

UNWANTED FERTILITY IN SOUTH AFRICA

Report: 03-00-02



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Unwanted fertility in South Africa

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Report No. 03-00-02

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Preface

Maternal and child mortality and health is a function of the number of pregnancies and births a woman has. Reducing unwanted fertility is therefore one way of improving maternal and child health. This report used the recent 2016 and the 1998 South African Demographic and Health Survey to explore levels and differentials of unwanted fertility in the context of fertility decline in the country.



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Executive summary

The study employed women's and children's data from 1998 and 2016 South African Demographic and Health Surveys (SADHS). Two approaches were adopted to establish the level of unwanted fertility. First was to calculate the percentage of unwanted births in the preceding five years before the surveys and second was to estimate using women 15-49 the level of excess fertility which is the difference between total number of children ever born and ideal number of children.

The increase in unwanted births from 1998 to 2016 was noticeable by age, year of birth of women, highest level of education and household wealth. The increase in unwanted births is marginal when all women 15-49 from 1998 and 2016 surveys are compared. Unwanted births were 17,3% in 1998 and 20,4% in 2016; the increase is only 3,1 percentage points. Older women from older cohorts observed high unwanted births than younger women born in later years. From 13,2% in 1998 unwanted births increased significantly to 54,3% in 2016 amongst women born in 1965-1969; an increase of 41,1 percentage points.

In both 1998 and 2016 percentage of unwanted births decreased with increasing education. In 2016 unwanted births to mothers with tertiary education (11,4%) is four times less compared to mothers with no education (46,3%). Unwanted births decreased gradually with increasing household wealth in 2016. The lowest percentage of unwanted births (13,1%) was found in the richest wealth quintile whilst such births were 25,8% in the poorest wealth quintile.

In terms of excess fertility birth cohorts indicated that the average excess fertility is less than zero for both 1998 and 2016 suggesting that on average women have a deficit in the number of children they want. Nonetheless the deficit went down in 2016. For instance it dropped from -1,27 in 1998 to -0,06 in 2016 for women born in 1970-1975.

Each birth cohort experienced an increase in average parity 18 years later after the 1998 SADHS was conducted. Women born in 1980-1984 grew their average parity from 0,07 in 1998 to 2,16 in 2016. Across all birth cohorts women reported a higher ideal number of children in 2016 compared to 1998. For example mean ideal number of children increased from 2,19 in 1998 to 2,64 in 2016 for women born in 1980-1984. In 2016 birth cohorts reported ideal number of children that does not differ greatly from their parity.

The pattern of the two indicators analysed suggest changing fertility behaviour overtime especially by birth cohort and socio-economic characteristics.

Contents

Preface	iii
Acknowledgements	iv
Executive summary	v
Chapter 1: Introduction and methodology	1
1.1 Introduction	1
1.2 Data	2
1.3 Methods	2
1.4 Assessment of data	3
Chapter 2: Findings on births in the last 5 years preceding the surveys	7
2.1 Fertility planning status of births in the last five years	7
2.2 Fertility planning status of births in the last five years by year of birth of women	7
2.3 Unwanted births in the last 5 years by age of women at birth of child	8
2.4 Unwanted births in the last 5 years by province	9
2.5 Unwanted births in the last 5 years by highest level of education and household wealth	9
Chapter 3: Findings on total number of children ever born and ideal number of children	11
3.1 Average parity by year of birth of women, 1998 and 2016	11
3.2 Women who reported parity by year of birth of women, 1998 and 2016	11
3.3 Mean ideal number of children by year of birth of women, 1998 and 2016	12
3.4 Women who reported ideal number of children by year of birth of women, 1998 and 2016	12
3.5 Average parity and mean ideal number of children by year of birth of women 1965–1984, 1998 and 2016	13
3.6 Average excess fertility by birth cohort, 1998 and 2016	14
3.7 Excess fertility by year of birth of women, 1998 and 2016	15
Chapter 4: Discussion and conclusion	17
4.1 Discussion	17
4.2 Conclusion	18
4.3 References	19

List of tables

Table 1: Per cent distribution of women aged 15–49 by number of births in the last five years preceding the survey, 1998 and 2016	4
Table 2: Distribution of number of births in the children’s and women’s dataset, 1998 and 2016	5
Table 3: Per cent distribution of births in the last 5 years preceding the surveys (including current pregnancies) by planning status of births and year of birth of women, 1998 and 2016	8
Table 4: Percentage of women reporting parity by year of birth of women, 1998 and 2016.....	12
Table 5: Percentage of women who had excess fertility by year of birth of women, 1998 and 2016	15

List of figures

Figure 1: Per cent distribution of women aged 15–49 with one birth in the last five years preceding the survey, 1998 and 2016	4
Figure 2: Age distribution of women, 1998 and 2016	5
Figure 3: Per cent distribution of women by the number of living children, 1998 and 2016.....	6
Figure 4: Per cent distribution of births in the last 5 years preceding the surveys (including current pregnancies) by planning status of births, 1998 and 2016	7
Figure 5: Per cent distribution of unwanted births in the last 5 years preceding the survey (including current pregnancies) by age of women at birth of child, 1998 and 2016	8
Figure 6: Per cent distribution of unwanted births in the last 5 years (including current pregnancies) by province, 1998 and 2016	9
Figure 7: Per cent distribution of unwanted births in the last 5 years including current pregnancies by highest level of education of the mother, 1998 and 2016.....	10
Figure 8: Per cent distribution of unwanted births in the last 5 years (including current pregnancies) by wealth quintile, 2016	10
Figure 9: Average parity by year of birth of women, 1998 and 2016	11
Figure 10: Mean ideal number of children by year of birth of women, 1998 and 2016	12
Figure 11: Percentage of women reporting ideal number of children by year of birth of women, 1998 and 2016	13
Figure 12: Difference in average parity of 1998–2016 and mean ideal number of children of 1998–2016 for each birth cohort 1965–1984, 1998 and 2016	14
Figure 13: Average excess fertility by birth cohorts	14
Figure 14: Percentage of women who had excess fertility by birth cohorts, 1998 and 2016	16

Definition of terms

Cohort: In this report it refers to a group of women who were born in the same year/period.

Chapter 1: Introduction and methodology

1.1 Introduction

South Africa continues to experience fertility decline. Udjo (2005) estimated a total fertility rate (TFR) of 4,9 in 1970 and the rate declined to 3,2 in 1996. The 2016 South African Demographic Health Survey (SADHS) reported a TFR of 2,6 (National Department of Health et al., 2019) and this was a decrease from a level of 2,9 recorded in 1998 SADHS (Department of Health, 1999). Often the discourse of fertility decline includes changes in fertility preferences and unwanted fertility (National Research Council, 1997). Fertility preferences are noted to be high and unwanted fertility rate is low in early fertility transition and these indicators change as the transition progresses (Bongaarts, 2003).

Research on unwanted fertility supports the monitoring of Goal 3 of the Sustainable Development Goals. The goal seeks to ensure healthy lives and promote well-being for all at all ages. Amongst others, indicators related to the goal include a reduction in global maternal mortality ratio, under-5 mortality rate, neonatal mortality rate, adolescent birth rate and increasing the proportion of women of reproductive age who have their need for family planning satisfied with modern methods (Stats SA, 2017; United Nations, 2015).

The National Development Plan vision 2030 also seeks to reduce the burden of disease and reduce infant mortality rate to less than 20 deaths per one thousand live births and Under-5 mortality rate to 30 per thousand live births (National Planning Commission, 2012). Researchers acknowledge that maternal and child mortality and health is a function of the number of pregnancies and births a woman has and reducing the number of unwanted births is one way of improving maternal and child health (National Research Council, 1997)

The unfavourable effects of unwanted fertility are understood to be multifaceted and possibly long-term (Casterline and Mendoza, 2009). The disadvantages suffered by unwanted children may be in their health, early childhood development as well as potential future social and economic opportunities (Singh et al., 2010; Dixit et al., 2012). The negative consequences of unwanted childbearing are highlighted in a study by Russo (2014). Variations in the level of unwanted fertility are observed by regions. The level of unwanted births for South Africa's neighbouring country Zimbabwe is 7% as reported in the 2015 Zimbabwe DHS (Zimbabwe National Statistics Agency and ICF International, 2016). In Lesotho the level stood at 22% in their 2014 DHS (Ministry of Health [Lesotho] and ICF International, 2016).

