SADHS

South Africa Demographic and Health Survey

2016

Key Indicator Report

Report 03-00-09

THE SOUTH AFRICA I KNOW, THE HOME I UNDERSTAND

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South Africa

Demographic and Health Survey 2016

Key Indicators Report

National Department of Health
Pretoria, South Africa

Statistics South Africa
Pretoria, South Africa

South African Medical Research Council
Cape Town, South Africa

The DHS Program
ICF
Rockville, Maryland, USA

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I wish to acknowledge the invaluable contribution of the following institutions that formally partnered with Statistics South Africa in the production of this report. Pali Lehohla, Statistician-General.

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PREFACE

This is the South Africa I know the home I understand through the lens of how we reproduce life by giving birth, regulate it through contraception, live it through education, work, accumulation and enjoyment of material and non-material resources, and end it for infants, children and mothers through death. We explore the health of mothers and children through the eye of antenatal and postnatal care. Children from birth signify the future and we navigate how this future is guaranteed or otherwise by focusing on immunisation against disease and feeding practices. We make significant observations on anthropometric measures and associated risks to stunting and wasting amongst South African children.

As the sex act is central to reproduction as well as sexually transmitted diseases, we walk through the sex forest and observe practices of this social and biological endeavour in order to understand its implications on HIV and AIDS.

Societal consumption practices and patterns of alcohol and tobacco do not escape the spotlight and finally in the highlights we are having commentary on spousal violence. Through the South Africa Demographic and Health Survey (SADHS) 2016 we shed light on these and many more. Now for some highlights:

South Africa is approaching a demographic winter, wherein women are giving birth to fewer and fewer children. In the last three years, on average the number of children ever born per woman was 2.6 compared to an average of 2.9 over a three year period ending in 1998. As of 2016 the average for the year is at 2.4 children per woman, and this is 0.2 children lower than the three year average based on the Community Survey of 2016.

South Africans are aware of HIV and AIDS testing and in this regard 93% of women know where to get tested. Although 84% of women have ever tested for HIV and AIDS, in the age group 15-24, 32% have never tested for HIV and AIDS.

South Africans engage in multiple sexual partnerships. Overall, 5% of women reported that they had two or more partners in the past 12 months, and 45% had intercourse in the past 12 months with a person who was neither their spouse nor lived with them. On the other hand, three times the proportion of female experience, that is 17% of men age 15-49, reported that they had two or more partners in the past 12 months, and 55% had intercourse in the past 12 months with a person who was neither their spouse nor lived with them.

By 2016, 96% of deliveries of children were in a clinic compared to 83% in 1998. Ninety-seven percent (97%) of deliveries were with a skilled health provider compared to 84% in 1998. There are less tears on the faces of mothers as more of those born live to witness their first birthday. However, stunting remains real as children under five fail to grow at the corresponding pace to their age. Amongst boys almost one in three is stunted and amongst girls one in four is. On the other end of the scale South Africans remain severely obese, especially Black women (20%) and by race and sex, it is highest amongst Coloured women at 26%.

At 65, old “Mrs Dlamini” still enjoys a puff and gets inebriated at times. But as one belonging to the Black population group her smoking behaviour is no match to “Mevrou van Zyl’s” white population group, wherein practices amongst women is five times the three percent amongst Black and Indian/Asian women. Coloured women are an outlier however. Thirty-eight percent (38%) of them enjoy a puff. On the other hand their male counterparts show no major racial differences.

In relation to alcohol consumption the differences between men and women and across races is not as pronounced compared to racial and sex based differences in smoking. However the differences still remain significant. Drinking starts at a level where 1 in every four youths amongst girls have at least taken alcohol by the age of 15-19 and the percentage rises sharply to more than one in three by the age of 20-35 before it drops to one in five by age 65.

South Africans continue to experience and suffer violent relationships and this is most severe amongst the widowed, living together and divorced or separated and these are respectively one in five, one in three and 40% suffer violence. Although lowest at the highest quintile, the violence by income level is uniform at one in five for all other income quintiles except where it is one in four.

This report I trust marks a major departure from a historical delinquency whereby by omission or commission, South Africa was not able to comply with regular production of South Africa Demographic and Health Surveys. By declaring this as part of an armoury of official statistical series, South Africa will part ways with its juvenile, delinquent and sad past. I shall collaborate with the department of health and the Medical Research Council in order to improve the quality of the information emanating from this report for use in the public space and it will meet statutorily requisites of not missing in action.

I take this opportunity to thank the people and households that we burdened with a barrage of questions during field operations of this important task. I extend my appreciation to the more than 210 field workers including nurses who navigated the complex tapestry of this study. The National Department of Health and the South African Medical Research Council made significant intellectual contributions throughout and will continue to do so. Furthermore in alphabetic order the European Union, Global Fund, ICF, UNFPA, UNICEF and USAID are especially recognized for their invaluable contributions. I thank the South African Statistics Council in performing their statutory obligation of advice to the statistician-general throughout. Finally the undivided attention of the staff of this mighty organisation, Statistics South Africa, will never go unnoticed as it delivers to us the South Africa I know the Home I Understand.

I trust the report will be extensively used in policy space and academia to shape the outcomes espoused in the National Development Plan.

Dr Pali Lehohla

Statistician-General of South Africa

Additional information about the SADHS 2016 may be obtained from the Health and Vital Statistics Division, Statistics South Africa, ISIbalo House, Koch Street, Salvokop, Pretoria, South Africa; Telephone +27 12 310 8911; E-mail: info@statssa.gov.za; Internet: www.statssa.gov.za.

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ABBREVIATIONS

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
ARI	Acute respiratory infection
BCG	Bacille Calmette-Guérin
BMI	Body mass index
CAGE	Concern/Cut-down, Anger, Guilt, and Eye-Opener
CAPI	Computer-assisted personal interviewing
CBR	Crude birth rate
CDC	Centers for Disease Control and Prevention
CPR	Contraceptive prevalence rate
CSPro	Censuses and Surveys Processing
DBS	Dried blood spot
DHS	Demographic and Health Survey
DTaP	Diphtheria, tetanus, and acellular pertussis vaccine
DU	Dwelling unit
DWCPD	Department of Women, Children and People with Disabilities
EA	Enumeration area
EU	European Union
GFR	General fertility rate
GCVL	Global Clinical and Viral Laboratory
Global Fund	Global Fund to fight AIDS, Tuberculosis and Malaria
HepB	Hepatitis B
Hib	Haemophilus influenzae type b
HIV	Human immunodeficiency virus
ICF	ICF *(originally, Inner City Fund)*
IFSS	Internet file streaming system
IFPRI	International Food Policy Research Institute
IPV	Inactivated polio vaccine
IUD	Intrauterine contraceptive device
IYCF	Infant and young children feeding
MSF	Master sample frame
NDoH	National Department of Health
NDP	National Development Plan
OPV	Oral polio vaccine
ORS	Oral rehydration salt
PAHO	Pan American Health Organization
PNC	Postnatal care
PPS	Probability proportional to size
PSU	Primary sampling unit

RV	Rotavirus vaccine
RHF	Recommended homemade fluids
SADHS	South Africa Demographic and Health Survey
SD	Standard deviation
SDGs	Sustainable Development Goals
SAMRC	South African Medical Research Council
Stats SA	Statistics South Africa
TFR	Total fertility rate
UNFPA	United Nations Population Fund
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

DEFINITION OF TERMS

Adult anthropometry

Body mass index (BMI)

BMI is calculated by dividing weight in kilograms by height in metres squared (kg/m^2).

Status	BMI
Too thin for their height	Less than 18.5
Normal	Between 18.5 and 24.9
Overweight	Between 25.0 and 29.9
Obese	Greater than or equal to 30.0
Severe obesity	Greater than or equal to 35.0

Sample: *Women age 15 and older who are not pregnant and who have not had a birth in the 2 months before the survey, and men age 15 and older.*

Childhood mortality

Neonatal mortality rate

The probability of dying within the first month of life (under 31 days) expressed per 1,000 live births.

Postneonatal mortality rate

The probability of dying after the first month of life but before the first birthday (computed as the difference between infant and neonatal mortality) expressed per 1,000 live births.

Infant mortality rate

The probability of dying between birth and the first birthday expressed per 1,000 live births.

Child mortality rate

The probability of dying between the first and fifth birthday expressed per 1,000 children surviving to age 12 months.

Under-5 mortality rate

The probability of dying between birth and the fifth birthday expressed per 1,000 live births.

Sample: *Live born children*

Contraception

Contraceptive prevalence rate

Percentage of women who use any contraceptive method.

Modern methods

Include male and female sterilisation, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, and emergency contraception.

Unmet need for family planning

Proportion of women who: (1) are not pregnant and not postpartum amenorrhoeaic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, or (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrhoeaic, and their last birth in the last 2 years was mistimed or unwanted.

Demand for family planning = Unmet need + current contraceptive use (any method)

$$\textbf{Proportion of demand satisfied} = \frac{\textbf{Current contraceptive use (any method)}}{\textbf{Unmet need + current contraceptive use (any method)}}$$

$$\textbf{Proportion of demand satisfied by modern methods} = \frac{\textbf{Current contraceptive use (any modern method)}}{\textbf{Unmet need + current contraceptive use (any method)}}$$

Sample: *Currently married women age 15-49, sexually active unmarried women age 15-49, and currently married women and sexually active unmarried women age 15-49 combined.*

Fertility

General fertility rate

The general fertility rate is the total number of live births per 1,000 women of reproductive age per year.

Sample: *Women age 15-44 or 15-49*

Teenage childbearing

Percentage of women age 15-19 who have given birth or are pregnant with their first child.

Sample: *Women age 15-19*

Total fertility rate

The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed birth histories provided by women.

Sample: *Women age 15-49*

Minimum acceptable diet for infants and young children

The minimum acceptable diet indicator for infants and young children is based on meeting 3 infant and young children feeding (IYCF) criteria:

1. Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula; fresh, tinned, or powdered animal milk; or yogurt.
2. Fed with foods from four or more of the following groups: a.) infant formula, milk other than breast milk, and cheese or yoghurt or other milk products; b.) foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c.) vitamin A-rich fruits and vegetables; d.) other fruits and vegetables; e.) eggs; f.) meat, poultry, fish, and shellfish (and organ meats); and g.) legumes and nuts.
3. Fed the minimum recommended number of times per day according to their age and breastfeeding status:
    a. For breastfed children, minimum meal frequency is receiving solid or semisolid food at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months.
    b. For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.

Sample: *Children age 6-23 months*

Nutritional status of children

Stunting (assessed via height-for-age)

Height-for-age is a measure of linear growth retardation and cumulative growth deficits. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted), or chronically undernourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted.

Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height or length and describes current nutritional status. Children whose Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted), or acutely undernourished. Children whose weight-for-height Z-score is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely wasted.

Underweight (assessed via weight-for-age)

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic undernutrition. Children whose weight-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age Z-score is below minus three standard deviations (-3 SD) from the median are considered severely underweight.

Overweight children

Children whose weight-for-height Z-score is more than 2 standard deviations (+2 SD) above the median of the reference population are considered overweight.

Sample: *Children under age 5*

EXECUTIVE SUMMARY

The 2016 South Africa Demographic and Health Survey (SADHS 2016) is the third DHS survey to be conducted in South Africa in collaboration with the worldwide Demographic and Health Survey Program. A nationally representative sample of over 15,000 dwelling units was selected, and among the approximately 13,000 occupied households, trained teams of interviewers collected data in face-to-face interviews with adults from over 11,000 households. In a subsample of households, nurses took measurements, including blood pressure, height, and weight, and tested for anaemia. Dried blood spot (DBS) specimens were prepared for anonymous testing for HIV and HbA1c, an indicator of diabetes. SADHS data collection was undertaken for the first time using tablet computers rather than paper-based questionnaires.

The household response rate was 83%, and 86% of eligible women age 15-49 were interviewed. In a subsample of households selected for the male survey, 73% of eligible men age 15-59 were interviewed. In this same household subsample, 81% of eligible adults age 15 and older were interviewed with the adult health module.

SADHS 2016 provides recent demographic information that will contribute to the understanding of population dynamics in the country. The observed total fertility rate (TFR) for the 3 years preceding the survey was 2.6 children per woman. The age-specific fertility rate for teenagers was 71 births per 1,000 women age 15-19, showing little change since 1998. The overall use of modern contraception remains relatively high (58%) with a wide range of methods being utilised. However, 18% of women continue to have an unmet family planning need. The use of the pill, injectable contraceptives, and sterilisations has declined since 1998 while the use of male condoms for contraception has increased; currently, 15% of women and their partners use male condoms as their contraceptive method.

The survey observed a drop in the under-5 mortality and the infant mortality rates to 42 deaths and 35 deaths per 1,000 live births, respectively, for the 5 years preceding the survey. The neonatal mortality rate has also dropped to 21 deaths per 1,000 live births, accounting for about half of under-5 deaths.

Indicators of maternal, newborn, and child health reveal wide access to primary health care but considerable scope for improving the quality of care. For example, although 76% of women attended an antenatal clinic four or more times, only 35% received sufficient doses of tetanus toxoid to protect their last birth against neonatal tetanus. A positive sign is the finding that 84% of women with a live birth in the past 2 years received a postnatal check during the first 2 days after birth. Of major concern, however, is the poor immunisation coverage – only 61% of children age 12-23 months received all basic vaccinations and only 53% received all age-appropriate vaccinations. Among children 24-35 months, only 42% had received all the age-appropriate vaccinations.

Questions about illness in the 2 weeks preceding the day of interview revealed a low prevalence of acute respiratory infection (3%) and a higher prevalence of both diarrhoea (10%) and fever (20%) among children under age 5. Care was often sought for childhood illnesses (88% of children with symptoms of acute respiratory infection, 68% with fever, and 63% with diarrhoea). A high proportion of children with diarrhoea received oral rehydration solution (either home-made as recommended by health care provider or commercial), but only 37% received zinc supplements.

National data on the nutritional status of children has been scarce. Underweight and wasting accounted for 6% and 3% of children, respectively. However, stunting clearly remains a national concern with 27% of children 0-59 months falling below minus 2 standard deviations of the median of the reference population. The survey also reveals that only 23% of toddlers age 6-23 months are fed a diet considered adequate for infants and young children. Given the long-term health and development consequences of poor nutrition in early childhood, further investigation into the causes and opportunities for intervention is needed. Extremely encouraging is the increase in exclusive breastfeeding up to the age of 6 months, which has risen to 32%.

The survey included questions about sexual behaviour as well as knowledge and testing for HIV. Among adults age 15-49 years, 17% of men and 5% of women reported having two or more sexual partners in the past 12 months. Inadequate condom use was reported during high-risk sex: 58% of women and 65% of men who had multiple partners in the past year report that they used a condom during their last sexual intercourse. Furthermore, 45% of women and 55% of men age 15-49 report having sex in the past 12 months with a partner who was neither their spouse nor lived with them. Among these respondents, 60% of women and 68% of men report that they used a condom during their last sexual intercourse with this partner. In terms of the national effort to promote HIV testing, 59% of women and 45% of men age 15-49 report that they were tested for HIV and received their result in the past 12 months.

Adult health indicators for women and men age 15 and older also show cause for concern. The prevalence of smoking tobacco, which had declined in previous years, appears to have stagnated at relatively high levels for men and has increased slightly for women. The survey found that 6% of women and 30% of men smoke tobacco daily. Alcohol use, with attendant problems, is also high among South African men. Risky drinking, involving drinking 5 or more standard measures of alcohol on a single occasion within the last 30 days, was reported by 5% of women and 28% of men. Abuse of codeine-containing medicines in the past 12 months was reported by 2.3% of women and 1.5% of men. The prevalence of hypertension, overweight, and obesity appears to have increased since 1998. Based on the body mass index (BMI) score, 68% of women and 31% of men are overweight or obese. Of major concern is the high prevalence of severe obesity among South Africa women; one in five women has a BMI $\geq$ 35.0, placing her in the severely obese category. Forty-six percent of women and 44% of men are hypertensive based on their systolic blood pressure being above 140mmHg, their diastolic blood pressure being above 90 mmHg or taking antihypertensive medication. Haemoglobin levels, adjusted for altitude and smoking status, indicate that the prevalence of anaemia among adults age 15 and older is 31% for women and 17% for men.

Based on questions about domestic violence against women 18 years and older, 21% of ever-partnered women reported that they had ever experienced physical violence by a partner, and 8% reported that they experienced physical violence in the past 12 months. Furthermore, 6% of ever-partnered women reported that they ever experienced sexual violence by a partner, and 2% experienced sexual violence in the past 12 months.

This report, which presents key findings from the SADHS 2016, is intended to provide policy makers and programme managers with a first glimpse of the survey results. A more comprehensive and detailed report is scheduled for release later in 2017, and will contribute further towards monitoring progress on the country's National Development Plan (NDP) as well as the global Sustainable Development Goals (SDGs).

The survey was conducted as a collaboration between Statistics South Africa (Stats SA), the South African Medical Research Council (SAMRC) and the National Department of Health (NDoH), with technical support from ICF through The DHS Program of the United States Agency for International Development (USAID). The NDoH acknowledges the efforts of a number of organisations who contributed substantially to the success of the survey. In addition to the financial assistance from the government of South Africa through the NDoH and the SAMRC, support from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the European Union (EU), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), and USAID, is gratefully acknowledged.

The team members who made the survey a success are thanked, as well as the respondents who generously gave their time to provide the information that forms the basis of this and future reports.

1 INTRODUCTION

Statistics South Africa (Stats SA) in partnership with the South African Medical Research Council (SAMRC) conducted the 2016 South Africa Demographic and Health Survey (SADHS 2016) at the request of the National Department of Health (NDoH). Data collection took place from 27 June 2016 to 4 November 2016.

ICF provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID), and offers support and technical assistance for the implementation of population and health surveys in countries worldwide. Financial support for the SADHS 2016 was provided by the government of South Africa through the NDoH and SAMRC, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the European Union (EU), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), and the United States Agency for International Development (USAID).

This Key Indicators Report presents selected findings of the SADHS 2016. Comparisons have been made with the SADHS 1998 and not the SADHS 2003 due to data quality concerns of the latter survey, together with the availability of comparable indicators from SADHS 1998 through The DHS Program's STATcompiler tool. A comprehensive analysis of the data will be presented in a final report to be published in late 2017.

1.1 SURVEY OBJECTIVES

The primary objective of the SADHS 2016 is to provide up-to-date estimates of basic demographic and health indicators. The specific objectives of the SADHS 2016 that are covered in this report are to:

- Estimate fertility and under-5 mortality rates
- Provide data to explore the direct and indirect factors that determine the levels and trends of fertility and child mortality
- Measure women's contraceptive practice and fertility preferences
- Present information on maternal health, including antenatal and postnatal care
- Obtain data on key aspects of child health, including immunisation coverage and prevalence and treatment of acute respiratory infection (ARI), fever, and diarrhoea
- Collect anthropometric measures, to assess children's nutritional status, and examine child feeding practices, including breastfeeding
- Collect data on women's and men's potential exposure to the risk of HIV infection (e.g., risk behaviours and condom use), and coverage of HIV Testing and Counselling (HTC)
- Another critical objective of the SADHS 2016 is to provide estimates of health and behaviour indicators for adults age 15 and older, including:
  - Use of tobacco, alcohol, and codeine-containing medications
  - Prevalence of malnutrition, hypertension, and anaemia
- Measure physical and sexual violence against women

The data collected through the SADHS 2016 are intended to assist policy makers and programme managers in evaluating and designing programmes and strategies for improving the health of the country's population.

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sampling frame used for the SADHS 2016 is the Statistics South Africa Master Sample Frame (MSF), which was created using Census 2011 enumeration areas (EAs). In the MSF, EAs of manageable size were treated as primary sampling units (PSUs), whereas small neighbouring EAs were pooled together to form new PSUs, and large EAs were split into conceptual PSUs. The frame contains information about the geographic type (urban, traditional, or farm), and the estimated number of residential dwelling units (DUs) in each PSU. The sampling convention used by Stats SA is DUs. In any given DU, one or more households may be located; recent surveys have found 1.03 households per DU on average.

Administratively, South Africa is divided into nine provinces. The sample for the SADHS 2016 was designed to provide estimates of key indicators for the country as a whole, for urban and non-urban areas separately, and for each of the nine provinces in South Africa. Each province was stratified into urban, farm, and traditional areas, yielding 26 sampling strata[1].

The SADHS 2016 followed a stratified two-stage sample design with a probability proportional to size (PPS) sampling of PSUs at the first stage and systematic sampling of the dwelling units (DUs) at the second stage. The Census 2011 DU count was used as the PSU measure of size. A total of 750 PSUs were selected from the 26 sampling strata, yielding 468 selected PSUs in urban areas, 224 PSUs in traditional areas, and 58 PSUs in farm areas[2].

A listing operation was carried out in all selected PSUs from January 2016 to March 2016, and the updated lists of DUs served as a sampling frame for the selection of DUs in the second stage. In the second stage of selection, a fixed number of 20 DUs per cluster were selected with systematic selection from the created listing. All households in a selected DU were eligible for interview.

Some of the selected PSUs were informal, unstructured settlements with no clear identifications of the DUs. To ensure listing coverage within each informal, unstructured PSU selected[3], segmentation was carried out, where the PSU was segmented into multiple segments of about 20 DUs each. Only one segment was selected at random for the survey; in segments with 20 DUs or fewer, all DUs in the segment were eligible for the survey. In segments with more than 20 DUs, 20 DUs were randomly selected and were eligible for the survey. A cluster in the SADHS 2016 is therefore either a PSU or a segment of a PSU.

In half of selected DUs, all households were eligible for interview with the household questionnaire, and 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 for interview with a standard individual questionnaire.

In the remaining half of DUs, all households were eligible for interview with the Household Questionnaire, and all women and men age 15 and older, who were either permanent residents of the selected households or visitors who stayed in the household the night before the survey, were eligible for individual interview and for biomarker collection. In these same households, women age 15-49 and men age 15-59 were eligible for the standard individual questionnaire, as well as a South Africa-specific module on adult health; women age 50 and older and men age 60 and older were eligible for a few sections of the individual questionnaire and the adult health module. In addition, children age 0-59 months were eligible for biomarker collection.

[1] Western Cape does not have traditional residential geotype PSUs, so only two sub-strata are applicable.

[2] Four PSUs were dropped from the sample: one PSU was vacant, two PSUs were non-accessible due to refusals, and one was an industrial area.

[3] There were 26 informal, unstructured PSUs in the SADHS sample.

Finally, in all households in selected DUs, one woman age 18 and older was selected for a module on domestic violence. In addition, for each child age 0-5 whose biological mother did not live in the household, a guardian was eligible to complete a Caregiver's Questionnaire.

2.2 QUESTIONNAIRES

Five questionnaires were used for the SADHS 2016: the Household Questionnaire, the individual Woman's Questionnaire, the individual Man's Questionnaire, the Caregiver's Questionnaire, and the Biomarker Questionnaire. These questionnaires, based on The DHS Program's standard Demographic and Health Survey questionnaires, were adapted to reflect the population and health issues relevant to South Africa. Input was solicited from various stakeholders representing government ministries and agencies, nongovernmental organisations, and international donors. After the preparation of the questionnaires in English, the questionnaires were translated into South Africa's 10 other official languages.

The Household Questionnaire was used to list all of the members of, and visitors to, 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. For children under age 18, parents' survival status was determined. The data obtained in the Household Questionnaire were used to identify women and men eligible to be interviewed with the relevant Individual Questionnaire, children whose caregiver was eligible for the Caregiver's Questionnaire, and those persons eligible for the Biomarker Questionnaire. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of drinking water, type of sanitation facility, materials used for the floor, walls, and roof of the dwelling unit, and ownership of various durable goods. A module based on questions developed by the Washington Group to estimate the prevalence of disabilities among individuals age 5 and older was also included in the Household Questionnaire.

The Woman's Questionnaire was used to collect information from all eligible women age 15 and older. In all households, eligible women age 15-49 were asked questions on the following topics:

- Background characteristics: age, education, media exposure, and so on
- Birth history and child mortality
- Knowledge and use of family planning methods
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and child illnesses
- Marriage and sexual activity
- Fertility preferences
- Woman's work and partner's background characteristics
- Knowledge of HIV/AIDS and methods of HIV transmission
- Adult and maternal mortality

The Man's Questionnaire was administered to all men age 15-59 in the subsample of households selected for the male survey. The Man's Questionnaire collected much of the same information elicited by the Woman's Questionnaire, but was shorter because it did not contain a detailed reproductive history, questions on maternal and child health, or questions on adult and maternal mortality.

Both the Woman's and Man's Questionnaires also included a module on adult health that captured information on the use of tobacco, alcohol, and codeine-containing medications, the consumption of fat, salt, sugar, fruit and vegetables, health care-seeking behaviours, and self-reported prevalence of a variety of noncommunicable diseases. The module was administered to all men age 15 and older and to all women age 15 and older in the subsample of households selected for the male survey and biomarkers.

