

Yemen, Rep. - Demographic Maternal and Child Health Survey 1991-1992

Report generated on: March 30, 2015

Visit our data catalog at: <http://localhost/CSO-Metadata-en-v4.2/index.php>

Overview

Identification

ID NUMBER

YEM_1991_DHS_v01_M

Overview

ABSTRACT

The Yemen Demographic and Maternal and Child Health Survey (YDMCHS) is the first national survey conducted in Yemen since unification of the country. It was designed to collect data on households, ever-married women of reproductive age, and children under age five. The subjects covered in the household survey were: characteristics of households, housing and living conditions, school enrollment, labor force participation, general mortality, disability, fertility, and child survival. The areas covered in the survey of women of reproductive age were: demographic and socioeconomic characteristics, marriage and reproductive history, fertility regulation and preferences, antenatal care, breastfeeding, and child care. For children under five in the survey, the topics included diarrheal and other morbidity, nutritional supplementation, accidents, vaccination, and nutritional status.

The survey was carried out as a part of the DHS program and also the PAPCHILD program. The DHS program is assisting governments and private agencies in the implementation of household surveys in developing countries; PAPCHILD has similar goals for developing countries in the Arab League. The main objectives of the DHS project are to: (a) provide decision makers with a data base and analyses useful for informed policy choices, (b) expand the international population and health data base, (c) advance survey methodology, and (d) develop skills and resources necessary to conduct high quality demographic and health surveys in the participating countries.

The YDMCHS was specifically aimed at furnishing information on basic population and household characteristics, maternal and child health, fertility, family planning, and infant and child mortality in Yemen. The survey also presents information on breastfeeding practices and the nutritional status of children under age five. The survey will provide policymakers and planners with important information for use in formulating programs and policies regarding maternal and child health, child mortality, and reproductive behavior.

KIND OF DATA

Sample survey data

UNITS OF ANALYSIS

- Household
- Children under five years
- Women age 15-49
- Men

Scope

NOTES

The 1991-92 Yemen Demographic Maternal and Child Health Survey (YDMCHS) covered the following topics:

HOUSEHOLD

- Household Roster
- General Mortality
- Disability
- Fertility and Child Survival (for ever married women under age 55)

HOUSING CHARACTERISTICS

- Housing
- Cooking
- Water
- Lighting
- Sanitation
- Water Disposal
- Ownership of Objects and Assets
- Drainage

REPRODUCTIVE HEALTH

- Respondent's Resources
- Marriage and Co-residence
- Reproduction and Child Survival
- Antenatal Care (current pregnancy)
- Maternal Care (the last five years)
- Child Feeding
- Cause of Death for Children Who Died
- Family Planning and Childbearing Attitudes
- Husband's Resources
- Interviewer's Observations

CHILD HEALTH (for all children under 5 years of age)

- General
- Morbidity (diarrhea)
- Morbidity (other illnesses)
- Immunization
- Accidents
- Weight and Height

Coverage

GEOGRAPHIC COVERAGE

National

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

| Name | Affiliation |
|--|-------------|
| Central Statistical Organization (CSO) | |

OTHER PRODUCER(S)

| Name | Affiliation | Role |
|--|-------------|----------------------|
| Pan Arab Project for Child Development | | Technical assistance |
| Macro International Inc. | | Technical assistance |

FUNDING

| Name | Abbreviation | Role |
|---|--------------|----------------------|
| United States Agency for International Development | USAID | Financial assistance |
| Arab Gulf Program for the United Nations Development Organization | AGFUND | Financial assistance |
| United Nations Population Fund | UNFPA | Financial assistance |
| United Nations Children's Fund | UNICEF | Financial assistance |

Metadata Production

METADATA PRODUCED BY

| Name | Abbreviation | Affiliation | Role |
|--|--------------|-------------|---------------------------------|
| World Bank, Development Economics Data Group | DECDG | | Generation of DDI documentation |

DATE OF METADATA PRODUCTION

2011-06-16

DDI DOCUMENT VERSION

Version 1.0: (June 2011)

DDI DOCUMENT ID

DDI_WB_YEM_1991_DHS_v01_M

Sampling

Sampling Procedure

SAMPLE DESIGN AND IMPLEMENTATION

The YDMCHS sample was designed to enable data analysis for Yemen as a whole, and separately for urban and rural areas, and for two regions: (1) the Northern and Western governorates, and (2) the Southern and Eastern governorates. The target sample was set at completed interviews for about 12,000 households with about 6,000 eligible women. No target number was fixed for children under five, for whom information was to be collected for all children in each household that was selected for the women's interview. In half of the selected households, only the Household Questionnaire was administered; in the other half, in addition to administering the Household Questionnaire, all eligible women were interviewed and information on eligible children was collected.