Nationally research on fertility has focused on total fertility rate, less attention has been given to the level, changes and differentials in unwanted fertility. This is partly because there are challenges related to the measurement of planning status of births and these have been noted and documented in the literature (Santeli et al., 2003; Singh, 2010; Casterline and El-Zeini, 2007). At the same time there has been on-going methodological improvement on the measurements (Casterline and Mendoza, 2009). Lack of research on unwanted fertility is also attributable to the fact that censuses and community surveys conducted thus far have limited fertility information to allow analysis of unwanted fertility amongst women in reproductive ages. The recent 2016 SADHS, in addition to the 1998 SADHS, offers an opportunity to explore levels and differentials of unwanted fertility in the context of fertility decline in the country.

In light of the above this study estimates the levels and variations of unwanted fertility. Determining the trends and its differentials will highlight the population at risk of morbidity and mortality related to unwanted fertility. Further, the results reflect the challenges of women in achieving their fertility preferences and the potential decline in fertility when individual and societal interventions are employed to regulate unwanted childbearing.

1.2 Data

The study uses women's and children's data from the 1998 and 2016 SADHS. The aim of the SADHS is to provide an update of the demographic and health information of the population with the aim of assisting planners to design and monitor progress for development (National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC) and ICF, 2019; Department of Health, 1998).

The sampling frame for the 1998 SADHS was guided by Census 1996 whilst that of 2016 was compiled using Census 2011 enumeration areas. In 1998 the selection process yielded 690 and 282 primary sampling units in urban and non-urban areas. Of the 12 638 households selected and occupied 96,9% were successfully interviewed whilst 95,2% of the 12 327 eligible women were as well interviewed. Non-response was basically attributed to non-contact and refusal. In 2016 sampling produced 468 urban and 282 non-urban population sampling units. The response rates observed in 2016 were lower compared to the 1998 SADHS. A response rate of 83,4% was noted out of 13 288 selected and occupied households and 86,2% of 9 878 eligible women were successfully interviewed [National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC) and ICF, 2019; Department of Health, 1998].

Units of analysis for this study are divided in to two groups. First is all births in the last five years preceding the surveys; a total of 4 992 births from 1998 and 3 572 births from 2016 are analysed. In addition 412 and 332 of current pregnancies from 1998 and 2016 form part of this analysis. The second set of units comprised of 11 735 women from 1998 and 8 514 women from 2016. All women are between the ages of 15–49 years. The sample was weighted to make it representative of the South African women population.

1.3 Methods

The study applied two approaches to determine the level of unwanted fertility. The first approach is based on retrospective birth events that happened in the last five years prior to the surveys. This approach generates the percentage of unwanted births in the last 5 years preceding the survey (Casterline and El-Zeini, 2007). Unwanted birth means the birth, as recalled by the women, where no additional birth was planned or wanted at the time of conception. In addition, if the stated preference had prevailed the birth would have never occurred (Bongaarts and Casterline, 2013, Demeny, 2003). Women are asked about the preferences of each birth at the time of conception. The survey asks *"when you got pregnant with (NAME), did you want to get pregnant at the time?"* Women who responded *"No"* were further probed if they had wanted to have a baby *"later on"* or *"did not want any more children"*. A birth is classified as unwanted if the woman did not want any more children. In addition, the method takes into consideration fertility planning status of women who are currently pregnant.

Pregnant women at the time of the survey were asked “*when you got pregnant, did you want to get pregnant at the time*”. A pregnancy is considered to be unwanted if the answer to the question was a “No”.

Percentage of unwanted births = Births in the last 5 years preceding the survey which were unwanted, including current pregnancies / Births in the last 5 years, including current pregnancies *100.

Tabulations required the calculation of age of women at birth of child and age of women at the delivery of current pregnancy.

Age of women at birth of child = (int((CMC date of birth of child - CMC date of birth of women)/12))

Age of women at delivery of current pregnancy = int((CMC date of interview + 9 - duration of current pregnancy - CMC date of birth of women) /60) - 2 (Croft et al, 2018).

The indicator, percentage of unwanted births, is presented by age, year of birth of women, province, highest level of education and household wealth.

The second method of estimating unwanted fertility applied determines the difference between ideal number of children and total number of children ever born. With regards to ideal number of children women who had children were asked “*If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?*” Alternatively women with no living children were asked “*If you could choose exactly the number of children to have in your whole life, how many would that be?*” The numeric response to these questions produced what is referred to as ideal number of children.

Using the ideal number of children and total children ever born (as indicated by interviewed women), a variable called excess fertility was created. Women who had more total children ever born than their reported ideal number of children are considered to have excess fertility. Women with an excess fertility of less than zero are taken to have not achieved their ideal family size yet. To expand understanding on the average level of excess fertility average parity and mean ideal number of children are estimated and analysis is presented by year of birth of women. SPSS and Stata were used to analyse the data.

Both the approaches applied in this report are dependent on perception questions of the SADHS, therefore results should be understood as perceptions of women. Further excess fertility is presented with an assumption that the ideal number of children as reported by women prevailed throughout their reproductive lives.

1.4 Assessment of data

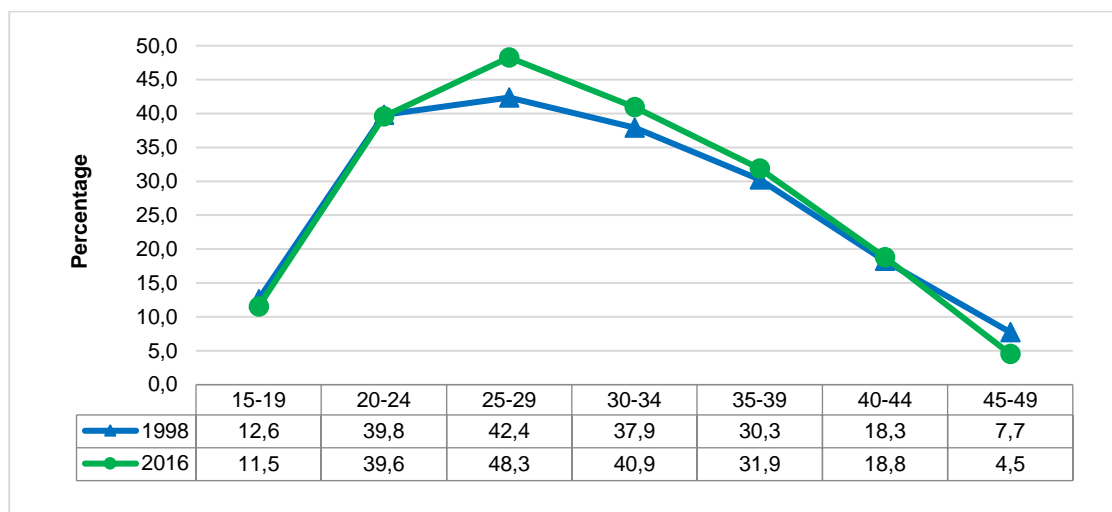
Table 1 shows data of women who had no birth and mothers who have borne children in the last five years. Despite the overall higher percentage of women with no birth there was a consistently higher percentage of women who had one (1) birth relative to women who had two (2) or more births. This is expected given the few number of years considered before the surveys. The percentage of women with one and more than one birth was stable at an average of 29% and 6% in 1998 and 2016; respectively.

As indicated in Figure 1, the distribution of women who had at least one birth reflect the South African fertility schedule where fertility peaks in the ages 20–24 and 25–29 then gradually decreases with age. The shape of fertility distribution was consistent from 1998 to 2016.

Table 1: Per cent distribution of women aged 15–49 by number of births in the last five years preceding the survey, 1998 and 2016

Age group	1998				2016			
	0	1	2+	Total	0	1	2+	Total
15–19	86,8	12,6	0,6	100,0	87,7	11,5	0,8	100,0
20–24	50,6	39,8	9,6	100,0	50,5	39,6	9,9	100,0
25–29	45,2	42,4	12,4	100,0	40,7	48,3	11,0	100,0
30–34	51,2	37,9	10,8	100,0	51,3	40,9	7,7	100,0
35–39	62,6	30,3	7,2	100,0	61,3	31,9	6,8	100,0
40–44	78,3	18,3	3,5	100,0	78,7	18,8	2,4	100,0
45–49	91,4	7,7	0,8	100,0	95,1	4,5	0,3	100,0
Total	64,9	28,4	6,7	100,0	64,3	29,7	6,0	100,0

Figure 1: Per cent distribution of women aged 15–49 with one birth in the last five years preceding the survey, 1998 and 2016



There are regularities in the overall percentage of children found in the women and children files of the SADHS (Table 2). Similar to the distribution of women, the percentage and pattern of children born in the 5 years preceding the surveys mirror the known fertility schedule of South Africa.

