2013 NDHS

NATIONAL DEMOGRAPHIC AND HEALTH SURVEY

PRELIMINARY REPORT

Republic of the Philippines

Philippine Statistics Authority

2013 NDHS

NATIONAL DEMOGRAPHIC AND HEALTH SURVEY

PRELIMINARY REPORT

Republic of the Philippines

Philippine Statistics Authority

TABLE OF CONTENTS

Foreword ..... **iii**

Introduction **1**

Survey Implementation **2**
- A. Sample Design 2
- B. Questionnaires 2
- C. Training 3
- D. Field Work 4
- E. Data Processing 4

Preliminary Findings **5**
- A. Response Rates 5
- B. Characteristics of the Respondents 6
- C. Fertility 7
- D. Fertility Preferences 8
- E. Family Planning 9
- F. Maternity Care 12
  - *Antenatal Care*
  - *Tetanus Toxoid*
  - *Delivery Care*
- G. Child Health 16
  - *Vaccination of Children*
  - *Childhood Illnesses*
  - *Infant and Child Mortality*
- H. HIV/AIDS 21
  - *Heard of HIV/AIDS*
  - *Knowledge of HIV/AIDS Prevention*

References **25**

FOREWORD

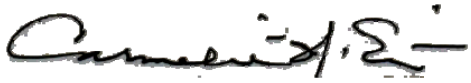
The 2013 National Demographic and Health Survey (NDHS) is the tenth in a series of national demographic surveys conducted every five years since 1968 by the National Statistics Office (NSO), which is one of four agencies comprising the newly created Philippine Statistics Authority. It mainly aims to measure levels and trends in demographic, family planning, and health indicators. Fieldwork for the 2013 NDHS was carried out from 12 August to 16 October 2013.

This report contains preliminary findings from the 2013 NDHS covering important population and health indicators useful for monitoring, evaluating, and designing population and health policies and programs of the Government, as well as for monitoring the country's Millennium Development Goals (MDGs) on under-five mortality and children's vaccination coverage. The results presented in this report are preliminary although the final figures are not expected to differ substantially. A final and more comprehensive report of the 2013 NDHS will be published in the last quarter of the year.

We would like to acknowledge with gratitude a number of organizations and individuals who granted their support to the 2013 NDHS. National Scientist Dr. Mercedes B. Concepcion, the Department of Health (DOH), the United States Agency for International Development (USAID), the National Economic and Development Authority (NEDA), the National Statistical Coordination Board (NSCB), the Population Commission (POPCOM), the University of the Philippines Population Institute (UPPI), the University of the Philippines School of Economics (UPEcon), the Philippine Health Insurance Corporation (PhilHealth), the Philippine Commision on Women (PCW), the Food and Nutrition Research Institute (FNRI), and the Philippine Legislators Committee on Population Development (PLCPD) participated in a series of consultative meetings to provide inputs for the development of the questionnaires. The DOH, UPPI, UPEcon and PCW assisted in the training of trainers and regional field supervisors for the survey. ICF International provided technical assistance through the MEASURE Demographic and Health Survey (DHS) program.

We also acknowledge the support of the personnel from the Central Office and Field Offices of the former NSO who worked untiringly and patiently during all stages of the survey. The survey would not have gotten off the ground without their dedication and hardwork.

Finally, we are grateful to the survey respondents who generously contributed their time and information to enable us to gather valuable data.



CARMELITA N. ERICTA
Interim National Statistician
Philippine Statistics Authority-NSO

Manila, Philippines
February 2014

INTRODUCTION

The 2013 Philippines National Demographic and Health Survey (NDHS) is the tenth nationally representative comprehensive survey conducted in the country. It was conducted by the National Statistics Office (NSO) from 12 August to 16 October 2013. The NSO is now merged with the National Statistical Coordination Board, Bureau of Agricultural Statistics and the Bureau of Labor and Employment Statistics, to become the newly created Philippine Statistics Authority (PSA).

The survey covered a nationally representative sample of about 15,000 households. The principal objective of the 2013 NDHS is to provide current and reliable data on population, family planning, and health, particularly data on household characteristics and practices, health insurance coverage, prevalence of common non-communicable and infectious diseases, health-seeking behavior, utilization of health facilities, fertility levels, fertility preferences, marriage and sexual activity, knowledge and use of family planning methods, breastfeeding practices, childhood mortality, maternal and child health, awareness and prevalence of tuberculosis, knowledge on HIV/AIDS and HIV prevention, and extent of violence against women in the Philippines. Information from the survey is essential for informed policy decisions, planning, and monitoring and evaluation of programs on health in general and reproductive health in particular at both the national and regional levels.

The 2013 NDHS collected demographic and health information from a nationally representative sample of 14,804 households, which yielded completed interviews of 16,155 women age 15-49 in all selected households.

This report presents preliminary findings from the 2013 NDHS on a number of key topics of interest to program managers and policy makers on population and health concerns. These preliminary results are intended to facilitate an early evaluation of existing programs and assist in designing new strategies for improving population and health programs in the Philippines. A more detailed final report will be published in the last quarter of 2014. Although the figures in this preliminary report are not expected to differ much from the findings to be presented in the final report, the results shown here should be considered provisional and interpreted with caution.

SURVEY IMPLEMENTATION

A. Sample Design

The primary focus of the 2013 NDHS was to provide estimates of key population and health indicators, including fertility and mortality rates, for the country as a whole and for urban and rural areas separately. In addition, the sample was designed to provide estimates of most key variables for each of the 17 regions.

The sample selection methodology for the 2013 NDHS is based on a stratified two-stage sample design. At the first sampling stage, the sample enumeration areas (EA) for the 2013 NDHS were selected within each stratum (region, urban/rural) systematically with probability proportional to size from the ordered list of EAs in the sampling frame. The sample EAs were selected separately for each region by urban/rural stratum. The measure of size for each EA was based on the number of housing units in the Philippines 2010 Census of Population and Housing (CPH) sampling frame of EAs. Within each stratum the EAs were ordered geographically by province, municipality, barangay and EA codes. This provided implicit geographic stratification of the sampling frame, and automatically resulted in a proportional allocation of the sample EAs by province within each region, urban/rural stratum. At the second stage, the sample housing units were selected from the 2010 CPH data for each sample EA. In the case of sample housing units with more than one household, all the households were included in the sample for the 2013 NDHS.

The 2013 NDHS sample contains 800 enumeration areas (EAs). About 16,000 sample households were selected for the 2013 NDHS. For each household, all women 15-49 years old were selected as respondents for the Individual Woman's Questionnaire. For the Women's Safety Module, only one eligible woman was selected randomly in each household. If there were two or more eligible women, a Kish grid was used where the total number of eligible women in the sample household and the last digit of the preprinted serial number in the Household Questionnaire were considered to determine the line number of the eligible female member to be selected as respondent.

B. Questionnaires

Three questionnaires were administered in the 2013 NDHS: the Household Questionnaire, the Individual Woman's Questionnaire and the Women's Safety Module. These questionnaires were designed based on the standard DHS6 core questionnaires and recommendations of various stakeholders from government agencies, non-government organizations, the academe and international agencies. The three questionnaires were translated from English into six major languages - Tagalog, Cebuano, Ilocano, Bicol, Hiligaynon, and Waray.

The main purpose of the Household Questionnaire was to identify female members of sample households who were eligible for the individual interview. The Household Questionnaire was used:

- to list all the usual members and visitors in the selected households
- to obtain background information on each person listed such as relationship to head of the household, age, sex, and highest educational attainment
- to determine the health insurance coverage for each household member
- to get information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor, roof, and walls of the house, and ownership of various durable goods
- to gather information on prevalence of common non-communicable and infectious diseases, and
- to know the health-seeking behavior of households and the utilization of health facilities of household members.

The Individual Woman's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- Background characteristics (e.g., education, media exposure)
- Reproductive history
- Knowledge and use of family planning methods
- Pregnancy, postnatal care, and breastfeeding
- Child immunization and health of mother and children
- Marriage and sexual activity
- Fertility preferences
- Woman's work and husband's background characteristics
- Awareness and behavior regarding HIV/AIDS
- Other health issues

The Women's Safety Module was used to interview one selected respondent from all eligible women age 15 to 49 years who were identified from the Household Questionnaire. It was used to collect information on the following topics:

- Measures of physical, sexual and emotional violence
- Women's experience of violence since age 15 and recent violence in the 12 months preceding the survey
- Violence during pregnancy
- Marital control
- Inter-spousal violence
- Help-seeking behavior by women who have experienced violence

C. Training

Training of the field staff was conducted in two levels. The first was the training of the Task Force and the second was the training of the interviewing teams. The Task Force training was conducted in Manila from July 15-26, 2013. Selected staff of the Demographic and Social Statistics Division (DSSD) at the NSO and professors from the University of the Philippines acted as trainers. There were also resource speakers for

certain topics from PhilHealth, UP School of Economics, the Department of Health and the Philippine Commission on Women.

