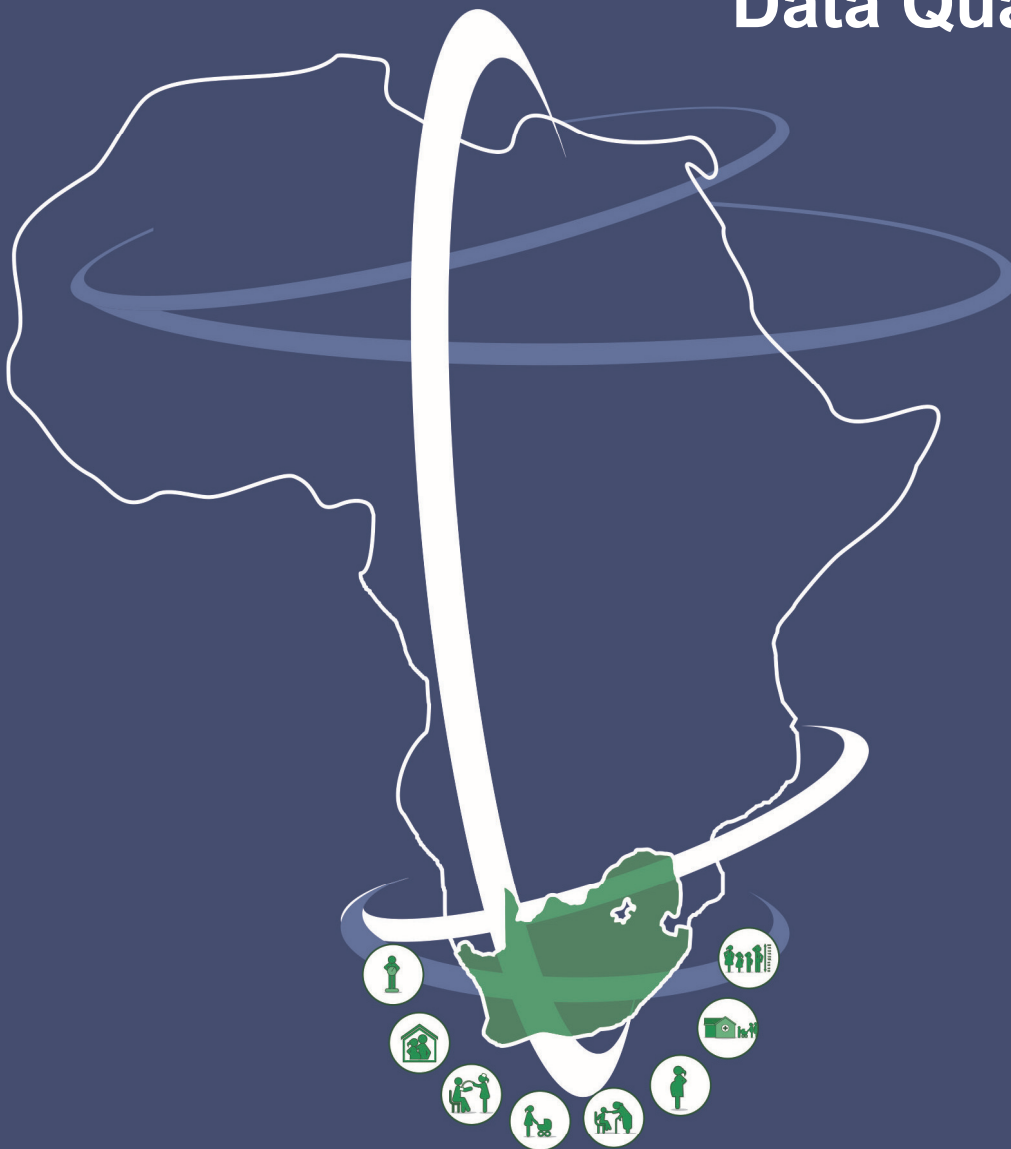


SADHS

South Africa Demographic and
Health Survey

2016

Data Quality Report



THE SOUTH AFRICA I KNOW, THE HOME I UNDERSTAND

Preface

The South Africa Demographic and Health Survey (SADHS) 2016 is the country's third survey to be conducted under the auspices of the global Demographic and Health Surveys (DHS) Program. The first one was conducted in 1998, the second in 2003, although the quality of the latter was considered inadequate, and therefore the data are not in the public domain.