Table 2: Distribution of number of births in the children’s and women’s dataset, 1998 and 2016

Age group	Calculated number of births in the women's file		Number of births in children's file	
	1998	2016	1998	2016
15–19	6,2	5,2	6,2	5,2
20–24	24,6	23,6	24,6	23,6
25–29	25,8	28,7	25,8	28,7
30–34	20,1	21,3	20,1	21,3
35–39	14,9	13,7	14,9	13,7
40–44	6,6	6,2	6,7	6,2
45–49	1,9	1,3	1,9	1,3
Total	4 992	3 572	4 992	3 572

The estimated average age of women in 1998 SADHS is 30,1 years and this increased marginally to 30,8 years in 2016 SADHS. Figure 2 indicates that the age distribution of women in 2016 SADHS reflects the pattern from 1998 with a marginal difference in each age group. The distributions in the age groups 15–19 and 45–49 had a negative and a positive difference of approximately 2%.

As expected Figure 3 reveals that as the total number of children ever born increases the percentage of women who report total number of children ever born decreases. There are consistencies in the percentage of women reporting total number of children ever born in both years.

Figure 2: Age distribution of women, 1998 and 2016

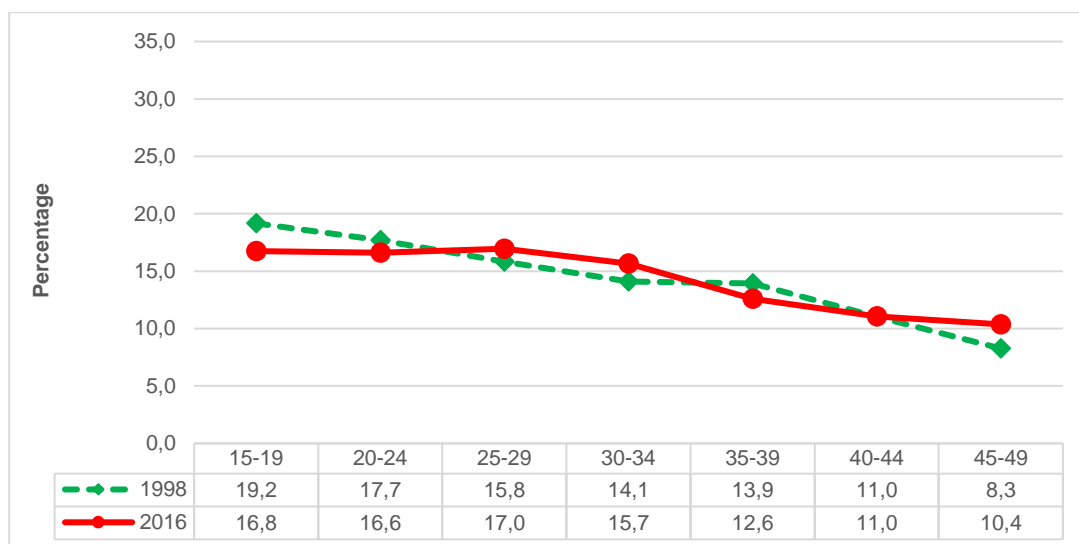
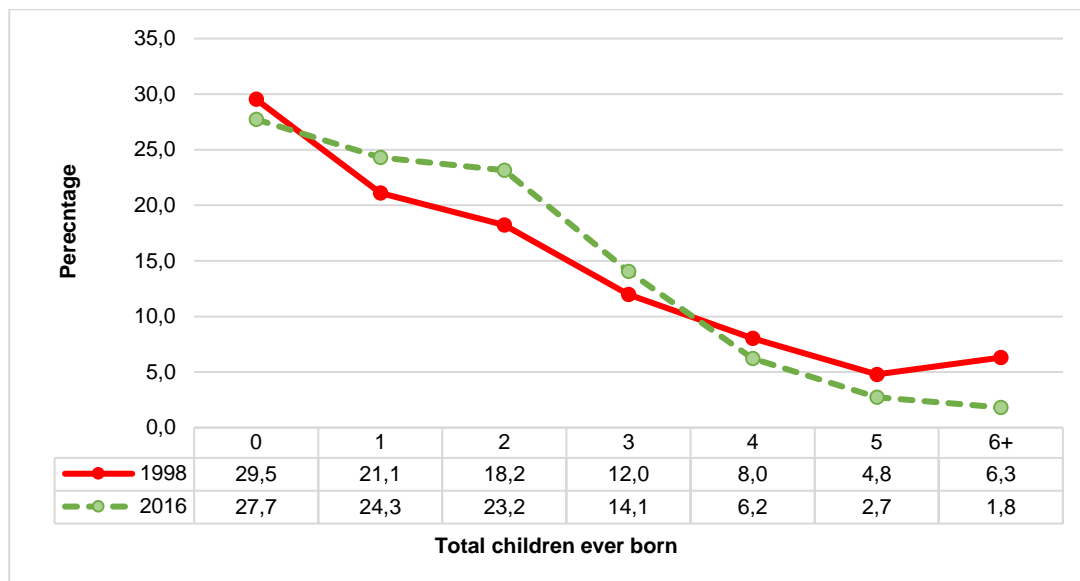


Figure 3: Per cent distribution of women by the number of living children, 1998 and 2016



In contrast to 2016 data, 1998 data had missing cases on a number of variables although negligible. No missing information was imputed in the analysis. Overall consistencies in variables above suggest that the data is reasonable for analysis.

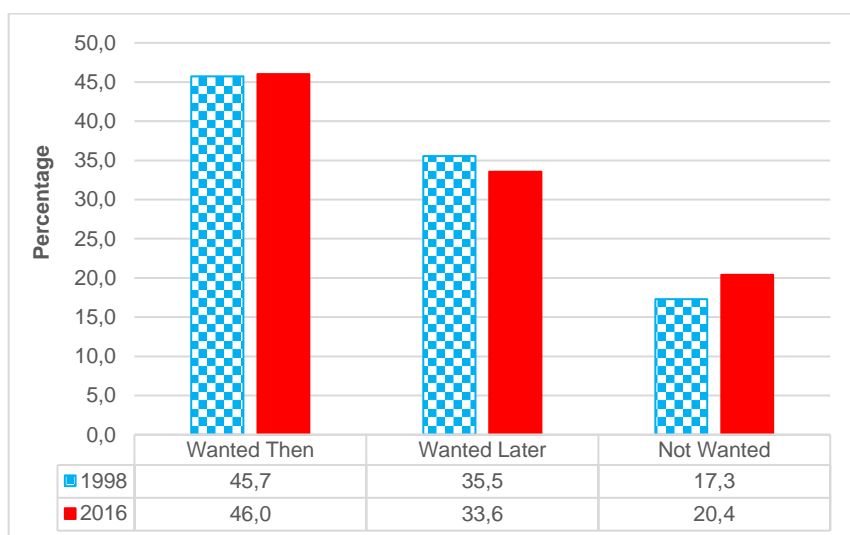
Chapter 2: Findings on births in the last 5 years preceding the surveys

This section presents results on births that occurred in the last five years preceding the surveys, including current pregnancies. Births are tabulated by fertility planning status as perceived by the women and detailed analysis of variations in unwanted births is shown by woman’s age at birth of child, year of birth of women, province, highest level of education and household wealth. Unwanted births are births conceived when women wanted to have no more births.

2.1 Fertility planning status of births in the last five years

Figure 4 highlights that there was a slight increase in the percentage of unwanted births from 17,3% in 1998 to 20,4% in 2016. Births that were wanted later decreased from 35,5% to 33,6% whilst a constant average of 46% was observed for births that were considered wanted at the time of conception.

Figure 4: Per cent distribution of births in the last 5 years preceding the surveys (including current pregnancies) by planning status of births, 1998 and 2016



Source: National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC) and ICF, 2019; Department of Health, 1998

2.2 Fertility planning status of births in the last five years by year of birth of women

Findings show an increase in unwanted births amongst a cohort of women who are interviewed in both 1998 and 2016 surveys (Table 3). Women born in 1965–1969 and 1970–1974 observed the highest increase in unwanted births in the last five years preceding the 2016 survey. From 13,2% in 1998 unwanted births amongst the first cohort increased significantly to 54,3% in 2016. The increase in unwanted births is less amongst women from the last two cohorts. Amongst women born in 1980–1984 unwanted births increased to 22,1% from 13,5% in 1998.

