

Philippines - Sub-Regional Multiple Indicator Cluster Survey 2007

National Statistics Office

Report generated on: February 16, 2023

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Overview

Identification

ID NUMBER
PHL-NSO-MICS-2007-v1.0

Version

VERSION DESCRIPTION
v1.1, edited data, first version, for internal use only

PRODUCTION DATE
2010-03

Overview

ABSTRACT

The 2007 SR-MICS is a joint undertaking of the National Statistics Office (NSO), National Economic and Development Authority (NEDA), and the United Nations Children's Fund (UNICEF). This is a sub-regional sample survey designed to gather information on health of Filipino children below five years old and education of those 6 years old and over. This survey also aimed to gather pertinent data on health practices of Filipino women during and after pregnancy, the extent of birth registration of Filipino children, women's knowledge of children's rights, methods of child discipline, HIV/AIDS awareness, and incidence of hunger.

The 2007 SR-MICS was administered to mothers/primary caretakers of children in households and to eligible women age 15 to 49 years to provide estimates primarily for the selected nineteen (19) provinces and five (5) key cities identified as areas for the Sixth Country Programme for Children (CPC-6). As the UNICEF focuses its activities in these provinces and cities in cooperation with the Philippine Government, the UNICEF Country Office needs reliable baseline data on key indicators.

This survey is basically aimed at generating social and health indicators that will serve as baseline data for the midterm review of the CPC-6 and will be utilized as basis for the redesigning of the program, if necessary. The results of the 2007 SR-MICS will also be used to assess the Millennium Development Goals (MDGs) in the CPC-6 areas.

Specifically, the survey collects information on the following:

- a. demographic and socio-economic characteristics of the members of the household
- b. working children
- c. maternal and child health, such as:
 - prenatal care of women 15 to 49 years old with surviving child 0 to 23 months old
 - breastfeeding practices of these women
 - immunization of children born in the two years prior to the survey
- d. birth registration of children below 5 years old
- e. vitamin A and iron supplementation of children 6 to 59 months old
- f. antihelmintics coverage among children 2 to 4 years old
- g. knowledge of the rights of children and of ways to discipline them
- h. HIV/AIDS awareness

i. incidence of hunger among women 15 to 49 years old.

KIND OF DATA

Sample survey data [ssd]

UNITS OF ANALYSIS

Households

Individual women 15-49 years old

Children under 5 five years old

Scope

NOTES

The scope of the Multiple Indicator Cluster Survey includes:

HOUSEHOLDS - Gathers information on the characteristics of the household members, main occupation, educational background of household members 6 years old and over, school attendance of members 6 to 24 years old, early education of children 3 to 5 years old, nature and duration of work of working children, socio-economic condition and salt iodization of the household.

WOMEN and CHILDREN - All women age 15 to 49 years old and their children in the household. Collects characteristics information on maternal and child health, birth registration, vitamin A supplementation, and antihelminthics or deworming of children. Also, information on the women's knowledge of children's rights and practices of disciplining children, HIV/AIDS awareness, and incidence of hunger.

Coverage

GEOGRAPHIC COVERAGE

Selected Province and Cities

The following were the covered cities and provinces:

CITIES:

1. Manila
2. Quezon City
3. Pasay City
4. Cebu City
5. Davao City

PROVINCES: :

1. Isabela
2. Aurora
3. Camarines Norte
4. Masbate
5. Mountain Province

6. Antique
7. Capiz
8. Guimaras
9. Negros Oriental
10. Eastern Samar
11. Northern Samar
12. Zamboanga del Norte
13. Bukidnon
14. Sarangani
15. Sultan Kudarat
16. North Cotabato
17. Agusan del Sur
18. Maguindanao
19. Sulu

GEOGRAPHIC UNIT
Province, City

UNIVERSE

The survey covered all household members (usual residents), all women aged 15-49 years old resident in the household, and all children aged 0-4 years (under age 5) resident in the household in the areas identified in the geographic coverage.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Statistics Office	National Economic and Development Authority

OTHER PRODUCER(S)

