

Ghana



Maternal Health Survey

2017

Key Indicators



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2017**

Key Indicators Report

**Ghana Statistical Service
Accra, Ghana**

**Ghana Health Service
Accra, Ghana**

**The DHS Program
ICF
Rockville, Maryland, USA**

February 2018



EUROPEAN UNION



The 2017 Ghana Maternal Health Survey (2017 GMHS) was implemented by the Ghana Statistical Service (GSS) and the Ghana Health Service (GHS) from 15 June through 12 October 2017. The funding for the 2017 GMHS was provided by the Government of Ghana, the United States Agency for International Development (USAID), the European Union (EU) delegation to Ghana, and the United Nations Population Fund (UNFPA). ICF provided technical assistance through The DHS Program, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

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Suggested citation:

Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF. 2018. *Ghana Maternal Health Survey 2017: Key Indicators Report*. Accra, Ghana: GSS, GHS, and ICF.

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FOREWORD

This report highlights some key findings of the 2017 Ghana Maternal Health Survey (GMHS). The survey collected data from a nationally-representative sample of households and women of reproductive age. In all, 26,324 occupied households and 25,062 eligible women (age 15-49) in the selected households were interviewed. The survey was conducted to update the findings from the previous round of the maternal health survey and to inform policy decisions as well as to monitor progress towards the achievement of both the Sustainable Development Goals (SDGs) and national development goals.

The main aim of the 2017 GMHS was to determine the burden of maternal mortality and morbidity at the national and three zonal levels (Coastal, Middle, and Northern), taking into consideration urban and rural areas within the zones. In addition, the survey was to collect data on women's perceptions and experience with antenatal, maternity, and emergency obstetrical care, especially with regard to care received before, during, and following the termination or abortion of a pregnancy. This information is essential for strategic and operational planning of the post-2015 maternal, reproductive, and neonatal health programming.

The 2017 GMHS is the second in a series begun in 2007. The survey was implemented by the Ghana Statistical Service in collaboration with the Ghana Health Service. Financial support for the survey was provided by the European Union (EU) and the U.S. Agency for International Development (USAID). ICF provided technical assistance through The DHS Program, which offers technical assistance in the implementation of population and health surveys in countries worldwide.



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ABBREVIATIONS

ANC	antenatal care
CAPI	computer-assisted personal interviewing
CBR	crude birth rate
CPR	contraceptive prevalence rate
CSPro	Censuses and Surveys Processing
DHS	Demographic and Health Surveys
D&C	dilation and curettage
D&E	dilation and evacuation
EA	enumeration area
EU	European Union
GDHS	Ghana Demographic and Health Survey
GFR	general fertility rate
GHS	Ghana Health Service
GMHS	Ghana Maternal Health Survey
GSS	Ghana Statistical Service
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10 th revision
ICF	ICF (<i>originally, Inner City Fund</i>)
IFSS	internet file streaming system
IUD	intrauterine contraceptive device
JHS	junior high school
JSS	junior secondary school
LAM	lactational amenorrhoea method
NGO	nongovernmental organisation
PHC	Population and Housing Census
SD	standard deviations
SDG	Sustainable Development Goal
SDM	standard days method
SHS	senior high school
SSS	senior secondary school
TFR	total fertility rate
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

1 INTRODUCTION

The Ghana Statistical Service (GSS) conducted the second Ghana Maternal Health Survey (GMHS) from 15 June through 12 October 2017 with a nationally representative sample of 27,000 households. All women age 15-49 in selected households were eligible for individual interviews. All households in which a woman age 12-49 (at time of death) had died between 1 January 2012 and the date of the survey were eligible for a verbal autopsy interview about each deceased woman. The 2017 GMHS is an update to the 2007 Ghana Maternal Health Survey. It also provides information complementary to the 1988, 1993, 1998, 2003, 2008, and 2014 Ghana Demographic and Health Surveys (GDHS).

ICF provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID). The DHS Program offers support and technical assistance for the implementation of population and health surveys in countries worldwide.

Financial support for the 2017 GMHS was provided by the Government of Ghana, USAID, the European Union (EU) delegation to Ghana, and the United Nations Population Fund (UNFPA).

This Key Indicators Report presents selected findings of the 2017 GMHS. A comprehensive analysis of the survey data will be presented in a final report to be published in late 2018.

1.1 SURVEY OBJECTIVES

The primary objectives of the 2017 GMHS are the following:

- To collect data at the national level, which will allow an assessment of the level of maternal mortality in Ghana for the country as a whole, for urban and rural areas, and for three zones—Coastal (Western, Central, Greater Accra, and Volta regions), Middle (Eastern, Ashanti, and Brong Ahafo regions), and Northern (Northern, Upper East, and Upper West regions)
- To identify specific causes of maternal and non-maternal deaths, and specifically to be able to identify deaths due to abortion-related causes among adult women
- To collect data on women's perceptions and experiences with antenatal, maternity, and emergency obstetrical care, especially with regard to care received before, during, and following the termination or abortion of a pregnancy
- To measure indicators of the utilisation of maternal health services, and especially post-abortion care services in Ghana
- To allow follow-on studies and surveys that will be used to observe possible reductions in maternal mortality as well as abortion-related mortality

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sample for the 2017 GMHS was designed to provide estimates of key reproductive health indicators for the country as a whole, for urban and rural areas separately, for three zonal levels (Coastal, Middle, and Northern), and for each of the 10 administrative regions in Ghana (Western, Central, Greater Accra, Volta, Eastern, Ashanti, Brong Ahafo, Northern, Upper East, and Upper West).

The sampling frame used for the 2017 GMHS is the frame of the 2010 Population and Housing Census (PHC) conducted in Ghana. The 2010 PHC frame is maintained by GSS and updated periodically as new information is received from various surveys. The frame is a complete list of all census enumeration areas (EAs) created for the PHC. An EA is a geographic area that covers an average of 161 households (per updates to the PHC frame from the 2014 GDHS). Individual EA size is the number of residential households in the EA, according to the 2010 PHC. The average size of urban EAs is slightly larger than the average size of rural EAs; the urban EA average size is 185 households compared with 114 households in rural EAs. The sampling frame contains information about the EA's location, type of residence (urban or rural), and estimated number of residential households.

The 2017 GMHS sample was stratified and selected from the sampling frame in two stages. Each region was separated into urban and rural areas; this yielded 20 sampling strata. Samples of EAs were selected independently in each stratum in two stages. Implicit stratification and proportional allocation were achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before the sample selection, according to administrative units in different levels, and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 900 EAs (466 EAs in urban areas and 434 EAs in rural areas) were selected with probability proportional to the EA size and with independent selection in each sampling stratum. A household listing operation was implemented from 25 January to 9 April 2017 in all the selected EAs. The resulting lists of households then served as a sampling frame for the selection of households in the second stage. The household listing operation included inquiring of each household if there had been any deaths in that household since January 2012, and if so, the name, sex, and age at time of death of the deceased person(s).

Some of the selected EAs were very large and to minimise the task of household listing, each large EA selected for the 2017 GMHS was segmented. Only one segment was selected for the survey with the probability proportional to the segment size. Household listing was conducted only in the selected segment. Thus, in the GMHS, a cluster is either an EA or a segment of an EA. As part of the listing, the field teams updated the necessary maps and recorded the geographic coordinates of each cluster. The listing was conducted by 20 teams that included a supervisor, 3 listers/mappers, and a driver.

The second stage of selection provided two outputs: the list of households selected for the main survey (Household Questionnaire and Woman's Questionnaire) and the list of households selected for the verbal autopsy survey (Verbal Autopsy Questionnaire).

2.1.1 Selection for Main Survey

In the second stage of selection for the main survey, a fixed number of 30 households was selected from each cluster to make up a total sample size of 27,000 households. Replacement of nonresponding households was not allowed. Due to the non-proportional allocation of the sample to the different regions and the possible differences in response rates, sampling weights are required for any analysis that uses the 2017 GMHS data. This ensures the actual representation of the survey results at the national and regional levels. Results shown in this report have been weighted to account for the complex sample design.

All women age 15-49 who were either permanent residents of the selected households or visitors who stayed in the household the night before the survey were eligible to be interviewed.

2.1.2 Selection for Verbal Autopsy Survey

In the second stage of selection for the verbal autopsy survey, all households in which a woman age 10-54 died in 2012 or later were selected to be visited by an interviewer. However, only the deaths of women who were age 12-49 at the time of death were eligible for the full interview. A wider age range was used for the initial selection in case of minor inaccuracies in information given by the person who provided information during the household listing operation; the first set of questions in the Verbal Autopsy Questionnaire established true eligibility, and interviews ended if the deceased woman was discovered to have died before age 12 or after age 49, or before 2012.

