

# Egypt, Arab Rep. - Multiple Indicator Cluster Survey 2013-2014

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Population**

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# Sampling

## Sampling Procedure

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The sample for the survey was designed to provide estimates for a large number of indicators on the situation of children and women in IPHN areas, and for the three domains: Upper Egypt pilot area, Upper Egypt expansion area, and Lower Egypt expansion area. The Family Health Unit (FHU) catchment areas in the villages of the IPHN within each region were identified as the main primary sampling units (PSUs) and the sample was selected in three stages. Within each stratum, a specified number of FHUs were selected systematically with probability proportional to size, where 10 FHUs were selected from Upper Egypt Pilot phase, and 17 FHUs from Upper Egypt Expansion phase, and 11 FHUs from Lower Egypt Expansion phase. Then a number of enumeration areas were selected systematically with probability proportional to size from each FHU catchment area. A total of 234 EAs in the selected FHUs were thus selected, 60 from Upper Egypt pilot, 108 from Upper Egypt expansion, and 66 from Lower Egypt Expansion.

After a household listing was carried out within the selected enumeration areas, a systematic sample of 30-31 households with women age 15 to 49 and/or with children under-5 years was drawn in each sample enumeration area for a total of 7067 sample households. The sample was stratified by the three domains, and is not self-weighting. For reporting results for the entire IPHN area, sample weights are used.

A stratified three-stage cluster sampling design has been adopted:

- 1- First stage: systematic selection of a sample of FHUs with probability proportional to size (PPS) of the FHU (population/households).
- 2- Second stage: systematic selection of a sample of Enumeration Areas with PPS to get a sample of EAs from each selected FHU.
- 3- Third stage: systematic sample of households selected from each EA When a household is selected, all ever-married women (15-49 years) and mothers or caretakers of children (0-4) years were eligible to be interviewed.

The sampling procedures are more fully described in appendix A in document "Multiple Indicator Cluster Survey 2013-14 - Final Report" pp.161-164.

## Response Rate

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Out of the 7,067 households selected for the survey, 7,050 were found to be occupied. Of these, 7,046 were successfully interviewed for a household response rate of 99.9 percent.

In the interviewed households, 5,859 ever-married women (age 15-49 years) were identified. Of these, 5,847 ever-married women were successfully interviewed, yielding a response rate of 99.8 percent.

In addition, 5,096 children under-5 were listed in the household questionnaire. Questionnaires were completed for 5,090 of these children, which corresponds to a response rate of 99.9 percent.

Overall response rates of 99.7 and 99.8 percent are calculated for individual interviews of ever-married 15-49 year-old women and under-5s respectively.

## Weighting

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The sample was stratified by the three domains, and is not self-weighting. For reporting results for the entire IPHN area, sample weights are used.

# Questionnaires

## Overview

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The questionnaires for the Generic MICS were structured questionnaires based on the MICS5 model questionnaire with some modifications and additions. Household questionnaires were administered in each household, which collected various information on household members including sex, age and relationship. The household questionnaire includes List of Household Members, Education, Household Characteristics, Water and Sanitation and Hand Washing.

In addition to a household questionnaire, questionnaires were administered in each household for women age 15-49 and children under age five. The questionnaire was administered to the mother or primary caretaker of the child.

The women's questionnaire includes Women's Background, Access to Mass Media and Use of Information/Communication Technology, Marriage, Birth History, Desire for Last Birth, Maternal and New-born Health, Post-natal Health Checks, Illness Symptoms, Attitude Module, and Woman and Husband's work status.

The children's questionnaire includes Child's Age, Birth Registration, Breastfeeding and Dietary Intake, Immunization, Growth Monitoring, Care of Illness and Anthropometry.

The questionnaires were based on the MICS5 model questionnaire. The previous mentioned sections were taken from the MICS5 model Arabic version questionnaires and customized, then translated into Egyptian Arabic. Additional questions were added to respond to the data needs of the monitoring system (MoRES) of the IPHN, especially in antenatal and postnatal sections. A pre-test of the questionnaires was conducted in November 2013. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires.

## Data Collection

### Data Collection Dates

Start	End	Cycle
2013-12-03	2014-01-02	N/A

### Data Collection Mode

Face-to-face [f2f]

#### DATA COLLECTION NOTES

Training for the fieldwork was conducted for two weeks in November. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent two days in practice interviewing in Manial Sheha FHU/ Abo El-Nomrous district in Giza and El-Kateba FHU/ Belbis district Sharkia.

The data were collected by nine teams; each was comprised of one supervisor, one field editor and 4 interviewers. As a dedicated measurer was not included, the supervisor and field editor were mainly responsible of height and weight measurement. In addition one interviewer per team was trained on height and weight to assist them during fieldwork. Fieldwork began on 3rd of December 2013 and concluded on 2nd of January 2014.

### Data Collectors

Name	Abbreviation	Affiliation
El-Zanaty & Associates		

#### SUPERVISION

There is one supervisor for each of the 9 data collection teams in the field.

