

# Cambodia - Cambodia Demographic and Health Survey in 2010

**National Institute of Statistics, Directorate General for Health**

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## Overview

### Identification

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ID NUMBER  
KHM-NIS-CDHS-2010-v01

### Version

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VERSION DESCRIPTION  
Version 1.0 - Edited data for internal use only.

PRODUCTION DATE  
2011-09

### Overview

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#### ABSTRACT

The Cambodia Demographic and Health Survey in 2010 (CDHS 2010) is the third nationally representative survey conducted in Cambodia on population and health issues. It uses the same methodology as its predecessors, the 2000 and the 2005 Cambodia Demographic and Health Surveys, allowing policymakers to use these surveys to assess trends over time. The primary objective of the CDHS is to provide the Ministry of Health (MOH), Ministry of Planning (MOP), and other relevant institutions and users with updated and reliable data on infant and child mortality, fertility preferences, family planning behavior, maternal mortality, utilization of maternal and child health services, health expenditures, women's status, and knowledge and behavior regarding HIV/AIDS and other sexually transmitted infections. This information contributes to policy decisions, planning, monitoring, and program evaluation for the development of Cambodia at both the national and local government levels.

KIND OF DATA  
Sample survey data [ssd]

UNITS OF ANALYSIS  
Household, individual (including women and men between the ages of 15 and 49), and children aged 5 and below.

### Scope

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#### NOTES

CDHS 2010 covers 19 main areas of social concern:

1. Respondent and Housing
2. Accident and Injury
3. Fertility
4. Family Planning
5. Maternal Health
6. Child Health
7. Morbidity

8. Nutrition

9. HIV

10. Women's Status

## TOPICS

Topic	Vocabulary	URI
Mental Health	World Bank	
Nutrition	World Bank	
HIV/AIDS	World Bank	

## Coverage

## GEOGRAPHIC COVERAGE

The sample was designed to provide estimates of the indicators at the national level, for urban and rural areas, and for 19 domains: 1.Banteay Mean Chey, 2.Kampong Cham, 3.Kampong Chhnang, 4.Kampong Speu, 5.Kampong Thom, 6.Kandal, 7.Phnom Penh, 8.Prey Veng, 9.Pursat, 10.Svay Rieng, 11.Takeo, 12.Kratie, 13.Siem Reap, 14.Otdar Mean Chey, 15. Battambang and Krong Pailin, 16. Kampot and Krong Kep, 17.Krong Preah Sihanouk and Kaoh Kong, 18.Preah Vihear and Steng Treng; and 19.Mondol Kiri and Rattanak Kiri.

## GEOGRAPHIC UNIT

Village level (by commune, district and province)

## UNIVERSE

The survey covered the whole resident population (regular household) , with the exception of homeless in Cambodia

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics	Ministry of Planning
Directorate General for Health	Ministry of Health

## OTHER PRODUCER(S)

Name	Affiliation	Role
ICF Macro		Technical assistance

## FUNDING

Name	Abbreviation	Role
US Agency for International Development	USAID	Financial support
United Nations Population Fund	UNFPA	Financial support
United Nations Children's Fund	UNICEF	Financial support
United State Agency for International Development	USAID	Financial support
Health Sector Support Program-Second Phase	HSSP-2	Financial support
Japan International Cooperation Agency	JICA	Financial support

## OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
EXECUTIVE COMMITTEE	MOP/ MOH	
TECHNICAL COMMITTEE	NIS/ MOH	

## Metadata Production

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## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
CHHUN BONARITH	CB	NIS	Archivist
MEY SOKHANTEY	MS	NIS	Archivist

## DATE OF METADATA PRODUCTION

2011-09-12

## DDI DOCUMENT VERSION

Version 1.0 (September 12, 2011) The first documentation of the survey.

## DDI DOCUMENT ID

DDI-KHM-NIS-CDHS2010-V1.0

## Sampling

### Sampling Procedure

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The survey was based on a stratified sample selected in two stages. Stratification was achieved by separating every reporting domain into urban and rural areas. Thus, the 19 domains. Samples were selected independently in every stratum through a two-stage selection process. Implicit stratifications were achieved at each of the lower geographical or administrative levels by sorting the sampling frame according to geographical/administrative order and by using a probability proportional to size selection strategy at the first stage of selection. (Please refer to technical documents for details).

### Response Rate

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Response rate:

Households: 99 per cent

Women ages 15-49: 98 per cent

Men ages 15-49: 95 per cent

See Table 1. Results of the household and individual interviews in the CDHS 2010 Preliminary Report (Refer to technical documents)

### Weighting

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Not available

# Questionnaires

## Overview

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There are three types of questionnaires used in the CDHS: the Household Questionnaire, the Individual Woman's Questionnaire, and the Individual Man's Questionnaire.

The households that have been scientifically selected to be included in the CDHS sample were visited and interviewed using a Household Questionnaire. The Household Questionnaire consisted of a cover sheet to identify the household and a form on which all members of the household and visitors were listed. Data collected about each household member were name, sex, age, education, and survival of parents for children under age 18 years, etc. The Household Questionnaire was used to collect information on housing characteristics such as type of water, sanitation facilities, quality of flooring, and ownership of durable goods.

