Philippines - National Demographic and Health Survey 2003

National Statistics Office

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Overview

Identification

ID NUMBER
PHL-NSO-NDHS-2003-v01

Version

VERSION DESCRIPTION
v1.1 - Updated, edited, anonymous data set for public distribution (public use file).

PRODUCTION DATE
2005-03-15

NOTES
This updated version contains the edited and anonymized data of the survey, for public distribution in the form of CR-ROM public use file (PUF).

Overview

ABSTRACT
The 2003 National Demographic and Health Survey (NDHS) was a nationally representative survey of 13, 945 women aged 15-49 years and 5,009 men aged 15-54 years.

The main purpose of the 2003 NDHS was to provide policymakers and program managers with detailed information on fertility, family planning, childhood and adult mortality, maternal and child health, and knowledge and attitudes related to HIV/AIDS and other sexually transmitted infections. The 2003 NDHS also collected high quality data on family health, immunization, prevalence and treatment of diarrhea and other diseases among children under five, antenatal visits, assistance at delivery, and breastfeeding.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Women 15-49 years old

Men 15-49 years old

Scope

NOTES
HOUSEHOLD: Household characteristics, household listing, education, water and sanitation, type of toilet facilities, durability of housing, and ownership of various durable goods

WOMEN: Woman's background characteristics, reproductive history, knowledge and use of family planning methods, fertility references, antenatal, delivery and postnatal care, breastfeeding and infant feeding practices, vaccinations and childhood illnesses, marriage and sexual activity, woman's work and husband's background characteristics, infant's and children's feeding practices, childhood mortality, and awareness and behavior regarding tuberculosis.

MEN: Man's background characteristics, marriage and sexual activity, man's work, knowledge and participation in health-seeking practices for their children, and awareness and behavior regarding tuberculosis.

HEALTH: Health facility utilization, noncommunicable diseases, infectious diseases, traditional medicines, healing practices, and alternative care modalities, health care financing, and environmental health.

TOPICS

Topic	Vocabulary	URI
Population		
Family planning		
Health		
Demographic characteristics		
Fertility		
Under-five mortality		
Contraceptive knowledge and practice		
Sexually transmitted infections		
HIV/AIDS		
Family health		

KEYWORDS

direct and indirect estimation of demographic rates, level and patterns of fertility, level of contraceptive knowledge and practice by method, family health, environmental health, utilization of health facilities, awareness about communicable and noncommunicable diseases, knowledge or awareness on traditional medicines, membership in health insurance plan, knowledge or awareness and attitudes on tuberculosis, knowledge and attitudes of men and women about HIV or AIDS virus and sexually transmitted diseases or infections

Coverage

GEOGRAPHIC COVERAGE
National, regional, urban-rural

UNIVERSE
The survey covered all de jure household members (usual residents), all women (15 - 49 years old) and men (15 - 54 years old) resident and visitors of the household. Persons who resided in institutions were not within the scope of the survey.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Statistics Office	

OTHER PRODUCER(S)

Name	Affiliation	Role
ORC-Macro International	Macro International	Technical assistance to the project through the DHS+ Program

FUNDING

Name	Abbreviation	Role
United States Agency for International Development	USAID	Funding agency

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
Dr. Mercedes Concepcion	University of the Philippines Population Institute (UPPI)	Provided technical inputs during the preparatory stage of the survey
Population Commission (POPCOM)	National Economic and Development Authority	Provided technical inputs during the preparatory stage of the survey
Food and Nutrition Research Institute (FNRI)	Department of Health	Provided technical inputs during the preparatory stage of the survey
Department of Health (DOH)	Philippine government	Provided inputs during the development of the questionnaires
United Nations Children's Fund (UNICEF)	United Nations	Provided inputs during the development of the questionnaires
National Statistical Coordination Board (NSCB)	National Economic and Development Authority	Provided inputs during the development of the questionnaires
National Economic and Development Authority (NEDA)	Philippine government	Provided inputs during the development of the questionnaires
Philippine Health Insurance Corporation (PhilHealth)	Philippine government	Provided inputs during the development of the questionnaires
Dr. Gaham Kalton	Asian Development Bank	Assisted in the design and selection of NDHS subsample
Dr. Arturo Pacificador Jr.	Asian Development Bank	Assisted in the design and selection of NDHS subsample