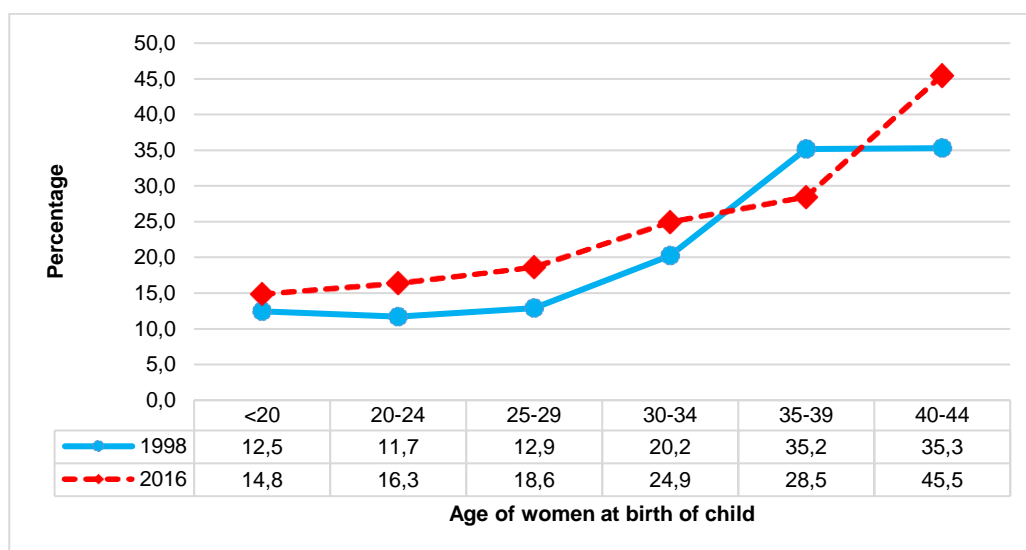
Table 3: Per cent distribution of births in the last 5 years preceding the surveys (including current pregnancies) by planning status of births and year of birth of women, 1998 and 2016

Fertility planning status	1965–1969		1970–1974		1975–1980		1980–1984	
	1998	2016	1998	2016	1998	2016	1998	2016
Wanted then	58,9	34,2	49,3	45,8	25,1	55,2	14,5	57,8
Wanted later	27,9	11,5	39,2	7,6	62,2	15,4	72,0	20,0
Not wanted	13,2	54,3	11,5	46,7	12,7	29,4	13,5	22,1

2.3 Unwanted births in the last 5 years by age of women at birth of child

In both 1998 and 2016, Figure 5 shows that unwanted births increased with age of the mother. Approximately 12,5% (1998) and 14,8% (2016) of births to mothers aged less than 20 were unwanted and this reached a high of 35,3% and 45,5% for births to mothers aged 40–44. Compared to 1998, the percentage of unwanted births was higher for all mothers in 2016 except in the age group 35–39. For instance in the age group 40–44; 35,3% of births were unwanted in 1998 and this increased to 45,5% in 2016 (thus representing a percentage point increase of 10,2).

Figure 5: Per cent distribution of unwanted births in the last 5 years preceding the survey (including current pregnancies) by age of women at birth of child, 1998 and 2016¹

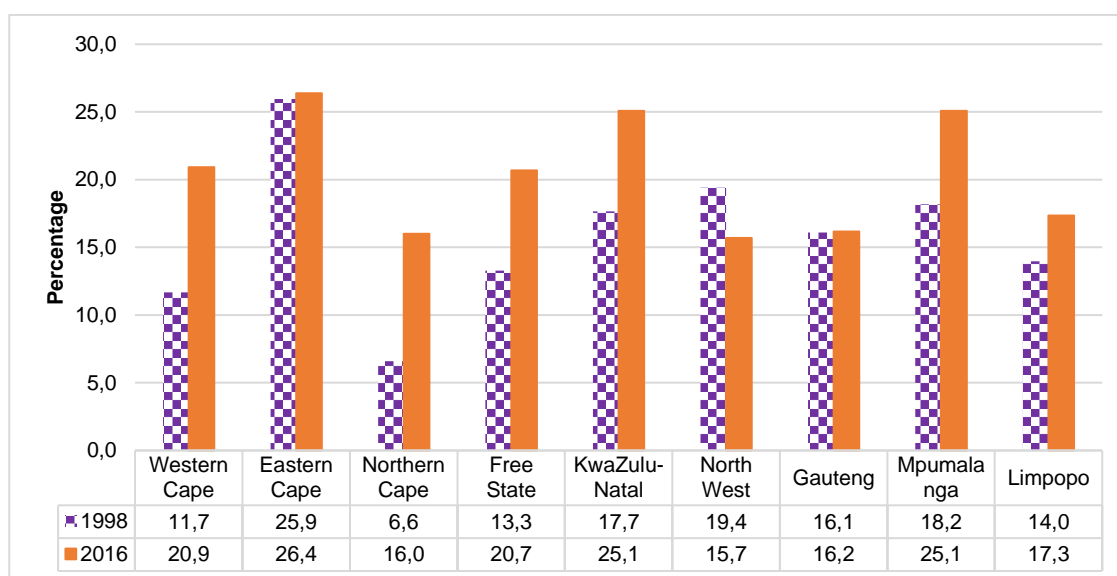


¹ There are fewer cases to calculate fertility planning status for the age group 45–49

2.4 Unwanted births in the last 5 years by province

Eastern Cape (26,4%), KwaZulu-Natal and Mpumalanga (25,1%) had the highest percentage of unwanted births in 2016 (Figure 6). The same provinces, including North West ranked amongst the top 4 provinces which observed high unwanted births in 1998. The highest increase in unwanted births was more pronounced in the Northern Cape and Western Cape where unwanted births increased from 6,6% to 16,0% and 11,7% to 20,9% from 1998 to 2016; respectively. Percentage of unwanted births remained unchanged at about 16% and 26% in Gauteng and Eastern Cape. Findings indicate that North West is the only province which observed a decrease in unwanted births from 19,4% in 1998 to 15,7% in 2016.

Figure 6: Per cent distribution of unwanted births in the last 5 years (including current pregnancies) by province, 1998 and 2016



2.5 Unwanted births in the last 5 years by highest level of education and household wealth

Figure 7 below shows that the overall percentage of unwanted births was higher in 2016 relative to 1998. In both years the percentage of unwanted births decreased with increasing education and the slope is steeper in 2016. In 2016 unwanted births to mothers with tertiary education (11,4%) is four times less compared to mothers with no education (46,3%). The gap in unwanted births between 1998 and 2016 is larger amongst women with no education and narrows as education increases. For instance unwanted births to mothers with no education almost doubled from 24,8% in 1998 to 46,3% in 2016. In contrast the percentage was consistent at an average of 12% for births to mothers with higher levels of education in both years.

Percentage of unwanted births decreased gradually with increasing household wealth (Figure 8). The lowest percentage of unwanted births (13,1%) was found in the richest wealth quintile whilst 25,8% of unwanted births belonged to the poorest wealth quintile.

Figure 7: Per cent distribution of unwanted births in the last 5 years including current pregnancies by highest level of education of the mother, 1998 and 2016

