

Rwanda - Rwanda - Demographic and Health Survey 2019-2020

National Institute of Statistics of Rwanda - Ministry of Finance and Economic Planning

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Overview

Identification

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Version

VERSION DESCRIPTION

v1: Edited anonymous dataset for public distribution

PRODUCTION DATE

2022-02-10

Overview

ABSTRACT

The 2019-2020 Rwanda Demographic and Health Survey is a national sample survey designed to provide information on population, family planning, maternal and child health, child survival, HIV/AIDS and sexually transmitted infections (STIs), reproductive health, and nutrition in Rwanda. The RDHS-VI involved interviewing a randomly selected group of women who are between 15 and 49 years of age. Additionally, a sub-sample of randomly selected men between 15 and 59 years of age were interviewed in one household in every two selected for the female survey.

KIND OF DATA

Sample survey data [ssd]

UNITS OF ANALYSIS

The unit analysis of this survey are households and individuals.

Coverage

GEOGRAPHIC COVERAGE

The Rwanda Demographic and Health Survey 2019-2020 was a nation-wide survey.

GEOGRAPHIC UNIT

The unit analysis of this survey are households and individuals.

UNIVERSE

This sample survey covered men aged 15-59 years, Women aged 15-49 and Children aged 0-5 years

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics of Rwanda	Ministry of Finance and Economic Planning

OTHER PRODUCER(S)

Name	Affiliation	Role
National Institute of Statistics of Rwanda	Ministry of Finance and Economic Planning	Main Producer
Ministry of Health		Technical Assistance
Rwanda Biomedical Center	Ministry of Health	Technical Assistance
ICF		Technical Assistance

FUNDING

Name	Abbreviation	Role
Government of Rwanda	GoR	Funding
United States Agency for International Development	USAID	Financial Partner
United Nations Children's Fund	UNICEF	Financial Partner
United Nations Population Fund	UNFPA	Financial Partner
Belgian Development Agency	Enabel	Financial Partner
UNWOMEN	UNWOMEN	Financial Partner
Centers for Disease Control and Prevention	CDC	Financial Partner

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
National Institute of Statistics of Rwanda	NISR	Ministry of Finance and Economic Planning	Producer

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Sampling

Sampling Procedure

A.1 INTRODUCTION

The 2019-20 Rwanda Demographic and Health Survey (2019-20 RDHS) follows those implemented in 1992, 2000, 2005, 2010, and 2014-15. A nationally representative sample of 500 clusters and 13,000 households were selected. All women age 15-49 who were usual residents of the selected households or who slept in the households the night before the survey were eligible for the survey. The survey expected to interview about 13,650 women age 15-49. As with the prior surveys, the main objectives of the 2019-20 RDHS survey are to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness, approval, and use of family planning methods; maternal and child health; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STIs); and prevalence of HIV among the adult population. Apart from the female survey, a male survey was also conducted at the same time in a subsample consisting of one household in every two selected for the female survey. All men age 15-59 who were usual residents of the selected households or who slept in the households the night before the survey were eligible for the male survey.

The survey collected information on their basic demographic and social status, on their knowledge and use of family planning methods, and on their knowledge and attitudes regarding HIV/AIDS and other sexually transmitted infections. The survey expected to interview about 6,300 men age 15-59. In this subsample, all women and men eligible for the individual survey were also asked to provide a drop of blood for HIV testing. In that same subsample, all children under age 5 were measured and weighed, and all children age 6-59 months and all women age 15-49 were tested for anemia and malaria. In 50% of the households selected for the male survey, all eligible women and all children under age 5 underwent micronutrient testing; also in this subsample, a domestic violence module was administered to one randomly selected woman in households with at least one eligible woman. In the other 50% of households selected for the male survey, a domestic violence module was administered to one randomly selected man in households with at least one eligible man. The survey was designed to produce representative estimates for the main demographic and health indicators for the country as a whole, for urban and rural areas and for each of the five provinces. For some indicators, representative results may be available for each of the 30 districts.

A.2 SAMPLING FRAME

The sampling frame used for the 2019-20 RDHS is the Rwanda Population and Housing Census (RPHC), which was conducted in 2012. The sampling frame is a complete list of enumeration areas (EAs) covering the whole country, provided by the National Institute of Statistics of Rwanda (NISR), the implementing agency for the 2019-20 RDHS. An EA is a natural village, or part of a village, created for the 2012 RPHC that served as a counting unit for the census. Each EA appears with identification information, administrative belongings, and a measure of size that is the number of residential households located in the EA. Each EA is also classified into one of four types of residence (urban, semi-urban, peri-urban, or rural). Urban and semi-urban areas were grouped together as "urban" areas, and peri-urban and rural areas were grouped together as "rural" areas. Each EA also has cartographical materials that delineate its geographical locations, boundaries, main access, and landmarks, which helps to identify the EA.

