

MODERN DESIRES:  
FAMILY FORMATION PATTERNS IN THE CONTEXT  
OF HIV/AIDS IN POST-APARTHEID RURAL SOUTH AFRICA

by

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The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.

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Modern Desires: Family Formation Patterns in the Context of HIV/AIDS in Post-Apartheid Rural South Africa

Thesis directed by Distinguished Professor Jane Menken

This dissertation examines family formation patterns in rural, post-apartheid South Africa, focusing on changes in the timing and union context of first births, and shifts in young women's fertility preferences and future projects. I use longitudinal data from households in the Agincourt Health and Demographic Surveillance System from 1993-2010. I also use qualitative data collected from women aged 18-79 in Agincourt via in-depth interviews, focus group discussions, observations, and conversations with key informants from January-June 2010.

My findings demonstrate that South Africa's unique context of low fertility and high AIDS mortality has contributed to changes in the timing and union context of first births. Overall very few women enter unions by age 35 (10%). The majority of first births remain nonmarital, yet women today more often postpone first births beyond the teenage years and have their first births while married. Women with nonmarital births face several disadvantages as they move through early adulthood including being: less likely to marry; more likely to enter unstable unions; more likely to get divorced or separated; and more likely to die than women without nonmarital births.

Qualitatively, I identify an empirical puzzle: Why do young women who desire children fail to consider the risk of contracting HIV, despite extremely high HIV prevalence in Agincourt? I draw on sociological theories of hope, aspirations, and future projects, to argue that uncertainty about one's current and future HIV status alongside new access to antiretroviral treatment allows women to construct idealized futures free from HIV. Even though HIV serves as the backdrop to life for young South African women, they maintain hope in their ability to obtain the modern life

trajectories and goals they have constructed drawing on discourses provided by the new democratic government.

My findings also document generational shifts in fertility preferences. For older women, having a large family produced status and respect. Conversely, young women desire to limit their family size and instead gain status by educating their children and acquiring modern consumer goods. I draw on the Theory of Conjunctural Action to document factors at multiple levels of society that have facilitated these changes.

This dissertation is dedicated to two people who have given my life meaning and happiness:

To my husband, Daniel, for always reminding me that I can do whatever it is I think I can't. Your unending love, support, and confidence in me have made me a better person, scholar, and mother.

And, to my three month old daughter, Ella, whose life and innate happiness have given me perspective, motivation, and joy, which can be hard to find in the last stages of writing a dissertation.

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## CHAPTER 1: INTRODUCTION

For decades, notable scholars from across the globe have studied the causes and consequences of changes in fertility patterns. Some of these studies have focused on describing and explaining the fertility transition in different historical times and places (e.g., Bongaarts 2006; Bongaarts and Watkins 1996; Caldwell, Orubuloye and Caldwell 1992; Shapiro and Gebreselassie 2008).<sup>1</sup> Other researchers have theorized the proximate determinants of fertility and how they vary across geographies (e.g., Bongaarts 1978; Bongaarts, Frank and Lesthaeghe 1984; Stover 1998; van de Kaa 1996). Still others have investigated the different predictors and consequences of fertility preferences (e.g., Bankole 1995; Bledsoe 2002; Bongaarts 2001; Feyisetan and Casterline 2000; Freedman 1997; Short and Kiros 2002). Much of this research has focused in particular on fertility in Africa because of the persistence of high fertility levels and preferences across much of the continent. Although the fertility transition has now occurred in most countries, fertility levels and preferences remain high in many African countries, especially in sub-Saharan Africa (Bongaarts and Casterline 2012). South Africa, an exception to this pattern, serves as the setting for this dissertation research.

This project builds on this long line of fertility research in Africa by investigating change in fertility experiences, preferences, and plans among women in post-apartheid rural South Africa. While the subject of study is not unique, the setting certainly is. Unlike most countries in sub-Saharan Africa, South Africa has already undergone the fertility transition and now boasts a near-replacement fertility level (2.3 children per woman) on par with many developed countries (Garenne

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<sup>1</sup> It is conventionally accepted that a 10% decline in the birthrate of a population marks the onset of the fertility transition, a sustained and irreversible fertility decline that has now occurred in most places across the globe (Caldwell, Orubuloye and Caldwell 1992).

et al. 2007). Demographic transition theory predicts that low fertility would be paired with low mortality (Davis 1945; Notestein 1945); however, South Africa also has extremely high adult and infant mortality, largely due to AIDS (Kahn et al. 2007a; UNAIDS 2009; Zwang et al. 2007).

South Africa is also unique its history of colonialism and apartheid. The system of apartheid – separate development – put in place by the National Party of South Africa, legalized discrimination and segregation based on race. The Population Registration Act of 1950 enforced the classification of South Africans into four distinct racial groups: White, Coloured (mixed race), ‘Asiatic’ (Indian), and ‘Native’ (later ‘Bantu’ or African)<sup>2</sup> (Worden 2007). The apartheid government passed numerous laws to enforce the social and sexual separation of the races. Some examples include the Immorality Act (1949), which prohibited all sexual contact between Whites and people of different races; and the Group Areas Act (1950), which made racial residential segregation comprehensive and compulsory (Mabin 1992; Worden 2007). The 1954 Natives Resettlement Act gave the government authority to forcibly resettle Africans into separate townships and the 1959 Promotion of Bantu Self-Government Act created eight “Bantu Homelands” with their own governments (Worden 2007). These acts led to the creation of the Gazankulu Homeland, which encapsulates the region of South Africa – the Agincourt sub-district of Ehlanzeni District in Mpumalanga Province (“Agincourt”) – studied in this dissertation. The enforced separation of Whites from South Africans of other races has left, among other critical issues, a devastating legacy of inequality. More than half of the population and two-thirds of the youth of South Africa live in poverty today (Statistics South Africa 2013). This is true for one of every two households headed by Black South Africans and for 56% of households headed by Black South African women (Statistics South Africa 2013).

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<sup>2</sup> This dissertation focuses on African South Africans, whom I refer to as either “Black” or “African.”

Finally, South Africa has one of the worst AIDS epidemics in the world (UNAIDS 2006). There are approximately 5.7 million South Africans living with HIV and around 1,000 AIDS deaths each day (UNAIDS 2008). An estimated 1.8 million people in South Africa have died of AIDS or AIDS-related causes since the epidemic began (UNAIDS 2008). HIV prevalence in Agincourt is staggering: almost one in five adults and one in four women are HIV positive (Gómez-Olivé et al. 2013). In fact, HIV prevalence in Agincourt is comparable to prevalence rates in Swaziland and KwaZulu-Natal, the South African Province with the highest rate of HIV/AIDS (Gómez-Olivé et al. 2013; Wallrauch, Barnighausen and Newell 2010; Welz et al. 2007).

These unique demographic qualities of South Africa – low fertility, high mortality, and a globalized AIDS epidemic – alongside the historical forces of apartheid have combined to create exceptional conditions under which South Africa women plan for and have children. Thus, this project focuses on women’s childbearing experiences and future fertility preferences and plans in this dynamic and novel context.

In this project, I provide an account of a group of rural South African women’s family formation experiences, focusing on the timing and union context of first birth. I aim to explain how and why these experiences have varied across generations, and how young, rural South African women view childbearing when they think about and plan for their futures. In doing so, I contextualize these women’s experiences and perceptions within the cultural and social context of rural South Africa. The South African context today is characterized by economic development, modernization, and democratic values but also surrounds women with illness, death, and the unfulfilled promises of the post-apartheid government. These factors are closely tied to women’s childbearing experiences in the past and in the future because the societal changes since the end of apartheid have produced (some) new opportunities, which have inspired high aspirations. However, these changes have also come with limits on women’s agency and societal advancement in the form



of HIV/AIDS; “modern” values that perpetuate a generational divide and contribute to risky behavior; and barriers to education and economic success.

In the sections below, I describe this project’s four research objectives and provide brief descriptions of their relevance to previous research. I then outline the analyses in each of the four empirical chapters (Chapters 4-7).<sup>3</sup> The other chapters of the dissertation are organized as follows: Chapter 2 introduces the theoretical framework and reviews the relevant literature. Chapter 3 describes the research setting, methodologies employed in the dissertation, and the benefits of using a combination of qualitative and quantitative methods. Chapter 8, the conclusion, reiterates the overarching arguments and findings of the dissertation, highlights the main theoretical and empirical implications, and provides some directions for future research.

## **RESEARCH OBJECTIVES**

**Objective 1: To investigate if and how childbearing patterns among rural African South African women have changed over time.**

This project focuses specifically on the timing and union context of first birth in the rural Agincourt Health and Demographic Surveillance System site (“Agincourt”) in the Ehlanzeni District of Mpumalanga Province, South Africa. Examining these issues is important for several reasons. Research from rural KwaZulu-Natal Province in South Africa has demonstrated that marriage is increasingly being postponed until later ages (Hosegood, McGrath and Moultrie 2009). Yet, very few studies of union patterns in South Africa exist due to a lack of data (Budlender, Chobokoane and Simelane 2004). The postponement of marriage has contributed to high rates of nonmarital fertility among young women (Garenne et al. 2007; Gustafsson and Worku 2007; Kaufman, de Wet and

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<sup>3</sup> Each empirical chapter (Chapters 4-7) includes information about the contributions of the analyses and findings.

Stadler 2001). Although many studies from South Africa have investigated the dynamics of adolescent fertility (e.g., Jewkes et al. 2001; Kaufman, de Wet and Stadler 2001; Zabin and Kiragu 1998), few have focused specifically on nonmarital fertility. Thus, this project helps to fill this gap in the literature by developing a more complete picture of the timing and union context of first births in rural South Africa.

**Objective 2: To investigate the relationships between HIV prevalence, AIDS mortality, antiretroviral treatment (ARVs), and childbearing in rural South Africa.**

Most research among HIV positive populations has shown a depressing effect of the disease on fertility (e.g., Casterline 2002; Hunter 2003; Nguyen et al. 2006; Terceira et al. 2003; Zaba and Gregson 1998). Fewer studies have investigated the effect of HIV on fertility *preferences* (i.e., future fertility projects) and most have been conducted with HIV-positive men and women (e.g., Cooper et al. 2007; Kirshenbaum et al. 2004; Myer, Morroni and Rebe 2007; Noel-Miller 2003; Yeatman 2009a; Yeatman 2009b). These studies have shown that a positive HIV test is related to a reduced desire for future children among older people, those who are married, and people with children (Kirshenbaum et al. 2004; Noel-Miller 2003; Yeatman 2009a). A few studies – most from the United States – have analyzed the relationship between ARVs and childbearing with contradictory results (see Kaida et al. 2006 for a review). Some studies have found a positive relationship between being on treatment and pregnancy or a desire for children (e.g., Blair et al. 2004; Maier et al. 2009; Myer, Morroni and Rebe 2007); others have found a negative relationship (e.g., Massad et al. 2004); and others have found no relationship between ARVs and childbearing among the HIV positive (e.g., van Benthem et al. 2000). The current study contributes to this debate by analyzing how the timing and union context of first birth has shifted in the context of HIV/AIDS. Additionally, this project examines how HIV has influenced young women's future fertility preferences and projects.

**Objective 3: To investigate how women view, define, experience, and negotiate childbearing and motherhood and whether this has changed in the context of HIV/AIDS.**

The majority of the population in a high HIV context is likely to be living in a state of uncertainty about their current HIV status and their risk of future infection (Trinitapoli and Yeatman 2011). For young adults, this uncertainty often translates into a desire to increase the pace of childbearing (Trinitapoli and Yeatman 2011). In the absence of test results and in the context of uncertainty, the perception of one's HIV status can serve as an important predictor of fertility desires (Yeatman 2009b). A few studies have investigated individuals' perceptions of the influence of HIV on childbearing among those living in the midst of the epidemic but who do not know their HIV status. The strongest finding is the belief that when individuals show symptoms of being HIV positive they should stop having children. Otherwise, study respondents generally do not evince strong feelings about childbearing in the context of HIV (Baylies 2000; Grieser et al. 2001; Rutenberg, Biddlecom and Kaona 2000). Many studies of fertility preferences have been conducted in sub-Saharan African countries where fertility levels are higher and AIDS mortality is lower than in South Africa (e.g., Bankole 1995; Kodzi, Casterline and Aglobitse 2010; Sennott and Yeatman 2012; Short and Kiros 2002). Several recent studies of fertility preferences in South Africa have focused on the desires of HIV positive individuals (e.g., Cooper et al. 2007; Laher et al. 2009; Myer, Morroni and Rebe 2007; Peltzer, Chao and Dana 2009). Comparatively few have examined shifts in fertility desires among women living in a generalized AIDS epidemic who are not necessarily HIV positive. The current project advances the literature in this area by analyzing young South African women of a variety of HIV statuses' childbearing experiences, preferences, and future projects in the *context* of HIV/AIDS. Thus, I prioritize contextual influences on women's childbearing – rather than their own HIV status – while acknowledging that HIV is an important part of that context.

**Objective 4: To investigate the relationship between childbearing experiences and trajectories and women’s future livelihoods and outcomes.**

This project focuses on both unions and mortality because they have each undergone profound changes in South Africa over the past few decades. The AIDS epidemic in Agincourt has produced rapidly rising mortality rates, especially among women aged 20-34 (Kahn et al. 2007a). As noted above, during this same period of time, marriage has increasingly been postponed in South Africa (Statistics South Africa 2005; Hosegood, McGrath and Moultrie 2009). Because union formation and HIV infection are particularly relevant to the lives of young South Africans, this research considers the effects of a nonmarital birth on both union trajectories and mortality. I conceptualize nonmarital births as “turning points” that may fundamentally alter young women’s futures (Elder 1985), and consider mortality and union trajectories as two important markers of their life course outcomes. This project thus contributes to the research by investigating how nonmarital births affect young women’s futures in a context where nonmarital fertility is relatively common.

**CHAPTER OUTLINE**

**Chapter 4: First Birth Trends in Agincourt, 1993-2010**

This chapter documents recent patterns in the timing and union context of first births (Objective 1) and examines the relationship between HIV and family formation patterns (Objective 2). To do this, I draw on two sets of data: qualitative data from 2010 comprised of in-depth interviews and focus groups with women, and the Agincourt census data. I qualitatively investigate women’s perceptions of changes in the timing and union context of first births in recent decades and compare these findings to population-level trends in family formation processes. Using both types of data provides an opportunity to describe the trends as well as to investigate how women

view changes and the causes of change in family formation processes. This chapter also quantitatively analyzes changes in the timing and context of first births using time periods created to reflect the progression of the AIDS epidemic in Agincourt. The Agincourt census data do not include HIV status but AIDS can be inferred based on population-level mortality data. Finally, this chapter uses qualitative data to explore women's perceptions of how HIV has affected childbearing and marriage in recent years.

### **Chapter 5: Nonmarital Births and Young Women's Union Trajectories and Mortality**

This chapter investigates the influence of a nonmarital birth on women's union trajectories and risk of mortality during childhood, adolescence, and early adulthood in rural South Africa (Objective 4). This chapter uses the Agincourt census data to quantitatively analyze several relationships. First, I examine the influence of a nonmarital birth on women's likelihood of union formation compared to women who postpone childbearing. Second, I investigate the impact of a nonmarital birth on union type, asking whether a woman with a nonmarital birth is more likely to enter a formal or informal union when she marries. Third, this chapter investigates the relationship between a nonmarital birth and union trajectories, asking whether women with children are more likely to enter unions that dissolve (through separation, divorce, or widowhood) compared to women who postpone childbearing. Finally, this chapter analyzes the relationship between nonmarital fertility and the risk of mortality among women during adolescence and early adulthood.

### **Chapter 6: Future Childbearing Projects in the Context of HIV**

Chapter 6 uses qualitative data to investigate the influence of HIV on women's future fertility preferences and projects (Objectives 2 and 3). This chapter aims to explain an empirical puzzle: despite the ubiquity of HIV in rural South Africa, the young women in this study rarely, if

ever, mentioned the disease when describing their future childbearing desires and plans. Given the omnipresent status of HIV in this context, and the theories that posit that women intentionally alter their childbearing behavior based on HIV, this absence is striking. Moreover, if current trends hold, almost half of young women in Agincourt will be HIV positive by the time they leave their reproductive years (Gómez-Olivé et al. 2013). This suggests that women who fail to consider this possibility leave themselves at a heightened risk. This chapter develops a theoretical explanation for this puzzle, drawing on insights from sociological theories of the future, literature on aspirations, and studies about HIV uncertainty and treatment.

### **Chapter 7: The Shift to “Modern” Fertility Preferences and Childbearing Motives**

This chapter uses qualitative data to examine the forces motivating young women’s desires for a modern life trajectory (a finding from Chapter 6), especially their preference for limiting the number of children (Objective 3). Fertility preferences in South Africa have evolved in concert with post-apartheid societal changes. The desire for a modern life trajectory, defined in part by having only two children, stands in contrast to older women’s non-numerical fertility preferences for having as many children as God will provide. This chapter examines the reasons behind shifts in fertility preferences among women of different generations, positioning the changes within broader macro-level societal changes that are known to influence childbearing norms and behaviors.

## **CHAPTER 2: THEORETICAL FRAMEWORK & LITERATURE REVIEW**

As introduced in Chapter 1, this project focuses on understanding young women's past family formation experiences, their plans for the future, and how these processes have changed over time. In this chapter I develop the theoretical framework for the dissertation, which draws on the new Theory of Conjunctural Action (TCA) (Johnson-Hanks et al. 2012). This theory draws on insights from theories of the life course to situate women's family formation experiences and plans within structural opportunities and constraints. In the sections below, I first outline how the life course has been conceptualized by sociologists and life course scholars. Then I outline the main tenets of the TCA and explain why it serves as a useful framework for this project. Because I am interested not only in how childbearing behaviors have changed over time but also in women's future fertility plans, I next review recent literature from scholars who have theorized future projects. I then review relevant literatures on family formation processes – marriage and childbearing – highlighting research from South Africa where possible. A main interest of the dissertation is how women's childbearing experiences and plans have been affected by the AIDS epidemic. Thus, I conclude the chapter with a discussion of the literature surrounding HIV/AIDS and treatment, highlighting research that has linked the disease with family formation processes in a variety of contexts.

### **THEORETICAL FRAMEWORK**

#### **The Life Course**

Life course theory is useful because it emphasizes the interrelationship between different life events and the importance of their timing and order. Life course theory is an important sociological perspective that contextualizes individual life events within age-graded boundaries, social contexts,

and historical patterns (Elder and O'Rand 1995). Life course transitions, such as the transitions to adulthood, are important components of life course research. The transitions to adulthood have been defined as leaving school, starting a full-time job, getting married, having a child, and establishing one's own household (Hogan and Astone 1986; Shanahan 2000). This dissertation focuses primarily on the transition to parenthood, emphasizing the timing and (union) context of the first birth.

According to the life course perspective, social norms are important regulators of behavior (Neugarten, Moore and Lowe 1965; Settersten 2003). Sociologists define social norms as group-level expectations for appropriate behavior (Rindfuss, Morgan and Swicegood 1988; Settersten 2003). Social norms distinguish between on-time events and off-time events (Neugarten, Moore and Lowe 1965; Settersten 2003; Settersten and Hagestad 1996; Toothman and Barrett 2011). Individuals are often subject to sanctioning when they engage in off-time events or otherwise deviate from normatively-prescribed behavior (Marini 1984; Neugarten and Hagestad 1976; Settersten 2003; Shanahan 2000).

Despite the influence of social norms on behavior, the life course has become increasingly individualized in recent decades (Settersten 2003; Shanahan 2000). It is now common for individuals to experience life course transitions in different orders and at different times compared to in the past (Rindfuss, Swicegood and Rosenfeld 1987; Settersten 2003; Shanahan 2000). The increasing individuation of the life course and the decreasing regulation of particular life course transitions like parenthood may arguably lead to a weakening of norms (Edin and Kefalas 2005; Settersten 2003; Shanahan 2000). Yet, even when norms are in flux, engaging in non-normative behavior may be consequential for individuals in that it can lead to sanctioning and a loss of support (Mollborn 2009; Settersten 2003).



## Theory of Conjunctural Action

Because I am interested in how and why family formation processes have changed in the South African post-apartheid context, this study draws on the new Theory of Conjunctural Action (TCA) (Johnson-Hanks et al. 2012), which encourages contextualizing processes of family change within multiple levels of society. The TCA was conceptualized to serve as an alternative theoretical framework aimed at producing more accurate explanations of the fertility transition (and changes in family forms) in both developed and developing countries. Although the theory draws from many existing explanations of fertility transition – such as the importance of economics, ideologies, social networks, and access to contraception – it is unique in its attention to the interplay of these factors at multiple levels of analysis. In relation to the current study, the TCA is comprised of four concepts that can be used to better understand family change: *schemas*, *conjunctures*, *materials*, and *structures* (Johnson-Hanks et al. 2012).

An important *structure* for processes of family change is the life course, which the TCA defines as “an interrelated set of path-dependent processes” made up of different “conjunctures” or situations during which a process becomes particularly salient (e.g., the advent of an unintended pregnancy) (Johnson-Hanks et al. 2012: 63). *Conjunctures* hold the capacity for either change or reinforcement of the status quo in the context of a specific individual’s life course. Thus, according to the TCA, *conjunctures* are embedded in individual’s life courses, which are further embedded in macro-level structures of time and place (Johnson-Hanks et al. 2012). *Schemas* can be understood as “mental maps” or “frames” that individuals draw on to make sense of the events in their lives. *Materials* are defined as “the artifacts, rituals, and institutions that both embody *schemas*” but also exist independent of them (Johnson-Hanks et al. 2012: 69). Thus, variation in fertility behavior arises from the interaction of *schemas* and *materials* within *structures* (Johnson-Hanks et al. 2012).

An example of these interrelationships should help to clarify how considering multiple levels of analysis can be useful for addressing a complicated empirical question. Let us consider the *conjunction* of sexual initiation. The decision to have sex itself serves as a *conjunction* because it may result in a fundamental change to a women's life course if it produces an unplanned pregnancy. If a woman chooses to have sex, she then faces a decision (a *conjunction*) about whether or not to use contraception. This decision is informed by, among other things, her stage in the life course (a *structure*). If she is a young, unmarried woman, she may have difficulty accessing contraception (a *material*) because of biases of nurses and health care workers who view contraceptives as appropriate only for married women (a *schema*). Thus, for a woman to be able to limit her exposure to an unplanned pregnancy (also a *conjunction*) via contraceptive use, at least two things must be in place: contraception (a *material*) must be available, and *schemas* supporting the use of contraception among women at different stages of the life course (a *structure*) must be normative and widely accepted (Johnson-Hanks et al. 2012).

Insights from theories of the life course and the TCA are the theoretical underpinnings for this project because of the focus on the transition to parenthood. This transition is governed by social norms that reinforce the proper timing (and context) of a first birth depending on a woman's stage of the life course. However, as outlined in the TCA, understanding why young South African women have their first birth when they do also requires attention to myriad other factors, such as social norms about gender (*schemas*); women's equality (*structure*) and empowerment (*schemas*); access to contraception (*material*); and opportunities in education and employment (*structures*). The sections below provide an introduction to these issues and how they related to fertility change.

## *Gender Norms*

Following Riley (1997), in this study gender is conceptualized as a prevailing system of social organization that structures the lives of individuals. This definition is relevant because South African women's childbearing decisions are made within a matrix of social relationships (e.g., with husbands, kin, and peers) and social institutions and structures (e.g., education, employment, migration, and marriage). Childbearing decisions are also made within a patriarchal cultural context in which "gender power influences negotiation and decision making about sex and related outcomes" (Dodoo and Frost 2008: 444).

Social norms about childbearing are closely linked to constructions of femininity and masculinity (*schemas*). Many men and women have children because it is a social norm or expectation (Burman 1992; Edin and Kefalas 2005; Johnson-Hanks 2006; Peltzer, Pengpid and Mashego 2006). Yet individuals also draw on social norms about gender to regulate their sexual behavior (Peltzer, Pengpid and Mashego 2006). "Cultural guidelines become intrapsychic, internalized cognitive scripts and learned emotional responses that become major psychological regulators of sexual behavior" (Diaz 2000: 192). This is essentially part of "knowing" what is appropriate for men and women. These internal scripts legitimate social constructions of gender and enforce gender roles in individual choices about sexual behavior, especially in times of ambiguity.

Sometimes behavioral intentions may conflict with (or be overwhelmed by) situational factors. When this occurs "cultural guidelines internalized as cognitive scripts, rather than personally formulated intentions, become the main regulators of sexual activity" (Diaz 2000: 192). For example, young women may intend to practice safe sex to avoid an unwanted pregnancy; however, providing condoms during a sexual encounter is likely to contradict cultural constructions of femininity in South Africa, which emphasize a woman's sexual innocence and virtuousness. Thus, women in South Africa who suggest condom use or are knowledgeable about contraceptives may be assumed

to be unfaithful or untrustworthy, or stigmatized as promiscuous or a prostitute (Blanc 2001; Gogna and Ramos 2000; Maharaj 2001; Varga 2003). Hence, despite a woman's intention to delay having a child until the time is right given her stage in the life course (e.g., after completing school and/or getting married), she may feel constrained by the prevalent construction of femininity and fail to actively choose *not* to have a child (Johnson-Hanks 2006) by using protection.

### *Women's Equality & Empowerment*

Patriarchy, defined as “a system of social structures and practices in which men dominate, oppress, and exploit women” (Walby 1990: 20), is a fundamental aspect of most societies. Patriarchal systems disempower women relative to men in their families, households, communities, and societies (Bonvillain 2007). Patriarchal norms and values influence childbearing patterns (Dodoo and Frost 2008) and HIV infection (Albertyn 2003; Seeley, Grellier and Barnett 2004).

In South Africa, the women's movement served as a powerful force for change during the struggle to end apartheid and effectively resulted in the insertion of gender equality concerns into the democratic debate (Hassim 2006). The enshrinement of gender equality in South Africa's new constitution has had a tremendous influence on many women's lives. South African women are no longer politically marginalized but rather are active participants working collectively to defend women's interests in policy decisions and legislative outcomes (Hassim 2006). Not only are women now legally allowed to access the same types of jobs (*structures*) that men have always had access to (e.g., mining, high-ranking government positions), the *schemas* associated with women's roles in families, households, and the larger society have also changed. This collective action and the end of apartheid have helped to increase women's social and political capital, their status in society, and their power in relation to men (Hassim 2006).

There is considerable evidence that empowering women leads to decreases in fertility and that advances in women's freedom are closely connected with improvements in their well-being and agency (Sen 1999). When women have greater status and power in society and are politically free to make choices about their fertility, reductions in family size usually follow (Sen 1999). Extending rights to women both benefits women and is a powerful force for reproductive change. Where women lack political and social power in society, we often also find higher fertility, limited access to reproductive health care and abortion services, traditional cultural practices that harm women and problematize childbearing, and in some places sex-selective abortion that reduces the number of girls in a society (Goldberg 2009; Sen 1999). Importantly, women benefit when social norms about family planning and family size evolve, even when reductions in fertility do not necessarily translate into broader improvements in women's empowerment (Barroso and Jacobson 2000).

### *Contraception*

Effective contraception (*a material*) access and use are strongly associated with reductions in fertility. Women in sub-Saharan Africa commonly exchange ideas about contraceptive use and official family planning programs (Agadjanian 2001). These exchanges help to legitimize contraception (*via new schemas*) (Agadjanian 2001). Women are introduced to new contraceptive methods through their social networks and by observing changes in fertility behaviors from those in the upper echelons of society (Bongaarts and Watkins 1996). Women also observe their neighbors' fertility behaviors to see if contraceptive use is prevalent; these types of informal interactions influence couples' decisions to use contraceptives as they determine whether such use is socially acceptable (Agadjanian 2001; Bongaarts and Watkins 1996).

South Africa introduced a comprehensive population policy in 1998 that expanded access to modern contraceptives (Cooper et al. 2004). One study from South Africa found that unmarried

women are more likely to use effective methods of contraception to limit births compared to married women (Chimere-Dan 1996). However, other studies have reported that young unmarried women in South Africa struggle to access effective contraception, often due to barriers from nurses and other health providers (Ehlers 2003; Garenne et al. 2001; Wood and Jewkes 2006). Thus, even if the structures and ideologies supporting contraceptive use are in place, women may still face challenges in limiting their fertility through these means.

### *Education & Employment*

Changes in family formation processes are also influenced by shifts in societal *structures*. There is a strong inverse association between women's education and their fertility (Weinberger 1987). As education increases, fertility tends to decrease through a variety of mechanisms (Bongaarts 1978; Bongaarts and Watkins 1996; Caldwell 1980). For example, women may be introduced to new fertility preferences via their social networks or by observing changes in childbearing patterns among wealthier or more educated women in society (Bongaarts and Watkins 1996). Educational attainment in South Africa is highly valued and associated with better employment opportunities, more desirable marriage partners, and older ages at first marriage and first birth (National Research Council and Institute of Medicine 2005; Madhavan and Thomas 2005; Preston-Whyte and Zondi 1992). For young mothers, higher education translates into higher *lobola* (bridewealth), which is associated with greater status in the household (Kaufman, de Wet and Stadler 2001). Education also increases the costs associated with schooling children, which tend to reduce ideal family size because of economic pressures (Caldwell 1980; Lloyd, Kaufman and Hewett 2000).

Societal changes like economic development and urbanization (*structures*) have complicated women's childbearing views and experiences (Agadjanian 2001). Couples are implicitly, and oftentimes explicitly, encouraged to limit their family size because of the economic constraints that

accompany modern urban life, including the mass schooling of children (Lloyd, Kaufman and Hewett 2000). Thus, many couples today choose to “trade” larger families for smaller families in which there are more resources to devote to each child, known as the quantity – quality hypothesis (Becker and Lewis 1974; Caldwell 1980; Lloyd, Kaufman and Hewett 2000).

The insights of the TCA are useful for thinking about how factors across multiple layers of society intersect to affect life course transitions, such as the transition to parenthood. The TCA also allows for theorizing about why the timing and context of first birth have changed over time by incorporating changes in *schemas, materials, and structures* and their potential impacts on fertility, as outlined above. However, I am not only interested in how the timing and context of first birth have changed over time, I am also interested in understanding how societal shifts in post-apartheid South Africa – including the emergence of HIV/AIDS – have influenced women’s *future* fertility preferences and projects. Although Johnson-Hanks and colleagues (2012) argue that the TCA provides a framework for hypothesizing future fertility change, this part of the framework is under-theorized. Thus, I aim to extend this part of the TCA by combining its insights with those proposed by recent scholars in sociology who have written about the value of theorizing future projects for understanding behavior. In the section below, I describe the utility of theories of the future for this project and highlight how future childbearing projects are likely to be affected by factors at multiple levels of society.

### **Future Projects**

Future projects depend on a hopeful vision of the future. Desroche defines hope as a link between past and future. He argues that the “forces of aspiration...formulate and offer an answer” to the questions posed by the “forces of pressure” (1979: 3). In other words, by constructing future goals, individuals move toward answering questions and solving problems that they face in everyday

life. Envisioning futures in which individuals are able to successfully resolve issues vexing them in real-time allows them to maintain hope for a future reality free from these issues. In the current study, one of the main issues that may potentially disrupt women's childbearing futures is the high risk of HIV/AIDS.

Drawing on insights from Schutz (1967), Emirbayer and Mische (1998) have argued that projectivity is an important aspect of human agency. This is particularly relevant in sub-Saharan Africa, where women's agency is often curtailed by traditional gender roles (see Dodoo and Frost 2008 for a review), a culture of violence (Jewkes et al. 2001; Moffett 2006; Wood and Jewkes 1997), and stigma associated with women's sexual behavior, which is often characterized as "immoral" (Campbell et al. 2005). Future projections influence action regardless of whether they are good predictors of future outcomes (Mische 2009). Zimbardo and Boyd (2008) note that future expectations are closely tied to present behavior because they affect how people think, behave, and feel.

Future projects are built on aspirations. These aspirations often provide information about the type of person one hopes to become. Much of the research on educational aspirations has noted the inconsistencies between disadvantaged youth's aspirations and the realities they face in achieving the goals they set forth (Alexander, Bozick and Entwisle 2008; Baird, Burge and Reynolds 2008; Cook et al. 1996; Frye 2012; Hanson 1994; Kao and Tienda 1998; Khattab 2003; Strand and Winston 2008). Explanations for why young people in the United States do not achieve the goals they set forth are often based on structural limitations related to race, ethnicity, and social class (e.g., Baird, Burge and Reynolds 2008; MacLeod 1995; Morgan 1996b). However, these explanations do not provide much insight in rural South Africa, where there is little variation in race, ethnicity, and social class (at least in the current study).

Other studies have highlighted what young people's aspirations tell us about the types of



identities they construct and their concomitant behaviors. For example, in her study of Malawian school girls, Frye argues that young women draw on their aspirations for future educational success to construct a virtuous identity as “one who aspires” (2012: 1599). Embodying such an identity allows young women to take specific actions to support its existence, such as delaying sexual relationships and marriage, which would spoil their identity and in all likelihood derail their future plans (Frye 2012). Thus, aspirations are important because they tell us what sorts of cultural models for success are available for young people to draw on in developing their plans. Yet, aspirations also allow young people agency in their choices and behaviors as they work toward embodying the identities that they visualize vis-à-vis their future projects.

In South Africa, the ‘rainbow nation’ discourse and imagery (*schema*) is associated with national pride and positivity, especially happiness, life satisfaction, and optimism about the future (Dickow and Moller 2002). Undoubtedly the end of apartheid fundamentally changed the lives of Black South Africans for the better because it lifted the legal restrictions on movement and freedom. And yet, the opportunities for education and employment (*structures*) that one might expect given the rainbow nation discourse have in reality not materialized, especially in rural areas. Thus, although the cultural resources for hope, optimism, and success are provided by the rainbow nation discourse, the structural opportunities necessary to support individuals’ aspirations for the future are lacking. Nonetheless the discourse is widely popular because it is psychologically linked to the success of the nation. South Africans are no longer legally limited by their race and may aspire to any goal they set for themselves. For instance, a study of Black South African adolescents’ occupational aspirations shortly after the end of apartheid found that three out of four young people aspired to high-status occupations that required significant amounts of training (Watson et al. 1997). The authors argue that these students’ aspirations are unlikely to materialize because of a lack of structural support in training and opportunities (Watson et al. 1997). Thus, many South Africans buy into the popular

cultural rhetoric of opportunity but end up having little chance to achieve their goals because of the lack of opportunity.

