fulbright Scholar, Ministry of Health (MOH), Bogotá, Colombia 7/95-7/96
- Evaluated canine rabies knowledge and pet care practices in urban and rural communities as formative research for MOH community health education program strategy.
- Designed survey instrument, lead field staff in conducting 1600 interviews and analyzed data.

SELECTED PRESENTATIONS, PAPERS & RESEARCH

Morrow, M. "Measuring Mobilizing Youth for Life: Overcoming Challenges to Monitoring and Evaluation of Community-Based HIV Prevention Programs that Target Youth." Presentation at the Annual Meeting of the Global Health Council, Washington, DC, June 1, 2005.

Morrow, M. "World Relief's Child Survival Health Information System." Presentation at Christian Connections for International Health Pre-conference Workshop: *Monitoring and Evaluation*. Germantown, Maryland, May 28, 2005.

Morrow, M. "Care Groups: A Primer and Considerations for Scaling Up in Mozambique." Presentation at CORE Spring Membership Meeting 2005: *Scaling Up*, West Point, New York, April 18-22, 2005.

Morrow, M. "Measuring Mobilizing Youth for Life" Presentation at CORE Spring Membership Meeting 2005: *Scaling Up*, West Point, New York, April 18-22, 2005.

Morrow, M. "The Care Group Model." Guest lecture in *Case Studies in Primary Health Care*, a graduate course at Johns Hopkins School of Public Health, Baltimore, MD, December 6, 2004.

Morrow, M. "An Overview of *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators"* Presentation of named manual to USAID, UNICEF, World Bank and NGO representatives at meeting to launch manual and disseminate preliminary mortality results from the Vurhonga 2 Child Survival Project. Maputo, Mozambique, November 4, 2004.

Laughlin, M. *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators*. Eds. K. Bradbury, P. Ernst, R Heikdamp, W Long, M Morrow, L Nghatsane, and O Wollinka. Produced by World Relief with partial support from CORE and USAID, 2004.

Morrow, M, P Ernst. "Care Groups: Innovation for Training and Sustaining Volunteers." Poster presentation at the CORE Spring Membership Meeting 2004: Enhancing Maternal and Child Health Impact at the Country Level. Baltimore, Maryland, May 2004.

Morrow, M. "World Relief's Child Survival Health Information System." Presentation at the Child Survival Mini-University II, Johns Hopkins Bloomberg School of Hygiene and Public Health, June 7-11, 2004.

Perry, H, T Davis and M Morrow. "Measuring Mortality Patterns & Changes in Child Survival Programs." Joint presentation at the CORE Spring Membership Meeting 2004*: Enhancing Maternal and Child Health Impact at the Country Level*. Baltimore, Maryland, May 2004.

Oun, S, Hansen, K. and Morrow, M. "World Relief's Experience with Doer/Non-Doer Surveys in Cambodia." Presentation at the BEHAVE Workshop for organizations working in Child Survival, Phnom Penh, Cambodia, January 2004.

Morrow, M, P Ernst, W Long, A Edward-Raj, H McDaniel. "Child Survival: Empowering Communities to Take Action." Panel presentation at the Annual Meeting of the Global Health Council, June 2003.