The Republic of Rwanda





DEMOGRAPHIC AND HEALTH SURVEY RDHS / 2014-15

DISTRICT PROFILE CHART BOOK

NORTHERN PROVINCE



DEMOGRAPHIC AND HEALTH SURVEY RDHS 2014-15

DISTRICT PROFILE CHART BOOK

Northern Province

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North Province Map

Introduction

The National Institutes of statistics of Rwanda in collaboration with the worldwide Demographic and Health Surveys Program implemented the 2014-15 Rwanda Demographic and Health Survey (RDHS) to collect data for monitoring progress on health programs and policies in Rwanda.

The key indicators and the main report have been produced and published at national level; this document is elaborated to disseminate RDHS_2014-15 Results at decentralized level.

As for the main report, the chart book gives information on demographic and health indicators such as family planning, maternal mortality, infant and child mortality, nutrition status of mothers and children, antenatal care, delivery care, and childhood diseases. In addition, the survey was designed to measure the prevalence of anemia and malaria among women and children, and to measure the prevalence of HIV infection in Rwanda.

The target groups in this survey were women age 15-49 and men age 15-59 who were randomly selected from households across the country. Information about under five children was also collected, including the weight and height of the children.

Through this document, each province will be able to trace the level attended in health care and other health related indicators through different charts that are produced. This document will also help in the design and implementation of District Development Plan (DDP).

The National Institute of Statistics of Rwanda is pleased to invite District planners and other users to play an active role in using this valuable information to contribute to a better quality of life for the Rwandan population.

Chapter 1: Household characteristics

The Rwanda Demographic Health Survey (RDHS_2014-15) collected household information. This chapter presents some of the indicators that were selected, namely; access to electricity, possession of selected durable goods, availability of hand washing place to evaluate the socioeconomic and living conditions of the household in the Districts of the North Province.

1.1 Electricity coverage

Figure 1 shows that 16 percent of households in East Province have electricity compared to 23 percent at national level. The results show large disparities between Districts in the North Province. This percentage is highest in Musanze District (26 percent), followed by Gakenke (16 percent) and lowest in Burera District (12 percent). In each of the remaining District's, Gicumbi and Rulindo, 13 percent of households have electricity.



Figure 1: Percentage of households with electricity coverage in North Province Districts

1.2 Household durable good

Figure 2 shows that, mobile phone (57 percent) is the most owned household good in North Province as compared to 60 percent at the national level. The proportion of people owning a Mobil phone is much higher in Musanze District (66 percent). In other Districts, variations in ownership of mobile phone do not vary too much and it is from 56 percent in Gakenke to 53 percent in Gicumbi.

The second most common household asset is a Radio, owned by 57 percent of households in North Province compared to 55 percent at the national level. Households in Gakenke District (63 percent) are the most likely to possess radio. Variations do not vary much in other districts (from 59 percent in Musanze to 55 percent in Burera) except in Gicumbi where only 49 percent of households have electricity.

<u>Source</u>: RDHS, 2014-15

Five percent of households own a television in North Province compared to 10 percent at national level. Musanze has the highest percentage in ownership of Television (9 percent), followed by Rulindo (7 percent) while Burera and Gicumbi (4 percent each) and Gakenke (3 percent) are the least likely to possess television.

Only 2 percent of households in the North Province have computer compared to 3 percent at the national level. Ownership of computer is from 3 percent in Musanze to 1 percent in Burera.





<u>Source</u>: RDHS, 2014-15

1.3 Hand washing place observed

Washing hands with water and soap before eating, while preparing food, and after leaving the toilet is a simple, inexpensive, and good practice that protects against many diseases. During the survey, the interviewers asked each household if there was a place used for hand washing, and, if so, they asked if they could observe the place to see if water and soap or some other hand cleansing means was available.

Figure 3 shows that 12 percent of households in the North Province and 17 percent at the national level had a place for hand washing that was observed by an interviewer. About 13 percent of households in Gicumbi District and 10 percent households in

Rulindo had a place for hand washing. This proportion is lowest in Burera District (1 Percent).



Figure 3: Percentage of households where hand washing place were observed

Source: RDHS, 2014-15

Chapter 2: Respondent characteristics

2.1 Education attainment

Figure 4 and Figure 5 show the distribution of female and male respondents by highest level of education attained in the districts of North Province. The proportion of men who attained primary school is higher than that of women in the Northern Province (73 percent and 66 percent, respectively), as it is at national level (71percent and 66 percent, respectively). At the secondary education level, the situation is reverse; the proportion of women who attained secondary level is slightly higher than that of men (14 percent and 12 percent respectively) in the North Province. This situation is also true in Musanze (18 percent for women and 17 percent for men), Gakanke (15 percent for women and 12 percent for men) and Rulindo (13 percent for women and 8 percent for men). In, Burera (9 percent for women and 10 percent for men) and Gicumbi districts (12 percent for women and 13 percent for men), the proportion of men who attained secondary level is slightly higher.





Source: RDHS, 2014-15



Figure 5: Percent distribution of the de facto male household population age 6 and over by the highest education level attained

Source: RDHS, 2014-15

2.2 Net attendance rate

Figure 6 and figure 7 describe the net attendance rate among children in schooling age (7-12 in primary and 13-18 in secondary). Figure 6 shows that the net attendance rate in primary school is almost universal in the North Province (94 percent for female and 91 percent for male) and it is almost the same as at the national level (91 percent for male and 92 for female). Variation by districts of the North Province is from 98 percent in Burera to 93 in Gakenke, Musanze and Gicumbi Districts among females, and from 93 percent in Burera to 90 percent in Gakenke and Rulindo Districts among males.

Figure 7 describes the net attendance rate among children in secondary school. The net attendance rate in the North Province is estimated at 26 percent among males and 36 percent among females compared to 32 percent and 27 percent for males and females respectively at the national level. The percentage at the district level varies from 46 percent in Musanze District to 21 percent in Burera District among women and from 33 percent in Musanze to 18 percent in Burera District.



Figure 6: Net Attendance Rate in Primary school

Source: RDHS, 2014-15





<u>Source</u>: RDHS, 2014-15

2.3 Birth registration of children under age 5

Registering a child's birth with civil authorities establishes the child's legal family ties and his or her right to a name and nationality prior to the age of majority. It confers on the child the right to be recognized by his or her parents and the right to state protection if his or her rights are abused by parents. It gives the child access to social assistance through the parents, including health insurance, and establishes family lineage. Registration is therefore an essential formality. Registration of a child with civil authorities, if performed correctly, provides also a reliable source of socio demographic statistics. For this reason, the survey asked, for all children age 0 to 4 in each household, whether the child had a birth certificate or whether the child's birth had been registered with civil authorities.

Figure 8 shows that 67 percent of children have been registered with the civil authorities in the North Province compared to 56 percent at the national level. The percentage is higher in Gakenke (76 percent), Rulindo (74 Percent), and in Gicumbi (70 percent) and lower in Musanze District (51 Percent).



Figure 8: Percentage of de jure Children under age 5 whose births are registered with civil authority

2.4 Children's orphanhood

Because the family is the primary safety net for children, any strategy aimed at protecting children must place a high priority on strengthening the family's capacity to care for children. It is therefore essential to identify orphaned children and to determine whether those who have one or both parents alive are living with either or both surviving parents.

