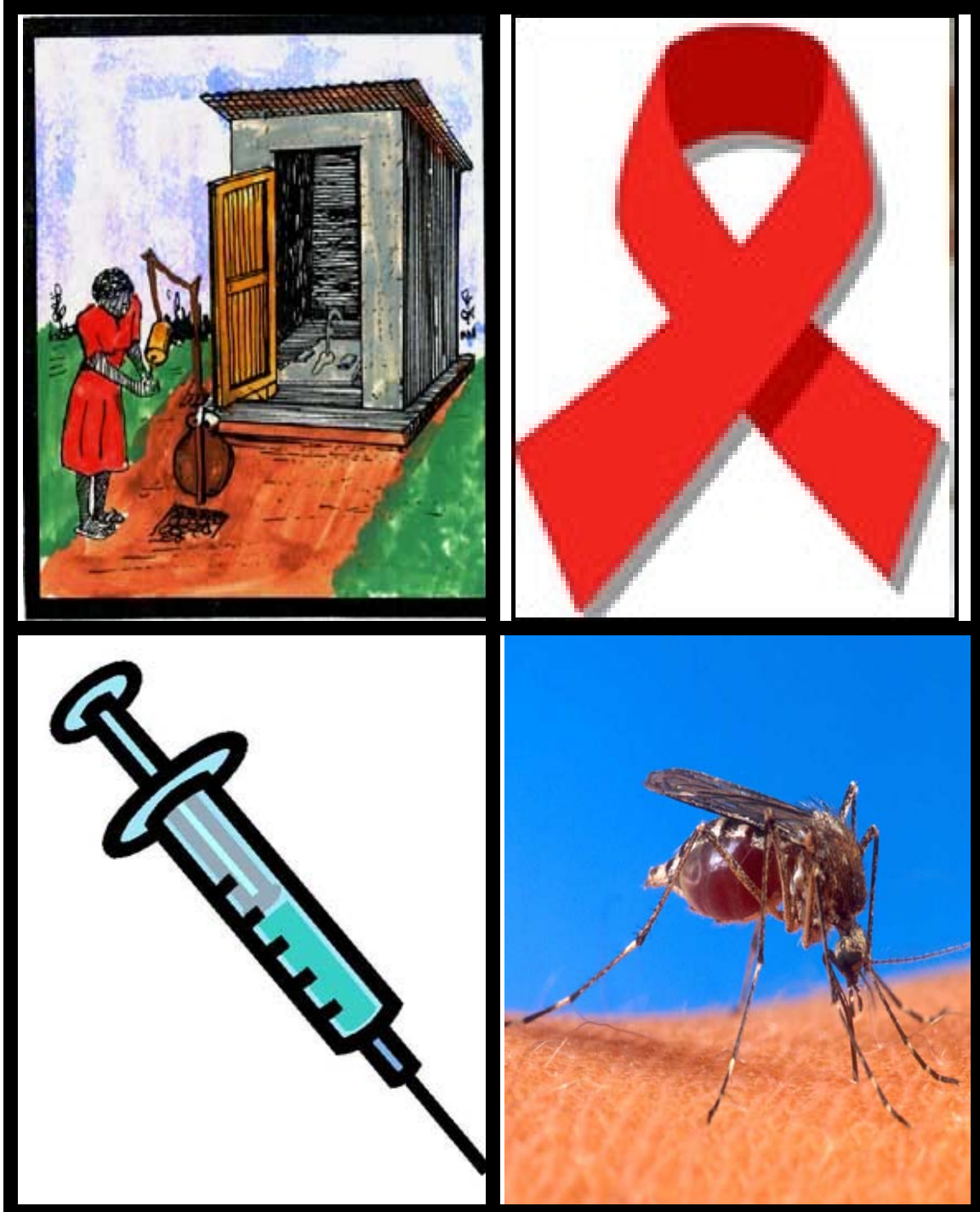


# Bwindi Community Hospital

## Kayonza sub-county Household Survey 2008



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## Introduction

The Community Health Team at Bwindi Community Hospital play an essential role in the work of the Hospital. You don't improve health by waiting in a Hospital for people with disease to present. To improve public health you need to be rooted in the community.

In order to attempt to make an impact on the disease burden of the area, the Community Health Team spend every day in the field training, empowering and educating. They target schools, Batwa settlements, use other health centres and work through Village Health Promoters (VHP's).

These Village Health Promoters have been selected by their communities to act as a link between the Community Health Team and the village. Each village has a VHP and there are more than 100 in total in Kayonza sub-county. Every month they are introduced to a theme which they take into each village: Recent months have focused on water and sanitation improvement, early detection of TB, malaria prevention, detection of malnutrition and family planning.

The Village Health Promoters in Kayonza conducted this survey in May 2008 in order to get baseline information against which future interventions could be judged. They were trained during one-day workshops and given questionnaires that they took to all of the houses in their villages. The Community Health team returned around a week later to collect forms from the VHP's. All data was entered from the forms into an Excel spreadsheet by a single person.

Acknowledgement and thanks goes to the people who have worked to make this happen:

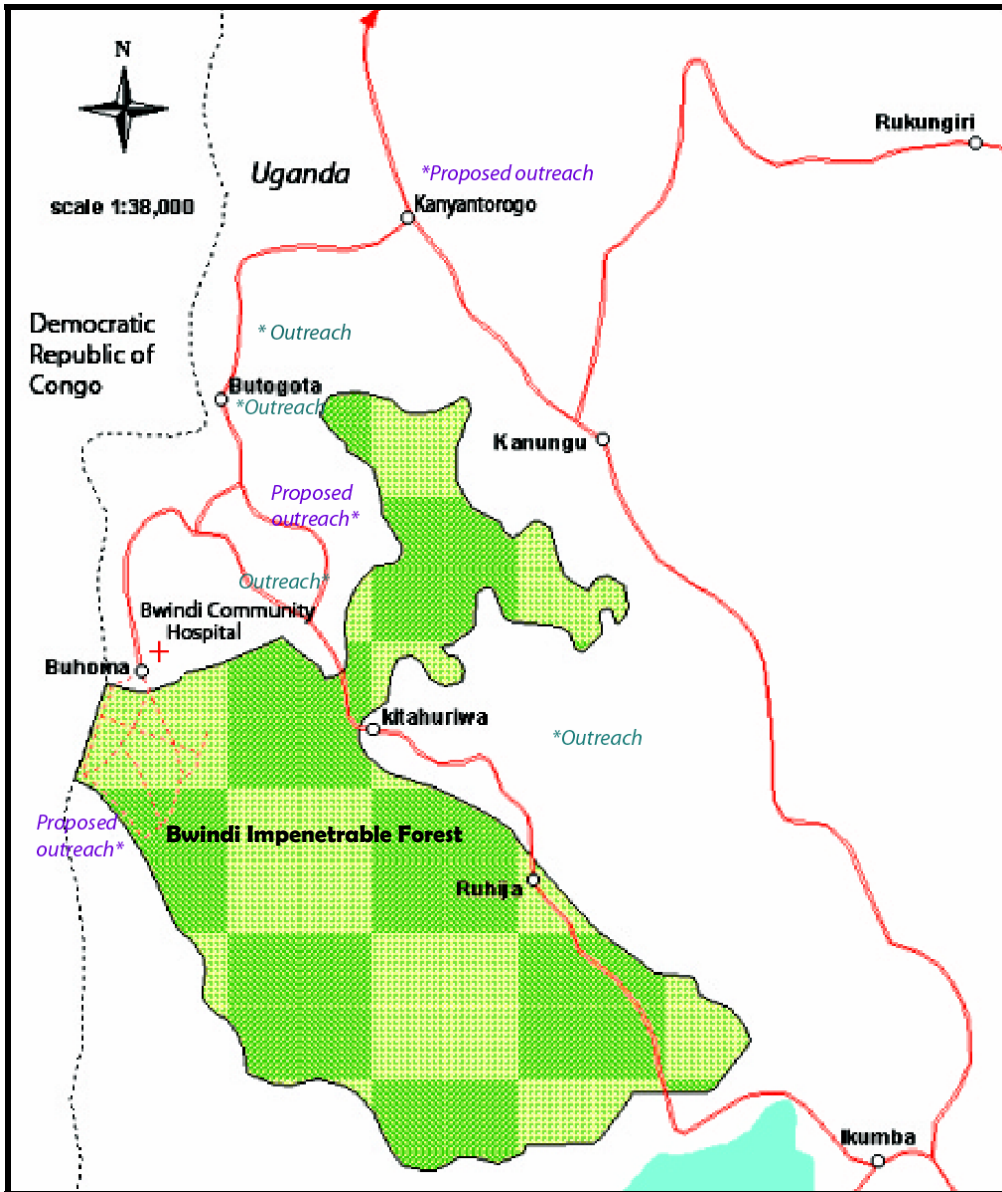
Marie Cecilie Brandt and Sarah Hjartbro Bube, Medical Students from  
Copenhagen, Denmark  
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Community Health team  
Mike Hatch, Medical Student from Philadelphia, USA  
Kyamazima Bethmas and Arineitwe Ruth, Bwindi Community Hospital  
Professor Ellen Percy Kraly and Johanna Johnson, Colgate University, New  
York, USA

Bwindi Community Hospital will repeat this survey every year to see how we are progressing, where we are performing well, and where we need to focus our efforts



Dr Paul Williams  
Medical Superintendent  
Bwindi Community Hospital

Map showing Bwindi Impenetrable Forest and the area served by Bwindi Community Hospital



## **Demographics**

The 2002 Uganda population and housing census for Kayonza sub-county in Kanungu District reported 27,985 people in 5969 households. Uganda has an estimated 6% annual population growth rate, so by 2008 it was estimated that there were 39,697 people in Kayonza.