The SADHS 2016 was conducted in collaboration with the National Department of Health (NDoH), the South African Medical Research Council (SAMRC) and Inner City Fund International (ICFI). The main objective of the survey was to track changes in the demographic and health-related indicators from 1998 e.g. family planning, maternal and child health, child survival, HIV/AIDS and sexually transmitted infections (STIs), reproductive health, nutrition, and adult health. Notwithstanding, some questions have evolved since SADHS 1998. There are also other sources of data, produced by Statistics South Africa, and other independent sources that are available for comparison with the SADHS 1998 and 2016. These are used in the study to check the quality of the SADHS 2016 data.

The survey used a complex sampling design to draw a sample that was representative at national level, provincial level as the first administrative tier; and urban and non-urban areas. The SADHS data collection was undertaken for the first time using a Computer-assisted Interview System (CAPI) rather than the usual paper-based questionnaires, from June 2016 to November 2016.

The DHS program is an important source of demographic and health data in low- and middle-income countries, and are reputable for good quality data that are comparable across countries. This is achieved by standardised questionnaires, methodologies and training. Nevertheless, DHS has the flexibility to allow exclusion or inclusion of questions in the model questionnaires to suit countries' contexts. The rich SADHS data is available almost 20 years after the first DHS was conducted, therefore there is much anticipation in the research, program implementation and evaluation communities.

Quality of data is at the centre of Statistics South Africa's mandate of providing data to inform decision-making. It is against this background that the data quality assessment that culminated in this report was conducted.

The funding for the SADHS 2016 was mainly provided by the government of South Africa through the National Department of Health (NDoH) and the South African Medical Research Council (SAMRC). Other funders were 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). ICFI provided technical assistance through The DHS Program, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide.

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Definition of terms

Life expectancy at birth – how long, on average, a newborn can expect to live, if current death rates do not change.

Neonatal deaths (NN) – the probability of dying within the first month of life.

Post-neonatal deaths (PNN) – the difference between infant and neonatal mortality.

Infant mortality rates (IMR) (1q0) – the probability of dying before the first birthday.

Under-5 mortality rate (U5MR) (5q0) – the probability of dying between birth and fifth birthday.

Out of scope – dwelling units that were not found, destroyed, vacant or structures that are misclassified as dwelling units.

Total fertility rate (TFR) – the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed ASFRs.

List of abbreviations and acronyms

ANC – Antenatal Care

ASFR – Age-specific Fertility Rate

DHIS – District Health Information System

DHS – Demographic and Health Survey

HIV – Human Immunodeficiency Virus

HSRC – Human Sciences and Research Council

ICFI – Inner City Fund International

KIR – Key Indicator Report

MDG – Millennium Development Goals

NDoH – National Department of Health

RMS – Rapid Mortality Surveillance

SADHS – South Africa Demographic and Health Survey

SAMRC – South African Medical Research Council

SRHR – Sexual and Reproductive Health Rights

PNC – Postnatal Care

TFR – Total Fertility Rate

UN – United Nations

1. Introduction

The report contains results from analysis of the quality of data for selected sections in the Key Indicator Report (KIR). The quality report and the KIR contain results of the South Africa Demographic and Health Survey 2016 (SADHS). The two reports complement each other and should therefore be read together. The structure of the data quality report is the following: for each section, there is the context for the selected indicator and the quality statement based on comparability with other sources i.e. internal and external sources; and consistency with expected patterns. Additionally, the general challenges encountered during the process of computing the indicators and the issues relating to the disaggregation of data are provided.

The report presents the following sections:

- Household and individual response rates
- Contraception
- Multiple sexual partnerships
- Fertility
- Mortality
- Household relations

1.1. General challenges

During the analysis, variable names were not conventionally named as per Demographic and Health Survey (DHS) standards, therefore the team could not make use of the DHS user forum and other available documents for reference. The other issue to note is the education variable (completed level of education) with categories that were erroneously grouped. Categories N4–6 should be part of higher education, not secondary education as indicated, but this can be addressed in the program. Category N1 is combined with Grade 8, yet it should be grouped with Grade 10, N3 should be Grade 12 and not Grade 10 as shown in Figure 1, and this results in the under-over-statement of the affected categories. This implies that caution should be exercised when disaggregating data by the conventional education status. However, this can be addressed by using broad education groups namely no education, primary, secondary, and more than secondary education.