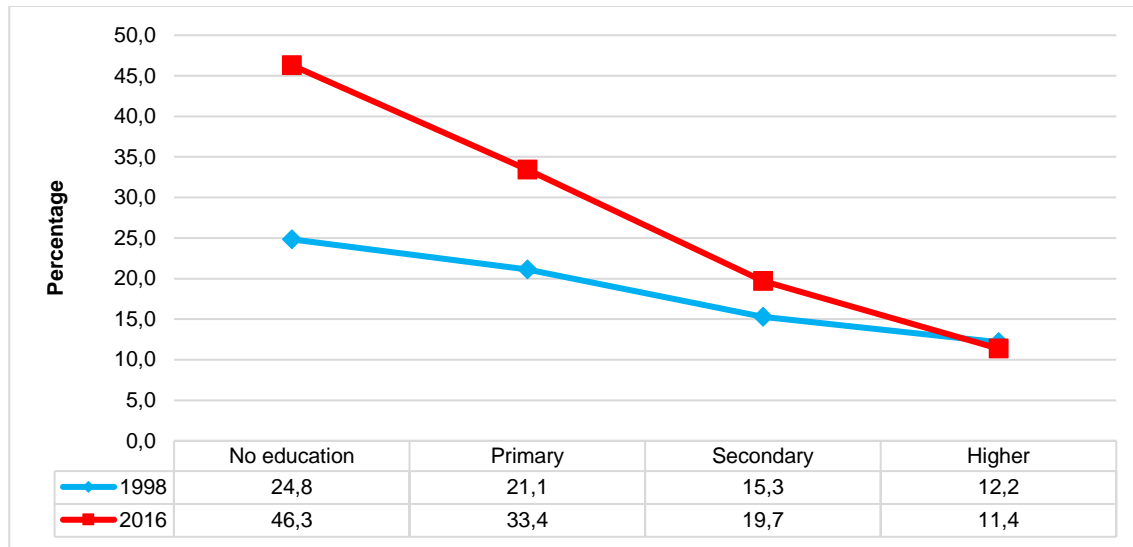
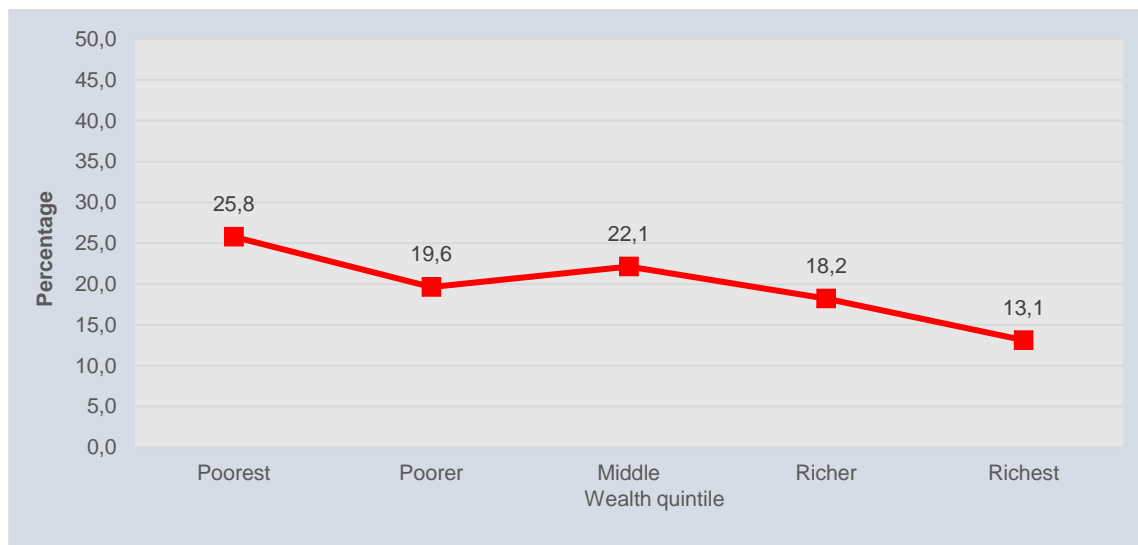


Figure 8: Per cent distribution of unwanted births in the last 5 years (including current pregnancies) by wealth quintile, 2016²



² Wealth quintile variable is not available for 1998

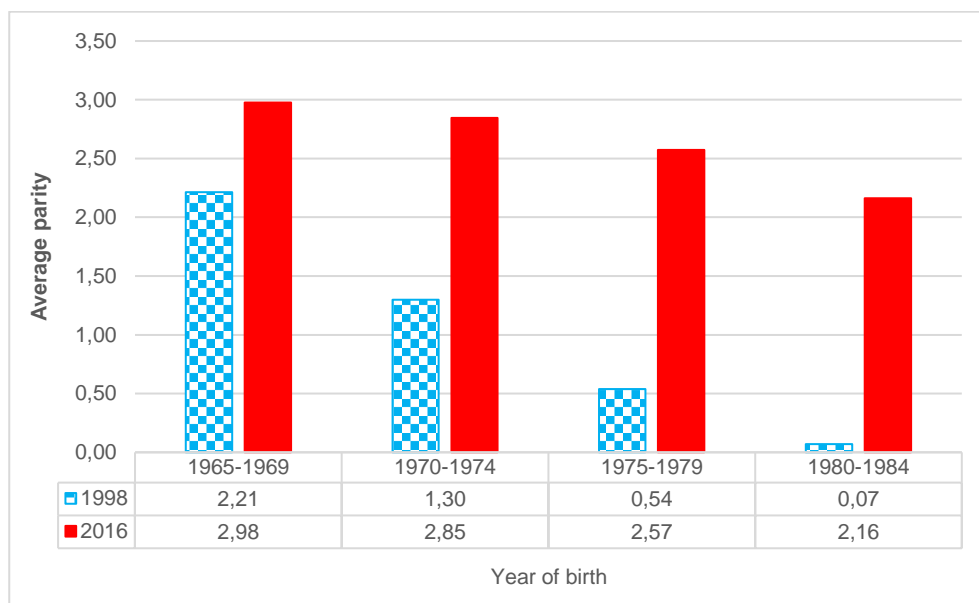
Chapter 3: Findings on total number of children ever born and ideal number of children

This chapter presents findings on parity (total number of children ever born), ideal number of children and excess fertility. This is analysed by cohort year of birth of women namely: 1965–1969³, 1970–1974, 1975–1979 and 1980–1984. By looking at these birth cohorts the section summarises change in unwanted fertility from 1998 to 2016.

3.1 Average parity by year of birth of women, 1998 and 2016

Figure 9 indicates that each birth cohort experienced an increase in average parity 18 years later after the 1998 SADHS was conducted. For instance women born in 1965–1969 increased their parity in 2016 to 2,98 from 2,21 in 1998. Whilst women born in 1980–1984 grew their average parity from 0,07 in 1998 to 2,16 in 2016. Women born in later cohorts had noticeable change in average parity compared to groups of women born in earlier years.

Figure 9: Average parity by year of birth of women, 1998 and 2016



3.2 Women who reported parity by year of birth of women, 1998 and 2016

From 1998 to 2016 there is a decrease in the percentage of women reporting zero or lower parity accompanied by an increase in women reporting parity of 2 and 3 children; and this applies to all cohorts (Table 4). Amongst women born in 1980–1984 the percentage reporting zero parity decreased from 93,2% in 1998 to 7,9% in 2016. In contrast findings show that 1,2% of women born in 1975–1979 reported 3 children and this increased to 25,1% in 2016.

³ In 2016 SADHS Women born in 1965 were no longer part of the survey

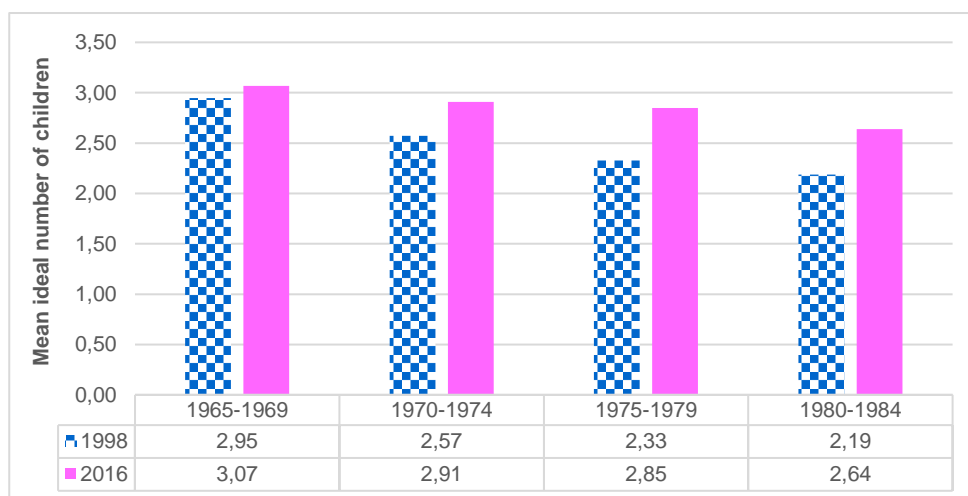
Table 4: Percentage of women reporting parity by year of birth of women, 1998 and 2016

Parity	1965–1969		1970–1974		1975–1979		1980–1984	
	1998	2016	1998	2016	1998	2016	1998	2016
0	10,1	6,3	23,5	5,7	56,0	5,2	93,2	7,9
1	21,3	11,6	38,4	13,9	35,2	17,9	6,7	21,5
2	31,9	25,1	26,4	25,7	7,6	28,8	0,1	35,6
3	20,3	23,2	8,9	25,9	1,2	25,1	0,0	23,5
4	10,4	16,3	2,0	14,6	0,0	14,5	0,0	7,3
5	3,6	10,8	0,6	7,7	0,0	5,2	0,0	2,9
6+	2,4	6,8	0,1	6,4	0,0	3,4	0,0	1,4

3.3 Mean ideal number of children by year of birth of women, 1998 and 2016

Figure 10 highlights that across all birth cohorts women reported a higher ideal number of children in 2016 compared to 1998. For example mean ideal number of children increased from 2,19 in 1998 to 2,64 in 2016 for women born in 1980–1984. Generally the difference in mean ideal number of children between the two surveys increases from the first cohort of 1965–1969 to the last cohort born in 1980–1984.