## **Methods**

Questionnaire design took place in April 2008 and the questions were translated into the local language, Rukiga. Pilot testing in the Hospital and the community happened in early May, and workshops were held in each of the five Parishes in Kayonza sub-county to train VHP's to be able to conduct the survey.

By the end of May 2008 questionnaires (see appendix) were returned by 117 village health promoters in five parishes in Kayonza subcounty. Poor record-keeping makes it impossible to tell exactly how many forms were given out, but every Village Health Promoter returned an average of 10 forms representing 10 households and covering an average of 52 people each.

A household was defined, according to census guidelines, as “a group of individuals eating and living together in the same dwelling”. Household members are not necessarily related to each other.

Forms were completed by VHP's, and information was gathered about everyone in the household, whether or not they were present on the day of the survey. VHP's were encouraged to return to households during the week that the survey was conducted to collect information about people who were absent on the day that they first visited.

## Results

6780 people in 1161 households were surveyed. This was *not* a random survey.

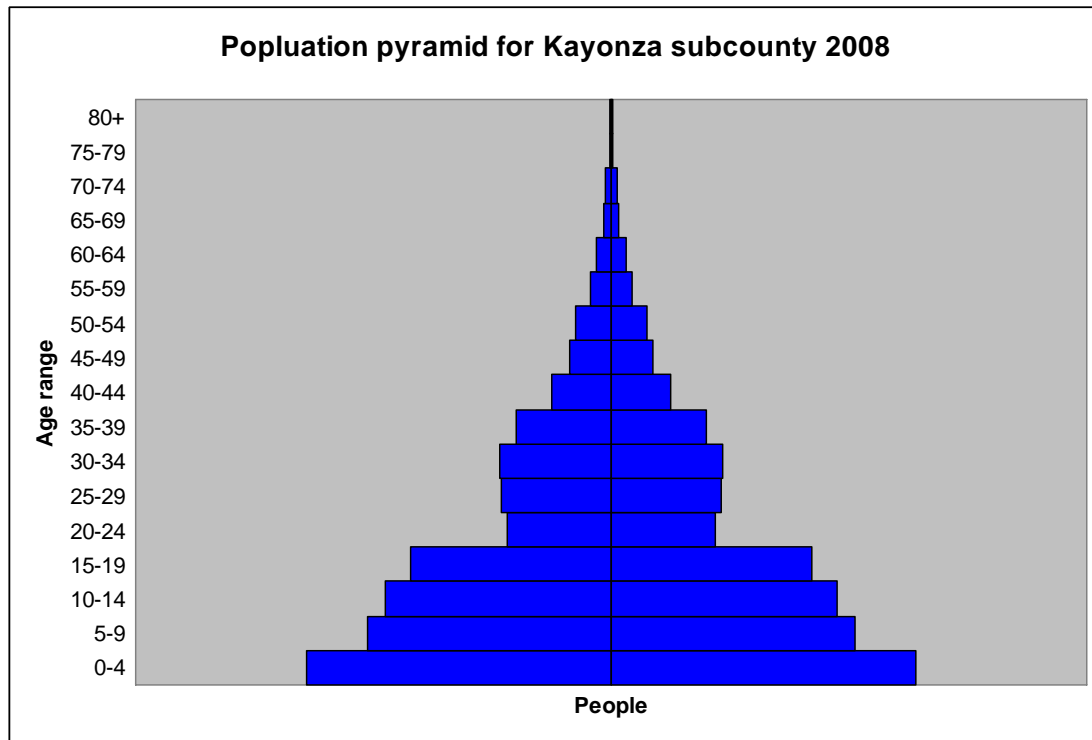
This represents 19.5% of the households recorded in the 2002 census and 17.1% of the current estimated population.

The average household contained 5.9 people (range 1-34).

The median age was 14 years.

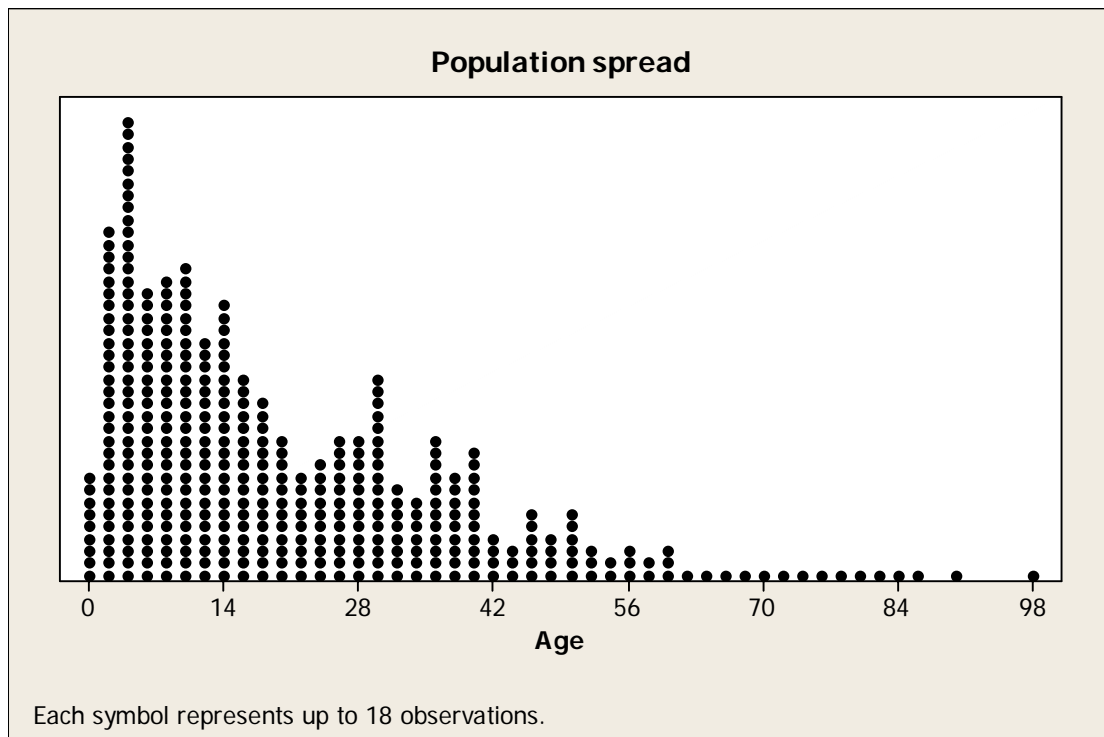
49.5% of respondents were women and 51.5% men.

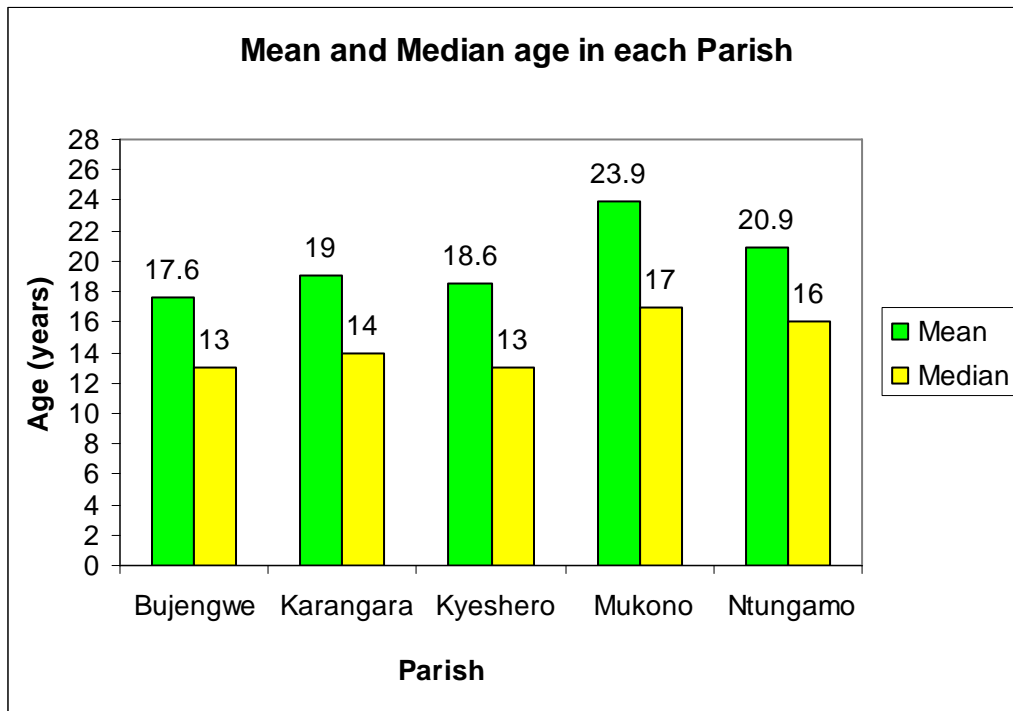
## Population



This population pyramid is typical of low-income countries with high fertility rates. More than half of the population are under 15 years of age.