The second level training took place in 17 training centers from July 29 through August 10, 2013. Instructors in this training were members of the Task Force who were trained in the first level training. A total of 284 Field Interviewers, 71 Field Editors, 17 Regional Supervisors and 71 Team Supervisors joined the second-level training.

D. Fieldwork

Data collection was carried out mainly from August 12 to September 24, 2013 by 71 interviewing teams. However, due to the peace and order situation in Zamboanga City, the teams of Region IX were extended up to October 16, 2013 to complete the survey operation. Each team consisted of a team supervisor, a field editor, and four female interviewers.

E. Data Processing

Data processing, which consisted of manual editing, data entry, verification and editing of computer-identified errors, was carried out at the NSO CVEA Building in Quezon City. There were 19 data encoders. They underwent training on September 12-13, 2013.

An ad-hoc group consisting of 13 employees from the Demographic and Social Statistics Division, the Information Resources Department, and the Information Technology Operations Division of the NSO was created to oversee the data processing operation. They worked full time at the NDHS Data Processing Center and were responsible for the different aspects of the NDHS data processing.

Data entry started on September 16, 2013. The computer package program called Census and Survey Processing System (CSPro) was used for data entry. A data processing specialist from ICF International, spent two weeks at NSO in October 2013 to finalize the data entry program. Data processing was completed on December 6, 2013.

PRELIMINARY FINDINGS

A. Response Rates

Table 1 shows response rates for the 2013 NDHS. A total of 16,732 households were selected in 800 enumeration areas. There were 14,893 eligible households or households that were in occupied housing units. Of the eligible households, 14,804 were successfully interviewed, yielding a household response rate of 99 percent.

In these households, 16,437 women were identified as eligible for the individual interview. Interviews were completed for 16,155 women, yielding a response rate of 98 percent. For the Women's Safety module, 11,373 eligible women respondents were identified, of whom 10,963 were interviewed with privacy, yielding a response rate of 96 percent.

Throughout this report, numbers in the tables reflect weighted numbers unless indicated otherwise. To ensure statistical reliability, percentages based on fewer than 25 unweighted cases are not shown in the tables, and percentages based on 25-49 unweighted cases are shown within parentheses.

Table 1. Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Philippines 2013

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	7,098	9,634	16,732
Households occupied	6,299	8,594	14,893
Households interviewed	6,251	8,553	14,804
Household response rate	99.2	99.5	99.4
Individual interviews			
Number of eligible women	7,742	8,695	16,437
Number of eligible women interviewed	7,609	8,546	16,155
Eligible women response rate	98.3	98.3	98.3
Women's safety module interviews			
Number of eligible women	5,072	6,301	11,373
Number of eligible women interviewed with privacy	4,889	6,074	10,963
Women's safety module response rate	96.4	96.4	96.4

B. Characteristics of the Respondents

The distribution of women age 15-49 by background characteristics is shown in Table 2. Half of women (50 percent) are below age 30, reflecting the young age structure of the Philippine population.

Table 2. Background characteristics of respondents

Percent distribution of women age 15-49 by selected background characteristics, Philippines 2013

Background characteristic	Weighted percent	Weighted number	Unweighted number
Age			
15-19	20.0	3,237	3,261
20-24	17.3	2,789	2,809
25-29	13.3	2,156	2,171
30-34	13.9	2,250	2,206
35-39	12.2	1,976	1,974
40-44	11.9	1,924	1,916
45-49	11.3	1,823	1,818
Marital status			
Never married	34.8	5,615	5,512
Married	45.8	7,392	7,645
Living together	14.5	2,336	2,221
Divorced/separated	3.6	588	547
Widowed	1.4	223	230
Residence			
Urban	53.1	8,585	7,609
Rural	46.9	7,570	8,546
Region			
National Capital Region	18.1	2,924	2,249
Cordillera Admin Region	1.6	252	672
I - Ilocos Region	4.3	691	708
II - Cagayan Valley	3.4	550	694
III - Central Luzon	10.6	1,720	1,380
IVA - CALABARZON	14.2	2,293	1,590
IVB - MIMAROPA	2.3	372	576
V - Bicol	4.9	798	796
VI - Western Visayas	6.2	996	930
VII - Central Visayas	6.4	1,030	957
VIII - Eastern Visayas	3.5	571	592
IX - Zamboanga Peninsula	4.5	725	936
X - Northern Mindanao	4.3	697	699
XI - Davao	5.5	893	898
XII - SOCCSKSARGEN	4.6	744	754
XIII - Caraga	2.7	435	803
ARMM	2.9	465	921
Education			
No education	1.2	188	248
Elementary	16.1	2,594	2,820
High school	49.0	7,915	7,746
College or higher	33.8	5,458	5,341
Total 15-49	100.0	16,155	16,155

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.

About three in five women (60 percent) are currently married or living with a partner. Thirty-five percent of women in the sample have never been married. Fifty-three percent of the women live in urban areas. The largest percentage of women respondents (18 percent) live in the National Capital Region, while 14 percent live in Region IVA-CALABARZON and 11 percent live in Region III-Central Luzon.

About half of women (49 percent) have at most secondary education, 34 percent have attended or completed college, while only 16 percent have at most an elementary education. The percentage of women with no education or with elementary education only has declined, from 21 percent in 2008 to 17 percent in 2013, and the percentage with at least secondary education has increased, from 79 percent in 2008 to 83 percent in 2013.

C. Fertility

Each female respondent in the 2013 NDHS was asked to report her reproductive history. First, she was asked to report on the number of sons and daughters living with her, the number living elsewhere, the number who died, and the number of pregnancies that did not result in a live birth. Next, she was asked to report all her pregnancies, whether born alive, born dead or lost before full term. For each pregnancy ending in a live birth, the respondent was asked to report on the child's name, sex, age (if alive) or age at death (if deceased) and whether the child was living with her. For each pregnancy which did not result in a live birth, she was asked to report the year of pregnancy termination. These data are used to calculate two of the most commonly used measures of current fertility: the total fertility rate (TFR) and the age-specific fertility rates for the three years preceding the survey. The TFR, which is the sum of the age-specific fertility rates, is interpreted as the average number of children a woman would bear in her lifetime if she would experience the currently observed age-specific fertility rates throughout her reproductive years.

Table 3. Current fertility

Age-specific rates and total fertility rate, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Philippines 2013

Age group	Residence		Total
	Urban	Rural	
15-19	52	63	57
20-24	128	174	148
25-29	127	172	147
30-34	110	147	127
35-39	75	94	84
40-44	30	45	37
45-49	4	10	7
TFR (15-49)	2.6	3.5	3.0
GFR	88	115	101
CBR	21.5	22.6	22.1

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women age 15-44
CBR: Crude birth rate, expressed per 1,000 population

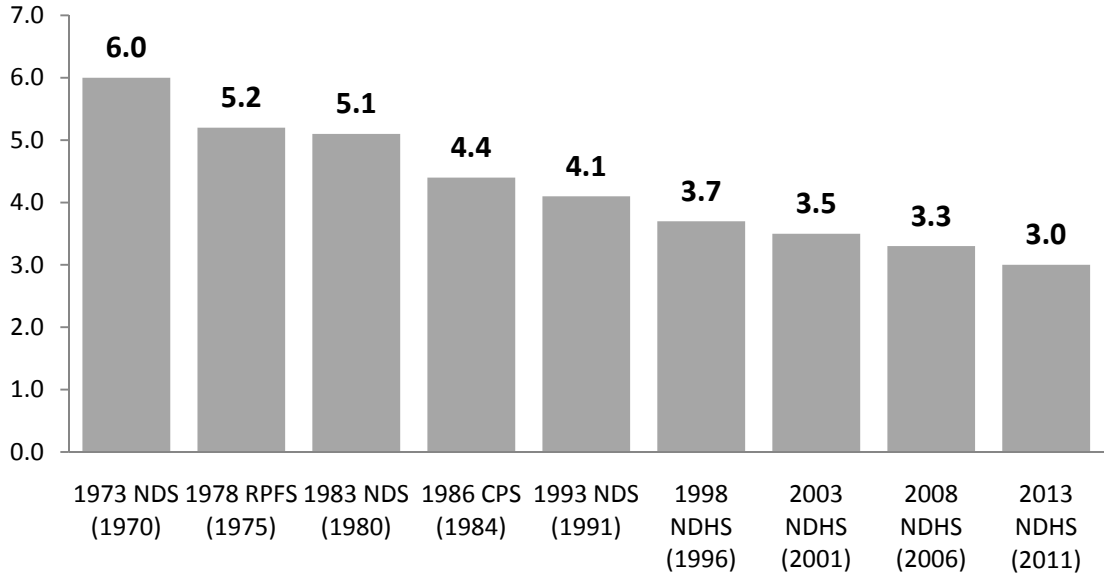
According to the preliminary results of the 2013 NDHS, the TFR calculated for the three years preceding the survey is 3.0 (Table 3). This means that, on average, a Filipino woman who is at the beginning of her childbearing years will give birth to 3.0 children by the end of her reproductive period if fertility levels remain constant at the level observed in the three-year period before the survey. Urban-rural differentials in the

Philippines are obvious with rural women (3.5 births) having an average of about one child more than urban women (2.6 births).