The Theory of Conjunctural action is an appropriate framework for this study because of its emphasis on multiple levels of factors that influence change in family formation processes. However, thus far it has not been effectively used to theorize about women's future fertility preferences and projects. In this study, I incorporate insights from three theoretical traditions – the life course, the TCA, and theories of the future – to examine why the timing and context of first birth have changed since the end of apartheid as well as why women's future fertility preferences have shifted across generations. Furthermore, I draw on these theories to situate changes in family formation processes and future fertility preferences within the context of HIV in South Africa in order to understand the ways in which HIV has and has not influenced women's behaviors and plans. In the sections below, I emphasize the relevance of this project by reviewing literatures on marriage, childbearing, and HIV/AIDS in South Africa and finish with a review of research that has linked HIV/AIDS and antiretroviral treatment with changes in family formation processes.

## **LITERATURE REVIEW**

### **Marriage**

Marriage is an institution in transition in South Africa. Traditionally, marriage was closely tied to childbearing because of its centrality to life as the context of family formation (Mturi, Xaba and Sekokotla 2005). However, a recent study of marriage patterns in rural KwaZulu-Natal found that South Africans are now marrying later and less often than any of their sub-Saharan African neighbors (Hosegood, McGrath and Moultrie 2009).

Marriage rates in South Africa differ across rural/urban locales. According to national data, marriage is less common in rural areas: In 1996 11% of the population of rural Mpumalanga

Province was married while 22% of the population of urban Gauteng Province – which includes the capital city of Johannesburg – was currently married (Budlender, Chobokoane and Simelane 2004). There are also differences in marriage by population group: Black South Africans have the highest age at first marriage. According to national data, 51% of African men aged 30-34 were never-married compared to 34% of Coloureds, 20% of Indians/Asians, and 7% of Whites. Women's marriage patterns were similar: 44% of African women aged 30-34 were never-married compared to 32% of Coloureds, and 13% of Indians/Asians and Whites (Statistics South Africa 2005).

Marriage in South Africa has often been described as a process and is typically characterized by the payment of *lobola* (bridewealth). *Lobola* is constituted by a series of financial transactions that are made from the husband (and/or his family) to the wife's family. Traditionally, this economic exchange signified that the husband's family acquired the wife's future earnings and her reproductive capacity (Goody and Tambiah 1973). *Lobola* was historically paid in cattle, but is now usually paid in cash and gifts. The average amount typically ranges from ZAR10,000 – ZAR25,000 (South African Rand) (approximately \$1,200 to \$3,400 USD), amounts that often surpass a future husband's annual income (Casale and Posel 2010). The amount is generally determined by the future wife's educational level, which increases the amount, and the number and paternity of her children, which may decrease the amount if the future husband is not the father (Kaufman, de Wet and Stadler 2001; Madhavan 2010).

### **Childbearing**

Compared to the rest of sub-Saharan Africa, South Africa boasts a low rate of average fertility (Biddecom and Bakilana 2003; Garenne et al. 2007). South African total fertility has declined dramatically over the past few decades from 6 children per woman in 1979 to around replacement level at 2.3 children per woman (Garenne et al. 2007). Recent evidence suggests that fertility decline

in South Africa is stalled (Bongaarts 2006; Moultrie et al. 2008). The evidence for why it has stalled is less concrete but some attribute it to the rollout of antiretroviral treatment (ARVs) and drug regimens for the prevention of mother-to-child transmission (PMTCT) of HIV in South Africa (Moultrie et al. 2008).

As in many places across the globe, South African sexual initiation regularly occurs during the teenage years. This is potentially problematic in the context of marriage postponement because a long window of sexual activity prior to marriage might increase exposure to HIV (Bongaarts 2007; Mensch, Singh and Casterline 2005; Reniers and T'faily 2012). The median age at first sex for women is around 18 and has remained relatively stable over time (Department of Health, Medical Research Council, and OrcMacro 2007). By age 19, 43% of young people have had sex and by age 24 the majority (86%) are sexually active (Department of Health, Medical Research Council, and OrcMacro 2007). With sexual activity common and unions delayed, nonmarital births have become more widespread in South Africa in recent decades (Kaufman, de Wet and Stadler 2001). According to the 2001 South African census, 9 out of 10 women had given birth by age 34, and half of those women were never-married at the time of birth (14% were living with an unmarried partner). Disaggregated by race, the fraction of births to never-married women is highest among Blacks (55%), followed by Coloureds (42%), Whites (7%), and Indians or Asians (6%) (Statistics South Africa 2005).

Nonmarital pregnancies in South Africa are unlikely to motivate a young couple to marry (Kaufman, de Wet and Stadler 2001). Therefore, unmarried mothers often attempt to establish connections with their child's father to gain economic support for the child (Madhavan 2010; Madhavan, Harrison and Sennott 2013). Financial support from a child's father can help to ease the economic shock of a nonmarital birth (Madhavan 2010; Preston-Whyte and Zondi 1992). However, young men often "refuse" pregnancies (Madhavan, Harrison and Sennott 2013), which results in considerable economic strain on young women's natal households.

Although relatively common, nonmarital pregnancies in South Africa remain stigmatized, especially when they occur to young women (Madhavan, Harrison and Sennott 2013; Preston-Whyte and Allen 1992; Zwang and Garenne 2008). In South Africa, young men and women, peer groups, families, and institutions like schools and clinics view nonmarital pregnancies negatively (Zwang and Garenne 2008). The age at which a woman has a nonmarital birth is likely to be important for her future trajectories and outcomes. Women who have a nonmarital birth during adolescence may have poorer outcomes than older women who have their first birth outside of marriage in terms of educational attainment, socioeconomic status, health, social capital, and marriage formation and stability (National Research Council and Institute of Medicine 2005; Gustafsson and Worku 2006; Marteleto, Lam and Ranchhod 2006; Zabin and Kiragu 1998).

## **HIV/AIDS**

The HIV/AIDS epidemic has altered the reality of life in South Africa. At the end of 2007, more than 25 million people across the globe had died from AIDS (UNAIDS 2008). Around 67% of the approximately 33 million people living with HIV across the globe are in sub-Saharan Africa and 72% of all AIDS deaths in 2007 were in sub-Saharan Africa (UNAIDS 2008). As of 2007 there were approximately 5.7 million South Africans living with HIV and around 1,000 AIDS deaths each day (UNAIDS 2008). In total, an estimated 1.8 million people in South Africa have died of AIDS or AIDS-related causes since the epidemic began (UNAIDS 2008). Despite these alarming figures, recent evidence demonstrates that most national epidemics have stabilized or begun to decline (Bongaarts et al. 2008; UNAIDS 2008).

The adult prevalence rate in Agincourt, where this dissertation research is based, is 19.4% and there is a considerable gender gap: Women's HIV prevalence rate is 23.9% and men's is 10.6%. Adult life expectancy in Agincourt was relatively stable until the emergence of HIV in the mid-1990s

(Kahn et al. 2007a). As a result of the disease, female life expectancy decreased from 72 to 60 years and male life expectancy decreased from 66 to 52 years (Kahn et al. 2007a). The mid-1990s also brought substantial increases in infant and under-5 mortality for boys and girls (Kahn et al. 2007a). These mortality shifts have been dramatic compared to mortality rates in other African countries, given the lower baseline mortality among South Africans (Clark and Ngom 2002; Kahn et al. 2007a; INDEPTH Network 2004).

Age and gender intersect to make young women particularly vulnerable to HIV/AIDS and most infections occur during adolescence or early adulthood (Albertyn 2003; Peltzer, Pengpil and Mashego 2006). Young women's infection peak occurs at around age 25, which is 10-15 years earlier than the infection peak for men (Peltzer, Pengpil and Mashego 2006). A study from South Africa found that the HIV incidence peaks among women aged 20-29 (6%) at more than 6 times the incidence rate for 20-29 year old men (0.9%) (Rehle et al. 2007). A recent study from Agincourt found that HIV prevalence rates increase rapidly during adolescence and early adulthood. Women's HIV prevalence ranges from 6% at age 15-19 to 38% at age 25-29, peaking at 42% at age 30-34. Men's prevalence ranges from 0.4% at age 15-19 to 22% at age 25-29, reaching parity with women's prevalence by age 30-34 at 42% (Gómez-Olivé et al. 2013). Because having a child implies unprotected sex, childbearing and HIV acquisition share the same risk factors (Zaba and Gregson 1998).

Gender itself is a significant risk factor for HIV and the vast majority of people living with HIV/AIDS are African women (Kalipeni 2000; Walker and Gilbert 2002). Women are at the center of the AIDS pandemic because they are vulnerable to infection while also wholly responsible for care-giving for the sick and for AIDS orphans (Hunter 2003; Schatz 2007; Schatz and Ogunmefun 2007; Walker and Gilbert 2002). A number of factors intersect with gender inequality to contribute to South African women's heightened vulnerability to HIV compared to men (Albertyn 2003). Aside

from risky sexual behavior, HIV risk factors for women include: age, race, geography, economic dependency on men, feminine gender roles and norms, sexual abuse and violence, cultural values of motherhood that encourage women to engage in unprotected sex, marital status, gender inequality, discrimination, and unequal access to resources (Albertyn 2003; Doyal 1995; Gupta 2000; Walker and Gilbert 2002). Women also face a higher risk of infection through heterosexual sex as male-to-female transmission per contact is significantly greater than the risk of female-to-male transmission (see Thornton, Romanelli and Collins 2004). South Africa's history of apartheid, labor migration, and social and economic policies of exclusion have resulted in a social and cultural context where Black South African women, in particular, are at even greater risk of HIV infection because of the damage done to the social fabric of families, and the racially-oriented poverty and inequality that continue today (Albertyn 2003).

The violence associated with the South African masculine ideology has gained prominence since the end of apartheid as men have become frustrated and rendered powerless by the lack of institutional opportunities (Moffett 2006; Ramphela 2000). Violence against women in South Africa is closely tied to traditional gender roles and translates into a heightened risk of HIV/AIDS for men and women (Albertyn 2003; Kalichman et al. 2007; Koenig et al. 2004; Lary et al. 2004; Outwater, Abrahams and Campbell 2005). Men who report sexually assaulting women also report engaging in a significantly higher number of risky sexual behaviors (Kalichman et al. 2007). They also adhere closely to traditional gender norms and a masculine ideology that legitimates hostility and violence against women (Kalichman et al. 2007).

Poverty has been identified as an important risk factor for HIV infection, especially for South African women who experience higher rates of poverty compared to men (Kalipeni 2000; Walker and Gilbert 2002). Additionally, South African women predominate in rural areas, which are marked by greater levels of poverty (Baden, Hassim and Meintjies 1999) and female-headed

households are likely to be poorer than those headed by men, regardless of their geographical locality (Baden, Hassim and Meintjies 1999; Madhavan and Thomas 2005; Walker and Gilbert 2002). For most women, it is not just being poor that increases the risk of HIV, rather it is the impact of poverty *along with* other risk factors, such as differential access to resources, lack of opportunity in education or employment, lack of social or cultural capital, racial or gender inequality, and gender socialization (Kalipeni 2000; Walker and Gilbert 2002; Zierler and Krieger 1997). These factors, compounded by a lack of power often due to age and gender, intersect to produce a heightened vulnerability to HIV infection and AIDS mortality for women in South Africa (Doyal 1995; Kalipeni 2000; Walker and Gilbert 2002).

There are countless aspects of HIV that are likely to produce uncertainty among individuals living in the midst of a generalized epidemic. For example, misinformation about the disease may produce uncertainty (Babrow, Hines and Kasch 2000). This is relevant to South Africa, given the misinformation that characterized the early years of the epidemic (Fassin 2007; Robins 2004) and the competing explanations and treatments for HIV that are still commonplace (Kalichman and Simbayi 2004). There are also personal, social, and medical forms of uncertainty associated with HIV/AIDS (Brashers et al. 1999; Brashers et al. 1998). Individuals who engage in risky sexual behavior, are characterized as members of a risk group, or know others who have died from AIDS may be particularly likely to experience uncertainty surrounding the disease (Brashers et al. 2000). Prior to an HIV positive diagnosis, this is likely to be expressed as uncertainty about the likelihood of infection or uncertainty about the testing process, especially the accuracy and confidentiality of results (Brashers et al. 2000).

Most studies have demonstrated that HIV reduces fertility (Casterline 2002; Terceira et al. 2003; Zaba and Gregson 1998). Biology reduces fecundity in HIV positive individuals, especially at later stages of the disease (Lewis et al. 2004; Nguyen et al. 2006; Ross et al. 2004; Zaba and Gregson



1998). However, behavioral change is thought to be largely responsible for shifts in childbearing preferences and patterns among those affected (but not necessarily infected) by HIV (Kirshenbaum et al. 2004; Noel-Miller 2003). Two hypotheses have been posited to explain changes in childbearing behaviors in response to HIV/AIDS. First, infected individuals or those who view themselves at a high risk of infection may have children earlier or in quicker succession to ensure that they can successfully reproduce (Gregson, Garnett and Anderson 1994; Temmerman et al. 1994). An alternative hypothesis suggests that HIV-positive people may opt to limit or stop childbearing out of fear of passing the virus along to their children, or out of concern for their own health and their children's futures (Gregson, Anderson and Chandiwana 1997; Kirshenbaum et al. 2004; Noel-Miller 2003; Setel 1995). Some scholars have argued that those who are infected or fear infection will reduce or stop childbearing altogether; however, this has primarily been shown for older and married people with children, especially women (Kirshenbaum et al. 2004; Noel-Miller 2003; Yeatman 2009a). Other research has confirmed a negative relationship between being HIV positive and the desire for children (Hoffman et al. 2008; Moyo and Mbizvo 2004; Yeatman 2009b) although a few studies from sub-Saharan have found contradictory evidence that the desire for children persists in the face of a positive HIV test result (Aka-Dago-Akribi et al. 1999; Cooper et al. 2007).

Uncertainty about HIV status is often predictive of future fertility preferences. A recent study from Malawi found that young adults who are uncertain about their HIV status desire to increase the pace of childbearing (Trinitapoli and Yeatman 2011). This desire is not common among individuals who are certain of their status whether positive or negative (Trinitapoli and Yeatman 2011). In the absence of test results – or when respondents are uncertain about their HIV status – the perception of whether one is HIV positive can also serve as an important predictor of the desire for children (Yeatman 2009b). Other studies have uncovered a belief that when individuals show symptoms of being HIV positive they should stop having children. Otherwise, these study

respondents generally did not evince strong feelings about childbearing in the *context* of HIV (Baylies 2000; Grieser et al. 2001; Rutenberg, Biddlecom and Kaona 2000). Two recent cross-national studies employing Demographic and Health Survey (DHS) data from around Africa documented that living in a high HIV prevalence area did not have a significant effect on the fertility of HIV negative individuals (Fortson 2009; Juhn, Kalemli-Ozcan and Turan 2009).

Marital aspirations (Clark, Poulin and Kohler 2009) and early marriage (Clark 2004) have been linked with an increased risk of HIV for young women. It is likely that marriage is a risk factor because it signifies a change in the sexual practices of couples. Scholars have found that condom use is strongly associated with the nature of a relationship: Men view condom use as important at the beginning of a relationship but feel that using condoms in a stable or marital relationship signifies infidelity or a lack of trust (Maharaj 2001). Married couples also engage in more frequent coitus which contributes to a heightened risk of infection, especially if one's partner has other on-going sexual relationships (Clark 2004; Clark, Poulin and Kohler 2009). Even monogamous women are at an increased risk if their partner is unfaithful (Heise and Elias 1995).

A few scholars have examined the relationship between the timing of marriage and HIV. Clark's (2004) research in Kenya and Zambia found that early marriage was related to an elevated risk of HIV among young women. Conversely, Bongaarts (2007) found a positive relationship between a later age at marriage, a long window of premarital sexual activity, and HIV infection among women in several sub-Saharan African countries. Evidence from Malawi demonstrates that women and men may actually resort to marriage as a way to avoid HIV infection (Reniers 2008). Thus, in some contexts, marriage may be protective rather than a risk factor as individuals actively select partners to explicitly avoid individuals who may be seen as high-risk (Reniers 2008). However, there is no consensus about the relationship between HIV and marriage since in some contexts marriage serves as a risk factor and in others it is seen as protective (Reniers 2008).

## **Treatment**

The South African government was mandated to provide HIV treatment for all in 2003 (Steinberg 2008). However, debates about the effectiveness of ARVs and a campaign of misinformation by the South African government, most notably by Health Minister Manto Tshabalala-Msimang who famously urged HIV-positive people to eat garlic and beetroot to counter the effect of AIDS (Miles 2005), have contributed to delays and mistrust in the provision and uptake of treatment in rural areas. Highly effective ARVs were rolled out at a private clinic in Agincourt in 2007 and became widely accessible at government-run clinics in 2010. Prior to that, residents had to travel 40-50 kilometers to the nearest hospital for treatment. ARVs and PMTCT regimens have broadened the fertility options for HIV-positive couples and have enabled HIV-positive women, in many cases, to have HIV-negative babies (Cooper et al. 2007; Kanniappan, Jeyapaul and Kalyanwala 2008). Although available in a few 'pilot sites' as early as the late 1990s, PMTCT treatment was ordered to be rolled out in all public clinics in 2002 (Heywood 2003). Despite this, research from a rural area of the Eastern Cape in South Africa documented barriers to accessing and successfully implementing PMTCT treatment, including lack of transportation, lack of water (necessary for infant formula), understaffing at local clinics, and inadequate staff training (Skinner et al. 2005).

Studies have found conflicting evidence on the effects of ARVs on fertility. Most research in this area has been conducted in the United States due to the relatively recent rollout of the drugs in high HIV prevalence settings such as South Africa (see Kaida et al. 2006 for a review). In the United States, Blair and colleagues (2004) found that HIV positive women were 20% more likely to become pregnant after the widespread introduction of ARVs. Conversely, Massad and colleagues (2004) found a decreased incidence of pregnancy among HIV-positive women taking ARVs compared to those not using treatment. A prospective study from Europe found no significant relationship between ARVs and fertility among the HIV-positive (van Benthem et al. 2000). A study of fertility

*desires* among women and men on ARVs in Uganda found a positive relationship for women (Maier et al. 2009). Conversely, a South African study of men and women on ARVs found that 29% desired children in the future and men were significantly more likely to report wanting a child (Myer, Morroni and Rebe 2007).

## **CONCLUSION**

This chapter presented this dissertation's theoretical framework, which incorporates insights from the life course, the Theory of Conjunctural Action, and sociological theories of the future. The intersection of these theories is a useful framework to advance the current project's aims of documenting and explaining change in family formation processes while considering the contextual influence of post-apartheid structural changes. This chapter also reviewed the relevant research on marriage, childbearing, and HIV/AIDS because these bodies of literature provide the impetus for the current project.

### CHAPTER 3: DATA & METHODS

When I began working with the Agincourt Health and Demographic Surveillance System (AHDSS – “Agincourt”) site data in the summer of 2007, I had no idea that I would end up pursuing a major research project there resulting in this dissertation. Yet, that is exactly where I find myself today. I was introduced to the AHDSS data during a summer short course, and, as they say, the rest is history. I was immediately impressed with the extent of the demographic and health data available in this site as well as the time span during which the data had been collected (1992-today). These data would allow me to answer so many questions! Over the next several months as I began working with colleagues on collaborative projects using the data, however, I began to understand some of the limitations of the data for answering the types of questions in which I was interested. The census data could provide information about associations between specific variables, such as whether young women with a nonmarital birth are more or less likely to get married than young women without children (as I show in Chapter 4, they are less likely). These data could also give some insight as to why unmarried mothers are less likely to enter unions – such as their educational attainment and the age of their child. Yet, the data could not provide information on how mothers experience transitions like first birth and first marriage, and whether HIV/AIDS has had an influence on these family formation processes. Thus, I began to see that using a variety of methods would allow for a more thorough investigation of the issues surrounding family formation among young women in this context where fertility is low and AIDS mortality is high.

Developing a better understanding of the relationship between HIV/AIDS and family formation processes was one of the main motivations for pursuing qualitative research in the Agincourt site. From the get-go, the qualitative data were meant to supplement and help explain the

quantitative results. Additionally, there was the issue of HIV. The Agincourt site does not collect information on HIV status, although the AHDSS does include data on deaths attributable to AIDS.<sup>4</sup> Hence, the census data alone could only explain how changes in family formation processes are related to AIDS mortality at the macro level (see Chapter 4). This analysis would tell me nothing, though, about how HIV has actually influenced decision making related to the timing of first births and union formation. Thus, it became clear that I should include a qualitative component of the dissertation research in order to explore how women experience and view the relationship between living in a generalized AIDS epidemic and forming families. The result is this mixed methods dissertation, which draws on qualitative data nested in the AHDSS longitudinal data to analyze how and why family formation processes have changed over time in rural South Africa.

This remainder of this chapter focuses on the methodologies I employed to conduct this dissertation research. In the sections below, I do several things. First, I draw on research that outlines the benefits and challenges of using mixed methods to answer complex research questions. I justify my use of multiple sources of data in terms of the research objectives of this project, as outlined in Chapter 1. I also outline the limitations of using either data source alone and describe the ways in which the data complement one another and allow me to address a wider array of research questions. Next I provide an in-depth discussion of the Agincourt site. In terms of my methods, I first turn to the qualitative data and describe my fieldwork experiences and the process of data collection and analysis. I include separate discussions of the interviews, focus groups, and observations I undertook and talk about the unique types of data that each of these sources contributes to the dissertation. I next turn to the quantitative data. I provide descriptions of the

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<sup>4</sup> Additionally, an HIV prevalence study was conducted in 2010 with a representative sample of Agincourt respondents. These data were not available at the time I conducted my research.

dataset, coding, and analysis process and outline the specific methods I use in the quantitative analyses (Chapters 4 and 5). I finish with a discussion of some of the limitations of the survey data.<sup>5</sup>

## **METHODOLOGY**

As outlined in Chapter 1, this dissertation project is built on four main objectives: 1) To investigate if (and how) childbearing patterns among rural African South African women have changed over time. 2) To investigate the relationship(s) between HIV prevalence, AIDS mortality, antiretroviral treatment (ARVs), and childbearing in rural South Africa. 3) To investigate how women view, define, experience, and negotiate childbearing and motherhood and whether this has changed in the context of HIV/AIDS. 4) To investigate the relationship between childbearing experiences and trajectories and women's future livelihoods and outcomes. Objectives 1 and 4 are interested in macro-level demographic trends. Thus, these objectives lend themselves easily to quantitative methods. Objective 3, on the other hand, calls for more subjective data concerning women's views and experiences and therefore necessitates qualitative methods. Objective 2 could potentially be addressed at either level but given the lack of HIV status data in the AHDSS, it calls for qualitative methods in this context. Given these objectives and the limitations of the quantitative data for adequately addressing all of them, I therefore decided on a mixed methods approach.

Many scholars have written about the benefits of combining qualitative and quantitative research methods in demographic studies (e.g., Denzin 2010; Greenhalgh 1997; Knodel 1997; Obermeyer 1997; Randall and Koppenhaver 2004; Schatz 2009). Knodel (1997) argues that nesting interviews within larger quantitative projects is useful because researchers can abide by quantitative norms of larger sample sizes and generalizability. According to Schatz (2009: 4), "Nesting high

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<sup>5</sup> Each chapter includes its own section on Data and Methods, in which I briefly reiterate some of the information provided here and provide details about the specific methods used in the different analyses.

quality qualitative studies within high quality quantitative projects broadens the range of methodological approaches for studying, uncovering, and understanding social and demographic phenomenon.” Nesting, therefore, can improve both the qualitative and quantitative components of a study (Schatz 2009). Finally, Randall and Koppenhaver (2004) argue that qualitative data are useful to include in quantitative studies because this can help clarify demographic theories. Demographic theories are often predicated on inferring individual decision making from quantitative results at the population-level. By including individual-level qualitative data, researchers can verify whether the statistical associations or “decisions” at the population-level accurately reflect conscious decisions at the individual-level (Randall and Koppenhaver 2004).

In this project I draw on methodological traditions from both sociology and demography. I utilize demographic and health census data and employ quantitative analytic techniques to answer questions at the population level. I also use focus groups and in-depth interviews to gain information about social norms at the community level, and experiences, beliefs, and behaviors at the individual level. Knodel (1997) suggests that focus groups and structured in-depth interviews are well suited for demographers because they are both practical in terms of time and resources, and compatible with demography’s disciplinary culture. These types of qualitative methods result in structured data – transcripts – that can more easily be shared and mutually analyzed than, for example, an anthropologist’s field notes (see Knodel 1997). These types of considerations are important when constructing a study, especially one that must be reasonable in terms of time and resources. At the same time, the research questions must drive the choice of methods and it was clear to me that the AHDSS census data alone were not well suited to address the research objectives I had set forth. Thus, I combined analysis of the census data with several complementary forms of qualitative data collection meant to garner different types of information: focus groups, in-depth interviews, key informant interviews, and observations over six months. In the sections below,



I provide additional information about how using a mixed methods approach helped this project to avoid some of the disadvantages of using each method alone.

## **RESEARCH SETTING**

This study's sample of 85 women aged 18-79 was randomly selected from households in 14 villages in the Agincourt Health and Demographic Surveillance System (AHDSS) site. The AHDSS site incorporates approximately 90,000 individuals in 26 villages from the Agincourt sub-district of the Ehlanzeni District in Mpumalanga Province, northeastern South Africa (Kahn et al. 2012; Tollman et al. 1999). The study site has been under demographic surveillance since 1992 and includes all individuals in the population. The AHDSS's population is *xiShangaan* speaking (a branch of *xiTsonga*) and primarily of Shangaan heritage, an ethnic group that lives in this region and across the border in Mozambique; about one third of the site's population is Mozambican (Kahn et al. 2012; Kahn et al. 2007b). Although Agincourt is rural, agriculture is underdeveloped due to the limitations of the dry climate and poor soils. Income is average for rural South Africa but varies from wealthy individuals who live in modern houses to poor families living in traditional huts, often Mozambicans. Infrastructure in the area is limited and residents lack reliable access to piped water, electricity, and a formal sanitation system (Kahn et al. 2007b).

## **METHODS**

### **Quantitative Data & Methods**

Quantitative analyses use AHDSS census data collected from women aged 10-35 in at least one year during the study period (1993-2010). The AHDSS collects annual data on demographic events such as births, deaths, migration, and union formation and dissolution. Baseline retrospective fertility, maternity, and pregnancy histories were initially collected in 1993. Although marital status

has been available since 1992, complete retrospective union histories were not collected until 2005. Women reported on their full fertility histories, including their age at each birth. Changes in fertility and union status are updated annually and fertility histories are collected in the first census year for new in-migrants from outside the AHDSS. There is an ongoing effort to connect internal migrants with their data. Currently, once individuals move to a new household within the site, they are not linked to their previous data. However, the AHDSS does not re-collect this information so as to avoid double-counting people and events. The quantitative data used in this project have not undergone “migration reconciliation,” which means that if women leave their households, they are essentially lost to follow-up. I discuss this potential bias further in the sections below and in Chapter 5.

The AHDSS also collects data on educational attainment, social grant receipt, food security, healthcare utilization, labor status, and household assets. These data are collected at different intervals over time. Other short-term modules have investigated different aspects of child health and development, cough related to tuberculosis (TB), and mobility among older people, among other issues.

The AHDSS relies on the verbal autopsy (VA) tool for identifying the cause of death for deaths that occur in the study site. At the census round following the death, a trained Agincourt field worker conducts a verbal autopsy with the closest caregiver of the deceased to record the signs and symptoms experienced prior to death (Kahn et al. 2000). The VA report is then sent to two independent medical physicians who assess the report and assign a ‘probable cause of death’ when possible (Kahn et al. 2000). If these two doctors disagree, they discuss the case in an attempt to reach consensus. If consensus is unreachable, the VA is sent to a third doctor, who serves as an arbitrator for the cause of death evaluation. “The VA tool and process rely on a number of factors that may influence the outcome, including the accuracy of the reporting of signs and symptoms by

lay respondents, the prevalence of diseases in the community, and the questionnaire, field procedures and medical assessment process employed” (Kahn 2006: 39). Therefore, studies have been undertaken to verify the VA tool in the AHDSS (see Kahn et al. 2000). These efforts demonstrated that the VA was sufficiently valid based on evaluations of its performance compared to the main causes of death in the overall population (Kahn 2006). This study utilizes the VA data by drawing on site-wide AIDS mortality data.

Quantitative analyses were important for investigating whether childbearing patterns had changed over time, especially in response to HIV/AIDS (Objectives 1 & 2), and how women’s childbearing experiences and union trajectories influenced their outcomes, especially in relation to mortality (Objective 4). I employed several analytic techniques to address these objectives. All quantitative data coding and analyses were conducted in *Stata*. In the sections below, I first outline the quantitative research questions and then describe the analytic techniques for each question.<sup>6</sup>

### *Quantitative Research Questions*

- 1) How has the timing and union context of first birth changed over time?
- 2) What is the relationship between AIDS mortality and the timing and union context of first birth?
- 3) What is the relationship between the timing and union context of first birth and union formation?
- 4) What is the relationship between the timing and union context of first birth and women’s future livelihoods and outcomes?

### *Analysis*

- 1) *How has the timing and union context of first birth changed over time?*

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<sup>6</sup> Complete descriptions of the variables, sample selection, analytic strategies, and limitations related to each analysis are included in Chapters 4 and 5.

To address this research question, I employed several descriptive techniques. To examine the timing of first birth, I first divided women into five-year age groups: 10-14; 15-19; 20-24; 25-29; and 30-35. Then I compared the proportions of births to women in each age group over time, testing for statistically significant differences using *Chi-square* ( $\chi^2$ ) tests. I also constructed age-specific first birth rates for each group of women by calendar year divided into periods (discussed further below).

To investigate how the union context of first birth changed over time, I compared the proportions of marital and nonmarital births using  $\chi^2$  tests. I also examined how the type of union at first birth changed over time, comparing births to women in informal versus formal unions. Informal unions are defined as cohabiting partnerships where the couple has not fulfilled any religious, administrative, or customary (e.g., *lobola*) requirements. The AHDSS data do not allow for identification of informal unions that evolve into marriages. In other words, unions that began as informal remain classified as informal the entire time the couple is together. Therefore, I characterized unions according to the way they were described when they were first reported. This classification of unions did not affect results assessing the union context of first births because women were censored in the year of the birth.

## 2) *What is the relationship between AIDS mortality and the timing and union context of first birth?*

The first death assigned to AIDS by verbal autopsy in Agincourt was in 1993 and previous research has documented an increase in AIDS mortality beginning as early as 1995 (Tollman et al. 1999). AIDS continues to be a significant cause of death, accounting for 36% of the deaths of women aged 15-49 in 2004 (Garenne et al. 2007). Based on previous research in the site, it appears that the increase in AIDS mortality began around 1997 and stabilized around 2003 (Kahn 2006).

Based on these trends, I created periods to reflect the progression of the AIDS epidemic in Agincourt. The first period, 1993-1998, is defined as “early AIDS” or before AIDS became a

significant cause of death in the study site. The second period, 1999-2004, is defined as “peak AIDS” because it is during these years that AIDS became a main cause of death for adults and children in Agincourt (Kahn et al. 2007a). Finally, the third period, 2005-2010, is defined as a “stable epidemic” period because although the level of AIDS mortality had stabilized, it remained extremely high.

To examine the relationship between the AIDS epidemic and changes in family formation, I compared the timing of first births for women who began their childbearing in the “early AIDS” period (1993-1998), with women who began their childbearing during the period of “peak AIDS” (1999-2003), and those who began their childbearing after AIDS was a “stable epidemic” (2004-2010). I also compared the union context of first birth in these periods, using  $\chi^2$  tests to determine whether there were statistically significant differences across time periods.

### *3) What is the relationship between the timing and union context of first birth and union formation?*

For this analysis, I employed discrete-time event history models because I am interested in change over time (Allison 1982). These models assessed the predictors of union formation, focusing on the trajectories of young women who had a nonmarital birth compared to those who postponed childbearing. The data were transformed into person-years to estimate the discrete-time models. In all analyses, I adjusted the standard errors for dependence in reports from the same individual over time. Women were right-censored if they migrated out of the study site, aged out of the cohort (reached age 36), or died before entering a union. Each respondent was able to contribute up to 16 person-years.

I first investigated bivariate associations between nonmarital births and union formation and union type using  $\chi^2$  tests. I followed with a multivariate investigation of informal versus formal

union formation compared to remaining single (reference), using discrete-time multinomial logistic regression.

*4) What is the relationship between the timing and union context of first birth and women's future livelihoods and outcomes?*

To analyze this question, I used discrete-time multinomial logistic regression to assess the predictors of union dissolution and mortality, focusing on the trajectories of young women who had a nonmarital birth compared to those who postponed childbearing. The data were transformed into person-years and I adjusted the standard errors for dependence in reports from the same individual over time. Women were right-censored if they migrated out of the study site, aged out of the cohort (reached age 36), or died before the outcome was observed. Each respondent can contribute up to 16 person-years.

The first analysis investigated the likelihood of divorce or separation versus widowhood compared to staying in a union (reference). This analysis was limited to young women who entered a first union during the study period. In the person-year format, each respondent contributed one observation for each census year that she spent in a union. I first investigated the bivariate association between nonmarital births and union dissolution using  $\chi^2$  tests, followed by two models. The first used a dichotomous nonmarital birth indicator as the main predictor and included all control variables. The second model used a categorical variable combining nonmarital birth and the youngest child's age as the main predictor and included control variables.

In the next analysis, I investigated the relationship between nonmarital births and mortality during adolescence and early adulthood using discrete-time binomial logistic regression. The data were transformed into person-years, with one observation for each year from entry into the study until censoring (migration, aging out) or death. I first investigated a bivariate association between

nonmarital births and mortality followed by two models. The first used a dichotomous nonmarital birth indicator as the main predictor. The second model used a categorical variable combining nonmarital birth and the youngest child's age as the main predictor.

Multinomial logistic regression is an appropriate analytic strategy for the analysis of union formation and dissolution because it allows for an investigation of a three-category outcome (Hoffman 2004). In this case, the outcome for union formation is: stayed single (reference), entered a formal union or entered an informal union. The outcome for union dissolution is: stayed married (reference), divorce/separation (by definition the outcomes for formal and informal unions, respectively), or widowhood. Multinomial models assume that the outcome categories are unordered and cannot be ranked (Hoffman 2004), which is appropriate for these analyses. In a sense, the multinomial logistic regression model estimates a series of binomial logistic models (Hoffman 2004). These models compute the probability (or odds) of individuals falling into, in this case, one of the three categories described above for each outcome. The third model predicting mortality among women who had a nonmarital birth compared to women who postponed childbearing was estimated using binomial logistic regression. This strategy is appropriate because the dependent variable is binary. All models use discrete-time specifications because much of the data (especially on marriage) was gathered retrospectively. Thus, the data do not include the sort of precision in terms of dates that is necessary for continuous-time regression specifications.