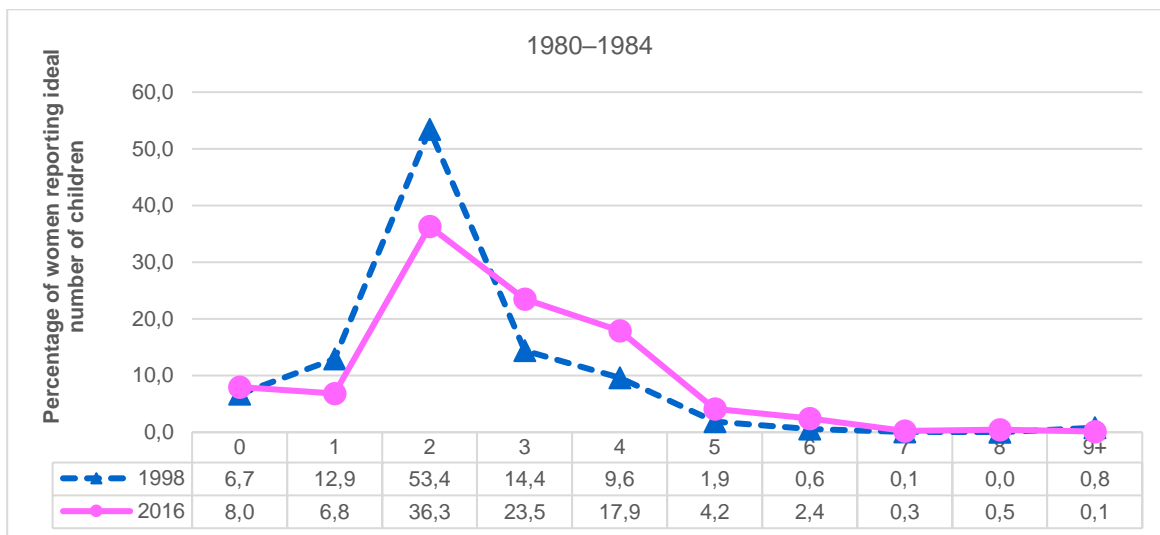
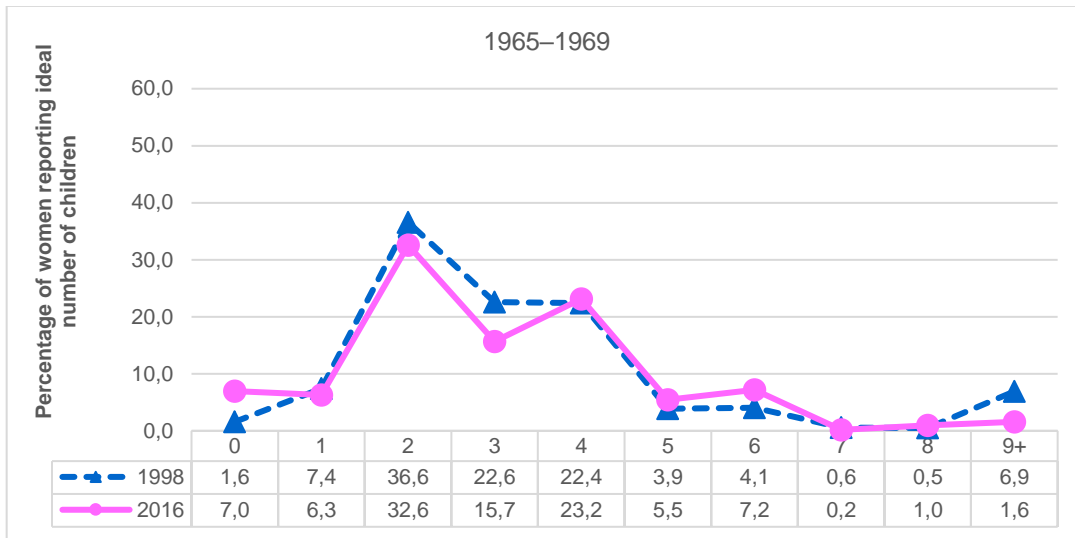
Figure 10: Mean ideal number of children by year of birth of women, 1998 and 2016



3.4 Women who reported ideal number of children by year of birth of women, 1998 and 2016

Figure 11 shows a change in the reporting of ideal number of children from one survey to another using two birth cohorts. Compared to women born in 1965–1969 the cohort born in 1980–1984 reveals a clear shift in the reporting of ideal number of children from 1998 to 2016. The majority of women born in 1980–1984 (53,4%) reported an ideal number of 2 children in 1998. By 2016 an ideal of 2, 3 and 4 children was commonly reported by 36,3%, 23,5% and 17,9% of women; respectively.

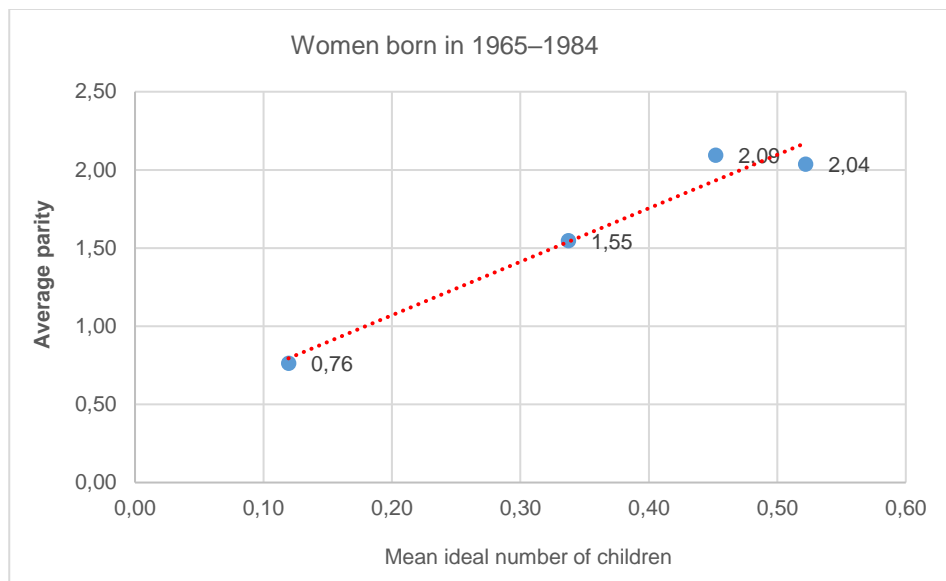
Figure 11: Percentage of women reporting ideal number of children by year of birth of women, 1998 and 2016



3.5 Average parity and mean ideal number of children by year of birth of women 1965–1984, 1998 and 2016

Figure 12 plots the difference in average parity of 1998-2016 and mean ideal number of children of 1998-2016 for each birth cohort. Findings suggest a strong relationship between mean ideal number of children and average parity. This is shown by an R^2 of 0,9599. Overall birth cohorts report ideal number of children that does not differ greatly from their parity.

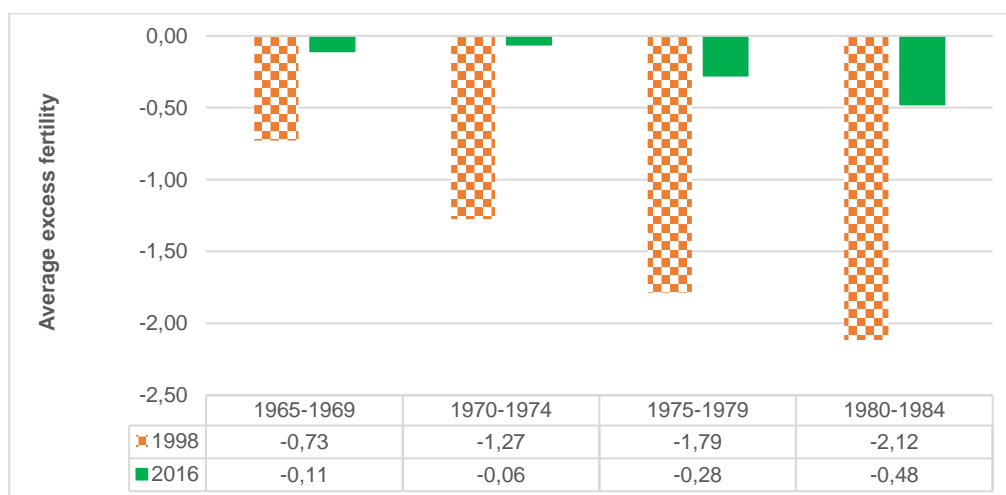
Figure 12: Difference in average parity of 1998–2016 and mean ideal number of children of 1998–2016 for each birth cohort 1965–1984, 1998 and 2016



3.6 Average excess fertility by birth cohort, 1998 and 2016

In each birth cohort women had an average excess fertility of less than zero signifying that on average the total number of children ever born by these women is less than their ideal number of children (Figure 13). Amongst women born in 1975–1979 the deficit in children they want to have decreased from -1,79 in 1998 to -0,28 in 2016. Younger cohorts observed slightly higher deficit in 2016.