The YDMCHS covered the entire country, except for nomadic peoples and those living on hard-to-reach Yemeni islands. The survey adopted a stratified, multi-stage sampling design. The sample was stratified by urban and rural areas in the two regions. In this report, the Northern and Western governorates region includes: Sana'a City and the governorates of Sana'a, Taiz, Hodeidah, Ibb, Dhamar, Hajjah, Al-Beida, Sa'adah, Al-Mahweet, Ma'areb, and Al-Jawf. The Southern and Eastern governorates region consists of Aden, Laheg, Abyen, Shabwah, Hadramout, and Al-Mahrah governorates. In the first stage, sampling units or clusters were selected; the second stage involved selection of households. The initial objective of having a self-weighted sample was compromised in order to have reliable estimates for urban and rural areas within each region. Sana'a City, the urban (not rural) areas of Aden, and the rural areas of Laheg were oversampled.

For the survey, 258 sampling units were selected, which contained 13,712 households. In half of the selected households, only the Household and Housing Characteristics Questionnaires were administered. In the other half, the Women's and Child's Questionnaires were also administered to all eligible women and children.

Note: See detailed description of sample design in APPENDIX B of the final survey report.

Response Rate

Of the 13,712 households selected for inclusion in the survey, 13,206 were found and 12,836, or 97 percent, were successfully interviewed. In all, 6,150 ever-married women age 15-49 years were identified in the households selected for individual interviews. Of these, 5,687 women were successfully interviewed and information was collected for 6,715 of 7,022 eligible children under five. The response rates for eligible women and children are 93 and 96 percent, respectively. The response rates for urban and rural areas are almost the same. The main reason for not completing some household interviews was that the dwellings were vacant at the time of fieldwork, although they were occupied when the household listing was carried out. The principal reason for non-response in the case of eligible women was that respondents were not at home despite repeated visits by interviewers to the selected households.

Note: See summarized response rates by place of residence in Table 1.1 of the final survey report.

Questionnaires

Overview

Design, Preparation and Revision of Questionnaires

The YDMCHS survey includes the following questionnaires:

- Household Questionnaire
- Housing Characteristics Questionnaire
- Reproductive Health Questionnaire (also called the Women's Questionnaire)
- Child Health Questionnaire (also called the Children's Questionnaire)
- Community Questionnaire

The items included in these questionnaires were selected after reviewing similar surveys such as those carried out by the Pan Arab Project for Child Development (PAPCHILD), which was sponsored by the Arab League Organization, and the model questionnaires of the Demographic and Health Surveys (DHS) in Calverton, Maryland, USA. The final YDMCHS questionnaires were mainly based on PAPCHILD's model questionnaires. The questionnaires were modified to suit the conditions of Yemen society and to meet the information requirements of the country. A large number of questions were included in the YDMCHS questionnaires in order to obtain as much information as possible on demographic and population dynamics, health and environmental issues, other indicators of standards of living, housing conditions, maternal and child health, and characteristics of local communities regarding provision of health services. English versions of the questionnaires (except the Community Questionnaire) are reproduced in Appendix E.

The Household Questionnaire consists of a household roster, including questions on orphan hood, education level and economic activity of household members. It also collects information on general mortality, disability and, for ever-married women under age 55, information on fertility and child survival.

The Housing Characteristics Questionnaire was administered as pan of the household survey. It includes eight sections: housing, cooking, water, lighting, sanitation, and waste disposal, ownership of objects and assets, and drainage.