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Olveña, Ma. Virginia R.		NSO	Researcher
Reolalas, Aurora T.		NSO	Supervisor
Ludovice, Raul M.		NSO	Data capturer

DATE OF METADATA PRODUCTION
2005-12-15

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Sampling

Sampling Procedure

SAMPLING DESIGN AND IMPLEMENTATION

The 2003 National Demographic and Health Survey (NDHS) was the first survey that used the new master sample created for household surveys on the basis of the 2000 Census of Population and Housing. The 2003 NDHS used one of the replicates of the new master sample. The sample was designed to represent the country as a whole, urban and rural areas, and each of the 17 administrative regions. In each region, a stratified, three-stage cluster sampling design was employed. In the first stage, 819 primary sampling units (PSUs) were selected with probability proportional to the number of households in the 2000 census. PSUs consisted of a barangay or a group of contiguous barangays. In the second stage, in each PSU, enumeration areas (EAs) were selected with probability proportional to the number of EAs. An EA is defined as an area with discernable boundaries consisting of about 150 contiguous households. All households in the selected EAs were listed in a separate field operation conducted from May 7 through 21, 2003. In the third stage, from each EA, an average of 17 households was selected using systematic sampling.

For the 2003 NDHS sample, 13,914 households were selected, of which 12,694 were occupied. Of these households, 12, 586 were successfully interviewed, yielding a response rate of 99 percent. Household response rates were similar in rural areas and in urban areas (99 percent).

Response Rate

Among the households interviewed, 13,945 women were identified as eligible respondents, and interviews were completed for 13,633 women, yielding a response rate of 98 percent. In a subsample of every third household, 5009 men were identified to be eligible for individual interview. Of these, 4,766 were successfully interviewed, yielding a response rate of 95 percent.

The principal reason for nonresponse among women and men was the failure to find individuals at home, despite interviewers' repeated visit to the household.

Questionnaires

Overview

The questionnaires for the 2003 National Demographic and Health Survey (NDHS), similar to previous DHS surveys, were translated into six major dialects, namely, Tagalog, Cebuano, Bicol, Hiligaynon, Ilocano, and Waray. The cover of each of the translations differed in color for easy recognition during enumeration and also during the processing stage.

1. NDHS Form 1- HOUSEHOLD QUESTIONNAIRE
The Household Questionnaire was a six-page booklet primarily used in:
- listing all members of the household and visitors;
- recording information on the demographic characteristic of each person;
- identifying women and men who were eligible for the interview. All women aged 15 to 49 years who were listed in the Household Questionnaire of all sample households and all men aged 15 to 54 years who were listed in the Household Questionnaire in every third sample households were eligible for the individual interview.; and
- record household conveniences and other household characteristics.

1. NDHS Form 2 - INDIVIDUAL WOMAN'S QUESTIONNAIRE
The Individual Woman's Questionnaire was used in interviewing all women aged 15 to 49 years who were identified from the Household Questionnaire. It collected information on the following topics:
- background characteristics
- reproductive behavior and intentions
- knowledge and use of contraception
- availability of family planning
- children's health
- feeding practice for children
- women's health
- HIV/AIDS and Sexually Transmitted Diseases (STDs)/Sexually Transmitted Infections (STIs)
- tuberculosis (TB)

2. NDHS Form 3 - INDIVIDUAL MAN'S QUESTIONNAIRE
The Individual Man's Questionnaire contained 233 questions and was used in interviewing all men aged 15 to 54 years who were identified from the Household Questionnaire of the sample households for the male survey. It gathered information similar to that of the Individual Woman's questionnaire though there was an additional section on men's participation in health care and attitudes toward women.

3. NDHS Form 4 - HEALTH MODULE
This form collected information on the health status of the household members, awareness about selected communicable and infectious diseases, utilization of health facilities, knowledge and use of traditional medicines, healing practices and alternative health care modalities, and health care financing. The data were used to assess the health programs of the government.

Data Collection

Data Collection Dates

Start
2003-06-19

End
2003-09-03

Cycle
N/A

Data Collection Mode

Face-to-face [f2f] interview

Data Collection Notes

PRETESTS

Two pretests were conducted for the 2003 National Demographic and Health Survey (NDHS). The first was conducted in two barangays in Metro Manila, namely: Bgy. Bagong Silang, Caloocan City and Bgy. San Roque, Marikina City utilizing regular staff coming from the National Capital Region (Statistical Operations Division, NCR I, and NCR II), of which 14 of them acted as field interviewers while seven acted as observers, each observer is tasked to observe one enumerator. There were also additional two participants coming from Population Commission (POPCOM) and one professional doctor from DOH.