Figure 13: Average excess fertility by birth cohorts



3.7 Excess fertility by year of birth of women, 1998 and 2016

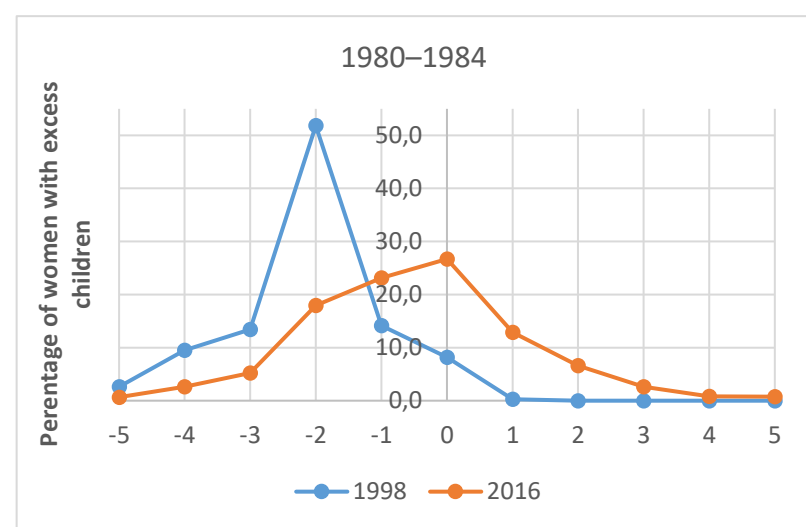
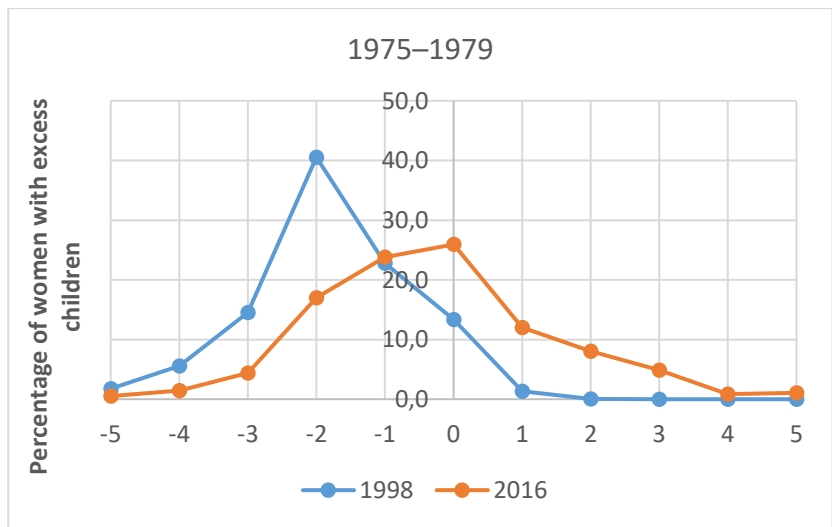
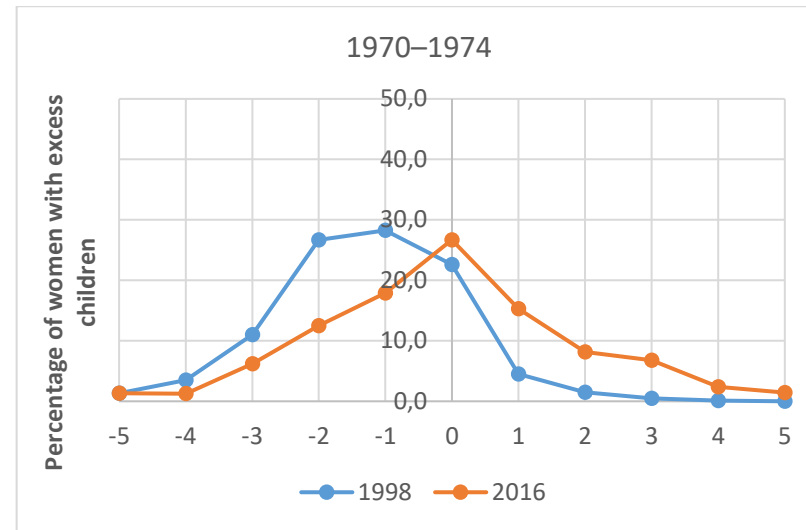
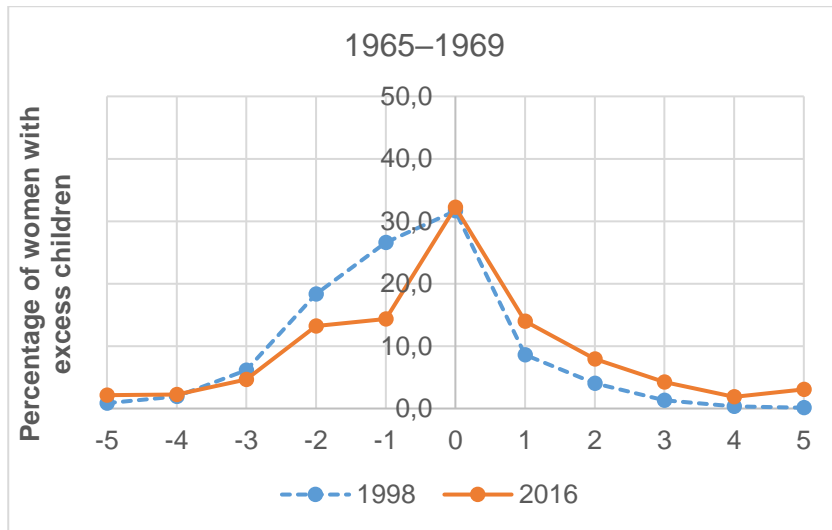
Table 5 and Figure 14 indicate that in each birth cohort the percentage of women who had less than zero excess children was higher in 1998 than in 2016. For example 51,8% of women born in 1980–1984 had 2 less children in 1998 and this group of women dropped to 18% in 2016. Women who had 2 less children in 1998 increased with the cohorts. Women with 2 less children were 18,4% amongst the cohort of 1965–1969 whilst they made up 40,6% in the 1975–1979 birth cohort.

Across all cohorts women reporting positive excess fertility were noticeably lower in 1998 and higher in 2016. Amongst women born in 1970–1974; 15,3% had an excess of one child and this was an increase from 4,5% in 1998.

Table 5: Percentage of women who had excess fertility by year of birth of women, 1998 and 2016

Excess children	1965–1969		1970–1974		1975–1979		1980–1984	
	1998	2016	1998	2016	1998	2016	1998	2016
-5	0,9	2,1	1,3	1,3	1,7	0,5	2,6	0,7
-4	1,9	2,2	3,5	1,3	5,6	1,5	9,5	2,6
-3	6,2	4,7	11,0	6,2	14,6	4,4	13,4	5,2
-2	18,4	13,2	26,7	12,5	40,6	17,0	51,8	18,0
-1	26,6	14,4	28,3	17,9	22,8	23,8	14,2	23,1
0	31,7	32,2	22,6	26,7	13,3	25,9	8,2	26,7
1	8,6	14,0	4,5	15,3	1,4	12,0	0,3	12,9
2	4,0	8,0	1,5	8,2	0,1	8,0	0,0	6,6
3	1,3	4,3	0,5	6,8	0,0	4,9	0,0	2,6
4	0,4	1,9	0,1	2,4	0,0	0,8	0,0	0,8
5	0,1	3,1	0,0	1,4	0,0	1,1	0,0	0,8

Figure 14: Percentage of women who had excess fertility by birth cohorts, 1998 and 2016



Chapter 4: Discussion and conclusion

4.1 Discussion

The study has shown that unwanted births in the last 12 months preceding the surveys, including current pregnancies, increased drastically for older birth cohorts than younger cohorts. From 1998 to 2016 unwanted births increased by 41,1 percentage points for women born in 1965–1969. The increase in unwanted births is marginal when all women from 1998 and 2016 surveys are compared. The increase is approximately 3,1 percentage points between the period. Whilst national research focusing on unwanted births is sparse, studies that have looked at unwanted pregnancies acknowledge the rise in the prevalence of pregnancies that are regarded as unintended (pregnancies which could have been deferred till later and not wanted at all) at the time of conception. For instance, a study by Haffejee and others (2018) which looked at factors associated with unintended pregnancy in KwaZulu-Natal concluded that about 64% of the pregnancies were not intended at the time they were conceived. A similar study concentrating on students at South African Technical and Vocational Education and Training colleges estimated 74,6% of such unplanned pregnancies (Adeniyi, 2018).