### **Qualitative Data & Methods**

I arrived in South Africa in January 2010 to begin collecting the qualitative data for this project. Gaining entrée to a subject population can be a difficult endeavor. However, because the qualitative sample for this project was nested in the AHDSS census area (see Schatz 2009), and I hired local fieldworkers to help with data collection, this problem was much abated. I was fortunate

to be granted access to the study population by the Agincourt Health and Population Unit (AHPU) at the University of the Witwatersrand (Wits) because of a long-standing relationship between Wits and the Institute of Behavioral Science at the University of Colorado. This collaboration provided my entrée to the respondents as well as the AHPU research team, which was instrumental in the successful execution of this project on a number of levels. Once I arrived in South Africa, I worked closely with several members of the AHPU team on everything from hiring fieldworkers, gaining ethical clearance from Wits, drawing the qualitative sample, and getting feedback on preliminary results. Because many members of the AHPU had lived and worked in or near the Agincourt area of South Africa for many years, they provided much guidance about the best practices of conducting research in this area. They were also friends. These relationships proved to be critical to my study as these individuals helped me acclimate to South Africa and often served as cultural interpreters.

The first step after gaining ethical clearance<sup>7</sup> was hiring fieldworkers to conduct the focus groups and interviews. I worked with two local females in their mid-30s, both of whom had worked on other qualitative projects in Agincourt. Hiring fieldworkers was essential because it allowed me entrée and hastened the building of rapport with respondents (see Schatz 2009). South Africa remains a country divided. Although democracy had been in place for 16 years at the time I was conducting my research, there was still considerable racial segregation in many areas, including Agincourt. My White skin thus made it very difficult for me to “participate” in any meaningful way in village life even though I was there on a daily basis. Additionally, although I learned basic *xiShangaan* greetings, phrases, and local colloquialisms, I was unable to readily converse in *xiShangaan* or any of the other languages spoken in the area. This limited my ability to conduct interviews (without an interpreter) and to understand the nuances of what people were saying. Furthermore, although young South Africans today are taught English in primary school, in the past Afrikaans was

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<sup>7</sup> Details about ethical clearance are provided below.



the language of education. Thus, many older people in Agincourt speak little or no English, which made verbal communication nearly impossible. I did not want these axes of difference (race and language) to affect the type of data I was able to collect. For these reasons, I found it essential to hire local fieldworkers to help with data collection. This relationship also benefitted the women I worked with as I was able to provide continuous employment for them for five months.<sup>8</sup>

On my first weekday in South Africa, I met the potential fieldworkers for my study who I subsequently hired. The next day we began a week of intensive training. We focused on the methodology of conducting interviews and focus groups (even though they had some experience) as well as the aims of the study. The sessions provided in-depth training on issues such as confidentiality, ethics and participant consent, answer probing, and other qualitative interviewing techniques. We spent several hours each day reading through the interview schedule so that the fieldworkers could master the goals of the study and clearly understand the questions and the types of data the questions were meant to elicit. The fieldworkers also provided feedback on the interview and focus group questions and made suggestions for adding questions that might provide useful information. Thus, constructing the interview schedules was an iterative process; the questions evolved based on these conversations and on my early experiences in the field. We also conducted several role-playing sessions to help the fieldworkers gain confidence in conducting the interviews. These sessions also provided training in obtaining written consent from respondents. The fieldworkers practiced recording each other during mock interviews so that we could avoid technical difficulties in the field and correctly anticipate how long a typical interview might take. During this week the fieldworkers also translated the consent forms, information sheets, and interview schedules

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<sup>8</sup> Although the fieldworkers I employed were seasonal employees of the AHDSS census team, this project occurred between census rounds when many AHDSS employees are temporarily out of work.

into *xiShangaan*. An AHDSS supervisor back-translated these documents to verify the accuracy and completeness of the translations.

### *Sample Selection*

The next step was drawing the qualitative interview sample. I worked with an Agincourt data specialist who drew my sample from the 2009 census household listing. Because the sample included adult women aged 18 and above, I chose to use a quota sampling method based on age and motherhood status. This strategy was meant to ensure that I had an adequate number of women in each age group to hopefully reach saturation on the topics of interest. Although six women in each age group is a relatively small number, the number of women in each age group in the full study is actually around 15-20 when the focus group respondents are included. I included all adult women because I hoped to gain an understanding of how family formation processes have changed over time and how women at different stages of the life course think about and experience these transitions. I divided women into four age groups based on their age and stage of the life course: 18-25; 26-35; 36-45; and 46+. This age stratification also allowed for an investigation of differences in childbearing before, during, and after the transition to democracy as economic and educational opportunities have expanded across South Africa. The plan was to interview each woman twice over a period of six months.

The bulk of the sample was comprised of mothers because many of the research objectives are centered on childbearing. The Agincourt data specialist drew a sample of 12 women in each age group from villages that would provide variation in socioeconomic status, nationality (Mozambican vs. South African), and were generally seen as representative of the larger Agincourt population. The Agincourt data specialist selected 12 women in each age group so that there would be six extra respondents available to replace women who refused to participate, could not be found, or needed

to be replaced during the second wave of interviews for one reason or another. From each list of 12, we randomly selected 6 women for interviews.

Following the work of Pearce (2002) on deviant case analysis, I chose to include an additional three childless women in the youngest (18-25) and oldest (46+) age groups for interviews. This sub-sample was selected from the 2009 AHDSS census the same way as the sample described above (except that the total was six in each age group rather than 12). Based on preliminary quantitative analyses, I knew that nonmarital fertility was common in this setting. Therefore, I felt that young and older childless women would provide a unique perspective given their “deviant” experiences in forming families. Deviant case analysis provides rich and in-depth information about rarely-selected cases, thereby aiding researchers in developing and/or refining theories (Pearce 2002). This type of case selection proved to be particularly useful for developing an understanding of the value of childbearing for women’s status and how this has changed over time. These interviews also provided a point of comparison, especially among the younger women, since those women without children all desired to have children in the future but had avoided it thus far.

Focus group recruitment was more flexible. Fieldworkers recruited women who were buying, selling, or hanging out in three village-centers to participate. These villages were chosen because they were generally representative of the study site (however, participants ended up coming from nine different villages). Participants were grouped along the same age lines as the interview respondents: 18-25; 26-35; 36-45; 46+. One focus group was conducted with women from each age group.

### *Pilot Interviews*

Four interviews with mothers – one from each age group – served as the “pilot” for this project. These interviews were conducted first, shortly after I arrived in South Africa in January

2010. All of the pilot interviews were with women living in Agincourt village. These respondents were selected from the 2009 AHDSS census household listing in the same way as described above except that they were drawn specifically from Agincourt village. The AHDSS field office is in Agincourt village, so conducting the pilot interviews there was based on convenience. These interviews were meant to gauge the validity of the questions. Each of the pilot interviews was digitally audio-recorded and I observed all of them. The data from these interviews are not incorporated into the study's findings.

### *Focus Groups*

Focus groups were conducted in February 2010 after the pilot interviews were completed. In all, there were 41 focus group participants: ten aged 18-25; nine aged 26-35; twelve aged 36-45; and ten aged 46+. Because I was in Johannesburg teaching a course at Wits during this time, I did not observe any of the focus groups. The fieldworkers had a driver to transport them to the villages from the Agincourt field office. One fieldworker served as the facilitator of each focus group and the other observed, took notes, and made sure the digital recorder was working correctly. The fieldworkers took turns facilitating; each was in charge of two focus groups. Focus groups lasted between one and a half and three hours. Fieldworkers provided snacks and refreshments but no monetary compensation. Focus groups were held in a central location, such as a church, a respondent's home, or a room at a local health center. Focus groups were generally held on a Monday and fieldworkers translated and typed the focus group transcripts during the rest of the week.

Focus group discussions addressed several topics: benefits and challenges participants had faced since the end of apartheid; norms about marriage and childbearing; characteristics of a good/bad mother; mothering norms; experiences with HIV/AIDS; the relationship between HIV

and childbearing; and the relationship between antiretroviral treatment (ARVs) and childbearing. Additionally, a main focus was gaining an understanding of how things had changed over time.

As a research method, focus groups capitalize on group interaction to elicit unique types of data that cannot be gained through other research methods (Asbury 1995; Krueger 1994; Morgan 1993). It is precisely the interactive nature of focus groups that produce unique data as they stimulate ideas and comments from participants (Asbury 1995; Krueger 1994; Morgan 1993). Focus groups inherently encourage participants to comment on one another's point of view and challenge each other's beliefs and motives (Kidd and Parshall 2000). This type of potentially confrontational experience is unlikely to produce useful data from an individual interview (Kidd and Parshall 2000); however, it provides one of the main benefits of focus group research.

Focus groups have been used in a variety of ways in social science research (see Morgan 1996a for a review). In this study, focus groups were useful for several reasons. The focus groups were conducted prior to the in-depth interviews and some of the interview questions were modified based on focus group results. In this way, the focus groups served as "preliminary research to prepare for specific issues in a larger project" (Morgan 1993: 24). In other words, the focus groups were used in tandem with the pilot interviews to assess the validity of the interview questions and to see which topics might be seen as difficult or sensitive for interview respondents. Secondly, focus groups were efficient sources of data. They allowed for inclusion of the thoughts and experiences of a wide array of women from each age group in the same amount of time that it took to conduct one interview. One study comparing focus groups and interviews found that two eight-person focus groups had the potential to produce as much data as 10 individual interviews (Fern 1982). This potential for efficiency was important given the time constraints in collecting the data. Third, focus groups provided important group-level data on social norms. Although this information was also elicited in individual interviews, focus groups provided more dynamic data because participants

discussed and debated which family formation norms remained important and why in a context where many traditional norms and practices were becoming obsolete in the eyes of youth. Thus, focus groups became more than just the sum of several individual interviews because participants queried each other and explained themselves to one another when they disagreed (Morgan 1996a). Similarly, focus groups provided breadth in terms of participants' feelings about family formation processes, the social norms governing them, and how these things had changed over time, whereas individual interviews provided depth by thoroughly examining one person's experiences in these areas.

### *In-depth Interviews*

I returned to Agincourt in March and we began conducting the in-depth interviews. I drove the fieldworkers to each of the interviews and sat in as an observer at approximately half of them. When respondents were not comfortable with my observing the interview, I waited in the local neighborhood or village center, conducted observations, and took field notes (when appropriate). In all, 37 women were interviewed over two waves. Thirty women were interviewed in the first wave from March-April 2010. The second wave of interviews occurred from April-June 2010. Twenty-four of the respondents were interviewed twice. Six women were replaced by others in the same age category during the second wave,<sup>9</sup> and one new respondent (aged 26-35) was added during wave 2. Most interview respondents were mothers (78%). In all, nine childless women were interviewed: four aged 18-25; one aged 26-35; and four aged 46 and above. Interviews were conducted at respondents' homes or places of work in a private setting. Fieldworkers made sure that other family members were not present during the interviews so that women felt free to discuss sensitive topics. Interview respondents were not remunerated for their time.

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<sup>9</sup> The most common reasons for replacement were temporary migration and illness.

Interviews were conducted over two waves for two main reasons. First, this strategy allowed me to write unique follow-up questions for each respondent. This was extremely useful for clarifying things that were unclear from the first interview or for probing for more details on particular issues. I wrote approximately three follow-up questions for each respondent based on their answers from the first interview. Second, interviewing women twice helped to create greater rapport between the fieldworkers and respondents by the second interview. This degree of “closeness” was useful in that many interview questions – especially those related to HIV/AIDS – were sensitive and may have been difficult for respondents to answer, especially given the stigma still attached to the disease. This strategy seemed to work well as several of the respondents talked more openly about HIV/AIDS during the second interview and a few felt comfortable revealing their positive HIV status.

Fieldworkers generally conducted two interviews each day, followed by two to three days of handwriting transcripts. These transcripts were handwritten because the fieldworkers’ were relatively slow typists and time was limited. I read the interview transcripts as soon as they were completed so that I could clarify any questions about the interviews while they were still fresh in the fieldworkers’ minds. I also wrote follow-up questions for each respondent for the second wave of interviews and provided feedback to fieldworkers on their interviewing techniques and probing. In this way, training was ongoing throughout the study.

Fieldwork demanded flexibility. For example, although the AHDSS data specialist had drawn a sample of childless women for interviews, several of the older women on the list actually had children, a fact we learned only upon meeting them. This complication forced us to draw a convenience sample of childless women in the older (46+) age group. Not having children is an anomaly; thus, we rather easily found older childless women to interview by asking around. We had to find some younger childless women via convenience sampling methods as well, although for different reasons. Several of the younger childless women on the sample list were away from the

villages attending university. We were able to interview a couple of these women while they were on break from school, but we had to draw a convenience sample of a few younger women from the villages.

Interviews were meant to provide both an in-depth understanding of each woman's experiences as well as to explore women's views of social norms and changes surrounding childbearing, motherhood, HIV/AIDS, and changes since democracy. More specifically, the first wave of interviews solicited information about: first pregnancy; first birth; childbearing; motherhood and mothering; HIV/AIDS; and ARVs. The second wave of interviews included information about: changes since the end of apartheid; "modern" women and relationships; experiences with work and school; migration; motherhood; childbearing; HIV/AIDS; and ARVs. The questions asked during the second wave of interviews were based, in part, on information obtained during the first wave. I kept a running list of themes that emerged as important from the first wave of interviews and based several of the questions during the second wave on this list.

Individual interviews were extremely valuable for *developing detailed descriptions* (Weiss 1994). In this case, the details concerned several women's experiences in childbearing, intimate relationships, school, and work, as well as their feelings about these events. Interviews were also useful for *describing processes* (Weiss 1994) related to family formation events such as first births and unions. Prior to the interviews I knew that nonmarital births were common, but I did not know why or how these (often) unintended pregnancies came about. Women's accounts of their experiences provided information about these processes underlying the outcomes of interest that I investigated quantitatively. In-depth interviews also allowed me to *learn how events are interpreted* (Weiss 1994). In this case, interviews clarified how women viewed their own experiences related to childbearing, marriage, and HIV, among other things. Thus, respondents were asked to be reflexive when thinking about their experiences, examining what they liked about what had occurred and what they



might have liked to change if given the chance. They were asked to share their reactions to the events that had occurred in their lives. Women were also asked to describe the factors that influenced their decisions related to family formation, such as individuals in their social networks, larger social norms, and structural factors such as work and employment. Individual interviews thus provided examples of different life experiences and trajectories, which gave substance to macro-level trends investigated quantitatively. Additionally, interviews provided personal examples of the normative trajectories that were described in focus groups.

Despite these benefits, there are a few disadvantages of using interview data alone. First, there is a limited amount of time spent with interviewees, which makes it difficult to tell whether they are honestly recounting their experiences or providing an “honorable” story and presenting themselves in the best light possible (Pugh 2013). Interviewing women twice shed some light on this potential problem. By comparing women’s answers across interviews, I was able to check for inconsistencies in their accounts of past behaviors (although admittedly the interviews were conducted within a few months of one another and it is likely that respondents remembered what they had told the interviewers). I found no inconsistencies between the two interviews among women that we spoke to twice. Nonetheless, this does not preclude their providing an honorable account in both interviews. Second, there has recently been much debate about the types of data that are actually available to interviewers in the interview setting (e.g., Ignatow 2007; Pugh 2013; Vaisey 2009). Some scholars of culture have argued that there is a chasm between the cultural ideas or beliefs that people can verbalize and the culture that influences how people behave (e.g., Ignatow 2007; Ortner 2003; Vaisey 2009). Thus, interviews may only allow researchers access to particular forms of knowledge that are not necessarily realistic reflections of reality. Combining interviews with other sources of data alleviates some of these concerns by gaining additional insight into large-scale patterns of behavior (via quantitative analysis of longitudinal demographic data); contextualizing

what women said within what I observed and heard from others (observations and key informant interviews); and listening to women debate what was real and true (focus groups).

Pairing in-depth interviews with focus groups was useful to overcome some of the limitations of focus groups. For instance, focus groups can be a difficult forum in which to gain information about sensitive topics. As Morgan (1996a) suggested, there are some topics that are simply unacceptable for discussion. Indeed, facilitators noted that many focus group participants were silent when questions concerning HIV/AIDS or ARVs were introduced. Although facilitators attempted to include more women's perspectives on these issues, in several of the focus groups the few women willing to speak dominated the conversation. This was not the case in individual interviews, where some women self-disclosed their HIV status and the vast majority talked readily about HIV and ARVs. Second, some studies have shown that a focus group facilitator's efforts to guide the discussion can stymie the type of group interaction that is the main point of conducting focus group research (e.g., Agar and MacDonald 1995; Saferstein 1995). Individual interviews, on the other hand, put more of a burden on the respondents to explain themselves to the interviewer (Agar and MacDonald 1995). Therefore, combining these methods and asking similar questions in each format helped to abate some of the disadvantages of using each method alone.

### *Observations & Conversations*

The final piece of qualitative data is comprised of observations. This includes time that I spent in the villages during the six months I was in South Africa (January – June 2010); informal interviews with four local key informants; and countless informal conversations with friends and colleagues living in South Africa. The observations were generally conducted while we were in the field on interviews. Thus, I observed daily life in the villages, chatted (as much as I could given language barriers) with family members and neighbors of the women who were being interviewed,

and spent time in public centers, such as markets, shops, and restaurants. I took extensive field notes during (if appropriate) and after these observations to record what I saw as well as my thoughts and interpretations of events.

These observations provided context to the more formal qualitative data collected and in many ways confirmed what women said during the focus groups and interviews. For example, my observations in the villages confirmed that older women were the primary ones engaging in daily farming activities while younger women were more often responsible for tending children and running errands, such as fetching water from the village taps. Additionally, the problems with high unemployment were easy to see from the high numbers of adult men and women present in the villages during the day. Many of my conversations with locals during observations revolved around work. I was approached numerous times by young women and men who were looking for a job (I was driving a car emblazoned with the Wits logo and Wits is known to be a major employer in the area).

Similarly, informal key informant interviews provided context to the formal interviews with women but they also provided different perspectives. All four of the key informants were adult women working for Wits. Thus, they talked about their experiences with childbearing, marriage, and HIV but also shared their interpretations of the ways in which these issues affected local village life. Their experiences were often very similar to the respondents – they all grew up in the same context, after all – however, given their higher educational attainment and socioeconomic status compared to many respondents, their interpretations were often quite different. I found the key informant interviews and informal conversations to be very useful for developing a better understanding of the formal data as well as how views of family formation processes and HIV in South Africa vary across levels of socioeconomic status.

The key informant interviews and informal conversations were also useful for developing an analysis of some preliminary findings. During fieldwork I was surprised by several things we heard in focus groups and interviews. For instance, when women were asked about their future fertility projects, they did not organically bring up the risk of HIV/AIDS (see Chapter 6). This was surprising because of the high HIV prevalence in Agincourt (Gómez-Olivé et al. 2013) and the very real likelihood that if my sample was representative of HIV prevalence in the site then half of the women would be infected by the time they reached age 50. Another example is that many older women lacked accurate knowledge about HIV; some were not even aware that treatment existed. I was shocked by this since public health campaigns promoting safe sex practices have been around in this part of South Africa for years. These results puzzled me and I had daily conversations with my key informants – especially my two fieldworkers – who helped me think through the results, provided their own interpretations, and gave further cultural insight that I found extremely useful. In the end, the analysis and interpretation of the results in this dissertation are my own, but they were certainly informed by these conversations.

Throughout my time in South Africa I took copious field notes, recording everything I saw, heard, thought, and talked about in regards to the topics of interest to this project. I wrote notes during observations when it was possible to do so in an unobtrusive way. When it was not, I wrote notes as soon as I was in private. I focused on recording facts: the landscape, what people were wearing, how they wore their hair, the type of car they drove or rode in, what they were doing, etc. I also recorded my thoughts and feelings about the events I witnessed and the people with whom I interacted. Additionally, I wrote about my initial reactions to the fieldwork process and recorded my early interpretations of findings. Through my field notes, I aimed to develop a “think description” (Geertz 1973) of my time in South Africa so that I could easily draw on the notes once I returned to the U.S. to “revisit” those places, conversations, feelings, and thoughts as clearly as possible. I found

Emerson and colleagues' (1995) text particularly valuable in developing my own method of taking field notes.

Finally, I wrote a series of research memos to myself and to my dissertation committee members (and other colleagues interested in similar topics). These memos were useful for organizing my thoughts while in the field, testing preliminary interpretations of early findings, and getting feedback on the process of fieldwork and how I might make improvements moving forward. For example, after the first wave of interviews was completed, I wrote a research memo in which I asked for feedback on some of the topics I hoped to pursue in the second wave of interviews. I received feedback from several colleagues and modified some of the wave two interview questions in response. Some of the changes were due to direct suggestions from others; however, many of the changes were related to ideas that were sparked through these intellectual exchanges about the project.

### *Analysis*

Analysis of the qualitative data has been in progress since the beginning of data collection. I read through the focus group and interview transcripts multiple times while in the field to begin gaining a sense of “what is going on” (Babbie 2004; Strauss and Corbin 1990). Throughout the data collection process, I kept track of the main themes that emerged from the focus groups and in-depth interviews. These themes ultimately drove many of the interview questions during the second wave of interviews. They also structured the formal qualitative analysis.

This type of data analysis originates in grounded theory (Glaser and Strauss 1967), an approach that allows for a researcher to be both scientific and creative by following the research procedures and maintaining an attitude of skepticism (Babbie 2004; Strauss and Corbin 1990). Thus, this study was driven by objectives rather than hypotheses to prove or disprove. However, I did

enter the field with particular objectives and research interests based on my experience with the AHDSS data as well as the preliminary analyses I had already conducted. Therefore, I used a modified analytic technique that allowed the data to speak for themselves, while also eliciting particular types of data (via structured interview schedules) about the topics of interest to the project.

All handwritten (interview) transcripts were typed once I returned to the United States in June 2010. I hired two transcriptionists to help with typing half of the interviews. I typed the other half myself. Typing the interviews provided an opportunity to re-read many of the transcripts and was very useful in terms of developing analytic codes based on the important themes that emerged during this re-reading. Typing was completed in January 2011.<sup>10</sup> During this time I read through my field notes several times, taking note of important themes and how they fit with the themes that emerged from the interviews and focus group transcripts. I also continued writing research memos to myself to record my thinking and interpretations during the coding process.

Interviews were formally coded using QSR *NVivo*, a qualitative software program. Interviews were first coded by question and then according to the themes that emerged during data collection and transcription. Additional themes emerged during the coding process. These were then added to the list and all interviews were re-coded for these themes. I continued this iterative process until theoretical saturation had been reached. Formal coding was completed in May 2011. Once all of the transcripts had been coded, I went back and re-read them one-by-one to make sure that I was correctly representing the data through the codes I had developed. Although *NVivo* is useful for organizing data and making connections across transcripts, I find that it is less useful for maintaining a holistic picture of individual interviews or focus groups because the data become so parsed out in

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<sup>10</sup> This process took longer than anticipated because both of the transcriptionists I hired experienced a significant illness while working for me.

different codes. Thus, the coding and analysis process involved using the data in *NVivo*, but also spending significant chunks of time reading through the original transcripts.

This coding and analysis process reinforced my interest in the topics I had set forth in my dissertation proposal: the timing of first birth; the union context of first birth; how these events had changed since the end of apartheid; and how HIV/AIDS had affected these transitions. I began compiling lists of quotes from the relevant codes that I had developed for each topic. This was also an iterative process. Because the data were coded by question as well as theme and because themes were spread across both interview waves, there was a significant amount of data to wade through that seemed relevant to each topic. As I began compiling quotes, it became clearer which questions and themes best spoke to each particular topic.

This process was also aided by writing the chapters. Part of the writing process involved presenting preliminary analyses at the Population Workshop at the Institute of Behavioral Science. These sessions were invaluable for gaining feedback on both the ongoing analyses as well as the ways I had structured and framed the chapters. These sessions also challenged my thinking about the project by introducing new ideas and possibilities that I had not yet considered. Between 2010 and 2012, I presented my dissertation proposal as well as three of my empirical chapters (Chapters 5-7) to the members of the Population Workshop. Based on feedback from these sessions as well as early feedback from several committee members, I reanalyzed the data related to each chapter's topics and rewrote significant portions of each chapter. This version of the dissertation has been a long time in the making.

### *Ethical Approval & Confidentiality*

All research participants provided written informed consent for their participation in the study. No potentially identifying information was included in my field notes. Any potentially

identifying information included in interviews or focus groups was removed during the transcription process. All identifying information has been excluded from this dissertation to protect the confidentiality of respondents.

Respondents were issued unique identification numbers to connect them with their data. Their names do not appear in any of their data including transcripts. The handwritten transcripts were scanned in South Africa at the Agincourt office at Tintswalo Hospital by an administrative assistant. The paper copies are stored in a secure file room at the Agincourt office. The scanned copies are stored on my computer in a password-protected folder. The list of respondent names, identification numbers, and all recordings of interviews and focus groups are stored on my computer in a password-protected folder.

This research project was approved by the Human Research Ethical Committee (Medical) at the University of the Witwatersrand in Johannesburg, South Africa; the Mpumalanga Province Department of Health Research and Ethics Committee; and the Institutional Review Board at the University of Colorado Boulder.

## **CONCLUSION**

The breadth of the research objectives I set forth for this project necessitated using a combination of methods. This strategy enabled me to overcome many of the shortcomings of using either qualitative or quantitative methods to address the topics of interest. The longitudinal AHDSS data are valuable for addressing population-level questions about how the timing and union context of first birth have changed as well as how family formation processes affect women's trajectories and outcomes. However, the AHDSS data do not include information on HIV status or on women's fertility preferences and plans. The qualitative data provide information on how women view the relationship between family formation processes and HIV as well as how the timing and



union context of first birth have changed over time and why. By combining qualitative and quantitative methods, this project is able to address a complex set of research objectives and provide a clearer picture of how things have changed in the post-apartheid context and the factors that have motivated those changes.

## **CHAPTER 4: FIRST BIRTH TRENDS IN AGINCOURT, 1993-2010**

South Africa is a society in flux. The end of apartheid sparked numerous societal changes at the same time that the AIDS epidemic was taking a significant toll on the country's population. Against this backdrop, new social and cultural patterns of family formation have begun to emerge. Family formation patterns – especially the timing and union context of first birth – and HIV prevalence are important determinants of women's well-being. Because this dissertation is focused on understanding South African women's lived experiences and imagined futures in the context of HIV, this chapter aims to: a) document recent patterns in the timing and union context of first birth; and b) examine the relationship between HIV and family formation patterns.

Rural South Africa is a unique context in which to examine these issues for several reasons. First, research from rural KwaZulu-Natal Province shows that marriage is increasingly being postponed until later ages (Hosegood, McGrath and Moultrie 2009). National estimates of the median age at first marriage in South Africa have been as high as 30 for women and 34 for men (Statistics South Africa 2010a). Yet, very few studies of union patterns in South Africa exist due to a lack of data (Budlender, Chobokoane and Simelane 2004). The current chapter draws on longitudinal data from the rural Agincourt sub-district of Mpumalanga Province and includes annual measures of union status collected over a period of 18 years. This type of detailed data is novel in sub-Saharan Africa and allows for detailed analyses of changes in women's union status at first birth over time.

Second, the South African total fertility rate is lower than many other countries in sub-Saharan Africa, where fertility levels have been falling for decades but are now largely stalled

(Shapiro and Gebreselassie 2008). The total fertility rate in Agincourt is now around 2.3 children per woman, a decline from 6.0 in 1979 (Garenne et al. 2007).

Third, infant mortality in South Africa is high (37.9 deaths per 1,000 live births) (Statistics South Africa 2011). This unique combination of low fertility and high infant mortality diverges from what one would expect given theories of demographic transition, which posit a positive association between high mortality and fertility levels (Davis 1945; Notestein 1945). AIDS is largely responsible for the high mortality rates in South Africa (UNAIDS 2006). In Agincourt, HIV prevalence is estimated at 19.4%, with a considerable gender gap that disadvantages women (10.6% adult prevalence for men and 23.9% for women) (Gómez-Olivé et al. 2013).

Developing a better understanding of family formation patterns in rural South Africa is an important endeavor because the timing and union context of a woman's first birth may be predictive of her later life outcomes. Researchers in developing countries have identified associations between early first births and disadvantages in educational attainment, socioeconomic status, health outcomes, and marriage formation and stability (National Research Council and Institute of Medicine 2005; Gustafsson and Worku 2006; Marteleto, Lam and Ranchhod 2006; Zabin and Kiragu 1998). In South Africa, sexual abuse, violence, and rape have been closely linked with adolescent nonmarital fertility (Jewkes et al. 2001; Outwater, Abrahams and Campbell 2005; Wood and Jewkes 1997) and first births are often to adolescent women (Garenne et al. 2007; Gustafsson and Worku 2007; Kaufman, de Wet and Stadler 2001). Although many researchers have focused on adolescent or teenage fertility in South Africa, few have examined the union context of first births. The first birth is likely to represent a "turning point" (Elder 1985) that may fundamentally alter a woman's life course regardless of when that birth occurs. Indeed, research from the U.S. suggests that the union context of the first birth may actually be more important for a woman's union trajectories than her age at first birth (Bloom, Bennett and Miller 1993).

## LITERATURE REVIEW

### The Transition to First Marriage

Marital status is an important social location that is closely related to childbearing because of its centrality to life as the context of family formation for most individuals (Mturi, Xaba and Sekokotla 2005) and because the African AIDS epidemic is fueled by heterosexual sex (Dyson 2003; Gupta 2000; Walker and Gilbert 2002). Marriage in South Africa is currently in transition. South Africans are now delaying marriage longer than any of their sub-Saharan African neighbors and marriage rates are declining among individuals of every age group (Hosegood, McGrath and Moultrie 2009).

Marriage in South Africa has often been described as a process and is typically characterized by the payment of *lobola* (bridewealth). Lobola is constituted by a series of financial transactions that are made from the husband (and/or his family) to the wife's family. Traditionally, this economic exchange signified that the husband's family acquired the wife's future earnings and her reproductive capacity (Goody and Tambiah 1973). Lobola was historically paid in cattle, but is now usually paid in cash and gifts. The amount is generally determined by the future wife's educational level, which may increase the amount, and the number and paternity of her children, which may decrease the amount if the future husband is not the father (Kaufman, de Wet and Stadler 2001; Madhavan 2010).

Marriage rates in South Africa differ across rural/urban locales. According to national data, marriage is less common in rural areas: In 1996 11% of the population of rural Mpumalanga Province was married while 22% of the population of urban Gauteng Province – which includes the capital city of Johannesburg – was currently married (Budlender, Chobokoane and Simelane 2004). There are also differences in marriage by population group. This chapter focuses on African South Africans, the group with the highest age at first marriage. According to national data, 51% of African men aged 30-34 were never-married compared to 34% of Coloureds, 20% of Indians/Asians, and

7% of Whites. Women's marriage patterns were similar: 44% of African women aged 30-34 were never-married compared to 32% of Coloureds, and 13% of Indians/Asians and Whites (Statistics South Africa 2005).

### **The Transition to First Birth**

Researchers from the United States have found that as marriage rates have declined, many young people have disassociated marriage from childbearing (Edin and Kefalas 2005; Rindfuss 1991). This is particularly true for economically marginalized women, although the retreat from marriage has cut across lines of race, ethnicity, and social class (Edin and Kefalas 2005; Landale and Oropesa 2007; Manning, Longmore and Giordano 2007; Rindfuss 1991). Similar findings have been reported from South Africa. The reduction in marriage in South Africa has been accompanied by relatively high rates of nonmarital childbearing (Moultrie and Timaeus 2001) and nonmarital births today are unlikely to motivate a young couple to marry (Kaufman, de Wet and Stadler 2001). Studies indicate that although there remains an ideal ordering of family formation events (marriage first followed by children) young South Africans often view marriage as a transition that should come later in life, after finishing schooling and finding a job<sup>11</sup> (Kaufman, de Wet and Stadler 2001).

### **HIV & Family Formation Processes**

Most studies have demonstrated that HIV reduces fertility (Casterline 2002; Terceira et al. 2003; Zaba and Gregson 1998). Biologically, HIV positive men and women suffer from reduced fecundity making conception more difficult and advanced HIV infections are associated with a greater chance of miscarriage (Hunter 2003; Nguyen et al. 2006). However, some scholars have

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<sup>11</sup> This finding is reminiscent of studies from the United States, especially Edin and Kefalas' (2005) seminal research on low income women and marriage, which found that women preferred to wait to get married until they had achieved other life goals and were sure that the partnership would last.

argued that behavioral changes – rather than biological factors – are primarily responsible for reductions in HIV positive people’s fertility (Kirshenbaum et al. 2004; Noel-Miller 2003). Scholars have offered two hypotheses to explain behavioral changes in response to HIV. First, infected individuals or those who view themselves at a high risk of infection may have children earlier or in quicker succession to ensure that they can successfully reproduce (Gregson, Garnett and Anderson 1994; Temmerman et al. 1994). An alternative hypothesis suggests that people with HIV may opt to limit or stop childbearing out of fear of passing the virus along to their children or out of concern for their own health and their children’s futures (Gregson, Anderson and Chandiwana 1997; Kirshenbaum et al. 2004; Noel-Miller 2003; Setel 1995). Some scholars have argued that those who are infected or fear infection will reduce or stop childbearing altogether; however, this has primarily been shown for older and married people with children, especially women (Kirshenbaum et al. 2004; Noel-Miller 2003; Yeatman 2009a). This growing body of research has documented HIV-related biological and behavioral changes that affect fertility. However, we still lack a clear directional hypothesis in terms of the influence of HIV on childbearing, in part because most studies examining this relationship have focused solely on people with HIV. Moreover, theories of behavioral change depend on individuals’ having knowledge of their HIV status and intentionally altering their behavior in response. This is not likely to be the reality in South Africa where uncertainty about one’s status may be more common for several reasons.<sup>12</sup>

No studies of which I am aware have investigated the relationship between HIV and the union context of first births. However, a few scholars have examined the relationship between the timing of marriage and HIV. Clark’s (2004) research in Kenya and Zambia finds that early marriage is related to an elevated risk of HIV among young women. Conversely, Bongaarts (2007) finds a positive relationship between a later age at marriage, a long window of premarital sexual activity, and

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<sup>12</sup> Chapter 6 focuses on uncertainty about HIV and women’s future fertility projects.

HIV among women in several sub-Saharan African countries. Evidence from Malawi demonstrates that women and men may resort to marriage as a way to avoid HIV infection (Reniers 2008). Thus, in some contexts, marriage may be seen as protective as individuals actively select partners in the attempt to avoid those who may be high-risk (Reniers 2008). The studies reviewed here, which produced varying and contradictory results, are set in different African countries. Thus, context is vital to understanding the relationship between HIV and marriage (Reniers 2008).

## **METHODS**

This paper is a mixed methods analysis examining three main research questions: First, how has the timing of first birth changed over time? Second, how has the union context of first birth changed over time? Finally, what is the relationship between HIV and recent family formation patterns? To address these questions, I draw on two sets of data: qualitative data collected in 2010 comprised of in-depth interviews and focus groups with women. I also draw on longitudinal demographic and health data from the Agincourt Health and Demographic Surveillance System (AHDSS), a well established research site in rural northeast South Africa.