A small number of people live beyond 60 years, but the number of elderly people is few. The same information is displayed in this graph below.



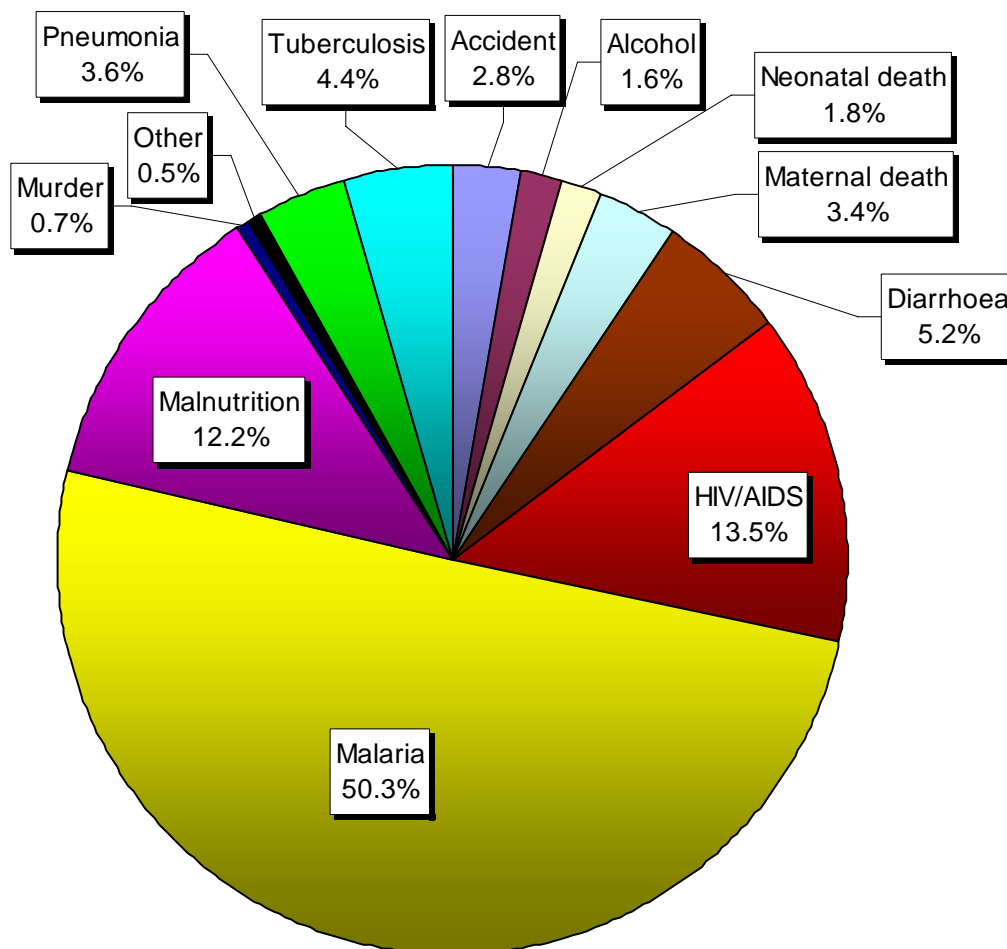


Because the population spread is negatively skewed (towards the large number of children), the median age is less than the mean. In Kyeshero Parish the median age is as low as 13. Mukono (where there is most employment and most uptake of family planning) has the highest mean and median ages.



## Disease burden

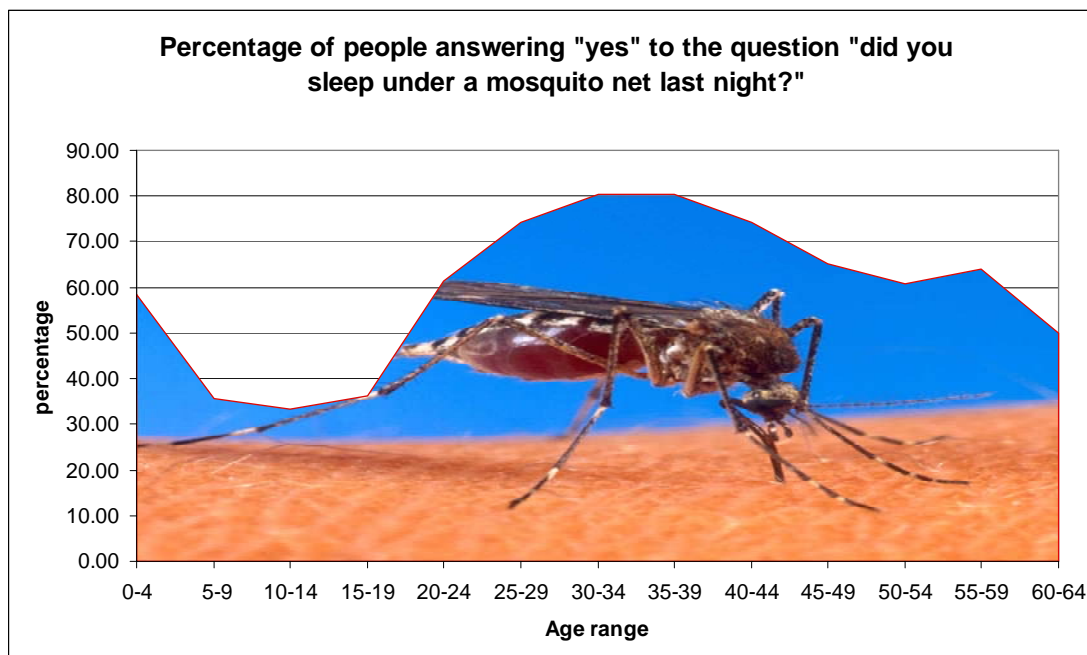
Pie chart showing perceived causes of death (the answers to the question “what brings death in this village?”)



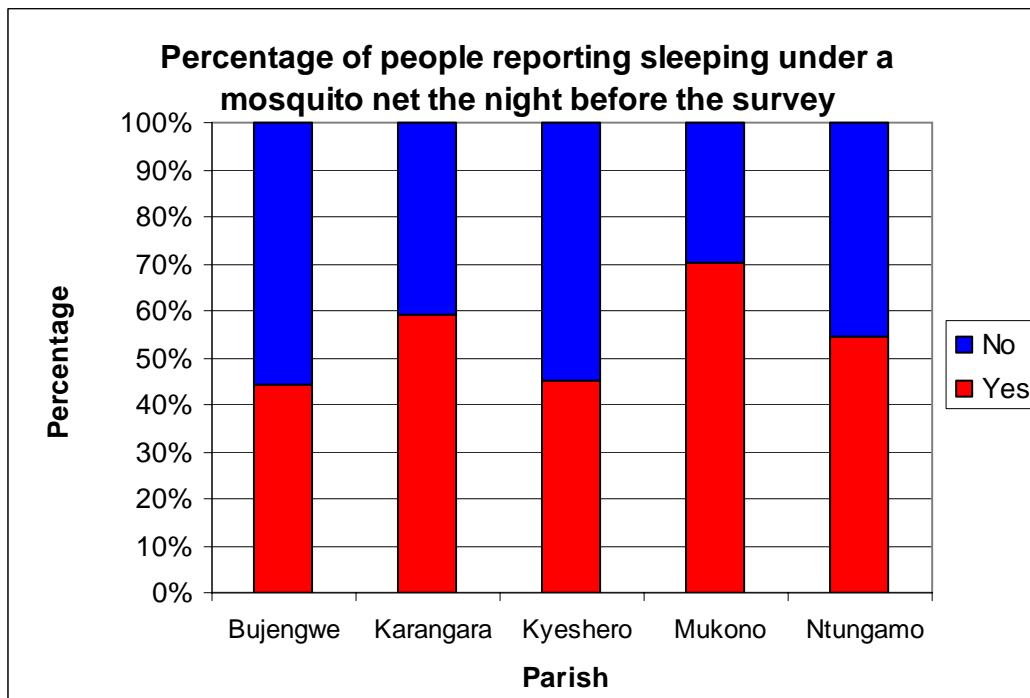
Households were able to name up to three causes of death in their village. Malaria was the highest, despite the Hospital recording very low rates of malaria. This is probably because every fever is attributed colloquially to ‘malaria’, and because historically malaria has been the biggest killer.

Nutrition and HIV are mentioned as the next two biggest causes of death. In the Hospital neonatal (0-28 days) death rates are high, but perhaps the death of a neonate does not have as much impact in the community as an adult death.