Overall, 9 percent of children under age 18 in North Province have lost one or both parents, the same percentage as at National level. Gicumbi has the highest percentage (11 percent) of orphaned children who have lost one or both parents while this percentage is lowest in Burera District (7 percent).

Source: RDHS, 2014-15





<u>Source:</u> RDHS, 2014-15

2.5 Health insurance among adult women and men

Information on health insurance coverage was collected during the survey. The percentage of household members with health insurance coverage is shown in figure 10.

Seventy-eight percent of the population is covered by any health insurance in North Province compared to 71 percent at national level. This proportion is highest among respondents in Gakenke (87 percent) and lowest in Rulindo District (69 percent).



Figure 10: Percentage of household members with Health insurance.

<u>Source:</u> RDHS, 2014-15

2.6 Exposure to mass media

Data on the exposure of women and men to mass media are especially important to the development of education programs and the dissemination of all types of information, particularly information about health and family planning. Figure 11 and 12 present data on the exposure of women and men to mass media (print or broadcast). It should be stated at the outset that it is not necessary for a household to own a radio or television or to buy a newspaper to have access to these media, because many people listen to the radio or watch television at the homes of friends and neighbors.

Figure 11 and 12 show that, in North Province, Radio is the most common form of media exposure: 63 percent of women and 83 percent of men report listening to the radio at least once a week. At the District level this percentage is highest in Musanze District among women (75 percent) while it is lowest in Gicumbi District (41 percent). Among men, listening to the radio is highest in Gakenke and Rulindo Districts (95 percent each) and low in Gicumbi District (59 Percent). Men watch television more frequently than women: 12 percent of women and 24 percent of men report reading a newspaper at least once a week. The proportions of women and men who are exposed to media across all districts of the North province follow almost the same pattern.





<u>Source:</u> RDHS, 2014-15



Figure 12: Percentage of men age 14-49 who are exposed to specific media on a weekly basis

Source: RDHS, 2014-15

2.7 Current marital status

In the figures 13 and 14 displayed below, the term *married* refers to men and women bound together legally, while *living together* refers to couples cohabiting in informal unions. People are considered *never married* if they have never been married or lived together with a partner. *Ever-married* people include those who are currently married as well as those who are living with a partner, widowed, separated, or divorced.

Figure 13 and 14 show the distribution of women and men by marital status, according to age at the time of the survey in the North Province. Overall 40 percent of women age 15-49 have never been married compared to 43 percent of men 15-49 in the North Province. The percentage of women 15-49 that are never married is highest in Musanze and Gakenke (41 percent each) and lowest in Rulindo (38 percent). This proportion varies from 45 percent in Gicumbi to 34 percent in Burera and Gakenke among men. In north Province, 41 percent of women and 55 percent men are in union (Married or living in union). This proportion varies from 53 percent in Rulindo district to 50 percent in Musanze among women and from 65 percent in Burera and Gakenke to 50 percent in Rulindo. The North Province count 4 Percent of women that are widowed, 2 percent divorced and 2 percent separated. Among men this proportion is less than one percent in each category.



Figure 13: Percentage distribution of women age 15-49 by current marital status







Source: RDHS, 2014-15

Chapter 3: Fertility determinants and fertility rates

This chapter analyzes the fertility determinants like age at first birth and age at first marriage as well as fertility rates gathered in the 2014-15 RDHS.

3.1 Median age at first marriage

Figure 15 shows the median age at first union among women age 25-49 and men age 30-59. The median age at first marriage is 21.2 years and 24.3 years among women and men respectively in the North Province compared to 21.9 years versus 25.4 years for women and men at the national level.

The data show variations by District: among women, Burera has the earliest age at first union (20.3years) while Rulindo has the latest (22.8 years). Among men, Burera has the earliest age at first union (21.8years) and Gicumbi has the latest (26.2 years). This later median age is above the provincial and national level.





Source: RDHS, 2014-15

3.2 Birth interval

Birth intervals, or the length of time between two successive live births, are important not only because they influence the health status of both mother and child but also because they play a role in fertility analysis and in the design of reproductive health programs. Short birth intervals (less than 24 months) are considered harmful to the health and nutritional status of children and increase their risk of premature death.

The interval between births is 42.2 months in the North Province compared to 38.5 at the national level. By District, the birth interval varies from 38.7 months in Rulindo to 44 months in Gicumbi.



Figure 16: Median number of months since preceding birth (birth interval)

Source: RDHS, 2014-15

3.3 Median age at first birth

Figure 17 below shows median age at first birth according to age of women by District. The median age at first birth for women age 25-49 in North Province is 22.2 years as compared to 22.7 at national level. At the Districts level, the high median age at first birth is 23.2 in Rulindo District and the lowest are 21.8 in Gicumbi District and Musanze District each and 21.7 in Burera District.





Source: RDHS, 2014-15

3.4 Teenage pregnancy and motherhood

Figure 18 shows the percentage of young women age 15-19 who have begun child bearing in their teenage age. Five percent of young women between age 15 and age 19 have already begun childbearing in the North Province while it is 7 percent at the

national level. At district level, the percentage of women age 15-19 who have begun childbearing varies from 3 percent in Gicumbi and Rulindo (each) to 7 percent in Gakenke District.



Figure 18: Percentage of women 15-19 who have begun childbearing

3.5 Wanted Total Fertility Rate and Total Fertility Rate

Figure 19 compares the total wanted fertility rate (TWFR) with the current total fertility rate (TFR) for the five years preceding the survey. Calculation of the TWFR is the same as for the TFR, except that unwanted births are omitted. TWFR for women age 15-49 in the North Province is 2.8 children compared to 3.1 at the national level.

At Province level, the TFR is 3.7 and 4.2 at national level. Among districts, the TFR is lowest in Gakenke District (3.1 children) and highest in Rulindo District (4.2 children). Considering the gap between wanted and TFR, it is seen that there is a gap of 1.1 children in the North Province. At District level, the highest gap is observed in Burera District (1.1 children) and the lowest in Musanze District (0.7).



Figure 19: Wanted and observed total fertility rates for women age 15-49

Source: RDHS, 2014-15

Source: RDHS, 2014-15

Chapter 4: Family planning

This section presents information on the prevalence of current contraceptive use among women age 15-49 at the time of the survey. Level of current use of contraceptives is one of the indicators most frequently used to assess the success of family planning program activities and one of the determinants of fertility. This section focuses on the current use and the level of demand of family planning as well as the access to information related to family planning.

4.1 Current use of contraception

Figure 20 shows that 61 percent of married women age 15-49 in the North Province are currently using any family planning method, among them 55 percent are using any modern method, and 6 percent are using any traditional method, compare with 53 percent for any method and 48 percent for any modern method at national level. About any traditional method, the same percentage is observed at North Province and national level. Women who are currently using contraceptive method are high in Musanze District (71 percent) and Gakenke (64 percent) and low in Rulindo and Burera District (55 percent each district) with the majority of women using any modern method and the minority using the traditional methods.



Figure 20: Percentage of married women age 15-49, currently using contraception

Source: RDHS, 2014-15

4.2 Demand for family planning

Figure 21 below describes the total demand for family planning among currently married women in the North Province (76 percent), it is slightly lower at the national level (72 percent). At the district level, the total demand for family planning is highest in Musanze (82 percent) and lowest in Burera (72 percent) among currently married women.