Figure 1: Completed level of education variable from the questionnaire – SADHS 2016

905	What was the highest grade or form he/she completed at that level?	<p>PRIMARY SCHOOL</p> <p>LESS THAN 1 YEAR COMPLETED 00</p> <p>GRADE 1/SUB A/CLASS 1 11</p> <p>GRADE 2/SUB B/CLASS 2 12</p> <p>GRADE 3/STANDARD 1/ AET 1 (KHA RI GUDE, SANLI) 13</p> <p>GRADE 4/STANDARD 2 14</p> <p>GRADE 5/STANDARD 3/AET 2 15</p> <p>GRADE 6 /STANDARD 4 16</p> <p>GRADE 7/STANDARD 5/AET 3 17</p> <p>SECONDARY SCHOOL</p> <p>LESS THAN 1 YEAR COMPLETED 20</p> <p>GRADE 8/STANDARD 6/FORM 1/NTC 1/ N1/NC (V) LEVEL 2 21</p> <p>GRADE 9/STANDARD 7/FORM 2/AET 4/NTC 2/ N2/NC (V) LEVEL 3 22</p> <p>GRADE 10/STANDARD 8/FORM 3/NTC 3/ N3/NC (V) LEVEL 4 23</p> <p>GRADE 11/STANDARD 9/FORM 4 24</p> <p>CERTIFICATE OR DIPLOMA WITH LESS THAN GRADE 12/STANDARD 10 COMPLETED .. 25</p> <p>GRADE 12/STANDARD 10/FORM 5/MATRIC .. 26</p> <p>N4/NTC4 27</p> <p>N5/NTC5 28</p> <p>N6/NTC6 29</p> <p>HIGHER EDUCATION</p> <p>FURTHER STUDIES INCOMPLETE OR ONGOING 30</p> <p>CERTIFICATE OR DIPLOMA WITH GRADE 12/ STANDARD 10 COMPLETED 31</p> <p>HIGHER DIPLOMA (TECHNIKON/ U. OF TECHNOLOGY) 32</p> <p>POST HIGHER DIPLOMA (TECHNIKON/ U. TECHNOLOGY MASTERS, DOCTORAL) 33</p> <p>BACHELORS DEGREE/BACHELORS DEGREE AND POST GRADUATE DIPLOMA .. 34</p> <p>HONOURS DEGREE 35</p> <p>HIGHER DEGREE (MASTERS, DOCTORATE) 36</p> <p>DON'T KNOW 98</p>
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2. Household and individual response rates

The 2016 SADHS has two levels of questionnaires, namely household and individual levels. The completed questionnaires accounted for 72,5 per cent of all questionnaires in the survey as highlighted in Table 1 below. This is in part explained by 8 per cent of out of scope defined as dwelling units that were not found, destroyed, vacant or misclassified as dwelling units. The other 13,7 per cent was questionnaires where contact was made with the household but the interview was not conducted, about 4 per cent was unoccupied, and “other” accounted for about 2 per cent. The response rates are 83,4 per cent for households, 86,2 per cent for eligible women, and 73,1 per cent for eligible men. This pattern is expected as the response rate is usually higher for women than men. The 83,4 per cent is higher than the standard 80 per cent for Statistics South Africa household surveys (Statistics South Africa u.d). The response rates are much lower than the SADHS

1998, which were all above 90 per cent (Department of Health/South Africa and Macro International 2002), but are within the range of DHS surveys in other countries (Choi et al. 2014). It is important to note that caution should be exercised when disaggregating indicators by key variables like population group, due to the sample for some groups being very small at sub-national levels.

Table 1: Distribution of households by response categories

Result	Frequency	Per cent
Completed	11 085	72,5
No household member at home or no competent respondent at home at time of visit	981	6,4
Entire household absent for extended period	594	3,9
Postponed	89	0,6
Refused	1 027	6,7
Dwelling vacant or address not a dwelling	1 061	6,9
Dwelling destroyed	95	0,6
Dwelling not found	110	0,7
Other	254	1,7

3. Contraception

Contraception allows individuals to exercise their Sexual and Reproductive Health and Rights (SRHR), and is critical for development.