There is a chance that some households may have been both purposively selected for the verbal autopsy survey and randomly selected for the main survey.

2.2 QUESTIONNAIRES

The 2017 GMHS used three questionnaires: the Household Questionnaire, the Woman's Questionnaire, and the Verbal Autopsy Questionnaire. The survey protocol was reviewed and approved by the ICF Institutional Review Board.

The Household Questionnaire and the Woman's Questionnaire were adapted from The DHS Program's standard Demographic and Health Survey questionnaires, and from the questionnaires used in the 2007 GMHS, to reflect the specific interests and data needs of this survey. The Verbal Autopsy Questionnaire was adapted from the recent 2016 World Health Organization (WHO) verbal autopsy instrument.

For all questionnaires, input was solicited from stakeholders representing government ministries and development partners. After the preparation of the questionnaires in English, they were translated into three major languages: Akan, Ga, and Ewe. The Household and Woman's Questionnaires were programmed into tablet computers to facilitate computer-assisted personal interviewing (CAPI) for data collection purposes, with the capability to choose any of the four languages for either of the questionnaires. The Verbal Autopsy Questionnaire was filled out on paper during data collection, and entered into the CAPI system afterwards. The tablet computers were equipped with Bluetooth® technology to enable remote electronic transfer of files, such as assignments from the team supervisor to the interviewers, individual questionnaires among survey team members, and completed questionnaires from interviewers to team supervisors. The CAPI data collection system employed in the 2017 GMHS was developed by The DHS Program using the mobile version of CSPro. The CSPro software was developed jointly by the U.S. Census Bureau, The DHS Program, and Serpro S.A.

2.2.1 Household Questionnaire

The Household Questionnaire was used to list all members of and visitors to the selected households. Basic demographic information was collected on the characteristics of each person listed, including his or her age, sex, marital status, education, and relationship to the head of the household. The data on age and sex of household members obtained in the Household Questionnaire were used to identify women who were eligible for individual interviews. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of water, type of toilet facilities, materials used for the floor of the dwelling unit, and ownership of various durable goods.

2.2.2 Woman's Questionnaire

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

- **Background characteristics**
- **Pregnancy history:** number, outcome (live birth, stillbirth, miscarriage, abortion), and timing of all pregnancies
- **Family planning:** knowledge of contraception, current use and current source of contraception
- **Pregnancy and postnatal care for most recent live birth or stillbirth:** antenatal care, delivery, postnatal care; complications experienced and treatment sought during any of these stages
- **Abortion:** method used, complications experienced, and care sought for abortion, knowledge of abortion
- **Miscarriage:** perceived cause, complications experienced, and care sought for miscarriage
- **Marriage and sexual activity:** marital status, age at first marriage, number of unions, age at first sexual intercourse
- **Adult and maternal mortality**
- **Health care access, insurance, and disability**

2.2.3 *Verbal Autopsy Questionnaire*

The Verbal Autopsy Questionnaire was used to collect information on the deaths of women who died on or after 1 January 2012, while age 12-49. Questions were asked on the following topics:

- **Background characteristics**
- **Narrative of illness/events leading to death**
- **History of injuries/accidents:** details of any injury/accident sustained by the deceased
- **History of diagnoses:** whether the deceased had been diagnosed with any of a list of specific illnesses/conditions
- **General signs/symptoms:** whether the deceased exhibited particular signs/symptoms (coughing, night sweats, fever, rash, etc.)
- **Signs/symptoms associated with pregnancy:** detailed questions on signs/symptoms associated with maternal causes of death
- **Risk factors:** consumption of alcohol and tobacco
- **Treatment received:** treatment/medical details of the deceased's contact with health services before death
- **Access to and quality of services:** contextual information about the deceased's contact with health services before death
- **Death certificate and burial permit:** information on timing and cause of death from the death certificate and burial permit (if available)

2.3 TRAINING

2.3.1 Listing

The listing training took place 16-22 January 2017 in Winneba (Central region). GSS recruited and trained 89 people (78 men, 11 women) to serve as supervisors and lister-mappers. The listing for the 2017 GMHS was unusual among DHS Program surveys because it incorporated screening of households for deaths that would be eligible for inclusion in the verbal autopsy sample.

2.3.2 Pretest

The pretest training took place from 8 March to 4 April 2017 in Winneba (Central region). GSS and ICF trained 15 female participants on survey procedures and how to administer the Household, Woman's, and Verbal Autopsy Questionnaires. The trainees had a mix of backgrounds, including one who had completed medical school, and spoke a variety of languages, including Akan, Ga, and Ewe. A few had never participated in any survey, and the remainder had various degrees of experience with previous GSS and DHS surveys, including one who had participated in the 2007 GMHS. The pretest fieldwork was conducted between 1 and 3 April 2017 in clusters near the training venue that were not included in the 2017 GMHS survey sample area. GSS, GHS, and ICF held a debrief on the field practice on 4 April 2017, and the questionnaires were modified based on lessons learned from the exercise.

2.3.3 Main Training

The main training took place from 8 May to 8 June 2017 in Winneba (Central region). GSS recruited 106 interviewer trainees (all women) and 27 supervisor trainees (19 men, 8 women). The trainees had a mix of backgrounds and spoke a variety of languages, including Akan, Ga, and Ewe. Some had never participated in any survey, while the remainder had varied degrees of experience with previous GSS and DHS surveys. In addition, some had trained as nurses or midwives. Prospective supervisors had all worked on many GSS surveys. The training course consisted of instruction regarding interviewing techniques and field procedures, a detailed review of questionnaire content, instruction on how to administer the paper and electronic questionnaires, mock interviews between participants in the classroom, quizzes and homework, and practice interviews with real respondents in areas outside the 2017 GMHS survey sample. To help put the importance of the 2017 GMHS into context for the trainees, the training also included a presentation by a representative of GHS on maternal health and Ghana-specific policies on maternal health.

Practice fieldwork was conducted on 27 May and 5-6 June 2017 in clusters near the training venue that were not included in the 2017 GMHS survey sample area. GSS, GHS, and ICF held a debrief after each field practice session, and provided clarifications to trainees and made modifications to the questionnaires based on lessons learned in the field.

Training participants were evaluated through classwork, in-class exercises, quizzes, and observations made during field practice. Ultimately, 100 of them were selected to serve as interviewers, and 25 as supervisors. The selection of supervisors was based on their experience leading survey teams and their performance during the pretest (if applicable) and the main training. Supervisors received additional instructions and practice using the CAPI system to perform supervisory activities. Supervisory activities included assigning households and receiving completed interviews from interviewers, recognising and dealing with error messages, receiving a system update and distributing updates to interviewers, dealing with duplicated cases, closing clusters, and transferring interviews to the central office via a secure internet file streaming system (IFSS). In addition to the CAPI material, supervisors received additional training on their roles and responsibilities and how to fulfil them.

2.3.4 Verbal Autopsy Cause of Death Training

For the verbal autopsy process to be complete, each questionnaire must be reviewed (ideally by a physician), and the reviewer must complete a death certificate with the immediate and underlying cause(s) of death. Coding the cause(s) of death recorded in the death certificate according to the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) is a further step that produces internationally comparable data on the underlying cause of death.

The cause of death certification and ICD-10 coding training took place 15-25 January, 2018 in Mankessim (Central region). GSS recruited 6 physicians (5 men, 1 woman) who were trained on both cause of death certification and ICD-10 coding; 2 GSS staff (both men) were also trained on ICD-10 coding. The review of verbal autopsy questionnaires is ongoing and the results will be presented in the 2017 GMHS Final Report later in 2018.

2.4 FIELDWORK

Data collection was carried out by 25 field teams, each consisting of 1 supervisor (male or female), 4 interviewers (all female), and 1 driver. Electronic data files were transferred from each interviewer's tablet computer to the team supervisor's tablet computer every day. The field supervisors transferred data to the central data processing office via IFSS. Senior staff from GSS coordinated and supervised fieldwork activities. Data collection took place over a 4-month period, from 15 June to 12 October 2017.

2.5 DATA PROCESSING

All electronic data files for the 2017 GMHS were transferred via IFSS to the GSS central office in Accra, where they were stored on a password-protected computer. The data processing operation included registering and checking for any inconsistencies and outliers. Data editing and cleaning included structure and consistency checks to ensure completeness of work in the field. The central office also conducted secondary editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions. The data were processed by 5 GSS staff members. Data editing was accomplished using CSPro software. Secondary editing and data processing were initiated in June and completed in November 2017.