Name	Affiliation	Role
United Nations Children's Fund	United Nations	

FUNDING

Name	Abbreviation	Role
United Nations Children's Fund	UNICEF	

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Ms. Erlinda Capones, National Economic and Development Authority (NEDA)	Philippine government	Chairman, Steering Committee

Ms. Carmelita Ericta, National Statistics Office (NSO)	National Economic and Development Authority	Member, Steering Committee
Dr. Nicholas Alipui, United Nations Children's Fund (UNICEF)	United Nations	Member, Steering Committee
Ms. Cleofe Pastrana, NEDA	Philippine government	Member, Steering Committee
Ms. Socorro Abejo, NSO	NEDA	Member, Steering Committee and Technical Coordinator
Ms. Benedicta Yabut, NSO	NEDA	Member, Steering Committee
Ms. Lina Castro, National Statistical Coordination Board (NSCB)	NEDA	Member, Steering Committee
Ms. Rene Dona, United Nations Fund for Population Activity (UNFPA)	United Nations	Member, Steering Committee
Ms. Frederic Unterreiner, UNICEF	United Nations	Member, Steering Committee
Mr. Augusto Rodriguez, UNICEF	United Nations	Member, Steering Committee and Technical Coordinator

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
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DATE OF METADATA PRODUCTION
2010-03-09

DDI DOCUMENT VERSION
Version 1.0 (March 2010)

DDI DOCUMENT ID
DDI-PHL-NSO-MICS-2007-v1.1

Sampling

Sampling Procedure

The sample for the Philippines Sub-Regional Multiple Indicator Cluster Survey (SR-MICS) was designed to provide estimates on a large number of indicators on the situation of children and women for the 24 selected provinces and cities covered by the Sixth CPC (CPC-6). These 24 provinces and cities were considered as the main sampling domains, and the sample was selected using a stratified multi-stage sampling design. A Primary Sampling Unit (PSU) was defined as a barangay or a group of contiguous barangays with at least 500 households. Large PSUs were selected with certainty.

For each sampled PSU, one enumeration area (EA) was selected with probability proportional to the total number of households, after which a sample of housing units was selected with equal probability. In each housing unit, all households were selected provided that the number of households did not exceed three. In cases where there were more than three households in a housing unit, three households were chosen at random. In the case of PSUs selected with certainty, samples of EA were selected with probability proportional to the number of households, and housing units were selected with equal probability. In each housing unit, all households were selected provided that the number of households did not exceed three. In cases where there were more than three households in a housing unit, three households were chosen at random. Prior to the selection of housing units, an updating operation was performed on the list of housing units/households in each selected EA. The number of housing units selected was determined so that the sample design is self-weighting at the domain level.

Deviations from Sample Design

NA

Response Rate

Of the 48,402 households originally selected for the sample, 42,882 were found to be occupied and eligible for the survey. Of these, 41,511 households were successfully interviewed, giving a household response rate of 96.8 percent. These households contained 48,963 women in the age group of interest (15-49), of whom 47,376 (96.8%) were successfully interviewed. Questionnaires were also completed for 20,490 children under the age of five.

Weighting

Calculation of Sample Weights

The overall survey weight that will be associated with each observation is made up of three components, namely: w_1 - the base weight, which is defined as the inverse of selection probabilities; w_2 - the weight to adjust for non-response, defined as the inverse of the weighted response rate in the identified non-response adjustment cell; and, w_3 - the post-stratification weight. The final survey weight, denoted by w_i , is defined as

$$w_i = w_1 \times w_2 \times w_3$$

For more detailed discussion on weighting, please refer to the attached SR-MICS 2007 Final Report (filename SR-MICS2007 Part 2.pdf - page 90).

Questionnaires

Overview

As the 2007 SR-MICS questionnaire is printed in English, translation guides for six (6) major dialects, Tagalog, Bicol, Cebuano, Hiligaynon, Ilocano, and Waray are prepared to help interviewers collect information from respondents who are more comfortable to be interviewed in these dialects.