The interviews and focus groups were conducted first and motivate the quantitative investigation in this chapter. I use both types of data in this analysis because neither the qualitative data nor the quantitative census data provide a complete picture of the relationship between family formation patterns and HIV in the post-apartheid context and because some of the findings are contradictory. The qualitative data include information about women's perceptions of changes in the timing and union context of first births in recent decades; however, they do not provide data verifying these trends at the population level, which is why pairing these two data sources is valuable to answer the research questions at hand. Thus, this chapter provides detailed information about actual trends in family formation processes as well as how women view these trends. In terms of

HIV, the AHDSS data unfortunately do not include HIV status. However, the qualitative data provide information about women's perceptions of the relationship between HIV, childbearing, and marriage, and the census data provide information about mortality rates in recent years. Thus, these data complement one another and allow for an investigation of how HIV may have affected the timing and union context of first births since the end of apartheid.

## **Setting**

The AHDSS data have been collected since 1992<sup>13</sup> from approximately 90,000 individuals in 26 villages in the Agincourt sub-district of Ehlanzeni District, Mpumalanga Province, South Africa ("Agincourt") (Kahn et al. 2007b; Tollman et al. 1999). The study population is primarily of Shangaan heritage, an ethnic group that lives in Agincourt and across the border in Mozambique, and about one third of the study population are Mozambican refugees or their descendants (Kahn et al. 2007b). Although Agincourt is rural, agriculture is underdeveloped due to the limitations of the dry climate and poor soils. Income is average for rural South Africa but varies from wealthy individuals who live in modern houses to poor families, often Mozambicans, living in traditional huts. Infrastructure in the area is limited and residents lack reliable access to piped water, electricity, and a formal sanitation system (Kahn et al. 2007b).

## **Qualitative Data & Analysis**

The qualitative sample is comprised of women who were resident in the AHDSS site during the 2009 census. The data, comprised of in-depth interviews and focus groups, were collected between January and June 2010 from women aged 18-79. Interview participants were randomly selected from the complete AHDSS household listing based on their age and whether they had

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<sup>13</sup> I draw on data from 1993 on because of data quality issues in the first year of the census.



children. Women were divided into four age groups: 18-25; 26-35; 36-45; and 46 and above. I used quota sampling to include equal numbers of women in each age group. Twelve women with children (mothers) were randomly selected from the AHDSS sampling frame in each age group and six were randomly selected from that list for interviews. If a woman was unable to be located at her home or place of work for an interview, we attempted to contact the next woman on the list until we reached the desired number of women in each age group.

I also included a smaller sample of childless women. Six childless women from the youngest (18-25) and oldest (46+) age groups were randomly selected for interviews from the 2009 AHDSS household listing. Three women were randomly selected from the list for each age group for interviews. Additionally, one childless woman aged 26-35 was interviewed. Locating women without children was difficult, especially in the oldest age group where essentially the only women without children are those who are infertile. Infertile women are generally well known to their communities because not having children is a rare status for South African women. Thus, at times these women were recruited through snowball sampling methods if the women on the list were unavailable or ineligible (if they in fact had children, which we learned upon meeting them). All of the women aged 46 and above were childless because of infertility rather than choice; however, among this group it was common for women to have fostered children (sometimes raising them from small children into adulthood). Younger childless women reported that they had not yet had children by choice but all eventually wanted to have children.

Interviews lasted approximately 1.5 hours. The interviews were conducted in two waves and 25 out of 30 women were interviewed twice. Women who were not available at the time of the second interview were replaced by a woman from the original sampling list in their same age group. In all, 61 in-depth interviews were completed with women from nine villages.

Participants in focus group discussions were recruited from public spaces in four villages in

the study site. Each focus group lasted approximately 2.5 hours. Focus groups were conducted separately for women in the four age groups outlined above. In all there were 41 participants: 10 aged 18-25; 9 aged 26-35; 12 aged 36-45; and 10 aged 46 and above. Focus group participants ranged in age from 20-61. Focus groups were useful because they provided an opportunity for women to collectively discuss the issues raised, provide different viewpoints, and debate. While interviews were useful for obtaining information about women's personal experiences and perceptions of the social norms surrounding family formation processes, focus groups provided context and information about shared beliefs and norms among women of different age groups.

Prior to their participation, all respondents were given information in *xiShangaan* (the primary local language) about the aims of the study and each woman provided written consent to participate. Interviews and focus group discussions were conducted in the local language by two local, female field workers in their mid-30s that I trained in qualitative methods and the aims of the study.

All interviews were digitally recorded and later transcribed by hand by the interviewers. Once transcribed, the interviews were typed and then entered into *NVivo* for analysis. However, analysis of the data actually began during the first wave of interviews and was a process greatly aided by observations conducted over six months during 2010 as well as numerous conversations with several key informants, including the project's two field workers. Themes that emerged during the focus groups and first wave of interviews helped to guide the questions that were constructed for the second wave of interviews. Once entered into *NVivo*, the data were first coded by question and secondarily by themes that emerged throughout the data collection and coding process. Transcripts were then reread and coded for these themes.

## Quantitative Data & Analysis

Quantitative analyses use AHDSS census data collected from women aged 10-35 in at least one year between 1993 and 2010. The AHDSS collects annual data on individual and household events such as births, deaths, migrations, and union formations and dissolutions. Baseline retrospective fertility, maternity, and pregnancy histories were initially collected in 1992. Complete retrospective union histories were first collected in 2005. Information about these events is obtained at the first census for new in-migrants and updated annually for all others.

The descriptive analyses investigate how the timing and union context of first birth have changed since the end of apartheid and the emergence of the AIDS epidemic in the early-1990s in rural South Africa. Hence, the two main variables of interest are the age and union context (marital vs. nonmarital) of the first birth. Age at first birth is roughly categorized into five-year age groups: 10-14; 15-19; 20-24; 25-29; and 30-35. The union context of first birth is defined as either marital (informal or formal union) or nonmarital. Some descriptive analyses separate unions by their type (informal vs. formal). Respondents were asked to identify the union type at the time the union began. Formal unions are defined as a union in which the couple has fulfilled all the requirements (social, religious, or legal) for a community to recognize that they are permanently sharing their lives together. This includes the payment of lobola. Informal unions are defined as situations where a couple is living together but has not fulfilled any requirements. For the purposes of these analyses, the term “marriage” will encompass both types of unions; however, “formal” and “informal” unions will be used to distinguish between union types. It is important to note that the AHDSS data do not allow for identifying informal unions that later become formal unions. As described above, marriages in rural South Africa are often understood to be a process rather than a discrete event with lobola payment (or the transition to a formal union) occurring some time after the union has begun. Because this analysis is focused on first births and marital first births are likely to occur soon

after the formation of a union (compared to higher order births), it is likely that unions are defined correctly for the current analysis.

In order to assess whether HIV has had an influence on the timing and union context of first birth, the year of first birth is partitioned into three periods. The first death assigned to AIDS in Agincourt by verbal autopsy was in 1993 and previous research has documented an increase in AIDS mortality beginning as early as 1995 (Tollman et al. 1999). AIDS continues to be a significant cause of death, accounting for 36% of the deaths of women aged 15-49 in 2004 (Garenne et al. 2007; Kahn et al. 2007a). Based on previous research in the site, it appears that the increase in AIDS mortality began around 1997 and stabilized around 2003 (Kahn et al. 2007a). In light of this, I have constructed three time periods roughly corresponding with the progression of the AIDS epidemic in Agincourt. The first period, 1993-1998, is defined as “early AIDS” or before AIDS became a significant cause of death in the study site; the second period, 1999-2004, is defined as “peak AIDS” because it is during these years that AIDS became a main cause of death for adults and children in Agincourt (Kahn et al. 2007a). Finally, the third period, 2005-2010, is defined as a “stable epidemic” period because although the level of AIDS mortality had stabilized, AIDS remained a generalized epidemic.

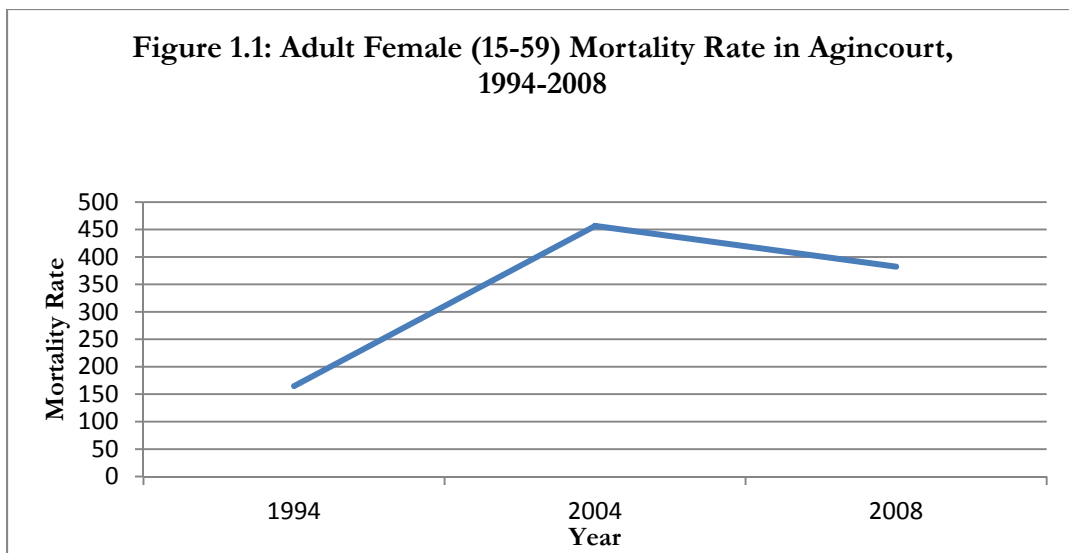
Figures 1.1 and 1.2<sup>14</sup> (below) display the Agincourt female adult mortality and infant mortality rates from 1994-2008. These years correspond with the periods constructed for this analysis, as outlined above.<sup>15</sup> These figures show the marked increase in mortality over time: The female adult mortality rate increased dramatically between 1994 and 2004 but then decreased between 2004 and 2008. There was also a substantial increase in infant mortality during the same

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<sup>14</sup> The figures were constructed from the mortality rates reported in Kahn and colleagues (2012).

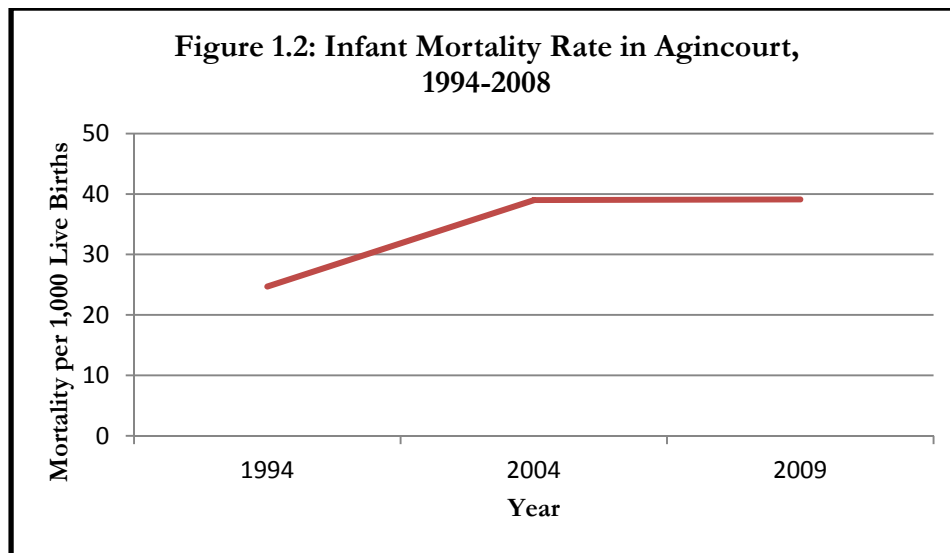
<sup>15</sup> Although the current analysis extends through 2010, the mortality data from Kahn and colleagues' study (2012) is only through 2008.

period with a leveling off from 2004-2008. Much of the increase in mortality among women and children is due to AIDS, while the decrease is likely attributable to increases in Prevention-of-Mother-to-Child-Transmission (PMTCT) and antiretroviral treatment (ARVs) availability in the AHDSS site in recent years (Kahn et al. 2012). As shown in these figures, mortality rose rapidly during the first two periods – “early epidemic” (Period 1: 1993-1998) and “peak AIDS” (Period 2: 1999-2004) – peaking in 2004. The third period, “stable epidemic” (2005-2010), is characterized by a slight decline in adult women’s mortality and stability in the infant mortality rate.



This chapter also examines selected descriptive characteristics of several groups of women based on the timing and union context of their first births. Educational attainment was assessed in the AHDSS in the following years: 1992, 1997, 2002, and 2006. Here it is measured in the woman’s last valid census year (year of first birth or censorship) and divided into several categories: none, primary (1-8 years), some secondary (9-11 years), and completed secondary (12 or more years). Education is imputed in missing years using the previously-reported highest level of education. A “missing” education category is included due to the high proportion of individuals with missing data (35%). Nationality is assigned based on whether the respondent reported being South African or

Mozambican. Union status – whether a woman entered a union during the study period – is time-varying and coded dichotomously.



There are also several descriptive variables that are only measured for women who have experienced a first birth in Agincourt. Contraceptive use before and after birth is measured among women who have a child while they are living in the AHDSS and is assessed after the birth (retrospectively about use prior to the birth). A woman is coded as having used effective contraception if she reported using a condom, injection (DepoProvera), loop (intrauterine device – IUD), pill, or sterilization. Women who report “intending to” use contraception after the first birth are coded as using contraception. A woman is coded as not having used effective contraception if she reported using traditional methods or did not use any method. Also included is a dichotomous indicator of whether the first birth was planned, which is assessed retrospectively. Both contraceptive use and planning status of the first birth include a “missing” indicator due to high proportions of missing data.

To quantitatively investigate changes over time in the timing and union context of first birth, I employ several descriptive techniques. To examine the timing of first birth, I compare the proportions of births to each five-year age group over time and test for statistically significant

differences using *Chi-square* ( $\chi^2$ ) tests. I also present age-specific first birth rates for each group of women by period. To investigate how the union context of first birth has changed over time, I compare the proportions of marital and nonmarital births, using  $\chi^2$  tests. I also examine how the type of union at first birth has changed over time, comparing births to women in informal versus formal unions. The next chapter focuses on the consequences of nonmarital births, thus, I focus more in this chapter on how marital births have changed over time.<sup>16</sup>

To examine the relationship between the AIDS epidemic and changes in family formation processes, I use time periods that reflect the pathway of the AIDS epidemic in Agincourt. Unfortunately, because of the myriad changes that have occurred in the post-apartheid era, I am unable to disentangle other historical effects from those related solely to AIDS. Nonetheless, I compare the timing of first birth for women who began their childbearing in the “early AIDS” period (1993-1998), with women who began their childbearing during the period of “peak AIDS” (1999-2003), and those who began their childbearing after AIDS was a “stable epidemic” (2004-2010). I also compare the union context of first birth in these periods, using  $\chi^2$  tests to determine whether there are statistically significant differences across time periods.

### **Quantitative Sample Selection**

The quantitative sample includes women aged 10-35 in at least one census year between 1993 and 2010. Six cases are dropped due to erroneous data. This leaves a sample of 51,852 women contributing a total of 404,133 person-years to the analyses. Of this total, 21,852 women (42%) experience a first birth in the site during the study period. No women within the age range (other than the six cases mentioned above) are missing from the sample although 23% of women who have

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<sup>16</sup> The next chapter also includes a section on selection into nonmarital motherhood, which analyzes the factors significantly associated with nonmarital births using regression models.

a first birth in the site during the study period are missing on at least one indicator and 35% of all women are missing on education, as mentioned above.

The results are organized as follows. I first turn to the in-depth interview and focus group findings, which outline women's perceptions of changes in the timing and union context of first birth as well as the relationship between HIV/AIDS and family formation patterns. I then turn to the quantitative data to examine whether women's perceptions reflect realistic demographic patterns at the population level. I also use the quantitative data to investigate whether the AIDS epidemic has had an influence on women's childbearing and union formation in the post-apartheid context.

## **RESULTS**

### **Qualitative Findings**

#### *The Timing & Union Context of First Births*

Respondents across the age spectrum agree that the processes of forming a union and having a child are markedly different today compared to in the past. In regards to the timing of the first birth, there is general agreement that women today have their first births at earlier ages than women in the past. This is often portrayed as a serious problem for young women and society writ large. For example, when asked about the main problems facing Mpumalanga Province today a focus group respondent (aged 26-35) said: "teenage pregnancy," a comment that sparked nods of agreement from many other women in the room. When asked about differences in childbearing patterns in the past compared to today, a 19 year old mother said: "In the past a person who is my age, it was not common that she has a child, but when she is 23 and above that's where she gets her first child." A 19 year old childless woman also thought that women in the past had their first births at later ages than women today. When asked about the best age to have your first child, she said:

Mm...I think 21 to 24 years. But it's because time is running nowadays. It was not like this in the past.



(How? What was in the past?)

Our parents were getting children at 25. If you were 21, you were still a virgin. But now things have changed.

This belief was not limited to younger women. Older women also claimed that women in the past waited until older ages to give birth. For instance, a focus group respondent (aged 46+) said:

“Our children are getting children at an early stage and they didn’t reach the age of 18 years. I think that is not good.” Below are the comments of a 60 year old mother who spoke about her first birth:

I was a grown up woman. We were growing up at that time, not now. If a person is born today, tomorrow she is pregnant. We were growing up and becoming adults. Now they are not growing up. If a girl starts to develop breasts, she will get pregnant.

Although there is much agreement that women today have their first births at earlier ages, a few women acknowledged that early first births were not unknown in the past. A 40 year old mother’s comments about her own mother are indicative: “By the time my mother got me she was 19 years old and I’m the second born. It means they were not growing up. But they are always saying, ‘We were grown up.’” This respondent suggests that although older women often claim that they were grown up when they gave birth, they may have been of similar ages as young women having children today.

If this is the case, then why do so many women agree that first births today are occurring to younger women? The data suggest that, in women’s views, the main difference between first births in the past and today is that births to young women in the past were largely marital while today they are largely nonmarital. Hence, respondents describe women in the past as giving birth “in a good way” in contrast to young women today who are often strongly lamented for the timing (early) and context (nonmarital) of their first birth. A 22 year old mother’s comments conflate marriage and motherhood in the past:

(Okay, you told me that younger women are getting children at early ages. We also spoke of those getting married from 25. How does this compare to the past?)

It was not like that. In the past they were not using ages. When they see you developing breasts, you were old enough to start a family. That is why our parents were not getting children while at home.

This respondent's comments reflect a taken-for-granted assumption that in the past having a child implied that you were married. Her reference to "not getting children at home" references marriage as marriage patterns in this area are patrilocal meaning that upon marriage, women leave their natal homes to live with their new husband and his family. A 45 year old mother agreed that women in the past usually had their first birth within marriage, again referring to giving birth "at home": "Women were getting marriage first and after, it was a child. Though they were married being young, but you cannot say they were young as they got married. It was rare for women to get a child at home." The comments of an older focus group respondent (aged 46 and above) also highlight the differences in the union context of births today:

Mm, I wanted to say this time we are living in, it's not easy for our daughters to get married. But getting a child is easy. I think we must pray for them so that God can help them. People don't have true love and another thing is that most of the women are getting children outside of marriage.

These respondents' remarks emphasize the differences in the union context of first births today and suggest that first births in the past largely occurred after a woman had already gotten married and moved in with her husband (and usually in-laws as well). Thus, even though women in the past had children at young ages, the births are seen as respectable because they occurred within a union. Thus, it is not the age of the mother that is important, but rather the (union) context of the birth – at least in the past.

Although not key to the respectability of the birth, age does emerge as an important factor in the respondents' comments above. The first respondent (aged 22) describes women in the past as eligible to start a family (i.e., get married and have a child) at the onset of puberty, an event that girls experienced at around age 15 in the mid-1950s but now is more common at around age 12 (Jones et

al. 2009). A focus group respondent (aged 26-35) also commented on the earlier onset of puberty among young women today:

Another thing is that they [young women] see their periods earlier than normal, compared to our times. I started to see my periods at the age of 17 years. I was shocked to see my sister's daughter who started to see her periods at 13 years. This year she is 14 and she is pregnant.

This view was very common among women in Agincourt. Key informants and interviewees often spoke about how young women today are growing up sooner than young women in the past. This is often attributed to the kinds of food that people eat today – those with “fats and oils” – as well as reductions in daily physical activities like farming, which have contributed to higher rates of obesity among South African women (Case and Menendez 2009; Puoane et al. 2002). Decreases in the age at puberty may serve as a partial explanation for earlier births if births are, in fact, occurring to younger women today.

As indicated by women's narratives about how the timing and union context of first births have changed, women view the ordering of events as crucial. All respondents agree that traditional marriage practices should ideally be followed and lobola should be paid before a woman gives birth.

A 44 year old mother spoke about the ideal ordering of marriage and childbearing:

When a young girl wants to start a family, she must first look for a man of her choice who will marry her, then she gets married and he pays lobola. After that she will go to her marriage. That thing of getting a child [first] and lobola after is happening nowadays. You find that a person got married and left two or three children at home. But naturally that is not the way. A young girl must grow up and look for a boy who will marry her. After they got married and lobola has been paid, then she will bear children when she is at her marriage.

As demonstrated in other research from Agincourt (Madhavan, Harrison and Sennott 2013), women view the proper ordering of events – marriage first, childbearing after – as crucial for maintaining the respectability of a birth. Thus, having a first birth outside marriage is constructed as the primary problem with young women's childbearing today as compared to the past.

And yet, few young women today obtain the ideal for their first birth (Madhavan, Harrison and Sennott 2013). In fact, none of the young women in this study reported that their first birth was

desired at the time it occurred and none were married at the time of their first birth. Moreover, women who went on to have second or third births during their teenage years or early 20s were also unable to obtain the ideal for those births. In other words, they did not “learn from their mistakes” as women did in the past – at least in the view of older women. A 44 year old mother spoke about these differences:

(Tell me, were people in the past bearing children like the way you said?)

No, if I get one child, I learned from my mistake. You were getting the second child after marriage and not at home. I think after the year 2000, things have changed a lot. Children of 12 years know everything. You cannot tell them, they want to tell you.

Taken together, these data suggest that women perceive that there have been significant shifts in family formation processes over the past couple of decades. Many believe that first births today occur to younger women than in the past and that more young women are having their first births outside of marriage. The section below examines whether women believe these changes are related to the high HIV prevalence in Agincourt.

#### *HIV & Family Formation Processes*

Interestingly, the majority of respondents felt that HIV had *not* influenced women’s childbearing preferences and behaviors. Most respondents reported that women were still bearing children regardless of the disease. For instance, when asked if HIV has changed childbearing a 22 year old mother said:

No, there is no change. We are still getting children in the same way like we did in the past. The problem is that people are hiding their status and don’t disclose. That is why this illness is spread in such a bad way. Many people are ill and still give birth.

(So, do you mean there is no change?)

Yes, younger women are giving birth too much.

(What about the married ones?)

Yes, they are also giving birth.

Similarly, a 27 year old mother said: “People are still bearing children like in the past. They don’t mind about HIV/AIDS; both young and adults.” When asked if their childbearing preferences or behaviors had changed because of HIV/AIDS, all of the focus group respondents aged 36-45 laughed and together responded: “No!” This exchange followed:

(Tell me why do you say there is no change?)

R1: It is because even now that there is HIV, you will find that after two years I have another child. After some years I have a child. I am not scared that there is HIV.

R2: There is no change. It depends on the number of children we want. When it comes to HIV /AIDS we cannot prevent it.

Several younger focus group respondents (aged 18-25) also agreed that “nothing has changed” when asked about childbearing and HIV. An older focus group respondent (aged 46 and above) concurred:

In my village, people are giving birth in mostly. The number is too high and they are saying even if there is HIV /AIDS, they won’t stop giving birth...They will still have feelings and they will bear children.

A 44 year old mother felt that childbearing had actually increased in recent years: “People bear more nowadays than in the past. They don’t mind on HIV/AIDS. The problem is that they don’t condomize. If they were doing like that, I think they would not fall under pregnancy.” These comments reflect the overwhelming agreement among interview and focus group respondents that HIV had not affected women’s childbearing preferences and patterns.

Turning to marriage, many women felt that HIV *had* influenced marriage patterns; however, HIV was mentioned as one of several factors affecting marriage. Similar to the findings from other work in Agincourt (e.g., Madhavan, Harrison and Sennott 2013), the most common reasons women offered for the changes in marriage were the importance of education, employment, and money. However, women across the age spectrum described HIV as influencing marriage in two ways. The

first view is that HIV is affecting marriage because people have multiple concurrent partners. This behavior contributes to a decline (or postponement) in marriage until people are sure of their partner's HIV status. For instance, in response to whether it is easy to find a man to marry nowadays, older focus group respondents (aged 46 and above) said:

R1: It is not easy. Why? Boys nowadays are saying they cannot be able to marry a grave. They see that all girls are ill and they don't want to misuse their money on spending for those girls and after five years she is dead.

R2: I can also say it is not easy this time to find a man to marry. If it was possible, people would get blood test first rather than getting married and living together. You can say I'm happy because I have found someone who is wealthy meanwhile you are digging your own grave. You can be pleased but in a few years you are going to die. The problem is that those who are HIV positive nowadays don't show any symptoms. Why? They are using treatment. You cannot see them.

Similarly, a 51 year old mother talked about the relationship between sexual behavior, HIV, and changes in marriage:

In the past, when you loved someone, a boy was taking ten months still proposing a girl. They were not sleeping together before lobola is paid...Nowadays they fall in love during the same day and sleep together. They don't wait and that is why they are infected with such illnesses. That is why nowadays this virus of HIV is spreading so fast. Another problem is that they don't love one partner, but they have more than one at the same time. They don't first do blood test to know each other. That is why this illness is spreading so fast.

Younger women also said that marriage was less common nowadays because of the tendency of men and women to have multiple partners. For example, a 27 year old mother who said it was difficult to find a man to marry nowadays gave this reason: "Maybe it's how they behave; having more girlfriends and girls have more than two boyfriends."

The second reason respondents associated HIV with changes in marriage is that marriage may be protective against HIV if both partners are monogamous. A 24 year old mother talked about the potential for marriage to be protective (although she did not feel it was very realistic):

(What do you think is the purpose for women getting married nowadays?)

Another thing is that some of them want men who are serious, like me. Others tell themselves they want to take care of themselves to prevent HIV/AIDS if they are married.

They want to look at one partner; though nowadays it's rare to have people who look to one partner. You can be innocent but your husband will come to infect you.

Similarly, an 18 year old childless woman said:

(Why would a woman want to get married?)

When a person is married, I think she is good. She doesn't think about other men but concentrates to her husband only.

(That's why women want to get married?)

Yes, and it protects her from HIV because she will have one partner and not many partners.

(I heard you saying it will protect her on illnesses. Is illness affected when you have one partner or what?)

Illnesses can affect you even if you don't have a partner. You find that you have one partner but he has AIDS, then you will be infected too.

Thus, although a few women spoke about the potential for marriage to be protective against HIV, they also acknowledged that, in reality, this was often not the case as infidelity is common and it is difficult to be certain about your partner's HIV status.

The qualitative data suggest that women do not feel that HIV has had an influence on childbearing patterns. When asked directly whether women were having children earlier or later in response to HIV, respondents generally agreed that women were not changing their childbearing patterns in response to HIV. In terms of marriage, a few women believe that HIV is affecting union patterns in that the disease discourages young people from marrying because they may end up HIV positive or widowed at an early age. Although a few women suggest that marriage may be protective against HIV, in the same breath they acknowledge the reality that many people have multiple sexual partners, even while married.

Each of the relationships between HIV and family formation patterns that women describe are tied to uncertainty surrounding HIV status. If women do not know their HIV status, they may not revise their childbearing plans. The women's narratives highlighted here suggest that women do

not care about HIV and are bearing children regardless of their status, but we cannot know whether the women still having children are aware of their HIV status – or whether they are on treatment and having HIV negative babies and maintaining their own health. Respondents highlight the importance of HIV testing before marriage and the value of marrying at a younger age, both presumably to avoid marrying a person with HIV. Yet, their comments also reflect uncertainty associated with choosing a faithful partner and the risk of unwittingly marrying someone who is HIV positive.

### **Quantitative Results**

The qualitative results described above leave many questions unanswered. Thus, I turn to the quantitative data to investigate whether the changes in the timing and union context of first births that women identify in their interviews are supported at the population level. I also investigate the relationship between HIV and family formation processes using time periods that correspond with the progression of the AIDS epidemic in Agincourt: Period 1: “early AIDS” (1993-1998); Period 2: “peak AIDS mortality” (1999-2004); and Period 3: “stable epidemic” (2005-2010). These results are presented concurrently below.

Table 1.1 includes age-specific first birth rates for women in each age group by period. These results show that first births to teenage women have remained relatively stable over time. Rates among 10-14 year olds decline between Periods 1 and 3, while births to women aged 15-19 increase slightly from 7.9% to 8.3%. Notably, first birth rates increase for all age groups of women (except 10-14 year old) across periods.



**Table 1.1: Age-Specific First Birth Rates in Agincourt by Period, 1993-2010**

Period of 1st birth	1993-1998					1999-2004					2005-2010				
	Period 1: Early AIDS					Period 2: Peak AIDS Mortality					Period 3: Stable Epidemic				
Age group	10-14	15-19	20-24	25-29	30-35	10-14	15-19	20-24	25-29	30-35	10-14	15-19	20-24	25-29	30-35
<b>Total person-years</b>	65,124	51,255	22,733	10,066	5,717	54,436	47,011	22,008	9,370	5,725	27,636	35,223	18,256	7,415	4,225
<b># had 1st birth</b>	197	4,050	2,612	699	226	143	3,821	2,635	799	245	59	2,907	2,330	859	245
<b>% had 1st birth</b>	0.3%	7.9%	11.5%	6.9%	4.0%	0.3%	8.1%	12.0%	8.5%	4.3%	0.2%	8.3%	12.8%	11.6%	5.8%

**Table 1.2: Age at First Birth in Agincourt by Period (%), 1993-2010**

	1993-1998		1999-2004		2005-2010		Total
	Early AIDS	Peak AIDS Mortality	Stable Epidemic				
<b>Age at first birth</b>							
10-14	2.5	bc	1.9	ac	1.0	ab	1.8
15-19	52.0	bc	50.0	ac	45.4	ab	49.4
20-24	33.5	c	34.5	c	36.4	ab	34.7
25-29	9.0	bc	10.5	ac	13.4	ab	10.8
30-35	2.9	c	3.2		3.8	a	3.3
<b>N</b>	7,799		7,647		6,406		21,852

<sup>a</sup> Variables are significantly different from period 1 at the  $p < 0.05$  level

<sup>b</sup> Variables are significantly different from period 2 at the  $p < 0.05$  level

<sup>c</sup> Variables are significantly different from period 3 at the  $p < 0.05$  level

The increase in first births among older women is also documented in Table 1.2 (above), which includes first births to women in each age group as a proportion of all first births in each period. The vast majority of first births occur to women aged 15-24 in each period (85.5%, 84.5%, and 81.8%, respectively). Even though the proportion of first births to 15-19 year old women decreases over time, this group nonetheless retains the highest proportion of first births compared to all other age groups.

Many scholars and policy experts are interested specifically in teenage fertility. In the AHDSS site, there are clear time trends in which the proportion of first births to teenage women (aged 10-19) goes down over time while the proportion of first births to older women (aged 20-35) goes up. The majority of these differences are statistically significant at the  $p < 0.05$  level, especially when comparing Period 1 to Period 3. For example, in the “early AIDS” period (Period 1), teenage women comprise 54.5% of all first births; this declines to 46.4% by 2010 (Period 3). Conversely, women who were 25 and above at the time of their first birth initially comprise 11.9% of first births; this proportion increases to 17.2% by 2010. Although relatively small, there is also an increase in the proportion of first births to women aged 30 and above (by about 1%) by Period 3. The greatest increase in the proportion of first births occurs to women aged 25-29, who initially make up 9.0% of first births, but by the “stable epidemic” period (Period 3), are responsible for 13.4% of first births.

Table 1.3 (below) shows changes over time in the proportion of women who have their first birth in a union as well as the type of union at first birth. The majority of first births across all time periods are nonmarital (82.8%, 79.5%, and 75.4%, respectively). However, the proportion of first births to women in unions significantly increases over time. Marital births increase by around 3% between the “early AIDS” (Period 1) and “peak AIDS” periods (Period 2), and increase even further (by around 4%) between the “peak AIDS” (Period 2) and the “stable epidemic” periods (Period 3).

Despite these increases, by Period 3 (“stable epidemic”) marital births still comprise less than 25% of all first births in Agincourt.

**Table 1.3: Women in Union at First Birth in Agincourt (%), 1993-2010**

	1993-1998	1999-2004		2005-2010	Total		
	Early AIDS	Peak AIDS Mortality	Stable Epidemic				
<b>Union Status at 1st Birth</b>							
Not in union	82.8	bc	79.5	ac	75.4	ab	79.5
In union	17.2	bc	20.5	ac	24.7	ab	20.5
N	7,799		7,647		6,406		21,852
<b>Union Type at 1st Birth</b>							
Formal union	30.9	bc	54.4	ac	65.4	ab	51.2
Informal union	69.1	bc	45.8	ac	34.8	ab	48.9
N	1,338		1,571		1,579		4,488

<sup>a</sup> Variables are significantly different from period 1 at the  $p < 0.05$  level

<sup>b</sup> Variables are significantly different from period 2 at the  $p < 0.05$  level

<sup>c</sup> Variables are significantly different from period 3 at the  $p < 0.05$  level

Table 1.3 also includes information about the type of union (formal versus informal) among women who have a *marital* first birth. In the “early AIDS” period (Period 1), the majority of marital first births occur in informal unions (69.1%). However, there is a shift during Periods 2 (“peak AIDS”) and 3 (“stable epidemic”) whereby marital first births in formal unions become more prevalent. These differences are significant at the  $p < 0.05$  level. Taken together, the results in Table 1.3 suggest that the union context of first births is indeed changing as the AIDS epidemic progresses: Nonmarital first births are becoming less common over time although they still remain the majority of first births. Additionally, there is an increase in the proportion of marital births in formal unions such that by Period 2 (“peak AIDS”) and continuing into Period 3 (“stable epidemic”) first births in formal unions comprise more than half of all marital births.

Table 1.4 (below) shows changes in the proportion of women with marital first births in each age group by period. These results demonstrate important age differences in marital first births over time. Marital first births to women aged 15 and above substantially increase across periods.