3 KEY FINDINGS

Throughout this report, numbers in the tables reflect weighted numbers. Percentages based on 25 to 49 unweighted cases are shown in parentheses, and percentages based on fewer than 25 unweighted cases are suppressed and replaced with an asterisk, to caution readers when interpreting the data that a percentage based on fewer than 50 cases may not be statistically reliable.

3.1 RESPONSE RATES

A total of 27,001 households were selected for the sample, of which 26,500 were occupied at the time of fieldwork (**Table 1**). Of the occupied households, 26,324 were successfully interviewed, yielding a response rate of 99%. In the interviewed households, 25,304 eligible women were identified for individual interviews; interviews were completed with 25,062 women, yielding a response rate of 99%.

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 shows the weighted and unweighted numbers and the weighted percent distributions of women age 15-49 interviewed in the 2017 GMHS, according to selected background characteristics. Five in 10 respondents (53%) are below age 30. Most profess the Christian faith (80%) with more than 2 in 5 (44%) being Pentecostal or Charismatic. Nearly half are Akans (49%). Fifty-seven percent are in a union: 36% are currently married and 21% are living with a man as if married. One-third (34%) have never been married. More than half (55%) live in urban areas. The Greater Accra and Ashanti regions have the largest proportions of respondents (19% each). Two out of 5 respondents have at least partial middle school education (40%), with a quarter having secondary (18%) or more than secondary (8%) education.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Ghana MHS 2017

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	13,980	13,021	27,001
Households occupied	13,720	12,780	26,500
Households interviewed	13,590	12,734	26,324
Household response rate ¹	99.1	99.6	99.3
Interviews with women age 15-49			
Number of eligible women	12,681	12,623	25,304
Number of eligible women interviewed	12,544	12,518	25,062
Eligible women response rate ²	98.9	99.2	99.0

¹ Households interviewed/households occupied.

² Respondents interviewed/eligible respondents.

Table 2 Background characteristics of respondents

Percent distribution of women age 15-49 by selected background characteristics, Ghana MHS 2017

Background characteristic	Weighted percent	Weighted number	Unweighted number
Age			
15-19	19.1	4,785	4,888
20-24	16.8	4,208	4,259
25-29	16.9	4,229	4,179
30-34	14.8	3,709	3,628
35-39	13.2	3,313	3,262
40-44	9.9	2,481	2,448
45-49	9.3	2,337	2,398
Religion			
Catholic	9.6	2,411	3,322
Anglican/Methodist/Presbyterian	12.7	3,193	2,441
Pentecostal/Charismatic	44.2	11,076	9,013
Other Christian	13.9	3,479	2,975
Muslim	15.4	3,860	6,080
Traditional/Spiritualist	1.8	462	617
No religion	2.3	578	611
Other	0.0	4	3
Ethnic group			
Akan	48.6	12,191	8,837
Ga/Dangme	8.1	2,038	1,279
Ewe	13.9	3,471	2,474
Guan	3.3	824	905
Mole-Dagbani	15.1	3,790	7,651
Grusi	2.8	703	1,284
Gurma	5.1	1,287	1,799
Mande	0.9	222	293
Other	2.1	535	540
Marital status			
Never married	33.5	8,397	7,936
Married	36.3	9,098	10,869
Living together	21.0	5,262	4,183
Divorced/separated	6.9	1,736	1,430
Widowed	2.3	568	644
Residence			
Urban	54.9	13,752	12,544
Rural	45.1	11,310	12,518
Zone			
Coastal	48.4	12,121	7,938
Middle	38.6	9,674	7,610
Northern	13.0	3,267	9,514
Region			
Western	12.9	3,230	2,334
Central	8.9	2,218	1,603
Greater Accra	18.6	4,673	2,535
Volta	8.0	2,000	1,466
Eastern	10.0	2,517	2,172
Ashanti	19.1	4,790	3,136
Brong Ahafo	9.4	2,367	2,302
Northern	7.1	1,786	4,202
Upper East	3.4	854	2,709
Upper West	2.5	628	2,603
Education			
No education	18.3	4,585	6,508
Primary	15.7	3,934	3,897
Middle/JSS/JHS	40.2	10,081	8,695
Secondary/SSS/SHS	18.2	4,550	4,180
More than secondary	7.6	1,912	1,782
Wealth quintile			
Lowest	16.2	4,064	6,925
Second	18.8	4,721	4,714
Middle	20.4	5,111	4,447
Fourth	21.7	5,443	4,631
Highest	22.8	5,723	4,345
Total 15-49	100.0	25,062	25,062

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

3.3 PREGNANCY OUTCOMES

To generate data on pregnancy outcomes, all women who were interviewed were asked to report the total number of pregnancies they had ever experienced. To ensure that all information was reported, women were asked separately about live births (children still living at home, those living elsewhere, and those who had died), miscarriages, abortions, and stillbirths. A complete pregnancy history was then obtained. For live births, questions were asked about the sex, date of birth, and survival status of each child; age at death for children who had died was also recorded. For pregnancies that did not end in a live birth, questions were asked about the day, month, and year the pregnancy ended, the duration of pregnancy, and whether something was done deliberately to end the pregnancy.

In the 5 years preceding the 2017 GMHS, 76% of pregnancies resulted in a live birth, 2% ended in a stillbirth, 12% ended in a miscarriage, and 10% ended in an abortion (**Table 3**). The proportions of live births and stillbirths do not vary much by the woman's age at the time of the pregnancy, but women younger than age 20 are more likely to have an abortion (19% of pregnancies) and women age 35-49 are more likely to have a miscarriage (19% of pregnancies). Rural women have more live births than urban women, whereas women in the urban areas have more miscarriages and abortions than their rural counterparts.

Table 3 Pregnancy outcomes

Percent distribution of pregnancies among women age 15-49 ending in the 5 years preceding the survey by pregnancy outcome, according to background characteristics, Ghana MHS 2017

Background characteristic	Pregnancy outcome				Total	Number of pregnancies
	Live birth	Stillbirth	Miscarriage	Abortion		
Woman's age at time of pregnancy						
<20 ¹	73.1	1.3	6.8	18.8	100.0	2,351
20-34	77.4	1.7	10.8	10.1	100.0	13,602
35-49	73.2	2.5	18.5	5.9	100.0	3,257
Residence						
Urban	71.7	1.7	12.6	14.0	100.0	9,675
Rural	80.6	1.9	10.6	6.8	100.0	9,536
Zone						
Coastal	74.0	1.7	12.4	12.0	100.0	8,896
Middle	74.3	2.0	12.1	11.6	100.0	7,550
Northern	88.3	1.7	7.9	2.1	100.0	2,764
Region						
Western	73.5	1.9	11.6	13.0	100.0	2,645
Central	77.0	2.2	12.0	8.8	100.0	1,731
Greater Accra	69.8	1.3	14.2	14.7	100.0	2,992
Volta	79.5	1.3	10.6	8.6	100.0	1,528
Eastern	78.0	1.7	10.6	9.7	100.0	1,857
Ashanti	70.7	2.4	13.7	13.3	100.0	3,763
Brong Ahafo	77.6	1.7	10.5	10.1	100.0	1,931
Northern	90.3	1.7	6.8	1.2	100.0	1,655
Upper East	87.3	1.3	9.4	2.0	100.0	625
Upper West	82.7	2.1	9.9	5.4	100.0	485
Education						
No education	86.2	1.8	8.2	3.9	100.0	4,294
Primary	78.0	1.9	10.4	9.7	100.0	3,320
Middle/JSS/JHS	73.8	1.8	12.2	12.1	100.0	7,701
Secondary/SSS/SHS	66.1	1.6	15.4	16.8	100.0	2,639
More than secondary	72.4	1.6	15.4	10.7	100.0	1,256
Wealth quintile						
Lowest	88.4	1.6	6.9	3.1	100.0	3,797
Second	80.5	2.0	9.0	8.5	100.0	3,954
Middle	74.0	2.2	11.6	12.3	100.0	3,851
Fourth	69.9	1.4	13.6	15.0	100.0	3,960
Highest	67.7	1.8	17.4	13.1	100.0	3,648
Total	76.1	1.8	11.6	10.4	100.0	19,210

¹ Youngest age at time of pregnancy is 11 years.

Nearly 9 out of 10 pregnancies in the Northern zone result in a live birth (88%) compared with just under three-quarters (74% each) in the Coastal and Middle zones. Pregnancies of women with no education are more likely to result in a live birth (86%) than pregnancies among women of other education levels (66%-78%).