The overall age pattern of fertility as reflected in the age-specific fertility rates (ASFR) indicates that childbearing begins early. Fertility peaks at age 20-24 (148 births per 1,000 women) and age 25-29 (147 births per 1,000 women), falling sharply after age 34.

The TFR from the 2013 NDHS can be compared with the TFR estimated from earlier DHS surveys in the country. A comparison of the rate shows that fertility has declined over the last four decades from 6.0 children per woman in 1970 to 3.0 children in 2011 (Figure 1).

Figure 1. Trends in total fertility rate 1970-2011



Note: Rates for 1970 to 1980 are five-year averages and rates for 1986 to 2013 are three-year averages centered on the year in parentheses. Source: 1970-2006: NSO and ICF Macro, 2009, Table 4.3

D. Fertility Preferences

Information on fertility preferences is used to assess the potential demand for family planning services for the purpose of spacing or limiting childbearing. To elicit information on fertility preferences, several questions were asked in the survey, including: a) whether the respondent wanted another child and b) if so, when she would like to have the next child.

Table 4 indicates that Filipino women desire to limit or delay childbearing. Among currently married women, 62 percent do not want to have another child or are sterilized, while 19 percent would like to delay their next birth.

The desire to limit childbearing markedly increases with the number of living children.

The percentage of women who do not want any more children increases from 21 percent among women with only one living child to 60 percent among women with two living children and to more than 70 percent among women with at least four children. Only 11 percent of women with 6 or more children are sterilized, hence, the potential demand for family planning services for the purpose of limiting fertility for these Filipino women is high at 78 percent.

Table 4. Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Philippines 2013

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	75.5	19.6	7.7	4.1	3.3	2.1	2.5	11.9
Have another later[3]	13.1	49.2	20.1	8.9	3.9	3.3	1.8	18.7
Have another, undecided when	2.7	0.8	0.7	0.5	0.2	0.3	0.2	0.7
Undecided	0.6	7.2	5.4	3.1	3.7	2.4	3.4	4.5
Want no more	1.9	21.0	59.5	65.0	71.5	75.8	78.2	53.7
Sterilized[4]	0.0	0.4	4.9	17.0	15.8	15.0	11.3	8.6
Declare infecund	6.0	1.7	1.6	1.1	1.4	0.7	2.4	1.8
Missing	0.2	0.0	0.1	0.2	0.1	0.5	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	550	2,031	2,494	1,845	1,151	686	972	9,729

[1] The number of living children includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization

E. Family Planning

Information about knowledge and use of contraceptive methods was collected from the respondents by asking them to mention any ways or methods by which a couple can delay or avoid a pregnancy. The interviewer described each method and then asked if the respondent knew it. Women were asked if they (or their partner) were currently using a method. For analytical purposes, contraceptive methods are grouped into two types in the table: modern and traditional. Modern methods include female and male sterilization, pill, IUD, injectables, condoms, mucus/billings/ovulation, standard days method, and LAM. Traditional methods include rhythm method, withdrawal, and folk methods.

Table 5 shows the level and differentials by characteristics of women in the current use of contraception among currently married women. Fifty-five percent of married women age 15-49 in the Philippines use some method of family planning. More than a third of women (38 percent) use modern methods, while 18 percent use traditional methods. The most commonly used modern method is the pill (19 percent), followed by female sterilization (9 percent). The use of the pill and female sterilization together accounts for half of all contraceptive use. Four percent of married women use IUDs, another 4 percent use injectables, and 2 percent have partners using male condoms.

Table 5. Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Philippines 2013

			Modern method											Traditional method					
Background characteristic	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Male condom	Mucus/ Billings/ Ovulation	Standard days	LAM	Other modern	Any traditional method	Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
Age																			
15-19	36.5	20.6	0.0	0.0	11.5	1.5	5.6	0.7	0.0	0.0	1.3	0.0	15.9	0.7	15.2	0.0	63.5	100.0	313
20-24	51.0	34.3	0.5	0.0	23.8	2.8	5.0	1.5	0.0	0.1	0.8	0.0	16.7	2.3	14.2	0.2	49.0	100.0	1,196
25-29	58.5	42.3	2.5	0.1	28.4	3.0	5.1	2.3	0.0	0.0	0.8	0.1	16.3	3.0	13.1	0.2	41.5	100.0	1,484
30-34	62.4	44.9	7.6	0.1	26.7	3.5	4.0	2.0	0.1	0.2	0.7	0.1	17.5	4.5	12.7	0.2	37.6	100.0	1,862
35-39	61.0	42.5	10.6	0.1	20.2	4.4	4.2	2.3	0.2	0.1	0.4	0.1	18.5	6.5	11.6	0.5	39.0	100.0	1,725
40-44	58.2	38.8	15.8	0.3	12.3	4.3	3.0	2.3	0.2	0.2	0.2	0.2	19.4	7.4	11.9	0.2	41.8	100.0	1,638
45-49	39.8	23.5	13.5	0.0	4.8	3.3	0.6	1.0	0.1	0.1	0.0	0.1	16.4	7.1	9.0	0.3	60.2	100.0	1,511
Residence																			
Urban	56.5	37.8	9.6	0.2	17.9	3.5	3.4	2.2	0.1	0.2	0.6	0.1	18.7	4.9	13.6	0.2	43.5	100.0	4,734
Rural	53.8	37.5	7.5	0.0	20.3	3.6	3.9	1.6	0.1	0.1	0.3	0.1	16.3	5.3	10.7	0.3	46.2	100.0	4,995
Region																			
National Capital Region	61.1	40.1	8.9	0.2	19.5	3.3	4.1	2.2	0.0	0.4	1.5	0.2	21.0	4.1	16.8	0.0	38.9	100.0	1,475
Cordillera Admin Region	61.2	44.0	17.6	0.0	14.0	2.3	6.7	3.0	0.0	0.0	0.0	0.5	17.2	3.7	13.4	0.0	38.8	100.0	151
I - Ilocos Region	54.4	37.5	9.2	0.0	20.6	0.6	4.9	2.0	0.0	0.0	0.2	0.0	17.0	2.7	14.2	0.0	45.6	100.0	460
II - Cagayan Valley	58.9	51.5	11.2	0.0	27.4	3.8	6.5	1.1	0.0	0.0	1.5	0.0	7.4	1.3	6.1	0.0	41.1	100.0	376
III - Central Luzon	61.2	44.9	16.0	0.1	19.9	1.1	4.0	2.6	0.0	0.1	0.9	0.0	16.4	4.3	12.0	0.1	38.8	100.0	1,052
IVA - CALABARZON	55.7	36.1	10.6	0.1	16.0	4.0	3.4	1.8	0.1	0.0	0.1	0.0	19.6	3.2	16.3	0.0	44.3	100.0	1,349
IVB - MIMAROPA	51.2	39.7	5.9	0.0	23.8	2.1	5.7	1.3	0.0	0.0	0.5	0.5	11.5	3.6	6.7	1.3	48.8	100.0	252
V - Bicol	44.9	21.2	3.9	0.0	11.8	1.4	2.7	1.2	0.2	0.0	0.0	0.0	23.7	8.2	15.3	0.2	55.1	100.0	511
VI - Western Visayas	55.4	34.3	4.0	0.3	20.4	2.2	4.5	2.0	0.2	0.2	0.2	0.3	21.0	7.4	13.6	0.0	44.6	100.0	636
VII - Central Visayas	54.8	34.0	6.4	0.2	16.2	5.8	2.5	2.7	0.0	0.0	0.0	0.2	20.8	9.6	11.0	0.2	45.2	100.0	636
VIII - Eastern Visayas	61.7	37.0	7.8	0.0	21.1	2.9	2.3	2.1	0.5	0.0	0.3	0.0	24.8	10.4	14.4	0.0	38.3	100.0	370
IX - Zamboanga Peninsula	47.3	36.2	3.3	0.0	22.7	6.5	2.9	0.5	0.0	0.0	0.0	0.2	11.1	5.5	4.2	1.5	52.7	100.0	425
X - Northern Mindanao	50.7	37.6	5.2	0.2	20.2	8.5	1.9	1.2	0.0	0.2	0.0	0.2	13.1	5.1	7.1	0.9	49.3	100.0	424
XI - Davao	53.8	39.3	8.6	0.2	22.1	4.1	2.3	1.4	0.4	0.0	0.2	0.0	14.5	5.0	9.1	0.4	46.2	100.0	557
XII - SOCCSKSARGEN	57.5	44.2	8.0	0.0	23.4	6.3	4.2	1.7	0.0	0.4	0.2	0.0	13.3	6.1	6.5	0.6	42.5	100.0	469
XIII - Caraga	54.2	39.0	5.2	0.0	21.1	6.3	3.0	2.8	0.2	0.4	0.2	0.0	15.2	7.0	7.6	0.6	45.8	100.0	293
ARMM	23.9	15.3	3.1	0.0	7.6	0.5	2.9	0.7	0.0	0.0	0.6	0.0	8.6	1.8	6.6	0.2	76.1	100.0	295
Education																			
No education	29.3	16.1	3.8	0.0	8.6	2.0	1.3	0.0	0.0	0.0	0.3	0.0	13.3	5.8	6.8	0.7	70.7	100.0	147
Elementary	52.8	36.1	8.8	0.1	18.3	3.5	3.6	1.2	0.0	0.0	0.3	0.2	16.7	5.4	10.6	0.7	47.2	100.0	2,016
High school	58.2	40.1	8.2	0.1	20.7	4.0	4.3	1.8	0.1	0.2	0.6	0.1	18.2	4.1	13.9	0.1	41.8	100.0	4,641
College or higher	53.0	35.9	9.1	0.1	17.7	2.8	2.9	2.5	0.1	0.1	0.4	0.1	17.1	6.5	10.5	0.1	47.0	100.0	2,925
Number of living children																			
0	6.9	1.9	0.0	0.0	1.6	0.0	0.1	0.2	0.0	0.0	0.0	0.0	5.0	1.0	4.0	0.0	93.1	100.0	744
1-2	55.5	36.9	2.9	0.1	23.3	3.4	4.1	2.3	0.1	0.1	0.5	0.1	18.7	4.7	13.8	0.2	44.5	100.0	4,433
3-4	67.0	49.2	16.8	0.2	20.5	4.6	4.1	2.1	0.1	0.2	0.6	0.2	17.8	6.1	11.3	0.3	33.0	100.0	2,926
5+	54.6	35.1	12.9	0.2	13.3	3.6	3.5	1.1	0.0	0.1	0.4	0.1	19.4	6.4	12.5	0.5	45.4	100.0	1,625
Total	55.1	37.6	8.5	0.1	19.1	3.5	3.7	1.9	0.1	0.1	0.5	0.1	17.5	5.1	12.1	0.2	44.9	100.0	9,729