Figure 21: Percentage of total demand for family planning among currently married women age 15-49

Source: RDHS, 2014-15

4.3 Exposure to family planning messages

The mass media play an important role in communicating messages about family planning. Data on levels of exposure to radio, television, and printed materials are important for program managers and planners to effectively target population subgroups for information, education, and communication campaigns. To assess the effectiveness of family planning information disseminated through various media, respondents were asked if they had been exposed to family planning messages on the radio, on television, and in print (newspapers and magazines) in the few months preceding the survey.

Figure 22 and Figure 23 show that radio is the most widely accessed source of family planning messages in North province with 60 percent of women and 67 percent of men age 15-49 having heard a family planning message on the radio in the past few months, as compared to 52 percent of women and 64 percent of men at the nation level. Eight percent for women and men reported having seen a family planning message on television; while 13 percent of women and 12 of men reported having seen a family planning message from or in a newspaper/magazine in the North Province.

It is also important to note that, 39 percent of women and 32 percent of men in North Province have not been exposed to any family planning messages in any of the three specified media sources. These proportions are 47 percent for women and 34 percent for men at the national level.



Figure 22: Percentage of women age 15-49 who heard or saw a family planning messages by type of channel

Source: RDHS, 2014-15





Source: RDHS, 2014-15

Chapter 5: Early Childhood Mortality

The data used to compute the childhood mortality rates presented in this chapter were derived from the birth history of the Woman's interviewed. Each woman age 15-49 was asked whether she had ever given birth, and, if she had, she was asked to report the number of sons and daughters who live with her, the number who live elsewhere, and the number who have died. In addition, she was asked to provide a detailed birth history of her children in chronological order starting with the first child. Women were asked whether a birth was single or multiple, the sex of the child, the date of birth, survival status, age of the child on the date of the interview if alive, and, if not alive, the age at death of each live birth.

Selected childhood mortality rates are defined as follows:

- Neonatal mortality: the probability of dying within the first month of life
- **Infant mortality:** the probability of dying between birth and the first birthday
- **Under-5 mortality:** the probability of dying between birth and the fifth birthday

All rates are expressed as deaths per 1,000 live births with the exception of child mortality, which is expressed as deaths per 1,000 children surviving to their first birthday.

Figure 24 presents neonatal, infant, and under-5 mortality rates for five-year periods preceding the survey to get sufficient observations because deaths are rare events. In the North Province, Neonatal mortality in the most recent period is 23 deaths per 1,000 live births compared to 20 deaths per 1,000 live births at National level. Thirty eight of every 1,000 babies born in North Province do not survive to their first birthday compared to 32 deaths per 1,000 at the National level. The Under-5 mortality in North Province is 60 deaths per 1,000 live births compared to 50 deaths per 1,000 live births at the national level.

At the Districts level, the Neonatal mortality is highest in Gakenke 34 and the lowest is Burera 17. The infant mortality is highest in Musanze 47 and lowest in Burera 26 districts. Under 5 mortality is highest in Musanze (67) followed by Gakenke (64) and is lowest in Burera with 52 deaths per 1000 live births.



Figure 24: Early childhood mortality rates¹



Note: These rates¹ computed as probabilities of dying within fixed period are expressed as deaths per 1,000 live births.

Chapter 6: Maternal Health

6.1 Antenatal care

Monitoring of pregnant women through antenatal care visits helps to reduce risks and complications during pregnancy, delivery, and the postpartum periods. The 2014-15 RDHS asked women who had had a live birth in the five years preceding the survey whether they had received antenatal care (ANC). Figure 21 shows the percentage of women who had consulted any skill health provider during the pregnancy for their most recent birth.

Figure 25 below shows the percentage of women age 15-49, receiving antenatal care from a skilled provider by district of North province, nearly all mothers (99 percent) in the North Province received at least one antenatal care from skilled provider for their most recent live birth in the five years preceding the survey as it is at national level. Universal ANC from skilled personnel is also the observed in all districts of the North Province as this proportion varies from 99 to 100 percent.





<u>Source:</u> RDHS, 2014-15



6.2 Mothers whose last birth was protected against neonatal tetanus

Neonatal tetanus is a major cause of death among newborns in developing countries. Tetanus toxoid injections given to the mother during pregnancy protect both mother and child against this disease. Figure 26 shows that in the North Province, the proportion of mothers whose last birth was protected against neonatal tetanus is 81 percent; this means that 19 percent of pregnant women were not protected against tetanus for the last birth. At national level, 82 percent of mothers were protected against tetanus for their last births. By district, the proportion of mothers whose last
birth was protected against neonatal tetanus is highest in Burera district (90 percent), and lowest in Rulindo District (77 percent).



Figure 26: Percentage of mothers 15-49 whose last birth was protected against neonatal tetanus³

Note: Neonatal tetanus³ includes mothers with two injections during the pregnancy of their last birth or two or more injections (the last within 3years of the last live birth), or three or more injections (the last within 5 years of the last birth) or four or more injections (the last within 10 years of the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

6.3 Place of delivery

Since every pregnancy may be subject to complications, women are advised to deliver their babies in a health facility so that they access emergency services if needed during labor, delivery, and post-delivery. Figure 27 shows that in the North Province, the percentage of births in the five years before the survey who delivered at a health facility is 92 percent in North Province compared to 91 percent at the national level. At district level, mothers in Musanze and Gicumbi Districts (95 percent each) were more likely to deliver in a health facility than mothers in Gakenke District (89 percent).





Source: RDHS, 2014-15

Source: RDHS, 2014-15

6.4 Assistance during delivery

To avoid the risk of complications and maternal deaths, women should be assisted during delivered by personnel who have receiving training in childbirth and who are able, if needed to diagnose, treat and refer complications on time.

Figure 28 presents the percentage of mothers provided with assistance during the delivery by a health skilled provider. The results show that 9 in 10 births (92 percent) were assisted by a skilled health provider, in the North Province compare to 91 percent at national level. At District level, the highest number of mothers who received assistance by a skilled provider during deliverd is in Musanze (95 percent) and Gicumbi (94 percent). This proportion is lowest in Gakenke District (89 Percent).



Figure 28: Percentage of mothers assisted during delivered by a skilled provider

<u>Source:</u> RDHS, 2014-15

6.5 Postnatal checkup

Figure 29 describes the postnatal checkup among women and newborn. In North Province, forty three percent of women had a postnatal checkup in the first two days after delivery, the same level as at national level. The proportion of women who received a postnatal checkup is highest in Gicumbi district (60 percent) followed by Rulindo district (57 percent), while it is lowest in Burera district (28 percent) preceded by Musanze District (30 percent).

Overall, in the North province, 14 percent of newborns received postnatal care in the first two days after birth, compared to 19 percent at national level. The proportion is highest in Gicumbi (36 percent) and lowest in Burera 1 percent).





Source: RDHS, 2014-15

Chap 7: Child Health

To assess the prevalence of children infections, mothers were asked if their children under age 5 had been ill with determined infection during the two weeks preceding the survey. It should be borne in mind that these data are subjective (i.e., based on the mother's perception of illness) and not

7.1 Prevalence of Acute Respiratory infection (ARI)

Acute respiratory infections (ARIs), particularly pneumonia, constitute one of the main causes of child deaths in developing countries. To assess the prevalence of these infections, mothers were asked if their children under age 5 had been ill with a cough during the two weeks preceding the survey and, if so, they were asked whether the cough had been accompanied by short, rapid breathing.