Three questionnaires were used for the 2007 MICS namely:

1. SR-MICS Form 1 - Listing Form
2. SR-MICS Form 2 - Household Questionnaire
3. SR-MICS Form 3 - Individual Woman's Questionnaire

Specifically, SR-MICS Form 1 is a questionnaire that gathers information on the following:

Name of Household Head
Address

SR-MICS Form 2 is a questionnaire that seeks to gather information on the following:

Module A - Household Membership
Module B - Economic
Module C - Education
Module D - Working Children
Module E - Socio-Economic
Module F - Salt Iodization

The Household Questionnaire was prepared in English. A Tagalog translation guide was also prepared.

SR-MICS Form 3, on the other hand, measure the functional literacy level of household members 10 to 64 years old regardless of their educational attainment.

The Individual Questionnaire, being a self-administered questionnaire, was translated into 26 dialects in order for the respondents to understand the questions asked. The dialects for FLEMMS Form 2 are listed below:

Module A - Maternal and Child Health
Module B - Birth Registration
Module C - Vitamin A
Module D - Anthelmintics
Module E - Children's Rights and Child Discipline
Module F - HIV/AIDS
Module G - Hunger

Some of the usual MICS topics were not included in this SR-MICS because they had been covered adequately in other recent surveys. For instance, no anthropometric data were collected, because the 2005 Food and Nutrition Research Institute (FNRI) survey had covered this area extensively. In contrast, some topics from the earlier global rounds of MICS that had been dropped (e.g. child rights) were retained and some new topics such as the measurement of hunger and antihelminthics (deworming) were included, since they were of particular interest to the Philippines. For some other topics (such as child discipline and HIV and AIDS) the methodology used differed slightly from that recommended in the MICS 3 manual.

Separate questionnaires were not prepared in any of the Filipino languages. Instead, detailed translation guides for each question were included as an appendix to the Interviewer's Manual in six different languages: Tagalog, Bicol, Cebuano, Hiligaynon, Ilocano, and Waray.

Various pre-tests were carried out: the first was a one-day pre-test in Sampaloc, Manila in August 2006; the second, a two-day pre-test in San Pablo City, Laguna in September, at which time questions in Tagalog were tested; the third, a two-day pre-test in Cebu City, Davao City, Antique, Eastern Samar and Isabela in early October, when questions in Cebuano, Hiligaynon, Waray and Ilocano were tested; and the fourth a one-week pretest in Sampaloc, Manila towards the end of

October, when the listing and enumeration processes were tested. Based on the results of the first three pretests, modifications were made to the wording and translation of the questionnaires. The fourth pre-test was done to test the sampling methodology of list and enumerate. However, it was determined that the listing should be conducted independently prior to sample selection and enumeration.

Below are copies of the final SR-MICS questionnaires for the Philippines.

Data Collection

Data Collection Dates

Start	End	Cycle
2007-02-12	2007-03-02	N/A

Data Collection Mode

face-to-face [f2f] interview

Data Collection Notes

PRETEST

The NSO conducted a total of four pretests for the 2007 SR-MICS. The first three pretests mainly aimed to test the questionnaires (English version and dialect translations) and to set the quota for interviewers. On the other hand, the last pretest intended to check if the list and enumerate approach would be a good alternative in undertaking the survey for sample areas without sample frame.

The first pretest, which aimed to test the questionnaire design, was conducted in Bgy.418, Manila. In preparation for the activity, a two-day briefing was conducted. Discussed were the concepts and definitions, instructions in the conduct of the survey, and clarifications on matters related to the survey. The personnel who were involved in this pretest were staff of the Demographic and Social Statistics Division (DSSD) who had previously carried out pretests for NSO surveys such as the Family Planning Survey (FPS), Maternal and Child Health Survey (MCHS), and National Demographic and Health Survey (NDHS) and were already familiar with the conduct of a pretest.

A second pretest was held in Bgy. Poblacion III and Bgy. Banilad, Nagcarlan, Laguna to further test the survey instrument which was revised based on the Pretest I findings. It was also conducted to determine whether the geographic location of an area, i.e. urban or rural, contributes to the output rate. In addition, since Tagalog is the main language/dialect of the province, the Tagalog translation guide of the questionnaire was used in the pretest to assess its correctness. Pretest II was conducted by eight (8) teams, each composed of one supervisor and one interviewer, from the DSSD.