Note: If more than one method is used, only the most effective method is considered in this tabulation. Any methods not shown were reported by fewer than 0.05 percent of currently married women overall.

LAM = Lactational amenorrhea method

As expected, female sterilization, which is a permanent method, is more popular among older women and among women with 3 or more children. Urban women are also more likely to use female sterilization than rural women (10 percent of urban women compared to 8 percent among rural women). Use of female sterilization is highest in the Cordillera Administrative Region (18 percent) and in Central Luzon (16 percent). Less than 5 percent use female sterilization in Bicol Region, Western Visayas, Zamboanga Peninsula and ARMM.

The pill is popular among women age 20-39, among educated women, and women with 1-4 children. Traditional methods are more popular among educated women and those who have had at least one child.

Use of modern contraception varies by the women's characteristics (Figure 2). Women in the youngest and oldest age groups are less likely to use modern methods, as compared to those in other age groups. Modern contraceptive use increases with educational attainment; while only 16 percent of married women with no education use modern methods, the corresponding proportion for women with high school education is 40 percent. The number of living children a woman has is also a determining factor in the use of modern contraception. Only 2 percent of married women with no living children are using modern family planning methods, in contrast to 49 percent of women with 3-4 children.

Figure 2. Current use of any modern method of contraception

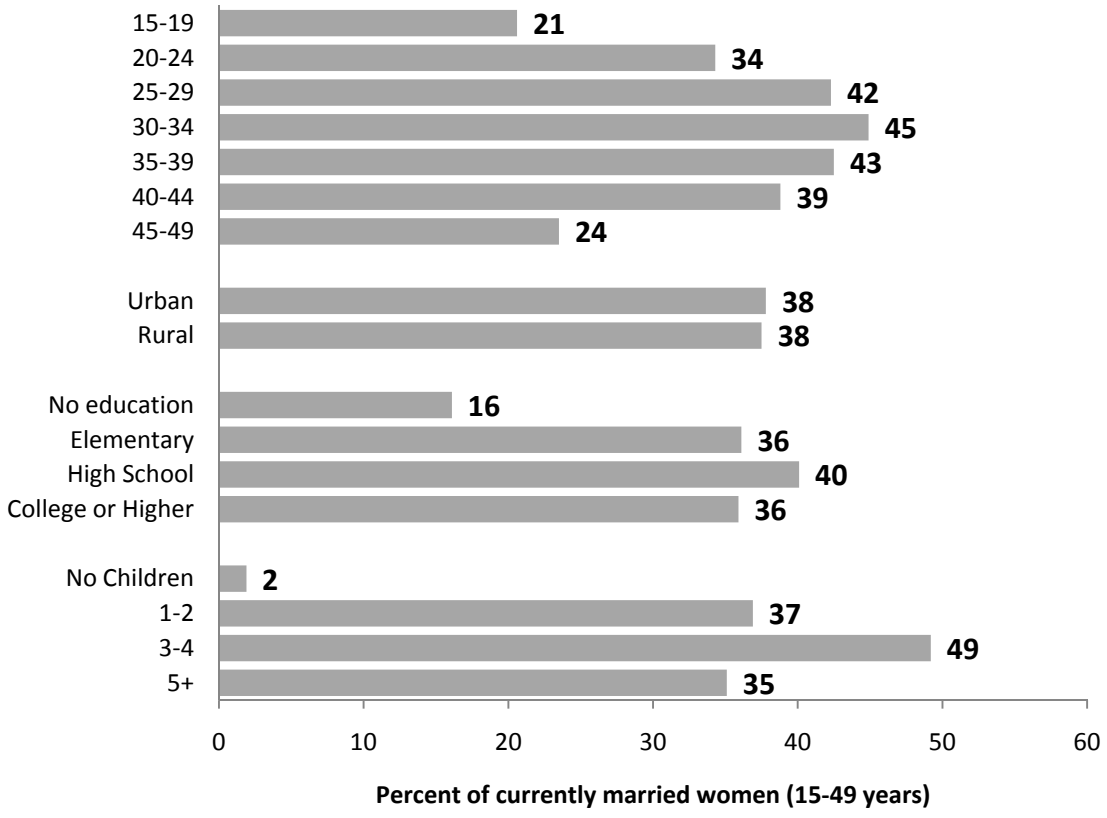
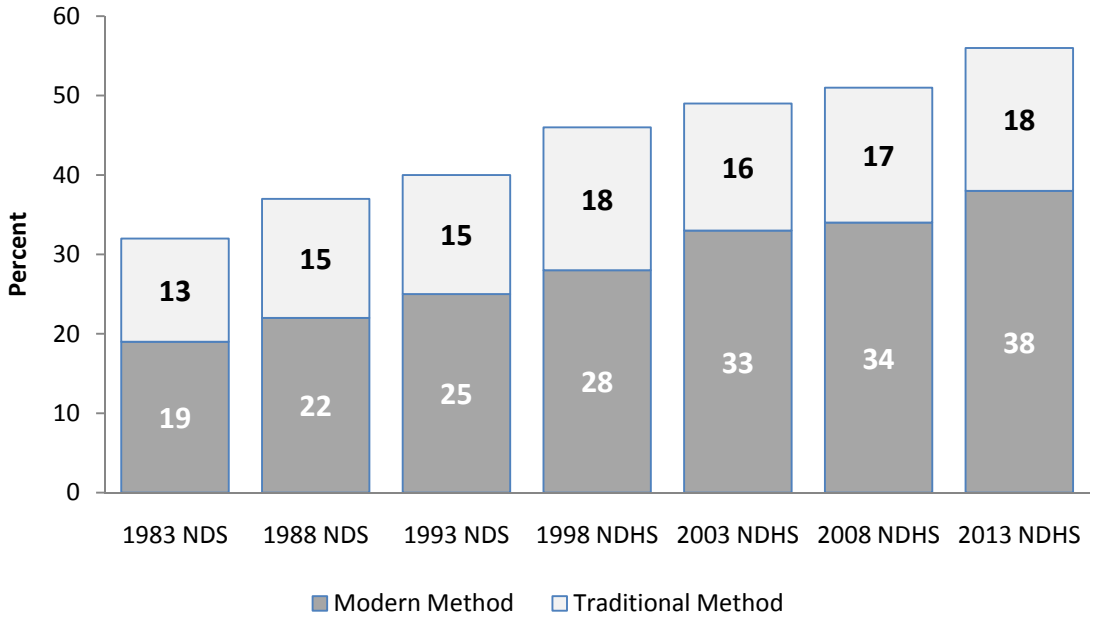