The YDMCHS Women's Questionnaire or Reproductive Health Questionnaire consists of nine sections:

- Respondent's background
- Marriage and co-residence
- Reproduction and child survival
- Antenatal care: current pregnancy
- Maternal care: the last five years
- Child feeding
- Cause of death for children who died
- Family planning and childbearing attitudes
- Husband's background

The Child Health Questionnaire, which is also referred to as Children's Questionnaire, consists of six sections:

- General child care
- Morbidity: diarrhea
- Morbidity: other illnesses
- Immunization
- Weight and height

Data Collection

Data Collection Dates

| Start | End | Cycle |
|---------|---------|-------|
| 1991-11 | 1992-01 | N/A |

Data Collection Mode

Face-to-face

Data Collection Notes

TRAINING OF FEMALE INTERVIEWERS

From past experience, it was known that survey fieldwork would be difficult to implement. The Technical Committee felt that, in the context of Yemeni culture, female interviewers would not be able to work away from home for long periods. Therefore, it was decided that fieldwork in all parts of Yemen should be finished within two months. This meant cutting the duration of fieldwork drastically and doubling the number of field teams originally planned. In order for interviewers to be representative of the whole country, every attempt was made to recruit interviewers for the YDMCHS from all the governorates.

Because the number of interviewers to be trained was doubled, the training was conducted simultaneously at two sites: Sana'a in the north and Aden in the south. The Sana'a group included 75 persons (interviewers, editors and supervisors) who later formed nine field teams, which worked in the northern and western governorates. The other group, trained in Aden, included 45 persons (interviewers, editors and supervisors) who later formed seven teams covering the southern and western governorates.

The experience of pretest training and interviewing was useful in preparation for the training of interviewers for the main fieldwork. Intense theoretical and practical training for both groups was conducted for three weeks by professional trainers who were specialists in survey methodology, statistics and public health. Practical training for anthropometric measurements, that is, use of scales for weighing children and boards for measuring children's height (or recumbent length), followed completion of classroom training for the questionnaires. Female trainees spent one week completing practice interviews on selected households that were not included in the main survey. The fieldwork practice provided an opportunity for interviewers to become familiar with the process and problems of interviewing in the field, and for trainers to evaluate interviewer-trainees on their competence to carry out fieldwork. After the selection of interviewers, 16 teams were formed to implement the main survey fieldwork.

MAIN SURVEY FIELDWORK

A plan was drawn up to use 16 teams to implement the main fieldwork. Each team included one field supervisor, one male or female field editor, and four or five interviewers.

The data collection started on 16 November 1991 when the teams were dispatched to different governorates to begin fieldwork. The teams returned from the field on different dates because of differences in workloads and distances from Sana'a to the assigned areas. The last team returned from the field on 15 January 1992. All teams completed their work successfully.

During the fieldwork period, the teams were encouraged to call the project's technical staff in Sana'a to keep the survey operations desk informed about the progress of the work and any problems requiring assistance. The senior project staff from Sana'a and Aden also visited teams to monitor the quality of fieldwork and to solve any technical or field problems the teams encountered. Whenever possible, the monitoring staff returned to Sana'a with completed questionnaires so that data preparation and data processing could be carried out simultaneously with fieldwork. On receipt of the questionnaires at the central office, the process of revising, editing, coding and processing the data was carried out.

On average, an interviewer completed 4 to 6 household interviews daily and 2 or 3 interviews with eligible women. The overall duration of fieldwork was affected by travel time from one area to another. Travel time was often substantial because many of the household clusters were far apart or not linked by roads. The number of interviews completed by individual teams varied due to a number of factors including: the distance between households in rural areas, the number of persons in the households, and the need for repeat visits to households in urban areas to complete interviews with eligible respondents.

Data collection was completed on schedule despite difficulties such as rough terrain and poor roads, inadequate

accommodations for the field teams, and widely scattered households in some areas. The difficulties were overcome by the efforts and dedication of the supervisors and interviewers. Their enthusiasm and the survey officials' understanding of the nature of this undertaking had a great impact on solving many of the difficulties the field teams faced. The survey operations desk in Sana'a maintained regular contact by phone with field supervisors. The supervisor called to report their progress, to ask technical questions they were not sure of or could not solve, and to discuss problems encountered in the field for which they needed assistance.