These increases are significant for most groups of women at the  $p < 0.05$  level between the “early AIDS” period (Period 1) and the “stable epidemic” period (Period 3). The only group that experiences a significant decrease in marital first births is young women aged 10-14. These trends suggest that as the AIDS epidemic has progressed in Agincourt, marital first births have become more common among women aged 15 and above.

**Table 1.4: In Union at First Birth by Age in Agincourt (%), 1993-2010**

	1993-1998		1999-2004		2005-2010	
<b>Age at 1st Birth</b>						
10-14	10.2	bc	7.7	ac	3.4	ab
15-19	13.4	c	16.7	c	16.7	ab
20-24	21.4		22.9		27.3	
25-29	22.4	bc	20.8	ac	40.5	ab
30-35	25.4	c	32.1	c	43.3	ab
<b>N</b>	1,338		1,571		1,579	

<sup>a</sup> Variables are significantly different from period 1 at the  $p < 0.05$  level

<sup>b</sup> Variables are significantly different from period 2 at the  $p < 0.05$  level

<sup>c</sup> Variables are significantly different from period 3 at the  $p < 0.05$  level

To further investigate trends in the union context of first births, Table 1.5 (below) includes union type by age at first birth for marital first births (20.5% of all births). These results show that about half of marital first births occur in formal unions (48.8%) and half in informal unions (51.2%). There are clear age differences in the type of union at first birth. Formal unions at first birth are more common among women aged 20 and above and informal unions are more common among teenagers. The differences in union type among women with marital first births are statistically significant for all age groups at the  $p < 0.001$  level.

**Table 1.5: Type of Union Among Women in Union at First Birth in Agincourt (%), 1993-2010**

<b>Age at 1st Birth</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-35</b>	<b>Total</b>
<b>Union Type at 1st Birth</b>						
Formal	33.3	*** 35.6	*** 52.2	*** 64.0	*** 70.0	*** 48.8
Informal	66.7	*** 64.4	*** 47.8	*** 36.0	*** 30.0	*** 51.2
N	33	1,666	1,803	742	243	4,487

\*\*\* Variables are significantly different at the  $p < 0.001$  level

Table 1.6 (below) presents descriptive statistics for several sub-groups of women in the sample. The first panel compares women who experience a first birth during the study period with those who do not. The second panel compares the characteristics of women who have a first birth during the study period by their age at first birth. The third compares women who have a nonmarital first birth with women whose first birth is in union and the fourth panel compares women whose first birth is in an informal versus a formal union.

Turning to Table 1.6, Panel 1, perhaps the most notable difference between women who have a first birth during the study period and women who do not is the propensity for marriage. Almost one in three women who have a first birth during the study period (1993-2010) enters a union while only 15.1% of women without a child enter a union. In Panel 2, education has a positive, linear relationship with women's age at first birth. Other trends include greater proportions of South Africans postponing their first birth until older ages compared to Mozambicans. Greater proportions of women who have their first birth at older ages enter unions during the study period. Contraceptive use before the first birth is more prevalent among women who postpone their first birth until older ages. After the first birth, however, older women more often report contraceptive use, although the difference between older and younger women is relatively small. Greater proportions of older women report that their first birth was planned. This is only the case for 9.2% of women aged 15-19 at their first birth and 5.8% of young women aged 10-14. Comparatively, 20% of women aged 20-24 and over 30% of women aged 25 and above said they planned their first birth.

Finally, a greater proportion of women aged 20 and over compared to teenage women are in a union at the time of their first birth.

Panel 3 compares women who have their first birth in a union to those whose first birth is nonmarital. A greater proportion of Mozambicans have their first birth in a union whereas the opposite is true for South Africans. Women who have their first child in a union have higher levels of education compared to women whose first birth is nonmarital. Finally, women whose first birth is in a union more often report that their first birth was planned.

Panel 4 examines differences in union type – formal versus informal – for women whose first birth is in a union. A greater proportion of South African women have their first birth in an informal union while the opposite is true for Mozambicans. Women whose first births are in informal unions tend to be younger than women whose first births are in formal unions.

Contraceptive use before the first birth does not have a clear relationship with union type at first birth. However, after the first birth, women who are in informal unions at the time of their first birth more often report using contraception, suggesting that they would like to postpone future births. Finally, women in formal unions at their first birth more often report having planned that birth.

**Table 1.6: Socio-Demographic Characteristics of Women at Risk of First Birth in Agincourt (%), 1993-2010**

	Panel 1		Panel 2					Panel 3		Panel 4		Panel 5
	No birth	Had 1st birth	10-14	15-19	20-24	25-29	30-35	Not in union	In union	Formal	Informal	Total
Education												
None	7.7	1.8	2.0	1.0	1.9	3.4	6.0	1.5	2.9	3.9	1.9	5.2
Primary	37.5	18.0	36.6	25.0	10.9	8.6	9.3	19.1	14.1	9.8	18.3	29.3
Some secondary	17.3	23.2	5.8	25.2	24.6	15.5	12.8	23.6	21.6	14.7	28.2	19.7
Completed secondary	10.5	11.1	0.0	3.5	16.1	27.7	25.3	10.6	13.2	18.2	8.5	10.7
Missing	27.1	46.0	55.6	45.4	46.5	44.9	46.6	45.3	48.2	53.4	43.2	35.0
Nationality												
South African	66.9	69.5	57.6	66.8	71.1	76.1	78.3	70.7	65.1	68.8	61.6	68.0
Mozambican	33.1	30.5	42.4	33.2	29.0	23.9	21.7	29.4	34.9	31.2	38.5	32.0
Enter a union (time-varying)*												
No	84.9	69.6	94.2	94.0	91.3	86.8	80.1	---	---	---	---	89.8
Yes	15.1	30.4	5.8	6.0	8.7	13.2	19.9	---	---	---	---	10.2
Age at 1st birth												
10-14	---	1.8	---	---	---	---	---	2.1	0.7	0.5	1.0	1.8
15-19	---	49.4	---	---	---	---	---	52.5	37.1	27.2	46.6	49.4
20-24	---	34.7	---	---	---	---	---	33.3	40.2	43.0	37.5	34.7
25-29	---	10.8	---	---	---	---	---	9.3	16.6	21.6	11.7	10.8
30-35	---	3.3	---	---	---	---	---	2.7	5.4	7.8	3.2	3.3
Contraceptive use before 1st birth												
No	---	35.8	36.6	40.0	32.7	29.5	26.4	37.1	30.6	28.6	32.6	35.8
Yes	---	12.5	4.8	9.9	15.1	16.6	15.6	12.2	13.6	10.8	16.3	12.5
Missing	---	51.7	58.7	50.2	52.2	53.9	58.0	50.7	55.8	60.6	51.2	51.7
Contraceptive use after 1st birth												
No	---	22.1	17.0	22.0	21.9	23.5	22.4	22.8	19.1	18.5	19.7	22.1
Yes	---	25.1	23.3	26.4	24.9	21.8	18.1	25.2	24.7	20.3	28.9	25.1
Missing	---	52.9	59.7	51.6	53.1	54.8	59.5	52.0	56.2	61.3	51.4	52.9
Planned 1st birth												
No	---	77.1	90.5	85.4	72.9	57.5	54.0	80.0	66.0	64.0	67.9	77.1
Yes	---	16.3	5.8	9.2	20.0	33.3	34.4	13.3	28.1	30.7	25.5	16.3
Missing	---	6.6	3.8	5.4	7.0	9.3	11.7	6.7	6.0	5.3	6.7	6.6
In union at 1st birth												
No	---	79.5	91.7	84.6	76.2	68.5	66.2	---	---	---	---	91.3
Yes	---	20.5	8.3	15.4	23.8	31.5	33.8	---	---	---	---	8.7
Total %	57.86	42.1	1.8	49.4	34.7	10.8	3.3	79.5	20.5	48.8	51.2	---
N	30,000	21,852	399	10,789	7,585	2,360	719	17,364	4,488	2,188	2,299	51,852

\* Percentages are reported in person-years.

## DISCUSSION

This chapter documented recent trends in the timing and union context of first births and investigated the relationship between HIV and family formation patterns in rural South Africa using qualitative and quantitative data. The results present a complex picture of changes in the timing and union context of first births in Agincourt. Women of all ages reported that first births today were more often to younger women compared to in the past and that these births were also more likely to be nonmarital. There was some acknowledgement that women in the past also had first births at

early ages but these births were described as more respectable because they occurred within marriage. Hence, there was some conflation of the timing and union context of past first births that contributed to women's perception that these births happened "in a good way" compared to first births today. In other words, because women believed that early first births today were usually nonmarital they lamented these births whereas early first births in the past were marital and thus viewed as more acceptable. Additionally, respondents felt that women with nonmarital first births today failed to learn from their mistakes and ended up having more than one child outside of marriage.

The demographic data tell a different story. As measured at the population level, first births to women aged 20 and above became an increasing proportion of all first births in Agincourt, while first births to teenagers decreased over time. Teenage women's age-specific first birth rate remained relatively stable from 1993-2010, but rates among women aged 20 and above increased across all time periods. Thus, in contrast to women's perceptions, over the past couple of decades first births to older women increased while first births to teenagers held steady. In terms of the union context of first births, the majority of first births were nonmarital in all periods but marital first births became more common over time. Therefore, first births today were more likely to be in unions compared to first births over the past two decades, which contradicts women's assessments of the trends. Finally, informal unions were more common as the context for *marital* first births in the 1990s, but this shifted and formal unions were more common from 1999-2010.<sup>17</sup>

Why is there such disagreement between women's perceptions and the demographic reality? Previous research helps to shed some light on this disconnect. For instance, Stewart's (2000) research from Uganda found that older women held misperceptions about younger women's sexual

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<sup>17</sup> Note that this trend is among women whose first birth was in a union and does not reflect how union type has changed over time for all women. In the next chapter I further examine changes in union type over time and the consequences of nonmarital births.



behaviors and reproductive experiences. Her study focused on the timing of sexual debut because older women perceived that younger women were having sex earlier than in the past. Using DHS data, Stewart found that this was not in fact the case: The age at first sex had changed little across three generations. Thus, older women relied on “common sense” notions of young people’s behavior that did not reflect the reality. I found similar misperceptions in this study among older *and* younger women who reported that the timing and union context of first births today were problematic compared to in the past. Drawing on Fabian’s (1998) connection between popular culture and assertions of power, Stewart (2000) argued that the most likely reason for the mismatch between perceptions and reality was because elders were grappling with the feeling that they had lost control over youth. Moreover, the emergence of AIDS had negatively impacted older people’s sense of societal order. In Stewart’s (2000: 142) words:

The popularity of the "common sense" idea that youth are having sex at a younger and younger age now, is not a reflection of demographic reality, but instead an indication of the chaos and helplessness elders feel in the face of the new technology of sex – where achieving adulthood now means managing to avoid a fatal sexually transmitted disease while successfully realizing one's own fertility.

There are many parallels between Stewart’s (2000) findings and my own. Similar to Stewart’s interlocutors, older women in this study overwhelmingly felt that young people were out of control.<sup>18</sup> Just as in Stewart’s study, I argue that this is partially attributable to the ways in which AIDS has changed the calculus of sexual behavior and childbearing decision-making as well as the timing of young people’s transition to adulthood.

Yet, there are also unique features of the political landscape of post-apartheid South Africa that have contributed to this mismatch between perception and reality. Most salient to respondents was the expansion of freedom (“rights”) to all South Africans. This change was concurrent with the spread of new forms of knowledge, especially about sexual health and HIV/AIDS, via schools and

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<sup>18</sup> This is explored further in Chapter 7.

local nongovernmental organizations that cater to youth. Because HIV spread particularly quickly among young people, they became the focus of these interventions. Thus, just like in Stewart's study, the older generation was largely left out of this shift in health knowledge and thus have not often felt capable of responding to the challenges youth face today. In response, young people have asserted their "rights" in their relationships with adults, especially parents, in order to gain more control over their lives. In some ways, young people take advantage of the mainstream rights discourse in South Africa in order to exert their independence in areas that are largely ungoverned by rights (at least in the views of older women). A 46 year old mother spoke about the challenges of parenting a teenage daughter:

(What do you think are the reasons young women get pregnant these days?)

I don't know why. It may be this thing that a child is controlling herself at home. Isn't it now if you can beat your child she will report you at the police station? That is the reason they [young women] have a lot of children. There is this thing called democracy. You will beat her when she went and sleep out and she come home the following day during the day, while she is not your child she is the policeman's child. They arrest me, meanwhile I'm old, so you just leave her and they get a lot of children. They are saying that they have power, but we parents, we don't have power because of democracy.

When the respondent says the child is "the policeman's child," she is referring to the loss of power parents have experienced since the expansion of human rights at the end of apartheid. Many women blamed several societal ills such as teenage pregnancy, alcohol and drug abuse, and poor school attendance on the threat of being reported to the police for disciplining children.<sup>19</sup> It is likely that the threat of reporting is just that – a threat that rarely comes to fruition – however, it has effectively curtailed many older women's agency in parenting their teenage children.

Young women also talked about the ways they exerted their rights when dealing with their parents and other elders. A 21 year old mother described this when talking about changes in the

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<sup>19</sup> The term "beating" is often used in this context to refer to any type of discipline or argument, not just physical punishment.

timing of first births:

Yes, democracy has come with the changes where young women are getting children.

(Why do you think so?)

In the past, that was not happening. Now because people have got their own rights, they are doing whatever they feel they can do.

(At what age do they get children?)

It depends. They start from 15, 16, to 17 years.

(Do you think democracy has come with these?)

Yes, I can say it's the results of our freedom. Why? If we were still under control, I think our parents would play their role. But now we are telling them of our rights and they just keep quiet and watch to what you are doing.

Notably, young and old women alike felt that “rights” had damaged young people’s relationships with their parents and contributed to many social problems, including the spread of AIDS. In post-apartheid South Africa, then, the emergence of AIDS has contributed to the disconnect between what women believe is happening and the demographic reality. Yet, perhaps more importantly, the exertion of young people’s rights has created a climate where older people are afraid of facing repercussions for disciplining their children for behavior that they consider out of line. Furthermore, older people lack knowledge about the new mores governing young people’s social and sexual relationships in the context of HIV, which in their view has contributed to a variety of social ills negatively affecting youth. Other research from South Africa has confirmed that women use the discourse of post-apartheid “rights” in creative ways to challenge traditional practices and gender roles (Hunter 2010). For example, Hunter’s (2010) research among young people in KwaZulu-Natal found that women use the notion of rights to support their desires for: safe sex and sexual pleasure; consumption of material goods; living alone without a man; having children; and having multiple lovers. In a similar way, young women in Agincourt use the discourse of rights to exert independence from their elders, which creates social distance between generations and contributes

to the misunderstandings about family formation patterns presented in this chapter.

In this study, there was some evidence that changes in family formation patterns corresponded with the AIDS epidemic. However, it is necessary to interpret these results with caution as there have been numerous societal changes since the end of apartheid that cannot be accounted for with the Agincourt data. Respondents' narratives indicated that they do not believe women changed their childbearing preferences or behaviors due to HIV. They overwhelmingly felt that HIV positive women still had children just as they would have in the absence of the disease. This belief matches the mortality trends in the site. As shown in Figure 1.1 (above), adult women's (15-59) mortality peaked in 2004 and then declined by 2009. Similar trends are apparent in the infant mortality rate (Figure 1.2 above). If HIV positive women continued bearing children regardless of their status – or without accurate information about their status – this would have contributed to the increase in mortality in Agincourt. Treatment only became available in 2007 in Agincourt and was not widely accessible at public clinics until 2010. In the absence of treatment, there is likely little motivation to test for HIV. With access to treatment, we would expect adult mortality rates to level off or decline if the high mortality rate is due to AIDS. This is exactly what we see in Figure 1.1.

In other HIV-related trends, the census data show a positive relationship between first births to women aged 20 and above and the AIDS epidemic. One reason for this change may be that women were intentionally waiting longer to have their first birth to ensure that they were HIV negative before having a child. This explanation is in line with theories of behavioral change that suggest that HIV positive individuals limit their childbearing (Gregson, Anderson and Chandiwana 1997; Kirshenbaum et al. 2004; Noel-Miller 2003; Setel 1995). Because the AHDSS data do not include women's HIV status, it is only possible to speculate on this relationship. However, if women were unaware of their HIV status and yet still postponed first births until older ages, this may

provide some tentative evidence that living in a generalized AIDS epidemic may have an influence on women's childbearing patterns regardless of their own HIV status.

The postponement of first births in response to AIDS might also reflect changes in marriage. As other studies from South Africa have shown, young people today often delay marriage (Statistics South Africa 2005; Hosegood, McGrath and Moultrie 2009). These results show that the proportion of first births to married women has increased over time. Additionally, more marital births were in formal unions as the AIDS epidemic progressed. These trends together might signify that marriage is now viewed as protective against HIV. Some of the women's narratives about marriage indicated this as well, although there was doubt about whether this was realistic given the commonness of infidelity. This might also reflect a sort of waiting period in which young people observe and assess the likelihood of HIV infection in their partner, postponing marriage and childbearing until they are relatively sure that their partner is HIV negative.

However, this trend might also reflect economic insecurity among women. Research has shown that women who have a child outside of marriage often attempt to establish a relationship with their child's father to gain resources for the child (Madhavan 2010). However, it is common for young men in Agincourt to "refuse" that they are the father of a child, which frees them from any economic responsibility (Madhavan, Harrison and Sennott 2013). Thus, the trend toward marital births may reflect a growing awareness of this problem and an attempt – especially among older mothers – to wait to have a child until they are married and more financially stable.

Finally, the postponement of first births may be due to increased use of effective contraceptives. Recent years have witnessed widespread public health messages and efforts at local health centers focused on safe sex to avoid HIV and decrease unwanted births. It may be that women have adopted some of the practices encouraged by health practitioners, such as using effective hormonal contraception and/or condoms. The census data show that contraceptive use

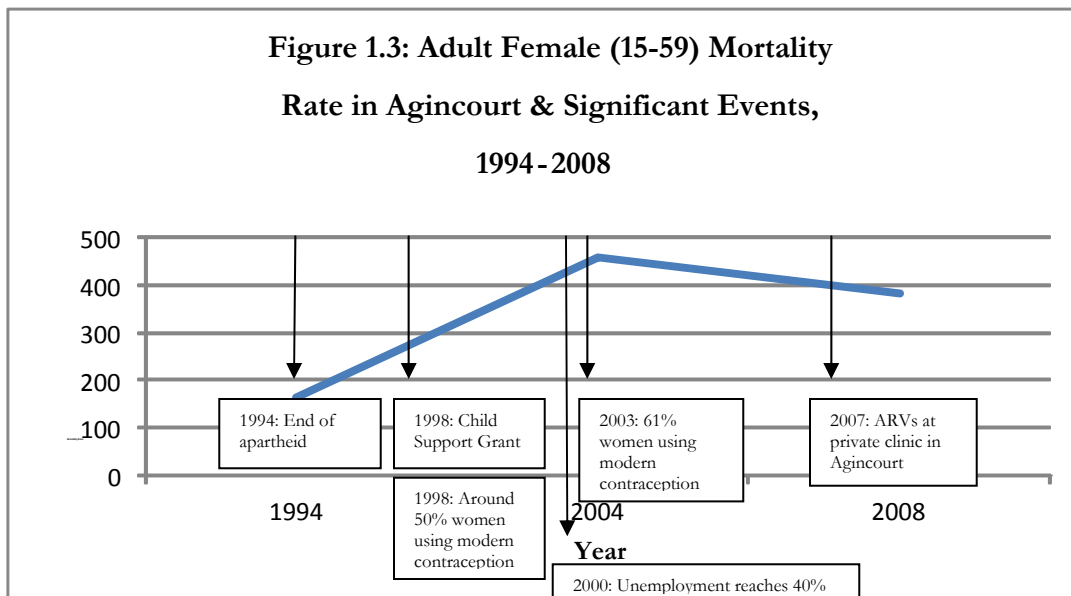
was more common among women who were older and married at the time of their first birth. Substantially more women aged 20 and above and those who were married at the time of their first birth used effective contraceptive methods *before* their first birth and reported that the birth was planned. Teenagers, on the other hand, used contraceptives only *after* their first birth. In fact, more teenage women used effective contraceptive methods *after* the first birth compared to women aged 25 and up. There are a few possible reasons for this. First, unmarried, teenage women may not have had the same access to reproductive health care as women who were older and married at the time of their first birth (Garenne, Tollman and Kahn 2000). Second, younger women may have denied the possibility of pregnancy during their teenage years, adopting an “it can’t happen to me” attitude. Third, in South Africa there is a relatively long gap between the first birth and subsequent births (Timaues and Moultrie 2008), which suggests that after the first (often unintended) birth women prefer to postpone having additional children. Recent research has suggested that having a child continues to hold social and cultural value and may serve (intentionally or not) as an accessible transition to adulthood in South Africa where educational and employment opportunities are scarce (Madhavan, Harrison and Sennott 2013). Thus, it may be that teenage women chose to use contraception only after having a child (for various reasons) – or alternatively, that they did not actively choose *not* to have a child (Johnson-Hanks 2006). Once they have had that first birth, however, these results indicate that young women took action to avoid future births. This finding is in disagreement with the interview data, which suggested that young unmarried women often had multiple children outside of marriage.

These results provide an impetus for future research assessing several issues. First, there is a serious lack of research on the causes and consequences of nonmarital fertility in South Africa. Because nonmarital births continue to be the majority of all first births in Agincourt, research examining how these births affect young women and their partners is sorely needed. The next

chapter begins to fill this gap; however, research from a variety of geographical areas in South Africa would contribute to developing a clear understanding of these issues as a recent comparative study demonstrated that beliefs and practices in relation to childbearing vary across South African Provinces (Madhavan, Harrison and Sennott 2013). Second, this chapter has demonstrated a movement toward first births at later ages and an increase in marital births. I have proposed several possible reasons for these developments. Future research should investigate the viability of these explanations and examine other possibilities as well. Finally, the disconnect between women's perceptions of what is happening and the demographic reality deserves future attention. I have argued that this is largely due to a lack of information among older women about HIV/AIDS and the challenges that young women face today combined with an exertion of independence among young women who have co-opted the discourse of rights. The use of a rights discourse among young people to exert their independence was one of the most common topics of discussion among women during my fieldwork. If it is somehow related to many of the social problems women have indentified, then it is worth considering the ways in which young people have appropriated the language of rights and how and why they have been successful. A better understanding of these issues would likely be useful for public health campaigns aimed at young people while also contributing to a greater level of understanding among women of different generations.

This study has several limitations. First, it is not possible to account for the myriad changes that have occurred in post-apartheid South Africa that might be responsible for the shifts in first births that are apparent here. I have argued that some of these shifts are due to AIDS because of their correspondence with the progression of AIDS mortality in Agincourt. However, it is just as

likely that some of these changes may be due to other factors. Figure 1.3<sup>20</sup> (below) includes a graph of the adult female mortality line and the dates of several important events that may have affected women’s family formation patterns. These events are not meant to be exhaustive of all of the factors that might have affected first births, but they emerged as important during fieldwork and have been shown to be related to fertility in other research. For example, the establishment of the Child Support Grant, which is a needs-based grant that helps to support children in South Africa, may have affected the timing of first births. Most critics of the Child Grant have argued that teenage fertility would increase in response. As demonstrated here, the proportion of first births to teenagers in Agincourt has actually decreased since the early 1990s. Similarly, research from South Africa using national administrative data on Grants and secondary data on fertility has shown that teenage fertility was in decline prior to the expansion of the Child Grant to all sub-populations in 1998 (Makiwane 2010). Although it is possible that the Child Grant may have contributed to the postponement of first births, it is unlikely.



<sup>20</sup> References for Figure 3 include: Kingdon and Knight (2001) for unemployment data; Makiwane (2010) for Child Grant information; and Garenne et al. (2007) and South African Department of Health (2007) for information on contraceptive use.



As shown in Figure 1.3, besides the Child Grant and HIV, there are several other changes that may be related to the postponement of first births and increases in marital first births in Agincourt that cannot be accounted for here. For example, high unemployment may contribute to the postponement of marriage because it makes lobola costs prohibitive. If more women are waiting until marriage to have their first birth, this might also affect the timing of first births. As mentioned above, investigating how societal changes other than HIV have affected changes in family formation patterns is a fruitful area for future research.

A second limitation of this chapter's analysis is the methodological simplicity of the quantitative analyses. Although I have shown that most of the relationships between the timing and context of first birth across periods are statistically significant, analyses investigating the factors related to having a nonmarital or marital first birth would be useful. I investigate these issues further in Chapter 5.

This chapter has contributed to filling the gap in research about the timing and union context of first births in South Africa and how things have changed over the past few decades. The findings have demonstrated that family formation processes in rural South Africa have changed over time, although not necessarily in the ways we might expect given women's narratives about childbearing. First births to older and married women have become more common although they remain a minority of first births. There is some evidence that this may be due to AIDS, although the relationship between the spread of the disease and these changes is unclear. Nonmarital fertility is a cause for concern because it is related to a host of negative outcomes for young women. Thus, the trends identified here may be seen as positive if births to older, married women do not carry the same types of repercussions that have been identified for nonmarital births to young women. Furthermore, if women are postponing having children because of concerns about HIV, this is certainly a positive trend, as long as women and their partners are using condoms before the first

birth. If women are postponing the first birth because of economic strain caused by a lack of employment or because of men's refusal of nonmarital pregnancies, these trends may well continue into the future if more economic opportunities do not materialize in rural areas.

## CHAPTER 5: NONMARITAL BIRTHS & YOUNG WOMEN'S OUTCOMES

Family formation patterns are in flux across sub-Saharan Africa, with marriage increasingly postponed, sexual intercourse common among unmarried couples, and nonmarital fertility widespread (National Research Council and Institute of Medicine 2005; Mensch, Singh and Casterline 2005). Nonmarital fertility is of interest because women who have nonmarital births may face substantially different life course trajectories than women whose first birth occurs within marriage (National Research Council and Institute of Medicine 2005). Two studies from Africa have linked nonmarital births with a decreased likelihood of marriage (Calves 1999; Hattori and Larsen 2007). In both studies, women who remained single for at least five years after the birth of their child were particularly subject to marginalization on the marriage market (Calves 1999; Hattori and Larsen 2007).

In this chapter I build on these findings and investigate the influence of a nonmarital birth on women's union trajectories and risk of mortality during childhood, adolescence, and early adulthood (ages 10-35) in rural South Africa. I focus on both unions and mortality because they have undergone profound changes in South Africa over the past few decades. The AIDS epidemic in the Agincourt sub-district of South Africa, where this study is based, has produced rapidly rising mortality rates, especially among women aged 20-34 (Kahn et al. 2007). During the same period, marriage has increasingly been postponed in South Africa (Statistics South Africa 2005; Hosegood, McGrath and Moultrie 2009). Because union formation and HIV infection are particularly relevant to the lives of young South Africans, I consider the effects of a nonmarital birth on both union trajectories and mortality. I conceptualize nonmarital births as "turning points" that may fundamentally alter young women's futures (Elder 1985), and consider mortality and union trajectories as two important markers of their life course outcomes.

South Africa is an interesting context for studying nonmarital fertility and young women's outcomes for several reasons. First, marriage is increasingly postponed until later ages. Research by Hosegood and colleagues (2009) in KwaZulu-Natal placed women's median age at first marriage at 25 and men's at 31; national estimates have been as high as 30 for women and 34 for men (Statistics South Africa 2010b). This study focuses on African South Africans, who have the highest age at first marriage. According to national level data, in 2005 51% of African men aged 30-34 were never-married compared to 34% of Coloureds, 20% of Indians/Asians, and 7% of Whites. Women's marriage patterns were similar: 44% of African women aged 30-34 were never-married compared to 32% of Coloureds, and 13% of Indians/Asians and Whites (Statistics South Africa 2005). Although marriage is often postponed, most South Africans do not reject marriage altogether and most individuals ultimately marry. Data from the 2001 South African census showed that only 9% of men and women aged 65 and above never married (Statistics South Africa 2005).

Second, although marriage in South Africa is often postponed into the mid to late 20s, sexual initiation regularly occurs during the teenage years. This is problematic because a long window of sexual activity prior to marriage might increase exposure to HIV (Bongaarts 2007; Mensch, Singh and Casterline 2005; Reniers and T'faily 2012). The median age at first sex for women is around 18 and has remained relatively stable over time (Department of Health 2007). By age 19, 43% of young people have had sex and by age 24 the majority (86%) are sexually active (Department of Health 2007). With sexual activity common and unions delayed, nonmarital births have become more widespread in South Africa in recent decades (Kaufman, de Wet and Stadler 2001). According to the 2001 South African census, nine out of ten women had given birth by age 34, and half of those women were never-married at the time of birth (14% were living with an unmarried partner). Disaggregated by race, the fraction of births to never-married women was highest among Africans

(55%), followed by Coloureds (42%), Whites (7%), and Indians or Asians (6%) (Statistics South Africa 2005).

Finally, South Africa has very high HIV prevalence. A recent study in Agincourt found an HIV prevalence of 19% among adults aged 15 and up with a much higher prevalence among women (24% compared to 11% among men) (Gómez-Olivé et al. 2013). The risk of contracting HIV during adolescence and early adulthood is particularly elevated for women: A nationally representative study estimated that nearly 1 in 4 young women in South Africa is infected with HIV by age 24 compared to 1 in 14 young men (Pettifor et al. 2005b).

## **LITERATURE REVIEW**

### **Nonmarital Childbearing & Union Formation**

Adolescent fertility is relatively common in South Africa: As many as 25% of adolescents have been pregnant (Camlin, Garenne and Moultrie 2004). Although many studies from South Africa have investigated the dynamics of adolescent fertility (e.g., Jewkes et al. 2001; Kaufman, de Wet and Stadler 2001; Zabin and Kiragu 1998), few have focused specifically on nonmarital fertility. This is likely due to the dearth of reliable data on marriage in South Africa (Budlender, Chobokoane and Simelane 2004a). Yet, nonmarital and adolescent fertility in South Africa are closely linked because many adolescent mothers are unmarried, a phenomenon that is becoming more prominent with increases in the average age at marriage (Biddecom and Bakilana 2003; Budlender, Chobokoane and Simelane 2004; Department of Health 2007). The age at which a woman has a nonmarital birth is likely to be important for her future trajectories and outcomes. Women who have a nonmarital birth during adolescence may have worse outcomes than older women who have their first birth outside of marriage in terms of educational attainment, socioeconomic status, health, social capital,

and marriage formation and stability (National Research Council and Institute of Medicine 2005; Gustafsson and Worku 2006; Marteleto, Lam and Ranchhod 2006; Zabin and Kiragu 1998).

Studies from the U.S. have demonstrated that women who have a nonmarital birth are less likely to enter unions compared to other women (Lichter, Graefe and Brown 2003). I thus hypothesize that: *Young women who have a nonmarital birth are less likely to enter unions than women who postpone childbearing (H1).*

### **Nonmarital Childbearing & Union Type**

Marriages in South Africa are often formalized by the payment of lobola or bridewealth; a series of marriage transactions that are made from the husband to the wife's family. Historically paid in cattle, the average amount for lobola now ranges from R10.000 to R25.000 (approximately \$1,200 to \$3,400), amounts that often surpass a future husband's annual income (Casale and Posel 2010). The number of existing children usually lessens the amount of lobola, especially if the future husband is not the father (Kaufman, de Wet and Stadler 2001). Thus, a nonmarital pregnancy may evoke disapproval from a young woman's family in part because of the implications for potential lobola payments (Kaufman, de Wet and Stadler 2001).

While formal unions in this context are defined by the payment of lobola, informal unions are characterized by the lack of lobola. Existing research on lobola and cohabitation is contradictory in terms of the possible relationship between nonmarital fertility and union type. Because nonmarital fertility lowers the amount of lobola for young women, they may be more likely to enter formal unions because the cost of lobola may be more accessible for their partners. Conversely, because formal marriages are more socially sanctioned, lobola costs are often prohibitive, and women who have a nonmarital birth already have children to support, they may be more likely to enter informal unions that lack lobola. Based on the above, I investigate two competing hypotheses: *Young women*

*with a nonmarital birth are more likely to enter informal unions (H2a). Alternatively, young women with a nonmarital birth are more likely to enter formal unions (H2b).*

### **Nonmarital Childbearing & Union Dissolution**

There is a dearth of research on union dissolution patterns in South Africa and I am not aware of any study that examines the association between nonmarital fertility and union trajectories. Research from the U.S. has demonstrated that when young women with a nonmarital birth enter a union, they are more likely to enter unstable unions and cohabit rather than marry compared to women who postpone childbearing (Edin 2000; Harris 1996; Lichter, Graefe and Brown 2003). These prior findings lead to my third hypothesis that: *Women with a nonmarital birth are more likely to enter less stable unions than women who postpone childbearing (H3).*

### **Nonmarital Childbearing & Mortality**

Female HIV incidence rates tend to be highest in early adulthood. A study from South Africa found that the HIV incidence rate peaked among women aged 20-29 (6%) at more than 6 times the incidence rate for 20-29 year old men (0.9%) (Rehle et al. 2007). A recent study from Agincourt also established that HIV prevalence rates rapidly increase in adolescence and early adulthood. Women's HIV prevalence ranges from 6% at age 15-19 to 38% at age 25-29, peaking at 42% at age 30-34. Men's prevalence ranges from 0.4% at age 15-19 to 22% at age 25-29, reaching parity with women's prevalence by age 30-34 at 42% (Gómez-Olivé et al. 2013). Because childbearing implies unprotected sex, motherhood and HIV acquisition share the same risk factors; therefore, I expect a positive correlation between early motherhood and HIV status (Zaba and Gregson 1998). In addition, some authors have argued that it is premarital sexual activity in particular that elevates young women's exposure to HIV (Bongaarts 2007). Here I extend this series

of arguments and test a final hypothesis: *Young women with a nonmarital birth have a higher risk of mortality during early adulthood (H4).*

Most young women who were infected with HIV during the study period (1993-2008) did not have access to treatment because of the belated rollout of antiretroviral treatment (ARVs) in South Africa. ARVs have been available at one private healthcare center in Agincourt since 2007. Prior to that, residents would have had to travel 40-50 kilometers to the nearest hospital for treatment.

## **METHODS**

### **Data & Sample**

This study is based in the Agincourt Health and Demographic Surveillance System (AHDSS) site, which monitors all vital events in a population of approximately 90,000 individuals in the Agincourt sub-district of Ehlanzeni District in Mpumalanga Province, South Africa. The first census was conducted in 1992 and has been repeated annually ever since. This chapter uses data collected from women aged 10-35 in at least one year from 1993-2008. The study area is predominantly rural; however, agriculture is underdeveloped due to a dry climate and poor soils. Income levels are typical for rural South Africa and infrastructure is limited: residents lack reliable access to piped water and electricity and there is no formal sanitation system (Kahn et al. 2007b). A comprehensive description of the study site is given by Kahn and colleagues (2012).