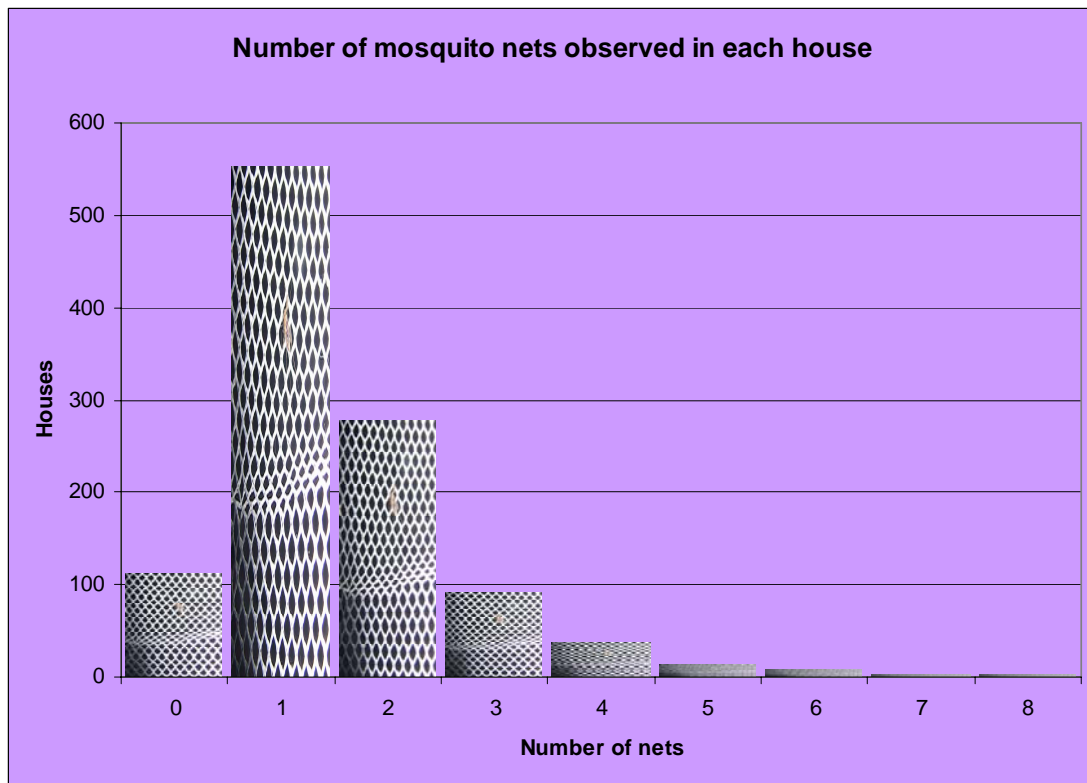
## Malaria prevention



Most small children sleep with their mothers, and most mothers are sleeping under a mosquito net. Those at highest risk of death from malaria are children under the age of 5 and pregnant women.

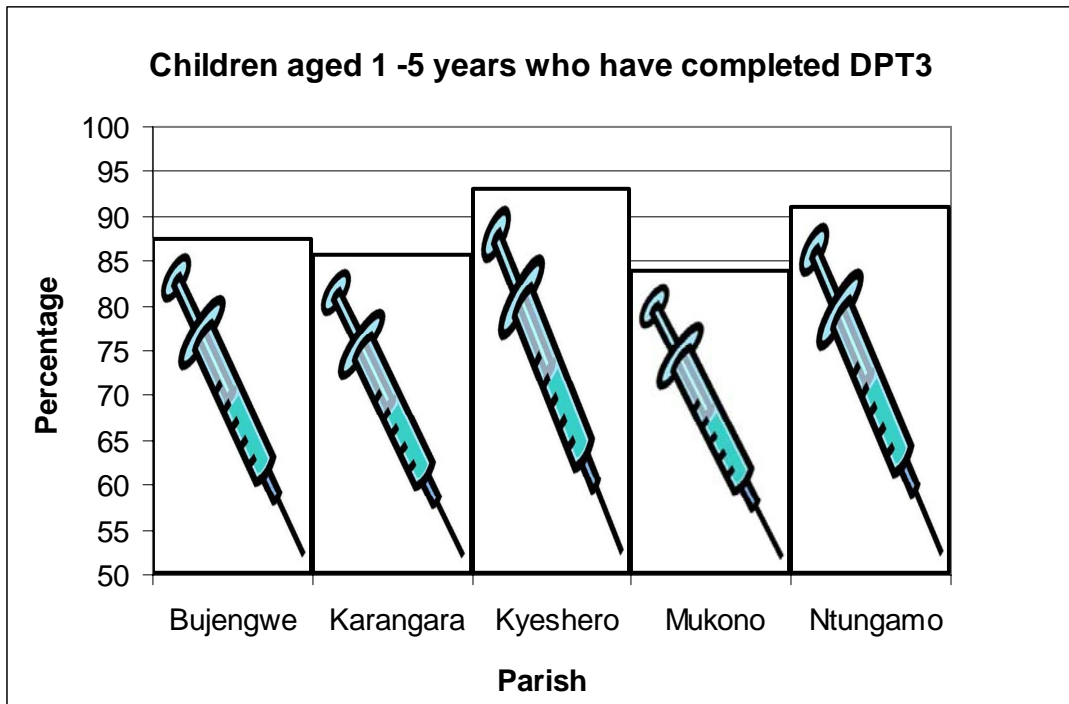


Mukono, the parish nearest the Hospital, has the highest 'coverage' of mosquito nets. Using information from this survey the Hospital focused on selling subsidised nets in Kyeshero Parish on World Malaria Day 2009. We have also just opened a small satellite Health Centre in Bujengwe.



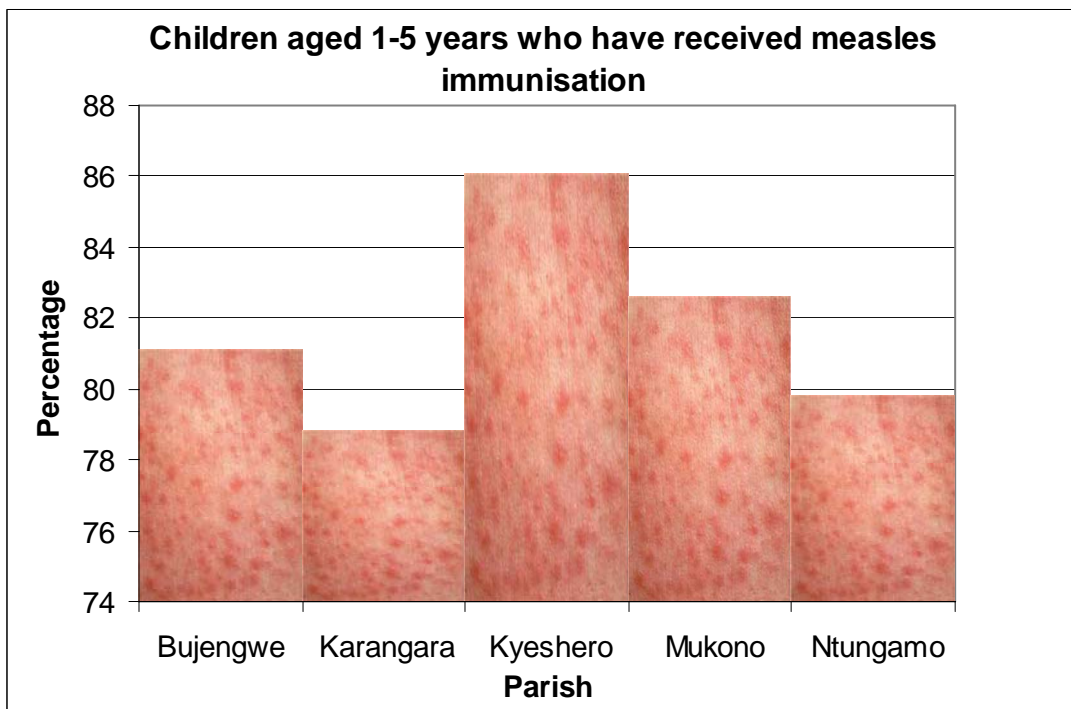
In 90% of households for which the questions was answered at least one mosquito net was reported as being found hanging. Many households had two or three.

## Child health



DTP vaccination should be completed by all children by the time they reach 4 months. In Mukono, the Parish closest to the Hospital, the rate of DPT completion was less than 85%.

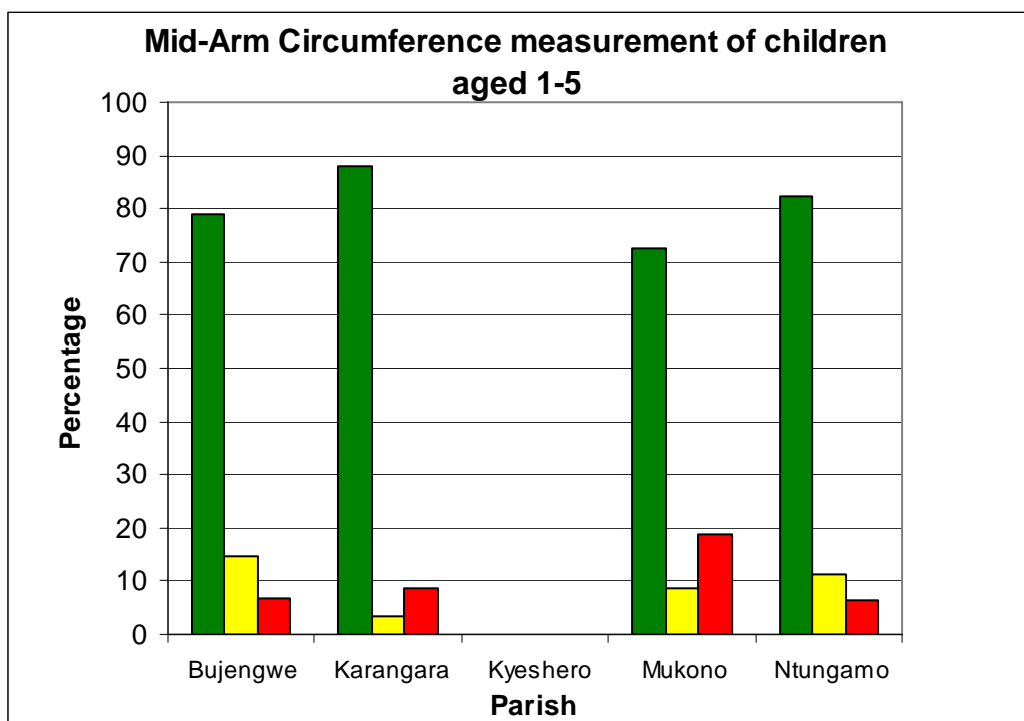
Measles vaccination should be complete by the age of one year.



