

Social Indicator Sample Survey

National Statistical Office

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Sampling

Sampling Procedure

The Mongolia Social Indicator Sample Survey (SISS) is household based, and the last-stage sample units are individual households.

The sample for the SISS 2018 was designed to provide estimates for a large number of indicators on the situation of children and women and men at the national, urban and rural areas, five regions (Eastern, Western, Central, Khangai and Ulaanbaatar) and eight target provinces/ districts (provinces of Bayan-Ulgii, Bayankhongor, Gobi-Altai, Zavkhan, Umnugovi, Khuvsgul and districts of Bayanzurkh and Nalaikh).

A sample of 14,500 households were selected country-wide. The sample size (number of households) within each region was first determined by applying the square root allocation. The sample size was then adjusted for individual provinces and districts that are domains.

A two-stage, stratified cluster sampling approach was used for the selection of the survey sample. The sampling frame was based on the 2017 Population and Household Database (PHDB). The primary sampling units (PSUs) selected at the first stage were the enumeration areas (EAs) defined for this survey. The EAs were selected systematically with probability proportional to size within each stratum, from the full list of EAs in the frame. After a household listing was carried out in the sampled EAs during the period of August - September 2018, a systematic sample of 25 households was selected from each PSU.

Weighting

The SISS sample is not self-weighting, partly because different sampling fractions were used in each stratum. For this reason, sample weights were calculated and used in the subsequent analyses of the survey data.

After the completion of fieldwork, response rates were calculated for each sampling stratum. These were used to adjust the sample weights calculated for each cluster. Response rates in the SISS are shown in Table SR.1.1 in this report.

The non-response adjustment factors for the individual women and under-5 questionnaires were applied to the adjusted household weights. Numbers of eligible women and under-5 children were obtained from the list of household members in the Household Questionnaire for households where interviews were completed.

The weights for the questionnaire for individual men were calculated in a similar way. In this case the number of eligible men in the list of household members in all the SISS sample households in the stratum was used as the numerator of the non-response adjustment factor, while the number of completed questionnaires for men in the stratum was obtained from the 50 percent subsample of households. Therefore, this adjustment factor includes an implicit subsampling weighting factor of 2 in addition to the adjustment for the non-response to the individual questionnaire for men.

In the case of the questionnaire for children age 5-17 years, in each sample household, one child was randomly selected from all the children in this age group recorded in the list of household members. The household weight for the children age 5-17 years is first adjusted based on the response rate for this questionnaire at the stratum level. Once this adjusted household weight is normalised as described below, it is multiplied by the number of children age 5-17 years recorded in the list of household members. Therefore, the weights for the individual children age 5-17 years will vary by sample household. This weighting of the data for the children age 5-17 years old is implemented in the tabulation programs for the corresponding tables.

For the water quality testing (both in household and at source) a subsample of 5 households was selected from the 25 SISS sample households in each sample cluster.

The SISS full (raw) weights for the households were calculated by multiplying the inverse of the probabilities of selection by the non-response adjustment factor for each stratum. These weights were then standardised (or normalised), one purpose of which is to make the weighted sum of the interviewed sample units equal to the total sample size at the national level.

Normalisation is achieved by dividing the full sample weights (adjusted for nonresponse) by the average of these weights across all households at the national level. This is performed by multiplying the sample weights by a constant factor equal to the unweighted number of households at the national level divided by the weighted total number of households (using the full sample weights adjusted for non-response). A similar standardisation procedure was followed in obtaining standardised weights for the individual women, men, under-5 and 5-17 years old children, and water quality testing. Adjusted (normalised) household weights varied between 0.1710 and 4.2085 in the 580 sample enumeration areas (clusters).

Questionnaires

No content available

Data Collection

Data Collection Dates

Start	End	Cycle
2018-09-20	2018-12-20	Everyday

Time Periods

Start	End	Cycle
2018-09-20		Everyday

Data Collection Mode

Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES

PRE-TEST

PAPI pre-testing was carried out in five locations, namely in Sukhbaatar soum, Khushaat soum in Selenge aimag, and in Nalaikh district of Ulaanbaatar during May 2018. Based on the results of the pre-test, modifications were made to the wording and coherence of the questions in questionnaires.

TRAINING

Training for the fieldwork was conducted for 31 days from August 20th to September 19th, 2018. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Participants first completed full training on paper questionnaires for 20 days, followed by a 10-day training on the CAPI application.

The trainees spent 4 days in field practice in total with 2 days of paper-based questionnaire and 2 days of data collection using tablets. The training agenda was based on the standard MICS6 training agenda. Complementary trainings such as disaster/first-aid training, dog aggression and communication, and team psychology were added to the agenda in view of country-specific reasons.

Trainees received dedicated training on anthropometric measurements and water quality testing for a total of 4 days, including one day of field practice on each of the two tasks.

Field Supervisors attended additional training on the duties of team supervision and responsibilities.

Plan of survey

The data were collected by 19 teams; each was comprised of 5 interviewers (3 female and 2 male interviewers, male interviewers also operated as measurers) 2 drivers and a supervisor. Fieldwork was conducted from September 21st in Ulaanbaatar and from October 3rd in local area until December 28th, 2018 lasting for 99 days.

Technology used to survey

Data was collected using tablet computers running the Windows 10 operating system, utilising a Bluetooth application for field operations, enabling transfer of assignments and completed questionnaires between supervisor and interviewer tablets.

Data Collectors

Name	Abbreviation	Affiliation
National Statistical Office	NSO	SGH

Data Processing

Data Editing

Data were received at the NSO's data server via the transfer application on the supervisors' tablets. Data from interviewers are batched on the supervisors' application via Bluetooth transfer, which is also used by supervisors for checking for irregularities. Whenever logistically possible, synchronisation was done daily. The central office communicated application updates to field teams through this system.

Following the completion of fieldwork, data were edited according to editing process described in detail in the standard MICS6 Guidelines for Secondary Editing.

Data were analysed using the Statistical Package for Social Sciences (SPSS) software, Version 24.0. Model syntax and tabulation plan developed by UNICEF were used with customisation for additional country-specific analyses.

Data Appraisal

No content available