To test the translation of the questionnaires in the other five (5) major dialects (Bicol, Cebuano, Ilocano, Hiligaynon, and Waray), a third pretest was conducted in selected provinces: Cebu City, Davao City, Antique, Eastern Samar, and Isabela. Each of the pretest areas formed two teams and conducted interviews using the translations. The recommendations for the translation guides were forwarded to the Central Office for final revision.

A fourth pretest was conducted in Bgy. 548, Sampaloc, Manila to test the 'list and enumerate' approach. This approach involved listing the households in a sample area, simultaneously selecting the sample households using a random start determined by the supervisor, and interviewing the sample households. There were two pretest teams composed of one enumerator and one supervisor for each team. One overall supervisor was tasked to oversee the activity. This activity was conducted on October 17-23, 2006.

Observations, comments, and recommendations were discussed during debriefing of each pretest. Duration of time interview in accomplishing the two questionnaires was also observed and recorded.

TRAINING

Training for the fieldwork was conducted in two stages. The first level (Task Force Training), a four-day 'training of trainers' course was held at Richville Hotel, Mandaluyong City from January 29 to February 1, 2007 and was attended by NSO subject-matter specialists and statisticians from selected regional and provincial offices of NSO. Members of the SR-MICS Steering Committee, as well as UNICEF staff, were invited to attend as resource persons. The training, which was conducted by the subject-matter specialists, covered a discussion of concepts and definitions, the procedure of how to complete the questionnaires, and other procedures in enumeration and supervision.

The second level of training was held in the 24 CPC-6 areas on February 5-9, 2007 and lasted five days. It was attended by NSO regional directors, provincial statistics officers, those designated provincial statisticians assigned the task of provincial

supervisors, and team supervisors and interviewers. The participants from the first level of training acted as trainers/resource persons for the second-level training. Resolved issues during the first training course were covered along with other topics.

Written exercises were also administered in both levels to assess the participants' ability in absorbing the concepts and definitions and the instructions in the filling up of the questionnaires/forms for the survey. Several mock interviews were conducted in class and a half day field practice was conducted to familiarize the participants with the questionnaires and with the procedures on how to conduct an interview. Problems and errors encountered during the field practice were discussed to avoid duplicating these errors in the actual fieldwork. Issues raised during the conduct of the training in each level were properly discussed and resolved.

ENUMERATION

Interviewers were required to interview four (4) households a day as their daily output, that is, using the Household Questionnaire (SR-MICS Form 2) for each of the four sample households and the Individual Woman's Questionnaire (SR-MICS Form 3) for all eligible women respondents in the four sample households. As in previous household surveys conducted by the NSO, replacement of respondent for the SR-MICS Form 3 was not allowed.

The data were collected by 335 teams, with each team consisting of two interviewers and a team supervisor. Collection of data or actual enumeration lasted for 17 mandays

SUPERVISION

Aside from DSOs and SCOs who acted as Team Supervisors, RDs, PSOs and their alternates supervised the conduct of the survey. NSO Central Office personnel also supervised in the sample provinces on the second and/or third week of enumeration. They conducted spot-checks, re-interviews and edited completed questionnaires submitted by the interviewers.

Questionnaires

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Data Collectors

Name	Abbreviation	Affiliation
National Statistics Office	NSO	National Economic and Development Authority

Supervision

In each selected administrative region, the Regional Director (RD) is the Regional Coordinator; the Provincial Statistics Officer (PSO) is the Provincial Coordinator; and Provincial Statistician is the Provincial Supervisor; and selected Statisticians, District Statistical Officers (DSO's), Statistical Coordination Officers (SCOs), and in the event that manpower is not sufficient, the hired Supervisors, served as team supervisors.