The Caregiver's Questionnaire was used to collect information on children age 0-5 whose biological mother was deceased or did not live in the household. It collected information on the child's socio-demographic characteristics, vaccinations, and health in the 2 weeks prior to the survey.

The Biomarker Questionnaire was used to record data on biomarkers (anthropometry, anaemia testing, blood pressure measurement, HbA1c testing, and HIV testing) collected from respondents by nurses. In addition, for adults age 15 and older, information on prescribed medications was recorded.

In this survey, interviewers used tablet computers to record responses during interviews. The tablets were equipped with Bluetooth technology to enable remote electronic transfer of files (transfer of assignment sheets from team supervisors to interviewers and transfer of completed questionnaires from interviewers to supervisors). The computer-assisted personal interviewing (CAPI) data collection system employed in the SADHS 2016 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.

2.3 ANTHROPOMETRY, ANAEMIA TESTING, BLOOD PRESSURE MEASUREMENT, HBA1C TESTING, AND HIV TESTING

In the subsample of households selected for the male survey and the adult health module, the SADHS 2016 incorporated the following biomarkers: anthropometry, anaemia testing, blood pressure measurement, HbA1c testing, and HIV testing. For each biomarker measurement or test for which an individual was eligible, the respondent or the child's parent/guardian was required to provide written consent before the measurement or test could proceed. For never-married respondents age 15-17, consent was required from both the respondent and the parent/guardian.

All households in which children underwent anthropometry and/or were tested for anaemia were given a brochure on which the measurements were recorded. The brochure also explained the causes and prevention of anaemia. Similarly, each respondent age 15 and older received a different brochure on which relevant measurements were recorded. This brochure provided information about body mass index, anaemia, blood pressure, diabetes, and HIV. The informational brochure also included the national AIDS hotline number to enable respondents to locate nearby facilities that provide HIV testing and counselling.

In contrast with the data collection procedure for the household and individual interviews, data related to all biomarkers were initially recorded on a paper Biomarker Questionnaire and subsequently entered into interviewers' tablet computers. The survey protocol, including biomarker collection, was reviewed and approved by the Ethics Committee of SAMRC and the Institutional Review Board of ICF.

Anthropometry. Height and weight measurements were recorded for children age 0-59 months for whom consent was obtained from their parents/guardians, and for women and men age 15 and older who consented to measurement. The equipment used for measurement were the Seca 878 digital scale, the Seca 417 infantometer (for children under age 2), and the Seca 213 portable stadiometer (for children age 2 and older and for adults). In addition, waist circumference was measured for women and men using a SECA 201 measuring tape.

Anaemia testing. Blood specimens for anaemia testing were collected from women and men age 15 and older who consented to be tested, and from children age 6-59 months for whom consent was obtained from their parents/guardians. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of children age 6-11 months) and collected in a microcuvette. Haemoglobin analysis was carried out on-site using a battery-operated portable HemoCue 201+ analyser. Results were provided verbally and in writing. Parents/guardians of children with a haemoglobin level below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women, pregnant women, and men were referred for follow-up care if their haemoglobin levels were below 7 g/dl, 9 g/dl, and 9 g/dl, respectively.

Blood pressure. Three blood pressure measurements were taken from consenting women and men age 15 and older using Omron 1300 digital blood pressure monitors. Measurements were taken at intervals of 3 minutes or more. For the purpose of returning the result to the respondent, the third measurement was used to classify the respondent with respect to hypertension, according to internationally recommended categories (WHO 1999). Respondents who were informed that they had high blood pressure were provided with a written referral to a health facility for further management.

HbA1c and HIV testing. Nurses collected finger-prick blood specimens for laboratory HbA1c and HIV testing of women and men age 15 and older who consented. The protocol for blood specimen collection and analysis was based on the anonymous linked protocol developed by The DHS Program. This protocol allows for merging of test results with the sociodemographic data collected in the individual questionnaires after removal of all information that could potentially identify an individual.

Nurses explained the procedure, the confidentiality of the data, and the fact that the test results would not be made available to respondents. Blood for HbA1C and HIV testing was collected on a filter paper card. The card was pre-printed with five circles, each of which can hold ~75 µL of blood, and the first of which had been treated with a reagent required for HbA1C testing. If a respondent consented to both HbA1c and HIV testing, five blood spots from the finger prick were collected on the filter paper card, to which a barcode label unique to the respondent was affixed. Duplicate barcodes were attached to the Biomarker Questionnaire, one to indicate that the respondent had consented to HbA1C testing and another to indicate that the respondent had consented to HIV testing. A fourth copy of the same barcode was affixed to the dried blood spot (DBS) transmittal sheet to track the blood samples from the field to the laboratory.

Respondents who consented to HIV testing were asked whether they would consent to having the laboratory store their blood sample for future unspecified testing. If respondents did not consent to additional testing using their sample, it was indicated on the Biomarker Questionnaire that they refused additional tests using their specimen, and the words "no additional testing" were written on the filter paper card.

If the respondent consented only to HbA1c testing, a single blood drop was collected on the appropriate, pre-treated circle of the filter paper card to which the barcode label was affixed, and duplicate barcode labels were attached to the Biomarker Questionnaire and the DBS transmittal sheet.

Blood samples were dried overnight and packaged for storage the following morning. Samples were periodically collected from the field and transported to the Global Clinical and Viral Laboratory (GCVL) in Durban. Upon arrival at GCVL, each blood sample was logged into the CSPro HIV Test Tracking System database, given a laboratory number, and stored at -20˚C until tested.

The HbA1c and HIV testing protocols stipulated that blood could be tested only after questionnaire data collection had been completed, data had been verified and cleaned, and all unique identifiers other than the anonymous barcode number had been removed from the data file. At the time of this report's release, neither HbA1c nor HIV testing had been completed. Data from the HbA1c and HIV results and linked demographic and health data will be published in the SADHS 2016 final report.

2.4 PRETEST

The pretest for the SADHS 2016 consisted of classroom training and field practice. The classroom portion of the pretest was conducted 11-29 January 2016 at the Kopanong Hotel & Conference Centre in Benoni, Gauteng. The pretest fieldwork took place 1-5 February 2016 in five provinces: Eastern Cape, KwaZulu-Natal, Free State, Gauteng, and North West. Stats SA recruited three female interviewers, one male interviewer, one nurse, and one logistics officer from each of the five provinces selected for field practice, for a total of 30 fieldworkers. Coordinators from Stats SA's provincial offices were trained as supervisors, for a total of 5 supervisors. Staff from Stats SA's head office, SAMRC, and The DHS Program conducted training sessions. Nurses attended the first week of the main training of interviewers before breaking away for a separate biomarker training. Following field practice, a day-long debriefing session was held with the

pretest field staff at the Lakes Hotel & Conference Centre in Benoni. Modifications to the questionnaires, translations, and survey protocol were made based on lessons drawn from the exercise.

2.5 TRAINING OF FIELD STAFF

Stats SA recruited and trained nearly 300 fieldworker candidates for the main training of field staff. This number made provision for male and female interviewers, supervisors, logistics officers/drivers, and nurses for 30 teams. Although only 210 fieldworkers were needed to conduct the survey, the number recruited and trained exceeded this so that: 1) the top performers during the training could be selected for fieldwork, and 2) there would be back-up fieldworkers in case anything happened to require replacing any of the appointed fieldworkers during the main data collection. The main training was conducted from 16 May 2016 to 17 June 2016, and took place at the Birchwood Hotel & Conference Centre, Kempton Park, Gauteng.

For all fieldworker candidates, except nurses and logistics officers, 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, and mock interviews between participants in the classroom. In addition, they were trained on map reading to enable them to be able to identify the sampled DUs in the field, as well as publicity training to ensure they were comfortable introducing themselves and explaining the purpose of the survey to respondents. A 1-day "on-site" field practice, held on 6 June 2016, paired trainees, and each had to complete a set of paper questionnaires. This provided them with an opportunity to familiarise themselves with the questionnaires in a closed environment. The completed questionnaires were later used during the CAPI training, when the data were entered into the electronic system.

Nurses were trained to collect biomarker data, including taking height/length, weight, and waist measurements, testing for anaemia by measuring haemoglobin level, and preparing dried blood spot (DBS) specimens for subsequent HbA1c and HIV testing. The biomarker training was held 1-17 June 2016 and consisted of lectures, demonstrations of biomarker measurement or testing procedures, exercises aimed at standardisation of height and weight measurements, as well as practice with children at a health clinic. The logistics officers trained alongside the nurses to ensure that they would be able to support them.

A 2-day field practice was organised on 14 and 15 June 2016 to provide trainees with hands-on practice before the actual fieldwork. A total of 30 teams were formed and participated in field practice. On the first day of field practice, each team consisted of a supervisor, a minimum of three female interviewers, one male interviewer, and one logistics officer (male). On the second day, each team was joined by one or more nurses.

Training participants were evaluated through homework, in-class exercises, quizzes, and observations made during field practice. Ultimately, 120 (90 females and 30 males) were selected to serve as interviewers, 30 as nurses, 30 as field logistics officers/drivers, and 30 as team supervisors. The selection of team supervisors was based on their experience in leading survey teams and their performance during the main training. Following their selection, team supervisors received additional instruction and practice using the CAPI system to perform supervisory activities. These activities included assigning households for interview and receiving completed interviews from interviewers, recognising and dealing with error messages, receiving a system update and distributing updates to interviewers, entering biomarker questionnaires and DBS transmittal sheets, dealing with duplicated cases, closing clusters, and transferring interviews to the Stats SA head office via a secure Internet file streaming system (IFSS).

2.6 FIELDWORK

Data collection was carried out by 30 field teams, each consisting of one team supervisor, three female interviewers, one male interviewer, one nurse, and one logistics officer/driver. Electronic data files were transferred to the Stats SA head office in Pretoria every day via the secured IFSS. Senior staff from the Stats SA head office and provincial offices coordinated fieldwork activities. Stats SA also led fieldwork supervision, receiving support from SAMRC on the supervision of biomarker collection, and from ICF on

standard DHS supervision procedures. The survey data collection took place from 27 June 2016 to 4 November 2016.

2.7 DATA PROCESSING

All electronic data files for the SADHS 2016 were transferred via IFSS to the Stats SA head office in Pretoria, where they were stored on a password-protected computer. The data processing operation included secondary editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions. The data were processed by a core group of four people; secondary editing was completed by 11 people. All persons involved in data processing took part in the main fieldwork training, and they were supervised by senior staff from Stats SA with support from ICF. Data editing was accomplished using CSPro software. Secondary editing was initiated in October 2016 and completed in February 2017. Checking inconsistencies in the dates of immunisations was aided by the digital images of the immunisation page of the Road-to-Health booklet that had been collected on the tablet by fieldworkers at the time of interview, for that purpose.

2.8 DATA ANALYSIS AND GENERATING THE WEALTH INDEX

Appropriate analysis weights were calculated, taking the design probabilities and the response rate into account. Standard methods of analysis (Rutstein and Rojas 2006) were applied involving conversion of all dates to century month codes to facilitate the calculation of age at the time of different life events. Individuals with missing values for a specific indicator were left out of the numerator and denominator.

To generate the wealth index, households were given scores based on the number and kinds of consumer goods they owned, ranging from a television or car to the number and type of animal stock owned to housing characteristics, such as source of drinking water, toilet facilities, and flooring material. These scores are derived using principal component analysis. National wealth quintiles were compiled by assigning the household score to each usual (de jure) household member, ranking the household population by their scores, and then dividing the population into quintiles (i.e., five equal categories, each with 20% of the population).

The lowest wealth quintile therefore includes the 20% of the population that has the fewest assets, including those of least value, while the highest quintile includes the 20% of the population with the most assets, including those of highest value.

3 KEY FINDINGS

3.1 RESPONSE RATES

Table 1 shows response rates for the SADHS 2016. A total of 15,292 households were selected for the sample, of which 13,288 were occupied. Of the occupied households, 11,083 were successfully interviewed, yielding a response rate of 83%.

In the interviewed households, 9,878 eligible women age 15-49 were identified for individual interviews; interviews were completed with 8,514 women, yielding a response rate of 86%. In the subsample of households selected for the male survey, 4,952 eligible men age 15-59 were identified and 3,618 were successfully interviewed, yielding a response rate of 73%. In this same subsample, 12,717 eligible adults age 15 and older were identified and 10,336 were successfully interviewed with the adult health module[4], yielding a response rate of 81%. Response rates were consistently lower in urban areas than in non-urban areas.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), South Africa DHS 2016

Result	Residence		Total
	Urban	Non-urban	
Household interviews			
Households selected	9,547	5,745	15,292
Households occupied	8,397	4,891	13,288
Households interviewed	6,556	4,527	11,083
Household response rate[1]	78.1	92.6	83.4
Interviews with women age 15-49			
Number of eligible women	5,858	4,020	9,878
Number of eligible women interviewed	4,805	3,709	8,514
Eligible women response rate[2]	82.0	92.3	86.2
Household interviews in subsample selected for male survey and the adult health module			
Households selected	4,751	2,872	7,623
Households occupied	4,164	2,426	6,590
Households interviewed	3,240	2,237	5,477
Household response rate[1]	77.8	92.2	83.1
Interviews with men age 15-59			
Number of eligible men	2,996	1,956	4,952
Number of eligible men interviewed	2,021	1,597	3,618
Eligible men response rate[2]	67.5	81.6	73.1
Interviews with adults age 15 and older			
Number of eligible adults	7,463	5,254	12,717
Number of eligible adults interviewed	5,685	4,651	10,336
Eligible adults response rate[2]	76.2	88.5	81.3

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

3.2 CHARACTERISTICS OF RESPONDENTS TO INDIVIDUAL QUESTIONNAIRES

Table 2 shows the weighted and unweighted numbers and the weighted percent distributions of women and men age 15-49 interviewed in the SADHS 2016, by background characteristics. About 5 in 10 respondents were under age 30, reflecting the young age structure of the population. By self-reported population group, black African is the largest group, making up 87% of female and 88% of male respondents, followed by the coloured population group, who constitute 9% of women and 7% of men. The white population group (3%

[4] The subsample of adults interviewed with the adult module included all men age 15-59 and all women age 15-49 in those households selected for the male survey.

each of women and men) follows in size, reflecting considerable under-representation of this population group. Two percent of women and men each self-reported belonging to the Indian/Asian population group.

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, South Africa DHS 2016

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	16.8	1,427	1,505	20.2	647	705
20-24	16.6	1,415	1,408	18.4	588	602
25-29	17.0	1,444	1,397	15.8	506	492
30-34	15.7	1,333	1,295	14.1	450	436
35-39	12.6	1,072	1,032	12.3	395	339
40-44	11.0	941	964	10.8	345	335
45-49	10.4	883	913	8.5	271	270
Population group						
Black/African	86.8	7,388	7,359	87.9	2,815	2,807
White	3.1	265	214	3.2	104	81
Coloured	8.6	730	848	7.3	232	251
Indian/Asian	1.5	126	88	1.5	48	38
Other	0.1	6	5	0.1	2	2
Marital status						
Never married	58.6	4,992	5,134	64.7	2,073	2,161
Married	23.3	1,983	1,825	19.5	624	547
Living together	12.5	1,066	1,016	11.4	364	343
Divorced/separated	3.4	287	337	3.5	113	99
Widowed	2.2	185	202	0.9	28	29
Residence						
Urban	67.3	5,731	4,805	68.8	2,203	1,768
Non-urban	32.7	2,783	3,709	31.2	999	1,411
Province						
Western Cape	11.7	995	656	10.2	328	186
Eastern Cape	11.0	938	1,041	11.3	362	411
Northern Cape	2.0	173	718	1.9	61	251
Free State	5.2	442	854	5.0	159	295
KwaZulu-Natal	19.0	1,616	1,360	16.3	521	471
North West	6.7	570	863	7.4	237	379
Gauteng	26.8	2,284	863	30.7	984	371
Mpumalanga	7.9	671	1,054	8.2	263	413
Limpopo	9.7	824	1,105	9.0	288	402
Education						
No education	2.0	168	190	1.9	62	76
Primary incomplete	5.3	447	524	6.8	219	274
Primary complete	3.8	327	338	5.2	166	189
Secondary incomplete	49.3	4,195	4,409	51.1	1,637	1,628
Secondary complete	27.8	2,369	2,172	24.1	773	722
More than secondary	11.8	1,008	881	10.8	345	290
Wealth quintile						
Lowest	19.4	1,648	1,763	19.3	618	664
Second	20.1	1,715	1,865	21.3	682	772
Middle	21.2	1,805	1,956	22.3	715	755
Fourth	20.7	1,763	1,733	20.4	653	597
Highest	18.6	1,583	1,197	16.7	534	391
Total 15-49	100.0	8,514	8,514	100.0	3,202	3,179
50-59	na	na	na	na	416	439
Total 15-59	na	na	na	na	3,618	3,618

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

Well over half of women (59%) and two-thirds of men (65%) have never married. Women more often marry or live together with a partner (i.e., in union) than men (36% and 31%, respectively). Women and men are equally likely to report that they are divorced or separated (3% and 4%, respectively). Two percent of women report they are widowed, as compared with 1% of men.

The majority of respondents live in urban areas (67% of women and 69% of men). By province, the majority of women and men live in Gauteng, followed by KwaZulu-Natal: 27% of women and 31% of men live in Gauteng; 19% of women and 16% of men live in KwaZulu-Natal. Only 2% of female and male respondents live in Northern Cape.

About 1 in 4 respondents (28% of women and 24% of men) have completed secondary school, and an additional 1 in 10 respondents have attended more than secondary school (12% of women and 11% of men). Forty-nine percent of women report that they attended some secondary school but did not complete it, compared with 51% of the men. Only 2% of respondents reported no formal education.

3.3 FERTILITY

To generate data on fertility, all women age 15-49 who were interviewed were asked to report the total number of sons and daughters to whom they had ever given birth. To ensure that all information was reported, women were asked separately about children still living at home, those living elsewhere, and those who had died. A complete birth history was then obtained, including information on the sex, date of birth, and survival status of each child; age at death for children who had died was also recorded.

Table 3 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; thus the rates in Table 3 are observed rates and have not been adjusted. 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 South Africa would bear an average of 2.6 children in her lifetime. A comparison of the TFR observed in the SADHS 2016 and the SADHS 1998 is presented in Figure 1. The TFR in 1998 was 2.9 compared with 2.6 in 2016.

Figure 1 **Comparison of total fertility rate, 1998 and 2016**

TFR for the 3 years before each survey

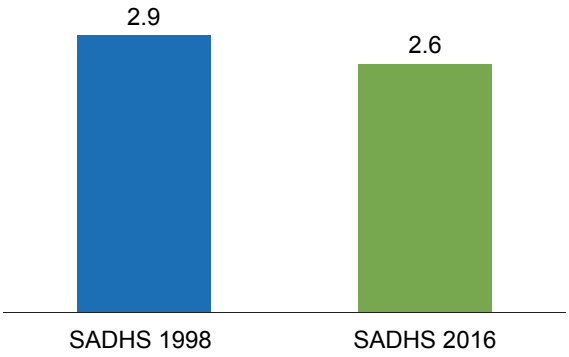


Table 3 also indicates that fertility is higher among non-urban women than among urban women; the TFR is 3.1 compared with 2.4. Consistent with this observation, age-specific fertility rates are higher in non-urban areas than urban areas across all age groups.

Table 3 Current fertility

Age-specific and total fertility rates, general fertility rates, and the crude birth rate for the 3 years preceding the survey, according to residence, South Africa DHS 2016

	Residence		
Age group	Urban	Non-urban	Total
15-19	62	86	71
20-24	125	150	133
25-29	131	156	139
30-34	94	107	98
35-39	52	87	62
40-44	21	29	23
45-49	1	4	2
TFR (15-49)	2.4	3.1	2.6
GFR (15-44)	87	109	94
GFR (15-49)	80	101	87
CBR	21.9	23.1	22.3

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 or per 1,000 women age 15-49
CBR: Crude birth rate, expressed per 1,000 population

3.4 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.

Table 4 shows that 16% of women age 15-19 in South Africa have begun childbearing: 12% have given birth, and another 3% were pregnant with their first child at the time of interview. As expected, the proportion of women age 15-19 who have begun childbearing rises rapidly with age, from 4% among women age 15 to 28% among women at age 19. Early childbearing among young women is more common in non-urban areas than in urban areas (19% versus 14%, respectively). By province, the percentage of women age 15-19 who have begun childbearing is highest in Northern Cape (20%), North West (20%), and KwaZulu-Natal (19%) and lowest in Western Cape (8%), Free State (12%), and Limpopo (12%). By wealth, the percentage of teenagers who have begun childbearing is highest in the second wealth quintile (22%) and is lowest in the highest wealth quintile (7%).

Overall, the percentage of women age 15-19 who have begun childbearing is unchanged relative to 1998 (16% in both 1998 and 2016).

Table 4 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, South Africa DHS 2016

Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	2.4	1.4	3.8	239
16	3.5	3.8	7.3	307
17	10.8	4.0	14.8	311
18	20.0	2.6	22.6	270
19	24.5	3.3	27.8	299
Residence				
Urban	10.6	3.0	13.6	874
Non-urban	15.4	3.3	18.6	552
Province				
Western Cape	5.0	3.1	8.1	160
Eastern Cape	14.2	3.7	17.9	184
Northern Cape	17.3	3.0	20.3	31
Free State	9.6	2.4	12.1	71
KwaZulu-Natal	16.3	3.0	19.4	303
North West	17.8	2.3	20.1	81
Gauteng	9.8	4.3	14.1	311
Mpumalanga	15.3	2.8	18.2	118
Limpopo	11.1	1.3	12.4	167
Education				
No education	*	*	*	3
Primary incomplete	17.1	14.0	31.1	40
Primary complete	8.6	3.4	12.0	70
Secondary incomplete	12.7	2.7	15.4	1,156
Secondary complete	12.6	3.3	15.9	137
More than secondary	*	*	*	20
Wealth quintile				
Lowest	14.9	5.1	20.0	343
Second	18.2	3.5	21.7	271
Middle	15.6	2.7	18.3	277
Fourth	8.0	1.4	9.4	310
Highest	4.0	2.5	6.5	226
Total	**12.4**	**3.1**	**15.6**	**1,427**

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

3.5 FERTILITY PREFERENCES

Information on fertility preferences is used to assess the potential demand for family planning services for the purpose of spacing or limiting future childbearing. To elicit information on fertility preferences, several questions were asked of currently married women (pregnant or not) regarding whether they want to have another child and, if so, how soon.

Overall, more than half of married women age 15-49 (58%), including 8% who have been sterilised or whose partners are sterilised, do not want any more children (Table 5). The proportion of women who want to stop childbearing or are sterilised increases rapidly with the number of living children, from 24% of women with one child to 61% of women with two living children, and 88% of women with four or more children. The proportion of women who want to have another child soon decreases sharply with the number of living children, from 50% among women with no living children to 37% among women with one living child, and to 13% or less among those with two or more living children. Among married women with no living children, 9% reported that they cannot get pregnant. Overall, the vast majority of married women want to either space their next birth or cease childbearing altogether.

Table 5 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, South Africa DHS 2016

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	49.9	37.4	13.1	11.3	6.0	1.4	0.8	19.2
Have another later[3]	14.3	17.3	10.6	3.6	1.8	0.0	0.0	9.2
Have another, undecided when	8.9	12.3	6.5	2.5	1.2	0.0	2.3	6.2
Undecided	2.5	6.2	6.8	3.1	2.2	6.9	1.5	4.9
Want no more	13.3	22.3	54.1	62.5	73.8	78.6	85.5	49.7
Sterilised[4]	2.1	1.7	6.8	15.6	14.5	11.8	8.4	8.3
Declared infecund	9.0	2.9	2.2	1.4	0.5	1.2	1.5	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	221	664	995	673	319	110	68	3,050

Note: Currently married women include women who are currently married or living together as if married.
[1] The number of living children includes the 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 sterilisation

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. Contraceptive methods are classified as modern or traditional methods. Modern methods include female sterilisation, male sterilisation, the intrauterine contraceptive device (IUD), implants, injectables, the pill, male condoms, female condoms, and emergency contraception. Methods such as rhythm, withdrawal, and folk methods are grouped as traditional.

Table 6 shows the percent distribution of currently married women, sexually active unmarried women, and currently married women and sexually active unmarried women combined, by the contraceptive method they currently use. Overall, 55% of currently married women are using a method of family planning, with 54% of currently married women using a modern method and 1% a traditional method. Among currently married women, the most popular methods are injectables (24%; 18% 3-month injectables and 6% 2-month injectables), male condom (9%), contraceptive pill (8%), and female sterilisation (8%).