3.4 FERTILITY

As described in Section 3.3, all women were asked for information on the sex, date of birth, and survival status of each of their live births; age at death for children who had died was also recorded.

Table 4 shows age-specific fertility rates among women by 5-year age groups for the 3-year period preceding the survey. Age-specific and total fertility rates were calculated directly from the birth history data. The sum of age-specific fertility rates (known as the total fertility rate, or TFR) is a summary measure of the level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the current observed age-specific rates. If fertility were to remain constant at current levels, a woman from Ghana would bear an average of 3.9 children in her lifetime. Rural women have a higher fertility rate of 4.7 children, compared with 3.3 children for their urban counterparts.

Table 4 Current fertility

Age-specific and total fertility rates, general fertility rate, and crude birth rate for the 3 years preceding the survey, according to residence, Ghana MHS 2017

Age group	Residence		Total
	Urban	Rural	
10-14	[1]	[3]	[2]
15-19	57	95	75
20-24	123	200	156
25-29	171	230	196
30-34	168	188	177
35-39	100	139	118
40-44	38	59	47
45-49	[10]	[23]	[16]
TFR (15-49)	3.3	4.7	3.9
GFR	115	158	134
CBR	28.3	31.7	30.0

Notes: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1-36 months prior to interview. Rates for women age 10-14 are based on retrospective data from women age 15-17.

TFR: Total fertility rate expressed per woman

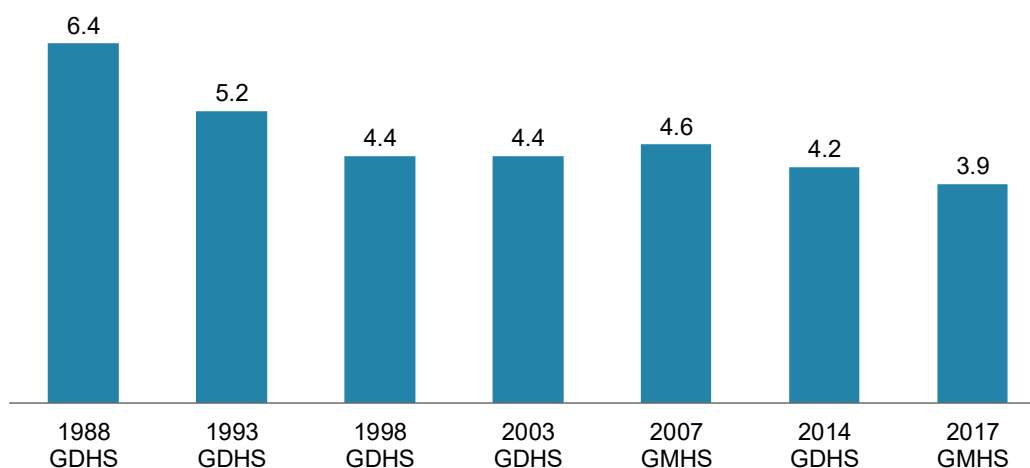
GFR: General fertility rate expressed per 1,000 women age 15-44

CBR: Crude birth rate expressed per 1,000 population

Fertility in Ghana has been declining since the 1980s, from 6.4 children per woman in 1988 to 3.9 children per woman in 2017 (**Figure 1**).

Figure 1 Trends in total fertility rate, 1988-2017

Births per woman



3.5 TEENAGE PREGNANCY AND MOTHERHOOD

The issue of adolescent fertility is important on both health and social grounds. Children born to very young mothers are at increased risk of sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing.

At the time of the survey, 14% of adolescent women age 15-19 had begun childbearing: 12% had already had a live birth and 3% were pregnant with their first child (**Table 5**). The proportion of teenagers who have begun childbearing increases dramatically with age, from 3% of those age 15 to nearly one-third (32%) of those age 19. Teenage women in urban areas are less likely (11%) to have begun childbearing than those in

rural places (18%). Teenage childbearing varies by region; Greater Accra (7%) and Upper West (8%) regions have the lowest proportion of teenagers who have begun childbearing, and the other regions range from 13% to a high of 19% in Western region. Teenage childbearing declines sharply with education: from 35% of teenagers with no education to 4% of those with some secondary education. There is a similar although less steep decline as household wealth increases.

Table 5 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, according to background characteristics, Ghana MHS 2017

Background characteristic	Percentage of women age 15-19 who:		Percentage who have begun childbearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	2.7	0.7	3.4	1,046
16	4.3	2.3	6.6	936
17	9.7	2.5	12.3	1,098
18	17.7	4.8	22.5	974
19	29.9	2.5	32.3	731
Residence				
Urban	9.2	1.8	11.0	2,411
Rural	14.5	3.3	17.8	2,374
Zone				
Coastal	11.9	2.2	14.1	2,206
Middle	12.2	2.4	14.6	1,916
Northern	10.5	4.0	14.5	663
Region				
Western	15.6	3.3	18.9	650
Central	13.6	2.2	15.8	413
Greater Accra	6.8	0.2	7.0	748
Volta	13.7	4.3	17.9	396
Eastern	11.1	1.9	13.0	490
Ashanti	12.2	2.6	14.8	936
Brong Ahafo	13.3	2.7	16.0	490
Northern	11.6	4.2	15.8	351
Upper East	12.7	4.6	17.3	176
Upper West	4.7	2.8	7.5	136
Education				
No education	27.1	7.7	34.7	164
Primary	19.9	3.2	23.1	835
Middle/JSS/JHS	12.3	2.7	15.0	2,595
Secondary/SSS/SHS	3.1	1.0	4.2	1,152
More than secondary	*	*	*	39
Wealth quintile				
Lowest	16.8	4.4	21.1	869
Second	18.5	2.9	21.4	1,027
Middle	13.2	3.2	16.3	1,051
Fourth	7.4	1.9	9.3	953
Highest	2.5	0.2	2.7	886
Total	11.8	2.5	14.4	4,785

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.6 FAMILY PLANNING

Family planning refers to a conscious effort by a couple to limit or space the number of children they have through the use of contraceptive methods. Three in 10 (31%) currently married women age 15-49 in Ghana use any method of contraception, and 1 in 4 (25%) uses a modern method of contraception (**Table 6**). Injectables (8%), implants (7%), and pills (4%) are the most commonly used modern methods. Urban women are slightly less likely than their rural counterparts to use a modern method of contraception (23% versus 27%). The use of modern contraceptive methods ranges from a low of 17% in Northern region to a high of 32% in Upper East region. Women with primary (29%) or middle school (27%) education are more likely than women with no (22%) or secondary (21%) or more than secondary (22%) education to use a modern method, and women in the second and middle wealth quintiles (29% each) are more likely than women in the lowest (23%) or fourth (24%) or highest (21%) wealth quintile to use a modern method.

Table 6. Current use of contraception according to background characteristics

Percent distribution of currently married women and sexually active unmarried women age 15-49 by contraceptive method currently used, according to background characteristics, Ghana MHS 2017