3.1. Current use of contraception and unmet need

The results from SADHS 2016 are compared with those from the SADHS 1998. Results show that contraceptive use did not change significantly from 1998 and 2016, from 56,3 per cent to 54,6 per cent for married women and from 62,1 per cent to 64,2 per cent for

unmarried women. Contraceptive use is highest in sexually active unmarried women compared to married women, and this is expected.

The 54,0 per cent for modern contraceptive use by married women reported in SADHS 2016 is 10 per cent lower than the UN estimate (UN 2015). In addition, unmet need for SADHS 2016 among currently married women is 14,7 per cent compared to 12 per cent of the UN estimate.

4. Multiple sexual partners

Multiple sexual partnership is a United Nations Agency for International Development (UNAIDS) indicator of higher risk sex associated with HIV infection and reinfection. It is important for monitoring changes in behaviour relating to HIV prevention. The percentage of women who had 2+ sexual partners in the last 12 months is 4,5 in the KIR. In general, this estimate is credible particularly when compared to the male estimate, with the likelihood of male exaggeration and concealment by females. The percentage of men who had 2+ sexual partners in the last 12 months is 15,5. The results are comparable with those from the 2012 South African National HIV Prevalence, Incidence and Behaviour Survey conducted by the Human Sciences Research Council (HSRC) (Shisana et al. 2014). However, it should be noted that the sample in the HSRC survey is women aged 15 and older, not 15–49 as is the case for the SADHS. Although there is a 4-year interval between the surveys, little or no change has been recorded and the prevalence was relatively low. Results for men aged 15 and older with 2+ partners was 20 per cent in the 2012 South African National HIV prevalence Incidence and Behaviour Survey, which is higher than the 15,5 per cent from SADHS. It should also be noted that for males, the South African National HIV Prevalence, Incidence and Behaviour Survey sample includes older persons (60 years+). The 15,5 per cent in the SADHS suggests a reduction in the fraction of men with multiple sexual partners in the four-year interval. The reduction in risky behaviours is expected given the interventions to fight the pandemic in the country.

5. Fertility

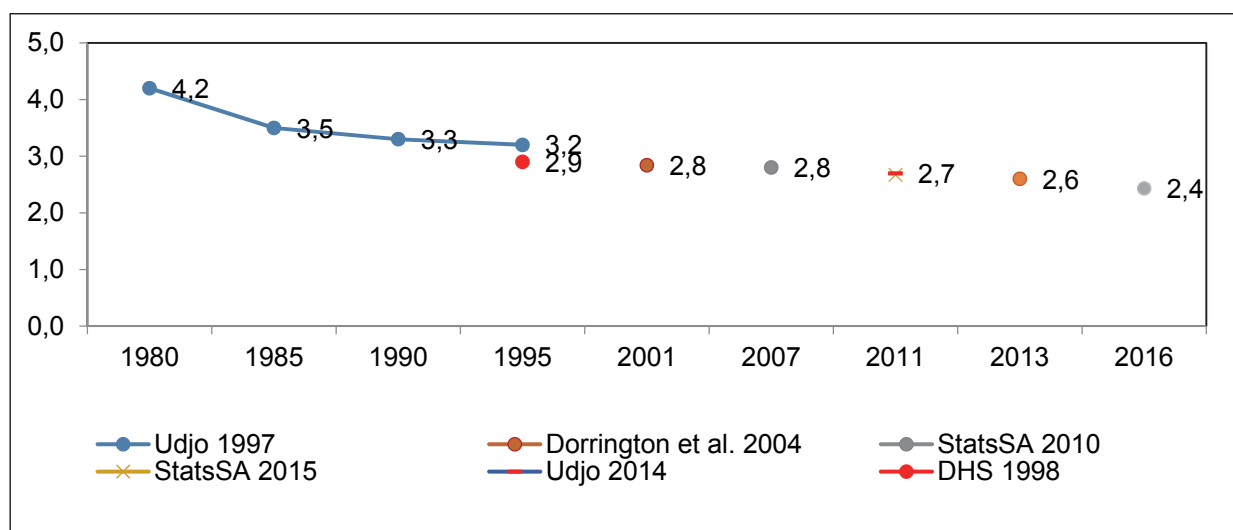
Fertility is one of the main components affecting the age and sex composition of a population. It also gives an indication of potential future growth of the population (Craig, 1994). Total fertility rate (TFR) is the average number of children a woman would have by the end of her reproductive age given that she conforms to current age-specific fertility rates.

