Somalia - Somali Health and Demographic Survey 2020

Somali National Bureau of Statistics

Report generated on: September 8, 2021

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Overview

Identification

ID NUMBER
SOM-SNBS-SHDS-2020-v01

Version

VERSION DESCRIPTION
v1: Edited anonymous dataset for public distribution

PRODUCTION DATE
2020

Overview

ABSTRACT
The SHDS is a national sample survey designed to provide information on population, birth spacing, reproductive health, nutrition, maternal and child health, child survival, HIV/AIDS and sexually transmitted infections (STIs), in Somalia.. The main objective of the SHDS was to provide evidence on the health and demographic characteristics of the Somali population that will guide the development of programmes and formulation of effective policies. This information would also help monitor and evaluate national, sub-national and sector development plans, including the Sustainable Development Goals (SDGs), both by the government and development partners. The target population for SHDS was the women between 15 and 49 years of age, and the children less than the age of 5 years

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
The unit analysis of this survey are households, women aged 15-49 and children aged 0-5

Scope

NOTES
Three types of questionnaires were used in the SHDS 2020: The Household Questionnaire, the Ever married Woman's Questionnaire and the Never married Woman's Questionnaire.

Household and Women's Questionnaires

The Household Questionnaire, Ever-married Woman's Questionnaire, and Never-married Woman's Questionnaire were based on Yemen Health and Demographic Survey 2013 instruments, and was adapted to reflect the relevant population and health issues in the Somali context. The questionnaires were further updated with relevant sections of the Demographic and Health Surveys (DHS) Program's standard Demographic and Health Survey Questionnaires (DHS7). Input was solicited from various stakeholders representing government agencies, particularly the ministries of health and planning, as well as international development partners. After the preparation of the questionnaires in English, they were translated into Somali. The questionnaires were further tested and refined in the field to ensure that culturally and religiously sensitive questions were appropriately worded.

The Household Questionnaire was used to list all of the members of and visitors to the selected households. Basic demographic information was collected on the characteristics of each person listed, including his or her age, sex, marital status, education, and relationship to the head of the household. For children under the age of 18, parents' survival status was determined.. The Household Questionnaire also collected information on the characteristics of the household's dwelling

unit, such as their source of drinking water; type of sanitation facility; materials used for the floor, walls, and roof of the dwelling unit; and ownership of various durable goods. In addition, the questionnaire included questions about disability, as well as out-of-pocket expenditure on health. The data obtained from the Household Questionnaire was used to identify ever- and never-married women eligible to be interviewed with the relevant individual questionnaire and those persons eligible for anthropometric measurements

The Ever-married Woman's Questionnaire was used to collect information from all women aged 12 to 49 years who were currently married, divorced, abandoned, or widowed. In all households, eligible women were asked questions on the following topics:

· Background characteristics, such as age, education, literacy and media exposure

· Birth history and child mortality

· Knowledge and use of birth spacing methods

· Antenatal care, delivery, and postnatal care

· Breastfeeding and infant feeding practices

· Vaccinations and children's illnesses

· Marriage and sexual activity

· Fertility preferences

· Women's work and partners' background characteristics

· Knowledge of HIV/AIDS and methods of HIV transmission

· Adult and pregnancy-related mortality

The Never-married Woman's Questionnaire was used to collect information from all women aged 15 to 49 years who had never been married. In all households, eligible women were asked questions on the following topics:

· Background characteristics, such as age, education, literacy and media exposure |

· Violence against women

In this survey, Computer-Assisted Personal Interviewing (CAPI) was used, with interviewers using smart phones to record responses during interviews. The phones were equipped with Bluetooth technology to enable remote electronic transfer of completed questionnaires from interviewers to supervisors. Supervisors transferred completed files to the CSWeb server instances whenever internet connectivity was available. Any revision to the questionnaire was received by the supervisors and interviewers by simply synchronizing their phones with the CSWeb server, which was created specifically for the SHDS. The CAPI data collection system employed in the SHDS 2020 was developed by UNFPA using the mobile version of the Census and Survey Processing System (CSPro). The CSPro software was developed jointly by the U.S. Census Bureau, the DHS Program and Serpro S.A.

Coverage

GEOGRAPHIC COVERAGE

The SHDS 2020 was a nationally representative household survey.