Background characteristic	Modern method											Traditional method					Total	Number of women			
	Any method	Any modern method	Female sterilisation	Male sterilisation	Pill	IUD	Injectables	Implants	Male condom	Female condom	Dia-phragm	Foam/Jelly	Emergency contraception	LAM	Any traditional method	Rhythm			Withdrawal	Other	Not currently using
Number of living children																					
0	16.9	11.1	0.3	0.0	2.8	0.2	2.1	2.0	1.8	0.2	0.0	0.0	1.8	0.0	5.9	4.7	1.1	0.1	83.1	100.0	1,131
1-2	29.0	23.2	0.3	0.0	3.6	0.6	8.6	7.3	1.3	0.0	0.0	0.0	1.0	0.4	5.8	4.2	1.6	0.1	71.0	100.0	5,417
3-4	34.2	27.4	2.3	0.0	5.1	1.0	8.9	7.6	1.0	0.0	0.1	0.0	0.7	0.5	6.8	5.2	1.2	0.4	65.8	100.0	4,768
5+	33.8	29.7	4.5	0.2	4.7	1.1	8.8	9.2	0.4	0.0	0.0	0.0	0.7	0.1	4.1	2.7	0.9	0.6	66.2	100.0	3,045
Age																					
15-19	27.6	23.8	0.0	0.0	2.5	0.0	8.7	10.3	1.1	0.0	0.0	0.0	1.2	0.0	3.8	3.0	0.8	0.0	72.4	100.0	404
20-24	32.4	27.9	0.1	0.0	4.7	0.4	9.3	9.4	1.5	0.2	0.0	0.0	1.9	0.3	4.5	3.0	1.5	0.0	67.6	100.0	1,841
25-29	33.3	26.7	0.0	0.1	4.7	0.1	10.5	8.5	1.3	0.0	0.0	0.0	1.1	0.4	6.6	4.8	1.6	0.2	66.7	100.0	2,878
30-34	33.9	27.7	0.7	0.0	5.2	1.3	9.3	8.5	1.0	0.0	0.0	0.0	1.0	0.6	6.2	4.5	1.2	0.4	66.1	100.0	2,961
35-39	31.5	25.5	3.0	0.0	4.9	0.7	8.2	6.7	0.9	0.0	0.1	0.1	0.5	0.3	6.1	4.7	1.1	0.3	68.5	100.0	2,646
40-44	28.0	22.1	4.1	0.1	3.2	1.2	6.4	5.5	1.2	0.0	0.0	0.0	0.3	0.3	5.9	4.3	1.0	0.5	72.0	100.0	1,957
45-49	22.2	17.1	4.9	0.2	2.3	1.4	3.3	3.8	0.4	0.0	0.1	0.0	0.7	0.0	5.0	3.7	0.9	0.4	77.8	100.0	1,674
Residence																					
Urban	30.2	22.6	1.8	0.0	3.9	1.1	6.6	6.0	1.6	0.0	0.0	0.0	1.2	0.4	7.6	5.7	1.5	0.4	69.8	100.0	7,226
Rural	31.4	27.4	1.9	0.1	4.7	0.5	9.9	8.8	0.5	0.1	0.1	0.0	0.7	0.3	4.0	2.8	1.0	0.2	68.6	100.0	7,135
Zone																					
Coastal	29.3	23.5	2.2	0.1	4.0	0.9	6.9	7.2	1.1	0.1	0.0	0.0	0.6	0.4	5.9	3.8	1.7	0.3	70.7	100.0	6,622
Middle	35.2	27.7	2.1	0.0	5.1	0.9	8.3	8.0	1.3	0.0	0.1	0.0	1.7	0.4	7.5	6.0	1.1	0.4	64.8	100.0	5,452
Northern	24.5	23.0	0.3	0.0	3.2	0.3	11.9	6.4	0.4	0.0	0.0	0.0	0.2	0.3	1.5	1.2	0.3	0.0	75.5	100.0	2,287
Region																					
Western	32.3	27.0	2.9	0.2	5.8	0.0	8.9	7.1	1.0	0.1	0.0	0.0	0.4	0.6	5.2	3.8	1.1	0.3	67.7	100.0	1,799
Central	28.1	24.6	2.8	0.1	3.9	0.7	6.1	10.4	0.4	0.0	0.0	0.0	0.1	0.1	3.5	2.4	0.7	0.4	71.9	100.0	1,285
Greater Accra	28.4	20.8	1.6	0.0	3.0	1.9	5.3	5.5	1.7	0.1	0.1	0.0	1.2	0.3	7.7	5.1	2.2	0.3	71.6	100.0	2,354
Volta	27.9	22.2	1.7	0.0	3.4	0.4	7.8	7.3	0.9	0.0	0.0	0.1	0.2	0.5	5.7	2.8	2.7	0.2	72.1	100.0	1,183
Eastern	35.6	27.7	1.6	0.1	3.1	1.6	7.9	10.5	1.7	0.0	0.0	0.0	0.7	0.4	7.9	5.8	1.7	0.4	64.4	100.0	1,414
Ashanti	35.0	26.0	2.6	0.0	5.2	0.8	6.6	6.2	1.4	0.0	0.1	0.0	2.7	0.4	9.0	7.4	1.1	0.5	65.0	100.0	2,655
Bronghafo	35.3	31.1	1.5	0.0	6.8	0.5	12.0	8.9	0.5	0.0	0.0	0.0	0.7	0.2	4.2	3.5	0.6	0.0	64.7	100.0	1,384
Northern	18.5	16.8	0.2	0.0	3.6	0.3	9.3	2.3	0.4	0.0	0.0	0.0	0.1	0.4	1.7	1.3	0.4	0.1	81.5	100.0	1,309
Upper East	32.4	31.6	0.3	0.0	2.2	0.3	15.3	13.2	0.3	0.0	0.0	0.0	0.0	0.1	0.8	0.6	0.2	0.0	67.6	100.0	569
Upper West	32.6	30.7	0.9	0.0	3.1	0.3	15.3	10.1	0.6	0.0	0.1	0.0	0.3	0.0	2.0	1.7	0.3	0.0	67.4	100.0	409
Education																					
No education	23.8	21.8	1.6	0.1	3.2	0.4	8.5	7.2	0.3	0.0	0.1	0.0	0.4	0.2	1.9	1.5	0.3	0.1	76.2	100.0	3,736
Primary	32.7	28.7	2.5	0.1	4.7	1.2	9.4	9.2	0.6	0.1	0.0	0.0	0.7	0.3	4.0	2.3	1.2	0.5	67.3	100.0	2,458
Middle/JSS/JHS	34.3	27.2	2.1	0.0	4.9	0.7	8.9	8.1	1.0	0.0	0.0	0.0	1.1	0.4	7.1	5.0	1.7	0.4	65.7	100.0	5,479
Secondary/SSS/SHS	30.6	21.2	0.5	0.1	4.8	0.8	5.7	4.9	2.1	0.0	0.1	0.0	2.0	0.4	9.4	7.6	1.6	0.3	69.4	100.0	1,724
More than secondary	33.8	22.4	2.3	0.0	3.1	2.5	4.8	4.1	4.3	0.0	0.0	0.0	0.5	0.7	11.4	9.2	2.2	0.0	66.2	100.0	963

Continued...

Table 6—Continued

Background characteristic	Modern method										Traditional method				Number of women						
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	Dia-phragm	Foam/Jelly	Emer-gency contra-ception	LAM		Any tradi-tional method	Rhythm	With-drawal	Other	Not currently using	Total
Wealth quintile																					
Lowest	25.6	23.4	1.0	0.1	3.2	0.4	10.5	7.7	0.1	0.0	0.0	0.0	0.2	0.2	2.3	1.3	0.8	0.1	74.4	100.0	2,766
Second	32.6	28.9	1.8	0.1	4.6	0.5	10.5	10.2	0.4	0.1	0.0	0.0	0.6	0.2	3.7	2.3	1.1	0.3	67.4	100.0	2,765
Middle	34.9	28.7	2.6	0.0	5.5	0.8	8.9	8.4	0.9	0.1	0.0	0.1	1.1	0.4	6.1	4.5	1.2	0.4	65.1	100.0	2,796
Fourth	31.0	24.1	1.7	0.0	5.1	0.8	6.8	7.0	1.1	0.0	0.0	0.0	1.2	0.4	6.8	5.2	1.4	0.2	69.0	100.0	2,899
Highest	30.0	20.6	2.2	0.0	3.1	1.5	4.9	4.0	2.6	0.0	0.2	0.0	1.5	0.5	9.5	7.4	1.6	0.5	70.0	100.0	3,135
Total	30.8	25.0	1.9	0.0	4.3	0.8	8.2	7.4	1.1	0.0	0.0	0.0	0.9	0.3	5.8	4.2	1.3	0.3	69.2	100.0	14,361
SEXUALLY ACTIVE UNMARRIED WOMEN¹																					
Residence																					
Urban	35.8	28.1	0.1	0.3	4.0	0.1	6.1	3.7	7.1	0.0	0.0	0.0	6.8	0.0	7.7	4.9	2.4	0.5	64.2	100.0	951
Rural	42.1	34.1	0.5	0.3	6.3	0.9	9.6	8.9	4.2	0.0	0.0	0.0	3.4	0.0	8.0	5.4	2.3	0.3	57.9	100.0	665
Total	38.4	30.6	0.3	0.3	4.9	0.4	7.5	5.9	5.9	0.0	0.0	0.0	5.4	0.0	7.8	5.1	2.3	0.4	61.6	100.0	1,616

Note: If more than one method is used, only the most effective method is considered in this tabulation.

LAM = Lactational amenorrhoea method

¹ Women who have had sexual intercourse within 30 days preceding the survey

Nearly 2 in 5 sexually active unmarried women (38%) use any method of contraception, and 3 in 10 (31%) use a modern method. As with currently married women, injectables (8%) are the most commonly used modern method, followed by implants and male condoms (6% each) and pills and emergency contraception (5% each). As with currently married women, sexually active unmarried women in rural areas are more likely (34%) than those in urban areas (28%) to use a modern method.