# Data Processing

## Data Editing

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Data were entered using the CPro software. The data were entered on eight microcomputers and carried out by 8 data entry operators, one data entry supervisor and one assistant. In order to ensure quality control, all questionnaires were double-entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS5 programme were used and adapted to the Egypt questionnaire in the survey. Data processing began simultaneously with data collection in mid-December 2013 and was completed with the clean data set in late January 2014. Data were analysed using the Statistical Package for Social Sciences (SPSS) software program, Version 18, and the model syntax and tabulation plans developed by UNICEF were used for this purpose. In addition the country specific tables that were designed for the survey specific questions were developed using SPSS by the data processing expert of El-Zanaty and reviewed by UNICEF experts at the regional office as well as headquarters.

# Data Appraisal

## Estimates of Sampling Error

Sampling errors are a measure of the variability between the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

The following sampling error measures are presented in this appendix for each of the selected indicators:

- Standard error (se): Standard error is the square root of the variance of the estimate. For survey indicators that are means, proportions or ratios, the Taylor series linearization method is used for the estimation of standard errors. For more complex statistics, such as fertility and mortality rates, the Jack-knife repeated replications method is used for standard error estimation.
- Coefficient of variation (se/r) is the ratio of the standard error to the value (r) of the indicator, and is a measure of the relative sampling error.
- Design effect (deff) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling based on the same sample size. The square root of the design effect (deff) is used to show the efficiency of the sample design in relation to the precision. A deff value of 1.0 indicates that the sample design of the survey is as efficient as a simple random sample for a particular indicator, while a deff value above 1.0 indicates an increase in the standard error due to the use of a more complex sample design.
- Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ( $r + 2.se$  or  $r - 2.se$ ) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, programs developed in CSPro Version 5.0, SPSS Version 21 Complex Samples module and CMRJack have been used.

## Other forms of Data Appraisal

A series of data quality tables are available to review the quality of the data and include the following:

- Age distribution of household population
- Age distribution of eligible and interviewed women
- Age distribution of children in household and under-5 questionnaires
- Birth date reporting: Household population
- Birth date and age reporting: Women
- Birth date and age reporting: Under-5s
- Birth date reporting: Children, adolescents and young people
- Birth date reporting: First and last births
- Completeness of reporting
- Completeness of information for anthropometric indicators: Underweight
- Completeness of information for anthropometric indicators: Stunting
- Completeness of information for anthropometric indicators: Wasting
- Heaping in anthropometric measurements
- Observation of birth certificates
- Observation of vaccination cards
- Observation of women's health cards
- Observation of bednets and places for handwashing
- Presence of mother in the household and the person interviewed for the under-5 questionnaire
- School attendance by single age
- Sex ratio at birth among children ever born and living
- Births by calendar years
- Reporting of age at death in days
- Reporting of age at death in months

The results of each of these data quality tables are shown in appendix D in document "Multiple Indicator Cluster Survey 2013-14 - Final Report" pp.171-184.





## Related Materials

### Questionnaires

#### Egypt Multiple Indicator Cluster Survey 2013-14 - Questionnaire

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Title	Egypt Multiple Indicator Cluster Survey 2013-14 - Questionnaire
Date	2014-12-01
Country	Egypt
Language	English
Table of contents	Household questionnaire modules Household member questionnaire modules Women questionnaire modules Children questionnaire modules
Filename	Egypt (Sub-national) 2013-14 MICS_English_Questionnaire.pdf

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### Reports

#### Egypt Multiple Indicator Cluster Survey 2013-14 - Report

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Title	Egypt Multiple Indicator Cluster Survey 2013-14 - Report
Author(s)	El-Zanaty & Associates Ministry of Health and Population United Nations Children's Fund (UNICEF)
Date	2014-12-01
Country	Egypt
Language	English
Filename	<a href="https://mics-surveys-prod.s3.amazonaws.com/MICS5/Middle%20East%20and%20North%20Africa/Egypt%20%28Sub-national%29/2013-2014/Final/Egypt%20%28Sub-national%29%202013-14%20MICS_English.pdf">https://mics-surveys-prod.s3.amazonaws.com/MICS5/Middle%20East%20and%20North%20Africa/Egypt%20%28Sub-national%29/2013-2014/Final/Egypt%20%28Sub-national%29%202013-14%20MICS_English.pdf</a>

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#### Egypt Multiple Indicator Cluster Survey 2013-14 - Key Findings

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Title	Egypt Multiple Indicator Cluster Survey 2013-14 - Key Findings
Author(s)	El-Zanaty & Associates Ministry of Health and Population United Nations Children's Fund (UNICEF)
Date	2014-12-01
Country	Egypt
Language	English
Filename	<a href="https://mics-surveys-prod.s3.amazonaws.com/MICS5/Middle%20East%20and%20North%20Africa/Egypt%20%28Sub-national%29/2013-2014/Key%20findings/Egypt%20%28Sub-National%29%202013-14%20MICS%20%20KFR_English.pdf">https://mics-surveys-prod.s3.amazonaws.com/MICS5/Middle%20East%20and%20North%20Africa/Egypt%20%28Sub-national%29/2013-2014/Key%20findings/Egypt%20%28Sub-National%29%202013-14%20MICS%20%20KFR_English.pdf</a>

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