Figure 29 shows that in North Province, 6 percent of children under age 5 had been ill with ARIs during the two weeks preceding the survey, and this percentage is the same as that of the national level. It is observed that in the North Province, the Burera district has the highest percentage of children under age 5 who had been affected with ARIs, 8 percent, while, Gakenke and Gicumbi had the lowest, 4 percent each.





7.2 Prevalence of fever

Fever is the primary symptom of many illnesses such as ARI, malaria and measles among others, which cause numerous deaths among children. For this reason, mothers were asked whether their children had suffered from a fever during the two weeks preceding the survey. Figure 31 shows that, during the two weeks preceding the survey, 14 percent of children under age five had a fever and this percentage is lower than that of the national level, equal to 19 percent.

Source: RDHS, 2014-15





Source: RDHS, 2014-15

7.3 Prevalence of Diarrhea

Diarrheal diseases constitute one of the main causes of death among young children in developing countries as they are associated with dehydration and malnutrition. To assess the prevalence of diarrheal diseases among children under age 5, mothers were asked whether their children had suffered from diarrhea during the two weeks preceding the survey.

Figure 32 shows that, according to mothers' reports, 11 percent of children had diarrhea in the two weeks preceding the survey in the North Province compared to 12 percent at national level. The prevalence of diarrhea is especially high among children in Musanze District (19 percent) while it is lowest in Gicumbi district, (5 percent). Note that diarrhea prevalence has a positive relationship between the ages at which children begin to be weaned and consume foods other than breast milk.



Figure 32: Prevalence of Diarrhea among children under five years

Source: RDHS, 2014-15

7.4 Anemia among children

Anemia is a condition characterized by a reduction in red blood cell volume and a decrease in the concentration of hemoglobin in the blood. Hemoglobin is necessary for transporting oxygen to tissues and organs in the body. Figure 33 presents anemia prevalence for children age 6-59 months. Children with hemoglobin level less than 11.0 g/dl are anemic. Overall, 34 percent of children age 6-59 months in North province have some level of anemia. This percentage is 37 percent at national level. By District, children in Gicumbi (41 percent), Burera (38 percent) and Rulindo (37 percent) are most likely to be anemic, while children in Gakenke are least likely to be anemic (21 percent).

Figure 33: Percentage of children age 6-59 months classified as having anemia⁴ (hemoglobin <11.0 g/dl)



Source: RDHS, 2014-15

Note: The three levels of anemia⁴: Mild: hemoglobin concentration of 10.0-10.9 g/dl; Moderate: hemoglobin concentration of 7.0-9.9 g/dl, and severe anemia of hemoglobin concentration below 7.0g/dl).

Chapter 8: Nutrition among children and women

Adequate nutrition is critical to child growth, health, and development, especially during the period from conception to age 2. During this period, children who do not receive adequate nutrition can be susceptible to growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhea and acute respiratory infections (ARIs). Among women, malnutrition can result in reduced productivity, an increased susceptibility to infections, slow recovery from illness, and a heightened risk of adverse pregnancy outcomes. A woman, who has poor nutritional status, as indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiencies, has a greater risk of obstructed labor, of having a baby with a low birth weight, of producing lower quality breast milk, of mortality due to postpartum hemorrhage, and of morbidity for both herself and her baby.

8.1 Nutritional status of under 5 children

Nutritional status of children under age 5 is an important measure of children's health and growth. The anthropometric data on height and weight collected in the 2014-15 RDHS permit the measurement and evaluation of the nutritional status of young children in Rwanda.

In North Province, 39 percent of children under age 5 are stunted (too short for their age), against 38 percent at the national level (Figure 34). Variation in children's nutritional status by district is quite evident, with stunting being highest in Gakenke (46 percent) followed by Burera (43 percent) and lowest in Rulindo (34 percent).

Two percent of children under age 5 are wasted (too thin for their height) in North Province, almost the same percentage as at the national level. The wasting prevalence is highest among children in Rulindo and Gicumbi (3 percent each) while the lowest is in Gakenke where this percentage is almost zero.

Figure 34 shows that 9 percent of children under age 5 in the North Province are underweight (low weight-for-age) and this percentage is the same as at national level. Variation in children's underweight by district shows that Gakenke and Gicumbi have the highest percentage of underweight children (11 percent each) while Musanze has the lowest percentage (7 percent).







8.2. Median duration of exclusive breastfeeding

The median duration of exclusively breastfeeding in the North province is 5.7 months compared to 5.4 months at the national level. Children in the Gicumbi and Gakenke districts are exclusively breastfed for 6.7 months and 6.3 months respectively, whereas children in Burera and Musanze are breastfed for 5 months. Estimates of breastfeeding durations are based on current status data, that is, the proportion of children born in the three years preceding the survey who were being exclusively breastfed at the time of the survey and from mother's declaration.



Figure 35: Median duration of exclusively breastfed children under age 5

Source: RDHS, 2014-15

8.3 Nutritional status of women

Figure 36 presents the nutritional status and the percentage of women falling into two high-risk categories of nutritional status.

In North province, 5 percent of women are considered to be thin (BMI below 18.5), as compared to 7 percent at the national level. This percentage is highest in Gicumbi (7 percent) and lowest in Gakenke District (2 Percent).

Twenty one percent of women are overweight or obese in the North Province, a level identical to the national level. Variation among District shows that Musanze (24 percent) Rulindo and Burera (23 percent each) have the higher percentage of overweight or obese women than Gakenke (20 percent) and Gicumbi (14 percent) districts.

The percentage of women with normal standards is 75 percent in North Province while it is 73 percent at national level. This percentage is higher than 70 percent in the districts of North province and varies from 79 percent in Gicumbi to 72 percent in Rulindo and Musanze.



Figure 36: Percentage distribution of women age 15-49 by nutrition status

8.4 Prevalence of anemia in women

Figure 36 presents anemia prevalence among women age 15-49 based on hemoglobin levels. Raw measured values of hemoglobin were obtained using the HemoCue instrument and adjusted for altitude and smoking status.

The data show that anemia is less prevalent among women than children (figure 32); 15 percent of women in the Noth Province have some level of anemia, as compared with 19 percent of women at national level. The great majority of women with anemia are in Rulindo (23 percent), and the lowest prevalence is in Musanze district with 12 percent of anemic women age 15-49.

Source: RDHS, 2014-15





Source: RDHS, 2014-15

Chapter 9: Malaria

Malaria has been a major cause of morbidity and mortality in Rwanda for several years, with periodic epidemics in high-altitude areas. This section presents the 2014-15 RDHS household-level findings on use of mosquito nets, and malaria prevalence particularly among children under age 5.

9.1 Use of Insecticide Treated Net (ITNs)

Figure 38 shows that 56 percent of the household population in the North Province slept under ITN the night before the survey, while 61 percent slept under an ITN at the national level. The percentage of the population that slept under an ITN the night before the survey is relatively low in Musanze and Burera district (35 percent and 36 percent, each) and high in Gakenke and Gicumbi districts District (72 percent, each).





Source: RDHS, 2014-15

9.2 Use of ITNs among children

Children under age 5 are most vulnerable to severe complications of malarial infection due to their reduced immunity.