## Malnutrition screening

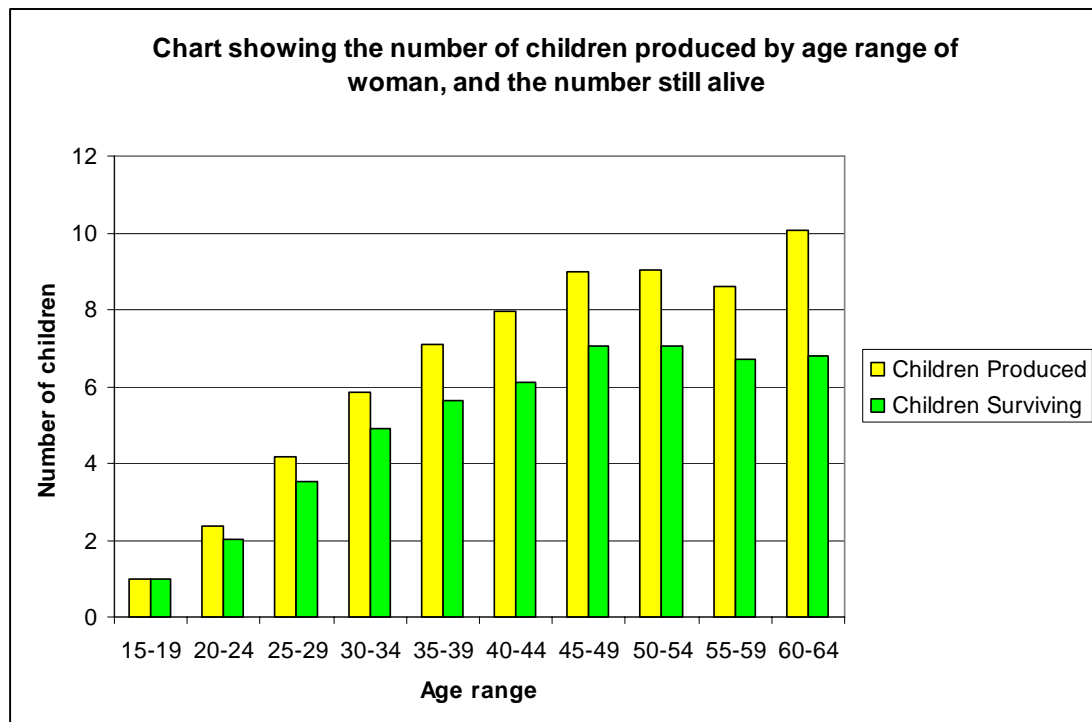
The mid-upper arm circumference (MUAC) of a child remains almost constant between the ages of one and five, only varying when there is wasting of muscle mass. A reported 'green' measurement is almost certainly not malnourished, but yellow is at risk of malnutrition and red is high risk. This is a screening tool for malnutrition that was used to estimate the prevalence of malnutrition in each parish. MUAC was measured by the VHP on each child present.

It was reported by the Community Health Team who supervised the survey that the ability of VHP's to measure MUAC was low, and that these results may not be reliable. The results for Kyeshero have been removed from this analysis as they were considered highly unlikely to be true and were at odds with observed levels of malnutrition in this area.



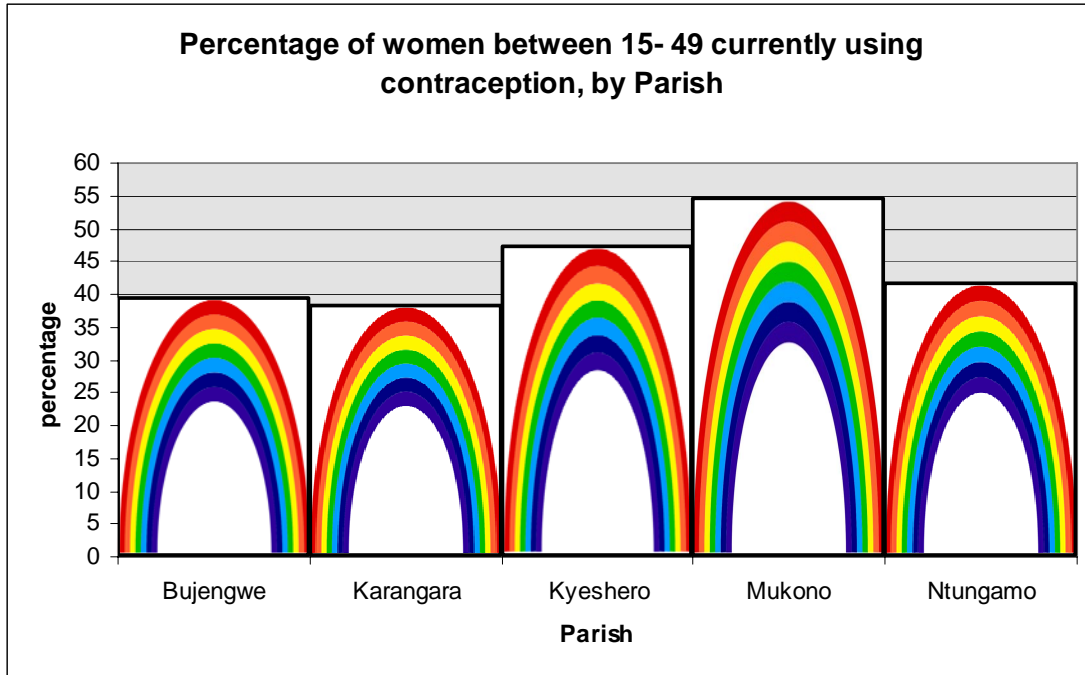
## Women's health

There were 1628 women aged 15 or over (considered old enough to have had children) who had an average of 5.7 children with 4.5 still alive. Women aged 25 or over had an average of 6.6 children with 5.3 still alive. Women aged 35 or over had an average of 8.2 children with 6.3 still alive.



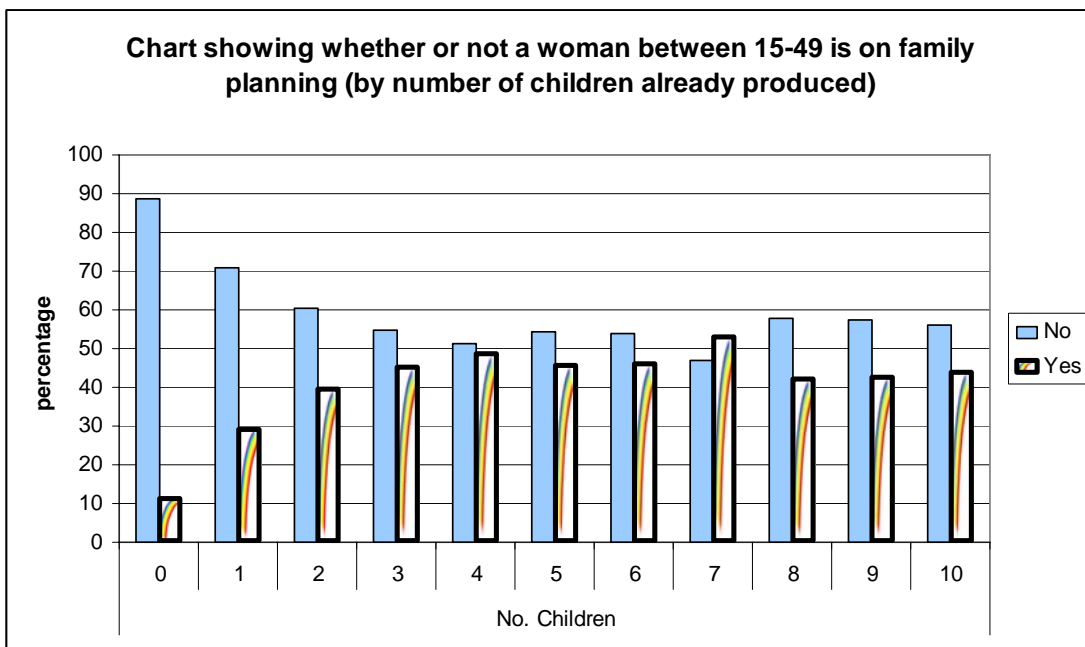
There were 1498 women between 15 and 49 years (considered child-bearing age). Of these 1003 (67%) answered the question about whether or not they were on family planning. Of those who answered, 447 (44.5%) are currently using family planning.