The increasing level of unwanted fertility as shown by the findings corroborates declining fertility in the country. Overall as ideal family size and total fertility rate decrease, it is not surprising that an increasing number of births were conceived when women were not planning on having more children. Another possible explanation for the findings is, as Timæus and Moultrie (2020) articulated in their recent study, during the fertility transition women want to curtail their fertility for reasons other than that related to their fertility history or intentions. This curtailment is regarded as an important feature driving fertility transition in most countries.

Unwanted births increased with age of women. Older women from older cohorts observed high unwanted births than younger women born in later years. Findings can probably be explained by the fact that fertility change is underway and is coupled by lower fertility desires (Caterline and Agyei-Mensah, 2017). Therefore older women, who are most likely to have started their fertility a bit earlier than younger women or younger cohorts, may have already achieved their preferred family sizes and then find themselves at risk of having births in 2016 when they did not want any more children. In addition, Timæus and Moultrie (2020) noted that women plan their families as they go. Older women who were in the early ages of their reproductive lives in 1998 may have adopted substantial fertility changes in the 18-year period, thus resulting in increased unwanted fertility in 2016.

The pattern of unwanted births by geography revealed that unwanted births are high where fertility is known to be high; for example Eastern Cape, KwaZulu-Natal, North West and Mpumalanga. Moultrie and Timæus (2002) have alluded that varying fertility by province is a reflection of their composition by population group and the varying levels of urbanisation, education and access to health and family planning services created by the apartheid system. The weakening of traditional norms and values including overall modernisation in urban regions also weakens the values of children, thus promoting smaller families (Gummu and Mace, 2008).

In terms of education the percentage of women with unwanted births decreased with increasing education. Educated people have to manage being active in the economy and their reproductive responsibilities and therefore adjust by wanting smaller families. In addition higher educational status promotes contraceptive use and increases its accessibility.

Although average excess fertility was less than zero, the pattern of change in 2016 suggests that women are achieving the fertility they desire. Relevant services will need to be consistently available to ensure that women do not have more children than they actually consider ideal. The slope of the decline in average parity does mirror the slope of decline in mean ideal number of children. The slope of decrease in average parity is steeper as one moves across the cohorts whilst that of mean ideal number of children is gradual. Findings on average parity and ideal number of children have shown that responses on ideal number of children do not deviate much from the total number of children a woman has. This is called rationalisation. This observation corresponds to a study by Casterline and Agyei-Mansah (2017) who observed a close correspondence between ideal number of children and realised fertility in Africa.

4.2 Conclusion

This report has highlighted the perceived extent of unwanted fertility in South Africa by presenting first the percentage of births in the last five years preceding the survey that were conceived when women wanted no more children, second by highlighting the level of excess fertility. Unwanted fertility is increasing in South Africa. The pattern of the two indicators analysed suggests changing fertility behaviour over time especially by birth cohorts and socio-economic characteristics. Without the necessary adaptation of sexual and reproductive health to support the changing fertility behaviour women are at risk of experiencing unwanted fertility.

4.3 References

- Adeniyi, O. V., Ajayi, A. I., Moyaki, M. G., Goon, D. T., Avramovic, G., & Lambert, J. (2018). High rate of unplanned pregnancy in the context of integrated family planning and HIV care services in South Africa. *BMC Health Services Research*, 18(1).
- Bongaartz, J. (2003). Completing the Fertility Transition in the Developing World: The Role of Educational Differences and Fertility Preferences. *Population Studies: A Journal of Demography*, 57(3), 321–336.
- Casterline, J. B., & Agyei-Mensah, S. (2017). Fertility desires and the course of fertility decline in sub-Saharan Africa. *Population and Development Review*, 43(S1), 84–111.
- Casterline, J. B., & El-Zeini, L. O. (2007). The Estimation of Unwanted Fertility. *Demography*, 44(4), 729–745.
- Casterline, J., & Mendoza, Jennifer. A. (2008). Unwanted fertility in Latin America: Historical Trends, Recent Patterns. *Demographic Transformations and Inequalities in Latin America*, 193–218.
- Croft, T., N., Aileen, M., J., & Marshall, C., K. Allen, et al. (2018). *Guide to DHS Statistics*. Rockville, Maryland, USA: ICF.
- Demeny, P., McNicoll, G., & Westoff, Charles. F. (2003). Unwanted fertility. In *Encyclopedia of Population: Vols. 2 (I-W)*. Macmillan Reference USA and Thomson Gale. New York. 949–951
- Department of Health. (1999). *South Africa Demographic and Health Survey 1998*. Department of Health.
- Dixit, P., Ram, F., & Dwivedi, L. K. (2012). Determinants of unwanted pregnancies in India using matched case-control designs. *BMC Pregnancy and Childbirth*, 12(1).
- Gurmy, E., & Mace, R. (2008). Fertility decline driven by poverty: The case of Addis Ababa, Ethiopia. *Journal of Biosocial Science*, 40(3), 339–358.
- Haffejee, F., O'Connor, L., Govender, N., Reddy, P., Sibiyi, M. N., Ghuman, S., Ngxongo, T., & Borg, D. (2018). Factors associated with unintended pregnancy among women attending a public health facility in KwaZulu-Natal, South Africa. *South African Family Practice*, 60(3), 79–83.
- Ministry of Health [Lesotho] and ICF International. (2016). *Lesotho Demographic and Health Survey 2014*.
- Moultrie, T., A., & Timæus, I. (2002). *Trends in South African Fertility between 1970 and 1998: An Analysis of the 1996 Census and the 1998 Demographic and Health Survey*. Burden of Disease Research Unit. Medical Research Council.
- National Research Council. (1997). *Reproductive Health in Developing Countries: Expanding Dimensions, Building Solutions*. Washington, DC: National Academies Press.

- National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC) and ICF. (2019). *South African Demographic and Health Survey 2016*.
- National Planning Commission. (2012). *National Development Plan 2030: Our future- make it work*. The Presidency.
- Russo, N. F. (2014). Abortion, unwanted childbearing, and mental health. *Salud Mental*, 37(4), 283–291.
- Santeli, J., Rochat, R., Hatfield-Timajchy, K., Gilbert, B., C., Curtis, K., Cabral, R., Hirsch, J., S., & Schieve, L. (n.d.). The measurement and meaning of unintended pregnancy. *Prospectives on Social and Reproductive Health*, 35(2), 94–101.
- Singh, S., Sedgh, G., & Hussain, R. (2010). Unintended pregnancy: Worldwide levels, Trends, and Outcomes. *Studies in Family Planning*, 41(4), 241–250.
- Statistics South Africa. (2015). *Census 2011: Fertility in South Africa*. Statistics South Africa.
- Statistics South Africa. (2017). *Sustainable Development Goals Indicator Baseline report 2017-South Africa*. Statistics South Africa.
- Timæus, I. M., & Moultrie, T. A. (2020). Pathways to Low Fertility: 50 Years of Limitation, Curtailment, and Postponement of Childbearing. *Demography*
- Udjo, O., E. (2005). Fertility Levels, Differentials, and Trends. In T. Zuberi, A. Sibanda, & O. Udjo E. (Eds.). *The Demography of South Africa* (pp. 40–64). M.E Sharpe.
- United Nations. (2015). *Transforming the World: The 2030 Agenda for Sustainable Development*. United Nations.
- Zimbabwe National Statistics Agency and ICF International. (2016). *Zimbabwe Demographic and Health Survey 2015: Final Report*.