Figure 39 shows the use of mosquito nets by children under age 5. Sixty-two percent of children under age 5 slept under a mosquito net the night before the survey in the North province as compared to 68 percent at the national level. The percentage of children who slept under any an ITN is higher in Kamonyi (86 percent), and lower in Nyaruguru District (55 Percent) relatively low in Musanze (41 percent) and in Burera (46 percent) compared to other district of the North province.



Figure 39: Percentage of children under age 5 who slept under an ITN the night before the survey



9.3 Prevalence of Malaria among children

Figure 40 shows the results of the microscopic diagnostic test (blood smear) among children who were tested. In the North province, almost no child ages 6 to 59 months is infected with at least one form of malarial parasites, compared to 2 percent at the national level.





9.4 Prevalence of malaria among women

Women are less likely to be infected with malaria than children from the figure presented above. In the North province, malaria is rare disease as the prevalence of malaria is null in almost all the district of the North province except Gakenke district. This may be explained by the altitude and the cold weather in the region.

Figure 41: Prevalence of malaria among women age 15-49

0.00.60.00.00.00.00.6RulindoGakenkeMusanzeBureraGicumbiNorthRwanda								
Rulindo Gakenke Musanze Burera Gicumbi North Rwanda	0.0	0.6	0.0	0.0	0.0		0.0	0.6
	Rulindo	Gakenke	Musanze	Burera	Gicumbi	1	North	Rwanda

Source: RDHS, 2014-15

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Chapter 10: HIV Attitude and Knowledge

HIV infection is a major public health concern in Rwanda, where it is among the causes of mortality with negative social and economic consequences that affect people and the country as a whole. The following section will discuss the knowledge, attitudes and HIV prevalence among youth and adults.

10.1 Complete knowledge of HIV prevention methods

Figure 42 presents the percentage with complete knowledge of HIV and AIDS prevention methods among women and men age 15-49, by districts of the North Province. Eighty-six percent of women and seventy nine percent of men are aware that the risk of contracting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners and that using condoms can prevent transmission of the AIDS virus in the North province compared to 83 percent of women and 88 percent of men who have knowledge of both HIV prevention methods at the national level. Women are more likely to have complete knowledge than men in almost all districts of the North province except in Gakenke district.

Figure 42: percentage of respondents with Complete Knowledge of HIV prevention methods



<u>Source:</u> RDHS, 2014-15

10.2 Comprehensive knowledge about HIV/AIDS transmission

The 2014-15 RDHS included questions on common misconceptions about transmission of AIDS and HIV. Respondents were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can contract the AIDS virus from mosquito bites, by supernatural means, or by sharing food with a person who has AIDS.

The results in figure 43 indicate that some Rwandan adults lack accurate knowledge about the ways in which HIV can and cannot be transmitted. Nevertheless, 69 percent of

women age 15-49 and 56 percent of men at the same age at the province level have comprehensive knowledge about HIV/AIDS, this percentage is 67 for women at 69 at the national level that is; healthy-looking person can have the AIDS virus and are aware that the virus cannot be transmitted by supernatural means or by sharing food with a person who has AIDS or by a mosquito bite. The higher percentage of women who have comprehensive knowledge about HIV/AIDS is in Gicumbi district and lower in Gakenke district with 54 percent. Men in Burera district are more likely to have more knowledge on HIV/AIDS than any other district in the North province.



Figure 43: Percentage of women and men age 15-49 with comprehensive knowledge on HIV

10.3 Accepting attitudes toward those living with HIV/AIDS

Widespread stigma and discrimination toward those living with HIV can adversely affect both people's willingness to be tested for HIV and their adherence to antiretroviral therapy. Thus, reduction of stigma and discrimination against people living with AIDS is an important indicator of the success of programs aimed at preventing and controlling infection.

Four questions were asked to describe acceptance attitude on people living with AIDS. These questions were: their willingness to buy fresh vegetables from an infected shopkeeper, to let others know of an infected family member, and to take care of relatives who have AIDS in their own household. They were also asked whether an HIV-positive female teacher who is not sick should be allowed to continue teaching. Figure 41 shows the percentages of women and men who express all those four positive attitudes towards people with HIV in the districts of North Province.

Figure 44 shows that 40 percent of all women and 45 percent of men confirmed to accept all four mentioned above attitudes in North Province as compared to 50 percent of women and 64 percent of men at national level. Accepting all four attitudes among

Source: RDHS, 2014-15

women is highest in Gakenke district (64 percent) and lowest in Musanze district (33 percent). Among men, this percentage is highest in Burera district (51 percent) and lowest in Gicumbi district (20 percent). Men are more likely to accept all four attitudes towards people living with HIV.





10.4 Multiple sexual partners: Women/men

Given that most HIV infections are contracted through heterosexual contact, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of the disease. Given that questions about sexual activity are sensitive, it is important to remember when interpreting the results in this section that respondents' answers to this subject are likely to be biased.

Figure 45 shows the percentages of women and men age 15-49 who had sexual intercourse with more than one partner in the last 12 months before the survey. Three percent of men and 0.4 percent of women in North province had two or more sexual partners during the 12 months preceding the survey as compared to 4.6 percent of men and 0.7 percent of women at the national level. Men living in Musanze (5.6 percent) are more likely to have had multiple partners over the past 12 months than other respondents in the North Province. Also women in Musanze are the ones that are likely to have had more than one sexual partners than other women in North province.

Source: RDHS, 2014-15





Source: RDHS, 2014-15

10.5 Payment for sexual intercourse

Male respondents in the 2014-15 RDHS who had had sex in the 12 months before the survey were asked whether they had ever paid anyone in exchange for sex and whether they had done so in the past 12 months.

The results in figure 46 shows that 5.2 percent of men age 15-49 in North province and 7.2 percent at the national level have ever paid for sexual intercourse and only 1.7 percent at the province level and 2.2 percent at the national level had done so in the 12 months before the survey. Men who are living in Rulindo district (4.7 percent) are most likely to have ever paid for sexual intercourse followed by Musanze and Gicumbi districts (4.1 percent each), while the least percentage of men who paid sex for is almost inexistent in Rukindo and Gakenke.



Figure 46: Percentage of men age 15-49 that ever paid for sex or paid for sex in the last 12months.

10.6 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Figure 47 shows the self-reported prevalence of STIs and STI symptoms among women and men age 15-49 who have ever had sexual intercourse. In the North province, 16.8

Source: RDHS, 2014-15

percent of women and 3.6 percent of men had either an STI or symptoms of an STI in the 12 months preceding the survey, as compared to 14.5 percent of women and 4.8 percent of men at the national level. STI and STIs symptoms among women is highly prevalent in Burera (26.5 percent) as compared to other districts. Among men having either an STI or symptoms of an STI in the 12 months preceding the survey is higher in Musanze (6.0 percent) as compared to the rest of the districts of the North Province.



Figure 47: Prevalence of sexually transmitted infections (STIs) and STI symptoms in last 12 months

Source: RDHS, 2014-15

10.7 Practice of circumcision

Studies have shown that male circumcision, which involves the removal of the foreskin of the penis, is associated with lower susceptibility to transmission of STIs, including HIV. Consequently, WHO recommends male circumcision as an HIV prevention method. In North province, 17 percent of men age 15-49 have been circumcised and at the national level it is 30 percent are circumcised (Figure 48). By district, the proportion of men who are circumcised is highest in Musanze (30 percent) and lowest in Gankeke (7 percent).