5.1. Current fertility

There is consistency in the reporting of total children ever born and age of the women (results not shown). The reporting of lifetime fertility conforms to the current birth spacing in South Africa. The number of children increases with the age of the women. The SADHS 2016 pattern of age-specific fertility rates (ASFR) still shows the traditional schedule of South Africa, where childbearing peaks at ages 20–29 and declines thereafter. From the analysis, it can be concluded that data on lifetime fertility are reasonable enough to be used as an input to derive fertility indicators.

TFR shows a steady decline from the 2,9 reported in SADHS 1998 to 2,6 reported in SADHS 2016 (but refers to 3 years before the respective survey) (Figure 2). Censuses 2001 and 2011 reported TFR of 2,8 and 2,7 respectively. The estimates show a plausible pattern.

Figure 2: Total fertility rate (TFR) by source



5.2. Teenage pregnancy and motherhood

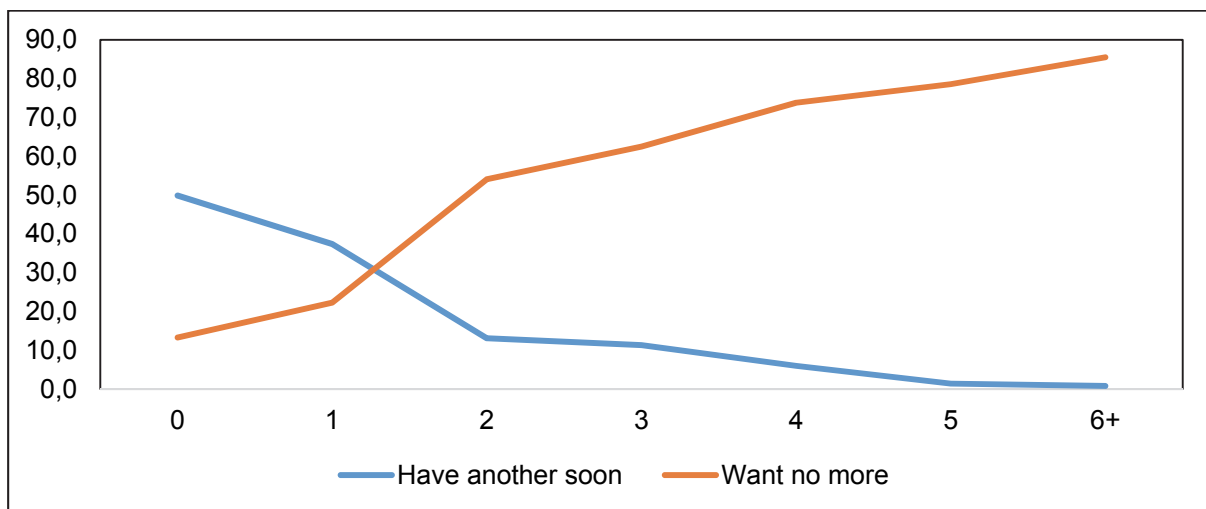
Teenage pregnancy and motherhood is associated with negative consequences for teenage mothers. This includes school drop-out driven by constrained ability to pursue educational opportunities (Timaeus & Moultrie, 2015). Teenage pregnancy and motherhood also gives an indication of young women who are exposed to HIV (Moultrie & Dorrington, 2004). The adolescent fertility rate declined from 76 in 1998 to 71 births per 1 000 girls aged 15–19 in SADHS 2016. The estimates are comparable with the 72 per 1 000 from Census 2011, but the slightly lower levels could be explained by non-response in censuses where younger girls are assumed to have not had a child and response is missing.

5.3. Fertility preference by number of living children

An analysis of fertility preferences provides an indication of the demand for family planning for spacing and limiting births (Kodzi, Johnson et al. 2010). The pattern of fertility preferences that is observed in the SADHS 2016 is expected. Indicators of fertility preference from the SADHS 2016 compare well with SADHS 1998. About 57 per cent (1998) and 49,9 per cent (2016) of women with no living children wanted to have another child within two years.

Women who wanted no more children increased from 43,6 per cent in 1998 to 49,7 per cent in 2016. Related to this, the percentage of women who did not have a child and did not want to have a child more than doubled from 5,7 per cent in 1998 to 13,3 per cent in 2016. This may be linked to the increase in the phenomenon of voluntary childlessness. In both 1998 and 2016, women who wanted another child decreased with the increase in the number of living children. Overall, the more children women have, the less likely they are to want to have another child soon or to have a child at all (Figure 3).