The area covered by the AHDSS is a former homeland inhabited by the Shangaan people, an ethnic group living on both sides of the border with Mozambique. About one third of the study population is comprised of former Mozambican refugees (Kahn et al. 2007b). Mozambican women's total fertility was markedly higher than South African women's fertility until the late 2000s, when fertility levels converged (Williams et al. 2013). Nonetheless, differences remain between these two



populations. Mozambican women have higher rates of poverty and lower employment than South African women (Williams et al. 2013). Mozambicans also have higher rates of childhood mortality, which may be attributable to their lower socioeconomic status (Hargreaves et al. 2004). No studies to date have examined differences in adult mortality or union patterns among these two populations.

The AHDSS collects and updates information on all vital events including births, deaths, unions, and migration each year. Fertility and mortality have been monitored prospectively since the inception of the AHDSS. The site attempts to collect detailed information on all pregnancies that occur between census rounds; however, it is likely that reproductive mishaps that do not result in live births are undercounted. Retrospective data on birth timing is used for women who enter the study site having previously had a nonmarital birth either prior to the beginning of the census or as an in-migrant between 1993-2008 ( $n=5,357$ ; 10.6% of the sample). Retrospective union histories were first recorded in 2005 and are routinely collected for new in-migrants and updated prospectively for all respondents on an annual basis. Retrospective data are used for unions beginning after 2005, which constitute the majority of the unions in the sample (80.9%;  $n=4,121$ ). Verbal autopsies to assess cause of death are conducted with surviving members of the household when a death occurs between census rounds.

The analytical sample for models predicting union formation is limited to young women aged 10-35 who were never-married on January 1 of at least one census year (1993-2008) ( $N=48,621$  contributing 446,339 person-years). The union formation analysis is limited to the first union in order to isolate the influence of a nonmarital birth (rather than prior union history) on young women's union trajectories and outcomes during adolescence and early adulthood. The models predicting union dissolution are limited to young women who enter a union during the study period ( $n=5,075$  contributing 35,002 person-years). The analytic sample for the models predicting mortality

includes women aged 10-35 observed never-married on January 1 of at least one census year ( $N=48,621$  contributing 478,620 person-years).

Approximately 9% of never-married women aged 10-35 are excluded from the full analytic sample due to missing data on any one of the key dependent or independent variables ( $n=5,160$ ). Excluded young women are significantly different from those in the sample: They are younger (by one year on average), less educated (by one year), and more likely of South African origin.

### **Dependent Variables**

There are three dependent variables in the analysis: a) union formation, b) union dissolution, and c) mortality. Unions are differentiated by their type: informal versus formal unions (marriages). Informal unions are defined as cohabiting partnerships where the couple has not fulfilled any religious, administrative, or customary (e.g., lobola) requirements. The AHDSS data do not allow for identification of informal unions that evolve into marriages. In other words, unions that begin as informal remain classified as informal the entire time the couple is together. Therefore, I characterize unions according to the way they were described when they were first reported. This classification of unions will not affect results assessing union formation because women are censored in the year the union began. This misclassification of union types may, however, attenuate differences between formal and informal unions in models predicting union dissolution. Union dissolution is defined as divorce, separation, or widowhood. Divorce and separation are the terminating events of formal and informal unions, respectively, and are modeled as one outcome. Women's mortality during early adulthood is defined as a death before age 36.

## **Independent Variables**

The primary independent variable identifies young women who have a child before entering their first union. This dichotomous variable is time-varying and coded zero until the year during which a young woman experiences a nonmarital birth. If a birth occurs in the same year as a union, I use a conservative strategy and code the birth as in-union. Although measuring nonmarital pregnancies would be ideal, such an analysis requires very refined measurements that I do not have access to because the union information in the AHDSS dataset is often reported retrospectively. I thus focus on nonmarital births that occurred one or more calendar years prior to union formation.

Previous research from Africa has demonstrated that the duration of single motherhood is an important factor in women's odds of entering a union (Calves 1999; Hattori and Larsen 2007). Therefore, in supplementary models of all outcomes, I combine the nonmarital birth indicator with information about the youngest child's age. This time-varying variable groups women into 3 categories: no nonmarital birth, nonmarital birth with youngest child aged 0-6, and nonmarital birth with youngest child aged 7 and above.

The models control for a number of socio-demographic variables including age, nationality (South African or Mozambican), educational attainment, calendar year, and union duration (in union dissolution models). Age is time-varying, measured in each year and grouped into five-year age intervals. In models investigating union dissolution I group all teenage women together because less than 1% of the youngest (aged 10-14) women's unions dissolved during the study period. I include a dummy variable indicating whether a respondent is Mozambican or South African (reference). Information about education was obtained in 1992, 1997, 2002, and 2006. Education is imputed in the intervening years using the highest previously-observed value. Education is coded categorically: no education (reference), primary (1-7 years), some secondary (8-11 years), and completed secondary (12 years or more). I include an indicator of calendar year (categorized in five-year intervals) to

account for period effects. As a sensitivity test to the five-year intervals, I also modeled calendar year continuously (not shown). This did not substantively alter the results. In models predicting union dissolution, I include linear and quadratic terms for union duration.

## **Analysis**

I first present several individual-level descriptive statistics of the sample. Then I employ discrete-time event history models (Allison 1982) to assess the predictors of union formation, union dissolution, and mortality, focusing on the trajectories of young women who have a nonmarital birth compared to those who postpone childbearing. The data are transformed into person-years in order to estimate the discrete-time models. In all analyses, I adjust the standard errors for dependence in reports from the same individual over time. For all models, right-censoring occurs if a young woman migrates out of the study site, ages out of the cohort (reaches age 36), or dies before the outcome is observed. Each respondent can contribute up to 16 person-years (15.9% of young women contribute the maximum).

Migration out of the study site is the main cause of attrition from the study: 42.6% of young women leave their households in the site prior to 2008. Unfortunately, once these women have left their households or the site, they are lost to follow-up. An ongoing effort in the AHDSS matching return migrants with their previous surveillance data will allow future research to better account for out- and in-migrations and therefore, to analyze individuals who may have been left out of the present analysis. I further reflect on how migration might influence the results in the discussion section.

For the first analysis, I investigate bivariate associations between nonmarital births, union formation, and union type using *chi-squared* ( $\chi^2$ ) tests. I follow with a multivariate investigation of informal versus formal union formation compared to remaining single (reference), using discrete-

time multinomial logistic regression. Results are presented in coefficients and relative risk ratios. In all ratios a value higher than one indicates a greater likelihood of the event occurring whereas a value less than one indicates a lower likelihood. Multinomial logistic regression is a useful method for this analysis because it allows for the comparison of more than two outcomes. For the multivariate analyses, I present three models. The first model uses a dichotomous nonmarital birth indicator as the main predictor and includes direct effects for control variables. The second model uses a categorical variable combining nonmarital birth and the youngest child's age as the main predictor and includes control variables. The final model includes direct effects as well as two interactions with nonmarital birth: calendar year and age.

The second analysis investigates the likelihood of divorce or separation versus widowhood compared to staying in a union (reference) using discrete-time multinomial logistic regression. This analysis is limited to young women who enter a first union during the study period. In the person-year format, each respondent contributes one observation for each census year that she spends in a union. I first investigate the bivariate association between nonmarital births and union dissolution using  $\chi^2$  tests, followed by two models. The first uses a dichotomous nonmarital birth indicator as the main predictor and includes all control variables. The second model uses a categorical variable combining nonmarital birth and the youngest child's age as the main predictor and includes control variables.

In the third and final analysis, I investigate the relationship between nonmarital births and mortality during adolescence and early adulthood using discrete-time logistic regression. The data are transformed into person-years, with one observation for each year from entry into the study until censoring (migration, aging out) or death. I present results investigating a bivariate association between nonmarital births and mortality followed by two models. The first uses a dichotomous nonmarital birth indicator as the main predictor and includes all control variables. The second model

uses a categorical variable combining nonmarital birth and the youngest child's age as the main predictor and includes control variables.

## **RESULTS**

Table 2.1 (below) includes individual-level descriptive statistics for young women aged 10-35. Time-varying variables are reported for the last year of observation. Just over one third of the sample (35.4%) had a nonmarital birth during the study period. Union entry was strikingly low: Only 10.4% of the sample entered a union during the study period and just over half of unions (53.5%) were informal. Almost 1 in 4 (23.6%) unions dissolved during the study period: 16.7% through divorce or separation and 6.9% through widowhood. Mortality was generally low among this young sample with just 3% dying by age 36. The average age of respondents over the study period was 24 years and just under one third of the sample (32%) was Mozambican. Most respondents had some education (88%) but less than 1 in 5 (18.3%) had completed secondary school.

Table 2.1: *Individual-Level Descriptive Statistics for Women aged 10 to 35*

		(N = 48,621)
		(Person-years = 478,620)
Variables		M (SD) or %
Had a nonmarital birth		35.36%
Entered any union		10.44%
Union type <sup>a</sup>		
	Informal union	53.54%
	Formal marriage	46.46%
Union dissolution <sup>a</sup>		
	Divorce/Separation	16.71%
	Widow	6.93%
	Still in union	67.95%
Died		2.94%
Age		24.33 (7.15)
South African		67.98%
Mozambican		32.02%
Highest level of education		
	None	11.99%
	Primary	34.94%
	Some secondary	34.79%
	Completed secondary	18.28%

*Source:* Agincourt Health and Demographic Surveillance System, 1993-2008

*Note:* Standard deviations are not reported for binary or categorical variables; values for age and education are reported in the last year of observation; values for nonmarital birth and entered any union include all women who experienced the event before censoring.

<sup>a</sup>Descriptive statistics limited to women who entered unions (n=5,075).

## Union Formation

Bivariate tests of the relationship between union formation and nonmarital births indicate that young women who had a nonmarital birth were significantly less likely to enter any union during the study period ( $\chi^2 = 43.39$ ,  $p < 0.001$ ). Bivariate tests of the association between nonmarital births and union type reveal that young women with a nonmarital birth were significantly more likely to

enter formal unions and less likely to enter informal unions compared to their peers who postpone childbearing ( $\chi^2=92.47$ ,  $p < 0.001$ ).

Table 2.2 (below) presents the results of the analysis predicting informal and formal union formation compared to remaining single (reference) using discrete-time multinomial logistic regression. The results suggest that young women with a nonmarital birth were significantly less likely to enter any type of union compared to young women who postpone childbearing. Once control variables were included, the bivariate association between nonmarital births and formal union formation identified above was no longer significant (not shown). All control variables were significantly associated with formal and informal union formation. Compared to young women who had the highest rate of union formation (aged 20-24) the likelihood of entering both types of unions was lower for all other age groups with one exception: Women aged 15-19 were not significantly different in their odds of entering informal unions. Mozambicans were more likely to enter both types of unions compared to South Africans. Union formation was most common among young women with at least some secondary schooling and least common among those with primary education only. There were large differences in the likelihood of union formation in different calendar years. Informal unions were significantly more likely after 1998, whereas formal unions were significantly less likely during the same time period.

Model 2 includes a categorical variable for the age of a woman's youngest nonmarital child (no nonmarital birth (ref); child aged 0-6; and child aged 7 and above) as the main predictor of union formation. These results show that young women with a nonmarital birth whose child is 0-6 had significantly lower odds of entering informal and formal unions compared to young women who postpone childbearing. All control variables retained their direction and significance.



Table 2.2: Predictors of Union Formation Using Multinomial Logistic Regression (Reference Category = Stayed Single), Standard Errors Adjusted for Clustering on Respondent (N=48,621)

	Model 1						Model 2						Model 3					
	Informal Union			Formal Union			Informal Union			Formal Union			Informal Union			Formal Union		
	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR
Respondent Characteristics																		
Had nonmarital birth																		
Yes	-0.56	0.05***	0.57	-0.65	0.05***	0.52												
No (ref)	0.00		1.00	0.00		1.00												
Nonmarital birth & child's age																		
No nonmarital birth (ref)							0.00			0.00		1.00			0.00		1.00	
Nonmarital birth with youngest child age 0-6							-1.00	0.07***	0.37	-1.58	0.09***	0.21	-1.41	0.12***	0.25	-1.80	0.11***	0.17
Nonmarital birth with youngest child age 7+							-0.08	0.06	0.93	-0.03	0.06	0.97	-0.39	0.12**	0.68	-0.20	0.10*	0.82
Age																		
10-14	-2.62	0.12***	0.07	-3.75	0.20***	0.02	-2.63	0.12***	0.07	-3.76	0.20***	0.02	-2.67	0.12***	0.07	-3.83	0.20***	0.02
15-19	-0.04	0.05	0.96	-0.59	0.05***	0.55	-0.05	0.05	0.95	-0.60	0.05***	0.55	-0.11	0.05*	0.90	-0.67	0.05***	0.51
20-24 (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
25-29	-0.36	0.06***	0.70	-0.28	0.06***	0.76	-0.40	0.06***	0.67	-0.31	0.06***	0.73	-0.39	0.08***	0.68	-0.26	0.07***	0.77
30-35	-1.16	0.10***	0.31	-1.03	0.09***	0.36	-1.25	0.10***	0.29	-1.10	0.09***	0.33	-1.05	0.12***	0.35	-1.16	0.12***	0.31
Nationality																		
South African (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
Mozambican	0.40	0.04***	1.50	0.09	0.05†	1.10	0.40	0.04***	1.49	0.10	0.05†	1.10	0.40	0.04***	1.49	0.09	0.05†	1.10
Level of education																		
None (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
Primary	-0.15	0.08†	0.86	-0.42	0.09***	0.66	-0.13	0.08†	0.87	-0.39	0.09***	0.67	-0.16	0.08*	0.86	-0.41	0.09***	0.67
Some secondary	0.49	0.08***	1.64	0.31	0.08***	1.36	0.51	0.08***	1.67	0.34	0.08***	1.40	0.48	0.08***	1.62	0.32	0.09***	1.37
Completed secondary	0.41	0.09***	1.51	0.89	0.09***	2.43	0.43	0.09***	1.53	0.91	0.09***	2.47	0.39	0.09***	1.48	0.88	0.09***	2.42
Period																		
1993-1998 (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
1999-2003	0.63	0.05***	1.88	-0.18	0.05***	0.84	0.65	0.05***	1.92	-0.14	0.05**	0.87	0.62	0.05***	1.85	-0.15	0.05**	0.86
2004-2008	0.76	0.05***	2.14	-0.54	0.06***	0.58	0.80	0.05***	2.23	-0.47	0.06***	0.62	0.71	0.06***	2.03	-0.56	0.07***	0.57
Interactions with nonmarital birth																		
Age 10-14													-10.83	0.16***	0.00	2.99	1.02**	19.82
Age 15-19													0.48	0.12***	1.61	0.64	0.14***	1.90
Age 20-24 (ref)													0.00		1.00	0.00		1.00
Age 25-29													-0.04	0.13	0.96	-0.14	0.12	0.87
Age 30-35													-0.51	0.20*	0.60	0.09	0.18	1.09
1993-1998 (ref)													0.00		1.00	0.00		1.00
1999-2003													0.24	0.12†	1.27	0.11	0.11	1.11
2004-2008													0.51	0.12***	1.66	0.41	0.13**	1.51
Constant	-5.32	0.09***		-4.48	0.09***		-5.35	0.09***		-4.52	0.09***		-5.25	0.09***		-4.45	0.09***	
X <sup>2</sup>		2759.39***						2963.17***						30525.59***				
df		22						24						36				
Pseudo-R <sup>2</sup>		0.070						0.075						0.076				

Note: RRR=relative risk ratio.

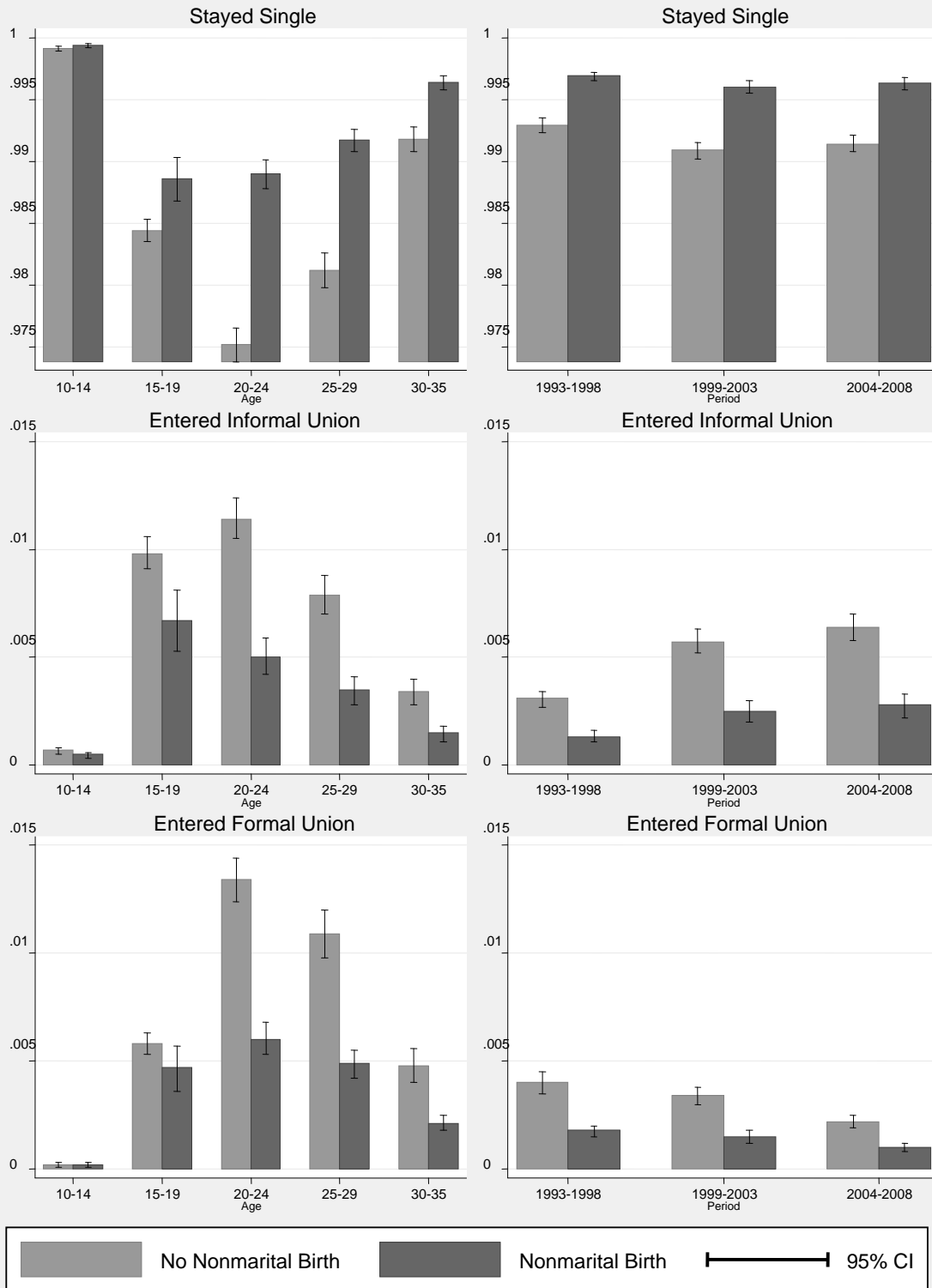
Source: Agincourt Health and Demographic Surveillance System, 1993-2008.

† p < 0.10. \* p < 0.05. \*\* p < 0.01. \*\*\* p < 0.001.

Model 3 includes an interaction testing whether the relationship between nonmarital births and union formation varied by calendar year. I also include an interaction term between nonmarital birth and a young woman's age because I expect marriage market conditions and the effects of nonmarital births to vary by age. After including these interactions, young women with a nonmarital birth were significantly less likely to enter informal and formal unions compared to those who postpone childbearing regardless of their child's age. All other control variables retained their direction and significance. The interaction between nonmarital births and age demonstrates significant variation (see Figure 2.1). Teenage women with a nonmarital birth had significantly higher odds of entering informal unions compared to women aged 20-24, while women aged 30-35 had significantly lower odds. The interaction between nonmarital births and calendar year is significant, suggesting that young women with a nonmarital birth had greater odds of entering informal unions above and beyond the rise in informal union formation since 1998 (marginally significant,  $p < 0.10$ ) and especially since 2003.

Turning to the results for formal union formation, the interaction term for age and nonmarital births is positive and significant indicating that teenage women with a nonmarital birth were more likely than women aged 20-24 to enter formal unions. The interaction between nonmarital birth and calendar year indicates that although young women with a nonmarital birth had lower odds of union formation than young women who postponed childbearing, their odds of formal union formation actually increased in the latest period (2004-2008). See Figure 2.1 (below) for graphs of the fitted probabilities for these interaction terms with all other variables held constant at their means.

## Figure 2.1: Fitted Probabilities for Nonmarital Births By Age and Period Interactions



Source: Agincourt Health and Demographic Surveillance System, 1993-2008  
Fitted Probabilities from interaction terms, Table 2.2

## Union Dissolution

Table 2.3 (below), Model 1 presents the results of multinomial logistic regression models analyzing the relationship between nonmarital births and union dissolution through divorce, separation, or widowhood compared to staying in union. I do not find a significant relationship between nonmarital births and union dissolution in either the bivariate tests (not shown) or the full multinomial model. I turn to the results for divorce or separation first. Dissolution through divorce or separation was significantly associated with age; women aged 25-29 had lower odds of divorcing or separating compared to women aged 20-24. Young women with primary education had significantly higher odds of divorce or separation compared to those with no education. Divorce or separation was significantly more likely since 1998 and especially since 2004. Informal unions were significantly more likely to dissolve compared to formal marriages. Union duration was significantly associated with divorce or separation: The odds of union dissolution peaked 6 years after marriage (not shown) and fell thereafter.

Turning to the results for widowhood, I find that teenagers were significantly less likely to be widowed and older women (aged 25 and above) were significantly more likely to be widowed compared to women aged 20-24. The calendar year variables were also statistically significant: Widowhood was more likely since 1998 and even more so since 2004. Union duration was also significantly associated with widowhood with the odds of dissolution again peaking 6 years after union formation.

Model 2 includes a categorical variable for nonmarital birth and the youngest child's age (0-6 or 7 and above) compared to women with no nonmarital birth (reference) as the main predictor of union dissolution. Young women with a nonmarital birth whose youngest child was aged 0-6 had significantly higher odds of divorce or separation compared to those who postpone childbearing. The only significant relationship with a woman's age in this model is for women aged 25-29 who

had lower odds of dissolution through divorce or separation. All other control variables retained their direction and significance. I do not find a significant association between nonmarital births and the youngest child's age and widowhood.

Table 2.3: Predictors of Union Dissolution Using Multinomial Logistic Regression  
(Reference Category = Stayed in Union), Standard Errors Adjusted for Clustering on Respondent (n=5075)

	Model 1						Model 2					
	Divorce/Separation			Widowhood			Divorce/Separation			Widowhood		
	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR	B	RSE B	RRR
Respondent Characteristics												
Had nonmarital birth												
Yes	0.11	0.08	1.12	0.10	0.14	1.10						
No (ref)	0.00		1.00	0.00		1.00						
Nonmarital birth & child's age												
No nonmarital birth (ref)							0.00		1.00	0.00		1.00
Nonmarital birth with youngest child age 0-6							0.23	0.10*	1.27	0.13	0.18	1.14
Nonmarital birth with youngest child age 7+							-0.06	0.12	0.94	0.06	0.19	1.06
Age												
10-19	-0.05	0.11	0.95	-0.85	0.38*	0.43	-0.05	0.11	0.95	-0.85	0.38*	0.43
20-24 (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
25-29	-0.20	0.08*	0.82	0.56	0.17**	1.75	-0.19	0.08*	0.83	0.56	0.17**	1.76
30-35	-0.05	0.11	0.95	0.82	0.19***	2.27	-0.04	0.11	0.96	0.82	0.19***	2.27
Nationality												
South African (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
Mozambican	0.05	0.07	1.05	0.16	0.14	1.17	0.05	0.07	1.05	0.16	0.14	1.17
Level of education												
None (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
Primary	0.33	0.15*	1.40	0.00	0.24	1.00	0.33	0.15*	1.39	0.00	0.24	1.00
Some secondary	0.20	0.14	1.22	-0.24	0.23	0.79	0.20	0.14	1.22	-0.24	0.23	0.78
Completed secondary	0.14	0.15	1.15	-0.28	0.25	0.76	0.13	0.15	1.14	-0.28	0.25	0.76
Period												
1993-1998 (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
1999-2003	0.29	0.14*	1.34	0.89	0.36*	2.44	0.29	0.14*	1.34	0.89	0.36*	2.43
2004-2008	1.07	0.13***	2.92	1.64	0.36***	5.15	1.05	0.14***	2.84	1.63	0.36***	5.11
Uniontype												
Informal union	1.04	0.07***	2.83	0.19	0.12	1.21	1.04	0.07***	2.83	0.19	0.12	1.21
Formal marriage (ref)	0.00		1.00	0.00		1.00	0.00		1.00	0.00		1.00
Union duration												
Union duration	0.33	0.03***	1.39	0.25	0.06***	1.28	0.33	0.03***	1.39	0.25	0.06***	1.28
Union duration squared												
Union duration squared	-0.03	0.00***	0.97	-0.02	0.00***	0.98	-0.03	0.00***	0.97	-0.02	0.00***	0.98
Constant												
Constant	-5.56	0.19***		-6.94	0.42***		-5.54	0.19***		6.93	0.42***	
$\chi^2$												
			797.49***						808.34***			
df												
			26						28			
Pseudo-R <sup>2</sup>												
			0.063						0.064			

Note: RRR=relative risk ratio

Source: Agincourt Health and Demographic Surveillance System, 1993-2008.

\*  $p < 0.05$ . \*\*  $p < 0.01$ . \*\*\*  $p < 0.001$ .

## Mortality

Bivariate tests of the relationship between nonmarital childbearing and mortality suggest a positive association: Young women with a nonmarital birth were significantly more likely to die during early adulthood compared to their peers who postpone childbearing ( $\chi^2 = 324.17$ ,  $p < 0.001$ ).

Table 2.4 (below), Model 1 presents the results of discrete-time logistic regression models of mortality during early adulthood, including all control variables. These results confirm that young women with a nonmarital birth had significantly higher odds of mortality compared to those who postponed childbearing. Mortality was also significantly and positively associated with age and Mozambicans had a significantly lower risk of mortality compared to South Africans. The coefficients for calendar year indicate that mortality in adolescence and early adulthood was significantly more likely in the years since 1998 and especially since 2004.

Model 2 disaggregates nonmarital children by their age. Young women whose youngest child was aged 0-6 had significantly higher odds of mortality compared to young women who postpone childbearing. Interestingly, young women with a nonmarital birth whose youngest child was aged 7 or above had lower odds (marginally significant,  $p < 0.10$ ) of mortality compared to young women who postpone childbearing. All control variables retained their direction and significance.

Table 2.4: Predictors of Mortality Using Logistic Regression,  
Standard Errors Adjusted for Clustering on Respondent (N=48,621)

	Model 1				Model 2			
	Death				Death			
	B	RSE	B	OR	B	RSE	B	OR
Respondent Characteristics								
Had nonmarital birth								
Yes	0.39	0.07***		1.48				
No (ref)	0.00			1.00				
Nonmarital birth & child's age								
No nonmarital birth (ref)					0.00			1.00
Nonmarital birth with youngest child age 0-6					0.71	0.07***		2.03
Nonmarital birth with youngest child age 7+					-0.17	0.10†		0.84
Age								
10-14	-1.04	0.16***	0.35		-0.99	0.16***	0.37	
15-19	-0.83	0.13***	0.43		-0.81	0.13***	0.45	
20-24 (ref)	0.00		1.00		0.00		1.00	
25-29	0.81	0.10***	2.25		0.86	0.09***	2.36	
30-35	1.28	0.08***	3.59		1.38	0.08***	3.97	
Nationality								
South African (ref)	0.00		1.00		0.00		1.00	
Mozambican	-0.35	0.08***	0.71		-0.34	0.08***	0.71	
Level of education								
None (ref)	0.00		1.00		0.00		1.00	
Primary	0.12	0.11	1.13		0.12	0.11	1.12	
Some secondary	0.07	0.11	1.07		0.04	0.12	1.04	
Completed secondary	-0.29	0.13*	0.75		-0.32	0.13*	0.73	
Period								
1993-1998 (ref)	0.00		1.00		0.00		1.00	
1999-2003	0.90	0.09***	2.47		0.88	0.09***	2.41	
2004-2008	1.35	0.09***	3.87		1.34	0.09***	3.80	
Constant	-7.27	0.15***			-7.28	0.15***		
$X^2$		961.21***				1081.27***		
<i>df</i>		11				12		
<i>Pseudo R</i> <sup>2</sup>		0.081				0.087		

Note: OR=odds ratio.

Source: Agincourt Health and Demographic Surveillance System, 1993-2008.

†  $p < 0.10$ . \*  $p < 0.05$ . \*\*\*  $p < 0.001$ .

## Selection into Nonmarital Childbearing

Even though many young women in the sample have a child before entering their first union, selection into nonmarital childbearing may play a role in the associations between nonmarital births and the outcomes analyzed here. To address this, I conduct supplemental analyses of the predictors of nonmarital childbearing on a sub-sample of women. I use an index of household assets (consumer goods) to measure socioeconomic status (SES). The asset index includes the following functioning items: stove, refrigerator, TV or radio, DVD player or satellite, cell phone, or car or truck (*Cronbach's*  $\alpha = .70$ ). Household assets in the AHDSS were measured in 2001 and every other year thereafter, therefore, the sample is limited to young women in the AHDSS in these years without missing SES values (57% of full analytic sample;  $n = 28,049$ ). The sub-sample is significantly different from the full analytic sample in several ways: Young women in the sub-sample are more likely to be South African, less educated (1 year on average), and younger (5 years on average). I use discrete-time logistic regression models to analyze the relationship between SES and nonmarital births. The results demonstrate a statistically significant ( $p < 0.01$ ), negative relationship between SES and nonmarital childbearing: The higher the SES, the less likely a young woman is to have a nonmarital birth ( $OR = 0.96$ ), controlling for age, education, year, and nationality (not shown). To assess the relationship between selection into nonmarital childbearing and the outcomes of interest I re-run the multivariate models of the outcomes on sub-samples of young women with SES information (in years 2001 and later). Including SES in these models does not substantially alter the results: All relationships between the outcomes of interest and key predictor variables were in the same direction and maintained their significance (not shown). SES itself was significantly and negatively associated with two outcomes: informal union formation and mortality. However, after including SES in the multivariate models, the significant associations between nonmarital births and these outcomes remain. Thus, although I do find evidence of selection into nonmarital childbearing



based on SES, I also find that the main results have not changed: Nonmarital childbearing remains a significant predictor of union formation and mortality.

## **DISCUSSION**

These results demonstrate that young South African women with a nonmarital birth face several challenges as they move through adolescence and early adulthood. Furthermore, these results also demonstrate a virtual collapse of union formation among young women in rural Mpumalanga Province, South Africa. Only 10% of young women entered any union during the study period (1993-2008) and over half of unions were informal, indicating a movement away from lobola. Future research is necessary to determine the causes behind this collapse, such as whether high rates of unemployment in the site are responsible for the lack of lobola in young people's unions in recent years. Moreover, research investigating whether young people ultimately marry is crucial for developing a better understanding of family formation processes in this context over the life course.

Turning to the hypotheses, I found strong support for the first hypothesis that young women with a nonmarital birth are less likely to enter a union compared to young women who postpone childbearing. One explanation could be that young unmarried mothers are chosen less often as marriage partners because of the resources necessary to support existing children. South Africa has a fairly generous social safety net, which includes a Child Support Grant to children in financial need. Yet, the amount provided per child each month (R250 or about \$33) is generally considered insufficient, especially if children are in school. Men may also be reluctant to support children they did not father, which would render young women with a nonmarital birth less desirable partners than those without children.

The youngest child's age was a significant predictor of union formation among young women with nonmarital births, especially for those with young (aged 0-6) children who had

significantly lower odds of union formation compared to young women with older children (not shown) and young women who postpone childbearing. These results suggest that young women with nonmarital births may be more likely to postpone entering unions until their children are old enough to be left with others. Research from Agincourt has found increases in child fosterage in recent years – some of which may be due to young women leaving their nonmarital children in others' homes (especially their own mothers') when they later marry men who are not the children's father (Madhavan and Schatz 2007; Schatz 2007).

I investigated competing hypotheses in regards to the relationship between nonmarital births and union type and found support for hypothesis H2b: Young women with a nonmarital birth are more likely to enter formal unions. However, this was only a bivariate association; once I controlled for other variables, young women with a nonmarital birth were less likely to enter both formal and informal unions compared to those who postpone childbearing. Informal unions have become significantly more common among all young women since 1998; however, this result should be interpreted with caution since retrospective reporting of informal unions may be increasingly biased as time passes. Nonetheless, these changes seem to mirror trends in Western populations that now often favor cohabitation as a precursor or alternative to marriage (Bumpass and Lu 2000; Bumpass, Sweet and Cherlin 1991; Manning and Jones 2006).

I also found that the relationship between nonmarital births and union formation varied significantly by age and older women (aged 20 and above) with a nonmarital birth were significantly less likely than teenage women to enter both types of unions. Additionally, young women with a nonmarital birth had significantly higher odds of both types of union formation since 1998. This suggests that young women with a nonmarital birth may be gaining ground as union postponement becomes more the norm among young people in this context.

Turning to the third hypothesis, that young women with nonmarital births are more likely to enter unstable unions, the relationship was only significant when I accounted for the young mother's youngest child's age. Young women with a nonmarital birth whose youngest child was 0-6 were significantly more likely to divorce or separate compared to those who postpone childbearing. Young mothers with young children appear to face significantly more challenges in their union trajectories than young women who either postpone childbearing or have an older child since they are more likely to end up in an unstable union. Future research is necessary to determine the mechanisms behind these associations. It may be that young children exert a particular type of pressure on young women and couples that make it difficult to enter unions and stay together. Alternatively, if young women foster out their older children when they enter unions, those children may not have an influence on the stability of their mother's union because they are more removed from the situation.

I also found a significant association between informal unions and divorce or separation. This result must be interpreted with caution though because the data do not allow for identification of informal unions that evolve into marriages. I also found a significant, positive association between divorce or separation and calendar year indicating that divorce and separation had become increasingly likely since 1998. Union duration was also significantly associated with divorce or separation with dissolution most likely around the sixth year of the union.