The Regional Directors and Provincial Statistics Officers acted as the overall field coordinators/supervisors in their regional and provincial areas of jurisdictions. For each SR-MICS province, a Provincial Statistician was designated as the Provincial Supervisor or overall supervisor of all interviewing teams in the province. Detailed duties and responsibilities of the RDs and PSOs were discussed during the two levels of training using the Field Operation Manual and for Provincial Supervisors, Supervisor's Manual.

Moreover, regular staff from the Provincial Office-District Statistics Officer (DSO), Statistical Coordination Officer (SCO), or other Statistical staff were selected as Team Supervisors (TSs). For provinces with insufficient number of regular staff to meet the required number of TSs, hiring of SR to act as TS was allowed provided the guidelines for selecting TS from the hired SRs in Section 4.3.1 was followed.

The 2007 SR-MICS is a joint undertaking of the NSO, the NEDA, and the UNICEF. The NSO is primarily tasked to implement the survey. On behalf of the NSO Administrator, the Director of the Household Statistics Department (HSD) is in charge of the overall conduct of the survey.

As interviewers for the 2007 SR-MICS you are part of the survey organization. You will be supervised directly by a team

supervisor and by the Provincial Statistics Officers (PSOs), Provincial Statisticians, and NSO Central Office Statisticians.

All matters pertaining to the 2007 SR-MICS, be it technical, financial or administrative in nature, are supervised and coordinated by the HSD.

In addition, the use of different forms aside from the main three forms were used to facilitate and monitor the quality of data being collected.

Data Processing

Data Editing

Data processing involves two stages: manual processing and machine processing.

Manual processing is done at the field offices. This is the general review of the questionnaires. This process includes the folioing of the questionnaires, completeness and consistency checking of the responses, editing and coding of responses. This is done prior to machine processing.

Other Processing

The Task Force Training for the data processing was held on March 5-6, 2007 at the Contemporary Hotel in Araneta Ave., Quezon City. One CO statistician and three programmers from the Information Resources Department conducted the training, which was attended by selected NSO Demographic and Social Statistics Division (DSSD) statisticians and provincial statisticians or their representative. The provincial statisticians were responsible for the conduct of the second-level training for data processors in their respective provinces. However, due to unavailability of provincial statisticians in 3 provinces, CO statisticians conducted the second level training in these three provinces.

A total of 78 manual processors and 58 data encoders, who were supervised by 24 designated provincial office supervisors, were hired for the data processing. The questionnaires were edited at the provincial offices strictly following the guidelines on manual processing. Manually processed and folioed questionnaires were given to data encoders for encoding. Fifty-eight computers were used for the data entry. Data were entered using the CSPro software.

To ensure quality of data, a strict series of processing was done at the Central Office following a set of guidelines.

Data Appraisal

Estimates of Sampling Error

The sample of respondents selected in the Philippines SR-MICS is only one of the samples that could have been selected from the same population, using the same design and 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 between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures were used for each of the selected indicators:

- standard error
- coefficient of variation
- design effect
- and confidence limits.

For the calculation of sampling errors from SR-MICS data, the software package STATA Version 9 has been used.

Sampling errors are calculated for some indicators of primary interest for each of the CPC-6 provinces and cities. One of the selected indicators is based on households, three are based on household members, three are based on women, and six are based on children under 5. All indicators below are in the form of proportions and for which sampling errors are calculated, including the base population (denominator).

- 1) Iodized Salt Consumption
- 2) Use of Improved Drinking Water Sources
- 3) Use of Improved Sanitation Facilities
- 4) Child Labour
- 5) Skilled Attendant at Delivery
- 6) Female Youth Literacy
- 7) Knowledge of Mother-toChild Transmission of HIV
- 8) Tuberculosis Immunization Coverage
- 9) Polio Immunization Coverage
- 10) Immunization Coverage for DPT
- 11) Measles Immunization Coverage
- 12) Fully Immunized Children
- 13) Birth Registration

There are a few discrepancies between the base figures and those in the individual. These small differences may be attributable to one of the following causes: 1) The precision in the computations may be different between CSPro and STATA 9; 2) The conversion from CSPro to STATA 9 is not yet perfect, and in the process a few observations may be lost along the way; 3) For iodized salt, the denominator used was the number of households where salt was tested.