Figure 48: Percentage of men Circumcised

Source: RDHS, 2014-15

10.8 HIV prevalence among adults

Overall, HIV prevalence in North Province is 2.5 percent among women and 2.1 percent among men as compared to 3.6 percent and 2.2 percent among women and men respectively at national level. HIV prevalence is highest in Gicumbi (4.6 percent) among women and in Rulindo (4.2 percent), among men. The lowest prevalence's of HIV are found in Burera both for women (1.1 percent) and for men (0.7).





Source: RDHS, 2014-15

10.9: HIV prevalence among couples

Figure 50 shows HIV prevalence among couples in the districts of North Province. The percentage of couples in which both partners are HIV positive is 1.8 percent in North Province as compared to 2.1 percent at the national level. The percentage of couples in which both partners are HIV positive is highest in Gicumbi district (2.6 percent). The percentage of couples in which man partner is HIV positive and woman HIV negative is highest in Rulindo (2.5 percent) as compared to the rest of the districts of the North Province.





Source: RDHS, 2014-15

Chapter 11: Women empowerment

Women empowerment is an important factor in development, poverty reduction, and improvements in the standard of living. This chapter presents information on factors that affect the status of women in society: control over cash earnings, earnings relative to those of their husbands, and participation in decision-making.

11.1 Control over women's cash earnings and relative magnitude of women's cash earnings

To assess women's autonomy, currently married women who earned cash for their work in the 12 months preceding the survey were asked who usually decides how their earnings are spent. Women who earned cash for their work were also asked the relative magnitude of their earnings compared with those of their husband. This information is an indicator of women's control over their own earnings, as it is expected that employment and earnings are more likely to empower women if women themselves control their own earnings and perceive them as significant relative to those of their husband.

Figure 51 shows the percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey, by the person who decides how the cash earnings are used and by the relative magnitude of women's earnings compared with those of their husbands, according to background characteristics.

Twenty six percent of women in the North province and 20 percent of women at national level mainly decide for themselves how their earnings are used, whereas 60 percent of women in North province and 68 percent at national level said that they make joint decisions with their husbands. Fourteen percent of women in the North province compared to 12 percent at national level reported that decisions regarding how their earnings are spent are made mainly by their husbands. The percentage of women who mainly decide themselves how their earnings are spent is highest in Gakenke (37 percent) and lowest in Gicumbi (16 percent). Women in Gicumbi (28) are more likely to report that their husbands mainly decide how to spend their earnings than women in the other districts.



Figure 51: Percentage distribution of Person who decides how the wife's cash earnings are used

Source: RDHS, 2014-15

Figure 52 shows comparisons in wife and husband cash earnings. As shown below, only 8 percent of the women in North Province earn more than their husbands and at the national level this percentage is 10 percent. The percentage of women who earn less than their husbands is the same at both the province and national level (65 percent) and the percentages are also the same when it comes to women earning the same as their husbands (23 percent). Percentages concerning the husbands that have no earnings at all are really low in North Province for both at provincial (North province) and national levels (3 and 2 percent respectively). By district, Gakenke district has the highest percentage (17 percent) of women who earn more than their husband whereas Burera has the least one (4 percent). Those earn less than their husbands vary from 73 percent in Gicumbi to 57 percent in Rulindo; while the percentage of women who have about the same earnings as their husbands is highest in Rulindo (30 percent) and lowest in Gicumbi (16 percent). The highest percentage of women whose husband have no earnings at all, is found in Gakenke (8 percent) and the lowest in Gicumbi (;ess than than 1percent.



Figure 52: Percentage distribution of currently married women according to their cash earnings in comparison to their husbands'

11.2 Control over men's cash earnings (Women and Men)

Figure 53 shows the percent distributions of currently married men age 15-49 who receive cash earnings and currently married women age 15-49 whose husbands receive cash earnings by the person who decides how men's cash earnings are used, according to background characteristics.

Twenty five percent of men in North province compared to 19 percent of men at national level report that they mainly decide how their cash earnings are used. Seventy two percent in North province compared to 78 percent at the national level state that they make these decisions jointly with their wife, and 3 percent and 2 percent state that these decisions are made mainly by their wives in North province and at national level, respectively. Men in Burera (36 percent) are more likely to be the main decision-makers regarding their own earnings than men in other district.

In general, women's reports on who makes decisions about how their husband's earnings are spent are comparable to men's reports. Twenty-seven percent of women in North province whose husbands have cash earnings report that their husband mainly decides how his cash earnings are used. Sixty-nine percent of women report that decisions are made jointly as compared to 70 percent at the national level. Rulindo (82 percent) has the higher percentage where husband and wife decide jointly where Burera has the lowest (62 percent). The district that has the highest percentage when to it comes to mainly husband deciding on how to use their own earnings is Burera with thirty five percent and the lowest is seen in Rulindo with thirteen percent. Gicumbi (9 percent) has the higher percent of women who are more likely to decide how their husbands' cash earnings are used compared to other districts in the North province.

Source: RDHS, 2014-15

At the national level 25 percent of women in whose husbands have cash earnings report that their husband mainly decides how his cash earnings are used, a figure slightly higher than the 19 percent reported by men themselves (Figure 54).





Source: RDHS, 2014-15





<u>Source:</u> RDHS, 2014-15

11.3 Women's participation in decision-making

The ability of women to make decisions that affect their personal circumstances is essential for their empowerment and serves as an important factor in national development. To assess women's decision-making autonomy, the 2014-15 RDHS collected information on married women's participation in three types of decisions:

their own health care, major household purchases, and visits to family, relatives, or friends.

Figure 55 shows how women's participation in decision-making varies by districts of the North province. At the province level, 84 percent of women make their own decisions regarding their health, 73 percent can make big purchases in the households where as 85 percent decide on when to visit their families or relatives. Based on the above mentioned decisions (women's health care, making big purchases and deciding on when to visit the family) these percentages are 83, 73 and 75 at the national level respectively.

At district level, the highest percentages of women who make their own decision regarding all three mentioned decisions are seen in Rulindo district and the lowest in Burera district: 95 percent and 72 percent respectively when considering women own health care, 90 percent and 58 percent respectively regarding major household purchases, finally 93 percent and 79 percent respectively when considering visiting family or relatives.

Figure 55: Percentage of currently married women age 15-49 participating in decision making according to the three types of decisions



Source: RDHS, 2014-15

Figure 56 shows how women's participation in decision-making varies by districts of the North province. Sixty-seven percent of married women in North province report taking part in all three decisions, while 8 percent of women have no say in any of the three decisions, as compared to 65 percent of married women at national level who report taking part in all three decision, and 7 percent of women who report having no say in any of the three decisions.

By district, married women in Rulindo (88 percent) are more likely to report that they participate in all three decisions compared to married women in other districts. In

addition, married women age 15-49 in Gicumbi and Burera (14 percent each) have no say in any of the three decisions.





11.4 Attitude toward wife beating: Women/Men

The 2014-15 RDHS collected information on the degree of acceptance of wife beating by asking all women and men whether they believe that a husband is justified in beating his wife in five situations: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual intercourse with him.

Figure 57 shows the percentages of women and men who feel that wife beating is justified for at least one of the specified reasons. Agreement of a high proportion of respondents that wife beating is acceptable is an indication that they generally accept the right of a man to control his wife's behavior even by means of violence.