Widowhood was not significantly associated with nonmarital births. I found significantly higher odds of widowhood in recent survey years (since 1998), with the odds increasing markedly between 2004 and 2008. These results likely reflect the high prevalence of HIV in the AHDSS site. Research from Malawi has shown that a history of divorce or widowhood is significantly associated with being HIV positive (Boileau et al. 2009). Relationship instability results in potentially greater

exposure to HIV because of greater numbers of sexual partners. Conversely, behavior associated with the risk of infection (extra-marital sex) may also be a motivation for divorce.

Finally, I found strong support for the fourth hypothesis, that young women with a nonmarital birth have a higher risk of mortality compared to those who postpone childbearing. This was especially the case for young mothers whose children were still young (aged 0-6). These higher odds may reflect the double burden of a recent pregnancy and HIV on young women's bodies, which some studies have shown to be associated with higher rates of maternal mortality (Bicego, Boerman and Ronsmans 2002). I also found a strong relationship between calendar year and young women's mortality with a much higher risk of death since 1998 and especially since 2004. This result is likely related to the high rate of AIDS mortality among young adults in the site (Kahn et al. 2007).

Despite these strong relationships, mortality was rather uncommon sample: Just under 3% of the sample died during the study period. Given the young ages of the women in this study, it is likely that many of these deaths were due to HIV. Previous research in Agincourt by Kahn and colleagues (2007) demonstrated a marked increase in mortality during the late 1990s and early 2000s, with the highest mortality rates among adults aged 20-49. With the rollout of highly effective ARVs in the AHDSS at public health centers in 2010, I would expect to see a drop in mortality among young adults in the future if these deaths are attributable to AIDS.

This chapter contributes to the research on nonmarital childbearing in sub-Saharan Africa in several ways. First, this study is one of the first to examine longer term outcomes for young women who have a nonmarital birth in South Africa using longitudinal data. Second, this analysis provides new information about informal unions, which have been largely neglected in research from sub-Saharan Africa due to a lack of data. Third, this study is innovative in that I expand the definition of adolescence and early adulthood by including women aged 10-35. Because of the postponement of marriage in this context (Hosegood, McGrath and Moultrie 2009), the delay in the transition to

adulthood for young people in many countries (Furstenberg, Rumbaut and Settersten 2005; Rutenberg et al. 2001), and the prevalence of nonmarital childbearing among women aged 10-14, I argue that this is important for developing a more complete picture of young women's outcomes during adolescence and early adulthood. These results also build on findings from the U.S. that show that women with nonmarital births are less likely to marry compared to women who postpone childbearing. I find the same patterns in South Africa. Finally, these findings extend previous work by showing that young women with a nonmarital birth face higher risks of mortality during adolescence and early adulthood in a context of high HIV prevalence.

Although this study offers several contributions, there are also some limitations. First, the population under study is highly mobile with much temporary and permanent labor migration among men and increasingly among women (Collinson, Tollman and Kahn 2007). Thus, I cannot account for events, such as childbirth, union formation, or union dissolution that are preceded or followed by migration in the same year and therefore not picked up by the census. A substantial proportion of the sample (42.6%) out-migrated at some point during the study period. To further investigate the possible effect of migration on the results, I tested differences in migration among young women with a nonmarital birth and young women who postpone childbearing and found that young women with a nonmarital birth were significantly less likely than other women to leave the study site ( $\chi^2 = 72.16$ ;  $p < 0.001$ ). This result suggests that any underestimation of union formation because of out-migration is more likely to be among young women without a nonmarital birth. In other words, if these out-migrations represent young women leaving the site to enter unions, (which, I have no way to assess), it is more likely that I am underestimating the likelihood of union formation among young women without children than among those with a nonmarital birth.

Second, this analysis only investigates outcomes during adolescence and early adulthood. It may be that once young women transition fully into adulthood, their trajectories become more

similar regardless of whether they had a nonmarital birth. This may be particularly the case for mothers who leave their children in a parent's home rather than bringing them into new unions. Future research investigating women's outcomes in middle and later adulthood would help to clarify whether a nonmarital birth has long term implications for women later in life.

This chapter has provided evidence that young women who have a nonmarital first birth in rural South Africa are likely to experience challenges related to union formation and mortality during adolescence and early adulthood. This is important given the social changes surrounding union formation in recent years in the South African context in this site and others (e.g., Hosegood, McGrath and Moultrie 2009). With more young people postponing their first union and the age at first sex remaining stable, young people are exposed to the risk of an unplanned nonmarital first birth for longer periods of time. This suggests that nonmarital childbearing may become more normative and that over time young women with a nonmarital birth may begin to resemble young women who postpone childbearing. Nonetheless, I still find significant differences among these two groups.

Policies that support single mothers in South Africa, such as the Child Support Grant, are important to maintain because they provide needed resources to young women who face an uphill battle during adolescence and early adulthood. The finding that young women who have a nonmarital birth face a higher risk of mortality during adolescence and early adulthood is troubling. Numerous public health campaigns promoting safe sex and HIV risk avoidance among young people are ongoing in this context. There seems to be a disconnect between these messages and the reality on the ground, suggesting that innovative interventions are much needed for this high risk group. Ongoing studies in the AHDSS, such as a conditional cash transfer project, may help to shed light on ways to improve the outcomes of young single mothers. Recent research from other African countries suggests that these types of interventions can effectively reduce the risk of HIV for young

women (Baird et al. 2012; de Walque et al. 2012). Additionally, my finding of SES selection into nonmarital childbearing suggests that financial incentives to avoid nonmarital births may benefit young women in the long term. At the same time, in many cases nonmarital childbearing is the result of behavioral choices that put young people at risk. Thus, policies to address nonmarital childbearing that focus on individual behaviors rather than structural risk factors may also aid in reducing unintended births. Interventions focused on risk behaviors in this context are often focused on curbing the spread of HIV. These types of interventions are vital for young women with nonmarital births who are more likely to die prematurely in Agincourt. However, the association between SES and nonmarital childbearing indicates that the common disregard for inequalities based on social class in South African policy initiatives (Hunter 2010) are especially problematic for low income young women at risk of unplanned births, HIV, and the difficult trajectories that often lay ahead.

## CHAPTER 6: FUTURE CHILDBEARING PROJECTS IN THE CONTEXT OF HIV

This chapter's analysis invited women to engage with their futures by asking them to talk about their fertility desires. This chapter serves as a response to the call by Mische to develop cultural analyses providing rich insight into "the form and process of future projections as they play out in particular social contexts" (2009: 697). During the course of this investigation of women's future fertility projects, I uncovered an empirical puzzle: despite the ubiquity of HIV in rural South Africa, the young women in this study rarely, if ever, mentioned the disease when describing their future childbearing desires and plans. Given the omnipresent status of HIV in this context, and the multitude of theories positing that women intentionally alter their childbearing behavior based on HIV, the absence of HIV from women's childbearing narratives is notable. The women in this study describe future childbearing as primarily dependent on their being able to financially support those children. Several studies have outlined economic concerns as a key factor in fertility preferences, even in the context of HIV (e.g., Baylies 2000; Rutenberg, Biddlecom and Kaona 2000). Despite my expectations that women would verbalize the risks associated with HIV when describing their future fertility preferences, this did not materialize in interviews or focus group discussions.

In the following pages, I develop a theoretical account for why women are able to neglect HIV when they plan their future childbearing projects. I argue that the risks associated with HIV are overshadowed by aspirations to be "modern women" in young South African women's narratives about childbearing. Becoming a "modern woman" in this context necessitates three main things: having two children (or only as many children as you can support); finding a good job; and establishing an independent household filled with modern consumer goods. Thus, women's narratives about future fertility projects focus on their aspirations and the steps needed to achieve



these goals rather than on hurdles like HIV that might stymie their plans. Hence, in an idealized modern future, women are working, have money, take good care of their kids, and are HIV-free.

Why would women ignore the hard truths about their potential for HIV infection in a context where almost half of women end up HIV positive by the time they age out of their reproductive years (Gómez-Olivé et al. 2013)? I posit that the widespread uncertainty related to HIV and the recent availability of treatment work together to encourage women to plan their futures as if HIV does not exist. Antiretroviral treatment (ARVs) for HIV has only recently become available (in 2007 at a private clinic and in 2010 at public clinics) and a positive diagnosis is still highly stigmatized in South Africa (Posel, Kahn and Walker 2007; Stadler 2003). Fear of stigmatization has been associated with delays in HIV testing (Chesney and Smith 1999; Wood and Lambert 2008), lack of disclosure of HIV status (Chesney and Smith 1999), limited use of HIV services (Petros et al. 2006; Schuster et al. 2005; Wood and Lambert 2008), and lack of adherence to HIV treatment (Rao et al. 2007; Rintamaki et al. 2006). Lack of testing and a long incubation period contribute to uncertainty about one's own and others' HIV statuses. Thus, the widespread availability of ARVs and treatment for the Prevention of Mother-to-Child Transmission (PMTCT) has opened up space for planning future projects as if, in a sense, HIV does not exist. Women are acutely aware of their high risk of infection and several express a sense of fatalism about their current and future likelihood of infection. And yet, all of the young women in this study who desire (more) children articulate a vision of a future in which childbearing features prominently and HIV does not. I contend that this is directly related to the recent availability of HIV treatment, women's knowledge of treatment options and effectiveness, and their experiences with others who have used treatment and regained their health.

This chapter is situated within several literatures and aims to make several contributions. First, I hope to contribute to the budding interest in developing a sociology of the future, explicated

by Mische (2009), by describing women's imagined fertility futures and situating them within the cultural context of rural South Africa and the AIDS epidemic. I plan to show that the women in this study view their futures in multipronged ways and that uncertainty – especially surrounding HIV infection – embedded within their social context has a particular influence on the ways in which young women view their futures and construct their childbearing plans. Second, this study contributes to the literature on aspirations by examining the reasons women maintain their “modern” aspirations in a context where few are able to reach such heights. This is reminiscent of literature from around the world that has examined the relationship between disadvantage and high educational aspirations among youth (e.g., Alexander, Bozick and Entwisle 2008; Baird, Burge and Reynolds 2008; Cook et al. 1996; Hanson 1994; Kao and Tienda 1998; Khattab 2003; MacLeod 1995; Watson et al. 1997). This study also expands on this literature by investigating women's aspirations in several facets of the transition to adulthood including employment, childbearing, and establishing a separate household. Furthermore, this study examines aspirations in a very unique context – rural South Africa – that is characterized by (largely uneven) post-apartheid development, which has contributed to national feelings of hope, pride, freedom, and equal opportunity for all. Thus, this study is an attempt to describe women's experiences, hopes, and future projects in a context in which HIV serves as the backdrop to life.

## **LITERATURE REVIEW**

### **Hope & Aspirations**

Much research has focused on the negative consequences of HIV/AIDS for women, men, families, communities, and nations. Countless studies have outlined how the African continent, in particular, has suffered due to HIV/AIDS, often focusing on the factors contributing to the further spread of the disease. These include, for example: a lack of behavioral change in response to high

rates of HIV (Oster 2012); stigma (Emlet 2006; UNAIDS 2002); and the sexual behavior of youth (Anderson, Beutel and Maughan-Brown 2007; Hendriksen et al. 2007; Pettifor et al. 2005a; Simbayi et al. 2005). In this chapter, I take a different approach, focusing instead on how young women living in a generalized AIDS epidemic construct hopeful – rather than fatalistic – aspirations and visions of the future.

Desroche defines hope as a link between past and future. He argues that the “forces of aspiration...formulate and offer an answer” to the questions posed by the “forces of pressure” (1979: 3). In other words, by constructing future goals, individuals move toward answering questions and solving problems that they face in everyday life. Envisioning futures in which we successfully resolve issues vexing us in real-time allows us to maintain hope for a future reality free from these issues. Despite these theoretical insights into how projections of the future may sustain hope in the present, few sociologists have tested Desroche’s notions. Furthermore, as Mische (2009) argues, there has been little research investigating how future plans or projects influence social realities in the present.

Drawing on insights from Schutz (1967), Emirbayer and Mische (1998) have argued that projectivity is an important aspect of human agency. This is particularly relevant in sub-Saharan Africa, where women’s agency is often curtailed by traditional gender roles (see Doodoo and Frost 2008 for a review), a culture of violence (Jewkes et al. 2001; Moffett 2006; Wood and Jewkes 1997), and in the context of HIV, stigma associated with women’s sexual behavior, which is often characterized as “immoral” (Campbell et al. 2005). Future projections, therefore, influence action, regardless of whether they are good predictors of future outcomes (Mische 2009). Zimbardo and Boyd (2008) noted that future expectations are closely tied to present behavior because they affect how people think, behave, and feel. Thus, for women in this study, imagining a future in which HIV does not figure into the equation of childbearing decision-making should be closely related to the

ways in which women experience their present everyday lives. In sub-Saharan Africa, life in the context of HIV is characterized by two strong and opposing forces: a) a strong sense of uncertainty; and b) the availability of testing and treatment for HIV, which may help to abate some uncertainty associated with the disease. Both of these factors are likely to influence women's future projections about fertility.

Future projects are built on aspirations. These aspirations often provide information about the type of person one hopes to become. Much of the research on educational aspirations has noted the inconsistencies between disadvantaged youth's aspirations and the realities they face in achieving the goals they set forth (Alexander, Bozick and Entwisle 2008; Baird, Burge and Reynolds 2008; Cook et al. 1996; Frye 2012; Hanson 1994; Kao and Tienda 1998; Khattab 2003; Strand and Winston 2008). Explanations for why young people in the United States do not achieve the goals they set forth are often based on structural limitations related to race, ethnicity, and social class (e.g., Baird, Burge and Reynolds 2008; MacLeod 1995; Morgan 1996b). However, these explanations do not get us very far in rural South Africa, where there is no variation by race, limited variation by ethnicity, and minor differences in social class (at least in the current sample). Other studies have focused on what young people's aspirations can tell us about the types of identities they construct and their concomitant behaviors. For example, in her study of Malawian school girls, Frye argues that young women draw on their aspirations for future educational success to construct a virtuous identity as "one who aspires" (2012: 1599). Embodying such an identity allows young women to take specific actions to support its existence, such as delaying sexual relationships and marriage, which would spoil their identity and in all likelihood derail their future plans (Frye 2012). Thus, aspirations are important because they tell us what sorts of cultural models for success are available for young people. Yet, aspirations also allow young people agency in their choices and behaviors as they work toward embodying the identity that they visualize vis-à-vis their future projects.

In South Africa, the ‘rainbow nation’ discourse and imagery is associated with national pride and positivity, especially happiness, life satisfaction, and optimism about the future (Dickow and Moller 2002). Undoubtedly the end of apartheid fundamentally changed the lives of African South Africans for the better because it lifted the legal restrictions on movement and freedom. And yet, the opportunities for education and employment that one might expect given the rainbow nation discourse have in reality not materialized, especially in rural areas. Thus, although the cultural resources for hope, optimism, equality, and success are provided through the rainbow nation discourse, the structural opportunities necessary to support individuals’ aspirations for the future are often lacking. Nonetheless the discourse is widely popular because it is psychologically linked to the success of the nation. South Africans are no longer legally limited by their race and may aspire to any goal they set for themselves. For instance, a study of Black South African adolescents’ occupational aspirations shortly after the end of apartheid found that three out of four young people aspired to high status occupations that required significant amounts of training (Watson et al. 1997). The authors argue that these students’ aspirations are unlikely to materialize because of a lack of structural support in opportunity and training (Watson et al. 1997). Thus, many South Africans buy into the popular cultural rhetoric of opportunity but end up having very little chance to achieve their goals because of the lack of opportunity.

### **Uncertainty about HIV**

There are countless aspects of HIV that are likely to produce uncertainty among individuals living in the midst of a generalized epidemic. For example, misinformation about the disease may produce uncertainty (Babrow, Hines and Kasch 2000). Given the context of South Africa where misinformation characterized the early years of the epidemic (Fassin 2007; Robins 2004) and where competing explanations and treatments for HIV are commonplace today (Kalichman and Simbayi

2004), uncertainty still surrounds the disease. Research has suggested there are several personal, social, and medical forms of uncertainty associated with HIV/AIDS (Brashers et al. 1999; Brashers et al. 1998). Individuals who have engaged in sexual behavior defined as “risky”, those who are characterized as members of a “risk group”, or those who know others who have died from AIDS may be particularly likely to experience uncertainty surrounding the disease (Brashers et al. 2000). Prior to diagnosis, this is likely to be expressed as uncertainty about the likelihood of infection or about the testing process, especially the accuracy and confidentiality of results (Brashers et al. 2000).

In high HIV contexts where most people may not be infected at any given point, the majority are likely to be living in a state of uncertainty about their current HIV status and the risk of future infection (Trinitapoli and Yeatman 2011). For young adults, this uncertainty often translates into a desire to increase the pace of childbearing, a tendency not apparent among those who are certain of their HIV status (positive or negative) (Trinitapoli and Yeatman 2011). Other research from Malawi suggests that the disease has played a role in reducing fertility desires among those affected by HIV; especially older and ever-married women and men (Yeatman 2009b). However, in the absence of test results – or when respondents are uncertain about their HIV status – the perception of whether one is HIV positive can also serve as an important predictor of the desire for future children (Yeatman 2009b). Thus, it is not only learning of one’s HIV status that has an influence on fertility preferences; the perception of one’s status in the face of uncertainty is also an important factor.

A few studies have investigated perceptions related to the relationship between HIV and childbearing among those living in the midst of the epidemic but who do not know their HIV status. The strongest finding from these qualitative studies is the belief that when individuals show symptoms of being HIV positive they should stop having children. Otherwise, study respondents generally do not evince strong feelings about childbearing in the context of HIV (Baylies 2000;

Grieser et al. 2001; Rutenberg, Biddlecom and Kaona 2000). Two more recent cross-national studies employing Demographic and Health Survey (DHS) data from around Africa have documented that living in a high HIV prevalence area does not have a significant effect on the fertility of HIV negative individuals (Fortson 2009; Juhn, Kalemlı-Ozcan and Turan 2009).

## **HIV Treatment**

The South African government was mandated to provide HIV treatment for all in 2003 (Steinberg 2008). However, debates about the effectiveness of ARVs and a campaign of misinformation by the South African government, most notably by Health Minister Manto Tshabalala-Msimang who famously urged HIV positive people to eat garlic and beetroot to counter the effect of AIDS (Miles 2005), have contributed to mistrust and delays in the provision and uptake of treatment in rural areas. Highly effective ARVs were rolled out at a private clinic in the rural area where this study is located in 2007 and became widely accessible at government-run clinics in 2010. Although available in a few 'pilot sites' as early as the late 1990s, PMTCT treatment was ordered to be rolled out in all public clinics in 2002 (Heywood 2003). Despite this, research from a rural area of the South African Eastern Cape documented barriers to accessing and successfully implementing PMTCT treatment, including lack of transportation, lack of water (necessary for baby formula), understaffing at local clinics, and inadequate staff training (Skinner et al. 2005).

Studies have found conflicting evidence on the effects of ARVs on fertility. Most research in this area has been conducted in the United States due to the relatively recent rollout of the drugs in high HIV prevalence settings such as South Africa (see Kaida et al. 2006 for a review). In the United States, Blair et al. (2004) found that HIV positive women were 20% more likely to become pregnant after the widespread introduction of ARVs. Conversely, Massad et al. (2004) found a decreased incidence of pregnancy among HIV positive women taking ARVs compared to those not using

treatment. A prospective study from Europe found no significant relationship between ARVs and fertility among the HIV positive (van Bentem et al. 2000). A study of fertility *desires* among women and men on ARVs in Uganda found a positive relationship for women (Maier et al. 2009). A South African study of men and women on ARVs found that 29% desired children in the future; men were significantly more likely to report wanting a child (Myer, Morroni and Rebe 2007). No studies investigating the relationship between ARVs and PMTCT *availability* and fertility desires have been conducted to date. This chapter begins to fill this gap.

## **CONTEXT**

Compared to the rest of sub-Saharan Africa, South Africa boasts a low rate of average fertility (Biddecom and Bakilana 2003; Garenne et al. 2007). Over the past few decades the South African total fertility rate has dropped from an average of 6 children per woman in 1969 to 2.7 children per woman (UNICEF 2009) but adolescent and nonmarital fertility remain high (Garenne et al. 2007; Gustafsson and Worku 2007; Kaufman, de Wet and Stadler 2001). Recent work suggests that fertility decline in South Africa has stalled (Bongaarts 2006; Moultrie et al. 2008). Some have attributed the fertility stall to the recent rollout of effective antiretroviral treatment and widespread access to PMTCT in South Africa (Moultrie et al. 2008). Treatment for HIV may have contributed to the stall in fertility decline by allowing HIV positive women and men to continue having children.

The HIV/AIDS epidemic has altered the reality of life in South Africa. The national adult (ages 15-49) prevalence rate is estimated at 17.8% (UNAIDS 2009). The prevalence rate in this study's area is as high as 50% among some age groups (Gómez-Olivé et al. 2013). Nationally, in 2007 there were approximately 5.7 million South Africans living with HIV and around 1,000 AIDS deaths each day (UNAIDS 2008). In total, an estimated 1.8 million people in South Africa have died of AIDS or AIDS-related causes since the epidemic began (UNAIDS 2008). Most national



epidemics have now begun to stabilize or decline (Bongaarts et al. 2008; UNAIDS 2008).

Unfortunately, the level at which the epidemic has stabilized is remarkably and unacceptably high (UNAIDS 2008).

Although the disease has spread to all sectors of South African society, there is still stigma against those who test positive and many associate HIV/AIDS with poverty (AVERTing HIV and AIDS 2009; Campbell et al. 2005). This has an inhibiting effect on the number of people willing to get tested and find out their results, and contributes to the defeatism and fatalism that drive up the risk of infection for women in South Africa and other developing nations (Diaz 2000; Mane and Aggleton 2000; Meyer-Weitz 2005; Paiva 2000; Preston-Whyte et al. 2000).

## **METHODS**

This chapter draws on data collected from women in the Agincourt Health and Demographic Surveillance System (AHDSS) site, located in rural Ehlanzeni District of Mpumalanga Province, South Africa. I began visiting this site in 2007, and have made five trips there in as many years. The bulk of the field work for this analysis was conducted from January-June 2010. This chapter draws on data from focus group discussions, interviews, observations, and discussions with key informants. The data in this chapter are drawn from a larger project in which interviews and focus groups were conducted with 85 women aged 18-79. The interview and focus group samples in this chapter are limited to women aged 18-35 because I am primarily interested here in young women's narratives about future childbearing, and none of the women older than 35 in the full sample reported wanting to have children in the future.

Focus group discussions and respondent interviews were conducted in the local language (*xiShangaan*) by two local, female field workers in their mid-30s trained in qualitative methods. Because I drove the field workers to the vast majority of the interviews, I was present as an observer

at most, although my fluency in *xiShangaan* is limited beyond basic greetings and common phrases. All interviews and focus group discussions were digitally audio-recorded and all respondents provided written informed consent prior to their participation in the study.

There were a total of 37 respondents aged 18-35, although some women were interviewed twice (as discussed in more detail below). There were a total of 19 focus group respondents. One focus group was conducted with 10 women aged 18-25 and one with nine women aged 26-35. Focus group participants were recruited from public spaces in the study site and came from a total of four villages selected for their representativeness of the AHDSS study site. Each focus group lasted approximately two and a half hours.

Interview respondents were randomly selected from the Agincourt census's 2009 complete household listing. To be eligible to be selected for interviews, women had to be aged 18 or above, have children, and be resident in the study site at the time of the 2009 census. Twelve women were selected in each of two age groups: 18-25 and 26-35. Of each 12, six women were randomly selected from the list for interviews. If a woman was unavailable to be interviewed or did not meet the age or motherhood criteria, we interviewed the next woman on the list. Additionally, six women without children aged 18-25 were randomly sampled from the AHDSS household listing in the same manner described above and three were randomly selected for interviews. Individual interviews were conducted with a total of 18 women: 10 women aged 18-25 and eight women aged 26-35. Five of these women did not have children (one was aged 26-35; the others were aged 25 and below). Interviews lasted approximately one and a half hours each and were conducted in two waves: nine women aged 18-25 and five women aged 26-35 were interviewed twice. Women who were not interviewed twice were replaced by other women in their age group, often because of temporary migration out of the study site. No one verbally refused participation. In all, 32 individual interviews comprise the analytic sample.

I also conducted observations and discussions with key informants over six months during 2010. The discussions were in English and a few of the more formal interviews with key informants were digitally recorded. Observations and informal discussions were conducted in and near the study villages in public spaces, such as in more “urban” areas with markets and shops; others were conducted in villages. Extensive field notes were taken following (or during when appropriate) each observation and conversation. The findings reported here are also informed by numerous discussions I had with local field workers, friends living in South Africa, and colleagues working in the study site.

Focus group transcripts were translated and typed by the field workers. Interview transcripts were translated and handwritten by the field workers and later typed in the United States. Data analysis was an important part of the data collection process. I read entire interview transcripts within two days of their completion and discussed them with the field workers to learn how respondents were reacting to questions, gauge the tone of the interviews, learn field workers’ interpretations of respondents’ comments, and gain additional information about cultural practices, beliefs, or phrases that did not translate well. After this process, I wrote unique follow-up questions for each respondent for the second wave of interviews. These conversations with field workers also helped inform the data collection process. For example, after it became clear that a few of the questions were not eliciting the types of responses that they were meant to (largely because of differences in translated meanings); I revised the questions and added new items for future interviews. In this way, although the interview guide was generally standardized across interviews, structuring the guide was an iterative process and questions evolved over time. Once in the United States, the interview transcripts were typed and entered into *NVivo* for more formal data analysis. Data were first coded by question and then by emergent themes. These emergent themes oriented

the qualitative analysis of interviews, focus groups, and field notes.<sup>21</sup>

## **RESULTS**

The section below is organized as follows. First, I describe women's aspirations for the future focusing on the aspects that they depict as in line with a "modern" life trajectory. Then I explore two overlapping explanations for the conspicuous absence of HIV in women's narratives about future childbearing: uncertainty about HIV status and the recent availability of highly effective treatment for HIV. I argue that because women express high levels of uncertainty about their current and future HIV status – despite the fact that many have tested negative for HIV in the past – they focus instead on their aspirations for obtaining a "modern" life trajectory. For most women, aspirations center on finding a job, gaining independence from their families, and financially supporting themselves and their children. For some, marriage is also seen as an important fixture in a modern future, although there is notable ambivalence about this particular aspiration. The availability of treatment for HIV serves to bolster women's confidence in the future projects to which they aspire. Women's narratives indicate that although they are still concerned about becoming infected with HIV, treatment provides reassurance that if they are infected in the future their plans need not be interrupted. Thus, their future projects may remain in place and they can continue striving to achieve their "modern" aspirations.

### **A Modern Life Trajectory**

Women define a desirable modern life trajectory as comprised of several steps: completing school, finding a good job, and establishing a household independent of their natal family.

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<sup>21</sup> Direct quotes have been minimally edited for clarity and any identifying information has been removed to preserve the confidentiality of respondents.

Importantly, respondents also describe these steps as critical for women to gain respect and status in their communities. This pathway is often pitted against the past where women's main routes to status and respect were through family background, marriage, and childbearing. However, views of modern women are complex and at times contradictory. Modern women's lives are simultaneously associated with education, wealth, and freedom as well as laziness, disrespect, and a higher risk of HIV because of their sexual behavior. The women in this study who aspire to be modern women are careful to note that they subscribe to some aspects of a modern life trajectory while at the same time distancing themselves from the undesirable traits others often associate with modern women.

The positive traits associated with being modern outweigh the negative for most young women in the sample. Modern women are depicted as having a limited number of children – usually two – for which they plan and budget. Marriage is uncommon, but when modern women do marry, they partner with “men of nowadays” or men who are “educated, have more money, and know things of nowadays compared to men of the past.” They believe in gender equality in the household, which is described as a policy of “50/50.” They eat modern food (full of fats and oils), buy “nice things like nice cars,” and build “beautiful houses where they are staying with their children” (21 year old mother). Most importantly, they are educated and have jobs and money.

Most women in this study will not achieve all of the goals they set forth because of the structural limitations that still exist in rural South Africa, including poverty, a lack of adequate schooling, and a lack of employment opportunities. And yet, these goals remain an important part of young women's narratives about future childbearing. These hopeful narratives are encouraged by the cultural resources provided by the rainbow nation discourse, which promises equality of opportunity in post-apartheid South Africa. Although rural South African women face substantial structural limitations to achieving their goals, they are encouraged to aspire to great heights by governmental rhetoric and the symbolic opening of *some* opportunities in education and employment.

Women's narratives about future childbearing center on their modern aspirations – the goals they hope to achieve before having a child – and fit within the framework provided by the rainbow nation discourse. These goals take prominence in women's narratives and overshadow their concerns about HIV infection, which they openly and frequently discussed during other parts of the interviews and focus groups. Yet, when women were not prompted about HIV in questions about fertility desires, they overwhelmingly left it out of their narratives about future childbearing projects. Instead, there are several characteristics of modern life trajectories that women focus on when asked about their fertility plans. The discussion below focuses on three of the most important: limiting the number of children; finding employment; and establishing an independent household, which for some includes getting married. These three factors are often intertwined in women's narratives about future fertility; thus, they are presented concurrently below.

Limiting the number of children is an important theme in women's narratives about future fertility because of the cost of children nowadays. As shown in Chapter 4, the majority of first births in Agincourt occur outside of marriage. Thus, women must be able to financially support their children, a fact that contributes to their desire to want relatively few. The following excerpt from an interview with a 22 year old mother demonstrates how women talk about the reasons they want to limit the number of children they would like to have. When asked about her biggest worry about having children nowadays, she said:

Okay, what worries me is that people are giving birth to more children meanwhile they are not working. Let me give you a good example. My mother is having seven children. My brother is not educated; the one who follows him is like him. So I mean the whole family is not educated. Why? It is the lack of money. Those who are having two children are those who are educated. They are also able to take care of their children. They are sending them to universities to get better education. That is why I don't want to have more children in my life.

This woman's comment highlights the societal belief that educated (i.e., modern) women have fewer children and consequently, that the children of these types of mothers have greater educational

opportunities. A cornerstone of this woman's thinking about how many children to have is that women with fewer children are able to expend the resources necessary to maintain them. Similarly, a 21 year old mother said: "It is difficult to take care of many children. They have got their needs and wants and I don't think it can be easy for me to give them all what they want. But I can try to [support] two children." The desire to limit the number of children is often framed in terms of the cost of educating children nowadays. For instance, a 24 year old mother said: "But if you know how expensive a child is, I don't think you will get many children. Nowadays is a time of school. You won't be able to send all of them at school." A 25 year old mother said she does not want more than two children because "I won't be able to take care of them." Likewise, a 24 year old childless woman said: "I want only two children. I want to be able to take care of them and also to be able to send them where they want to go for schooling. If they want to go to America to learn, why should I stop them as money is there for them?" A 22 year old mother discussed the difficulty of educating many children:

(Ok. What are the problems you might have by having more children?)

You won't be able to take care of them [children]. You won't fulfill their needs. If you buy for one, you have to buy for them all and if not so, they will start complaining. The problem is that people want to have more children meanwhile they are not working. That is why nowadays the government is giving us free education. After you are matriculated our parents think maybe you will get a job and work. They don't think about going to tertiary. So, when you have many children, they will all stay at home without any progress. Why? You didn't plan for them. But if they are two to three, you will be able to send them to school. It will be easy for you to plan and budget for them.

The plan to limit the number of children clearly aligns these young women's futures with a modern life trajectory that is defined by having a small family in which the children are well educated.

Several respondents emphasize finding employment as a vital part of their future aspirations.

A 27 year old mother said that she does not plan to have any more children because:

I can't support them as I'm not working. It's not easy to take care of a child if you are not working. I can't bear another child because it may happen to the government to cut off our grants [Child Support Grant]. What can I give that child to grow? There is nothing.

A 29 year old mother said that she does not want any more children but that, “Maybe if I can get a job, I can get one [child].” Another mother aged 29 with one child was unsure about whether she wanted more children. Interestingly, she first said this was because she does not like children, but followed by talking about the need for a job to support her children:

(Ok. I don’t remember well. In the past did you tell me that you plan to have more children?)

I told you that I don’t want children anymore.

(Why not?)

Ah, I don’t have a gift of loving children. Maybe if I can get one who would be a boy. But that one is enough. Maybe if I can get a job, I can get one.

(Ok. Why do you want two children or one?)

I want to be able to take care of them. I want to use the style of modern woman. If they [children] are many, I won’t be able to take care of them.

An 18 year old childless woman justified her desire for three or four children by focusing on how she would support them: “Because if I am working I will know that I’m working for them [my children]. I will buy things for my children. I will know what to do with my money.” These quotes all demonstrate the primacy of work and money in women’s future fertility projects. Indeed, many women said they would prefer not to have any more children unless they are working. This is notable in a context in which many elders still measure their status by the size of their surname (family).

A few respondents said they will only get future children if they are married. When asked if she wants more children, a 24 year old mother said, “If I’m married [I will have another child], but if I’m not married I don’t want a child.” A 25 year old mother agreed: “I want to have a child when I’m married, staying with my husband, not bothering my parents.” And yet, marriage rates are declining across all age groups in South Africa (Hosegood, McGrath and Moultrie 2009), making it



unlikely that these women will be able to postpone childbearing until after they are married. Indeed, a common cultural maxim I heard during field work was that attending funerals is now more common than attending weddings. Young women are aware of this fundamental change in marriage and many take it into account in their narratives, expressing ambivalence about marriage as a part of their future plans. For example, consider this exchange with a 27 year old mother:

(Okay, but do you plan to have more children?)

Hey, no. Or, maybe if I'm working and can find a good job. But if not so, this one [child] is okay. I can't get another child.

(What if your boyfriend can marry you?)

I can't. I don't want to rely on marriage but I want to take care of myself. I want to be independent by myself, having my own house, my own car. I want to die leaving my child in a good place.

This woman is intent on being financially independent before having another child rather than relying on a boyfriend who may or may not end up being a good husband. Other respondents agree that marriage is unreliable these days. For instance, a 29 year old childless woman expressed her uncertainty about marriage:

(Okay. In the past you told me that you want four children in your life...under what circumstances?)

By the time I will be working. I know I will be able to take care of them.

(What do you say about getting married?)

I can't predict because nowadays people who are working don't get married. They are going there and come back after. So if I can get a man who will pay lobola [bridewealth] first, after, we have a white wedding. I think that can be good. I'm willing to get married like that, but don't know what will happen in future.

Although this young woman aspires to have a "white wedding" and wants her future husband to abide by cultural norms and pay bridewealth for her, her narrative also underscores her uncertainty as to whether this is realistic. A 24 year old childless woman agreed that marriage is uncertain and ideally should not dictate when a woman has her children:

I will get children soon after I got my job. Though nowadays I can't trust a man because I wanted to get married first, but men change their mind anytime. Let me say after getting job and forget about getting married, I only want two children.

This respondent forgoes her initial desire to get married before having future children and settles in her narrative on having two children that she knows she will be able to support if she is employed “forgetting about getting married.”