The second pretest was conducted in two barangays in Bulacan, namely: Longos, Malolos City and another one in Kapitangan, Paombong, Bulacan for 12 days from March 10 to March 22, 2003.

All the six dialects were pretested. However, field enumeration was conducted only for the Tagalog translation. The rest of the dialects were pretested in the Office. Interviewers and respondents used were personnel who spoke the dialect.

The actual enumeration procedure for the pretest simulated during the pretest enumeration of Tagalog translation. Team approach was adopted, with each team comprising of five (5) female interviewers, a field editor, and a male interviewer. Two teams were utilized; one team covered the urban barangay (Longos) and the other team interviewed households in Kapitangan, the rural barangay.

The female interviewers interviewed all women aged 15 to 49 years in all households. They also interviewed responsible member of the household using the household questionnaire and the health module for all households, except for every third household. The male interviewers, on the other hand, interviewed all men aged 15 to 54 years in every third household. They also interviewed responsible member of the household using the household questionnaire and the health module, though in some instances the female interviewers also interviewed for the household and health modules.

For the second pretest a total of 220 households, 220 eligible women, 66 eligible men were interviewed. The average time of interview was 13 minutes for the household questionnaire, 56 minutes for the individual woman's questionnaire, 49 minutes for the individual man's questionnaire and 28 minutes for the health module.

TRAINING

Two levels of training were conducted for the survey. The First Level Training (Task Force) was conducted for two weeks including Saturday from April 28 - May 10, 2003 at Robbinsdale Hotel, Araneta, Quezon City. Participants of the training were the Regional Supervisors in the 16 regions and 12 Statisticians from the Central Office. They served as trainers in the Second Level Training conducted in eight regions.

Personnel from different agencies (University of the Philippines Population Institute, Department of Health, and Philippine Health Insurance Corporation) were also invited as resource persons on certain topics concerning health, Government Service Insurance System benefits, contraceptive usage. The Global Positioning System (GPS) was discussed by the Information Resources Department of the National Statistics Office.

The Second Level Training was conducted in eight regional training centers for 15 days (excluding Sunday) from May 21 to June 6, 2003. Trainers for the second level training were the field personnel who attended the First Level Training and a Central Office representative for each of the training centers. Participants were the Team Supervisors and the selected interviewers.

Training for both levels include lectures on concepts, definitions and procedures used in the survey, written exercises, demonstration interviews, mock interview/role-playing, field practice, manual editing instructions, and field operations guide.

The field enumeration started on June 19, 2003 and ended on September 3, 2003. Except for the NCR, enumeration started a week after the training because of the unavailability of listing forms.

Similar to the conduct of NDHS in previous years, personal interview with team approach was adopted for this year's survey. No questionnaire was allowed to be left to the respondent: In case of refusal or respondent was not around, callbacks were made in three different dates within the specified period of enumeration covering the specific enumeration area (EA). Before leaving the province/municipality, the team members still go back to the sample households for more callbacks even though three callbacks has already been done.

Because the new master sample was utilized, replacement of the sample housing unit was not allowed. Hence, in case there lived another household in the drawn sample housing unit, the households currently in residence were all enumerated. However, if there were more than three households living in the sample housing unit the Team Supervisor randomly selected the three sample households to be interviewed.

ENUMERATION

An average of three days enumeration was allotted to each team to cover one EA with 18 sample households. Teams were combination/composition of three to six female interviewers, one or two male interviewers, and one editor. The days of enumeration varied depending upon the size of sample households and the combination of the team. However, each member of the team should finish interviewing two individual Woman's Questionnaire for a female interviewer, and three Individual Man's Questionnaire for a male interviewer. The editor was expected to finish editing of the questionnaires before leaving the sample area or before going to another sample area so as to answer questions that might crop up during editing, thus the concerned interviewer will still have time in making a callback as necessary.

Of the total 13,914 households, 12,586 were successfully interviewed for the household questionnaire and 12,577 from 13,905 eligible households for the health module. For the eligible woman and man around 14,857 women and 5,536 men were qualified for interview; successful interviews were at 13,633 and 4,766 respectively.