UNIVERSE

This sample survey covered Women aged 15-49 and Children aged 0-5 years.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Somali National Bureau of Statistics	

OTHER PRODUCER(S)

Name	Affiliation	Role
Somali National Bureau of Statistics	Federal Ministry of Planning, Investment and Economic Development of Somalia.	Main producer
Ministry of Health FGS		Producer
Ministries of Health and Planning of FMS		Technical Assistance (Data Collection)
UNFPA Somalia		Technical Assistance (questionnaire design, sampling methodology, data processing, data analysis and report writing)

FUNDING

Name	Abbreviation	Role
Department for International Development	DFID	Funded
Government of Swedish		Funded
Government of Finland		Funded
Government of Italy		Funded
Swiss Agency for Development and Cooperation		Funded

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Somali National Bureau of Statistics	SNBS		Study Description

DATE OF METADATA PRODUCTION
2020

DDI DOCUMENT VERSION
v1

DDI DOCUMENT ID
DDI-SOM-SNBS-SHDS-2020-v1

Sampling

Sampling Procedure

Sample Design The sample for the SHDS was designed to provide estimates of key indicators for the country as a whole, for each of the eighteen pre-war geographical regions, which are the country's first-level administrative divisions, as well as separately for urban, rural and nomadic areas. With the exception of Banadir region, which is considered fully urban, each region was stratified into urban, rural and nomadic areas, yielding a total of 55 sampling strata. All three strata of Lower Shabelle and Middle Juba regions, as well as the rural and nomadic strata of Bay region, were completely excluded from the survey due to security reasons. A final total of 47 sampling strata formed the sampling frame. Through the use of up-to-date, high-resolution satellite imagery, as well as on-the-ground knowledge of staff from the respective ministries of planning, all dwelling structures were digitized in urban and rural areas. Enumeration Areas (EAs) were formed onscreen through a spatial count of dwelling structures in a Geographic Information System (GIS) software. Thereafter, a sample ground verification of the digitized structures was carried out for large urban and rural areas and necessary adjustments made to the frame.

Each EA created had a minimum of 50 and a maximum of 149 dwelling structures. A total of 10,525 EAs were digitized: 7,488 in urban areas and 3,037 in rural areas. However, because of security and accessibility constraints, not all digitized areas were included in the final sampling frame-9,136 EAs (7,308 in urban and 1,828 in rural) formed the final frame. The nomadic frame comprised an updated list of temporary nomadic settlements (TNS) obtained from the nomadic link workers who are tied to these settlements. A total of 2,521 TNS formed the SHDS nomadic sampling frame. The SHDS followed a three-stage stratified cluster sample design in urban and rural strata with a probability proportional to size, for the sampling of Primary Sampling Units (PSU) and Secondary Sampling Units (SSU) (respectively at the first and second stage), and systematic sampling of households at the third stage. For the nomadic stratum, a two-stage stratified cluster sample design was applied with a probability proportional to size for sampling of PSUs at the first stage and systematic sampling of households at the second stage. To ensure that the survey precision is comparable across regions, PSUs were allocated equally to all regions with slight adjustments in two regions. Within each stratum, a sample of 35 EAs was selected independently, with probability proportional to the number of digitized dwelling structures. In this first stage, a total of 1,433 EAs were allocated (to urban - 770 EAs, rural - 488 EAs, and nomadic - 175 EAs) representing about 16 percent of the total frame of EAs. In the urban and rural selected EAs, all households were listed and information on births and deaths was recorded through the maternal mortality questionnaire.
The data collected in this first phase was cleaned and a summary of households listed per EA formed the sampling frames for the second phase. In the second stage, 10 EAs were sampled out of the possible 35 that were listed, using probability proportional to the number of households. All households in each of these 10 EAs were serialized based on their location in the EA and 30 of these households sampled for the survey. The serialization was done to ensure distribution of the households interviewed for the survey in the EA sampled. A total of 220 EAs and 150 EAs were allocated to urban and rural strata respectively, while in the third stage, an average of 30 households were selected from the listed households in every EA to yield a total of 16,360 households from 538 EAs covered (220 EAs in urban, 147 EAs in rural and 171 EAs in nomadic) out of the sampled 545 EAs.
In nomadic areas, a sample of 10 EAs (in this case TNS) were selected from each nomadic stratum, with probability proportional to the number of estimated households. A complete listing of households was carried out in the selected TNS followed by the selection of 30 households for the main survey interview. In those TNS with less than 30 households, all households were interviewed for the main survey. All eligible ever-married women aged 12 to 49 and never-married women aged 15 to 49 were interviewed in the selected households, while the household questionnaire was administered to all households selected. The maternal mortality questionnaire was administered to all households in each sampled TNS.

Response Rate

A total of 16,360 households were selected for the sample, of which 15,870 were occupied. Of the occupied households, 15,826 were successfully interviewed, yielding a response rate of 99.7 percent. The SHDS 2020 interviewed 16,486 women-11,876 ever-married women and 4,610 never-married women.