Figure 3 shows that the contraceptive prevalence rate has increased slightly over the last decade, from 49 percent of married women in 2003 to 55 percent in 2013. The use of modern methods has also increased slightly, from 33 percent in 2003 to 38 percent in 2013.

Figure 3. Trends in contraceptive use, Philippines 1983-2013



Source: National Statistics Office (NSO) and ICF Macro, 2009. Figure 5.2

F. Maternity Care

Proper care during pregnancy and delivery are important for the health of both the mother and the baby. In the 2013 NDHS, women who had given birth in the five years preceding the survey were asked a number of questions about maternal and child health care. For the last live birth in that period, mothers were asked whether they had obtained antenatal care and whether they had received tetanus toxoid injections during the pregnancy. For each birth in the same period, the mothers were also asked what type of assistance they received at the time of delivery and where the delivery took place. Table 6 and 7 present information on some key maternal care indicators.

Antenatal Care

Antenatal care (ANC) from a health professional is important in order to monitor the risks associated with pregnancy and delivery for the mother and her child. Antenatal care is most beneficial in preventing negative pregnancy outcomes when it is sought early in the pregnancy and it is continued through to delivery. The Department of Health (DOH) recommends that all pregnant women have at least four ANC visits during each pregnancy. The 2013 NDHS shows that about four in five women who had a live birth in the five years preceding the survey had the recommended number of ANC visits during the pregnancy for the last live birth (Table 6). Table 6 also shows that 12

percent of women had fewer than four visits while 4 percent did not have any ANC visits at all.

DOH further recommends that the first ANC visit should occur in the first trimester of the pregnancy for early detection of pregnancy-related health problems. Sixty-two percent of women who had a birth in the five years preceding the survey followed the recommended timing of the first ANC visit. About three in ten women made their first visit on the fourth or fifth month of their pregnancy, while 6 percent had their first ANC visit when they were six or more months pregnant. Women in urban areas tend to have their first visit earlier than women in rural areas since 65 percent of women in urban areas had their first ANC visit in the first trimester of pregnancy compared with 60 percent of women in rural areas.

Table 6. Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Philippines 2013

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	2.8	4.8	3.9
1	1.7	1.8	1.8
2-3	7.8	12.0	10.0
4+	87.6	81.3	84.3
Don't know/missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	2.8	4.8	3.9
<4	65.4	59.5	62.3
4-5	25.7	28.8	27.3
6-7	5.3	6.0	5.7
8+	0.7	0.8	0.8
Don't know/missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
Number of women	2,489	2,699	5,188
Median months pregnant at first visit (for those with ANC)	3.4	3.6	3.5
Number of women with ANC	2,419	2,568	4,987

According to the 2013 NDHS, 95 percent of women who gave birth in the 5 years preceding the survey received antenatal care at least once for the last live birth from a health professional, that is, a doctor, nurse, or midwife (Table 7).

Ninety-seven percent of women in urban areas and 94 percent of women in rural areas received antenatal care at least once during their pregnancy from a skilled provider. For 16 of the 17 regions in the country, the percentage of women who had an ANC from a health professional ranges from 91 percent to 99 percent. In ARMM, only half (53 percent) received ANC from a skilled provider.

Education has a great impact in availing antenatal care from health professionals, as revealed by the results ranging from 62 percent among women with no education to 98

percent among those who attended college or higher.

Tetanus Toxoid

Tetanus toxoid (TT) injections are given during pregnancy to prevent neonatal tetanus, which continues to be a major cause of infant deaths in many developing countries.

Table 7 indicates that 82 percent of women had their last live birth protected against neonatal tetanus. The likelihood of having the last live birth protected against neonatal tetanus increases with the mother's educational attainment, from 53 percent among women with no education to 83 percent with high school or higher levels of education.

Delivery Care

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death and serious illness of the mother and/or the baby (Van Lerberghe and De Brouwere, 2001. WHO, 2006). [Need to add these to the References] Although 95 percent of mothers received antenatal care from a doctor, nurse, or midwife for their most recent birth, only 73 percent of babies are delivered by a doctor, nurse, or midwife, and 60 percent are delivered at a health facility (Table 7). However, it is encouraging to note that the proportion of births attended by skilled providers over the last five years has improved, from 62 percent in 2008 to 73 percent, while the proportion of babies delivered in a health facility has increased from 44 percent in 2008 to 60 percent (NSO and Macro International Inc., 2009).

Ten of the 17 regions posted remarkable increases in the percentage of facility-based deliveries, ranging from 18 to 28 percentage points. For example, in Eastern Visayas, the percentage of births that occurred in a health facility rose to 62 percent in 2013 which is 28 percentage points higher than that recorded in 2008 (34 percent). In SOCCSKSARGEN, the percentage doubled; from 24 percent in 2008 to 48 percent in 2013. The other eight? regions with significant increases in the percentage of facility-based deliveries are Central Visayas, Ilocos Region, Caraga, Cordillera Administrative Region, Cagayan Valley, Northern Mindanao, Davao, and Bicol Region.

Meanwhile, only three regions had significant increases in the percentage of births with skilled attendants. These include Eastern Visayas (from 43 percent in 2008 to 67 percent in 2013), SOCCSKSARGEN (from 36 percent in 2008 to 56 percent in 2013) and CAR (from 67 percent in 2008 to 85 percent in 2013).

Women who give birth at a younger age (<35 years) are more likely to receive assistance from health professionals during delivery and also more likely to deliver at a health facility than women who give birth at an older age.

Women's utilization of delivery services varies markedly by place of residence. Delivery by health professionals is higher in urban areas (83 percent) than in rural areas (64 percent). Deliveries in ARMM, MIMAROPA, Zamboanga Peninsula and

SOCCSKSARGEN are least likely to be assisted by a health professional and least likely to take place in a health facility.