SUPERVISION

Supervision was done by selected Central Office personnel, Regional Directors, Provincial Statistics Officers, Regional Supervisors and Team supervisors. They were responsible for the well-being and safety of team members, as the completion of the assigned workload and the maintenance of data quality. The team supervisors received his/her assignments from and reports to the RD through the RS. The specific roles of the team supervisor were to make the necessary preparations for the fieldwork, organize and direct the fieldwork, observe interview, conduct spot-checking and reinterview sample households and respondents, and review questionnaires.

The selected Central Office personnel were assigned to supervise at least two teams per region on the second and third week of enumeration.

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Data Collectors

Name	Abbreviation	Affiliation
Statistical researchers	SRs	Hired by NSO

Supervision

The Regional Directors (RDs) were designated as field coordinators in their respective regions.

The Provincial Statistics Officers (PSOs) were responsible for the smooth conduct of the field operation in their respective provinces.

Interviewing was conducted by teams composed of one team Supervisor, one Editor, and four female interviewers and one male interviewer.

The role of the team supervisor included observation of interviews conducted to ensure that the interviewers conducted themselves well, asked the questions in the right manner, and interpreted the answers correctly. She also dids spot-checking to ensure that the correct sample households were interviewed; the supervisors also reviewed questionnaires to make sure that it was complete, consistent and entries were properly recorded. She also had to meet the members of the team daily to discuss performance and give out future work assignments. She also had to solve problems that may crop up during enumeration.

Central office personnel also supervised and conducted spotchecks during the field operation. The whereabouts of the supervisors and the area of assignment of the interviewers were made available at the field offices to ensure close coordination among persons involved in the operation and to be able to locate the interviewers much faster.

Data Processing

Data Editing

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

First stage of processing was the manual editing and coding of questionnaires. This was the major task of the team editor. Field editing was done right after the interview to monitor the interviewer's performance and to edit completed questionnaires in order to ensure that accurate and complete data were collected.

For purposes of operational convenience, field editing is usually done. The interviewers are required to review the entries at the end of each interview. Blank items, which are applicable to the respondents, are verified and filled out. The supervisors are likewise tasked to review the questionnaires for correctness and consistency of entries. Coding, the transformation of information from the questionnaire to machine readable form, is likewise done in the field offices. Before transmitting to the central office, all questionnaires are edited at in the field offices.

Machine processing involves all operations that are done with the use of a computer and/or its accessories, that is, from data encoding to tabulation. Coded data are usually in such media as compact disks and diskettes.

Machine editing is preferred to ensure correctness of encoded information. Except for sample completeness check and verification of geographic identification which are the responsibility of the subject matter division, some imputations and corrections of entries are done mechanically.

Preliminary tabulations are done at the regional offices in order to come up with advance report of the survey results. Further machine processing is done at the central office of the NSO.

Other Processing

The data entry or data encoding of questionnaires was done at the Central office.

Data Appraisal

Estimates of Sampling Error

The computer software used to calculate sampling errors for the 2003 National Demographic and Health Survey (NDHS)was the Integrated System for Survey Analysis (ISSA) Sampling Error Module. This module used the Taylor linearization method of variance estimateion for survey estimates that were means or proportions. The Jacknife repeated replication method was used for variance estimation of more complex statistics, such as fertility and mortality rates.

In addition to the standard error, ISSA computed the design effect (DEFT) for each estimate, which was defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used.

Sampling errors for the 2003 NDHS were calculated for selected variables considered to be of primary interest for the woman's survey and for the men's survey.

Sampling errors were analyzed for the national sample of women and for two separate groups of estimates 1) means and proportions, and 2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.1 and 20.1 percent, with an average of 3.27 percent; the highest relative standard errors were for estimates of very low values. If estimates of very low values or less that 10 percent were removed, then the average dropped to 1.81 percent. So in general, the relative standard error for most estimates for the country as a whole was small, except for estimates of very low proportion. The relative standard error for the total fertility rate was small (1.9 percent). However, for the mortality rates, the average relative standard error was much higher (8.95 percent).

There were differentials in the relative standard error for the estimates of subpopulations.

For the total sample, the value of the DEFT, averaged over all variables, was 1.167, which means that, because of multistage clustering of the sample, the average standard error was increased by a factor of 1.167 over that in an equivalent simple random sample.