Rwanda's administrative units were reformed in 2006, reducing the number of provinces from 11 to five relative to the last population census conducted in 2002. In the 2012 RPHC, Rwanda is divided into provinces, with each province being sub-divided into districts, each district into sectors, each sector into cells, and each cell into villages. The five provinces comprise 30 districts and 417 sectors.

Table A.3 shows the distribution of EAs and their average size (number of households) after exclusion of 88 institutional EAs. Among the 16,640 EAs, 2,554 are in urban areas and 14,086 are in rural areas. The average size of EAs is 165 households for urban EAs and 142 households for rural EAs, with an overall average of 146 households per EA.

A.3 STRUCTURE OF THE SAMPLE AND SAMPLING PROCEDURE

The sample for the 2019-20 RDHS was a stratified sample selected in two stages from the 2012 census frame. Stratification was achieved by separating each district into urban and rural areas, each of which formed a sampling stratum. In total, 60 sampling strata were created. Samples were selected independently in each sampling stratum, by a two-stage selection procedure. Implicit stratification and proportional allocation were achieved at each of the lower administrative unit levels by sorting the sampling frame within the explicit stratum according to administrative unit at different levels before sample selection and by using a probability proportional to size selection at the first stage of sampling. In the first stage, 500 EAs were selected with probability proportional to EA size and with independent selection in each sampling stratum with the

sample allocation given in Table A.4. A household listing operation was carried out in all of the selected EAs before the main survey. The household listing operation consisted of visiting each of the 500 selected EAs, drawing a location map and a detailed sketch map, and recording on the household listing forms all residential households found in the EA with the address and the name of the head of the household. The resulting list of households served as the sampling frame for the selection of households in the second stage. In the household listing operation, some of the selected EAs were found to be large in size. In order to not overburden the household listing team, selected EAs with an estimated number of households greater than 300 were segmented. Only one segment was selected for the survey with probability proportional to segment size. The methodology and the detailed household listing procedure are addressed in the household listing manual.

In the second stage, a fixed number of 26 households were selected from each selected EA in the newly updated listing. Table A.4 shows the sample allocation of EAs and households. Among the 500 EAs, 112 were in urban areas and 388 were in rural areas. The total number of households selected was 13,000, 2,912 of which were in urban areas and 10,088 of which were in rural areas. Urban areas were slightly oversampled because of the low urbanization in most of the districts, where at least two urban clusters needed to be selected. With the request for representative results to be produced for some indicators at the district level, the total sample size was tight; thus, an equal size allocation was adopted, with a slightly larger sample size for the districts in City of Kigali because of the city's low fertility level. In fact, because the district sizes are quite homogeneous, the equal size allocation is not far from the proportional allocation, which is the best allocation for a multi-indicator survey. On the other hand, the total sample size was already large, and any substantial increase in the total sample size in order to provide representative results for indicators at the district level would raise concerns about data quality due to the limited implementing capability. With the designed sample size, adequate survey precision at the district level was expected for indicators for women with values above 15% and for indicators for children under age 5 with values above 20%. Table A.5 shows the sample allocation of the expected number of interviews with women and men. The sample calculations were based on the survey results of the 2014-15 RDHS: the average number of women age 15-49 per household was 1.19 in urban areas and 1.03 in rural areas, the average number of men age 15-59 per household was 1.10 in urban areas and 0.94 in rural areas, the household response rate was 99%; the individual women's response rate was 99%, and the individual men's response rate was also 99%.

Weighting

Due to the non-proportional allocation of the sample to the different provinces and their districts and the possible differences in response rates, sampling weights will be required for any analysis using 2019-20 RDHS data to ensure the actual representativeness of the survey results at the national level and as well as the domain level. Since the 2019-20 RDHS sample was a two-stage stratified cluster sample, sampling weights were calculated based on sampling probabilities separately for each sampling stage and for each cluster

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
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Time Periods

Start	End	Cycle
2019-10-01	2020-10-30	N/A

Data Collection Mode

Face-to-face [f2f]

Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics of Rwanda	NISR	Ministry of Finance and Economic Planning

Data Processing

No content available

Data Appraisal

No content available