Table 6 Current use of contraception according to background characteristics

Percent distribution of currently married women, sexually active unmarried women, and currently married women and sexually active women age 15-49, by contraceptive method currently used, according to background characteristics, South Africa DHS 2016

Background characteristic	Any method	Any modern method	Modern method											Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilisation	Male sterilisation	Pill	IUD	Injectables (3 month)	Injectables (2 month)	Implants	Male condom	Female condom	Emergency contraception	Other		Rhythm	Withdrawal	Other			
CURRENTLY MARRIED WOMEN																				
Age																				
15-19	(36.7)	(36.7)	(0.0)	(0.0)	(11.0)	(0.0)	(17.7)	(1.1)	(2.2)	(4.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(63.3)	100.0	44
20-24	53.2	52.9	0.2	0.0	8.1	0.3	19.1	12.4	4.6	8.2	0.0	0.0	0.0	0.3	0.0	0.3	0.0	46.8	100.0	271
25-29	62.3	60.5	1.0	0.0	12.7	0.7	23.3	8.6	4.8	9.4	0.0	0.0	0.0	1.8	0.0	1.8	0.0	37.7	100.0	514
30-34	58.0	57.2	5.1	0.4	8.5	1.7	23.5	6.4	3.9	7.3	0.3	0.0	0.0	0.8	0.3	0.5	0.0	42.0	100.0	688
35-39	61.2	61.1	8.5	0.4	7.8	2.3	20.0	4.9	3.7	12.9	0.0	0.0	0.4	0.2	0.1	0.0	0.0	38.8	100.0	575
40-44	50.8	50.7	16.5	1.8	6.9	0.5	12.9	3.5	1.2	7.4	0.0	0.0	0.0	0.1	0.0	0.1	0.0	49.2	100.0	507
45-49	39.0	38.9	13.8	0.8	5.6	0.7	7.4	1.3	2.0	7.2	0.2	0.0	0.0	0.1	0.0	0.1	0.0	61.0	100.0	450
Province																				
Western Cape	59.3	59.0	12.8	2.8	6.0	1.9	18.2	5.4	5.6	6.3	0.0	0.0	0.0	0.4	0.0	0.4	0.0	40.7	100.0	454
Eastern Cape	53.9	53.9	10.0	0.4	4.0	2.4	22.0	7.2	3.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.1	100.0	275
Northern Cape	52.0	51.6	6.7	0.3	5.1	0.4	22.4	5.6	4.3	6.8	0.0	0.0	0.0	0.3	0.0	0.3	0.0	48.0	100.0	66
Free State	46.2	46.2	4.8	0.7	3.8	0.0	24.8	1.5	3.4	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.8	100.0	146
KwaZulu-Natal	51.3	50.7	10.6	0.5	7.6	0.3	16.0	2.7	2.1	11.1	0.0	0.0	0.0	0.5	0.0	0.5	0.0	48.7	100.0	361
North West	54.5	54.2	4.7	0.0	14.9	1.2	15.4	5.3	1.8	10.9	0.0	0.0	0.0	0.3	0.0	0.3	0.0	45.5	100.0	215
Gauteng	55.6	54.7	6.5	0.0	10.5	1.0	18.2	5.5	3.1	9.4	0.2	0.0	0.2	0.9	0.2	0.7	0.0	44.4	100.0	1,035
Mpumalanga	59.0	58.3	6.3	0.4	6.2	0.8	18.3	8.4	3.3	14.2	0.3	0.0	0.0	0.8	0.0	0.8	0.0	41.0	100.0	244
Limpopo	49.2	48.3	2.8	0.0	9.9	1.3	14.3	10.4	2.9	6.7	0.0	0.0	0.0	0.9	0.3	0.6	0.0	50.8	100.0	254
Total	**54.6**	**54.0**	**7.7**	**0.6**	**8.4**	**1.2**	**18.2**	**5.7**	**3.3**	**8.8**	**0.1**	**0.0**	**0.1**	**0.6**	**0.1**	**0.5**	**0.0**	**45.4**	**100.0**	**3,050**
SEXUALLY ACTIVE UNMARRIED WOMEN[1]																				
Age																				
15-19	64.5	64.5	0.0	0.0	2.8	0.0	15.9	12.8	5.5	27.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	100.0	225
20-24	65.6	65.3	0.4	0.4	4.3	2.5	19.9	12.6	6.4	18.5	0.0	0.3	0.0	0.3	0.0	0.3	0.0	34.4	100.0	452
25-29	72.5	72.5	1.4	0.0	6.1	1.1	20.0	12.7	4.4	26.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	100.0	429
30-34	63.4	63.4	3.1	0.0	7.0	0.3	15.9	7.9	5.4	22.6	0.5	0.5	0.0	0.0	0.0	0.0	0.0	36.6	100.0	301
35-39	66.1	66.1	7.8	0.0	7.8	1.5	16.3	2.5	2.1	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	100.0	214
40-44	50.8	50.8	6.9	0.0	1.5	2.9	13.1	1.0	5.0	19.3	0.7	0.0	0.3	0.0	0.0	0.0	0.0	49.2	100.0	145
45-49	44.3	44.3	6.7	0.0	1.1	0.0	6.4	0.9	1.0	27.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	55.7	100.0	121
Province																				
Western Cape	72.0	72.0	7.3	0.0	2.7	3.1	17.7	5.4	9.5	26.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	100.0	167
Eastern Cape	67.6	67.6	2.4	0.5	3.5	0.0	24.3	13.7	5.1	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4	100.0	212
Northern Cape	59.8	59.8	0.7	0.0	5.5	0.0	20.6	7.3	6.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.2	100.0	30
Free State	59.7	59.7	2.9	0.0	2.5	0.0	23.8	5.0	5.3	18.8	0.8	0.0	0.6	0.0	0.0	0.0	0.0	40.3	100.0	76
KwaZulu-Natal	69.5	69.5	3.6	0.2	4.4	1.8	21.9	3.4	5.8	27.9	0.0	0.6	0.0	0.0	0.0	0.0	0.0	30.5	100.0	431
North West	64.1	64.1	2.4	0.0	8.2	0.3	17.4	6.9	3.8	24.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	35.9	100.0	145
Gauteng	60.5	60.4	2.1	0.0	6.4	2.2	11.7	9.6	3.2	25.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	39.5	100.0	505
Mpumalanga	64.4	64.4	0.8	0.0	5.0	0.0	14.5	14.5	3.4	25.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	35.6	100.0	155
Limpopo	52.9	52.4	1.1	0.0	4.1	0.0	9.0	19.8	2.7	14.8	0.9	0.0	0.0	0.5	0.0	0.5	0.0	47.1	100.0	165
Total	**64.2**	**64.2**	**2.8**	**0.1**	**4.9**	**1.3**	**17.0**	**9.1**	**4.7**	**23.8**	**0.2**	**0.2**	**0.0**	**0.1**	**0.0**	**0.1**	**0.0**	**35.8**	**100.0**	**1,887**

Continued…

Table 6—*Continued*

Background characteristic	Any method	Any modern method	Modern method: Female sterilisation	Male sterilisation	Pill	IUD	Injectables (3 month)	Injectables (2 month)	Implants	Male condom	Female condom	Emergency contraception	Other	Any traditional method	Traditional method: Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
CURRENTLY MARRIED AND SEXUALLY ACTIVE UNMARRIED WOMEN[1]																				
Age																				
15-19	60.0	60.0	0.0	0.0	4.1	0.0	16.1	10.9	5.0	23.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	100.0	269
20-24	61.0	60.7	0.3	0.3	5.7	1.7	19.6	12.5	5.7	14.6	0.0	0.2	0.0	0.3	0.0	0.3	0.0	39.0	100.0	723
25-29	66.9	66.0	1.2	0.0	9.7	0.8	21.8	10.5	4.7	17.3	0.0	0.0	0.0	1.0	0.0	1.0	0.0	33.1	100.0	944
30-34	59.6	59.1	4.5	0.3	8.1	1.3	21.2	6.8	4.4	12.0	0.4	0.2	0.0	0.5	0.2	0.3	0.0	40.4	100.0	989
35-39	62.5	62.4	8.3	0.3	7.8	2.1	19.0	4.3	3.3	17.0	0.0	0.0	0.3	0.1	0.1	0.0	0.0	37.5	100.0	790
40-44	50.8	50.7	14.4	1.4	5.7	1.1	13.0	3.0	2.0	10.0	0.2	0.0	0.1	0.1	0.0	0.1	0.0	49.2	100.0	652
45-49	40.1	40.0	12.3	0.7	4.6	0.5	7.2	1.2	1.8	11.4	0.3	0.0	0.0	0.1	0.0	0.1	0.0	59.9	100.0	570
Province																				
Western Cape	62.7	62.5	11.3	2.0	5.1	2.3	18.0	5.4	6.6	11.7	0.0	0.0	0.0	0.3	0.0	0.3	0.0	37.3	100.0	621
Eastern Cape	59.8	59.8	6.7	0.4	3.8	1.4	23.0	10.0	4.4	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.2	100.0	486
Northern Cape	54.4	54.2	4.8	0.2	5.2	0.3	21.9	6.1	4.9	10.9	0.0	0.0	0.0	0.2	0.0	0.2	0.0	45.6	100.0	96
Free State	50.8	50.8	4.1	0.4	3.4	0.0	24.5	2.7	4.0	11.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	49.2	100.0	221
KwaZulu-Natal	61.2	61.0	6.8	0.3	5.8	1.1	19.2	3.0	4.1	20.2	0.0	0.3	0.0	0.2	0.0	0.2	0.0	38.8	100.0	792
North West	58.4	58.2	3.8	0.0	12.2	0.9	16.2	5.9	2.6	16.5	0.0	0.1	0.0	0.2	0.0	0.2	0.0	41.6	100.0	360
Gauteng	57.2	56.5	5.1	0.0	9.2	1.4	16.1	6.8	3.1	14.6	0.1	0.0	0.2	0.6	0.1	0.5	0.0	42.8	100.0	1,540
Mpumalanga	61.1	60.6	4.2	0.3	5.7	0.5	16.8	10.8	3.3	18.5	0.6	0.0	0.0	0.5	0.0	0.5	0.0	38.9	100.0	400
Limpopo	50.7	49.9	2.1	0.0	7.6	0.8	12.2	14.1	2.8	9.9	0.3	0.0	0.0	0.7	0.2	0.6	0.0	49.3	100.0	420
Total	**58.3**	**57.9**	**5.8**	**0.4**	**7.1**	**1.2**	**17.7**	**7.0**	**3.9**	**14.5**	**0.1**	**0.1**	**0.1**	**0.4**	**0.1**	**0.3**	**0.0**	**41.7**	**100.0**	**4,936**

Notes: If more than one method is used, only the most effective method is considered in this tabulation. Currently married women include women who are currently married or living together as if married. Figures in parentheses are based on 25-49 unweighted cases.

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

Among sexually active unmarried women, 64% are currently using a contraceptive method; nearly all users of contraceptives are using a modern method. Among sexually active unmarried women, the most popular methods are injectables (26%; 17% 3-month injectables and 9% 2-month injectables), male condom (24%), contraceptive pill (5%), and implants (5%).

Among currently married women and sexually active unmarried women combined, 58% are using a modern contraceptive method. For women in this combined group, the most commonly used methods are injectables (25%; 18% 3-month injectables and 7% 2-month injectables), male condom (15%), contraceptive pill (7%), and female sterilisation (6%). Less than 1% of currently married and sexually active unmarried women combined use traditional methods of family planning.

A comparison between the SADHS 1998 with the SADHS 2016 reveals that the modern contraceptive prevalence rate (CPR) among married women in South Africa is essentially unchanged (55% and 54%, respectively); over the same time period, the modern CPR among sexually active unmarried women has declined slightly (68% versus 64%). While the shift in modern CPR among both married women and sexually active unmarried women has been modest, the popularity of specific modern methods shows larger differences. For example, among currently married women, the use of female sterilisation declined from 16% in 1998 to 8% in 2016, whilst the use of the male condom rose from 2% in 1998 to 9% in 2016. For sexually active unmarried women, the use of injectables declined from 44% in 1998 to 26% in 2016 and the use of the pill declined from 16% in 1998 to 5% in 2016; over this same time period, the use of the male condom rose from 3% in 1998 to 24% in 2016.

3.7 NEED AND DEMAND FOR FAMILY PLANNING

The proportion of women who want to stop childbearing or who want to space their next birth is a crude measure of the extent of the need for family planning, given that not all of these women are exposed to the risk of pregnancy and some may already be using contraception. The unmet need for family planning is considered in a more comprehensive manner by identifying the proportion of women who are currently fecund and not pregnant who want to postpone or stop childbearing but are not using a contraceptive method, together with the women who report that their current pregnancy or birth in the last 2 years was mistimed or unwanted. This section discusses the extent of need and the potential demand for family planning services.

Table 7 presents data on unmet need, met need, and total demand for family planning among currently married women, sexually active unmarried women, and currently married women plus sexually active unmarried women combined. Figure 2 presents a comparison of unmet need, modern contraceptive use, and percentage of total demand satisfied with modern methods among currently married women. These indicators help evaluate the extent to which family planning programmes in South Africa meet the demand for services. The definition of unmet need for family planning has been revised so that data on levels of unmet need are comparable over time and across surveys. The unmet need estimate in Figure 2 for the SADHS 1998 has been recalculated using the revised definition of unmet need.

Table 7 shows that 15% of currently married women have an unmet need for family planning services, while 55% of married women are currently using a contraceptive method. Therefore, nearly seven in ten currently married women in South Africa (69%) have a demand for family planning. At present, 79% of the potential demand for family planning is being met, and almost entirely met by modern methods. Thus, if all married women who said they want to space or limit their children were to use family planning methods, the CPR would increase from the current level of 55% to 69%.

Among sexually active unmarried women, 24% have an unmet need for family planning, and 64% are currently using a contraceptive method. The total demand for family planning among unmarried sexually active women is 88%, and at present 73% of the potential demand for family planning is being met by modern methods. If all of the sexually active unmarried women who said they want to space or limit their births were to use family planning methods, the CPR would increase from 64% to 88%.

Table 7 Need and demand for family planning among currently married women and sexually active unmarried women

Percentage of currently married women, sexually active unmarried women, and currently married women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, according to background characteristics, South Africa DHS 2016

Background characteristic	Unmet need for family planning	Met need for family planning (currently using)		Total demand for family planning[3]	Number of women	Percentage of demand satisfied[1]	
		All methods	Modern methods[2]			All methods	Modern methods[2]
CURRENTLY MARRIED WOMEN							
Age							
15-19	(23.6)	(36.7)	(36.7)	(60.4)	44	(60.9)	(60.9)
20-24	28.4	53.2	52.9	81.6	271	65.2	64.9
25-29	11.7	62.3	60.5	74.0	514	84.2	81.7
30-34	15.7	58.0	57.2	73.7	688	78.7	77.6
35-39	12.2	61.2	61.1	73.4	575	83.4	83.2
40-44	12.5	50.8	50.7	63.4	507	80.2	80.0
45-49	12.8	39.0	38.9	51.8	450	75.2	75.0
Province							
Western Cape	9.8	59.3	59.0	69.1	454	85.8	85.3
Eastern Cape	16.2	53.9	53.9	70.1	275	76.9	76.9
Northern Cape	16.0	52.0	51.6	68.0	66	76.5	76.0
Free State	15.7	46.2	46.2	61.8	146	74.6	74.6
KwaZulu-Natal	17.6	51.3	50.7	68.8	361	74.5	73.7
North West	13.7	54.5	54.2	68.2	215	79.9	79.5
Gauteng	14.3	55.6	54.7	69.9	1,035	79.5	78.2
Mpumalanga	12.9	59.0	58.3	71.9	244	82.1	81.0
Limpopo	20.5	49.2	48.3	69.7	254	70.6	69.4
Total	**14.7**	**54.6**	**54.0**	**69.3**	**3,050**	**78.8**	**78.0**
SEXUALLY ACTIVE UNMARRIED WOMEN[4]							
Age							
15-19	32.2	64.5	64.5	96.7	225	66.7	66.7
20-24	27.6	65.6	65.3	93.3	452	70.4	70.0
25-29	16.9	72.5	72.5	89.4	429	81.1	81.1
30-34	24.1	63.4	63.4	87.5	301	72.5	72.5
35-39	16.3	66.1	66.1	82.4	214	80.2	80.2
40-44	28.3	50.8	50.8	79.1	145	64.2	64.2
45-49	29.3	44.3	44.3	73.6	121	60.2	60.2
Province							
Western Cape	15.3	72.0	72.0	87.3	167	82.4	82.4
Eastern Cape	24.9	67.6	67.6	92.5	212	73.1	73.1
Northern Cape	27.1	59.8	59.8	86.8	30	68.8	68.8
Free State	25.7	59.7	59.7	85.4	76	69.9	69.9
KwaZulu-Natal	22.2	69.5	69.5	91.7	431	75.8	75.8
North West	21.2	64.1	64.1	85.3	145	75.2	75.2
Gauteng	27.3	60.5	60.4	87.7	505	68.9	68.8
Mpumalanga	21.0	64.4	64.4	85.4	155	75.4	75.4
Limpopo	30.5	52.9	52.4	83.4	165	63.4	62.8
Total	**24.0**	**64.2**	**64.2**	**88.3**	**1,887**	**72.8**	**72.7**
CURRENTLY MARRIED WOMEN AND SEXUALLY ACTIVE UNMARRIED WOMEN[4]							
Age							
15-19	30.8	60.0	60.0	90.7	269	66.1	66.1
20-24	27.9	61.0	60.7	88.9	723	68.6	68.2
25-29	14.0	66.9	66.0	81.0	944	82.7	81.4
30-34	18.3	59.6	59.1	77.9	989	76.6	75.9
35-39	13.3	62.5	62.4	75.8	790	82.5	82.3
40-44	16.0	50.8	50.7	66.9	652	76.0	75.9
45-49	16.3	40.1	40.0	56.4	570	71.1	70.9
Province							
Western Cape	11.3	62.7	62.5	74.0	621	84.8	84.4
Eastern Cape	20.0	59.8	59.8	79.8	486	75.0	75.0
Northern Cape	19.5	54.4	54.2	73.9	96	73.6	73.3
Free State	19.1	50.8	50.8	69.9	221	72.7	72.7
KwaZulu-Natal	20.1	61.2	61.0	81.3	792	75.3	75.0
North West	16.7	58.4	58.2	75.1	360	77.7	77.5
Gauteng	18.6	57.2	56.5	75.8	1,540	75.5	74.6
Mpumalanga	16.0	61.1	60.6	77.1	400	79.2	78.6
Limpopo	24.4	50.7	49.9	75.1	420	67.5	66.5
Total	**18.2**	**58.3**	**57.9**	**76.5**	**4,936**	**76.2**	**75.7**

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012. *Currently married women* include women who are currently married or living together as if married. Figures in parentheses are based on 25-49 unweighted cases.

[1] Percentage of demand satisfied is met need divided by total demand.

[2] Modern methods include female sterilisation, male sterilisation, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, and other modern methods.

[3] Total demand is the sum of unmet need and met need.

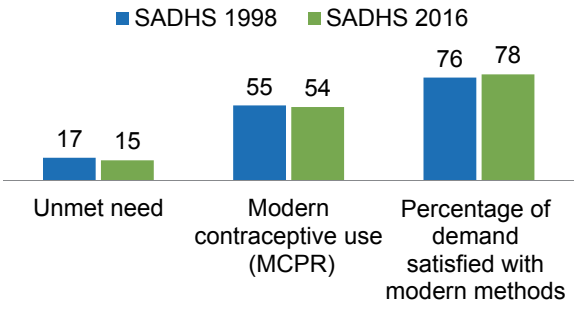
[4] Women who have had sexual intercourse within the 30 days preceding the survey.

Among currently married women and sexually active unmarried women combined, 18% have an unmet need for family planning, and 58% are currently using a contraceptive method. Thus, the total demand for family planning among currently married women and sexually active unmarried women combined is 77%, and at present 76% of the demand is met by modern methods. If all of these women with a demand for family planning were using it, the CPR would increase from 58% to 77%.

Figure 2 shows that the proportion of currently married women with unmet need for family planning has declined slightly, from 17% in 1998 to 15% in 2016. Over the same time, the proportion of married women using modern contraceptive methods has held steady (55% in 1998 and 54% in 2016). The total demand for contraceptive methods among married women has decreased from 73% in 1998 to 69% in 2016. The percentage of the demand for family planning that is satisfied with modern contraceptive methods has increased slightly, from 76% in 1998 to 78% currently.

Figure 2 **Comparison of unmet need, modern contraceptive use, and percentage of demand satisfied with modern methods, 1998 and 2016**

Percent of currently married women[1] age 15-49



[1] Currently married or living together as if married

3.8 EARLY CHILDHOOD MORTALITY

Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life (UNDP 2007). Estimates of childhood mortality are based on information collected in the birth history section of the questionnaire administered to women, which includes questions about women's aggregate childbearing experiences (i.e., the number of sons and daughters who live with their mother, the number who live elsewhere, and the number who have died). Table 8 presents estimates for three successive 5-year periods prior to the SADHS 2016. The rates are estimated based on mothers' reports and have not been adjusted. Rather, the information in the birth history on a child's birth date, survivorship status, and age at death for children who died, 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.

As shown in Table 8, during the 5 years immediately preceding the survey, the infant mortality rate was 35 deaths per 1,000 live births. The child mortality rate was 7 deaths per 1,000 children surviving to age 12 months, but dying before reaching age 5, while the overall under-5 mortality rate was 42 deaths per 1,000 live births. The neonatal mortality rate was 21 deaths per 1,000 live births. The postneonatal mortality rate was 14 deaths per 1,000 live births. The SADHS 2016 indicates that under-5 mortality rates have declined from 58 deaths per 1,000 live births in the 10-14 years before the survey (corresponding approximately to

the years 2001-2006) to 42 deaths per 1,000 live births in the 5 years prior to the SADHS 2016 survey (corresponding approximately to the years 2011-2016).

Table 8 Early childhood mortality rates

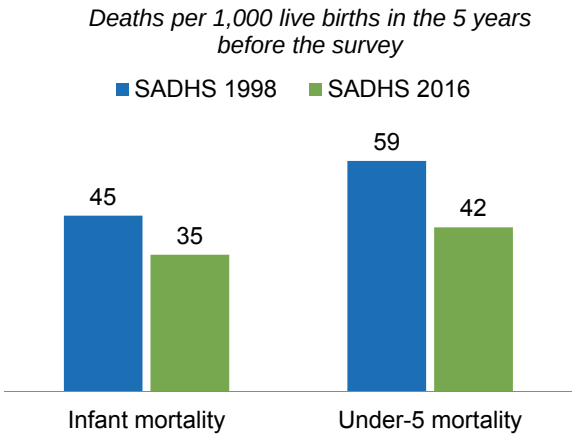
Neonatal, postneonatal, infant, child and under-5 mortality rates for 5-year periods preceding the survey, South Africa DHS 2016

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	21	14	35	7	42
5-9	29	23	51	10	60
10-14	21	22	44	15	58

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

Figure 3 presents a comparison of childhood mortality, as assessed through the 1998 and SADHS 2016 surveys. According to the SADHS 1998, the under-5 mortality rate was 59 deaths per 1,000 live births during the 5 years preceding the survey compared with 42 deaths per 1,000 live births in the 5 years prior to the SADHS 2016. Infant mortality decreased from 45 deaths per 1,000 live births to 35 deaths per 1,000 live births in the same period.

***Figure 3* Comparison of childhood mortality, 1998 and 2016**



3.9 MATERNAL CARE

In the SADHS 2016, women who had given birth in the 5 years preceding the survey were asked questions about maternal care. Mothers were asked whether they had obtained antenatal care during the pregnancy for their most recent live birth in the 5 years preceding the survey and whether they had received tetanus toxoid injections while pregnant. For each live birth over the same period, mothers were also asked what type of assistance they received at the time of delivery. Finally, women who had a live birth in the 2 years before the survey were asked if they had received a postnatal check during the first 2 days after birth. Table 9 summarises information on the coverage of these maternal health services.

3.9.1 Antenatal Care

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, delivery, and the postnatal period (within 42 days after delivery). The SADHS 2016 results show that 94% of women who gave birth in the 5 years preceding the survey received antenatal care from a skilled provider at least once for their last birth. Three-quarters of women had four or more ANC visits (76%).

Non-urban women were more likely than urban women to have received ANC from a skilled provider (96% and 92%, respectively) and to have had four or more ANC visits (80% and 73%, respectively). The use of ANC services is strikingly lower in Gauteng than other provinces; only 90% of women from Gauteng received ANC from a skilled provider and only 62% reported four or more ANC visits. While there is no clear pattern in use of ANC services by a skilled provider by education or wealth, the percentage of women who attended four or more ANC visits increases by wealth.

3.9.2 Tetanus Toxoid Vaccination

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, a major cause of early infant death in many developing countries, often due to failure to observe hygienic procedures during delivery. Although the national policy of South Africa is that pregnant women should be vaccinated with tetanus toxoid to prevent neonatal tetanus, death from neonatal tetanus in South Africa is rare (Stats SA 2017); indeed, the province of Western Cape has not been implementing the national policy for years.

Table 9 shows that only 35% of women received sufficient doses of tetanus toxoid to protect their last birth against neonatal tetanus. The percentage of women whose last birth was protected from tetanus is low across all background characteristics, but shows the greatest degree of variability by province. Only 6% of women in Western Cape received the number of tetanus toxoid vaccinations recommended to protect their birth from tetanus compared with 29%-41% in other provinces. This finding is in keeping with the Western Cape province's policy of not routinely providing tetanus toxoid vaccination during antenatal care.