Table 7. Maternal care indicators

Among women age 15-49 who had a live birth in the five years preceding the survey, percentage who received antenatal care from a skilled provider for the last live birth and percentage whose last live birth was protected against neonatal tetanus, and among all live births in the five years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility, by background characteristics, Philippines 2013

Background characteristic	Percentage with antenatal care from a health professional [1]	Percentage whose last live birth was protected against neonatal tetanus [2]	Number of women	Percentage delivered by a health professional [1]	Percentage delivered in a health facility	Number of births
Mother's age at birth						
<20	96.1	76.7	586	74.8	61.1	871
20-34	95.8	83.1	3,598	74.0	61.2	4,919
35+	93.6	80.6	1,004	66.2	53.4	1,192
Residence						
Urban	96.7	80.6	2,489	83.2	69.8	3,261
Rural	94.2	83.0	2,699	63.6	51.1	3,721
Region						
National Capital Region	98.7	79.6	815	90.9	76.3	1,026
Cordillera Admin Region	98.1	87.2	79	85.4	75.0	105
I - Ilocos Region	97.4	79.7	232	90.0	67.2	314
II - Cagayan Valley	97.2	84.9	199	64.4	50.6	258
III - Central Luzon	97.7	80.8	495	87.8	67.5	656
IVA - CALABARZON	97.1	79.4	696	84.6	64.5	887
IVB - MIMAROPA	91.3	85.7	135	41.3	36.5	191
V - Bicol	97.0	84.7	301	65.0	50.4	437
VI - Western Visayas	97.9	89.1	352	67.8	61.2	486
VII - Central Visayas	98.4	86.8	333	80.9	71.6	461
VIII - Eastern Visayas	95.6	92.6	196	67.4	61.6	269
IX - Zamboanga Peninsula	94.0	83.6	245	52.0	43.4	339
X - Northern Mindanao	94.6	82.2	242	63.3	52.5	324
XI - Davao	97.6	80.5	295	67.7	60.4	397
XII - SOCCSKSARGEN	91.6	85.8	236	55.7	47.9	330
XIII - Caraga	97.0	84.0	163	63.2	55.0	231
ARMM	52.8	50.9	173	20.4	12.3	271
Mother's education						
No education	61.5	52.5	73	16.9	10.0	112
Elementary	90.5	78.7	1,017	48.5	35.5	1,496
High school	96.8	83.5	2,616	75.6	59.4	3,523
College or higher	98.1	82.7	1,482	90.3	83.3	1,851
Total	95.4	81.9	5,188	72.8	59.8	6,982

[1] Doctor, nurse or midwife

[2] Includes mothers with two injections during the pregnancy of her last live birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last live birth), or four or more injections (the last within ten years of the last live birth), or five or more injections at any time prior to the last live birth

Delivery by health professionals increases significantly with education; from 17 percent of births to women with no education to 90 percent of births to women with college or higher level of education. Delivery in a health facility also markedly increases with education, from 10 percent of births to women with no education to 83 percent of births to women with college or higher education.

G. Child Health

The 2013 NDHS obtained information on a number of key child health indicators, including childhood mortality rates, immunization of young children, and treatment practices when a child is ill.

Vaccination of Children

Republic Act No. 10152, also known as Mandatory Infants and Children Health Immunization Act of 2011, provides a comprehensive, mandatory and sustainable immunization program for vaccine-preventable diseases for all infants and children. The mandatory basic immunizations for all infants and children cover the following vaccine-preventable diseases: (a) Tuberculosis; (b) Diphtheria, tetanus and pertussis; (c) Poliomyelitis; (d) Measles; (e) Mumps; (f) Rubella or German measles; (g) Hepatitis-B; and (h) H. Influenza type B (HIB). The mandatory basic immunizations are given free at government hospitals or health centers to infants and children up to five years of age. In this report, a child is considered fully immunized if he or she had BCG, measles, and three doses each of DPT, polio and Hepa-B vaccines before the first birthday.

The 2013 NDHS collected information on the coverage of these vaccinations for all children born in the five years preceding the survey. As the Philippines is going through the transitional phase from implementation of pentavalent vaccination scheme, care was taken to capture both these schemes. Information on vaccination coverage was obtained in two ways – from health cards and from mothers' verbal report. All mothers were asked to show the interviewer the vaccination cards on which the child(ren)'s immunization status was recorded. If the card was available, the interviewer copied the dates on which each vaccination was received. If a vaccination was not recorded on the health card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present a health card for her child, she was asked to recall whether the child had received BCG, polio, DPT, measles and other vaccines. If she indicated that the child had received the polio or DPT vaccines, she was asked about the number of doses of each that the child had received.

Table 8 presents information on vaccination coverage for children age 12-23 months. Six of ten children 12-23 months (62 percent) were fully immunized; that is, they received the seven basic vaccinations before their first birthday. More than 90 percent of the children received BCG, DPT1, polio1 and Hepa-B1. The proportion of children receiving the third dose of DPT, polio and Hepa-B is lower (85 percent, 83 percent and 74 percent, respectively) as is the proportion receiving the measles vaccination (78 percent). Coverage is lowest for H. Influenza type B (HIB), with only 33 percent given

the first dose, 30 percent for the second dose, and 27 percent given the third dose.

Table 8. Vaccinations in first year of life

Percentage of children age 12-23 months at the time of the survey who received specific vaccines by 12 months of age and percentage with a vaccination card, by background characteristics of child, Philippines 2013

Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Hepa-B 1	Hepa-B 2	Hepa-B 3	Measles	All vaccinations [1]	HiB 1	HiB 2	HiB 3	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex																		
Male	94.5	93.0	91.8	85.3	91.8	89.0	83.5	92.0	84.6	74.7	77.2	61.6	30.9	28.2	25.1	4.1	57.5	703
Female	95.1	94.1	91.0	84.1	93.3	88.3	82.7	91.0	81.8	74.1	79.2	62.1	34.7	31.7	28.7	4.0	57.8	694
Residence																		
Urban	96.6	95.5	93.2	87.2	94.4	90.3	85.1	94.2	87.3	79.9	81.2	69.0	36.1	33.3	30.4	2.7	56.8	671
Rural	93.1	91.7	89.7	82.5	90.9	87.2	81.3	89.1	79.4	69.4	75.5	55.3	29.7	26.9	23.7	5.3	58.4	727
Region																		
National Capital Region	97.5	98.1	94.5	90.1	96.9	93.2	88.9	98.1	92.1	86.4	80.3	73.3	38.4	34.6	34.2	1.9	52.8	209
Cordillera Admin Region	96.4	96.4	96.4	96.4	94.6	94.6	92.7	94.5	92.7	91.0	92.7	83.6	18.1	10.9	10.9	3.6	61.7	21
I - Ilocos Region	98.0	92.5	86.8	76.6	92.3	83.2	73.0	98.2	86.8	71.0	77.8	57.9	34.9	27.8	20.5	0.0	53.8	53
II - Cagayan Valley	90.8	94.0	91.0	75.9	89.5	81.8	76.1	86.5	75.2	60.6	78.8	47.4	16.7	15.2	-	4.5	45.5	52
III - Central Luzon	95.0	93.3	93.0	86.4	90.4	86.6	83.6	83.8	79.2	72.8	80.2	58.0	40.8	34.8	31.2	2.5	56.9	136
IVA - CALABARZON	99.2	96.3	95.3	89.7	96.3	95.3	90.5	94.2	85.4	79.7	84.4	69.0	15.7	13.4	10.2	0.8	56.4	184
IVB - MIMAROPA	87.6	87.6	87.6	76.8	87.6	85.6	74.0	85.6	76.4	62.5	76.0	57.4	38.0	35.8	32.5	8.6	63.5	34
V - Bicol	97.3	93.4	89.5	75.0	94.7	85.5	73.9	90.8	85.0	68.2	73.7	51.4	26.4	25.1	20.6	2.7	65.7	76
VI - Western Visayas	99.0	96.9	92.9	89.8	96.9	91.8	88.8	95.9	72.4	66.3	85.2	62.2	64.2	61.2	57.1	1.0	66.4	105
VII - Central Visayas	96.8	93.5	93.5	86.0	93.5	93.5	86.0	94.6	85.0	75.3	82.5	63.6	63.5	63.5	58.1	3.2	68.8	100
VIII - Eastern Visayas	100.0	100.0	100.0	95.9	100.0	98.3	92.4	94.8	87.8	72.6	73.5	49.5	19.3	16.9	16.9	(0.0)	73.7	55
IX - Zamboanga Peninsula	86.1	91.2	89.4	82.8	89.0	87.2	83.5	89.0	83.9	79.1	69.0	59.0	12.1	9.9	8.8	8.8	55.0	70
X - Northern Mindanao	94.7	90.7	89.4	82.9	88.1	82.7	76.6	90.8	85.4	77.4	76.5	58.3	13.3	12.0	12.0	5.3	48.0	75
XI - Davao	97.4	96.1	94.7	89.8	94.7	92.4	92.1	96.1	89.5	78.3	80.6	68.5	38.2	35.5	32.6	1.3	59.2	76
XII - SOCCSKSARGEN	89.6	89.6	86.6	84.3	89.5	80.6	78.4	89.6	82.1	69.4	73.3	60.1	-	-	-	9.0	59.7	66
XIII - Caraga	95.1	97.5	96.3	87.1	95.1	93.8	81.6	92.6	90.1	83.8	75.9	67.6	73.7	71.1	65.1	2.5	67.9	44
ARMM	57.1	51.3	47.0	36.3	51.3	45.8	34.0	50.3	35.9	30.9	40.4	29.4	11.5	9.2	7.7	40.1	24.4	42
Education																		
No education	(60.9)	(58.1)	(44.3)	(33.8)	(54.5)	(38.5)	(33.8)	(50.2)	(36.4)	(30.3)	(36.1)	(30.3)	(12.9)	(12.9)	(10.4)	(34.6)	(28.3)	22
Elementary	88.7	88.4	86.0	77.2	87.6	82.1	75.3	85.2	79.5	70.9	70.1	55.1	27.6	25.1	20.7	9.1	55.5	278
High school	96.8	95.0	92.6	85.2	94.1	90.6	84.3	93.2	84.1	74.0	77.6	61.9	31.4	28.9	26.4	2.2	59.0	706
College or higher	97.4	96.6	95.7	92.1	95.3	92.7	89.2	95.4	86.9	80.2	87.5	68.3	40.0	36.1	33.0	2.0	58.5	391
Total	94.8	93.5	91.4	84.7	92.5	88.7	83.1	91.5	83.2	74.4	78.2	61.8	32.8	29.9	26.9	4.0	57.6	1,397

Note: Information was obtained from the vaccination card or if there was no written record, from the mother. For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccinations.