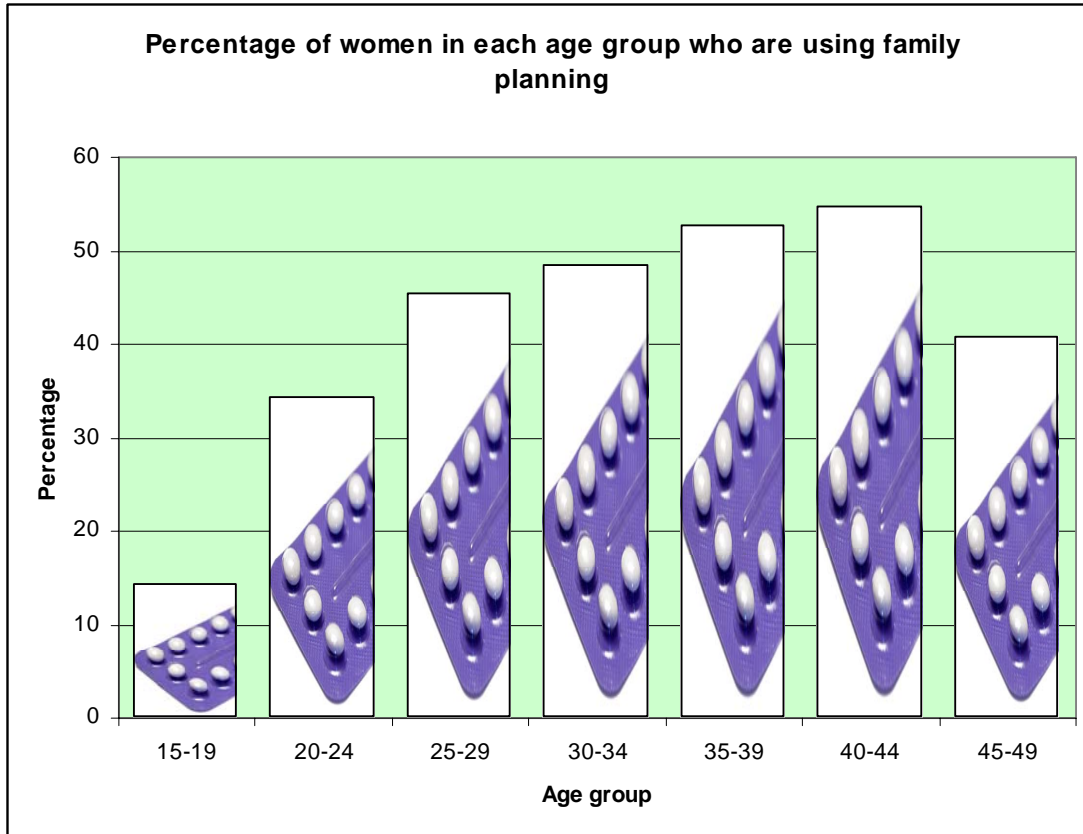
If the 447 women who answered that they were using contraception represent all of the women on family planning then the proportion of women currently on family planning is 29.8% (the National Contraceptive Prevalence Rate is 24%).



Women living closest to the Hospital (in Mukono) are the ones most likely to be using family planning. Very few women without any children are using family planning.

The type of family planning used was not recorded in the survey. From Hospital data, the most commonly used contraceptive is an injectable progestogen (depo provera). The next most common are oral combined contraceptive pills and implants.

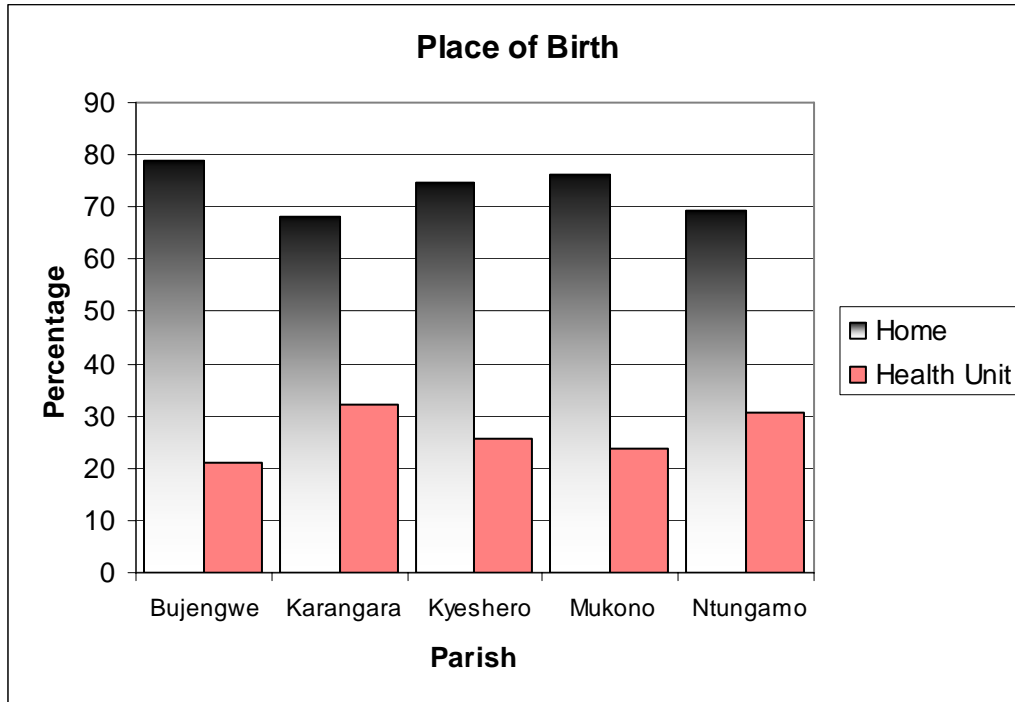




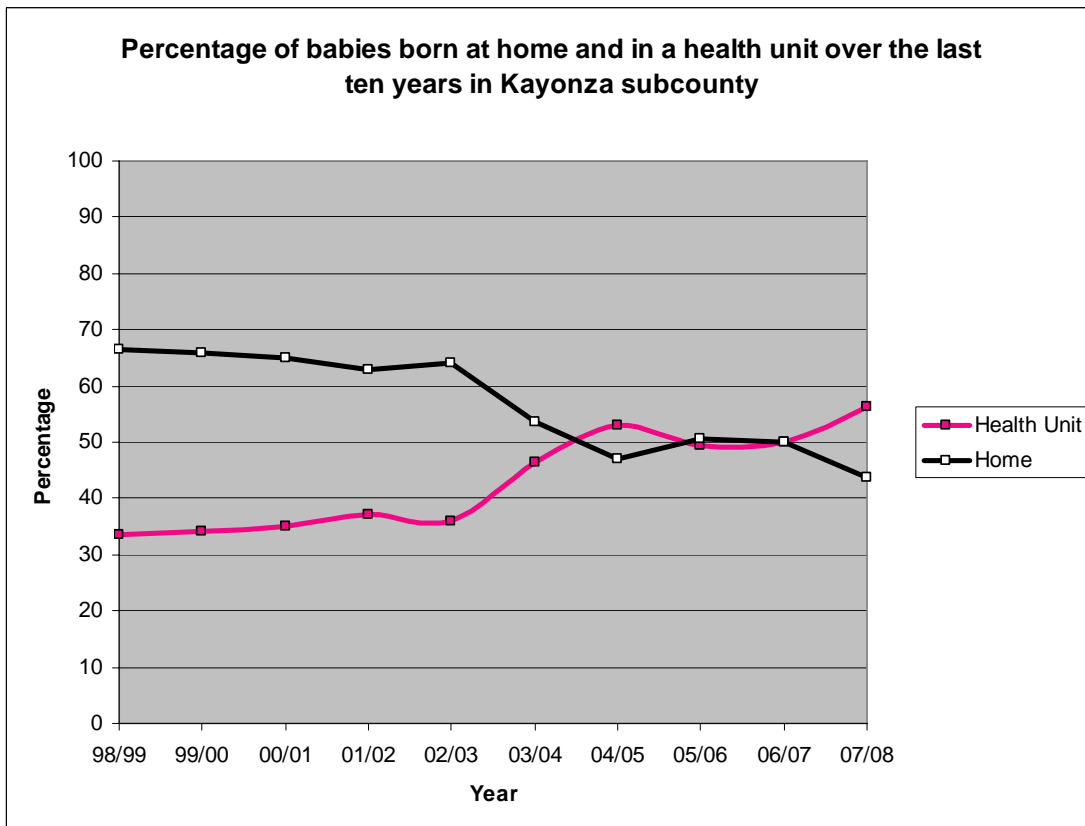
Young women are the group least likely to be using contraception.