Questionnaires

Design, Preparation and Revision of Questionnaires

The YDMCHS survey includes the following questionnaires:

- Household Questionnaire
- Housing Characteristics Questionnaire
- Reproductive Health Questionnaire (also called the Women's Questionnaire)
- Child Health Questionnaire (also called the Children's Questionnaire)
- Community Questionnaire

The items included in these questionnaires were selected after reviewing similar surveys such as those carried out by the Pan Arab Project for Child Development (PAPCHILD), which was sponsored by the Arab League Organization, and the model questionnaires of the Demographic and Health Surveys (DHS) in Calverton, Maryland, USA. The final YDMCHS questionnaires were mainly based on PAPCHILD's model questionnaires. The questionnaires were modified to suit the conditions of Yemen society and to meet the information requirements of the country. A large number of questions were included in the YDMCHS questionnaires in order to obtain as much information as possible on demographic and population dynamics, health and environmental issues, other indicators of standards of living, housing conditions, maternal and child health, and characteristics of local communities regarding provision of health services. English versions of the questionnaires (except the Community Questionnaire) are reproduced in Appendix E.

The Household Questionnaire consists of a household roster, including questions on orphan hood, education level and economic activity of household members. It also collects information on general mortality, disability and, for ever-married women under age 55, information on fertility and child survival.

The Housing Characteristics Questionnaire was administered as part of the household survey. It includes eight sections: housing, cooking, water, lighting, sanitation, and waste disposal, ownership of objects and assets, and drainage.

The YDMCHS Women's Questionnaire or Reproductive Health Questionnaire consists of nine sections:

- Respondent's background
- Marriage and co-residence
- Reproduction and child survival
- Antenatal care: current pregnancy
- Maternal care: the last five years
- Child feeding
- Cause of death for children who died
- Family planning and childbearing attitudes
- Husband's background

The Child Health Questionnaire, which is also referred to as Children's Questionnaire, consists of six sections:

- General child care
- Morbidity: diarrhea
- Morbidity: other illnesses
- Immunization
- Weight and height

Data Processing

Data Editing

Editing and Coding

Data preparation began one week after the start of fieldwork and continued simultaneously with the fieldwork activities. Field editors checked the questionnaires for completeness and consistency. Field supervisors also checked completed questionnaires on a sample basis. Completed questionnaires were then sent to the central office in Sana'a or brought by staff when they returned after visiting the teams. In the central office in Sana'a the questionnaires were edited again, and open-ended and other questions requiring coding were coded. This stage started on 22 November 1991 and was completed by the end of January 1992.

Other Processing

Data Entry

Data entry was carried out using microcomputers and continued from January until the end of February 1992. The process of data entry, editing and cleaning was done with ISSA (Integrated System for Survey Analysis) programs specially designed for the DHS surveys.

Data consistency Checks and Production of Tables

Consistency checks and data cleaning started on 1 March 1992 and were completed by the end of June 1992. During July 1992 preliminary reports on the Yemen Demographic and Maternal and Child Health Survey were prepared, one in English by Macro International and one in Arabic by PAPCHILD. Both reports were published in August 1992. After the publication of the preliminary report, tabulations for the final report were carried out by both Macro International and PAPCHILD.

Data Appraisal

Estimates of Sampling Error

The results from sample surveys are affected by two types of errors, non-sampling error and sampling error. Non-sampling error is due to mistakes made in carrying out field activities, such as failure to locate and interview the correct household, errors in the way the questions are asked, misunderstanding on the part of either the interviewer or the respondent, data entry errors, etc. Although efforts were made during the design and implementation of the YDMCHS to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be measured statistically. The sample of women selected in the YDMCHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of standard error of a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which one can reasonably be assumed that, apart from non-sampling errors, the true value of the variable for the whole population falls. For example, for any given statistic calculated from a sample survey, the value of that same statistic as measured in 95 percent of all possible samples with the same design (and expected size) will fall within a range of plus or minus two times the standard error of that statistic.

If the sample of women had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the YDMCHS sample design depended on stratification, stages and clusters. Consequently, it was necessary to utilize more complex formulas. The computer package CLUSTERS, developed by the International Statistical Institute for the World Fertility Survey, was used to assist in computing the sampling errors with the proper statistical methodology.

Note: See detailed estimate of sampling error calculation in APPENDIX C of the final survey report.

Other forms of Data Appraisal

Data Quality Tables

- Household age distribution
- Age distribution of eligible and interviewed women
- Completeness of reporting
- Births by calendar year since birth
- Reporting of age at death in days
- Reporting of age at death in months

Note: See detailed tables in APPENDIX D of the report which is presented in this documentation.