3.9.3 Delivery Care

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother, baby, or both (Van Lerberghe and De Brouwere 2001; WHO 2006). Ninety-seven percent of live births in the 5 years preceding the survey were delivered by a skilled provider and most of them (96% of live births) were delivered in a health facility.

Births to mothers under age 20 were more likely to be assisted by a skilled provider (98%) and delivered in a health facility (98%) than births to women age 35-49 (94% each). Mothers' educational status is highly associated with whether their delivery is assisted by a skilled provider and whether the birth is delivered in a health facility. For example, 89% of births to mothers with no education were assisted by a skilled provider and 86% were delivered in a health facility, as compared with 98% and 99%, respectively, of births to mothers with more than a secondary education. A similar relationship was observed with wealth.

3.9.4 Postnatal Care for the Mother

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programmes recommend that all women receive a check of their health and their babies' health within 2 days after delivery.

To assess the extent of postnatal care utilisation, respondents were asked, for their last birth in the 2 years preceding the survey, whether they had received a check after delivery and the timing of the first check. As shown in Table 9, 84% of women reported having received a PNC check during the first 2 days after birth.

The proportion of women receiving a postnatal check within 2 days of delivery is higher in urban areas than non-urban areas (85% and 81%, respectively) but shows no clear relationship with either education or wealth.

Table 9 Maternal care indicators

Among women age 15-49 who had a live birth in the 5 years preceding the survey, percentage who received antenatal care from a skilled provider for the most recent live birth, percentage with four or more ANC visits for the most recent live birth, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births in the 5 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15-49 who had a live birth 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, South Africa DHS 2016

	Women who had a live birth in the 5 years preceding the survey				Live births in the 5 years preceding the survey			Women who had a live birth in the 2 years preceding the survey	
Background characteristic	Percentage receiving antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage whose most recent live birth was protected against neonatal tetanus[2]	Number of women	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	94.7	74.4	39.8	432	97.8	97.5	549	82.6	202
20-34	93.5	76.6	34.3	2,200	96.9	96.0	2,574	82.7	1,002
35-49	93.4	70.6	35.0	404	94.4	93.6	449	89.3	182
Residence									
Urban	92.4	73.1	34.6	1,942	97.9	97.1	2,281	85.2	872
Non-urban	95.9	79.7	36.2	1,094	94.6	93.9	1,291	80.8	514
Province									
Western Cape	94.3	88.7	6.1	276	99.2	98.8	313	90.8	118
Eastern Cape	98.5	81.5	29.2	335	92.7	91.3	398	86.7	163
Northern Cape	92.8	74.8	30.3	61	97.6	97.3	69	82.3	27
Free State	94.0	77.8	40.7	145	96.3	96.0	164	90.8	60
KwaZulu-Natal	94.5	77.0	41.1	555	96.4	95.4	654	80.1	258
North West	97.2	89.0	40.6	244	96.0	95.4	282	84.5	106
Gauteng	89.9	62.0	40.5	842	97.6	96.9	1,013	80.8	385
Mpumalanga	91.7	72.6	40.4	278	96.4	95.3	332	80.5	127
Limpopo	95.8	82.4	31.5	301	97.8	97.5	347	87.1	144
Mother's education									
No education	(97.3)	(73.2)	(42.0)	42	88.5	85.9	50	*	18
Primary incomplete	93.7	73.1	35.8	141	90.4	89.8	182	75.8	60
Primary complete	90.4	70.4	31.8	108	95.1	94.6	138	65.5	50
Some secondary	93.4	74.8	36.2	1,486	96.1	95.4	1,762	85.2	706
Secondary complete	93.5	75.1	35.1	908	98.8	97.2	1,043	82.0	397
More than secondary	95.8	82.2	30.8	351	98.4	99.4	397	88.3	155
Wealth quintile									
Lowest	93.7	70.0	35.4	650	92.6	91.6	787	80.6	312
Second	92.8	74.8	34.7	739	96.3	95.2	865	80.4	326
Middle	94.1	77.8	35.8	671	98.4	98.2	788	87.1	291
Fourth	95.3	76.7	37.3	557	98.5	96.9	657	84.8	269
Highest	92.4	80.0	31.7	418	98.9	99.4	476	86.8	189
Total	**93.7**	**75.5**	**35.2**	**3,036**	**96.7**	**95.9**	**3,572**	**83.6**	**1,386**

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.

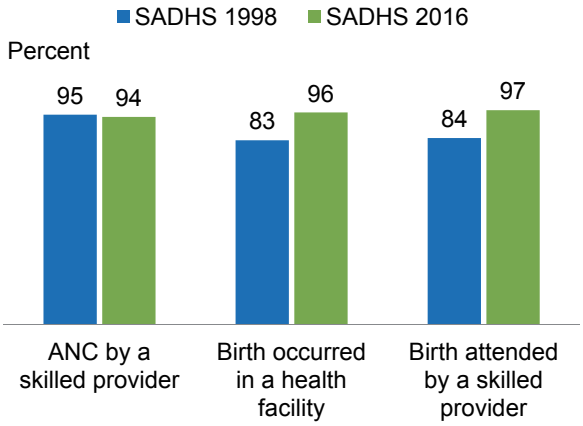
[1] Skilled provider includes doctor/gynaecologist or nurse/midwife

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

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

Figure 4 provides a comparison of key maternal health indicators measured in both the 1998 and SADHS 2016. While the percentage of women receiving antenatal care from a skilled provider in 2016 is unchanged relative to the SADHS 1998 (94% and 95%, respectively), both the percentage of births delivered by a skilled provider (84% in 1998 and 97% in 2016) and the percentage delivered in a health facility (83% in 1998 and 96% in 2016) have increased markedly.

Figure 4 **Comparison of maternal health care, 1998 and 2016**



3.10 CHILD HEALTH AND NUTRITION

The SADHS 2016 collected data on a number of key child health indicators, including vaccinations of young children, nutritional status as assessed by anthropometry, infant feeding practices, and treatment practices when a child is ill.

3.10.1 Vaccination of Children

Universal immunisation of children against common vaccine-preventable diseases is crucial to reducing infant and child mortality. In South Africa, routine childhood vaccines protect against tuberculosis (BCG vaccine), diphtheria, tetanus, pertussis (DTaP vaccine), polio (oral polio vaccine [OPV] or inactivated polio vaccine [IPV]), *Haemophilus influenzae* type b (Hib vaccine), hepatitis B (HepB vaccine), *Streptococcus pneumoniae* (pneumococcal conjugate vaccine [PCV]), rotavirus (rotavirus vaccine [RV]), and measles (measles vaccine). The SADHS 2016 collected information on the coverage of all of these vaccines among children born in the 3 years preceding the survey. The information obtained in the survey on differences in vaccination coverage among subgroups of children is useful for programme planning and targeting resources towards areas most in need.

Historically, an important measure of vaccination coverage has been the proportion of children age 12-23 months who had received all 'basic' vaccinations. Children are considered to have received all basic vaccinations when they have received the BCG vaccine, three doses each of the DTaP and polio vaccines, and a single dose of the measles vaccine. In South Africa, the BCG vaccine is usually given at birth or at first clinic contact, while the DTaP and polio vaccines are given in combination with Hib (DTaP-IPV-Hib) at approximately age 6, 10, and 14 weeks.[5] A first measles vaccination should have been given at or soon after age 9 months.[6]

A second, more critical, measure of vaccination coverage is the proportion of children age 12-23 months and 24-35 months who have received all age-appropriate vaccinations. The South African immunisation programme considers a child age 12-23 months to have received all age-appropriate vaccinations if the child has received all basic vaccinations, doses of OPV at birth and at 6 weeks, three doses of the HepB vaccine (given at age 6, 10, and 14 weeks), three doses of PCV (given at age 6 and 14 weeks, and 9 months), and two doses of RV (given at age 6 and 14 weeks). A child who is age 24-35 months has received all age-appropriate vaccinations if they have received a fourth dose of DTaP-IPV-Hib and a second dose of the measles vaccine (both given at 18 months) in addition to all of the age-appropriate vaccinations relevant for a child age 12-23 months.

[5] Effective 1 December 2015, DTaP-IPV-Hib was replaced with DTaP-IPV-Hib-HepB.

[6] Effective 1 December 2015, the recommended schedule of childhood vaccinations changed, and children born after that date should receive the first dose of the measles vaccine at 6 months and the second dose at 12 months. However, given the timing of the SADHS fieldwork, children eligible for the new vaccination schedule would be too young to be part of the 12-23 or 24-35 month age cohorts that are presented in Table 10.

Information on vaccination coverage was obtained in two ways in the SADHS 2016: from written vaccination records, including the Road-to-Health booklet and other health cards, and from mothers' verbal reports. In the SADHS, for each child born in the 3 years before the survey, mothers were asked to show the interviewer the Road-to-Health booklet or health card used for recording the child's immunisations. If the Road-to-Health booklet or other health card was available, the interviewer copied the dates of each vaccination received. If a vaccination was not recorded in the Road-to-Health booklet or on the card as being given, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present the Road-to-Health booklet or card for a child, she was asked to recall whether the child had received BCG, polio, DTaP-IPV-Hib, hepatitis B, pneumococcal, rotavirus, and measles vaccines. If she indicated that the child had received any of these vaccines, she was asked the number of doses that the child received. In the SADHS 2016, the Road-to-Health booklet or card was observed for 66% of the children age 12-23 months and 60% of the children age 24-35 months for whom vaccination data were obtained.

Table 10 presents data on vaccination coverage among children age 12-23 months and 24-35 months, by background information. Children age 12-23 months are the youngest cohort to have reached the age by which a child should have received all basic vaccinations. Table 10 shows that 61% of children age 12-23 months received all basic vaccinations, and 53% received all age-appropriate vaccinations. Coverage for North West, Gauteng and Mpumalanga provinces were below the national average. In addition, the proportion of children who received all basic vaccinations was lower for girls than boys (59% versus 64%) and was lower for those living in urban areas compared with non-urban areas (59% versus 64%). Only 5% of children had not received any vaccinations. Ninety-three percent of children received the BCG vaccination, 92% the birth dose of polio, 91% the first dose of DTaP-IPV-Hib, 90% the first dose of HepB vaccine, 89% the first dose of PCV, and 88% the first dose of RV. Eighty-six percent of children have received a measles vaccination. Coverage rates decline for subsequent doses, with 78% of children receiving the second dose of OPV, 65% receiving the recommended three doses of DTaP-IPV-Hib and HepB vaccines, 62% the three doses of the PCV, and 70% the two doses of RV.

Among children age 24-35 months, 48% have received the fourth dose of DTaP-IPV-Hib and 59% have received the second dose of the measles vaccine. Overall, only 42% of children in this older cohort have received all age-appropriate vaccinations. Coverage was lowest in Gauteng (36%) and North West (32%) provinces. The proportion with all age-appropriate vaccinations was lower for girls than boys (40% versus 44%), and was lower for those living in urban areas than in non-urban areas (39% versus 46%).

Table 10 Vaccinations by background characteristics

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage with all basic vaccinations, and percentage with all age appropriate vaccinations, according to background characteristics, South Africa DHS 2016

	Children age 12-23 months																		Children age 24-35 months			
		Polio[1] (OPV)		DTaP-IPV-Hib			HepB			Pneumococcal			Rotavirus									
Background characteristic	BCG	0	1	1	2	3	1	2	3	1	2	3	1	2	Measles 1	All basic vaccinations[2]	All age appropriate vaccinations[3]	No vaccinations	Number of children	DTaP-IPV-Hib 4	Measles 2	All age appropriate vaccinations[3]	Number of children
Sex																							
Male	93.9	93.4	78.7	93.1	78.6	67.1	91.9	75.3	68.0	90.7	74.7	63.1	89.1	71.3	88.0	63.5	53.2	3.8	358	49.4	61.7	43.8	346
Female	90.9	91.0	76.4	89.0	71.7	62.6	88.3	71.2	61.6	86.4	70.4	60.6	87.4	68.8	84.1	58.7	52.3	6.9	319	46.6	56.5	39.7	314
Birth order																							
1	90.2	91.0	74.8	90.2	72.0	63.6	89.1	69.4	63.3	87.8	68.8	62.4	87.1	67.8	84.6	59.9	52.8	6.1	247	46.6	58.2	40.3	256
2-3	94.5	93.1	79.8	93.6	77.6	67.0	92.0	77.2	67.3	89.7	74.3	62.3	89.0	71.5	87.5	63.8	54.2	4.8	333	49.7	59.4	42.4	319
4-5	93.1	94.6	78.7	85.7	78.3	63.9	87.2	71.4	64.0	88.5	79.0	64.2	90.7	72.5	89.6	60.0	50.0	2.3	82	59.3	70.7	56.3	62
6+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15	(13.6)	(38.0)	(13.6)	24
Residence																							
Urban	92.7	93.3	76.9	90.4	75.2	62.9	89.7	71.6	62.9	88.2	72.0	60.5	88.7	68.9	86.1	59.1	51.7	5.3	416	45.5	57.7	39.3	414
Non-urban	92.1	90.6	78.7	92.4	75.6	68.4	91.0	76.3	68.4	89.5	73.7	64.2	87.6	72.1	86.1	64.6	54.4	5.2	261	52.5	61.7	46.0	246
Province																							
Western Cape	(91.4)	(88.1)	(91.4)	(89.6)	(78.7)	(70.0)	(86.4)	(73.0)	(64.3)	(84.0)	(70.0)	(60.4)	(91.9)	(66.6)	(77.6)	(67.7)	(49.0)	(6.2)	54	(54.4)	(70.5)	(43.5)	57
Eastern Cape	96.2	94.2	91.0	95.0	85.4	74.3	94.0	86.6	72.2	92.8	84.8	68.7	91.6	83.7	88.6	70.9	57.3	3.1	81	46.8	56.2	44.7	74
Northern Cape	95.8	90.3	84.5	95.8	87.3	80.6	91.6	81.1	78.3	90.8	83.5	75.7	84.1	77.0	84.9	75.4	64.9	4.2	12	56.1	62.8	46.4	12
Free State	(97.8)	(97.8)	(95.8)	(97.8)	(95.7)	(84.8)	(97.8)	(91.6)	(87.6)	(95.7)	(91.0)	(77.2)	(94.7)	(89.3)	(90.7)	(79.5)	(71.3)	(2.2)	25	57.8	73.4	54.5	30
KwaZulu-Natal	91.3	92.2	71.6	91.6	73.5	65.3	91.6	67.4	62.5	90.9	66.2	63.8	91.3	68.6	89.4	62.4	60.1	6.2	135	47.2	59.1	46.0	106
North West	94.5	98.6	74.4	99.2	72.4	65.0	97.0	81.3	64.0	89.7	70.1	51.7	90.6	65.4	85.0	55.7	43.7	0.0	59	46.1	68.1	31.9	58
Gauteng	92.6	91.5	68.5	87.9	69.5	53.6	87.9	68.6	58.7	86.5	71.4	57.4	84.8	67.1	87.7	51.9	45.7	6.6	180	44.8	50.1	36.3	185
Mpumalanga	85.7	87.1	79.7	80.9	74.0	62.9	80.0	69.6	67.6	80.0	68.7	58.8	78.0	65.6	75.0	56.4	50.5	10.4	61	47.4	57.9	42.5	63
Limpopo	92.9	93.4	79.5	94.7	74.0	71.1	92.1	70.9	66.3	93.1	73.3	66.9	90.2	67.7	88.7	66.7	54.9	2.9	69	51.0	64.1	46.5	74
Education																							
No education	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3	*	*	*	7
Primary incomplete	(87.2)	(87.2)	(72.0)	(87.2)	(66.6)	(60.2)	(87.2)	(72.1)	(59.2)	(77.9)	(62.8)	(47.1)	(75.2)	(62.8)	(70.3)	(46.0)	(37.8)	(12.8)	29	(43.5)	(43.6)	(34.1)	36
Primary complete	(97.6)	(100.0)	(71.7)	(83.7)	(51.2)	(51.2)	(83.7)	(52.5)	(50.1)	(83.7)	(50.1)	(40.5)	(83.7)	(51.2)	(73.1)	(45.9)	(40.5)	(0.0)	23	(32.5)	(47.9)	(29.9)	31
Secondary incomplete	91.9	90.7	79.7	90.2	76.9	65.5	89.1	73.3	66.1	87.3	73.5	63.5	87.2	69.5	85.2	61.4	52.4	5.5	364	48.6	60.3	44.3	306
Secondary complete	94.7	95.3	79.9	94.2	78.3	67.9	93.2	78.5	67.8	92.8	77.5	64.2	93.0	76.0	90.6	66.0	56.3	3.0	183	55.3	68.3	46.8	193
More than secondary	90.1	91.7	64.8	91.7	70.2	59.8	90.9	66.7	57.9	90.9	66.0	59.1	87.9	65.8	89.3	57.6	52.7	8.3	75	37.0	44.6	28.2	88
Wealth quintile																							
Lowest	89.1	87.6	83.6	90.1	80.4	72.0	89.1	76.7	71.0	88.2	76.6	68.2	89.0	74.1	85.1	66.5	57.0	6.5	162	42.7	53.7	37.4	130
Second	94.3	93.8	69.0	89.3	64.7	54.8	89.5	68.6	58.7	84.9	67.9	54.5	82.5	64.0	84.6	52.2	45.1	4.2	167	45.4	54.2	41.1	157
Middle	92.5	92.7	79.0	93.7	79.9	68.4	92.8	74.8	65.9	90.7	72.2	65.3	88.7	70.4	87.5	63.5	55.8	5.0	138	47.1	61.3	40.0	171
Fourth	96.6	96.3	88.2	93.2	84.2	67.8	90.4	78.9	67.0	92.2	79.3	61.1	94.7	76.6	87.0	64.9	51.8	3.0	121	66.4	75.3	60.7	98
Highest	89.7	91.6	66.2	89.9	67.0	62.2	89.0	66.5	61.5	89.0	65.9	60.3	88.4	65.0	87.6	60.2	55.9	8.4	88	43.4	55.0	33.7	104
Total	**92.5**	**92.3**	**77.6**	**91.2**	**75.4**	**65.0**	**90.2**	**73.4**	**65.0**	**88.7**	**72.7**	**61.9**	**88.3**	**70.1**	**86.1**	**61.3**	**52.7**	**5.3**	**677**	**48.1**	**59.2**	**41.8**	**660**

Notes: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.

BCG = Bacille Calmette-Guérin; OPV = Oral polio vaccine; DTaP = Diphtheria-tetanus-pertussis; HepB = Hepatitis B; Hib = *Haemophilus influenzae* type b; IPV = Inactivated polio vaccine

[1] Polio 0 is the polio vaccination given at birth.

[2] BCG, three doses of DTaP-IPV-Hib, and one dose of measles vaccine

[3] BCG, two doses of oral polio vaccine, three doses of DTaP-IPV-Hib, three doses of HepB, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of measles vaccine

[4] BCG, two doses of oral polio vaccine, four doses of DTaP-IPV-Hib, three doses of HepB, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and two doses of measles vaccine

3.10.2 Childhood Acute Respiratory Infection, Fever, and Diarrhoea

Acute respiratory infection (ARI), fever, and dehydration from diarrhoea are important contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is therefore crucial in reducing child deaths. In the SADHS 2016, for each child under age 5, mothers were asked if the child had experienced in the 2 weeks preceding the survey an episode of diarrhoea; short, rapid breathing or difficulty breathing as a result of a chest-related problem (symptoms of ARI); or a fever. Respondents were also asked if treatment was sought when the child was ill. Overall, 3% of children under age 5 showed symptoms of ARI, 20% had a fever, and 10% experienced diarrhoea in the 2 weeks preceding the survey (data not shown). It should be noted that the morbidity data collected are subjective because they are based on a mother's perception of illnesses without validation by medical personnel.

Table 11 shows that treatment was sought for 88% of children with ARI symptoms, 68% of those with a fever, and 63% of children with diarrhoea. Fifty-one percent of children with diarrhoea received a rehydration solution from an oral rehydration salt (ORS) packet and 73% received recommended homemade fluids (RHF); 37% of children with diarrhoea were given zinc supplements, while 28% received both zinc supplements and ORS, and 32% received both zinc supplements and RHF.

Table 11 Treatment for acute respiratory infection, fever, and diarrhoea

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhoea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets, percentage given recommended homemade fluids (RHF), percentage given zinc, percentage given ORS and zinc, and percentage given RHF and zinc, according to background characteristics, South Africa DHS 2016

	Children with symptoms of ARI[1]		Children with fever		Children with diarrhoea						
Background characteristic	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Percentage given fluid from ORS packet	Percentage given recom-mended homemade fluids (RHF)	Percentage given zinc	Percentage given ORS and zinc	Percentage given RHF and zinc	Number of children
Age in months											
<6	*	4	(66.3)	43	(36.9)	(27.3)	(24.4)	(15.9)	(12.6)	(3.4)	25
6-11	*	12	66.2	83	66.2	45.8	65.0	35.2	21.3	28.6	53
12-23	*	29	62.2	158	62.4	49.9	82.1	36.7	26.4	31.9	114
24-35	*	23	72.4	137	55.9	49.0	58.1	34.0	29.6	29.4	54
36-47	*	21	77.3	130	79.6	54.4	85.1	48.9	34.0	47.3	58
48-59	*	17	64.9	127	(63.0)	(71.6)	(83.8)	(37.9)	(36.8)	(36.1)	52
Sex											
Male	87.2	63	69.0	363	59.9	52.2	73.5	38.5	30.5	33.8	200
Female	(88.3)	44	67.7	316	67.1	50.5	71.4	34.6	24.6	30.0	157
Residence											
Urban	87.6	73	70.8	447	65.5	53.4	73.0	40.6	32.6	34.9	199
Non-urban	(87.7)	34	63.7	232	60.0	48.9	72.0	31.9	21.9	28.6	157
Province											
Western Cape	*	12	(76.6)	49	*	*	*	*	*	*	16
Eastern Cape	*	16	69.7	97	(63.8)	(43.8)	(66.5)	(18.6)	(12.9)	(13.9)	36
Northern Cape	*	1	(54.3)	7	*	*	*	*	*	*	5
Free State	*	4	(57.5)	23	*	*	*	*	*	*	9
KwaZulu-Natal	*	20	55.0	102	56.4	55.2	69.9	34.7	26.6	30.5	87
North West	*	4	58.6	69	57.9	43.7	77.8	45.0	27.8	41.8	44
Gauteng	*	39	76.4	209	(73.2)	(66.0)	(84.7)	(46.6)	(42.3)	(43.9)	85
Mpumalanga	*	8	73.3	63	(69.3)	(31.9)	(64.5)	(32.9)	(22.7)	(23.3)	33
Limpopo	*	2	66.7	59	57.1	45.4	59.2	24.6	15.9	20.0	41
Mother's education											
No education	*	1	*	11	*	*	*	*	*	*	5
Primary incomplete	*	5	(68.3)	27	(61.6)	(47.3)	(79.1)	(37.9)	(35.5)	(34.7)	29
Primary complete	*	1	*	13	*	*	*	*	*	*	17
Some secondary	91.6	61	68.6	325	58.5	43.7	73.5	33.3	22.7	30.5	173
Secondary complete	*	25	68.2	215	76.9	67.3	73.9	51.2	41.3	43.3	98
More than secondary	*	15	67.2	88	(49.1)	(49.2)	(51.8)	(27.2)	(21.7)	(18.0)	34
Wealth quintile											
Lowest	(81.2)	22	64.0	99	55.1	39.6	67.5	20.6	14.2	14.8	88
Second	*	20	67.3	179	53.7	48.9	80.3	35.7	25.8	34.2	114
Middle	*	19	68.6	159	80.3	54.8	73.9	46.9	38.8	38.9	67
Fourth	*	32	69.3	146	(65.6)	(63.3)	(78.3)	(50.9)	(37.8)	(48.3)	56
Highest	*	14	73.3	96	(77.8)	(65.3)	(45.8)	(39.2)	(33.1)	(29.6)	32
Total	**87.6**	**107**	**68.4**	**679**	**63.0**	**51.4**	**72.5**	**36.8**	**27.9**	**32.1**	**356**

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.
[2] Excludes advice or treatment from a traditional healer

3.10.3 Nutritional Status of Children

Anthropometric indicators for young children based on weight (kg) and height/length (cm) were collected in the SADHS 2016 to provide outcome measures of nutritional status. As recommended by WHO, evaluation of nutritional status in this report is based on a comparison of three indices for the children in this survey, with indices reported for a reference population of well-nourished children (WHO Multicentre Growth Reference Study Group 2006). The three indices (height-for-age, weight-for-height, and weight-for-age) are expressed as standard deviation units from the median for the reference group. Children who fall below minus two standard deviations (-2 SD) from the reference median include those that are moderately and severely (-3 SD) malnourished. Children who fall above two standard deviations (+2 SD) from the reference median are considered over-nourished.

A total of 2,024 children under age 5 were eligible for weight and height measurements. For some of the eligible children, however, the child was absent at the time of data collection, the parent/guardian did not

consent to measurement, or complete and credible data on height, weight, and/or age were not obtained. In this report, height-for-age is based on 73% of eligible children, weight-for-height is based on 72% of eligible children, and weight-for-age is based on 73% of eligible children.