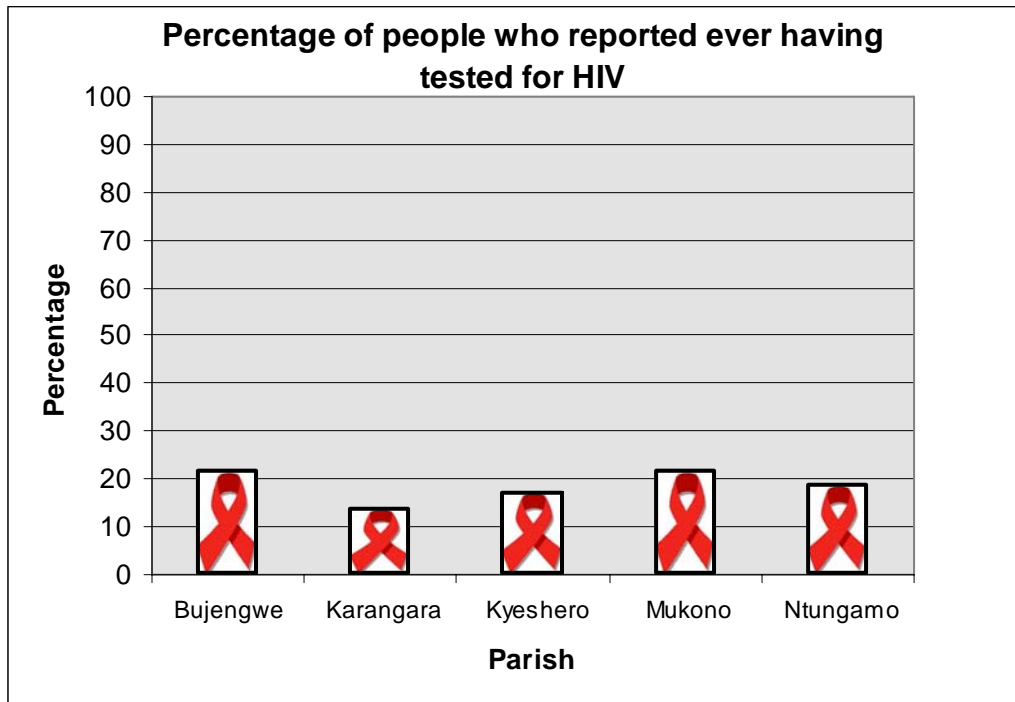
## Delivery



Historically almost 70% of women have given birth at home, but there has been a significant change in the last five years towards Hospital delivery.

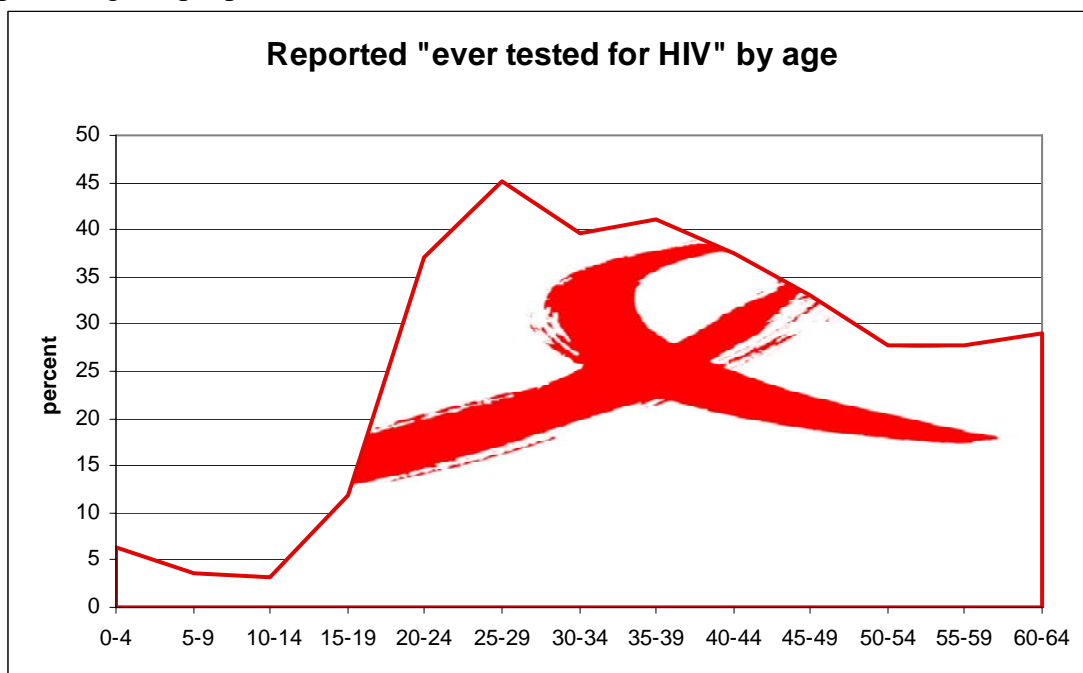


## HIV and TB



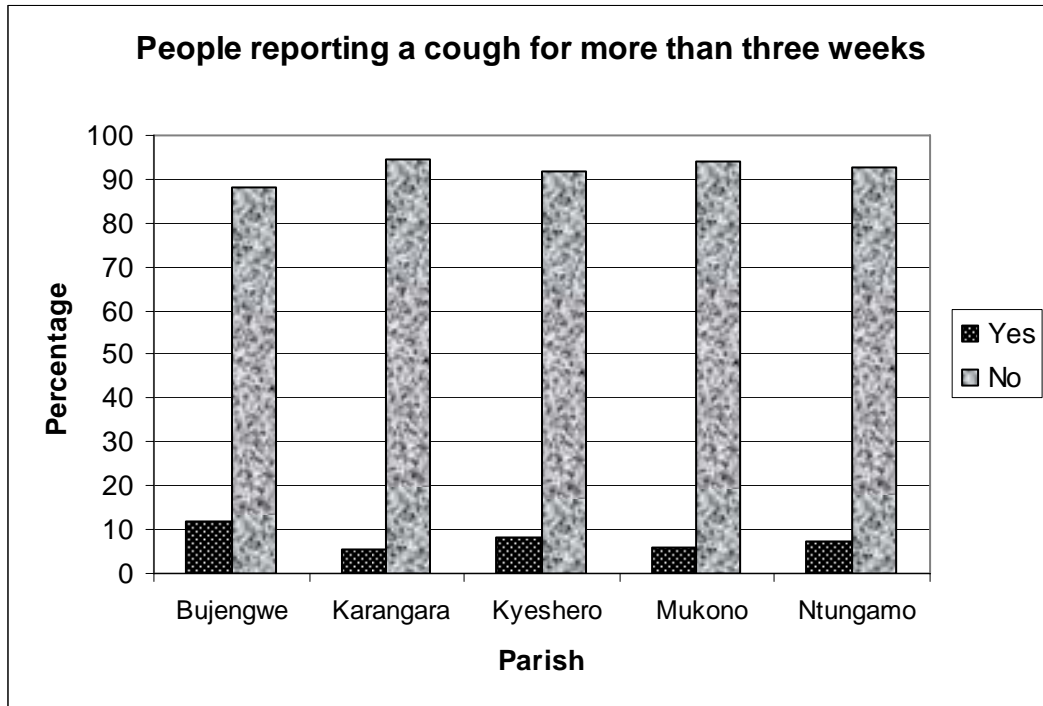
Less than 20% of all people were reported as ever having tested for HIV. Women were slightly more likely than men to admit to having had a test. There is probably some bias in these results, as people who have tested may not be willing to disclose this to an interviewer, or people may have filled the forms out on behalf of others.

Few children have ever tested for HIV. The numbers of young people testing is also low. More than 40% of adults have tested, with Mukono Parish having the highest percentage of people who have tested.

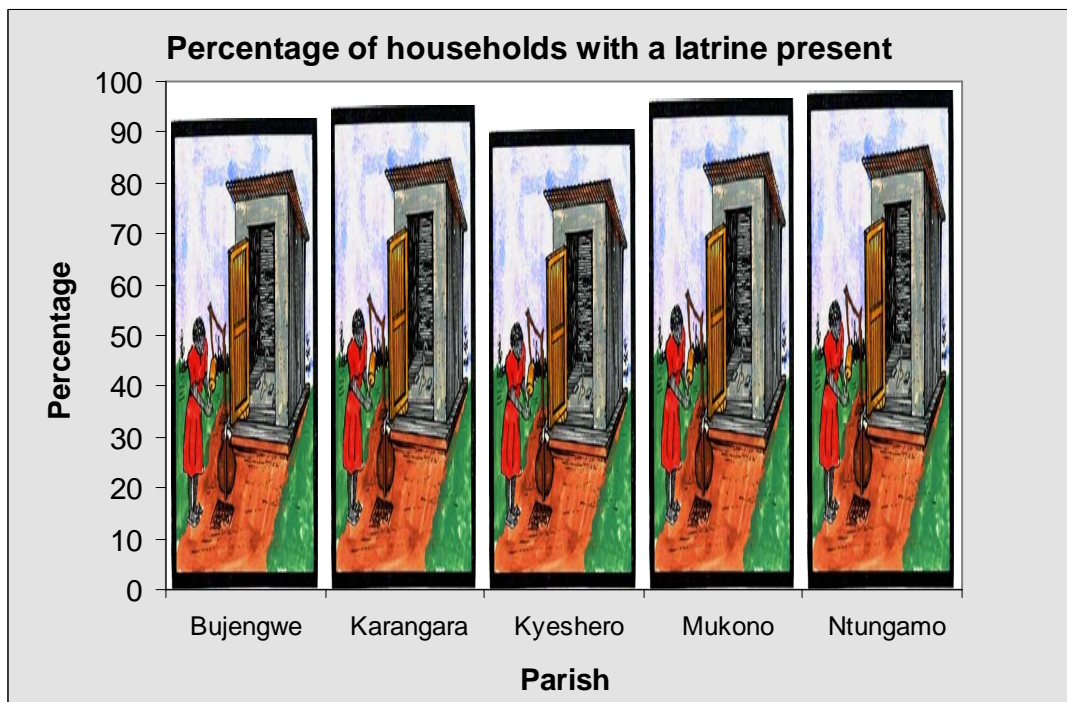


The question “Do you currently have a cough that has been present for more than 3 weeks” was asked to try to identify TB suspects. People with a cough for more than three weeks should be investigated for TB, although the majority of them will have other causes for their cough.