Figure 3: Fertility preference



6. Mortality

Infant and child mortality rates are basic indicators of a country's socio-economic conditions and quality of life (UNDP 2007).

6.1. Childhood mortality

Trends in childhood mortality show a decline in mortality. A decline is also conspicuous when comparing the two SADHS surveys (1998 and 2016). This is consistent with the expected overall decline in mortality over time, as life expectancy at birth increases largely because of the mortality gains with the introduction of antiretroviral therapy (ART) in response to the HIV epidemic. The differences in mortality rates between neonatal and post-neonatal mortality as well as between infant and child mortality are also consistent with the literature. It is expected that the majority of infant deaths occur within the first month of birth. Infant mortality rates (IMR) for the 5 years preceding the survey is 35 deaths per 1 000 live births, and this is comparable with that from the Rapid Mortality Surveillance Report 2015 (RMS) and Census 2011.

The under-5 mortality rate (U5MR) from Census 2011 was 44 deaths per 1 000 live births, while RMS estimated 41 deaths per 1 000 live births in 2012 (Dorrington et al. 2014). These estimates are comparable to the 42 deaths per 1 000 live births recorded in the SADHS 2016, and they all show a plausible pattern. It should be noted that RMS estimates have been revised, however, the estimates used in this report are closer to the SADHS 2016 estimates as shown in Figures 4 and 5 below.

Figure 4: Infant mortality rate (IMR) by source

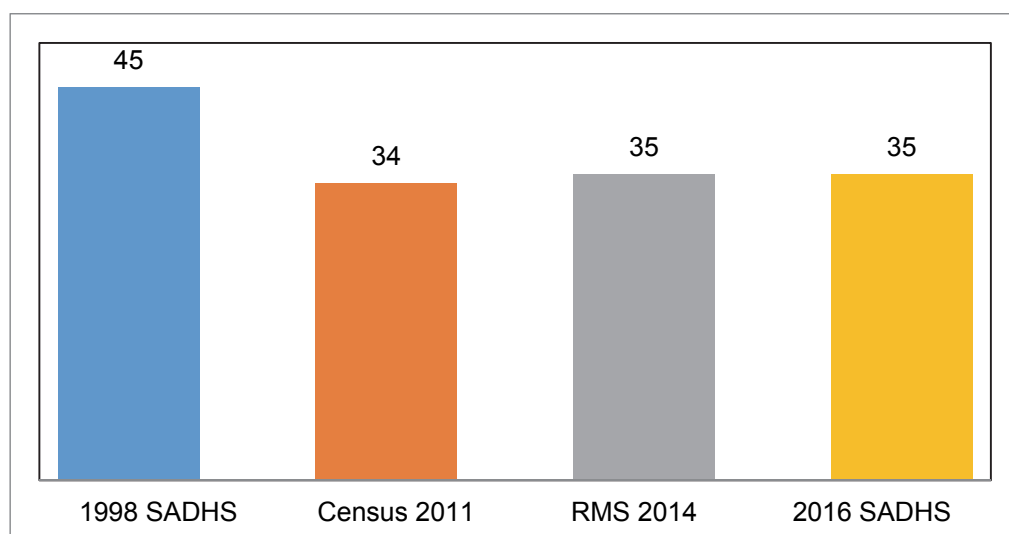
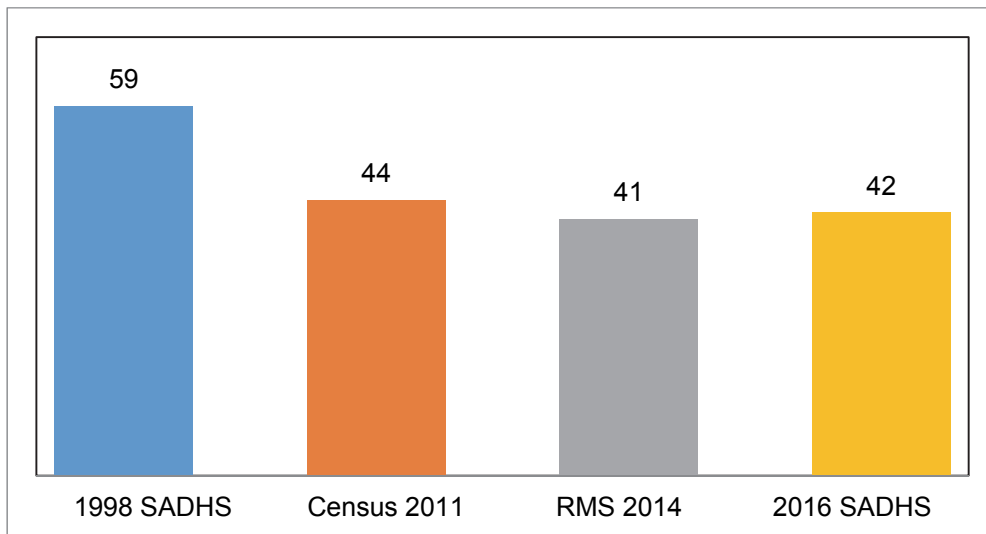