Table 12 shows nutritional status for children under age 5, according to the three anthropometric indices, by background characteristics. Height-for-age is a measure of linear growth. A child who is below -2 SD from the reference median for height-for-age is considered short for his or her age, or stunted, a condition reflecting the cumulative effect of chronic malnutrition.

The data show that 27% of children under 5 are considered short for their age or stunted (below -2 SD), and 10% are severely stunted (below -3 SD) (Table 12).

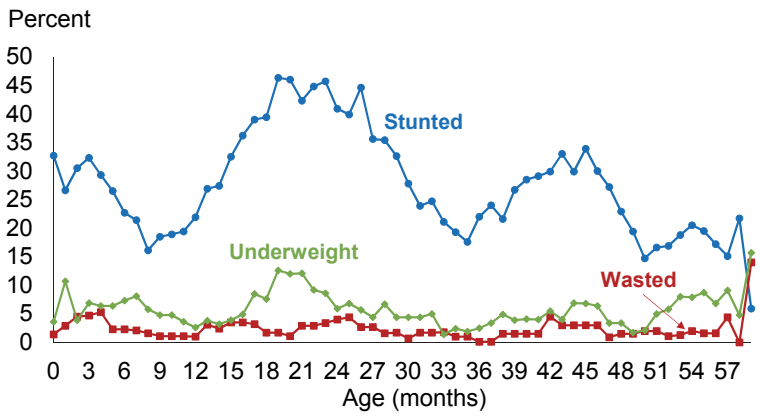
Stunting is higher among male children (30%) than among female children (25%). A mother's education and wealth quintile are both inversely related to stunting levels. For example, stunting generally decreases with increasing wealth quintiles, from 36% among children in the lowest wealth quintile, to 24% among those in the middle wealth quintile, and to 13% of children in the highest wealth quintile.

Weight-for-height describes current nutritional status. A child who is below -2 SD from the reference median for weight-for-height is considered too thin for his or her height, or wasted, a condition reflecting acute or recent nutritional deficits. Overall, 3% of children are wasted. In contrast, 13% percent of children are overweight (weight-for-height greater than +2 SD from the reference median), which is a sign of overnutrition. The prevalence of overweight children is more than twice the global average of 6.1% (International Food Policy Research Institute 2016).

Weight-for-age is a composite index of weight-for-height and height-for-age and thus does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). Children can be underweight for their age because they are stunted, wasted, or both. Weight-for-age is considered to be an overall indicator of a population's nutritional health. The results show that 6% of all children are underweight, and 1% are severely underweight. The proportion of children who are underweight ranges by province, from a low of 3% in Eastern Cape to a high of 13% in North West.

As shown in Figure 5, the prevalence of stunting generally increases with age from 8 months to 23 months before declining by the end of the third year of life (35 months). Children age 18-23 months have the highest proportion of severe stunting (20%). This age group also has the highest proportion of underweight (10%).

Figure 5 Nutritional status of children by age



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. Plotted values are smoothed by a five-month moving average.

Table 12 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, South Africa DHS 2016

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age				
	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months														
<6	18.3	32.3	-1.1	127	0.6	3.3	28.9	1.0	121	2.2	6.7	6.5	-0.1	131
6-8	2.0	16.9	-0.9	50	1.7	1.7	28.6	1.1	52	2.4	4.5	7.0	0.2	53
9-11	8.4	18.3	-0.3	66	1.1	1.8	13.9	0.5	66	0.5	6.0	10.2	0.1	68
12-17	13.5	31.4	-1.0	165	1.5	2.8	12.6	0.5	154	0.7	3.1	7.8	0.1	163
18-23	19.9	42.6	-1.6	133	0.4	1.9	13.8	0.9	130	0.4	10.1	6.7	0.0	132
24-35	10.4	32.9	-1.4	260	0.4	1.8	12.5	0.7	258	0.7	4.9	3.3	-0.2	265
36-47	6.4	27.5	-1.3	298	0.3	1.9	9.4	0.5	301	1.3	5.2	3.4	-0.4	298
48-59	4.4	15.6	-0.9	306	0.2	3.5	8.8	0.4	302	1.5	6.9	1.5	-0.4	306
Sex														
Male	12.6	29.8	-1.2	714	0.7	2.1	15.5	0.7	701	1.2	6.7	5.8	-0.1	721
Female	7.0	25.0	-1.1	691	0.4	2.8	11.0	0.5	683	1.0	5.1	3.3	-0.2	695
Mother's interview status														
Interviewed	10.0	26.5	-1.2	1,075	0.6	2.6	13.8	0.6	1,050	1.1	5.5	4.1	-0.2	1,083
Not interviewed, but in household	6.9	33.6	-1.3	81	2.5	5.7	5.7	0.3	77	4.8	14.0	5.1	-0.4	83
Not interviewed, not in household[3]	9.9	29.3	-1.1	249	0.0	0.9	13.2	0.7	256	0.3	4.9	6.4	-0.1	250
Residence														
Urban	8.9	25.7	-1.1	713	0.6	2.4	13.2	0.6	698	1.2	5.8	4.3	-0.2	721
Non-urban	10.8	29.2	-1.2	691	0.6	2.5	13.4	0.7	686	1.1	6.0	4.8	-0.2	695
Province														
Western Cape	6.6	22.9	-1.0	64	(1.7)	(1.7)	(14.3)	(0.6)	63	3.7	11.9	1.8	-0.2	64
Eastern Cape	8.9	24.8	-1.0	210	0.4	1.5	20.4	0.9	210	0.7	3.4	8.6	0.0	211
Northern Cape	7.3	21.4	-1.0	25	2.1	2.1	4.6	0.1	24	3.9	8.4	6.5	-0.3	25
Free State	10.3	33.5	-1.5	72	1.5	4.6	17.0	0.7	70	2.9	8.0	3.5	-0.2	74
KwaZulu-Natal	13.3	28.5	-1.1	283	0.5	2.5	18.3	0.9	266	1.5	3.8	7.6	0.1	281
North West	5.6	27.4	-1.2	128	0.4	5.9	7.9	0.3	128	1.7	12.6	3.1	-0.5	130
Gauteng	14.4	34.2	-1.4	303	0.2	1.3	11.2	0.5	297	0.2	5.8	2.8	-0.4	304
Mpumalanga	4.6	21.5	-1.1	151	0.5	0.5	8.5	0.6	152	1.3	4.7	2.2	-0.2	154
Limpopo	6.2	21.9	-1.0	168	0.7	4.1	7.9	0.4	173	0.0	4.9	2.1	-0.3	173
Mother's education[4]														
No education	(5.8)	(52.9)	(-1.5)	20	(3.2)	(5.7)	(0.0)	(0.0)	22	(6.0)	(9.3)	(0.0)	(-0.9)	21
Primary incomplete	16.6	35.2	-1.5	65	0.8	2.6	24.7	1.0	64	1.8	1.8	4.0	-0.2	64
Primary complete	(11.2)	(42.9)	(-1.9)	37	(0.0)	(0.0)	(11.5)	(0.7)	35	(0.0)	(5.9)	(1.3)	(-0.4)	37
Some secondary	11.6	31.3	-1.3	559	0.6	3.0	14.0	0.6	549	1.3	7.6	3.8	-0.3	567
Secondary complete	8.2	18.9	-0.8	294	0.4	2.4	13.6	0.6	283	0.6	3.5	5.0	0.1	296
More than secondary	2.9	6.2	-0.7	102	0.0	0.7	10.5	0.4	99	0.0	0.8	4.5	0.0	101
Don't know	7.1	33.3	-1.3	78	2.5	5.9	5.9	0.3	75	4.9	14.4	5.3	-0.4	80
Wealth quintile														
Lowest	14.5	36.3	-1.5	359	0.7	2.0	15.6	0.8	353	1.5	4.7	3.6	-0.3	358
Second	8.7	29.4	-1.2	340	0.5	4.1	13.3	0.5	337	1.2	8.5	5.4	-0.3	348
Middle	8.0	23.9	-1.1	341	0.8	2.6	11.3	0.5	339	1.2	5.6	2.9	-0.2	344
Fourth	11.1	24.5	-0.8	230	0.4	1.8	14.9	0.6	221	0.5	5.8	9.2	0.1	229
Highest	2.4	12.5	-0.7	135	0.1	0.1	9.3	0.5	133	0.9	3.2	1.3	-0.1	137
Total	**9.8**	**27.4**	**-1.1**	**1,404**	**0.6**	**2.5**	**13.3**	**0.6**	**1,384**	**1.1**	**5.9**	**4.5**	**-0.2**	**1,416**

Notes: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards. Figures in parentheses are based on 25-49 unweighted cases

[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.

[2] Includes children who are below -3 standard deviations (SD) from the WHO Growth Standards population median

[3] Includes children whose mothers are deceased

[4] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

3.10.4 Infant and Young Child Feeding Practices

Breastfeeding is sufficient and beneficial for infant nutrition in the first 6 months of life. Breastfeeding immediately after birth also helps the uterus contract, hence reducing the mother's postpartum blood loss. Supplementing breast milk before the child is age 6 months is discouraged because it may inhibit breastfeeding and expose the infant to illness. At a later stage of the baby's development, breast milk should be supplemented by other liquids and eventually by solid or mushy food to provide adequate nourishment (PAHO 2002).

The SADHS 2016 collected data on infant and young child feeding (IYCF) practices for all children born in the 2 years preceding the survey. Table 13 shows breastfeeding practices by child's age. Thirty-two percent of infants under age 6 months are exclusively breastfed. Contrary to the recommendation that children under age 6 months be exclusively breastfed, 14% of infants consume plain water, 1% consume non-milk liquids, 11% consume other milk, and 18% consume complementary foods in addition to breast milk; 25% of infants under age 6 months are not breastfed at all. The percentage of children exclusively breastfed decreases with age from 44% of infants age 0-1 month to 24% of infants age 4-5 months. Forty-five percent of infants under age 6 months are fed using a bottle with a nipple, a practice that is discouraged because of the risk of illness to the child.

It is recommended to continue breastfeeding a child until age 2. The proportion of children who are currently breastfeeding decreases with increasing child age from 47% among children age 12-17 months to 19% among children age 18-23 months.

The percentage of children under 6 months who are exclusively breastfeeding has risen since 1998 (7% in 1998 versus 32% in 2016).

Table 13 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status; percentage currently breastfeeding; and percentage of all children under age 2 using a bottle with a nipple, according to age in months, South Africa DHS 2016

	Breastfeeding status										
Age in months	Not breast-feeding	Exclusively breast-feeding	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under age 2 living with the mother	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	19.2	44.0	14.0	1.2	14.9	6.7	100.0	80.8	110	47.3	115
2-3	28.9	28.2	6.7	0.4	11.0	24.9	100.0	71.1	110	52.2	120
4-5	27.2	23.7	19.5	0.4	8.5	20.8	100.0	72.8	125	35.4	128
6-8	40.8	4.9	0.7	1.3	5.1	47.2	100.0	59.2	146	55.0	165
9-11	42.5	0.0	0.0	0.0	2.1	55.4	100.0	57.5	143	52.2	160
12-17	53.3	0.4	0.3	0.0	0.1	46.0	100.0	46.7	311	50.0	360
18-23	81.5	0.1	0.0	0.0	0.0	18.4	100.0	18.5	267	38.5	317
0-3	24.0	36.1	10.3	0.8	13.0	15.8	100.0	76.0	221	49.8	235
0-5	25.2	31.6	13.6	0.6	11.4	17.6	100.0	74.8	345	44.7	363
6-9	40.4	3.7	0.6	0.9	5.3	49.1	100.0	59.6	194	55.3	215
12-15	48.6	0.6	0.4	0.0	0.2	50.3	100.0	51.4	201	55.7	231
12-23	66.4	0.2	0.1	0.0	0.1	33.2	100.0	33.6	578	44.6	677
20-23	87.0	0.0	0.0	0.0	0.0	13.0	100.0	13.0	161	43.4	189

Note: Breastfeeding status refers to a 24-hour period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only, consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfeeding, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category, even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Non-milk liquids include juice, juice drinks, or other liquids.

The minimum acceptable diet indicator is used to assess the proportion of children age 6-23 months who meet minimum standards with respect to IYCF practices. Specifically, children age 6-23 months who have a minimum acceptable diet meet all three IYCF criteria below:

1. Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula; fresh, tinned, or powdered animal milk; or yogurt.

2. Fed with foods from four or more of the following groups: a.) infant formula, milk other than breast milk, and cheese or yoghurt or other milk products; b.) foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c.) vitamin A-rich fruits and vegetables; d.) other fruits and vegetables; e.) eggs; f.) meat, poultry, fish, and shellfish (and organ meats); and g.) legumes and nuts.

3. Fed the minimum recommended number of times per day according to their age and breastfeeding status:

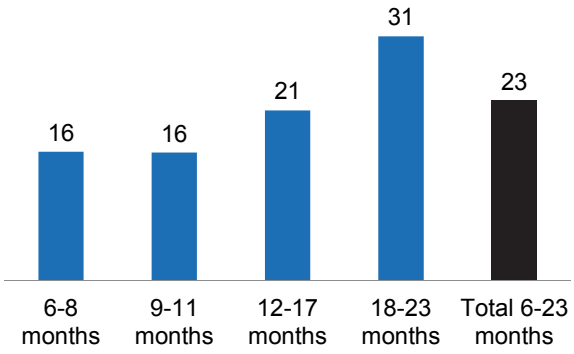
    a. For breastfed children, minimum meal frequency is receiving solid or semisolid food at least twice a day for infants age 6-8 months, and at least three times a day for children age 9-23 months.

    b. For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.

Figure 6 shows the percentage of children being fed the minimum acceptable diet, by age. In total, only 23% of children age 6-23 months have met the criteria for a minimum acceptable diet.

Figure 6 **Minimum acceptable diet by age, in months**

Percentage of children age 6-23 months fed a minimum acceptable diet



3.11 SEXUAL BEHAVIOUR

Information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV. The SADHS 2016 included questions on respondents' sexual partners during the 12 months preceding the survey and during their lifetime. Information was also collected on use of condoms at respondents' last sexual intercourse. These questions are sensitive, and it is recognised that some respondents may have been reluctant to provide information on recent sexual behaviour. Results are shown in Table 14.1 for women and Table 14.2 for men.

Overall, 5% of women reported that they had two or more partners in the past 12 months, and 45% had intercourse in the past 12 months with a person who was neither their spouse nor lived with them. Among women who had two or more partners in the past 12 months, 58% reported using a condom during their last sexual intercourse. Among women who had intercourse with a person who was neither their spouse nor lived with them, 60% used a condom at their last sexual intercourse. The mean number of lifetime partners among all women who have ever had sexual intercourse is 3.9.

Seventeen percent of men age 15-49 reported that they had two or more partners in the past 12 months, and 55% had intercourse in the past 12 months with a person who was neither their spouse nor lived with them. Among men who had two or more partners in the past 12 months, 65% reported using a condom during their last sexual intercourse. Among men who had intercourse with a person who was neither their spouse nor lived with them, 69% used a condom at their last sexual intercourse. The mean number of lifetime partners among all men age 15-49 who have ever had sexual intercourse is 14.7.

Table 14.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women

Among all women age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their spouse nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among women age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their spouse nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, South Africa DHS 2016

	All women			Women who had 2+ partners in the past 12 months		Women who had intercourse in the past 12 months with a person who was neither their spouse nor lived with them		Women who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their spouse nor lived with them	Number of women	Percentage who reported using a condom during last sexual inter-course	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age									
15-24	4.6	52.1	2,842	61.4	132	62.3	1,479	2.9	1,874
15-19	2.7	37.9	1,427	54.8	38	63.8	541	1.9	618
20-24	6.6	66.3	1,415	64.0	94	61.5	938	3.4	1,256
25-29	6.9	58.4	1,444	63.3	99	58.1	843	4.0	1,360
30-39	4.9	40.5	2,406	51.5	118	58.5	975	4.8	2,276
40-49	2.0	27.2	1,823	(48.5)	37	59.7	496	3.7	1,696
Marital status									
Never married	5.5	66.8	4,992	62.9	276	60.4	3,333	4.1	3,826
Married/living together	2.6	6.0	3,050	37.0	80	48.1	182	3.4	2,948
Divorced/separated/ widowed	6.6	58.9	472	(63.9)	31	63.3	278	5.4	432
Residence									
Urban	4.6	42.1	5,731	61.2	263	63.5	2,411	4.0	4,847
Non-urban	4.4	49.7	2,783	50.1	123	54.0	1,382	3.5	2,359
Province									
Western Cape	2.5	30.7	995	*	25	49.8	306	3.2	829
Eastern Cape	6.2	51.6	938	54.6	58	54.2	484	3.8	843
Northern Cape	1.8	39.9	173	*	3	56.9	69	4.0	144
Free State	4.2	41.5	442	(47.4)	18	70.2	183	4.3	372
KwaZulu-Natal	5.2	50.8	1,616	57.8	84	60.2	822	3.0	1,289
North West	7.7	48.2	570	57.0	44	61.0	275	5.7	515
Gauteng	3.6	42.6	2,284	(61.6)	83	65.7	974	4.5	1,961
Mpumalanga	6.6	46.5	671	53.0	44	58.5	312	4.1	569
Limpopo	3.3	44.8	824	(60.8)	27	57.1	369	2.8	683
Education									
No education	3.6	34.9	168	*	6	42.6	59	4.5	152
Primary incomplete	3.0	37.7	447	*	13	50.4	168	3.6	394
Primary complete	4.2	34.4	327	*	14	50.7	113	3.8	268
Secondary incomplete	4.7	44.6	4,195	58.5	195	59.7	1,870	4.1	3,334
Secondary complete	4.6	49.6	2,369	69.7	108	62.5	1,175	3.5	2,155
More than secondary	4.9	40.5	1,008	33.5	50	63.7	408	3.9	902
Wealth quintile									
Lowest	4.2	46.9	1,648	47.5	69	49.4	773	3.7	1,407
Second	5.5	48.6	1,715	59.9	94	59.8	834	3.7	1,493
Middle	5.1	49.1	1,805	54.0	93	60.7	885	4.1	1,546
Fourth	5.3	46.9	1,763	65.4	93	67.1	828	4.3	1,483
Highest	2.4	29.9	1,583	(60.1)	38	64.5	473	3.5	1,276
Total	**4.5**	**44.6**	**8,514**	**57.6**	**387**	**60.0**	**3,793**	**3.9**	**7,205**

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Means are calculated after excluding respondents who gave non-numeric responses.

Table 14.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, percentage who had sexual intercourse with more than one sexual partner in the past 12 months, and percentage who had intercourse in the past 12 months with a person who was neither their spouse nor lived with them; among those having more than one partner in the past 12 months, percentage reporting that a condom was used during last intercourse; among men age 15-49 who had sexual intercourse in the past 12 months with a person who was neither their spouse nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, South Africa DHS 2016

	All men			Men who had 2+ partners in the past 12 months		Men who had intercourse in the past 12 months with a person who was neither their spouse nor lived with them		Men who ever had sexual intercourse[1]	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who was neither their spouse nor lived with them	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15-24	20.7	62.4	1,235	72.9	256	75.9	770	8.9	824
15-19	15.7	44.4	647	87.9	101	80.8	287	5.7	322
20-24	26.2	82.1	588	63.0	154	73.0	483	11.0	502
25-29	19.8	67.9	506	66.0	100	69.5	343	15.0	429
30-39	17.0	53.6	845	55.5	144	61.7	453	19.3	743
40-49	7.2	33.1	616	(51.4)	44	54.2	204	17.1	492
Marital status									
Never married	19.5	72.3	2,073	71.6	404	69.9	1,499	13.3	1,510
Married/living together	10.7	16.1	988	42.0	106	60.6	159	15.6	850
Divorced/separated/ widowed	23.9	79.6	141	(62.9)	34	61.3	112	24.7	128
Type of union									
In polygynous union	*	*	15	*	9	*	5	*	14
Not in polygynous union	10.0	16.0	970	41.6	97	61.9	155	15.4	835
Not currently in union	19.7	72.7	2,217	70.9	438	69.3	1,611	14.2	1,639
Residence									
Urban	16.0	54.0	2,203	67.0	353	68.3	1,189	17.0	1,751
Non-urban	19.1	58.2	999	62.1	190	69.1	581	9.2	737
Province									
Western Cape	11.3	36.2	328	*	37	73.6	119	8.3	257
Eastern Cape	18.0	65.8	362	60.4	65	60.5	238	9.8	286
Northern Cape	8.5	51.4	61	*	5	71.8	31	9.8	42
Free State	22.6	59.2	159	71.4	36	74.0	94	16.5	115
KwaZulu-Natal	13.6	58.8	521	73.5	71	63.5	306	10.0	347
North West	18.4	54.0	237	52.9	44	83.4	128	12.1	199
Gauteng	17.3	54.6	984	67.8	170	66.7	537	23.5	794
Mpumalanga	18.1	57.1	263	67.8	48	72.3	150	12.9	236
Limpopo	23.7	57.9	288	57.4	68	73.1	167	8.2	212
Education									
No education	8.9	38.6	62	*	6	(66.5)	24	13.1	54
Primary incomplete	8.6	37.5	219	*	19	58.6	82	13.1	156
Primary complete	10.8	46.0	166	*	18	51.4	76	11.1	120
Secondary incomplete	18.6	58.3	1,637	65.9	305	70.2	954	14.8	1,236
Secondary complete	15.4	55.9	773	71.1	119	70.5	432	14.5	635
More than secondary	22.4	58.5	345	62.8	77	67.5	202	17.2	287
Wealth quintile									
Lowest	13.1	55.5	618	65.9	81	63.9	343	12.8	486
Second	18.3	57.6	682	62.0	125	66.0	393	12.4	532
Middle	19.4	58.7	715	64.5	138	68.4	420	18.5	565
Fourth	20.0	59.5	653	68.9	130	72.3	388	15.6	509
Highest	13.0	42.4	534	(65.3)	69	73.8	226	13.5	396
Total 15-49	**17.0**	**55.3**	**3,202**	**65.3**	**544**	**68.5**	**1,770**	**14.7**	**2,488**
50-59	4.6	20.2	416	(50.2)	19	56.2	84	12.9	312
Total 15-59	**15.5**	**51.3**	**3,618**	**64.8**	**563**	**68.0**	**1,855**	**14.5**	**2,800**

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Means are calculated after excluding respondents who gave non-numeric responses.

3.12 COVERAGE OF HIV TESTING SERVICES

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain disease free. Among those who are HIV infected, knowledge of their status allows them to access treatment and take action to protect their sexual partners.

To assess awareness and coverage of HIV testing services, respondents were asked whether they had ever been tested for HIV. If they said that they had been tested, they were asked whether they had received the results of their last test and where they had been tested. If they had never been tested, they were asked whether they knew a place where they could go to be tested.

Tables 15.1 and 15.2 show that the majority of respondents age 15-49 (93% of women and 94% of men) knew of a place where they could get an HIV test. Younger respondents age 15-19 were less likely than those age 20-49 to know a place where they could go to be tested. Never-married respondents who had never had sex were less likely than others to know a place to get an HIV test. Knowledge of a place to get an HIV test generally increases with wealth.

Tables 15.1 and 15.2 also show coverage of HIV testing services. Among respondents age 15-49, a larger proportion of men (29%) than women (17%) had never been tested. Most of those who had been tested said that they had received the results of the last test they took. Overall, 82% of women and 69% of men had ever been tested and had received the results of their last test. Fifty-nine percent of women and 45% of men age 15-49 had been tested in the 12-month period preceding the survey and had been told the results of the last test they took.