3.7 EARLY CHILDHOOD MORTALITY

Estimates of childhood mortality are based on information collected on live births in the pregnancy history section of the Woman’s Questionnaire, as described in Section 3.3. **Table 7** presents estimates for 3 successive 5-year periods prior to the 2017 GMHS. The rates are estimated directly from the information in the pregnancy history: each child’s birth date, survivorship status, and age at death for children who died. This information is used to directly estimate the following five mortality rates:

Neonatal mortality: the probability of dying within the first month of life

Postneonatal mortality: the probability of dying after the first month of life but before the first birthday (the difference between infant and neonatal mortality)

Infant mortality: the probability of dying before the first birthday

Child mortality: the probability of dying between the first and the fifth birthday

Under-5 mortality: the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to age 12 months.

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-5 mortality (₅ q ₀)
0-4	25	12	37	16	52
5-9	28	16	44	23	66
10-14	32	19	51	30	80

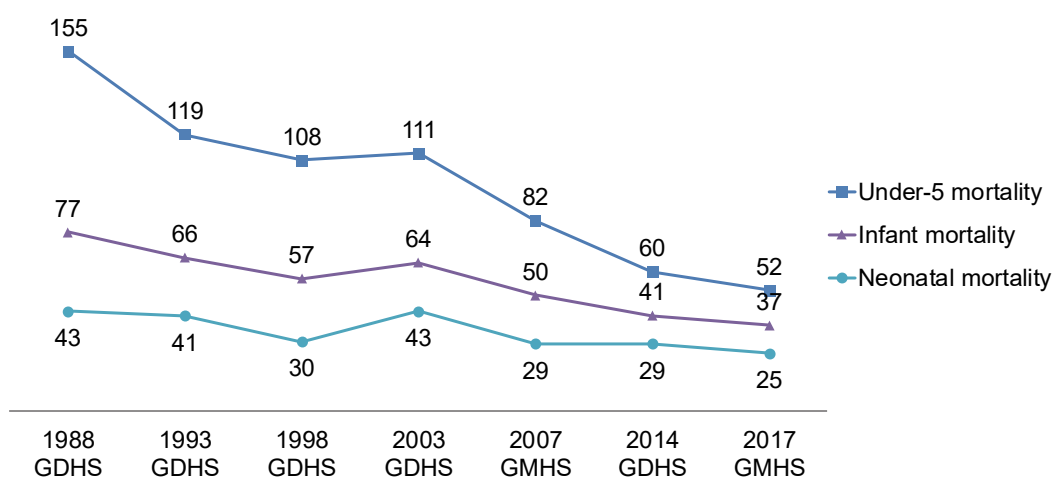
¹ Computed as the difference between the infant and neonatal mortality rates

Infant and under-5 mortality rates in the 5-year period preceding the survey are 37 and 52 deaths per 1,000 live births respectively. Neonatal mortality for the 5-year period preceding the survey is 25 deaths per 1,000 live births whereas postneonatal mortality is 12 deaths per 1,000 live births. Under-5 mortality rates have declined over time, from 80 deaths per 1,000 live births 10-14 years before the survey (2003-2007) to 52 deaths per 1,000 live births in the 0-4 years prior to the survey (2013-2017).

Figure 2 presents trends in childhood mortality: there has been an overall decline in under-5 mortality rates from 155 deaths per 1,000 live births during the 5 years immediately preceding the 1988 GDHS to 108 deaths per 1,000 live births in the 5 years before the 1998 GDHS to 82 deaths per 1,000 live births in the 5 years before the 2007 GMHS to 52 deaths per 1,000 live births in the most recent 5-year period. Infant mortality decreased from 77 deaths per 1,000 live births, to 57 deaths per 1,000 live births, to 50 deaths per 1,000 live births, to 37 deaths per 1,000 live births over the same period.

Figure 2 Trends in childhood mortality, 1988-2017

Deaths per 1,000 live births



3.8 MATERNAL CARE

Women who had a stillbirth (a pregnancy lasting 7 months or more, but not resulting in a live birth) or a live birth in the 5 years preceding the survey were asked a number of questions about maternal care. (Women with multiple such pregnancies in the time period were asked only about their most recent one.) Women were asked whether they had obtained antenatal care during the pregnancy for their most recent live birth or stillbirth in the 5 years preceding the survey and whether they had received tetanus toxoid injections while pregnant. Women were also asked what type of assistance they received at the time of delivery of the most recent live birth or stillbirth. Finally, women whose most recent pregnancy resulted in a live birth in the 2 years before the survey were asked if they received a postnatal check during the first 2 days after delivery.

Almost all women (98%) received antenatal care from a skilled provider, with 89% having had four or more antenatal care visits (**Table 8**). Three-quarters of live births or stillbirths in the 5 years before the survey were protected against neonatal tetanus (77%). Nearly 4 out of every 5 were delivered by a skilled provider and delivered in a health facility (79% each). Eighty-five percent of women had a postnatal check during the first 2 days after birth.

While antenatal care attendance did not have much room to improve from 96% in 2007, the proportion of births and stillbirths taking place in a health facility increased from 54%, and the proportion attended by a skilled provider increased from 55% (**Figure 3**).

Births and stillbirths in rural areas are much less likely to take place in a facility (68%) than those in urban areas (90%). A similar pattern prevails for assistance from a skilled provider (69% versus 91%).

All maternal care indicators improve with increasing education and wealth. The most dramatic improvement takes place for delivery in a health facility, from 56% of births and stillbirths to women in the lowest wealth quintile to 97% for women in the highest wealth quintile.

Table 8 Maternal care indicators

Among most recent live births or stillbirths to women age 15-49 in the 5 years preceding the survey, percentage where the mother received antenatal care (ANC) from a skilled provider, percentage where the mother had four or more ANC visits, percentage protected against neonatal tetanus, percentage delivered by a skilled provider, and percentage delivered in a health facility; and among women age 15-49 who had a live birth or stillbirth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to background characteristics, Ghana MHS 2017

Background characteristic	Women's most recent live birth or stillbirth in the 5 years preceding the survey						Women who had a live birth or stillbirth in the 2 years preceding the survey	
	Percentage where the mother received antenatal care from a skilled provider ¹	Percentage where the mother had 4+ ANC visits	Percentage protected against neonatal tetanus ²	Percentage delivered by a skilled provider ¹	Percentage delivered in a health facility	Number of births	Percentage of women with a postnatal check during the first 2 days after birth ³	Number of women
Mother's age at birth								
<20	97.3	82.8	64.1	80.2	79.7	1,250	85.5	713
20-34	97.7	90.0	78.2	79.9	79.2	7,614	85.4	4,212
35-49	97.3	90.5	78.7	76.9	76.5	2,077	84.7	994
Residence								
Urban	98.3	93.2	80.2	90.6	90.0	5,286	90.8	2,842
Rural	96.9	85.7	73.4	68.9	68.2	5,655	80.2	3,076
Zone								
Coastal	96.9	89.1	79.5	79.9	79.3	4,916	86.0	2,700
Middle	98.0	89.5	78.0	82.4	81.6	4,243	87.4	2,223
Northern	98.3	89.2	66.1	70.8	70.4	1,782	78.7	995
Region								
Western	96.6	87.9	76.2	78.3	77.6	1,415	85.0	813
Central	97.5	89.7	82.3	78.2	76.4	986	85.9	548
Greater Accra	97.5	93.0	81.6	92.1	91.9	1,613	90.9	846
Volta	95.6	83.5	77.7	62.4	62.8	902	79.2	494
Eastern	97.0	86.6	79.8	78.3	77.4	1,086	87.8	570
Ashanti	97.9	91.1	81.2	85.9	85.0	2,017	88.4	1,076
Brong Ahafo	99.2	89.7	70.7	80.0	79.5	1,140	85.2	577
Northern	97.7	87.2	65.8	59.3	59.2	1,056	71.1	603
Upper East	99.6	94.6	61.9	91.8	91.0	424	90.0	232
Upper West	98.8	88.8	73.0	81.3	80.5	301	90.9	161
Mother's education								
No education	95.7	83.8	69.6	61.2	60.7	2,625	73.7	1,322
Primary	96.6	84.8	74.3	73.1	72.8	1,942	80.8	1,025
Middle/JSS/JHS	98.3	91.4	79.0	85.8	85.0	4,332	89.8	2,339
Secondary/SSS/SHS	99.1	94.9	80.4	93.3	92.4	1,368	92.4	827
More than secondary	100.0	98.6	88.9	98.7	98.2	673	93.5	404
Wealth quintile								
Lowest	95.6	80.1	65.5	56.9	56.0	2,344	71.5	1,325
Second	97.0	86.6	74.9	71.8	71.3	2,363	84.4	1,243
Middle	97.3	88.8	77.9	83.4	83.4	2,202	87.1	1,200
Fourth	98.7	94.9	81.7	92.3	90.7	2,151	91.7	1,140
Highest	99.7	98.2	86.0	97.5	97.3	1,881	94.9	1,010
Total	97.6	89.3	76.7	79.4	78.7	10,940	85.3	5,919