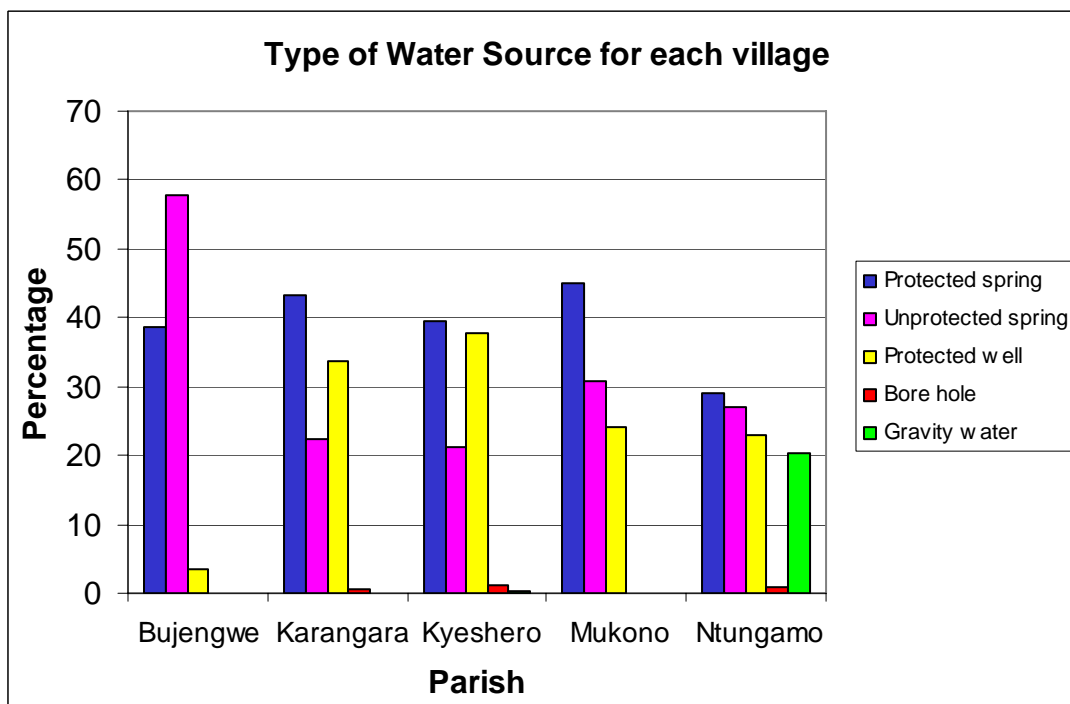
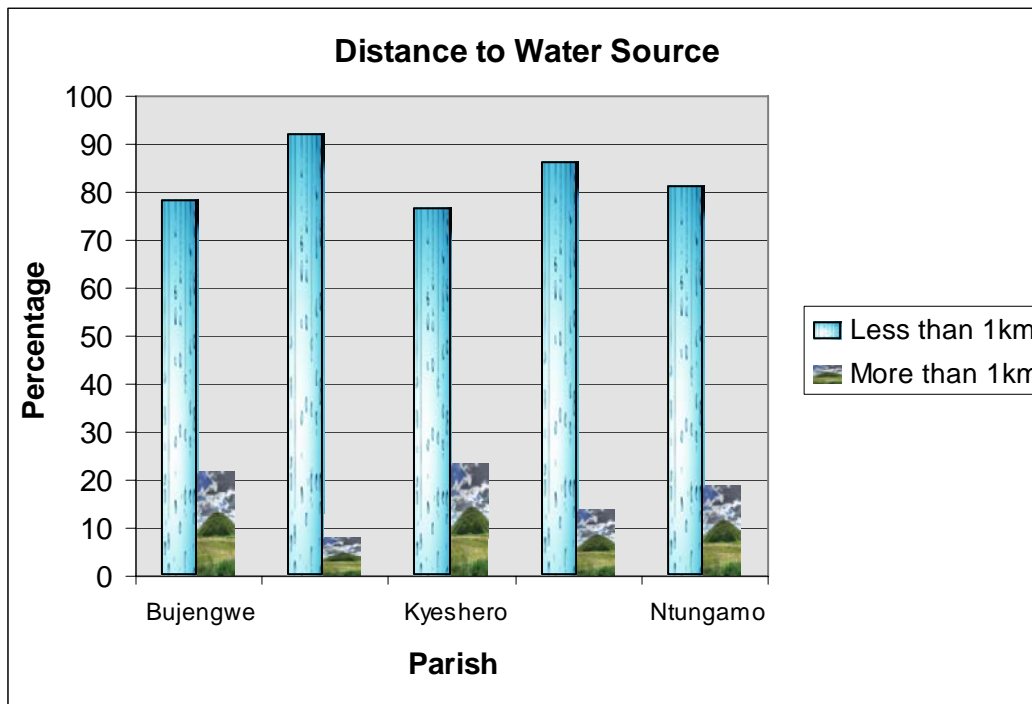
8% of all people reported a cough for more than three weeks. This was highest in Bujengwe Parish.



### Water and Sanitation



More than 90% of households had a latrine, although the survey made no distinction between covered and uncovered latrines. Kyeshero, the hilliest parish, had the lowest latrine coverage.



Large numbers of people in Bujengwe reported sourcing water from unprotected springs. Other sources are considered safer. The second highest parish whose occupants reported sourcing from unprotected springs was Mukono.

## **Discussion and Recommendations**

The number of households attributed to each VHP was not well-established. The intention was that every household was surveyed, but the results show that less than 20% of households were represented by the returned questionnaires. It is likely that the households surveyed were those most accessible to the VHP. This has probably resulted in bias.

The ability of the Village Health Promoters to conduct this work and the level of training that they received was variable. Many questions were not answered at all, or were answered in a way that was incongruous with other information provided.

Good information has been gained to inform the Hospital about who has and has not tested for HIV, and where they are. We now know where the people are who don't sleep under mosquito nets and how old they are. And we can see how efforts to persuade people to deliver in the Hospital are progressing.

It was surprising that so few people in Mukono (where there is a gravity water scheme) reported themselves as sourcing their water from gravity water. This question needs to be re-examined.

All of the information collected in the survey is being collected again in 2009, along with additional information (on issues like food security, disability and chronic disease). This information is being held on a secure computer database which can easily be updated each year. The intention is that VHP's will be given a printed summary of household information, and will then perform an annual visit to update this information.

However, as the collection of the data for this database only began in April 2009 and is not likely to finish in Kayonza sub-county until November 2009, an interim survey will be performed in June/July 2009.

The questions about numbers of deaths, causes of ill health or causes of death in the household was poorly written and has not yielded useful results. This question needs to be revised for the 2009 survey.

**Appendix – copy of survey questionnaire completed by village health promoters for each household**

**Bwindi Community Health Centre Baseline Community Survey, April - May 2008**

Name of Village Health Worker
Subcounty
Parish
Village
Name of Head of Household:

**People**

**• Males aged 5 years and above in the household**

Age in completed years			
Slept under a mosquito net last night? (Yes/No)			
Place of birth (health unit/home)			
Ever tested for HIV (Yes/No)			
Tested for HIV in past 6 months			
Cough for more than 3 weeks?			

**• Females aged 5 years and above in the household**

Age in completed years			
Place of birth (health unit/home)			
Slept under a mosquito net last night? (Yes/No)			
Ever tested for HIV			
Tested for HIV in past 6 months			
Cough for more than 3 weeks?			
No of children produced			
No of children still alive			
Currently on Family Planning?			

**• Children under the age of 5 in the house**

Age in completed years			
Slept under a mosquito net last night? (Yes/No)			
Ever tested for HIV			
Tested for HIV in past 6 months			
Cough for more than 3 weeks?			
Completed DPT3 immunization?			
Completed measles immunisation?			
Mid-upper arm circumference (Green/Yellow/Red)			

**Bwindi Community Health Centre Baseline Community Survey, April - May 2008**

**Household**

Number of mosquito nets above beds and being used.	
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Location of water source

Distance: less than 1km/more than 1km	
---------------------------------------	--

Type of water source

protected spring/well or borehole/ non-protected water/piped water	
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Latrine

covered latrine/uncovered latrine/no latrine	
--	--

**Others**

Deaths

Have there been any deaths in the household in the last year? (yes/no)	
How many below 5 years:	
How many above 5 years:	

What is the most common cause of death in this village?	
Cause of death	
Malaria	
Diarrhoea	
Malnutrition	
Accident	
HIV/wasting illness	
Pneumonia	
Tuberculosis	
Murder	
Complication of pregnancy or delivery	
Alcohol	
Born alive but died within the first month	
Others (please describe)	



Compiled May 2009