Table 15.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the past 12 months and received the results of the last test, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	89.2	66.7	1.5	31.9	100.0	68.1	52.5	2,842
15-19	85.6	49.1	1.4	49.5	100.0	50.5	38.4	1,427
20-24	92.9	84.3	1.5	14.2	100.0	85.8	66.7	1,415
25-29	96.0	90.8	2.0	7.2	100.0	92.8	68.4	1,444
30-39	95.8	91.0	1.9	7.1	100.0	92.9	63.2	2,406
40-49	94.2	86.4	1.6	12.0	100.0	88.0	54.0	1,823
Marital status								
Never married	91.9	76.3	1.5	22.2	100.0	77.8	56.1	4,992
Ever had sex	94.9	86.9	1.8	11.4	100.0	88.6	64.3	3,989
Never had sex	80.3	34.1	0.7	65.2	100.0	34.8	23.4	1,003
Married or living together	95.0	89.7	1.9	8.4	100.0	91.6	62.2	3,050
Divorced/separated/ widowed	96.6	90.1	2.3	7.7	100.0	92.3	61.0	472
Residence								
Urban	93.5	82.2	1.7	16.1	100.0	83.9	57.1	5,731
Non-urban	92.9	81.1	1.7	17.1	100.0	82.9	61.5	2,783
Province								
Western Cape	93.3	82.4	2.3	15.3	100.0	84.7	62.0	995
Eastern Cape	97.4	86.4	1.6	12.1	100.0	87.9	59.3	938
Northern Cape	92.8	81.0	1.6	17.4	100.0	82.6	52.3	173
Free State	96.1	83.9	1.4	14.7	100.0	85.3	58.3	442
KwaZulu-Natal	91.0	80.8	0.7	18.5	100.0	81.5	58.3	1,616
North West	97.9	84.0	3.6	12.4	100.0	87.6	61.4	570
Gauteng	91.2	79.9	1.6	18.5	100.0	81.5	54.1	2,284
Mpumalanga	97.4	85.7	2.6	11.7	100.0	88.3	61.6	671
Limpopo	91.3	77.8	1.6	20.6	100.0	79.4	63.2	824
Education								
No education	91.2	77.6	0.3	22.1	100.0	77.9	52.5	168
Primary incomplete	89.6	76.3	3.2	20.5	100.0	79.5	53.9	447
Primary complete	90.4	76.0	1.8	22.2	100.0	77.8	50.9	327
Secondary incomplete	92.5	77.7	1.7	20.6	100.0	79.4	56.3	4,195
Secondary complete	94.8	87.6	1.6	10.8	100.0	89.2	63.2	2,369
More than secondary	96.4	90.5	1.6	7.9	100.0	92.1	62.3	1,008
Wealth quintile								
Lowest	90.8	78.9	1.6	19.4	100.0	80.6	60.7	1,648
Second	92.7	82.0	2.1	15.9	100.0	84.1	59.3	1,715
Middle	94.0	84.5	1.2	14.3	100.0	85.7	61.2	1,805
Fourth	95.2	84.0	1.9	14.1	100.0	85.9	58.3	1,763
Highest	93.7	79.3	1.8	19.0	100.0	81.0	52.7	1,583
Total	**93.3**	**81.8**	**1.7**	**16.5**	**100.0**	**83.5**	**58.5**	**8,514**

[1] Includes 'don't know/missing'

Table 15.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men who were tested in the past 12 months and received the results of the last test, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]				
Age								
15-24	90.9	56.2	1.8	42.0	100.0	58.0	38.5	1,235
15-19	87.8	44.7	1.8	53.5	100.0	46.5	28.7	647
20-24	94.4	68.8	1.8	29.4	100.0	70.6	49.3	588
25-29	95.9	77.7	0.8	21.5	100.0	78.5	52.8	506
30-39	95.7	75.4	2.4	22.2	100.0	77.8	48.0	845
40-49	96.8	79.0	3.0	18.0	100.0	82.0	45.3	616
Marital status								
Never married	92.6	62.2	2.0	35.8	100.0	64.2	41.7	2,073
Ever had sex	94.9	69.1	2.1	28.9	100.0	71.1	47.3	1,678
Never had sex	82.6	33.1	1.8	65.1	100.0	34.9	18.1	395
Married or living together	96.7	80.9	2.3	16.8	100.0	83.2	49.9	988
Divorced/separated/ widowed	98.5	86.4	0.4	13.2	100.0	86.8	49.1	141
Residence								
Urban	95.2	72.0	1.8	26.3	100.0	73.7	46.6	2,203
Non-urban	91.8	62.6	2.6	34.8	100.0	65.2	40.2	999
Province								
Western Cape	92.5	73.7	1.6	24.6	100.0	75.4	55.7	328
Eastern Cape	96.1	62.5	2.4	35.0	100.0	65.0	45.6	362
Northern Cape	86.0	62.1	1.3	36.5	100.0	63.5	37.6	61
Free State	95.7	73.6	3.6	22.7	100.0	77.3	52.1	159
KwaZulu-Natal	92.6	72.8	1.8	25.4	100.0	74.6	44.9	521
North West	96.5	73.8	3.8	22.4	100.0	77.6	44.3	237
Gauteng	96.2	69.8	1.6	28.6	100.0	71.4	41.0	984
Mpumalanga	93.6	71.9	1.0	27.1	100.0	72.9	49.7	263
Limpopo	88.3	54.6	2.7	42.7	100.0	57.3	35.0	288
Education								
No education	92.9	77.4	1.2	21.4	100.0	78.6	47.7	62
Primary incomplete	84.8	52.1	7.0	40.9	100.0	59.1	30.7	219
Primary complete	89.4	55.9	3.4	40.7	100.0	59.3	34.4	166
Secondary incomplete	93.7	64.8	1.5	33.7	100.0	66.3	41.1	1,637
Secondary complete	96.3	79.7	1.1	19.3	100.0	80.7	52.5	773
More than secondary	99.3	80.9	3.0	16.1	100.0	83.9	56.5	345
Wealth quintile								
Lowest	91.6	61.2	1.4	37.4	100.0	62.6	40.1	618
Second	92.1	65.5	3.6	30.9	100.0	69.1	42.6	682
Middle	95.1	72.6	1.5	26.0	100.0	74.0	48.1	715
Fourth	96.1	73.7	2.4	23.9	100.0	76.1	50.4	653
Highest	95.7	72.2	1.1	26.7	100.0	73.3	40.4	534
Total 15-49	**94.1**	**69.0**	**2.0**	**28.9**	**100.0**	**71.1**	**44.6**	**3,202**
50-59	91.2	72.3	3.6	24.1	100.0	75.9	40.9	416
Total 15-59	**93.8**	**69.4**	**2.2**	**28.4**	**100.0**	**71.6**	**44.1**	**3,618**

[1] Includes 'don't know/missing'

3.13 CHARACTERISTICS OF RESPONDENTS TO ADULT HEALTH MODULE

Table 16 shows the weighted and unweighted numbers and the weighted percent distributions of women and men age 15 and older who were interviewed using the SADHS adult health module. The characteristics of the population are generally similar to those presented in Table 2, except because there was no upper age limit for eligibility, the age distribution differs. In addition, the percentage of women and men who were never married (50% of women and 53% of men) is lower than for women and men age 15-49 (59% and 65%). Most strikingly, the percentage of respondents with no education is larger than for respondents age 15-49; 8% of women age 15 and older and 5% of men age 15 and older have no education compared with only 2% each of women and men age 15-49.

All women and men who were administered the adult health module were eligible for biomarker collection including anthropometry, blood pressure measurement, and anaemia testing.

Table 16 Background characteristics of respondents who completed the adult health module

Percent distribution of women and men age 15 and older, by selected background characteristics, South Africa DHS 2016

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-24	23.3	1,429	1,416	29.5	1,241	1,307
15-19	11.8	721	730	15.5	651	705
20-24	11.6	708	686	14.0	591	602
25-34	22.7	1,391	1,334	22.9	962	928
35-44	16.7	1,022	989	17.7	744	674
45-54	14.1	866	878	11.7	492	495
55-64	11.4	701	720	9.6	406	413
65+	11.7	719	789	8.6	364	393
Population group						
Black/African	84.4	5,170	5,179	83.9	3,534	3,573
White	5.2	320	258	6.1	257	193
Coloured	8.4	516	607	8.0	335	379
Indian/Asian	1.9	114	77	1.9	82	63
Other	0.1	6	5	0.1	2	2
Marital status						
Never married	50.4	3,085	3,076	52.5	2,209	2,293
Married	25.8	1,582	1,512	29.8	1,255	1,212
Living together	9.8	599	541	10.5	442	416
Divorced/separated	4.6	281	312	4.7	197	179
Widowed	9.5	580	685	2.5	107	110
Residence						
Urban	65.2	3,996	3,361	68.3	2,874	2,324
Non-urban	34.8	2,130	2,765	31.7	1,336	1,886
Province						
Western Cape	11.5	703	474	11.3	476	280
Eastern Cape	11.9	730	798	11.7	493	554
Northern Cape	2.1	127	529	2.0	84	353
Free State	5.3	325	647	4.9	207	384
KwaZulu-Natal	19.4	1,191	968	16.2	683	603
North West	6.5	398	581	7.4	310	504
Gauteng	25.0	1,534	561	29.6	1,245	470
Mpumalanga	7.7	473	705	7.8	326	515
Limpopo	10.5	646	863	9.2	386	547
Education						
No education	8.1	495	586	5.2	217	289
Primary incomplete	10.8	664	743	11.4	481	551
Primary complete	4.8	293	305	5.0	212	240
Secondary incomplete	44.0	2,695	2,718	45.8	1,930	1,913
Secondary complete	21.7	1,328	1,209	21.4	900	828
More than secondary	10.6	652	565	11.2	470	389
Wealth quintile						
Lowest	19.0	1,163	1,237	18.7	787	861
Second	18.8	1,152	1,271	19.9	839	956
Middle	20.3	1,242	1,366	21.2	894	971
Fourth	20.5	1,258	1,277	19.6	827	789
Highest	21.4	1,311	975	20.5	864	633
Total 15+	**100.0**	**6,126**	**6,126**	**100.0**	**4,210**	**4,210**
Total 15-49	**na**	**4,300**	**4,193**	**na**	**3,220**	**3,179**

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

3.14 TOBACCO SMOKING

Overall, 7% of women age 15 and older currently smoke tobacco products, mostly cigarettes (Table 17.1). Coloured and white women have a much higher prevalence of cigarette smoking (38% and 15%, respectively) than black/African and Indian/Asian women (3% each). The prevalence of cigarette smoking among women is much higher in urban areas than in non-urban areas (9% versus 2%) and varies dramatically by province, ranging from highs of 25% in Western Cape and 18% in Northern Cape to lows of 1% in Limpopo and 2% in KwaZulu-Natal. Cigarette smoking correlates with wealth, with the prevalence

increasing from 3% among women in the lowest two wealth quintiles to 10% among women in the highest two quintiles.

Table 17.1 Tobacco smoking: Women

Percentage of women age 15 and older who smoke various tobacco products, and percent distribution of women by smoking frequency, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who smoke:[1]			Smoking frequency			Total	Number of women
	Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	Daily smoker	Occasional smoker[4]	Non-smoker		
Age								
15-24	4.1	1.0	4.4	2.9	2.1	95.1	100.0	1,429
15-19	3.5	1.3	4.0	2.9	1.2	95.9	100.0	721
20-24	4.8	0.8	4.9	2.8	3.0	94.2	100.0	708
25-34	7.1	1.0	7.1	6.5	1.3	92.2	100.0	1,391
35-44	5.8	0.3	5.8	5.9	1.1	93.0	100.0	1,022
45-54	8.5	0.7	9.1	9.4	1.6	89.0	100.0	866
55-64	9.9	1.2	10.1	10.2	1.1	88.7	100.0	701
65+	6.3	0.2	6.5	5.8	2.0	92.2	100.0	719
Population group								
Black/African	3.0	0.6	3.1	2.9	1.2	95.9	100.0	5,170
White	15.0	0.8	15.0	14.4	2.5	83.2	100.0	320
Coloured	38.1	2.1	38.7	35.3	4.3	60.4	100.0	516
Indian/Asian	3.1	2.6	5.7	5.7	1.3	93.0	100.0	114
Other	*	*	*	*	*	*	*	6
Residence								
Urban	9.3	1.1	9.6	8.7	2.1	89.2	100.0	3,996
Non-urban	1.6	0.3	1.7	1.8	0.5	97.7	100.0	2,130
Province								
Western Cape	25.1	1.1	25.3	23.5	2.9	73.6	100.0	703
Eastern Cape	6.8	0.7	6.9	5.6	1.9	92.5	100.0	730
Northern Cape	17.8	2.3	19.4	18.1	3.3	78.6	100.0	127
Free State	5.5	0.3	5.7	7.0	1.0	92.0	100.0	325
KwaZulu-Natal	1.9	0.5	2.1	1.8	0.4	97.7	100.0	1,191
North West	3.5	0.4	3.8	3.5	1.2	95.4	100.0	398
Gauteng	4.5	1.3	4.8	4.7	1.8	93.5	100.0	1,534
Mpumalanga	5.2	0.4	5.2	3.9	2.2	94.0	100.0	473
Limpopo	1.3	0.4	1.3	1.3	0.7	98.0	100.0	646
Education								
No education	7.9	1.4	8.3	9.3	1.3	89.4	100.0	495
Primary incomplete	7.7	0.3	7.7	6.8	3.0	90.3	100.0	664
Primary complete	4.8	0.1	4.9	4.3	0.8	94.9	100.0	293
Secondary incomplete	6.8	0.9	7.2	6.6	1.6	91.8	100.0	2,695
Secondary complete	6.2	1.0	6.2	5.7	0.9	93.4	100.0	1,328
More than secondary	5.3	0.3	5.3	4.5	1.5	94.0	100.0	652
Wealth quintile								
Lowest	3.3	0.4	3.4	3.0	1.9	95.1	100.0	1,163
Second	2.7	0.5	2.7	2.6	1.4	95.9	100.0	1,152
Middle	6.7	0.6	6.8	6.1	1.7	92.2	100.0	1,242
Fourth	10.0	1.0	10.1	9.3	1.4	89.3	100.0	1,258
Highest	9.7	1.4	10.3	9.9	1.2	88.9	100.0	1,311
Total 15+	**6.6**	**0.8**	**6.8**	**6.3**	**1.5**	**92.2**	**100.0**	**6,126**
Total 15-49	**5.7**	**0.8**	**5.9**	**5.2**	**1.6**	**93.3**	**100.0**	**4,300**

Note: An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Includes daily and occasional (less than daily) use
[2] Includes manufactured cigarettes and hand-rolled cigarettes
[3] Includes pipes, cigars, cigarillos, and water pipes
[4] Occasional refers to less often than daily use

The prevalence of tobacco use is much higher among men than women; 37% of men age 15 and older report that they currently smoke tobacco products (Table 18.2). As observed for women, the vast majority of men who smoke tobacco smoke cigarettes (36% of all men). The habit is common across all background characteristics, varying little by education or wealth quintile. The prevalence of cigarette smoking is higher in urban areas than in non-urban areas (39% and 31%, respectively). By province, cigarette smoking by men is highest in Northern Cape (44%) and lowest in Limpopo (25%).

Table 17.2 Tobacco smoking: Men

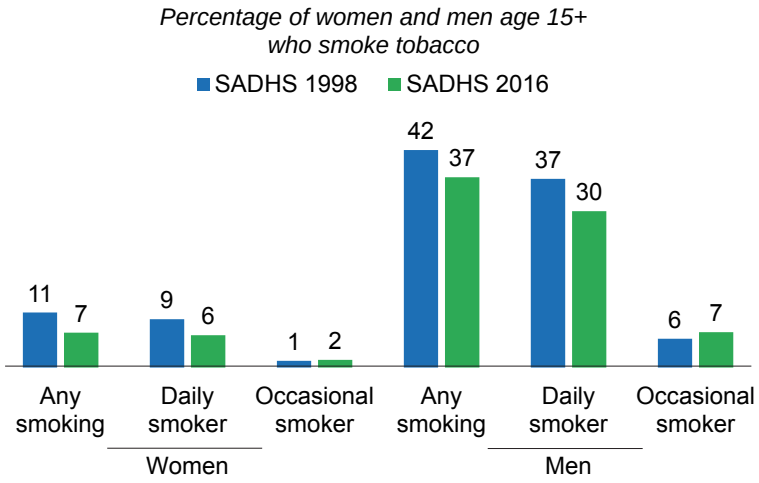
Percentage of men age 15 and older who smoke various tobacco products, and percent distribution of men by smoking frequency, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who smoke:[1]			Smoking frequency			Total	Number of men
	Cigarettes[2]	Other type of tobacco[3]	Any type of tobacco	Daily smoker	Occasional smoker[4]	Non-smoker		
Age								
15-24	28.4	6.5	28.7	20.8	8.2	71.1	100.0	1,241
15-19	17.7	3.7	18.1	10.7	7.6	81.8	100.0	651
20-24	40.1	9.6	40.4	31.8	8.9	59.3	100.0	591
25-34	42.8	5.9	43.2	36.8	6.7	56.5	100.0	962
35-44	43.3	3.1	43.7	36.1	7.8	56.1	100.0	744
45-54	44.2	4.8	44.7	38.7	6.3	55.0	100.0	492
55-64	35.9	3.0	37.3	32.8	4.9	62.2	100.0	406
65+	22.9	4.2	24.7	21.0	4.0	75.1	100.0	364
Population group								
Black/African	35.5	4.9	36.1	29.2	7.1	63.7	100.0	3,534
White	31.3	2.5	31.8	26.1	6.1	67.8	100.0	257
Coloured	49.3	9.4	50.5	45.3	5.5	49.2	100.0	335
Indian/Asian	39.0	0.0	39.0	34.6	6.1	59.4	100.0	82
Other	*	*	*	*	*	*	*	2
Residence								
Urban	38.9	4.9	39.2	32.5	7.0	60.5	100.0	2,874
Non-urban	31.0	5.4	32.5	26.0	6.6	67.4	100.0	1,336
Province								
Western Cape	42.5	7.0	42.9	36.0	7.2	56.8	100.0	476
Eastern Cape	39.4	3.9	40.1	29.4	11.6	59.0	100.0	493
Northern Cape	44.2	3.6	44.9	41.0	3.9	55.1	100.0	84
Free State	39.7	11.2	40.4	35.0	5.8	59.1	100.0	207
KwaZulu-Natal	34.6	5.1	34.9	29.1	6.1	64.8	100.0	683
North West	31.6	3.0	31.7	29.4	2.6	68.0	100.0	310
Gauteng	37.6	3.1	37.6	30.8	6.8	62.4	100.0	1,245
Mpumalanga	36.3	8.9	39.9	35.0	5.1	59.8	100.0	326
Limpopo	25.0	5.4	26.4	18.1	8.3	73.6	100.0	386
Education								
No education	31.3	6.5	34.7	30.0	5.1	65.0	100.0	217
Primary incomplete	38.8	5.7	39.9	35.3	4.8	60.0	100.0	481
Primary complete	35.6	3.9	36.4	30.8	5.6	63.6	100.0	212
Secondary incomplete	38.6	5.9	39.0	31.7	7.7	60.6	100.0	1,930
Secondary complete	34.2	4.0	34.5	27.7	6.9	65.4	100.0	900
More than secondary	32.0	2.8	32.5	25.4	7.1	67.5	100.0	470
Wealth quintile								
Lowest	39.5	5.7	40.7	32.6	8.3	59.1	100.0	787
Second	35.6	4.8	36.3	30.3	6.5	63.2	100.0	839
Middle	35.1	5.7	35.6	28.7	7.1	64.2	100.0	894
Fourth	37.0	6.0	37.5	30.8	6.8	62.3	100.0	827
Highest	35.1	3.1	35.5	29.9	5.7	64.4	100.0	864
Total 15+	**36.4**	**5.0**	**37.0**	**30.4**	**6.9**	**62.7**	**100.0**	**4,210**
Total 15-49	**37.1**	**5.4**	**37.5**	**30.4**	**7.4**	**62.2**	**100.0**	**3,220**

Note: An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Includes daily and occasional (less than daily) use
[2] Includes manufactured cigarettes and hand-rolled cigarettes
[3] Includes pipes, cigars, cigarillos, and water pipes
[4] Occasional refers to less often than daily use

Figure 7 shows a comparison of tobacco smoking as measured in the SADHS 1998 and SADHS 2016. Overall, the percentage of women and men age 15 and older who smoke tobacco has decreased since 1998; 11% of women and 42% of men smoked tobacco in 1998 compared with 7% of women and 37% of men in 2016. While the percentage of women and men who are occasional tobacco smokers has increased slightly since 1998, the percentage who are daily smokers has dropped by 3 percentage points for women and 7 percentage points for men.

Figure 7 **Comparison of tobacco smoking in 1998 and 2016, by frequency of smoking**



3.15 ALCOHOL CONSUMPTION AND RISKY DRINKING

One in four women (26%) age 15 and older has ever drunk alcohol, and one in 10 women has drunk alcohol in the past 7 days (Table 18.1). Five percent of women report risky drinking; that is, they drank 5 or more standard measures of alcohol on a single occasion in the past 30 days. Three percent of women reported signs of problem drinking as assessed by the CAGE test[7].

More than a third of white women (36%) reported drinking alcohol in the past 7 days compared with 18% of coloured women and 8% of black/African women. Ten percent of coloured women reported risky drinking compared with 5% of black/African women and 4% of white women. Only 1% of Indian/Asian women reported drinking alcohol in the last 7 days.

By age, risky drinking among women was most common in the 20-24 year age group (9%) and lowest among women age 15-19 and 65 and older (2% each). Risky drinking is more common in urban areas than in non-urban (6% compared with 3%). Marked variation in risky drinking is reported by province; risky drinking is highest in Northern Cape (11%), Western Cape (9%), and North West (9%), and lowest in KwaZulu-Natal (1%) and Limpopo (2%).

Alcohol consumption is more common among men than women (Table 18.2). Six in 10 men (61%) age 15 and older have ever drunk alcohol and 4 in 10 (37%) report they have drunk alcohol in the past 7 days. Over one-quarter of men (28%) exhibit risky drinking behaviour because they drank five or more standard measures of alcohol on a single occasion in the past 30 days. One in six men (16%) reported signs of problem drinking using the CAGE test.

A higher proportion of white men (58%) report drinking alcohol in the past 7 days compared with coloured men (36%) and black/African men (38%); however, white, coloured, and black/African men were similarly likely to report risky drinking in the past 30 days (26%-28%). Alcohol consumption was less common among Indian/Asian men; 13% reported drinking alcohol in the past 7 days, and 6% reported risky drinking.

Risky drinking among men rises rapidly by age, increasing from 12% of men age 15-19 to 31% of men age 20-24 and 36% of men age 25-34, before gradually declining. Risky drinking was higher among men in urban areas than in non-urban areas (29% versus 24%). By province, risky drinking was highest in Gauteng (35%). Notably, however, risky drinking is pervasive across all provinces, education levels, and wealth quintiles.

[7] The CAGE (Concern/Cut-down, Anger, Guilt, and Eye-Opener) test is used to screen for problem drinking and alcoholism. Two 'yes' responses indicate the possibility of alcoholism and should be investigated further.

Table 18.1 Alcohol consumption and risky drinking: Women

Percentage of women age 15 and older who ever drank alcohol, who drank alcohol in the past 12 months, who drank alcohol in the past 7 days, who drank five or more drinks on at least one occasion in the past 30 days, and who show signs of problem drinking as assessed by the CAGE test, according to background characteristics, South Africa DHS 2016

Background characteristic	Ever drank alcohol	Drank alcohol in past 12 months	Drank alcohol in past 7 days	Drank five or more drinks on at least one occasion in past 30 days[1]	Show signs of problem drinking by the CAGE test[2]	Number of women
Age						
15-24	29.3	20.9	8.3	5.1	3.1	1,429
15-19	23.4	16.3	5.3	1.6	2.4	721
20-24	35.2	25.6	11.3	8.6	3.9	708
25-34	29.2	22.6	11.3	6.1	3.3	1,391
35-44	25.1	17.0	9.5	6.0	3.1	1,022
45-54	22.1	15.5	10.5	4.4	2.2	866
55-64	21.3	16.0	11.2	3.7	2.7	701
65+	20.8	13.1	9.2	2.0	1.1	719
Population group						
Black/African	22.2	15.7	7.7	4.5	2.6	5,170
White	58.2	48.9	36.1	4.2	1.6	320
Coloured	42.9	28.6	17.6	10.2	5.6	516
Indian/Asian	13.2	9.0	1.1	0.0	0.0	114
Other	*	*	*	*	*	6
Residence						
Urban	30.8	22.4	12.3	6.0	3.2	3,996
Non-urban	16.0	11.0	5.5	2.6	2.0	2,130
Province						
Western Cape	38.1	27.3	18.0	9.0	4.8	703
Eastern Cape	27.7	19.9	10.1	4.9	3.3	730
Northern Cape	40.3	27.4	13.6	10.9	6.8	127
Free State	29.3	22.2	12.1	6.0	4.6	325
KwaZulu-Natal	12.8	10.1	4.8	1.4	1.0	1,191
North West	26.9	20.6	12.5	8.7	6.6	398
Gauteng	30.8	22.0	12.0	5.2	2.0	1,534
Mpumalanga	30.7	19.1	7.2	4.7	2.6	473
Limpopo	12.2	8.1	4.0	1.5	1.0	646
Education						
No education	19.4	13.5	10.2	6.9	2.7	495
Primary incomplete	16.4	10.3	5.4	2.3	2.6	664
Primary complete	19.1	9.9	6.0	1.7	0.9	293
Secondary incomplete	24.6	17.3	8.2	5.2	3.5	2,695
Secondary complete	28.8	21.7	12.2	5.6	1.8	1,328
More than secondary	40.9	32.3	18.6	4.2	2.4	652
Wealth quintile						
Lowest	16.5	11.7	5.2	3.7	1.9	1,163
Second	20.3	14.3	6.9	3.7	3.6	1,152
Middle	24.7	17.6	8.8	5.5	3.5	1,242
Fourth	30.1	21.3	11.9	8.0	3.5	1,258
Highest	35.1	25.9	15.9	3.2	1.3	1,311
Total 15+	**25.7**	**18.4**	**9.9**	**4.8**	**2.7**	**6,126**
Total 15-49	**27.6**	**20.1**	**9.8**	**5.4**	**3.0**	**4,300**

Note: An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Respondents who consumed 0-1 drinks in the 7 days before the interview and who reported drinking 3 or fewer days per month over the past 12 months were assumed not to have consumed 5 or more drinks in the past 30 days.
[2] The CAGE (Concern/Cut-down, Anger, Guilt, and Eye-Opener) test is used to screen for problem drinking and alcoholism. Two 'yes' responses indicate the possibility of alcoholism and should be investigated further.