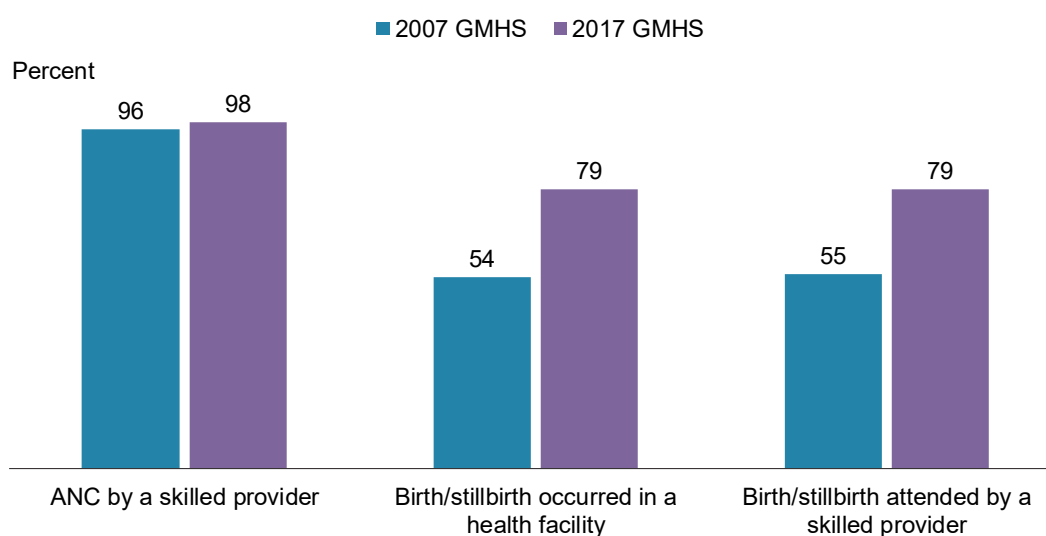
Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.

¹ Skilled provider includes doctor, nurse/midwife, and community health officer/nurse.

² Includes mothers with two injections during the pregnancy of her most recent live birth or stillbirth, or two or more injections (the last within 3 years of the most recent live birth or stillbirth), or three or more injections (the last within 5 years of the most recent live birth or stillbirth), or four or more injections (the last within 10 years of the most recent live birth or stillbirth), or five or more injections at any time prior to the most recent live birth or stillbirth

³ Includes women who received a check from a doctor, midwife, nurse, community health worker, or traditional birth attendant

Figure 3 Trends in maternal health care, 2007-2017



3.9 ABORTION

3.9.1 Abortion Knowledge and Access

All women were asked whether they had ever had an abortion. If they had, the pregnancy history included questions about the day, month, and year each such pregnancy ended and the duration of each such pregnancy. Women who had never had an abortion were asked if they knew what abortion was, and if so, if they were themselves able to get an abortion, and if they knew where to go to get an abortion. All women who had either had an abortion or knew what abortion was were asked if abortion is legal in Ghana.

One-fifth of women age 15-49 in Ghana have ever had an abortion (20%) (Table 9). Women with no education are less likely to have had an abortion (12%) than women with more education (16%-24%), and women in the lowest wealth quintile are less likely to have had an abortion (6%) than those in higher wealth quintiles (16%-27%).

Seventy-five percent of women have never had an abortion but know what abortion is. Women in the Northern zone are less likely (83%) to know what abortion is (either having had an abortion or not having had one but knowing what it is) than women in the Coastal (96%) or Middle (97%) zones.

Among women who have never had an abortion but know what it is, 25% would be able to get an abortion and 57% know of a place to get an abortion.

Only 11% of women who have had an abortion or know what abortion is said they knew abortion to be legal in Ghana. Women in urban areas are more likely to know abortion is legal (14%) than those in rural areas (8%). There is regional variation in knowledge of the legality of abortion, from 7% of women in Western and Brong Ahafo regions to 18% of women in Eastern region. Knowledge of the legality of abortion generally increases with education, with a sharp jump between women with no or primary or middle school education (4%-8%) and women with secondary (18%) education, and again between women with secondary (18%) and more than secondary (38%) education. There is a similar but less dramatic increase with household wealth, from 6% of women in the lowest wealth quintile to 21% of women in the highest.

Table 9 Abortion knowledge and access

Among women age 15-49, percentage who ever had an abortion, percentage who have not had an abortion but know what abortion is, and percentage who know what abortion is; among women who have not had an abortion but know what it is, percentage who are able to get an abortion or know a place to get an abortion; and among women who have had an abortion or who know what abortion is, percentage who know that abortion is legal, according to background characteristics, Ghana MHS 2017

Background characteristic	Ever had an abortion	Never had an abortion but know what abortion is	Know what abortion is (have had one or have not had one but know what it is)	Number of women	Women who have not had an abortion but know what it is and		Number of women	Know that abortion is legal	Number of women who have had an abortion or know what it is
					Are able to get an abortion	Know a place to get an abortion			
Age									
<20	3.3	90.4	93.7	4,785	20.6	53.5	4,326	10.1	4,482
20-34	21.7	74.0	95.7	12,146	27.6	60.3	8,992	13.1	11,622
35-49	26.2	68.4	94.6	8,132	24.7	53.7	5,565	9.6	7,696
Residence									
Urban	23.6	73.1	96.7	13,752	28.2	59.7	10,052	14.2	13,298
Rural	14.8	78.1	92.9	11,310	21.7	53.5	8,831	7.8	10,503
Zone									
Coastal	21.8	74.7	96.4	12,121	24.5	54.0	9,052	11.3	11,689
Middle	22.4	74.7	97.2	9,674	28.6	60.8	7,231	11.2	9,401
Northern	3.4	79.6	82.9	3,267	17.9	55.3	2,600	12.1	2,710
Region									
Western	20.8	74.9	95.7	3,230	20.5	46.6	2,419	6.8	3,092
Central	18.4	78.4	96.8	2,218	34.2	55.7	1,739	9.4	2,148
Greater Accra	26.4	69.9	96.3	4,673	28.0	57.9	3,265	16.6	4,501
Volta	15.9	81.5	97.4	2,000	13.1	55.7	1,629	8.5	1,948
Eastern	19.9	76.5	96.4	2,517	12.3	72.3	1,925	17.8	2,426
Ashanti	24.9	73.1	98.0	4,790	37.3	61.6	3,499	9.9	4,693
Brong Ahafo	20.1	76.3	96.4	2,367	28.9	46.9	1,806	6.9	2,281
Northern	2.8	76.9	79.7	1,786	15.3	55.6	1,373	11.7	1,423
Upper East	3.5	82.5	86.0	854	14.2	54.0	705	13.3	734
Upper West	4.8	83.2	88.0	628	29.8	56.3	523	11.5	553
Education									
No education	11.6	75.9	87.5	4,585	18.1	42.6	3,482	4.0	4,013
Primary	21.0	72.1	93.1	3,934	21.0	50.3	2,838	6.5	3,664
Middle/JSS/JHS	23.8	73.2	97.0	10,081	25.9	56.9	7,377	8.1	9,775
Secondary/SSS/SHS	18.7	79.3	97.9	4,550	29.0	65.6	3,607	17.8	4,456
More than secondary	16.3	82.6	99.0	1,912	35.9	79.3	1,580	38.4	1,892
Wealth quintile									
Lowest	6.1	79.7	85.8	4,064	15.9	44.7	3,241	6.2	3,488
Second	16.3	79.1	95.4	4,721	23.1	52.4	3,734	6.4	4,504
Middle	21.4	75.0	96.4	5,111	26.4	56.2	3,834	7.1	4,927
Fourth	26.9	70.1	97.0	5,443	27.5	61.4	3,814	12.5	5,279
Highest	23.5	74.4	97.9	5,723	30.8	66.2	4,260	21.3	5,602
Total	19.6	75.3	95.0	25,062	25.2	56.8	18,883	11.4	23,801

3.9.2 Abortion Methods

Women who had an abortion in the 5 years preceding the survey were asked for information about the most recent abortion in that time period, including the method used.