Figure 57 shows that 53 percent of women in North Province and 41 percent at national level believe that wife beating is justified for at least one of the specified reasons. Men are less likely to agree that a man is justified in beating his wife for at least one reason, 27 percent of men in North Province and 18 percent at a national level. Women in Gakenke (43 percent) are less likely to agree that wife beating is justified for at least one reasons than women of other districts. Agreement with at least one reason justifying wife beating ranges from 39 percent in Gicumbi district to 9 percent in Gakenke district, among men.

Source: RDHS, 2014-15





Source: RDHS, 2014-15

Annex: New tables that cannot be found in the RDHS Main Report, Appendix D

_	Has electricity								
District/Province	No	Yes	Missing	Tota					
	%	%	%	Number	%				
Nyarugenge	24	75.9	0.0	374	100.0				
Gasabo	38.2	61.8	0.0	742	100.0				
Kicukiro	17.2	82.8	0.0	380	100.0				
Kigali	29.3	70.7	0.0	1496	100.0				
Nyanza	92.8	7.2	0.0	401	100.0				
Gisagara	96.4	3.3	.3	403	100.0				
Nyaruguru	95.7	4.3	0.0	291	100.0				
Huye	78.1	21.9	0.0	407	100.0				
Nyamagabe	91.7	8.3	0.0	378	100.0				
Ruhango	89.1	10.9	0.0	416	100.0				
Muhanga	86.8	13.2	0.0	385	100.0				
Kamonyi	85.2	14.8	0.0	422	100.0				
South	89.2	10.8	.0	3103	100.0				
Karongi	83.1	16.6	.3	391	100.0				
Rutsiro	94.3	5.7	0.0	352	100.0				
Rubavu	69.2	30.8	0.0	457	100.0				
Nyabihu	93.3	6.7	0.0	319	100.0				
Ngororero	84.4	15.6	0.0	419	100.0				
Rusizi	66.1	33.9	0.0	438	100.0				
Nyamasheke	79.9	19.8	.3	413	100.0				
West	80.5	19.5	.1	2789	100.0				
Rulindo	86.7	13.3	0.0	379	100.				
Gakenke	84.2	15.7	.2	408	100.0				
Musanze	74.1	25.7	.2	457	100.				
Burera	87.9	12.1	0.0	384	100.0				
Gicumbi	87.2	12.8	0.0	463	100.0				
North	83.8	16.2	.1	2090	100.0				
Rwamagana	71.9	28.1	0.0	409	100.0				
Nyagatare	80.0	20.0	0.0	605	100.0				
Gatsibo	80.4	19.6	0.0	568	100.0				
Kayonza	85.9	14.1	0.0	401	100.0				
Kirehe	84.3	15.7	0.0	385	100.0				
Ngoma	84.6	15.4	0.0	439	100.				
Bugesera	76.7	23.3	0.0	414	100.0				
EAST	80.5	19.5	0.0	3221	100.0				
Rwanda	77.1	22.8	.0	12699	100.0				

Table 1: Percentage of households with electricity by district

			Mobile		
District	Radio	Television	Telephone	Computer	
Nyarugenge	66.6	38.0	88.8	9.2	
Gasabo	65.5	32.7	83.5	11.1	
Kicukiro	73.2	53.2	89.9	22.4	
City of Kigali	67.7	39.3	86.4	13.5	
Nyanza	51.7	3.3	46.2	0.9	
Gisagara	46.5	1.4	32.4	0.3	
Nyaruguru	47.7	1.1	40.6	0.8	
Huye	53.4	12.6	51.1	6.2	
Nyamagabe	56.6	2.4	44.5	0.9	
Ruhango	51.2	3.8	51.9	0.2	
Muhanga	64.1	7.6	64.7	2.3	
Kamonyi	59.0	8.0	66.7	2.5	
South	53.9	5.2	50.2	1.8	
Karongi	53.4	4.7	63.6	3.3	
Rutsiro	52.2	1.8	48.1	0.5	
Rubavu	43.7	13.3	60.3	4.8	
Nyabihu	30.0	1.5	44.6	1.1	
Ngororero	45.9	3.5	55.6	2.0	
Rusizi	49.6	11.7	69.3	2.2	
Nyamasheke	44.4	3.9	56.5	1.2	
West	45.9	6.2	57.6	2.3	
Rulindo	58.5	7.1	55.3	1.9	
Gakenke	62.6	2.7	55.9	2.0	
Musanze	59.4	8.9	66.1	3.2	
Burera	55.0	3.7	53.9	1.5	
Gicumbi	49.2	4.1	53.0	2.3	
North	56.8	5.4	57.0	2.2	
Rwamagana	56.5	8.9	70.2	1.5	
Nyagatare	56.4	5.0	59.2	1.4	
Gatsibo	53.7	4.1	53.8	0.4	
Kayonza	61.1	7.0	63.2	2.1	
Kirehe	54.5	3.1	60.3	0.8	
Ngoma	51.3	6.5	53.3	2.4	
Bugesera	51.0	6.9	66.9	1.4	
East	54.9	5.8	60.5	1.4	
Rwanda	54.5	9.6	59.8	3.2	

 Table 2: Percentage of households with durable goods by district

	Covered by health insurance									
District/ Province	No	Yes	Don't know	Missing	Total					
	%	%	%	%	Count	%				
Nyarugenge	36.0	63.9	0.0	.2	1574	100.0				
Gasabo	28.7	71.2	0.0	.1	2918	100.0				
Kicukiro	22.9	76.9	.1	.1	1547	100.0				
City of kigali	29.1	70.8	.0	.1	6038	100.0				
Nyanza	43.1	56.8	.1	.1	1569	100.0				
Gisagara	31.0	68.8	.1	.1	1681	100.0				
Nyaruguru	44.1	55.6	.1	.3	1389	100.0				
Huye	20.9	78.9	0.0	.2	1711	100.0				
Nyamagabe	35.5	64.4	0.0	.1	1670	100.0				
Ruhango	32.7	67.1	0.0	.2	1695	100.0				
Muhanga	35.9	63.9	.1	.1	1557	100.0				
Kamonyi	15.0	84.9	.0	.1	1803	100.0				
South	31.7	68.1	.0	.1	13075	100.0				
Karongi	32.5	67.2	.1	.2	1666	100.0				
Rutsiro	30.9	68.9	.1	.1	1510	100.0				
Rubavu	45.5	54.3	.1	.1	2138	100.0				
Nyabihu	22.0	78.0	0.0	0.0	1313	100.0				
Ngororero	18.0	81.9	.1	0.0	1732	100.0				
Rusizi	27.7	71.9	.3	.1	2131	100.0				
Nyamasheke	34.9	64.8	.2	.1	1825	100.0				
West	30.9	68.8	.1	.1	12316	100.0				
Rulindo	31.4	68.5	0.0	.1	1462	100.0				
Gakenke	13.0	86.8	.1	.1	1603	100.0				
Musanze	21.1	78.8	0.0	.1	1968	100.0				
Burera	18.5	81.3	0.0	.1	1701	100.0				
Gicumbi	24.0	75.6	0.0	.4	1990	100.0				
North	21.5	78.3	.0	.2	8724	100.0				
Rwamagana	24.3	75.7	.1	0.0	1765	100.0				
Nyagatare	27.1	72.9	0.0	0.0	2525	100.0				
Gatsibo	27.1	72.8	.1	.1	2516	100.0				
Kayonza	24.7	75.2	0.0	.1	1718	100.0				
Kirehe	34.1	65.8	.1	.1	1575	100.0				
Ngoma	31.2	68.6	0.0	.2	1904	100.0				
Bugesera	27.1	72.7	.2	0.0	1687	100.0				
East	27.8	72.1	.0	.1	13690	100.0				
Rwanda	28.6	71.2	.1	.1	53844	100.0				