Table 18.2 Alcohol consumption and risky drinking: Men

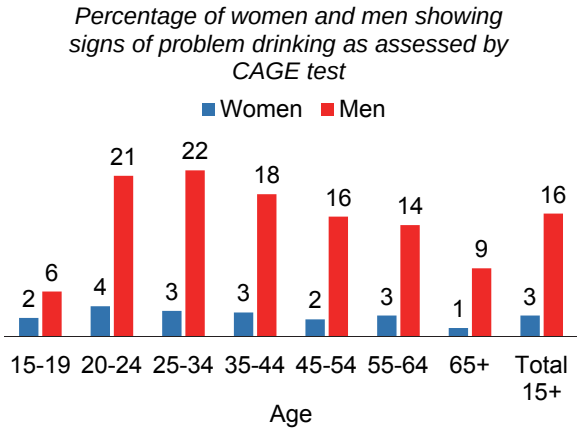
Percentage of men age 15 and older who ever drank alcohol, who drank alcohol in the past 12 months, who drank alcohol in the past 7 days, who drank five or more drinks on at least one occasion in the past 30 days, and who show signs of problem drinking as assessed by the CAGE test, according to background characteristics, South Africa DHS 2016

Background characteristic	Ever drank alcohol	Drank alcohol in past 12 months	Drank alcohol in past 7 days	Drank five or more drinks on at least one occasion in past 30 days[1]	Show signs of problem drinking by the CAGE test[2]	Number of men
Age						
15-24	56.4	49.3	26.3	20.7	13.0	1,241
15-19	45.6	38.8	16.6	11.8	5.8	651
20-24	68.4	60.8	37.0	30.5	20.8	591
25-34	65.5	60.5	43.4	36.1	21.5	962
35-44	68.3	60.1	40.2	31.8	18.4	744
45-54	53.9	47.5	36.7	27.8	15.5	492
55-64	64.9	54.3	45.1	25.7	14.4	406
65+	59.0	46.8	39.5	20.9	8.8	364
Population group						
Black/African	61.5	53.9	36.0	28.3	16.7	3,534
White	77.2	71.0	57.7	25.7	8.2	257
Coloured	52.4	46.0	34.9	25.6	15.9	335
Indian/Asian	39.8	27.0	12.9	6.2	7.8	82
Other	*	*	*	*	*	2
Residence						
Urban	59.8	54.1	37.9	29.0	16.0	2,874
Non-urban	64.6	53.2	34.5	24.2	15.8	1,336
Province						
Western Cape	53.3	49.1	38.0	22.8	14.2	476
Eastern Cape	61.9	50.8	40.7	23.9	18.5	493
Northern Cape	57.8	47.1	29.0	23.3	10.7	84
Free State	45.5	42.3	30.6	25.4	23.0	207
KwaZulu-Natal	57.5	46.0	28.7	23.8	13.8	683
North West	79.0	64.4	32.1	27.2	13.0	310
Gauteng	63.6	60.9	44.3	35.3	16.8	1,245
Mpumalanga	60.5	55.0	31.1	28.8	17.4	326
Limpopo	65.9	52.4	34.7	20.5	14.5	386
Education						
No education	54.0	42.7	30.5	22.7	14.3	217
Primary incomplete	57.8	45.8	35.6	22.9	14.3	481
Primary complete	54.6	45.8	32.8	23.1	10.5	212
Secondary incomplete	60.6	53.1	34.8	27.4	16.7	1,930
Secondary complete	62.3	56.8	38.2	28.5	16.7	900
More than secondary	72.6	67.7	48.5	35.1	16.3	470
Wealth quintile						
Lowest	60.1	50.2	37.3	25.8	16.0	787
Second	60.5	51.7	32.0	25.5	14.6	839
Middle	61.3	54.4	35.3	28.6	17.0	894
Fourth	62.2	55.6	38.2	32.0	18.3	827
Highest	62.5	56.8	41.4	25.6	13.9	864
Total 15+	**61.3**	**53.8**	**36.8**	**27.5**	**15.9**	**4,210**
Total 15-49	**61.7**	**55.0**	**35.7**	**28.7**	**17.1**	**3,220**

Note: An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Respondents who consumed 0-1 drinks in the 7 days before the interview and who reported drinking on 3 or fewer days per month over the past 12 months were assumed not to have consumed five or more drinks in the past 30 days.
[2] The CAGE (Concern/Cut-down, Anger, Guilt, and Eye-Opener) test is used to screen for problem drinking and alcoholism. Two 'yes' responses indicate the possibility of alcoholism and should be investigated further.

Figure 8 shows by age the percentages of women and men with signs of problem drinking as assessed by the CAGE test. Whereas the percentage of women who show signs of problem drinking is low across all age groups, the percentage of men who show signs of problem drinking rises over three-fold between those age 15-19 (6%) and those age 20-24 (21%), peaking among men age 25-34 (22%).

Figure 8 **Prevalence of problem drinking by age**



3.16 USE AND ABUSE OF CODEINE-CONTAINING MEDICINES

The SADHS 2016 included questions on the use and abuse of codeine-containing medicines. Show cards with illustrations of common codeine-containing cough medicines and pain medicines were used by the interviewers to facilitate data collection. As shown in Tables 19.1 and 19.2, women and men age 15 and older reported similar use of codeine-containing medicines in the past 12 months (14% and 13%, respectively). Similarly, abuse of these medicines – that is respondents who reported using codeine-containing medications for the experience or feeling rather than the medicinal effect – was comparable among women and men (2% each). Differences by background characteristics were small. Among women, the prevalence of abuse was highest in the North West province (5%), followed by Western Cape (4%) and Gauteng (4%). For men, prevalence of abuse was highest in Mpumalanga province (5%) and Western Cape (3%).

Table 19.1 Use and abuse of codeine-containing medications: Women

Percentage of women age 15 and older who used codeine-containing medications in the past 12 months, and percentage of women who used codeine-containing medications in the past 12 months for the experience or feeling rather than its medicinal effect, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who used codeine-containing medications in past 12 months	Percentage who used codeine-containing medications in the past 12 months for the experience or feeling rather than medicinal effect	Number of women
Age			
15-24	10.6	1.7	1,429
15-19	8.3	1.0	721
20-24	13.0	2.3	708
25-34	14.5	2.5	1,391
35-44	16.3	3.1	1,022
45-54	15.3	1.9	866
55-64	17.2	1.8	701
65+	12.0	3.0	719
Population group			
Black/African	13.9	2.2	5,170
White	11.9	0.3	320
Coloured	12.4	3.9	516
Indian/Asian	29.5	4.5	114
Other	*	*	6
Residence			
Urban	16.6	2.9	3,996
Non-urban	9.2	1.2	2,130
Province			
Western Cape	10.4	4.0	703
Eastern Cape	10.2	1.0	730
Northern Cape	10.9	0.6	127
Free State	8.1	1.1	325
KwaZulu-Natal	11.0	0.9	1,191
North West	24.9	4.9	398
Gauteng	23.1	4.1	1,534
Mpumalanga	12.2	0.5	473
Limpopo	4.5	0.6	646
Education			
No education	9.1	1.1	495
Primary incomplete	11.5	1.5	664
Primary complete	8.6	2.7	293
Secondary incomplete	12.9	2.1	2,695
Secondary complete	17.2	3.6	1,328
More than secondary	21.1	2.0	652
Wealth quintile			
Lowest	7.2	1.1	1,163
Second	11.3	1.3	1,152
Middle	13.8	2.0	1,242
Fourth	17.7	4.2	1,258
Highest	19.2	2.7	1,311
Total 15+	**14.0**	**2.3**	**6,126**
Total 15-49	**13.8**	**2.3**	**4,300**

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

Table 19.2 Use and abuse of codeine-containing medications: Men

Percentage of men age 15 and older who used codeine-containing medications in the past 12 months, and percentage of men who used codeine-containing medications in the past 12 months for the experience or feeling rather than its medicinal effect, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who used codeine-containing medications in past 12 months	Percentage who used codeine-containing medications in the past 12 months for the experience or feeling rather than medicinal effect	Number of men
Age			
15-24	12.0	1.9	1,241
15-19	11.0	1.6	651
20-24	13.1	2.2	591
25-34	12.6	1.2	962
35-44	11.8	2.1	744
45-54	16.0	0.8	492
55-64	14.4	1.7	406
65+	13.2	0.3	364
Population group			
Black/African	12.3	1.4	3,534
White	9.1	1.1	257
Coloured	20.7	2.9	335
Indian/Asian	19.6	0.0	82
Other	*	*	2
Residence			
Urban	13.6	1.6	2,874
Non-urban	11.4	1.3	1,336
Province			
Western Cape	17.4	2.7	476
Eastern Cape	11.4	0.8	493
Northern Cape	31.8	0.2	84
Free State	5.0	0.8	207
KwaZulu-Natal	15.8	0.8	683
North West	11.5	1.0	310
Gauteng	10.8	1.4	1,245
Mpumalanga	15.8	4.6	326
Limpopo	9.8	0.6	386
Education			
No education	9.6	0.5	217
Primary incomplete	12.4	1.1	481
Primary complete	7.8	1.0	212
Secondary incomplete	11.1	0.9	1,930
Secondary complete	16.4	2.7	900
More than secondary	18.2	2.5	470
Wealth quintile			
Lowest	7.3	0.9	787
Second	10.9	1.9	839
Middle	11.6	0.7	894
Fourth	18.1	2.1	827
Highest	16.4	1.7	864
Total 15+	**12.9**	**1.5**	**4,210**
Total 15-49	**12.6**	**1.6**	**3,220**

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

3.17 NUTRITIONAL STATUS OF ADULTS

Anthropometric data on height and weight was collected for all women and men age 15 years and older who consented to measurement (82% of women and 78% of men). These data were used to calculate the body mass index (BMI) as the ratio of weight in kilograms to the square of height in metres (kg/m^2). Based on BMI score, two-thirds (68%) of women in South Africa are overweight or obese, 3% are thin, and 30% are in the normal range (Table 20.1). In contrast, just under one third of men (31%) are overweight or obese, 10% are thin, and the majority of men (59%) have a BMI in the normal range (Table 20.2).

Table 20.1 Nutritional status of women

Among women age 15 and older, percentage with height under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, according to background characteristics, South Africa DHS 2016

	Height		Body Mass Index[1]								
				Normal	Thin			Overweight/obese			
Background characteristic	Percentage below 145 cm	Number of women	Mean body mass index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderately and severely thin)	≥25.0 (Total overweight or obese)	25.0-29.9 (Overweight)	≥30.0 (Obese)	Number of women
Age											
15-24	1.6	1,111	24.8	54.3	5.8	4.9	0.9	39.9	24.4	15.5	1,040
15-19	2.1	544	23.7	66.3	6.7	5.5	1.2	27.0	16.1	10.9	520
20-24	1.1	567	25.9	42.2	4.9	4.3	0.6	52.8	32.8	20.1	520
25-34	1.5	1,081	29.0	31.3	2.1	1.8	0.4	66.6	29.1	37.5	1,016
35-44	1.5	802	30.8	20.7	1.8	1.4	0.4	77.5	25.1	52.4	784
45-54	2.4	678	31.7	17.4	0.7	0.7	0.0	81.9	24.9	57.0	676
55-64	1.6	553	31.5	16.5	2.2	1.0	1.2	81.3	26.7	54.5	553
65+	7.9	594	30.4	23.1	1.5	1.2	0.3	75.4	29.6	45.8	592
Population group											
Black/African	2.3	4,209	29.2	30.0	2.6	2.1	0.5	67.4	26.5	40.9	4,066
White	0.0	193	28.3	28.9	1.7	1.7	0.0	69.4	38.8	30.6	188
Coloured	3.5	327	30.1	27.9	4.3	3.2	1.2	67.7	21.8	45.9	317
Indian/Asian	11.8	87	29.7	30.0	0.0	0.0	0.0	70.0	20.8	49.2	87
Other	*	3	*	*	*	*	*	*	*	*	3
Residence											
Urban	2.2	2,988	29.6	29.3	2.2	1.9	0.3	68.5	26.2	42.3	2,880
Non-urban	2.9	1,831	28.6	30.6	3.3	2.4	0.9	66.1	27.1	39.0	1,782
Province											
Western Cape	3.1	435	30.6	24.3	2.3	1.9	0.4	73.3	25.9	47.5	415
Eastern Cape	2.5	646	29.5	28.6	2.3	2.0	0.3	69.1	28.7	40.4	627
Northern Cape	5.4	109	27.8	30.3	8.3	5.6	2.7	61.5	26.7	34.8	106
Free State	2.4	271	29.4	28.2	3.4	2.6	0.8	68.4	23.9	44.5	265
KwaZulu-Natal	3.2	948	29.9	28.0	1.3	1.2	0.1	70.7	24.9	45.8	923
North West	2.6	367	28.6	27.6	4.6	3.1	1.4	67.9	25.0	42.9	354
Gauteng	1.8	1,116	29.2	32.8	1.5	1.5	0.0	65.8	26.8	39.0	1,072
Mpumalanga	1.0	411	28.0	34.3	3.8	3.1	0.7	61.9	28.4	33.5	394
Limpopo	2.3	518	28.1	31.8	4.2	2.8	1.3	64.0	28.0	36.0	506
Education											
No education	5.6	421	29.7	28.7	2.5	1.6	0.9	68.8	25.3	43.5	417
Primary incomplete	4.6	580	30.0	21.8	2.5	1.9	0.7	75.6	26.9	48.7	571
Primary complete	1.8	245	29.3	29.6	3.3	2.8	0.5	67.1	27.2	39.9	231
Secondary incomplete	2.5	2,125	28.9	33.4	2.8	2.2	0.6	63.8	24.9	38.9	2,053
Secondary complete	1.0	987	29.1	28.8	2.3	2.0	0.3	68.9	28.9	40.0	946
More than secondary	0.3	460	29.3	26.7	2.3	2.1	0.2	71.0	29.8	41.2	443
Wealth quintile											
Lowest	3.1	987	27.3	39.7	3.0	2.4	0.6	57.3	27.8	29.5	951
Second	2.4	942	28.5	31.0	3.0	2.1	0.9	65.9	28.3	37.6	911
Middle	1.6	1,035	29.6	26.4	3.5	2.8	0.7	70.1	26.1	44.0	999
Fourth	2.8	970	30.1	26.8	1.9	1.5	0.4	71.3	25.7	45.6	937
Highest	2.5	885	30.7	24.8	1.6	1.5	0.0	73.6	24.8	48.8	863
Total 15+	**2.5**	**4,819**	**29.2**	**29.8**	**2.6**	**2.1**	**0.5**	**67.6**	**26.6**	**41.0**	**4,662**
Total 15-49	**1.5**	**3,334**	**28.3**	**34.7**	**3.1**	**2.6**	**0.5**	**62.2**	**26.3**	**35.9**	**3,179**

Notes: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2). An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Table 20.2 Nutritional status of men

Among men age 15 and older, mean body mass Index (BMI, and percentage with specific BMI levels, by background characteristics, South Africa DHS 2016

Background characteristic	Body Mass Index								
		Normal	Thin			Overweight/obese			
	Mean body mass index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderately and severely thin)	≥25.0 (Total overweight or obese)	25.0-29.9 (Overweight)	≥30.0 (Obese)	Number of men
Age									
15-24	21.3	73.0	15.8	12.0	3.8	11.2	8.9	2.3	927
15-19	20.9	70.7	20.7	14.9	5.8	8.6	6.1	2.5	499
20-24	21.8	75.7	10.2	8.6	1.6	14.2	12.2	2.0	428
25-34	23.3	66.0	5.9	4.7	1.2	28.1	20.5	7.7	700
35-44	24.6	56.5	5.4	4.2	1.1	38.1	23.3	14.8	540
45-54	25.0	49.7	7.6	6.0	1.5	42.8	25.7	17.0	340
55-64	25.8	36.7	10.1	8.9	1.2	53.2	34.2	19.0	313
65+	26.0	38.7	6.9	4.9	2.0	54.4	29.8	24.5	286
Population group									
Black/African	23.2	62.8	9.8	7.8	2.0	27.4	18.7	8.7	2,663
White	29.1	24.1	1.2	0.3	0.9	74.7	35.3	39.3	175
Coloured	24.2	48.0	11.6	8.3	3.3	40.4	26.7	13.7	207
Indian/Asian	(25.9)	(41.8)	(9.7)	(4.5)	(5.2)	48.5	26.5	22.0	60
Other	nc	nc	nc	nc	nc	nc	nc	nc	0
Residence									
Urban	23.9	56.7	9.1	7.2	1.9	34.2	20.9	13.3	2,025
Non-urban	23.0	63.8	10.1	7.7	2.5	26.1	19.3	6.8	1,080
Province									
Western Cape	24.8	49.3	7.0	5.8	1.2	43.7	29.8	13.9	261
Eastern Cape	23.3	67.6	6.8	4.6	2.1	25.6	15.8	9.9	413
Northern Cape	23.3	49.2	19.2	13.2	6.0	31.5	16.7	14.8	68
Free State	22.7	57.8	14.7	11.9	2.8	27.5	18.5	9.0	177
KwaZulu-Natal	24.2	57.3	7.5	5.8	1.7	35.2	22.6	12.6	520
North West	23.2	56.7	13.3	9.1	4.2	30.0	22.3	7.8	271
Gauteng	23.8	58.1	8.4	7.3	1.1	33.5	20.7	12.8	848
Mpumalanga	23.0	65.2	10.7	9.2	1.5	24.1	14.6	9.5	273
Limpopo	22.8	62.8	12.1	8.3	3.8	25.1	18.7	6.5	276
Education									
No education	23.7	54.8	12.2	9.4	2.8	33.0	17.3	15.7	169
Primary incomplete	23.3	62.7	10.8	8.7	2.1	26.6	18.4	8.1	398
Primary complete	22.8	63.4	10.2	7.5	2.7	26.4	18.9	7.5	163
Secondary incomplete	22.7	64.8	11.5	9.2	2.4	23.7	17.3	6.4	1,437
Secondary complete	24.6	54.7	6.1	4.0	2.1	39.2	23.8	15.5	624
More than secondary	26.8	38.1	3.1	3.0	0.1	58.8	32.3	26.4	313
Wealth quintile									
Lowest	22.1	72.7	9.9	7.0	2.9	17.4	14.1	3.3	630
Second	22.6	65.8	10.1	7.9	2.2	24.1	18.8	5.3	649
Middle	23.5	59.6	9.3	7.5	1.7	31.2	21.8	9.3	677
Fourth	23.7	57.7	10.9	8.6	2.3	31.4	19.3	12.1	595
Highest	26.7	37.3	6.9	5.6	1.3	55.8	28.4	27.4	554
Total 15+	**23.6**	**59.2**	**9.5**	**7.4**	**2.1**	**31.3**	**20.3**	**11.0**	**3,105**
Total 15-49	**23.0**	**65.3**	**9.6**	**7.4**	**2.2**	**25.1**	**17.2**	**7.9**	**2,353**

Notes: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2). Figures in parentheses are based on 25-49 unweighted cases.
nc = No cases

Severely obese persons (BMI ≥ 35 kg/m^2) have an elevated risk for heart disease, diabetes, and other conditions relative to those who are overweight or obese. As shown in Table 21, one in five women (20%) are in the severely obese category; only 3% of men are severely obese. Severe obesity was most common among coloured and black/African women (26% and 20%, respectively). However, it was also fairly high among Indian/Asian and white women (18% and 15%, respectively). In the case of men, the prevalence of severe obesity was 14% for white men, 7% for coloured men, and only 2% for black/African men. Severe obesity increases by increasing wealth quintile for both men and women (Figure 9).

***Figure 9* Severe obesity in adults by wealth**

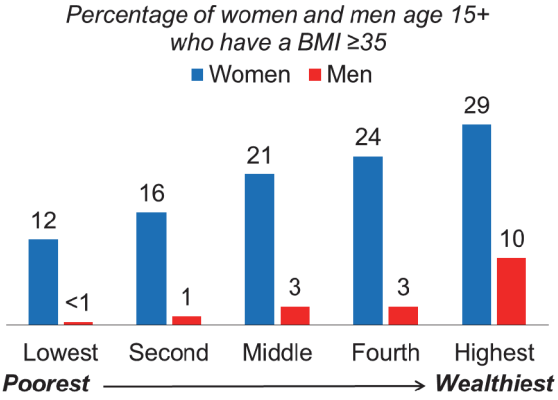


Table 21 Severe obesity among women and men

Percentage of women and men age 15 and older with a body mass index (BMI) ≥35, according to background characteristics, South Africa DHS 2016

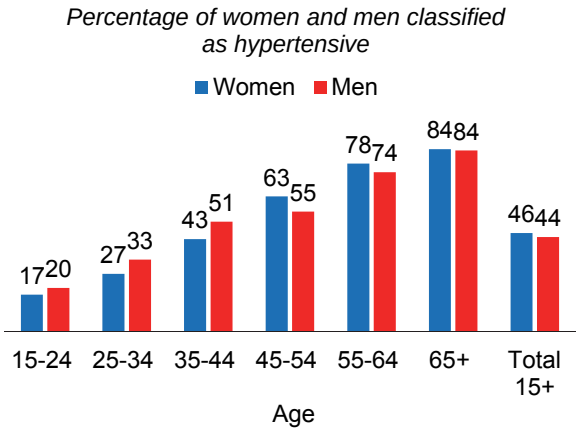
	Women		Men	
Background characteristic	Body mass index[1] (BMI) ≥35.0	Number	Body mass index (BMI) ≥35.0	Number
Age				
15-24	5.8	1,040	0.7	927
15-19	4.5	520	1.0	499
20-24	7.1	520	0.3	428
25-34	17.3	1,016	2.3	700
35-44	26.4	784	5.0	540
45-54	29.0	676	4.8	340
55-64	29.9	553	6.2	313
65+	23.8	592	4.0	286
Population group				
Black/African	20.2	4,066	2.1	2,663
White	14.5	188	14.1	175
Coloured	25.7	317	6.6	207
Indian/Asian	18.0	87	(5.4)	60
Other	*	3	*	0
Residence				
Urban	22.3	2,880	3.6	2,025
Non-urban	17.0	1,782	2.2	1,080
Province				
Western Cape	26.3	415	4.7	261
Eastern Cape	20.0	627	2.3	413
Northern Cape	15.3	106	4.5	68
Free State	21.3	265	2.0	177
KwaZulu-Natal	22.5	923	5.0	520
North West	14.4	354	1.9	271
Gauteng	22.1	1,072	3.4	848
Mpumalanga	15.3	394	0.8	273
Limpopo	16.2	506	2.2	276
Education				
No education	22.8	417	3.8	169
Primary incomplete	21.3	571	1.1	398
Primary complete	17.9	231	3.2	163
Secondary incomplete	20.5	2,053	1.7	1,437
Secondary complete	17.9	946	4.8	624
More than secondary	21.5	443	8.3	313
Wealth quintile				
Lowest	12.1	951	0.4	630
Second	16.0	911	1.2	649
Middle	21.4	999	2.6	677
Fourth	24.0	937	2.6	595
Highest	28.5	863	9.5	554
Total 15+	**20.3**	**4,662**	**3.1**	**3,105**
Total 15-49	**16.7**	**3,179**	**2.4**	**2,353**

Notes: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in metres (kg/m^2). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
[1] Excludes pregnant women and women with a birth in the preceding 2 months

3.18 BLOOD PRESSURE STATUS

Most women and men who were eligible for blood pressure measurement consented (82% of women and 77% of men). Individuals were classified as hypertensive if their systolic blood pressure was 140 mmHg or higher or if their diastolic blood pressure was 90 mmHg or higher. Elevated blood pressure was classified as mild, moderate, or severe, according to the cut-off points recommended by the World Health Organization (WHO 1999). Following internationally recommended guidelines, individuals were also considered hypertensive if they had a normal average blood pressure reading but were taking antihypertensive medication. In South Africa, 46% of women and 44% of men age 15 years and older have hypertension. Nine percent of women and 6% of men have normal blood pressure and are taking medication to control blood pressure (Tables 22.1 and 22.2).

Figure 10 **Prevalence of hypertension by age**



Among both women and men, the prevalence of hypertension rises with age (Figure 10), as does the proportion of respondents who have normal blood pressure and are taking medication. The prevalence of hypertension is highest for whites (60% and 66% for women and men, respectively), followed by coloureds (57% and 58% for women and men, respectively). The black/African women and men had the lowest prevalence of hypertension (44% and 41%, respectively).

The prevalence of hypertension is particularly high in the Western Cape (52% of women and 59% of men), Northern Cape (53% of women and 52% of men), and Free State (54% of women and 48% of men); it is lowest in Limpopo (34% of women and 29% of men).