Figure 5: Under 5-mortality (U5MR) by source



6.2. Maternal health

Maternal care indicators include information on antenatal care, receipt of tetanus toxoid injections, and postnatal care after delivery and after leaving the health facility. Antenatal (ANC) and postnatal (PNC) care coverage is important for the survival of the mother, child or both, so information on the utilisation of these services is key for health intervention purposes.

Generally, patterns in the data regarding maternal care are as expected. The 93,7 per cent for women receiving antenatal care from a skilled provider at least once is comparable to the estimate from the Millennium Development Goals (MDG) report using the District Health Information System (DHIS) data (Statistics South Africa, 2015). The pattern of high births occurring in a health facility is consistent with birth attended to by a skilled provider. However, the percentage of women receiving antenatal care from a skilled provider and with 4+ ANC visits show unexpected results. For example, although the percentages for the number of ANC visits and those from a skilled provider are high for other provinces, Gauteng shows the lowest percentage for both women with 4+ ANC visits and those receiving ANC from a skilled provider (62,0 per cent and 89,9 per cent, respectively). Additionally, results show that both women with 4+ ANC visits and those receiving ANC from a skilled provider are higher in non-urban areas compared to urban areas.

7. Household relations

This section examines the quality of data on violence against women aged 18 years and older. The analysis focuses on the percentage of ever-partnered women aged 18 years and older who have experienced physical and sexual violence by their current or last partner. The reference period used to measure physical and sexual violence was over the respondent's lifetime and in the last 12 months before the survey.

7.1. Physical violence

This indicator measures the prevalence of physical violence among women aged 18 years and older perpetrated by their intimate partners. Measuring the extent of violence against women is useful in the elimination of gender-based violence, linked with women's health, particularly in South Africa where it is widely reported as "pervasive". Eighty-five per cent (5 874) of eligible women were successfully interviewed; the rest were not interviewed because privacy was not obtained, which was to be ensured for the interview to proceed.

Results show that the prevalence of physical violence by an intimate partner for women aged 18 and older was 7,7 per cent in the last 12 months, and 20,5 per cent in their lifetime. This suggests an increase in physical violence from the SADHS 1998 estimate of 6 per cent. However, the 1998 estimate is only based on married women and for ages 15–49. Additionally, there are views that the 1998 estimate is not a true reflection of the extent of physical violence in the country (United Nations Population Fund, 2014); there is, however, no alternative estimate provided. It is worth noting that the higher prevalence for violence in the lifetime compared to the recent past in the SADHS 2016 is expected.

7.2. Sexual violence

The indicator measures prevalence of sexual violence among women aged 18 years and older perpetrated by their intimate partners. Measuring the extent of sexual violence is important in understanding the magnitude of the problem. Sexual violence encompasses a range of sexual acts, including forced sex in a marriage or dating relationship.

The results show that the prevalence of sexual violence by any partner for women was 2,3 per cent in the last 12 months and 6,3 per cent in their lifetime. The result was 12,5 per cent in SADHS 1998 for ages 15–49. It should be noted that the two estimates are not comparable because of differences in age restrictions in the data.

8. Conclusion

This report looked at quality of data relating to household and individual response rates, contraception, multiple sexual partnerships, fertility, mortality, and household relations results available in the KIR. After the analysis of the various sections, the conclusion is that the data from the SADHS 2016 are largely usable.

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