Table 3: Percentage of household's members with health insurance by district

	Highest educational level attained									
District/ Province	No education, preschool	Primary	Secondary	Higher	Don't know	Missing	Total			
	%	%	%	%	%	%	Count	%		
Nyarugenge	9.0	62.2	25.3	3.4	0.0	.1	668	100.0		
Gasabo	11.0	58.7	23.7	6.5	0.0	.1	1202	100.0		
Kicukiro	8.6	53.5	25.7	12.2	0.0	0.0	691	100.0		
City of Kigali	9.8	58.2	24.7	7.2	0.0	.1	2562	100.0		
Nyanza	20.0	72.3	6.9	.7	0.0	0.0	705	100.0		
Gisagara	25.9	68.7	5.3	.1	0.0	0.0	779	100.0		
Nyaruguru	24.7	62.8	12.3	.2	0.0	0.0	598	100.0		
Huye	20.0	61.5	14.7	3.5	0.0	.3	766	100.0		
Nyamagabe	23.7	63.8	11.9	.6	0.0	0.0	770	100.0		
Ruhango	15.9	71.8	11.5	.6	0.0	.1	748	100.0		
Muhanga	13.2	69.3	15.9	1.4	0.0	.3	701	100.0		
Kamonyi	10.8	76.1	11.7	1.4	0.0	0.0	802	100.0		
South	19.1	68.5	11.2	1.1	0.0	.1	5867	100.0		
Karongi	17.2	65.0	16.7	1.1	0.0	0.0	732	100.0		
Rutsiro	24.4	66.7	8.6	.2	0.0	0.0	664	100.0		
Rubavu	21.8	62.2	13.4	2.6	0.0	0.0	898	100.0		
Nyabihu	23.9	66.5	9.3	.3	0.0	0.0	585	100.0		
Ngororero	25.3	61.8	11.4	1.5	0.0	0.0	777	100.0		
Rusizi	17.5	66.0	15.7	.8	0.0	0.0	929	100.0		
Nyamasheke	18.5	69.3	11.9	.3	0.0	0.0	800	100.0		
West	21.0	65.2	12.7	1.0	0.0	0.0	5386	100.0		
Rulindo	19.5	66.5	12.5	1.3	0.0	.1	647	100.0		
Gakenke	16.5	68.2	14.7	.5	0.0	0.0	748	100.0		
Musanze	18.4	62.3	18.3	1.0	0.0	0.0	941	100.0		
Burera	21.4	68.8	9.4	.3	0.0	0.0	768	100.0		
Gicumbi	21.0	66.0	12.0	1.0	0.0	0.0	867	100.0		
North	19.4	66.2	13.6	.8	0.0	.0	3971	100.0		
Rwamagana	13.7	72.1	13.0	1.1	0.0	0.0	792	100.0		
Nyagatare	24.7	63.9	10.5	.9	0.0	0.0	1053	100.0		
Gatsibo	24.3	66.9	8.6	.1	0.0	.1	1129	100.0		
Kayonza	20.3	68.0	10.9	.9	0.0	0.0	748	100.0		
Kirehe	21.1	70.7	7.6	.6	0.0	0.0	681	100.0		
Ngoma	17.8	69.6	11.8	.9	0.0	0.0	802	100.0		
Bugesera	20.5	67.1	11.6	.6	0.0	.1	717	100.0		
East	20.7	68.0	10.5	.7	0.0	.0	5923	100.0		
Total	19.0	66.1	13.2	1.6	0.0	.0	23709	100.0		

Table 4: Percentage of household's female population according to the highest level of education attained by district

	Highest educational level attained (male)								
District/ Province	No education, Primary preschool		Secondary	Higher	Don't know	Missing	Total		
	%	%	%	%	%	%	Count	%	
Nyarugenge	5.9	64.8	23.6	5.4	0.0	.3	624	100.0	
Gasabo	8.2	61.5	20.0	10.0	0.0	.2	1159	100.0	
Kicukiro	6.2	56.6	23.8	13.4	0.0	0.0	631	100.0	
City of Kigali	7.1	61.1	22.0	9.7	0.0	.2	2415	100.0	
Nyanza	15.2	72.6	11.1	1.1	0.0	0.0	563	100.0	
Gisagara	20.4	72.4	6.5	.8	0.0	0.0	577	100.0	
Nyaruguru	19.6	68.9	10.2	1.1	0.0	.1	539	100.0	
Huye	14.9	64.8	14.8	5.1	0.0	.4	676	100.0	
Nyamagabe	16.0	70.4	12.1	1.5	0.0	0.0	653	100.0	
Ruhango	11.7	78.2	8.3	1.5	0.0	.3	671	100.0	
Muhanga	10.8	76.3	10.8	1.7	0.0	.3	599	100.0	
Kamonyi	10.3	76.3	11.8	1.4	0.0	.2	706	100.0	
South	14.6	72.6	10.8	1.8	0.0	.2	4986	100.0	
Karongi	11.3	72.1	13.4	3.0	0.0	.1	680	100.0	
Rutsiro	14.2	75.7	9.7	.4	0.0	0.0	558	100.0	
Rubavu	19.3	58.1	18.7	4.0	0.0	0.0	832	100.0	
Nyabihu	14.5	72.3	12.4	.8	0.0	0.0	492	100.0	
Ngororero	18.7	70.6	9.5	1.1	0.0	.2	647	100.0	
Rusizi	11.6	71.0	16.6	.8	0.0	0.0	812	100.0	
Nyamasheke	15.7	71.3	10.9	1.8	0.0	.2	630	100.0	
West	15.1	69.5	13.5	1.8	0.0	.1	4651	100.0	
Rulindo	15.5	74.3	8.2	2.0	0.0	0.0	566	100.0	
Gakenke	11.9	74.8	11.8	1.5	0.0	0.0	634	100.0	
Musanze	11.1	69.1	16.9	2.9	0.0	0.0	736	100.0	
Burera	9.8	79.1	9.6	1.4	0.0	.2	645	100.0	
Gicumbi	15.3	70.6	12.8	1.4	0.0	0.0	803	100.0	
North	12.7	73.3	12.1	1.8	0.0	.0	3383	100.0	
Rwamagana	9.2	73.7	14.9	2.2	0.0	0.0	644	100.0	
Nyagatare	16.0	72.6	10.5	.9	0.0	0.0	1001	100.0	
Gatsibo	16.0	69.8	13.5	.5	0.0	.1	918	100.0	
Kayonza	15.1	73.4	10.1	1.4	0.0	0.0	647	100.0	
Kirehe	11.5	75.6	11.5	1.1	0.0	.2	602	100.0	
Ngoma	14.2	72.0	11.3	2.5	0.0	0.0	740	100.0	
Bugesera	12.7	72.3	13.3	1.7	0.0	0.0	652	100.0	
East	13.9	72.6	12.1	1.4	0.0	.0	5205	100.0	
Total	13.4	70.7	13.3	2.6	0.0	.1	20640	100.0	

Table 5: Percentage of household's female population according to the highest level of education attained by district