Table 22.1 Blood pressure status: Women

Among women age 15 and older, prevalence of hypertension, percent distribution of blood pressure values, percentage having normal blood pressure and taking medication, and average systolic and diastolic blood pressure, according to background characteristics, South Africa DHS 2016

		Classification of blood pressure										
		Normal			Elevated							
Background characteristic	Prevalence of hypertension[1]	Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (Grade 1) 140-159/90-99 mmHg	Moderately elevated (Grade 2) 160-179/100-109 mmHg	Severely elevated (Grade 3) 180+/110+ mmHg	Total	Normal blood pressure and taking medication	Average systolic blood pressure	Average diastolic blood pressure	Number
Age												
15-24	17.0	54.6	18.9	12.3	10.7	2.7	0.8	100.0	2.8	116.4	77.5	1,080
25-34	26.6	40.9	22.1	15.5	16.7	3.3	1.5	100.0	5.1	118.7	81.3	1,063
35-44	42.7	22.9	19.9	21.1	26.0	5.9	4.2	100.0	6.7	126.6	86.5	788
45-54	62.5	14.9	15.2	19.6	27.0	12.2	11.0	100.0	12.2	137.2	89.5	681
55-64	77.6	12.3	11.7	15.6	29.8	18.0	12.7	100.0	17.2	143.3	89.7	557
65+	84.3	9.3	11.8	14.8	31.9	17.7	14.4	100.0	20.3	148.8	86.2	606
Population group												
Black/African	43.8	31.4	17.7	15.8	21.0	8.1	6.0	100.0	8.7	128.0	83.8	4,163
White	60.4	24.7	12.8	17.8	30.4	7.6	6.7	100.0	15.7	133.4	83.6	194
Coloured	57.4	19.6	15.3	20.1	25.4	12.0	7.6	100.0	12.3	134.9	86.6	326
Indian/Asian	46.4	13.6	28.2	19.6	26.1	7.2	5.3	100.0	7.8	134.0	86.2	89
Other	*	*	*	*	*	*	*	*	*	*	*	3
Residence												
Urban	46.5	29.0	17.6	16.9	22.8	7.9	5.8	100.0	10.0	128.8	84.4	2,938
Non-urban	43.9	31.6	17.4	15.1	20.1	9.2	6.6	100.0	7.9	128.9	83.6	1,837
Province												
Western Cape	51.6	25.9	13.7	20.2	23.5	11.3	5.4	100.0	11.4	132.6	84.6	433
Eastern Cape	49.8	26.4	14.0	17.1	21.4	12.3	8.8	100.0	7.3	133.4	85.6	641
Northern Cape	52.9	22.9	15.1	16.5	22.6	14.8	8.2	100.0	7.3	133.1	86.0	108
Free State	54.4	23.9	16.3	17.5	19.4	13.2	9.8	100.0	12.1	132.7	87.1	271
KwaZulu-Natal	48.1	20.9	20.6	18.4	26.1	7.8	6.2	100.0	7.9	130.6	85.7	960
North West	40.0	38.5	17.0	16.1	17.8	5.4	5.1	100.0	11.7	125.5	81.6	366
Gauteng	42.3	37.1	18.6	13.0	20.2	6.2	4.9	100.0	11.1	125.3	83.0	1,073
Mpumalanga	45.8	23.0	19.6	16.1	26.0	9.1	6.2	100.0	4.5	128.7	86.3	399
Limpopo	34.1	43.8	17.1	13.7	16.9	4.8	3.7	100.0	8.8	123.4	79.1	524
Education												
No education	75.8	12.0	12.6	12.7	30.2	17.8	14.8	100.0	13.1	145.0	88.5	430
Primary incomplete	65.6	16.5	14.5	17.2	27.2	13.4	11.3	100.0	13.8	139.1	87.5	582
Primary complete	53.5	24.0	15.1	21.3	21.0	7.6	11.0	100.0	13.9	132.9	86.3	242
Secondary incomplete	38.9	34.1	18.1	16.6	19.7	7.1	4.4	100.0	7.6	125.8	83.1	2,092
Secondary complete	35.2	37.4	20.1	14.8	19.5	4.8	3.3	100.0	7.5	123.0	82.2	974
More than secondary	39.2	32.8	19.2	16.8	21.7	7.5	2.0	100.0	8.0	124.7	82.7	454
Wealth quintile												
Lowest	42.3	30.0	16.1	17.7	21.7	8.1	6.4	100.0	6.1	128.1	84.8	988
Second	41.1	33.5	18.9	13.8	20.7	7.5	5.6	100.0	7.2	127.4	83.0	923
Middle	46.1	29.8	18.8	14.4	21.2	8.8	6.9	100.0	9.1	129.1	84.6	1,028
Fourth	49.6	27.0	15.7	18.8	22.4	9.7	6.4	100.0	11.1	130.4	84.8	954
Highest	48.6	29.8	18.1	16.3	23.0	7.8	4.9	100.0	12.8	129.1	83.0	881
Total 15+	**45.5**	**30.0**	**17.5**	**16.2**	**21.8**	**8.4**	**6.1**	**100.0**	**9.2**	**128.8**	**84.1**	**4,774**
Total 15-49	**30.6**	**38.5**	**20.0**	**16.1**	**18.1**	**4.7**	**2.6**	**100.0**	**5.1**	**121.5**	**82.1**	**3,274**

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

[1] An individual was classified as having hypertension if she had a systolic blood pressure of 140 mmHg or above or a diastolic blood pressure of 90 mmHg or above at the time of the survey, or was currently taking antihypertensive medication to control her blood pressure. The term *hypertension* as used in this table is not meant to represent a clinical diagnosis of the disease; rather, it provides an indication of the disease burden in the population at the time of the survey.

Table 22.2 Blood pressure status: Men

Among men age 15 and older, prevalence of hypertension, percent distribution of blood pressure values, percentage having normal blood pressure and taking medication, and average systolic and diastolic blood pressure, according to background characteristics, South Africa DHS 2016

		Classification of blood pressure										
		Normal			Elevated							
Background characteristic	Prevalence of hypertension[1]	Optimal <120/<80 mmHg	Normal 120-129/80-84 mmHg	High normal 130-139/85-89 mmHg	Mildly elevated (Grade 1) 140-159/90-99 mmHg	Moderately elevated (Grade 2) 160-179/100-109 mmHg	Severely elevated (Grade 3) 180+/110+ mmHg	Total	Normal blood pressure and taking medication	Average systolic blood pressure	Average diastolic blood pressure	Number
Age												
15-24	20.1	35.2	28.9	18.6	13.5	3.0	0.8	100.0	2.9	123.6	77.0	918
25-34	33.2	18.7	23.3	26.8	23.7	5.5	2.0	100.0	2.0	128.2	84.3	690
35-44	50.8	16.8	17.1	17.8	27.8	13.1	7.4	100.0	2.5	131.7	89.3	528
45-54	55.4	10.4	16.6	24.9	28.6	13.0	6.6	100.0	7.3	135.4	89.9	334
55-64	73.6	10.2	9.4	19.1	36.5	14.7	10.1	100.0	12.4	141.8	90.5	318
65+	83.7	7.0	10.2	16.9	33.5	18.0	14.3	100.0	17.9	149.0	88.1	293
Population group												
Black/African	40.9	21.7	21.2	21.0	22.9	8.6	4.7	100.0	4.8	130.7	84.2	2,638
White	65.9	8.7	18.1	19.7	36.0	14.4	3.2	100.0	12.3	136.4	86.0	176
Coloured	57.8	16.9	15.4	18.7	28.4	9.3	11.3	100.0	8.8	137.5	87.6	207
Indian/Asian	(52.6)	(10.0)	(16.0)	(27.5)	(30.6)	(9.2)	(6.7)	(100.0)	(6.1)	(136.1)	(87.8)	60
Other	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	0
Residence												
Urban	45.4	18.7	20.1	21.8	24.8	9.5	5.1	100.0	6.0	131.8	85.4	2,002
Non-urban	40.5	23.6	21.3	19.2	22.9	8.1	5.0	100.0	4.6	131.2	83.1	1,080
Province												
Western Cape	58.7	17.6	15.6	16.0	36.0	8.4	6.5	100.0	7.8	135.5	85.6	259
Eastern Cape	47.3	16.1	20.4	21.1	27.3	8.7	6.3	100.0	4.9	134.0	84.9	414
Northern Cape	52.3	16.2	16.7	21.3	27.3	12.5	5.9	100.0	6.5	135.4	85.7	68
Free State	48.2	17.3	20.1	21.0	25.3	11.0	5.3	100.0	6.6	133.5	85.9	178
KwaZulu-Natal	47.5	18.4	20.4	19.2	26.4	9.7	5.9	100.0	5.5	131.6	85.5	532
North West	37.0	26.5	19.8	24.4	19.5	7.1	2.8	100.0	7.6	129.3	81.8	271
Gauteng	39.5	20.5	22.1	23.0	19.5	9.9	5.0	100.0	5.1	130.4	85.3	830
Mpumalanga	46.1	16.6	20.0	20.5	28.4	10.6	3.9	100.0	3.2	132.8	86.3	260
Limpopo	28.8	34.1	23.5	18.6	16.6	4.0	3.3	100.0	4.9	126.6	79.0	269
Education												
No education	65.6	13.8	9.3	22.5	26.2	16.2	11.9	100.0	11.3	140.7	88.6	170
Primary incomplete	56.6	17.1	16.8	19.5	25.7	11.7	9.2	100.0	10.0	136.8	87.2	401
Primary complete	40.9	20.2	20.4	21.5	18.5	13.5	5.9	100.0	3.0	133.4	85.0	166
Secondary incomplete	36.9	24.0	22.6	21.1	21.7	7.0	3.6	100.0	4.6	129.2	82.8	1,420
Secondary complete	41.8	20.1	20.3	21.1	26.0	9.2	3.3	100.0	3.2	129.8	84.9	614
More than secondary	51.5	12.7	22.5	19.8	31.6	8.0	5.4	100.0	6.5	133.3	86.4	310
Wealth quintile												
Lowest	43.3	22.1	16.6	21.5	22.5	11.1	6.3	100.0	3.5	132.7	85.4	625
Second	38.8	21.9	21.2	22.6	22.8	6.8	4.6	100.0	4.6	130.3	83.4	645
Middle	39.9	19.8	24.7	21.6	22.2	8.4	3.4	100.0	6.0	129.7	83.6	667
Fourth	42.9	22.8	20.9	18.0	22.9	10.0	5.3	100.0	4.7	131.2	84.9	590
Highest	55.3	14.9	18.7	20.4	31.2	8.9	6.0	100.0	9.2	134.4	86.0	556
Total 15+	**43.7**	**20.4**	**20.5**	**20.9**	**24.1**	**9.0**	**5.1**	**100.0**	**5.5**	**131.6**	**84.6**	**3,082**
Total 15-49	**33.7**	**24.2**	**23.5**	**21.4**	**20.8**	**7.0**	**3.1**	**100.0**	**2.8**	**127.7**	**83.1**	**2,321**

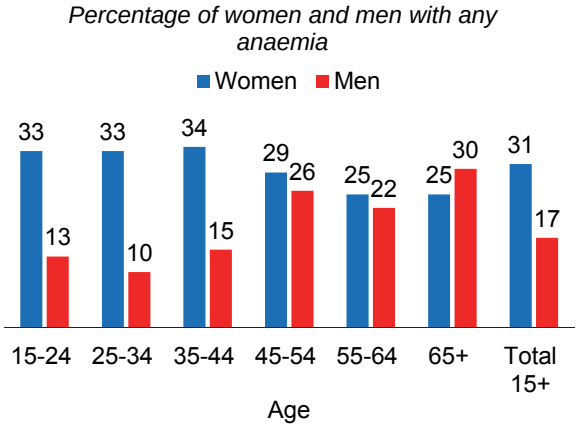
Note: Figures in parentheses are based on 25-49 unweighted cases.
nc = No cases
[1] An individual was classified as having hypertension if he had a systolic blood pressure of 140 mmHg or above or a diastolic blood pressure of 90 mmHg or above at the time of the survey, or was currently taking antihypertensive medication to control his blood pressure. The term *hypertension* as used in this table is not meant to represent a clinical diagnosis of the disease; rather, it provides an indication of the disease burden in the population at the time of the survey.

3.19 ANAEMIA IN ADULTS

Haemoglobin levels were adjusted for altitude and smoking status. Pregnant women with haemoglobin levels below 11.0 g/dl and nonpregnant women with haemoglobin levels below 12.0 g/dl were defined as anaemic. Men with haemoglobin levels below 13.0 g/dl were defined as anaemic.

Three in 10 women (31%) age 15 and older are anaemic (Table 23.1). The majority of these women are mildly anaemic (23% of all women); 7% are moderately anaemic, and less than 1% are severely anaemic. The proportion of women with any anaemia is slightly higher in the reproductive age group than in older women; specifically, 33% of women age 15-49 are anaemic compared with 25% of women age 55 older. By population group, the prevalence of anaemia is highest among black/African women (32%) and lowest among white women (10%). Differences in anaemia prevalence by other background characteristics are generally small.

Figure 11 **Prevalence of anaemia in adults by age**



The prevalence of anaemia among men age 15 and older is lower than for women (17% compared with 31%) (Table 23.2). In contrast with women, older men are more likely to be anaemic than younger men; 14% of men age 15-49 are anaemic compared with 22% age 55-64 and 30% age 65 and older (Figure 11). For men, but not women, anaemia prevalence generally declines with increasing levels of education and wealth.

Table 23.1 Prevalence of anaemia: Women

Percentage of women age 15 and older with anaemia, according to background characteristics, South Africa DHS 2016

Background characteristic	Not pregnant / Pregnant[1]	Anaemia status by haemoglobin level: Any	Mild	Moderate	Severe	Number of women
		<12.0 g/dl / <11.0 g/dl	10.0-11.9 g/dl / 10.0-10.9 g/dl	7.0-9.9 g/dl / 7.0-9.9 g/dl	<7.0 g/dl / <7.0 g/dl	
Age						
15-24		33.0	24.2	8.4	0.5	975
15-19		34.0	24.1	9.7	0.2	475
20-24		32.1	24.2	7.1	0.8	500
25-34		33.0	24.3	8.1	0.7	946
35-44		33.8	24.1	8.4	1.4	702
45-54		29.0	19.4	8.6	1.0	588
55-64		24.9	20.5	4.3	0.2	497
65+		24.9	20.5	4.1	0.3	536
Population group						
Black/African		32.2	23.6	7.8	0.7	3,753
White		10.8	10.5	0.3	0.0	157
Coloured		21.6	16.6	5.0	0.0	288
Indian/Asian		(29.2)	(22.3)	(7.0)	(0.0)	44
Other		*	*	*	*	3
Smoking status						
Smokes cigarettes		18.6	16.5	2.1	0.0	217
Does not smoke		31.3	23.0	7.6	0.7	4,027
Residence						
Urban		29.8	23.0	6.2	0.5	2,584
Non-urban		32.0	22.1	9.0	0.9	1,660
Province						
Western Cape		23.9	18.6	5.3	0.0	421
Eastern Cape		29.7	22.1	7.1	0.6	598
Northern Cape		25.7	21.4	4.3	0.0	78
Free State		27.7	21.2	5.6	1.0	261
KwaZulu-Natal		28.9	22.5	5.1	1.2	747
North West		38.3	25.8	12.6	0.0	342
Gauteng		31.6	24.7	6.2	0.7	968
Mpumalanga		38.5	22.6	14.9	1.0	383
Limpopo		29.0	21.7	6.7	0.6	445
Education						
No education		29.6	24.5	4.6	0.5	371
Primary incomplete		28.0	18.6	9.1	0.3	539
Primary complete		31.2	22.9	6.8	1.4	229
Secondary incomplete		31.9	23.7	7.4	0.8	1,890
Secondary complete		31.3	23.2	7.7	0.4	838
More than secondary		26.9	19.7	6.5	0.7	377
Wealth quintile						
Lowest		28.5	19.9	7.6	0.9	935
Second		35.1	24.8	9.2	1.1	816
Middle		32.8	23.8	8.1	0.9	918
Fourth		31.3	24.9	6.2	0.2	834
Highest		24.9	19.7	5.1	0.1	741
Total 15+		**30.6**	**22.6**	**7.3**	**0.7**	**4,244**
Total 15-49		**33.3**	**24.1**	**8.4**	**0.8**	**2,927**

Notes: Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC, 1998. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.

[1] Women age 50 and older are assumed not to be pregnant.

Table 23.2 Prevalence of anaemia: Men

Percentage of men age 15 and older with anaemia, according to background characteristics, South Africa DHS 2016

Background characteristic	Any anaemia <13.0 g/dl	Number of men
Age		
15-24	13.3	796
15-19	17.2	438
20-24	8.4	357
25-34	10.4	557
35-44	14.6	434
45-54	25.6	288
55-64	22.4	285
65+	29.7	246
Population group		
Black/African	18.0	2,240
White	7.8	151
Coloured	12.0	184
Indian/Asian	*	31
Other	nc	0
Smoking status		
Smokes cigarettes	13.5	791
Does not smoke	18.3	1,815
Residence		
Urban	16.2	1,661
Non-urban	17.9	945
Province		
Western Cape	8.9	238
Eastern Cape	18.2	372
Northern Cape	19.8	46
Free State	25.6	168
KwaZulu-Natal	15.9	395
North West	17.5	242
Gauteng	17.2	683
Mpumalanga	18.1	233
Limpopo	13.9	226
Education		
No education	25.3	154
Primary incomplete	26.6	359
Primary complete	18.3	142
Secondary incomplete	15.8	1,189
Secondary complete	13.4	499
More than secondary	8.5	264
Wealth quintile		
Lowest	17.9	550
Second	19.0	537
Middle	19.1	558
Fourth	17.0	495
Highest	9.9	466
Total 15+	**16.8**	**2,606**
Total 15-49	**13.7**	**1,941**

Notes: Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC 1998. An asterisk indicates that a figure is based on 25 unweighted cases and has been suppressed.
nc = No cases

3.20 DOMESTIC VIOLENCE

Gender-based violence is a violation of human rights. Despite constitutional protections, gender-based violence remains persistent and widespread in South Africa (DWCPD 2014). Violence against women occurs across socioeconomic status, race, age, and religion. There has been emerging research on the pandemic, aiming to provide more substantive information about the nature, scope, and dimensions of this problem by academia, government, and nongovernment organisations. Violence against women in South Africa is currently reported using either police reports or victimisation surveys.

Preventing and reducing levels of violence has been placed on the national transformation agenda as one of the country's priorities. Legal frameworks such as the 1998 Domestic Violence Act No. 116 were formulated

to curb the scourge. The act protects women from domestic violence by providing accessible legal instruments aiming to prevent further incidents of abuse within domestic relationships.

3.20.1 Experience of Physical Violence by Any Partner

Table 24 provides data for ever-partnered women age 18 and older who have ever experienced physical violence by any partner. One in five (21%) partnered women has ever experienced physical violence by a partner, and 8% had experienced physical violence in the 12 months prior to the survey. Younger women were more likely to report physical violence in the 12 months before the survey than older women; for example, 10% of women age 18-24 experienced physical violence from a partner in the past 12 months compared with 2% of women age 65 and older. Women who are divorced or separated were more likely than other women to have ever experienced physical violence (40% versus 14%-31%). Ever-experience of partner violence varies by province, ranging from a low of 14% in KwaZulu-Natal to high of 32% in the Eastern Cape.

Table 24 Experience of physical violence by any partner

Percentage of ever-partnered women age 18 and older who have ever experienced physical violence by any partner and percentage who have experienced physical violence by any partner during the 12 months preceding the survey, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who have ever experienced physical violence by any partner[1]	Percentage who have experienced physical violence by any partner in the past 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Age					
18-24	17.6	2.1	8.0	10.3	1,041
25-34	22.1	1.8	7.8	9.8	1,573
35-44	21.7	1.8	6.4	8.6	1,117
45-54	21.5	1.2	4.5	5.8	773
55-64	22.1	2.0	4.0	6.1	669
65+	16.7	0.5	1.0	1.6	701
Residence					
Urban	20.2	1.8	5.9	8.0	3,839
Non-urban	20.9	1.3	5.9	7.3	2,035
Province					
Western Cape	21.2	1.5	6.8	8.5	674
Eastern Cape	31.6	2.3	10.1	12.6	745
Northern Cape	18.7	2.2	2.8	5.1	126
Free State	21.4	2.9	6.0	9.1	327
KwaZulu-Natal	13.7	1.2	4.4	5.7	1,078
North West	29.4	1.2	5.6	7.3	411
Gauteng	17.7	2.0	6.0	8.2	1,464
Mpumalanga	26.4	1.0	6.7	7.8	443
Limpopo	14.4	0.9	2.5	3.5	607
Marital status					
Never married	18.4	1.2	7.5	8.9	2,243
Married	14.4	1.0	4.1	5.3	1,899
Living together	31.1	4.6	10.4	15.2	693
Divorced/separated	39.7	3.1	4.6	7.7	338
Widowed	23.8	1.0	1.8	3.0	701
Employment					
Employed	22.4	1.7	5.6	7.5	2,301
Not employed	19.2	1.6	6.2	7.9	3,573
Education					
No education	21.4	1.7	2.7	4.5	497
Primary incomplete	23.8	1.6	6.5	8.1	614
Primary complete	30.7	2.7	8.9	12.2	257
Secondary incomplete	23.0	1.7	7.8	9.6	2,289
Secondary complete	17.3	1.8	5.5	7.7	1,464
More than secondary	12.4	0.7	1.6	2.5	753
Wealth quintile					
Lowest	26.4	3.2	10.1	13.4	1,096
Second	21.2	1.3	6.1	7.8	1,203
Middle	21.1	1.5	6.2	8.0	1,181
Fourth	21.4	1.2	5.4	6.7	1,164
Highest	13.0	1.0	2.2	3.3	1,230
Total 18+	**20.5**	**1.6**	**5.9**	**7.7**	**5,874**
Total 18-49	**20.6**	**1.7**	**7.1**	**9.1**	**4,176**

[1] Includes violence in the past 12 months.
[2] Includes women who report physical violence in the past 12 months but for whom frequency is not known.

3.20.2 Experience of Sexual Violence by Any Partner

Table 25 shows that 6% of ever-partnered women age 18 years and older have ever experienced sexual violence by any partner, and 2% experienced such violence over the 12 months before the survey. Experience of sexual violence by any partner over the past 12 months decreases with age.

Experience of sexual violence by any partner and experience in the past 12 months was comparable between women living in urban areas and non-urban areas. However, variability was observed by province; in the past 12 months, intimate partner sexual violence was most common among women living in North West province (5%) and least common in Western Cape and Limpopo (1% each). Experience of sexual violence by any partner was highest among women who are divorced or separated, followed by those who are living together with their partner but are not married. Sixteen percent of divorced or separated women had experienced sexual violence by a partner, and 4% had experienced sexual violence in the past 12 months; 10% of women who were living together had experienced sexual violence by a partner, and 5% had experienced sexual violence in the past 12 months.

Table 25 Experience of sexual violence by any partner

Percentage of ever-partnered women age 18 and older who have ever experienced sexual violence by any partner and percentage who have experienced sexual violence by any partner in the 12 months preceding the survey, according to background characteristics, South Africa DHS 2016

Background characteristic	Percentage who have experienced sexual violence by any partner:		Number of women
	Ever[1]	Past 12 months	
Age			
18-24	5.2	3.2	1,041
25-34	6.7	3.1	1,573
35-44	7.0	2.7	1,117
45-54	5.6	1.9	773
55-64	7.1	1.0	669
65+	5.6	0.4	701
Residence			
Urban	6.3	2.2	3,839
Non-urban	6.1	2.6	2,035
Province			
Western Cape	4.0	0.7	674
Eastern Cape	6.7	2.3	745
Northern Cape	4.5	1.9	126
Free State	7.5	1.9	327
KwaZulu-Natal	3.1	1.9	1,078
North West	11.8	4.9	411
Gauteng	8.0	3.0	1,464
Mpumalanga	7.0	2.7	443
Limpopo	5.1	1.4	607
Marital status			
Never married	4.8	2.2	2,243
Married	4.2	2.0	1,899
Living together	10.0	4.8	693
Divorced/separated	16.4	3.6	338
Widowed	8.0	0.8	701
Employment			
Employed	8.0	3.1	2,301
Not employed	5.1	1.8	3,573
Education			
No education	4.7	1.1	497
Primary incomplete	7.3	2.8	614
Primary complete	5.2	1.1	257
Secondary incomplete	7.5	3.0	2,289
Secondary complete	6.1	2.7	1,464
More than secondary	4.7	1.1	497
Wealth quintile			
Lowest	7.4	3.5	1,096
Second	6.0	2.9	1,203
Middle	6.3	2.3	1,181
Fourth	6.0	1.7	1,164
Highest	5.8	1.4	1,230
Total 18+	**6.3**	**2.3**	**5,874**
Total 18-49	**6.2**	**2.9**	**4,176**

[1] Includes violence in the past 12 months

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