- = No children with valid dates on cards for the vaccine to enable calculation of whether vaccine was given before first birthday.

[1] BCG, measles, and three doses each of DPT, polio and Hepa-B vaccine (either Hepa-B0-Hepa-B2 or Hepa-B1-HepaB3)

There are only slight variations in children fully immunized by sex. Urban children are more likely to be fully immunized than rural children. Children in ARMM are less likely to receive all vaccinations than children in other regions (29 percent compared with 47-84 percent).

As expected, immunization coverage varies by mother's education, ranging from 55 percent among children of mothers with elementary education to 68 percent among children whose mothers had college level of education or higher.

Childhood Illnesses

Fever and dehydration from severe diarrhea are major causes of childhood mortality. Prompt medical attention for children experiencing these illnesses is, therefore, crucial in reducing child deaths. To obtain information on how childhood illnesses are treated, for each child under five years, mothers were asked if the child had fever and diarrhea in the two weeks before the survey. For children with diarrhea, mothers were asked what had been done to treat the diarrhea. The administration of oral rehydration therapy (ORT) is a simple means of counteracting the effect of dehydration. In the 2013 NDHS, ORT includes a solution either prepared by mixing water with the powder in a commercially prepared oral rehydration packet (ORS), or a government-recommended homemade fluid.

Data from the 2013 NDHS show that 28 percent of children under five years had fever and 8 percent had diarrhea in the two weeks preceding the survey (data not shown). Table 9 shows that half of the children with fever were taken to a health facility or provider for treatment.

Table 9 also shows treatment practices for children who had diarrhea in the two weeks preceding the survey. About 42 percent of children with diarrhea were taken to a facility or provider, and 49 percent of children were given a solution prepared from an ORS packet. Overall, 56 percent of children were given ORT.

Children age 6-11 months are slightly less likely to be given ORT as treatment for diarrhea than other children. Mothers with only elementary education are most likely to take their children with diarrhea to a health facility or provider (47 percent).

Infant and Child Mortality

Information on infant and child mortality is important for the improvement of child survival programs and for identifying those segments of the child population that are most vulnerable. Infant and child mortality rates are also basic indicators of a country's socioeconomic level and quality of life.

Table 9. Treatment for fever, and diarrhea

Among children under five years who were sick with fever in the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, and among children under five years who were sick with diarrhea during the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, percentage given a solution made from oral rehydration salt (ORS) packets or given prepackaged ORS liquids, and percentage given any oral rehydration therapy (ORT) by background characteristics, Philippines 2013

	Children with fever		Children with diarrhea			
Background characteristic	Percentage for whom treatment was sought from a health facility/ provider[1]	Number with fever	Percentage for whom treatment was sought from a health facility/ provider[1]	Percentage given solution from ORS packet	Percentage given any ORT[2]	Number with diarrhea
Age in months						
<6	53.8	138	*	*	*	17
6-11	55.6	262	38.6	36.9	46.3	105
12-23	53.1	461	43.7	52.4	58.3	201
24-35	49.2	351	40.5	47.2	54.3	101
36-47	47.7	374	37.5	52.9	57.4	79
48-59	42.8	283	(51.7)	(59.6)	(64.8)	39
Sex						
Male	50.2	970	39.2	48.9	55.9	304
Female	50.1	899	45.4	49.4	55.0	238
Residence						
Urban	51.9	798	43.1	54.2	60.6	245
Rural	48.8	1,071	40.9	45.0	51.3	297
Mother's education						
No education	(51.8)	22	*	*	*	13
Elementary	50.1	453	46.6	47.9	54.6	131
High school	49.4	968	39.3	49.6	55.4	285
College or higher	51.7	426	41.6	49.3	55.7	114
Total	50.1	1,869	41.9	49.1	55.5	542

Note: Figures in parentheses are based on 25-49 unweighted cases; an asterisk indicates an estimate based on fewer than 25 cases.
[1] Excludes pharmacy, store, puericulture center, church, friends, and relatives
[2] Includes ORS from packets, tablets, and recommended home fluid

Estimates of childhood mortality are based on information collected in the birth history of the questionnaire administered to individual women. The section begins with questions about the aggregate childbearing experiences of respondents (including the number of sons and daughters who live with their mother, the number who live elsewhere, and the number who have died).

This information is used to calculate the number of children/years of exposure during a given period and the number of children that died during the same period. Knowing these values, it is possible to directly estimate the following five mortality rates:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality (1q0): the probability of dying before the first birthday

- Child mortality (4q1): the probability of dying between the first and fifth birthday
- Under-5 mortality (5q0): the probability of dying between birth and the fifth birthday

Table 10 presents early childhood mortality rates for five-year periods during the 15 years preceding the survey. These periods correspond roughly to 1999 to 2013. Child mortality in the Philippines is relatively low, compared with other countries in the Southeast Asian region. Under-five mortality for the period 0-4 years before the survey or approximately to the calendar years 2009-2013 is 31 deaths per 1,000 live births. This means that one in 32 children born in the Philippines dies before the fifth birthday. Following the usual pattern, most of the early childhood mortality occurs in the first year of life: infant mortality is 23 deaths per 1,000 live births, while mortality between the first and the fifth birthday is 9 deaths per 1,000. The neonatal mortality rate is 13 deaths per 1,000 live births and the postneonatal mortality rate is 10 deaths per 1,000 live births.

Table 10. Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Philippines 2013

Years preceding the survey (Approximate calendar year)	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4 (2009-2013)	13	10	23	9	31
5-9 (2004-2008)	15	10	24	10	34
10-14 (1999-2003)	15	9	25	10	34

[1] Computed as the difference between the infant and neonatal mortality rates

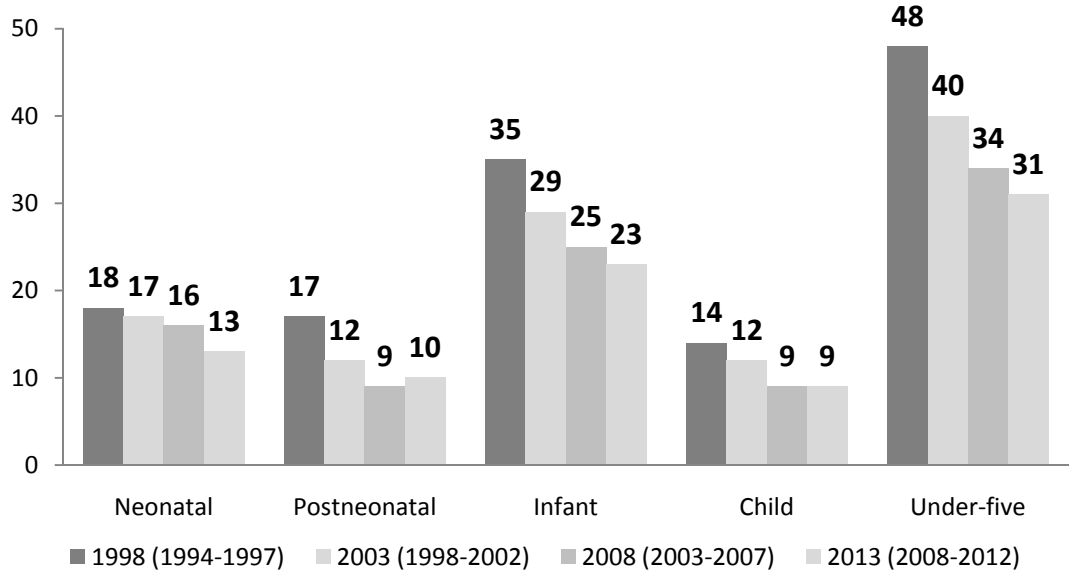
Data from the 2013 NDHS indicate that there has been no significant change in childhood mortality. For example, child mortality is the same for both the periods 5-9 and 10-14 years preceding the survey. A similar trend is seen for other mortality indicators.