Weighting

Design weights and sampling (survey) weights were computed for every household and ever-married women and

never-married women selected to participate in the SHDS 2020. A design weight is the inverse of probability of selecting a housing unit to be interviewed. The sampling weight of a household is the design weight corrected for non-response including other adjustments where necessary.

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
2018-02-01	2019-01-31	N/A

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

Data collection in urban and rural areas was carried out in two distinct phases: listing/ MMR and main survey. Data collection in the nomadic areas was carried out almost simultaneously due to the mobility of nomadic households.

Listing and MMR Data Collection
The listing of households and MMR data collection began in February 2018 and was completed in January 2019 for urban and rural areas. As a result of insecurity, flooding and the time taken to engage all of Somalia's Federal Member States, this phase did not take place concurrently throughout the country. Fieldwork was carried out by 64 teams, each consisting of one supervisor, four enumerators and a driver. An Android platform developed in CSPro was used for data collection. Each team was assigned mobile phones (one for each enumerator and one for the supervisor), EA Maps (in A0 and A3 sizes), EA Google Earth files, control sheets, notebooks, pens and document folders. In addition, 34 data quality controllers (trainers, GIS staff, survey/ state directors, and regional coordinators) were coordinating and supervising fieldwork. In security-compromised areas, survey teams were supported by security guards and facilitators in the field.

Main Survey Data Collection
The trained interviewers and supervisors were deployed to collect data from 30 selected households in each of the 10 sampled enumeration areas in each region-stratum. Selected households were obtained from a complete list of households in the EA. Data collectors were supported by the listing team who were well-versed in reading maps and could identify the EA boundaries as well as the selected households. Each interviewer collected data from approximately two households per day. The nomadic households were listed a day prior to the day of enumeration in each TNS to obtain a current and complete list of households. During listing, coordinates of all nomadic household structures and the names of the head of each household were recorded. A sample of 30 households was then selected by the listing team and given to the supervisors of the enumerating team on their first day of enumeration. Subsequent to this, supervisors allocated households to be interviewed to enumerators. The MMR questionnaire was administered by both listing and enumerating teams in nomadic areas. The enumerating team collected this data from the 30 sampled households, while the listing team collected data on maternal deaths from the remaining unsampled households in the TNS.

Data Collectors

Name	Abbreviation	Affiliation

Data Processing

Other Processing

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Data Appraisal

Estimates of Sampling Error

Sampling errors are important data quality parameters which give measure of the precision of the survey estimates. They aid in determining the statistical reliability of survey estimates.
The estimates from a sample survey are affected by two types of errors: non-sampling errors and sampling errors. Non-sampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the Somaliland Health and Demographic Survey (SHDS 2020) to minimise this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.
Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the SHDS 2020 is only one of many samples that could have been selected from the same population, using the same design and sample size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.
Sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95% of all possible samples of identical size and design.
If the sample of respondents had been selected by simple random sampling, it would have been possible to use straightforward formulas for calculating sampling errors. However, the SHDS 2020 sample was the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. The variance approximation procedure that account for the complex sample design used R program was estimated sampling errors in SHDS which is Taylor series linearization. The non-linear estimates are approximated by linear ones for estimating variance. The linear approximation is derived by taking the first-order Tylor series approximation. Standard variance estimation methods for linear statistics are then used to estimate the variance of the linearized estimator.
The Taylor linearisation method treats any linear statistic such as a percentage or mean as a ratio estimate, r = y/x, where y represents the total sample value for variable y and x represents the total number of cases in the group or subgroup under consideration

Other forms of Data Appraisal

- Household age distribution
- Age distribution of eligible and interviewed women
- Pregnancy- related mortality trends

Note: See detailed data quality tables in APPENDIX C of the report.

Documentation

Questionnaires

Never married woman's questionnaire

Title	Never married woman's questionnaire
Author(s)	SNBS
Country	Som
Language	Eng
Filename	Never married woman's questionnaire.pdf

Ever married woman's questionnaire

Title	Ever married woman's questionnaire
Author(s)	SNBS
Country	Som
Language	Eng
Filename	Ever married woman's questionnaire.pdf

SHDS household questionnaire

Title	SHDS household questionnaire
Filename	SHDS household questionnaire.pdf

Reports

SHDS Report 2020

Title	SHDS Report 2020
Author(s)	SNBS
Country	Som
Language	Eng
Filename	SHDS Report 2020.pdf

Other materials

Interviewer’s Manual

Title	Interviewer’s Manual
Author(s)	SNBS
Country	Som
Language	Eng
Filename	Interviewer’s Manual.pdf