The Household Questionnaire permitted the interviewer to identify women and men who were eligible for the Individual Questionnaire. Women ages 15-49 years in every selected household who are members of the household (those that usually live in the household) and visitors (those who do not usually live in the household but who slept there the previous night) were eligible to be interviewed with the individual Woman's Questionnaire.

After all of the eligible women in a household have been identified, female interviewers used the Woman's Questionnaire to interview the women. The Woman's Questionnaire collected information on the following topics:

- socio-demographic characteristics
- reproduction
- birth spacing
- maternal health care and breastfeeding
- immunization and health of children
- cause of death of children
- marriage and sexual activity
- fertility preferences
- characteristics of the husband and employment activity of the woman
- HIV
- maternal mortality
- women's status
- household relations

In one-half of the households, men were identified as eligible for individual interview, and the male interviewer of each team used the Man's Questionnaire to interview the eligible men. Team leaders informed their teams which households in the sample have been selected for including interviews with men. The Man's Questionnaire collected information on the following topics:

- socio-demographic characteristics
- reproduction
- birth spacing
- marriage and sexual activity
- HIV

Biomarker data collection were conducted in the same one-half of the households which were selected to include men for interview. The biomarker data collection included: measuring the height and weight of women and children (under age 6 years), anemia testing of women and children, and drawing blood samples from women and men for laboratory testing of HIV. Biomarker data collection were recorded in the Household Questionnaire.

## Data Collection

### Data Collection Dates

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Start	End	Cycle
2010-03	2011-01	N/A

### Data Collection Mode

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Face-to-face [f2f]

### Data Collection Notes

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Training were conducted to form 19 field teams to be responsible for data collection in one of the 19 survey domains (comprised of the 24 provinces). Field teams were each composed of 6 people: team leader, field editor, three female interviewers, and one male interviewer.

The field teams were subjected to 6 weeks of training which included:

- 1 week on the Household Questionnaire
- 2 weeks on 13 sections of the Woman Questionnaire, review of the Household Questionnaire, including the selection of women for the Household Relations Module, Consent Statements for blood collection, and conversion of ages and dates of birth between the Khmer and Gregorian calendar
- 1 week on the Man Questionnaire, measuring height and weight of women and children, sample implementation and household selection, collection of Geographic Positioning System data, testing of household salt for iodine, organization of documents and materials for return to the head office
- 1 week on collection of blood samples (all interviewers wer designated to collect blood samples in the field)
- 1 week of full field practice

A total of 122 field personnel attended the 6 weeks training. The first 3 weeks were also attended by data entry staff.

The progression of fieldwork by geographic location had to take into account weather conditions during rainy season. A fieldwork supervision plan was created for the six CDHS survey coordinators from NIS and NIPH and ORC Macro to conduct regular field supervision visits. Supervision visits were conducted throughout the six months of data collection and included the retrieval of questionnaires and blood samples from the field. In addition, a quality control program was run by the data processing team to detect key data collections errors for each team. Based on these data checks, regular feedback was given to each team based on their specific performance.



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## Data Collectors

Name	Abbreviation	Affiliation
National Institute of Statistics	NIS	Ministry of Planning
Directorate General for Health	DGH	Ministry of Health

## Supervision

### Supervision of Interviewers

The team supervisor was tasked to:

- Oversee the work of the team.
- Assign households to interviewers.
- Help interviewers locate households.
- Spot-check some of the addresses selected for interviewing to be sure that you interviewed the correct households and the correct women and men.
- Review all non-interviews.
- Observe some of your interviews to ensure that you are asking the questions in the right manner and recording the answers correctly.
- Handle funds and manage equipment.
- Supervise anthropometric measurement, anemia testing, and blood sample collection.
- Meet with you on a daily basis to discuss performance and give out future work assignments.
- Help you resolve any problems that you might have with finding the assigned households, understanding the questionnaire, or dealing with difficult respondents.

The field editor was tasked to:

- Oversee the work of the team.
- Assign households to interviewers.
- Help interviewers locate households.
- Review all non-interviews.
- Review all questionnaires before the team leaves the cluster.
- Review completed questionnaires with interviewers and observe interviews.

Full details of the responsibilities of the Supervisors and Field Editors are discussed in the Interviewer's Manual.

## Data Processing

### Data Editing

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Data editing was done in the following data processing stages:

- a. Office editing and coding - minimal since CSPro has been designed to be an intelligent data entry program
- b. Data entry
- c. Completeness of data file
- d. Verification of Data - prior to this stage, data are again entered and tagged as V to indicate that the dataset is a verification data
- e. Secondary editing

### Other Processing

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The data processing activities of the survey involved manual and automatic processes that had a direct impact on the quality of the data.

The data entry for the DHS survey was carried out using the software package CSPro. The DHS questionnaires were entered by cluster, with each cluster being assigned to one data entry operator. The data for each cluster were entered into a separate data file for that cluster to protect against a major loss of data due to hardware or software failure. Below is a list of the main processes involved in data processing:

1. Reception and verification of questionnaires
2. Office editing and coding of open-ended questions
3. Data entry
4. Secondary editing

## Data Appraisal

### **Estimates of Sampling Error**

The computer software used to calculate sampling errors for the 2010 CDHS is a Macro SAS procedure. This procedure used the Taylor linearization method for variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates. ISSA also computes ISSA computes the design effect (DEFT) for each estimate.

Sampling errors for the 2010 CDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively for the country as a whole, for urban and rural areas, and for each of the 19 study domains.