Comparison of mortality data from the four past DHS surveys indicates that while mortality has declined over the past 20 years, the decline has been slow (Figure 4). For example, infant mortality has decreased from 35 deaths per 1,000 births in the 1998 NDHS to 29 deaths per 1,000 in the 2003 NDHS and to 25 deaths per 1,000 in the 2008 NDHS and to 23 deaths per 1,000 in the 2013 NDHS. Child mortality rates show a similar decline, from 14 deaths per 1,000 in the 1998 NDHS to12 deaths per 1,000 in the 2003 NDHS to 9 deaths per 1,000 in the 2008 and 2013 NDHS (NSO and Macro International Inc., 2008).

However, the Philippines made significant progress in reducing infant mortality and is likely to meet the Millennium Development Goal (MDG) Target 4.A particularly to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate. MDG indicator 4.1 is to reduce under-five mortality to 27 deaths per 1,000 live births while

MDG indicator 4.2 is to reduce infant mortality rate to 19 deaths per 1,000 live births. The 2013 NDHS infant mortality estimate of 23 deaths per 1,000 live births and under-five mortality estimate of 31 deaths per 1,000 live births are very close to achieving the MDG Target 4.A.

Figure 4. Trends in early childhood mortality rates for the period 0-4 years preceding the survey, Philippines 1998-2013



H. HIV/AIDS

The 2013 NDHS included a series of questions that inquired about women's knowledge of the Human Immunodeficiency Virus (HIV) which causes AIDS (Acquired Immune Deficiency Syndrome, and the mode of transmission and methods of prevention of HIV.

Heard of HIV/AIDS

Table 11 shows that 92 percent of women in the Philippines have heard of HIV/AIDS. Knowledge about HIV and AIDS is slightly higher among urban women than rural women. Among the regions, knowledge of HIV/AIDS is lowest in ARMM (52 percent). Education has a positive relationship with HIV/AIDS knowledge among Filipino women. At least 80 percent of women with some form of education have heard of HIV/AIDS as compared with 44 percent of women with no education.

Knowledge of HIV/AIDS Prevention

HIV/AIDS prevention programs focus their messages and efforts on three important aspects of behavior: limiting the number of sexual partners or staying faithful to one partner, use of condoms, and abstaining from sexual intercourse. To ascertain whether programs have effectively communicated these messages, the 2013 NDHS respondents were asked specific questions whether the chances of getting the AIDS virus can be reduced by having just one faithful sexual partner, using a condom at every sexual

encounter, and abstaining from sex.

Table 11. Knowledge of AIDS

Percentage of women age 15-49 who have heard of AIDS, by background characteristics, Philippines 2013

Background characteristic	Have heard of AIDS	Number of women
Age		
15-24	89.4	6,026
15-19	86.8	3,237
20-24	92.5	2,789
25-29	93.7	2,156
30-39	94.0	4,226
40-49	92.6	3,747
Marital status		
Never married	90.6	5,615
Ever had sex	95.3	805
Never had sex	89.8	4,810
Married or living together	92.7	9,729
Divorced/separated/widowed	92.7	811
Residence		
Urban	94.6	8,585
Rural	88.9	7,570
Region		
National Capital Region	95.6	2,924
Cordillera Admin Region	96.7	252
I - Ilocos Region	91.4	691
II - Cagayan Valley	80.7	550
III - Central Luzon	95.5	1,720
IVA - CALABARZON	92.7	2,293
IVB - MIMAROPA	91.2	372
V - Bicol	94.5	798
VI - Western Visayas	98.0	996
VII - Central Visayas	92.6	1,030
VIII - Eastern Visayas	95.6	571
IX - Zamboanga Peninsula	87.6	725
X - Northern Mindanao	92.8	697
XI - Davao	94.3	893
XII - SOCCSKSARGEN	85.8	744
XIII - Caraga	90.9	435
ARMM	52.2	465
Education		
No education	44.0	188
Elementary	80.3	2,594
High school	92.6	7,915
College or higher	98.1	5,458
Total 15-49	91.9	16,155

Overall, limiting sexual intercourse to one uninfected partner is recognized by 57 percent of women; using condoms as a way of avoiding HIV infection is recognized by 57 percent. A much lower proportion of women (39 percent) are aware that both using condoms and limiting sexual intercourse to one uninfected partner reduce the chance of HIV infection (Table 12).

Table 12 also shows that younger women and women who never had sex are generally less knowledgeable of the modes of prevention than other women. For example, 45 percent of women age 15-19 years as compared with 61 percent of women age 25-29 years know about the use of condoms as a way to prevent HIV. Knowledge of HIV prevention methods is highest among ever-married women. There is considerable variability across regions in knowledge of prevention methods. Knowledge of methods of prevention is highest in Eastern Visayas and lowest in ARMM and MIMAROPA. There is also variability in knowledge across education levels. Women with higher levels of schooling are more likely than those with less schooling to be aware of the prevention methods.

Table 12. Knowledge of HIV prevention methods

Percentage of women who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse and by having one partner who is not infected and has no other partners, by background characteristics, Philippines 2013

Background characteristic	Percentage who say HIV can be prevented by			Number of women
	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1,2]	
Age				
15-24	50.8	53.8	34.0	6,026
15-19	45.0	50.3	29.7	3,237
20-24	57.5	57.8	39.1	2,789
25-29	61.2	58.2	41.4	2,156
30-39	61.1	58.7	41.5	4,226
40-49	60.5	59.2	41.8	3,747
Marital status				
Never married	51.3	53.3	33.6	5,615
Ever had sex	64.9	61.3	45.3	805
Never had sex	49.0	51.9	31.7	4,810
Married or living together	60.4	59.1	41.8	9,729
Divorced/separated/widowed	58.9	56.2	38.2	811
Residence				
Urban	57.5	54.8	36.6	8,585
Rural	56.7	59.3	41.2	7,570
Region				
National Capital Region	53.1	34.6	20.3	2,924
Cordillera Admin Region	65.3	84.0	59.9	252
I - Ilocos Region	54.5	42.6	30.4	691
II - Cagayan Valley	47.5	55.5	36.9	550
III - Central Luzon	55.4	27.1	15.8	1,720
IVA - CALABARZON	61.0	77.6	53.5	2,293
IVB - MIMAROPA	49.6	14.4	7.1	372
V - Bicol	57.9	62.3	40.1	798
VI - Western Visayas	64.4	80.2	55.7	996
VII - Central Visayas	62.0	74.5	54.2	1,030
VIII - Eastern Visayas	75.2	90.1	71.4	571
IX - Zamboanga Peninsula	60.4	57.5	44.0	725
X - Northern Mindanao	61.3	76.9	52.7	697
XI - Davao	60.7	77.3	53.8	893
XII - SOCCSKSARGEN	51.7	67.1	42.8	744
XIII - Caraga	62.5	68.7	50.9	435
ARMM	22.2	11.0	7.1	465
Education				
No education	21.2	21.1	12.9	188
Elementary	46.6	48.6	31.5	2,594
High school	55.6	56.0	36.9	7,915
College or higher	65.6	63.4	45.9	5,458
Total 15-49	57.1	56.9	38.8	16,155

[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

REFERENCES

National Statistics Office (NSO) [Philippines], Department of Health (DOH) [Philippines] and Macro International Inc. (MI). 1999. *National Demographic and Health Survey 1998*. Manila: NSO and MI.

National Statistics Office (NSO) [Philippines] and Macro International Inc. (MI). 1994. *National Demographic Survey 1993*. Calverton, Maryland and Manila: NSO and MI.

National Statistics Office (NSO) [Philippines] and ORC Macro. 2004. *National Demographic Survey 2003*. Calverton, Maryland: NSO and ORC Macro.

National Statistics Office (NSO) [Philippines] and ICF Macro. 2009. *National Demographic Survey 2008.* Calverton, Maryland: NSO and ICF Macro.

Van Lerberghe W. and De Brouwere V., 2001. *Should one wait for poverty to disappear before dealing with maternal mortalilty?* Studies in Health Services Organisation, 17:1-6.