More than a quarter (27%) of abortions were induced using non-medical methods (**Table 10**). Twenty-four percent were induced using dilation and curettage (D&C) or dilation and extraction (D&E), 20% using mifepristone and misoprostol (generally marketed in Ghana as Medabon tablets), and 18% using misoprostol only (generally marketed in Ghana as Cytotec tablets). Other medical methods account for much smaller proportions of induction methods.

Nearly a third (32%) of rural women used non-medical methods compared to a quarter (25%) of urban women. The more educated a woman is, the less likely she is to have used a non-medical method of having an abortion. Forty-one percent of women with no education used non-medical methods compared with only 9% of those with more than secondary education. Also, the use of non-medical methods decreases as wealth increases: from 39% among women in the lowest quintile to 19% in the highest.

Table 10 Abortion methods

Percent distribution of only/final method of most recent abortion in the 5 years preceding the survey among women age 15-49 according to background characteristics, Ghana MHS 2017

Background characteristic	Medical methods									Total	Number of abortions
	Misoprostol/ Cytotec tablets	Mifepristone and misoprostol/ Medabon tablets	Oxytocin/ Intravenous	D&C/D&E ¹	Vacuum aspiration	Saline instillation	Catheter	Other injection	Non-medical methods ²		
Woman's age at time of abortion											
<20	25.4	18.7	0.9	18.2	4.6	0.6	0.0	1.6	29.9	100.0	365
20-34	16.1	21.8	0.3	25.3	7.3	0.7	0.1	1.9	26.5	100.0	1,146
35-49	15.1	11.8	0.7	31.7	11.4	1.7	0.0	0.4	27.3	100.0	169
Residence											
Urban	18.5	22.1	0.2	25.1	7.3	0.6	0.0	1.4	24.8	100.0	1,111
Rural	17.2	16.3	1.1	23.0	6.7	1.1	0.1	2.2	32.3	100.0	570
Zone											
Coastal	18.6	19.1	0.8	22.1	10.0	0.7	0.0	1.6	27.1	100.0	905
Middle	17.4	21.7	0.2	26.6	3.7	0.9	0.0	1.9	27.5	100.0	728
Northern	16.7	14.1	0.0	33.2	4.4	0.3	1.4	0.8	29.1	100.0	48
Region											
Western	18.5	12.8	2.0	21.3	10.9	0.2	0.0	2.0	32.3	100.0	288
Central	14.0	41.0	0.0	17.7	1.1	0.0	0.0	0.0	26.2	100.0	133
Greater Accra	19.0	20.7	0.0	23.0	12.4	1.2	0.0	1.6	22.2	100.0	376
Volta	23.1	3.7	1.1	27.0	10.1	1.2	0.0	2.3	31.6	100.0	108
Eastern	21.4	17.1	0.0	34.6	3.2	0.6	0.0	0.5	22.6	100.0	148
Ashanti	17.1	23.5	0.0	26.4	2.0	1.1	0.0	3.0	27.0	100.0	414
Brong Ahafo	14.8	21.4	0.9	20.1	8.4	0.7	0.0	0.5	33.2	100.0	166
Northern	(19.3)	(11.6)	(0.0)	(34.9)	(7.0)	(0.0)	(3.6)	(2.1)	(21.5)	100.0	19
Upper East	(14.4)	(10.7)	(0.0)	(35.3)	(0.0)	(0.0)	(0.0)	(0.0)	(39.5)	100.0	12
Upper West	15.4	19.0	0.0	29.8	4.6	0.9	0.0	0.0	30.2	100.0	17
Education											
No education	11.7	12.3	0.0	20.2	12.6	2.4	0.0	0.0	40.9	100.0	142
Primary	17.3	17.2	0.0	18.4	5.5	1.6	0.0	2.3	37.7	100.0	271
Middle/JSS/JHS	17.9	18.8	0.6	25.2	7.0	0.6	0.0	1.6	28.3	100.0	772
Secondary/SSS/SHS	22.4	23.2	1.0	26.0	6.3	0.1	0.2	2.1	18.7	100.0	375
More than secondary	14.3	35.0	0.0	33.1	7.6	0.0	0.0	1.4	8.6	100.0	119
Wealth quintile											
Lowest	12.0	7.0	1.6	27.1	9.0	0.0	0.0	4.5	38.8	100.0	91
Second	15.4	18.5	0.8	14.5	3.2	1.3	0.0	2.7	43.6	100.0	287
Middle	18.3	21.0	0.9	21.2	7.6	1.9	0.2	1.2	27.7	100.0	401
Fourth	22.3	20.2	0.2	25.8	8.8	0.2	0.0	0.4	22.1	100.0	499
Highest	15.7	23.3	0.0	32.2	6.9	0.1	0.0	2.5	19.3	100.0	402
Total	18.0	20.1	0.5	24.4	7.1	0.8	0.0	1.7	27.3	100.0	1,680

Note: Figures in parentheses are based on 25-49 unweighted cases.

¹ Dilation and curettage or dilation and evacuation

² Non-medical methods include: drinking milk/coffee/alcohol/other liquid with sugar; drinking an herbal concoction; drinking another home remedy; using an herbal enema; inserting a substance into the vagina; heavy massage; excessive physical activity; tablets (exact kind unknown), and other

3.10 MISCARRIAGE

Women who had a miscarriage in the 5 years preceding the survey were asked for information about the most recent miscarriage in that time period, including the perceived cause.

Only 0.7% of women age 15-49 with a miscarriage in the 5 years before the survey did not have an opinion on the cause of the miscarriage (**Table 11**). Seventy-four percent of women reported the miscarriage was spontaneous. Ten percent said it was as a result of an accident and another 10% attributed the miscarriage to other causes. Three percent said it was due to being hurt by someone, while 2% said it was due to something they ate. There is not much variation according to background characteristics.

Table 11 Miscarriage causes

Percent distribution of cause of most recent miscarriage in the 5 years preceding the survey among women age 15-49, according to background characteristics, Ghana MHS 2017

Background characteristic	Cause of miscarriage						Total	Number of miscarriages
	Accident	Something she ate	Someone hurt her	Spontaneous	Other	Don't know		
Age at time of miscarriage								
<20	12.0	4.1	5.5	68.6	9.1	0.6	100.0	142
20-34	10.8	2.4	3.1	73.1	9.7	0.8	100.0	1,177
35-49	8.9	1.7	1.1	78.6	9.3	0.5	100.0	472
Residence								
Urban	9.8	2.7	2.9	72.5	11.4	0.7	100.0	973
Rural	11.0	2.0	2.7	76.2	7.4	0.7	100.0	819
Zone								
Coastal	10.5	1.6	3.8	74.2	9.3	0.7	100.0	849
Middle	11.3	3.3	1.9	72.0	11.0	0.5	100.0	756
Northern	6.2	2.0	2.0	83.2	5.1	1.5	100.0	186
Region								
Western	7.8	3.0	6.6	71.6	10.2	0.9	100.0	240
Central	14.4	1.2	2.0	72.2	9.6	0.5	100.0	167
Greater Accra	12.4	1.1	1.7	72.8	11.4	0.5	100.0	313
Volta	5.7	0.7	5.9	84.6	2.0	1.1	100.0	129
Eastern	14.0	2.5	2.8	76.0	4.7	0.0	100.0	166
Ashanti	10.8	4.0	1.6	68.7	14.5	0.4	100.0	421
Brong Ahafo	9.7	2.4	1.6	76.4	8.6	1.4	100.0	169
Northern	4.9	1.3	2.4	86.3	2.9	2.1	100.0	96
Upper East	4.8	3.8	0.5	81.5	7.7	1.7	100.0	49
Upper West	10.7	1.5	3.0	77.8	6.9	0.0	100.0	41
Education								
No education	6.3	1.2	3.6	83.3	4.6	1.0	100.0	300
Primary	11.6	2.5	3.7	71.4	9.9	0.9	100.0	282
Middle/JSS/JHS	9.4	3.1	2.7	74.3	10.3	0.3	100.0	748
Secondary/SSS/SHS	16.4	2.7	1.5	68.1	10.1	1.1	100.0	318
More than secondary	7.5	0.2	2.9	73.7	14.4	1.3	100.0	144
Wealth quintile								
Lowest	9.1	2.4	2.9	82.0	2.9	0.8	100.0	227
Second	8.4	1.2	2.9	77.1	8.4	1.9	100.0	300
Middle	11.5	2.7	5.7	67.8	11.9	0.4	100.0	365
Fourth	11.3	3.2	2.1	73.4	9.5	0.4	100.0	441
Highest	10.4	2.0	1.0	74.3	11.9	0.4	100.0	458
Total	10.4	2.4	2.8	74.2	9.6	0.7	100.0	1,791

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