Women's narratives about childbearing primarily focus on having a couple of children that they can financially support, which necessitates finding a good job and, for some, includes the prospect of getting married. Young women in this study talked much more about their future goals and what may be possible rather than what might complicate their plans, such as finding out they are HIV positive. Why might this be the case in a setting where people attend more funerals than weddings? In the sections below, I offer two possibilities. First, women choose to focus on their hopes and aspirations for the future because of the high level of uncertainty surrounding HIV infection. Second, the availability of ARVs allows women to focus on these largely implausible future projects because even if they are infected in the future they will have access to life-saving treatment.

### **Uncertainty about HIV**

Just as there is vast uncertainty about having children and getting married in women's narratives, there is also a great deal of uncertainty about HIV. Expressions of uncertainty take two main forms. First, many young women are uncertain about whether they are currently infected with HIV. Even those who report regularly seeking HIV testing express uncertainty about their status and often say that testing had not stilled the fear that they are currently infected. I did not ask respondents outright if they were currently infected with HIV but everyone was asked about testing and most women disclosed their HIV status (if they knew it). Of the ten women who reported

testing in the past, one woman was HIV positive, eight were negative, and one did not reveal her status. The remaining eight women said they had never been tested for HIV. Virtually all of the women who had been tested did so during pregnancy, which for several women was more than one year ago. This suggests that over half of the current interview sample may be uncertain about their HIV status.

The second form of uncertainty about HIV is expressed via worry about future infection. This type of uncertainty is particularly common in women's narratives. Both expressions of uncertainty revolve around suspicions about a partner's sexual behavior and faithfulness. I describe each of these narratives of uncertainty in turn below.

#### *Uncertainty about Current Infection*

Many women express uncertainty about their current HIV status. This is especially common among those who have not been tested for HIV but it is not limited to this group. When asked about the likelihood of current HIV infection, a 29 year old woman said: "I can be infected. I don't know. It's like the other lady I know, she is my friend and she did blood test and find that she is positive." This respondent's friend testing positive may have contributed to her hesitation to test. At the same time, we might expect this woman to want to decrease her uncertainty about her own HIV status, given her friend's positive diagnosis. A 25 year old woman who did not report testing for HIV said: "I was not afraid [of testing positive] in the past but now I am afraid." A 29 year old woman who did not test during pregnancy and was not worried about being infected at that time said that was because: "I have seen all my friends who started to sleep with guys, they were not ill. I thought maybe I will be like them." Virtually all of the women who had a child within the past few years reported that they had been tested for HIV during their pregnancy. However, women in their late 20s or early 30s who may not have had a child for several years were more likely to report that

they had not been tested for HIV. This indicates that testing during pregnancy provides women a valuable sense of certainty about their HIV status since they may not seek regular testing when they are not attending antenatal clinics.

Women's uncertainty about their HIV status was often blamed on their partner's sexual behavior and possible infidelity. The 19 year old respondent quoted below said she did not *think* she was currently infected (although she did not report being tested). However, when prompted about her level of worry about being infected with HIV, she linked being worried with concerns about her boyfriend's behavior:

(Are you worried about becoming infected with HIV/AIDS?)

*Aah*...I am worried because sometimes when thinking I do feel that I can be infected one day.

(How worried are you?)

*Aah*...I'm not very worried, but there are times when I think about it. I feel stressed that I can be infected.

(How does this affect your life?)

Sometimes when I think about it, I don't feel free when I'm with my boyfriend. I don't know how his behavior is when we are not together. I do think that maybe he already has HIV and I end up having the illness too.

The perceived trustworthiness of a partner is often used to gauge the risk of infection. This 24 year old respondent reported trusting her partner but remained worried about HIV:

(How likely do you think that you are infected right now?)

I don't know, but my heart is broken. Always I'm talking about this when he [my boyfriend] is demanding sex from me. But it seems as if he is also concerned about this illness. He told me that since he came here to teach, he was looking for a girl who knows what she is doing. He wanted a girl with focus and future goals. It was for two years; still he approached me. Later he told my sister that he doesn't want to play with me, but he wants to marry me. So, I trusted him. But I will go with him to do blood test like we agreed to each other.

This woman eventually began to trust her boyfriend because he claimed to be serious about the relationship. And yet, she and her partner have not yet tested for HIV, despite her worries about

being infected. Planning to test with a sexual partner is a common aspect of women's narratives about the future; however, many women reported that in reality this rarely happens. The following exchange occurred between a 24 year old woman and her sister:

R1: Nowadays you can't trust a man. That was in the past and not now. Even if you are sleeping with your man everyday on one bed in the same room; but he is not faithful. Like me, my man is at [a nearby village]. I can go there every day. I don't know what he is doing now. So if I want to trust him, I will die alone. Many people are infected.

R2: Even if they are ill, men don't believe.

R1: It's really. Like when coming to blood test, those who are testing a lot are women [more] than men. If you can tell your boyfriend to go and test, he will ask whether you have tested before. If you can say yes, or go alone, he will not go there. He will say as you tested negative, it means he is also negative. Just like that, they don't want to test. When coming to the issues of HIV/AIDS, women have a better understanding than men. Men are always cruel.

Just like the women in this study who have not been tested for HIV, men may also resist testing for a variety of reasons. Even with the best intentions, testing with a partner is not necessarily as simple as it is made out to be by popular media and public health campaigns.

The lack of testing and concerns about partner infidelity contribute to women's uncertainty about their current HIV infection. This is especially the case for women who have not been tested for HIV or whose most recent test is long passed. Uncertainty about future HIV infection is much more rampant among young women in this study.

### *Uncertainty about Future Infection*

Uncertainty about future HIV infection is even more common than uncertainty about current infection. Because all the women in this study are living in the midst of a generalized HIV epidemic, they are in many ways unable to control their exposure to the virus. For example, even if they are faithful to their partners, there is no guarantee that their partners are monogamous.

Additionally, this sample is comprised of young women, a group with an HIV prevalence rate of

more than 25% in Agincourt (Gómez-Olivé et al. 2013). Finally, because these women are young (and especially because they want to have children in the future), they potentially have several decades left of life during which to contract HIV. Indeed, HIV prevalence rates in Agincourt show that by the end of the reproductive years, almost half of all women are currently infected (Gómez-Olivé et al. 2013).

Many women express uncertainty about their future HIV status. For example, when asked how likely it is that she will be infected with HIV this year, a 19 year old respondent said: “I don’t think there is a year, but I think anytime it can happen.” Another woman aged 29 said: “I don’t know, maybe when time goes on.” Similarly, a 27 year old woman said: “I don’t know, maybe. But I can’t predict for the future, as I can say no but meanwhile I can be infected...” Below, a 24 year old woman discussed both her concerns about HIV infection as well as her strategies for the future:

(Are you worried about becoming infected with HIV/AIDS?)

Yes, I’m very worried. I don’t want to be infected in my life, really.

(How does this affect you?)

I’m thinking a lot about this. Sometimes I always think about that. Now I don’t have a boyfriend, but I still ask myself what type of a man am I going to get? Sometimes he will be HIV positive, though I want us to test first, but I’m scared. I can’t stay alone because I’m still young. This is troubling me. Also I want to stay alone but because relationships started at the Garden of Eden, I don’t know what to do. But for the first time, I will use a condom. I will stop after.

(Why would you stop using a condom?)

If I know my man for a long time. Again, if I want to get a child...

This respondent’s narrative highlights two main points, which I discuss further in the paragraphs below. First, trust in a partner (or lack thereof) is a common aspect of women’s uncertainty about future infection. Second, having a child puts women at risk because it requires having unprotected sex.

Similar to uncertainty about current infection, a major factor in most respondents’

uncertainty about future infection is their level of trust in their partner and concerns about faithfulness. Every woman in the sample said that having multiple sexual partners is a common feature of intimate relationships. I also found this extremely common during my fieldwork: Women and men alike often talked about the permissibility of having sexual partners outside of their main relationship. Hence, sexually active women must contend with the reality that their sexual network is larger than they can control, which potentially increases their exposure to HIV (Thornton 2008).

When asked whether she thinks she will be infected within a year, a 27 year old woman said:

I can't say yes or no. But as from now, I told myself to use a condom during sex. I told my fiancée that I don't trust him as he went back to [a different] province. I don't know what type of life he is living there. I'm afraid to die. My heart can be painful if I'm HIV positive.

With high levels of distrust in relationships, condoms become the best strategy for protection from future HIV infection. However, infidelity is not only an issue with men; women also admit that they have outside partners. When asked how she will protect herself from infection in the future, a 30 year old woman said: "I have a plan to use a condom when I have sex with my husband. And we have told ourselves to be faithful to each other, but anything can happen. There are a lot of temptations outside." Women who know their partners have outside relationships describe condoms as essential. A 21 year old respondent whose partner is unfaithful said:

(How likely do you think it is that you will be infected this year?)

I don't think so. I will continue with condoms until my husband starts to live a better life. I mean, stop cheating, go to test and after finding he is negative, maybe I can stop using condoms. But I don't think so.

(What if he is positive?)

There is no other way. I can leave him. I will find someone and use condoms for the whole of my life.

Although virtually all women said condoms are the main way they can protect themselves in the future, several admitted that enforcing condoms with partners is not so simple. When asked how she will protect herself from HIV in the future, a 29 year old mother said: "I will use condoms but

it's just that our husbands are very tough. They will not agree to use condoms. Even when they give us condoms free at the clinic we are afraid even to say it." The comments below from a 24 year old woman show how using condoms can be complicated by circumstances:

(How likely do you think you will be infected with HIV this year?)

I'm fighting. I will be fighting. That's why I have one boyfriend whom I trust so much. Since last year, I have done my research. He is staying with our pastor. Most of his time, he is at home. That's why from now I don't want to do the same mistake of not condomizing. But I didn't make myself. It was the condition.

(Condition of what?)

I mean condition of natural things. I stayed for a long time and also he stayed for a long time.

(Conditions will remain like that, *sesi* [sister].)

*Hii*, I can be worried. You know I took care of myself so that everyone was seeing that. I know lot of women who are prostitutes, but what about me? I can cry really.

This woman noted that she and her partner do not use condoms because neither of them has been sexually active for a long time. Yet, she also said that this is a mistake and that she plans to use condoms in the future. She then uses her mistake to underscore how she is different from the "prostitutes" because she has taken care of herself and behaved responsibly up to now. Although women may have intentions to use condoms every time they have sex, this is often complicated by other circumstances, such as a partner's unwillingness, lack of preparation, or simply not thinking about it in the moment.

The second important point raised above relates to the risk of having children in the context of HIV. Having children requires having unprotected sex, which potentially puts women at risk for HIV. A 19 year old respondent said that she would use condoms to protect herself, but when it comes to having children: "*Aab*...on that I can take a risk if I want a child." A 30 year old woman who said she was "very worried" about being infected discussed the effects this has on her life and indicated a possible increase in fertility tempo to try to have a child before being infected:



It affects me very much because I just got married and still want to have children. I believe God will help us with my husband not to be affected until we have children. We were tested before marriage and two weeks back we tested again because we want to have a child. We are still in good condition because we are negative. I think we will bear a child soon before we get infected.

This risk is also highlighted in the exchange below with a 24 year old childless woman, who was stigmatized by her peers because she does not yet have children. When asked about the importance of motherhood, she said:

Nowadays it means nothing. I think you are like everyone. People are having their own children. The problem is if you are not having any child. People are treating you in a different way, though they are not telling you. They will say you did abortions before. I think people are influencing a lot, particularly young women. Like with me, they are saying: 'You don't want to get a child even now. Look at our own [children], they are grown up and we are sending them to the shops to buy bread.'

(How do you feel about the way they are talking?)

I'm telling them that it was their time. With me, I have plans. So, they are saying that I will get a child who is HIV positive.

(Why do they say like that?)

They are saying I'm late. The children who are born nowadays are HIV positive.

High levels of uncertainty about current and future HIV infection encourage many women in this study to engage in strategies to protect themselves. Uncertainty about current infection is often prompted by a lack of testing and by perceived unfaithfulness of sexual partners. The fact is that HIV testing only captures one's status at any given point in time. This leaves many women uncertain about their status – especially if they have a new partner or untrustworthy partners – as their most recent test recedes further into the past. This results in fairly substantial windows of time during which individuals are uncertain about their HIV status, although they may have suspicions.

If women are uncertain about their current HIV status and unable to plan for a future HIV infection, it is unlikely that they will develop future projects based on unknowns about their HIV status. In other words, because the risk of HIV infection is high for women in this age group, it may

be that it makes more sense for young women to develop contingency plans for testing positive so that they can continue with their future fertility plans despite an HIV positive diagnosis. This is, in fact, what many women do. The recent accessibility of PMTCT and ARVs in this area frees many women from having to plan for a future infection because they know that they will have access to these potentially life-saving drugs. Treatment is crucial in allaying the fears of future infection because it enables HIV positive women to have HIV negative children and, in all likelihood, to live longer lives themselves. Thus, when considering how many children they would like to have in the future, women do not need to plan for whether they are infected with HIV because there is in essence a contingency plan in place. Therefore, women allow themselves to develop future fertility projects that ignore the possibility of infection and instead focus on their hopes and aspirations for a modern future trajectory. The following section delves into women's narratives about treatment.

## **Treatment**

Although HIV serves as the backdrop to life in Agincourt, the recent availability of effective treatment has altered this context. Most respondents said they know people who are taking treatment, feeling healthy, and living longer. The high prevalence of HIV in Agincourt essentially means that everyone knows others who are infected (whether those people disclose their status or not) and many know those who have died from AIDS (even though it is rarely disclosed as the cause of death at funerals). Although most women said they are worried about being infected in the future, the availability of treatment seems to mediate these concerns. Thus, women describe a backup plan in which they will accept their status and start treatment if they test positive, and this is usually depicted as a simple and straightforward process. A young woman aged 22 said: "Even if I can be infected, I would not worry as everybody now is having this illness. I would accept that and use my treatment so that I live longer." Similarly, a woman aged 29 highlighted how treatment has mediated

her fears about future infection: “I’m not that much worried as there is treatment. I will use it for the rest of my life. I will die later.” When asked what she will do if she finds out she is HIV positive, another 29 year old said: “I won’t do anything. I will accept it because I know that those illnesses are no longer scaring people. Like when it started they were scaring a lot of people. Now I will accept it. And there are people in our community who are HIV positive. I will accept it and take treatment.”

Although most of the young women demonstrated accurate knowledge about the types of treatment available and the necessary steps to have an HIV negative baby, the majority said that if they find out they are HIV positive, they will not have another child. Many women were afraid that having a child while HIV positive would impact their own health. A 21 year old woman put it simply: “If I found out I’m HIV positive, I can continue with my treatment. I can’t have a child. I don’t want to die.” Similarly, a 29 year old woman said: “I won’t bear children because I know that I am sick. I am not well.”

This opinion held in terms of other women as well. Respondents were asked whether HIV positive women should have a child and most offered responses similar to those above. For example, a 27 year old woman said that HIV positive people should not have children and offered the following reasoning: “It’s because she is ill. She must also tell herself that she won’t be able to push the baby as more strength is needed and she is weak. She must also be afraid to die after losing more blood.” Similarly a 29 year old woman said:

She must not have another child because when she has lost a lot of blood it affects her. If she had that pregnancy she must not get another one because if she bears a first child and loses blood it affects her inside. When she gets another child and loses another blood she will become worse.

An important caveat mentioned above was common in many women’s narratives about HIV positive childbearing: If a woman does not have a child, she can have one while HIV positive. However, if a woman has at least one child, she should not have more children after she tests positive. A 33 year old woman commented on this distinction:

As I have said, if she wants a child when she doesn't have a child at all, she can have one. Like myself, I am done in childbearing. Even if I can get sick I don't mind, but when a person has a child why should she have another child while she realized that it will be difficult?

A 30 year old woman agreed:

If she doesn't have a child at all, I will tell her to have one. As long she is taking her treatment and eating healthy food. She must also know her immune system, if it allows her to have a child. When she already has a child, I will tell her not to have another child because when you bear a child you lose lot of blood and make your immune system to be low. It is not that easy to recover. You have to be strong.

These results indicate that respondents' feelings about future fertility are affected by HIV status in that many women agree that if they or another woman with children becomes infected with HIV, they should cease childbearing. Thus, future fertility projects that are devoid of mentions of HIV are dependent on uncertainty about HIV. It is precisely because these women do not know whether they will be infected in the future that they can construct future projects that focus on a modern life trajectory and all it entails, including having children. If women are certain about their HIV status – or focus on their risk of HIV rather than on hopeful goals – it would be impossible to envision a future free from the disease.

The availability of HIV treatment has changed the context of uncertainty in that although women may be unsure about whether they will be infected in the future, they can now feel confident that they will have access to treatment to prolong their lives. In a sense, these narratives indicate that antiretroviral treatment may serve as a form of mental insurance (or assurance) against infection. Although women may not plan for a possible future HIV infection; the contingency plan of accepting your status and starting treatment means that women do not need to consider their potential future HIV status when planning for their futures.

## **DISCUSSION**

HIV is conspicuously absent from young women's narratives about their future childbearing

projects. Do young South African women not think HIV is relevant to their futures? This chapter has clearly shown that HIV *is* important to women's lives and in many ways is linked to future childbearing. Many of the same women who left HIV out of their future childbearing projects were uncertain about their current HIV status and worried about being infected in the future. Yet, HIV was not a part of their future plans, which focused instead on aspirations to be "modern." Uncertainty about HIV infection related to partner infidelity, and a lack of HIV testing contributed to the exclusion of HIV from women's narratives. Additionally, because ARVs are now widely available, women felt they could rely on the contingency plan they set forth in the case of a positive diagnosis – accept HIV status and begin treatment – and planned for future children as if HIV did not exist and was not a threat to their futures.

I argue that this absence is due in large part to the uncertainty surrounding the disease in rural South Africa today. Because young women could not accurately anticipate whether they will be infected with HIV in the future they focused instead on factors that fit within their visions of themselves as "modern" women. Thus, when asked about future childbearing projects, women focused on the goals they hope to achieve rather than roadblocks that might be derail their future plans, such as an HIV infection. The main factors women focused on were having two children that they would be able to economically support, finding viable employment, and establishing an independent household.

Uncertainty about HIV allowed women to construct futures free from the disease in a way that certainty about their current HIV status might not allow. Previous research from Malawi demonstrated how reluctance to test for HIV was related to an overestimation of the transmissibility of HIV and therefore, the odds of infection (Kaler and Watkins 2010). Women in this study were also reluctant to undergo HIV testing, resulting in long periods of time where they were uncertain about their HIV status. If women had information about their HIV status, they would not be able to

construct futures based on their desires and goals, rather their futures would necessarily include taking treatment and confronting their illness and possible early death. Thus, failing to test for HIV is in some ways functional for women in terms of their future projects. By maintaining uncertainty about their HIV status, women were able to view their futures as full of promise rather than inhibited by illness.

These goals are encouraged by cultural rhetoric that emphasizes the ways in which South Africa has developed and changed since the end of apartheid. Moreover, women's aspirations fit neatly within the cultural narrative of a new rainbow nation that is built on freedom, equal opportunity, and optimism about the future. Cultural resources are in place to support women's hopeful aspirations for modern life trajectories while structural resources are generally unavailable. Rural South Africa has an extremely high unemployment rate (Statistics South Africa 2008; Klasen and Woolard 2008); school quality is poor (Department of Education 2004; Hoadley 2007) and may not provide the necessary tools for employment; and poverty is endemic among African South Africans (Barnes et al. 2009; Noble 2006; Wright and Noble 2009). Therefore, the reality is that most of the women in this study are unlikely to achieve the goals they have set forth.

Sociological research on future projects suggests that young South African women should engage in behaviors that embody the identity they project into the future – that of “modern” women (e.g., Frye 2012; Mische 2009). Therefore, young women who aspire to be “modern” should be taking appropriate steps, such as finishing school, finding a good job, and moving out of their natal households. However, many women in this study are not able to enact these future aspirations. Completing these steps has been complicated for many women because of an unintended pregnancy. Of the 18 women included in this chapter, four are currently in school<sup>22</sup> (22%); six have

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<sup>22</sup> Three of these women are childless and the other one is currently attending adult education (ABET) courses.

completed secondary school (33%); and only one woman is working, married, and living away from her natal home<sup>23</sup> (5%). Although one woman was currently working, all other women in the sample were dissatisfied about their current situation because they were unable to find work. This was especially common among the women who had completed secondary and post-secondary education (three women; 16% of sample). Furthermore, moving away from home requires being able to support yourself and your children, which in turn depends on having a job and/or a partner with a job. Marriage is often not viewed as a necessary part of a modern future, but having a job certainly is. Thus, women's attainment of their goals is hampered by the structural lack of job opportunities in rural Agincourt. In other words, young women are unable to embody the identity they project into the future because of a lack of structural support. This finding suggests that scholars who have theorized modern futures (e.g., Emirbayer and Mische 1998; Frye 2012; Mische 2009) should take into account the structural supports necessary for inhabiting a current identity that supports attainment of an individual's future goals. In this case, the lack of employment opportunities limits young South African women's ability to alter their behavior to fit with the futures they envision for themselves, although their aspirations and future projects have sparked a shift in their thinking about the future.

A modern life trajectory as outlined in this study also depends on a future free from HIV. To attain this goal, women who aspire to be modern should be taking steps to protect themselves from infection such as sticking with one partner and/or consistently using condoms. Yet, the evidence from this chapter shows that this is not the case. None of the women reported consistent condom use and several were concerned about their HIV status now and in the future precisely because of their doubts about their partner's faithfulness. Thus, even if the women themselves were monogamous, their sexual network was expanded because of their partner's behavior. I have argued

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<sup>23</sup> This woman is childless.

that this disconnect between women's future projects and their current behavior is related to the availability of ARVs, which allow infected women to continue on with their plans – at least mentally, if not physically – despite their diagnosis. In terms of theorizing future projects, this argument calls for an expansion of our understanding of the ways in which aspirations and future projects relate to current behavior. This chapter shows that future projects need not affect present behavior in the ways we might expect but aspirations for better futures may nonetheless remain in place.

This study offers several contributions. First, this study enhances our understanding of women's future aspirations in a resource-poor setting in rural South Africa. Cultural resources for lofty aspirations are in place through the rainbow nation discourse and yet, we continue to see a lack of structural support for achieving the goals that society encourages. These findings thus serve as a critique of the economic development that has failed to materialize 18 years after democracy was established and vast improvements were promised. Recent events in South Africa, such as large-scale labor strikes and xenophobic violence against immigrant workers (Smith 2013; Taylor 2012), confirm that the populace's faith in the cultural rhetoric of freedom, equality, and success for all is beginning to crumble. These findings suggest that women continue to buy into the cultural rhetoric despite their frustration at the lack of opportunities; however, it remains to be seen how long this will continue.

This study also provides nuance to the literature on uncertainty related to HIV. Women expressed high levels of uncertainty about their HIV status now and in the future, despite widespread availability of HIV testing and recent access to antiretroviral treatment in Agincourt. Importantly, women who had not recently had a child were more likely to report that they had never been tested for HIV or had not been tested for several years. And yet, uncertainty was not limited to these women, but was present among the majority of the sample. Along with a lack of recent testing, uncertainty related to HIV status often centered on concerns about a partner's faithfulness. These



findings indicate that increased efforts are needed to improve rural women's contact with health centers and HIV testing and treatment services. Early diagnosis of HIV is related to better health outcomes (Carpenter et al. 1998). Therefore, encouraging women in this setting to test regularly as well as to consistently use condoms will both increase their confidence in their negative HIV status as well as to protect themselves from future infection. Additionally, regular testing will increase the chances of identifying infections early so that women are able to access treatment before it is too late. One side effect of regular testing is that some women will no longer be able to construct futures free from the disease; however, the benefits of knowing your status undoubtedly trump the challenges of developing new future projects. Furthermore, HIV positive women can have HIV negative babies so a positive test result does not necessarily preclude future childbearing (or anything else for that matter).

This study has some limitations. First, the sample is small and focused on young women. Examining these issues among men is critically important because we still know little about how men navigate family formation in the context of HIV. The women who were best able to successfully work toward their future aspirations were young, childless women in school. Thus, because the current sample is largely comprised of slightly older women who have already left school and had nonmarital births, it is likely that the results differ from what we might find among more educated or wealthier women. However, the sample is representative of young women living in Agincourt; therefore, the results likely reflect the reality in the AHDSS study site. Second, the data are cross-sectional, which does not allow for examining whether women are able to more successfully move toward their future aspirations and childbearing projects. Re-interviewing these women in five or ten years would provide a wealth of data on whether the findings from this study reflect long term reality. Additionally, since ARVs have only been available for a few years, longitudinal data would allow for a more thorough investigation of HIV uncertainty and how it

might change in the context of widespread treatment access and use.

This chapter calls for scholars studying future projects to more thoughtfully consider how structural resources and constraints affect individuals' abilities to successfully create present identities that correspond with future desires. It also provides new information about young South African women's lives in the context of HIV and how they are able to maintain positive, hopeful future projects in a setting characterized by disadvantage and risk. Rather than focus on the negative consequences HIV has brought, this chapter encourages sociologists to think about the ways people construct positive visions of the future, even when they are at risk. This chapter also calls for the South African government to fulfill its promises to its country's population by expanding economic development, improving education, and providing jobs in rural areas. Young women in rural South Africa have bought into the cultural rhetoric about success but they need opportunities to be successful in order to even attempt to achieve their goals and embody the selves they see in the future.

## CHAPTER 7: THE SHIFT TO “MODERN” FERTILITY PREFERENCES

This chapter examines the forces motivating young women’s desires for a “modern” life trajectory (introduced in Chapter 6), especially the preference to limit the number of children. Fertility preferences in South Africa have evolved in tandem with post-apartheid societal changes. The desire for a modern life trajectory, defined in part by having only two children, stands in contrast to older women’s non-numerical fertility preferences for having as many children as God will provide. This chapter examines the reasons behind shifts in fertility preferences among women in rural South Africa, positioning the changes within broader macro-level societal changes that are known to influence childbearing norms and behaviors. This multi-level analysis draws on new insights about processes of family change offered by the Theory of Conjunctural Action (TCA) (Johnson-Hanks et al. 2012). This theory provides a useful framework for thinking about the ways in which micro- and macro-level societal changes work together to mutually influence fertility preferences and behaviors.

This chapter offers several contributions to the literature on fertility preferences in sub-Saharan Africa. First, this analysis is situated in South Africa, a unique context in which to examine fertility desires because of the combination of low fertility, high mortality (due to AIDS), and the myriad structural changes, such as expansions in education, widespread access to contraception, and the establishment of gender equality after the end of apartheid in 1994. Many studies of fertility preferences have been conducted in sub-Saharan African countries where fertility levels are higher and AIDS mortality is lower than in South Africa (e.g., Bankole 1995; Kodzi, Casterline and Aglobitse 2010; Sennott and Yeatman 2012; Short and Kiros 2002). Several recent studies of fertility preferences in South Africa have focused on the desires of HIV positive individuals (e.g., Cooper et

al. 2007; Laher et al. 2009; Myer, Morroni and Rebe 2007; Peltzer, Chao and Dana 2009).<sup>24</sup> The current chapter broadens the focus to examine shifts in fertility desires among women living in a generalized AIDS epidemic who are not necessarily HIV positive. Thus, this chapter contributes to our understanding of fertility preferences – and how they have changed – in the context of HIV while also considering other factors relevant to post-apartheid South Africa that have affected everyone regardless of HIV status.

Second, by including retrospective data from older women who have finished childbearing, this chapter provides information about changes in fertility preferences over time. No studies to date have analyzed generational shifts in fertility preferences in South Africa.

Finally, this study contributes to the literature by utilizing a new theoretical framework, the Theory of Conjunctural Action (Johnson-Hanks et al. 2012), to explain the factors shaping fertility preferences in post-apartheid South Africa. This theoretical framework is ideal for the current analysis because it allows for an examination of factors affecting family change at multiple levels of society. Additionally, it provides a useful vocabulary of concepts (*schemas*, *materials*, and *structures*) to describe the factors that influence change. Fertility preferences are necessarily situated within women's individual life courses, the institutions and social structures that permeate their lives, and social norms related to childbearing. The Theory of Conjunctural Action allows for examining how these many layers of influence work together to spur the creation of new fertility preferences that, in this context, correspond with a modern life trajectory.

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<sup>24</sup> The article by Peltzer and colleagues (2009) compares fertility desires among HIV positive and negative individuals receiving PMTCT counseling; however, the focus is on HIV positive individuals and how they are different from those who are HIV negative.

## **LITERATURE REVIEW**

This section reviews literature on the relationships between changes in fertility and marriage, education, social norms, and women's empowerment. These factors represent micro-, meso-, and macro-level forces that work together to influence changes in fertility preferences and behavior. These are certainly not the only factors that affect fertility change; however, as will be shown below, they are important in the South African context.

### **Marriage & Fertility**

Marriage patterns are shifting in the post-apartheid context. Traditionally, marriage has been closely tied to childbearing because of its centrality to life as the context for family formation for most individuals (Mturi, Xaba and Sekokotla 2005). However, a recent study of marriage patterns in KwaZulu-Natal found that South Africans are now marrying later than any of their sub-Saharan African neighbors (Hosegood, McGrath and Moultrie 2009). As marriage rates have declined across the world, many young women and men have disassociated marriage from childbearing (Rindfuss 1991). The postponement of marriage in South Africa has been accompanied by relatively high rates of nonmarital childbearing (Moultrie and Timaeus 2001). Unmarried mothers in rural South Africa often attempt to establish connections with their child's father to gain economic support for the child (Madhavan 2010; Madhavan, Harrison and Sennott 2013). Financial support from a child's father can help to ease the economic shock of an unplanned nonmarital pregnancy (Madhavan 2010; Preston-Whyte and Zondi 1992); however, young men often "refuse" pregnancies in Agincourt (Madhavan, Harrison and Sennott 2013), which results in considerable economic strain on young women's natal households. Thus, it is likely that the decoupling of marriage and childbearing has had a depressing effect on fertility among young South African women.

## **Social Norms & Fertility**

Social norms, defined as group-level expectations for appropriate behavior, serve as important regulators of behavior (Settersten 2003). Norms about family formation have been changing in societies across the globe (Agadjanian 2001; National Research Council and Institute of Medicine 2005; Rindfuss 1991; Shanahan 2000). Societal changes like economic development, urbanization, and shifts in family structure norms have complicated women's views and experiences of childbearing (Agadjanian 2001). Couples are implicitly, and oftentimes explicitly, encouraged to limit their family size because of the economic constraints that accompany modern urban life, including the mass schooling of children (Lloyd, Kaufman and Hewett 2000). Thus, many couples today choose to "trade" larger families for smaller families in which they have more resources to devote to each child (the quantity – quality hypothesis) (Becker and Lewis 1974; Caldwell 1980; Lloyd, Kaufman and Hewett 2000).

Social networks are vehicles for fertility change as societies industrialize and modernize (Bongaarts and Watkins 1996). There is compelling evidence that individuals adjust their fertility behavior in response to changes in the behavior of their peers, especially as modernization, industrialization, and urbanization occur and help to displace traditional fertility norms (Bongaarts and Watkins 1996). Women in sub-Saharan Africa commonly exchange ideas about contraceptive use, fertility preferences, and official family planning programs (Agadjanian 2001). These exchanges help to legitimize contraception and encourage women to use methods best suited to their own needs (Agadjanian 2001). Women are introduced to new (often Western) contraceptive methods and fertility preferences through their social networks and by observing the changes in fertility behaviors from those in the upper echelons of society (Bongaarts and Watkins 1996). Women also observe their neighbors' fertility behaviors to see if contraceptive use is prevalent; these types of informal

interactions influence couples' decisions to use contraceptives as they determine whether such use is socially acceptable (Agadjanian 2001; Bongaarts and Watkins 1996).

Effective contraceptive use is strongly associated with reductions in fertility. South Africa introduced a comprehensive population policy in 1998 that expanded access to modern contraceptives (Cooper et al. 2004). Unmarried women are likely candidates for effective contraception because they may want to limit their fertility. Indeed, one study from South Africa found that unmarried women are more likely to use effective methods of contraception to limit births compared to married women (Chimere-Dan 1996). However, other studies have reported that young unmarried women in South Africa struggle to access effective contraception, often due to prejudices from nurses and other health providers (Ehlers 2003; Garenne et al. 2001; Wood and Jewkes 2006). Thus, even if the structures and ideologies supporting contraceptive use are in place, women may still face challenges in limiting their fertility through these means.

### **Education & Fertility**

There is a strong inverse association between women's education and their fertility (Weinberger 1987). Educational attainment in South Africa is highly valued and associated with better employment opportunities, more desirable marriage partners, and older ages at first marriage and first birth (National Research Council and Institute of Medicine 2005; Madhavan and Thomas 2005; Preston-Whyte and Zondi 1992). Education also increases the costs associated with schooling children, which reduces ideal family size because of new economic pressures (Caldwell 1980; Lloyd, Kaufman and Hewett 2000). Significantly, educational attainment is an important component of women's empowerment, yet education alone does not automatically or necessarily translate into increased empowerment or lower fertility (Barroso and Jacobson 2000). Thus, education tends to reduce fertility and fertility preferences through a variety of mechanisms.

## **Women's Empowerment & Fertility**

There is considerable evidence that empowering women leads to decreases in fertility and that advances in women's freedom are closely connected with improvements in their well-being and agency (Sen 1999). When women have greater status and power in society and are politically free to make choices about their fertility, reductions in family size usually follow (Sen 1999). Extending rights to women both benefits them and is a powerful force for reproductive change. Where women lack political and social power in society, we often also find higher fertility, limited access to reproductive health care and abortion services, traditional cultural practices that harm women and problematize childbearing, and in some places sex-selective abortion that reduces the number of girls in a society (Goldberg 2009; Sen 1999). Women benefit when social norms about family planning and family size evolve, even when reductions in fertility do not necessarily translate into broader changes in women's empowerment (Barroso and Jacobson 2000).

## **Schemas, Materials, & Structures**

This chapter utilizes the Theory of Conjunctural Action (TCA) constructed by Johnson-Hanks and colleagues (2012). These scholars propose that the theory may serve as an alternative framework for producing more accurate explanations of the fertility transition (and changes in family forms) in both developed and developing countries. Although it draws on many existing explanations of fertility transition – such as the importance of economics, ideologies, social networks, and access to contraception – it is unique in its attention to the interplay of these factors at multiple levels of analysis. In relation to the current study, the TCA is comprised of three main concepts that can be used to better understand family change: *schemas*, *materials*, and *structures* (Johnson-Hanks et al. 2012).



The TCA provides a useful set of concepts for understanding the multiple societal levels that influence change. An important *structure* for processes of family change is the life course, which is defined as “an interrelated set of path-dependent processes” (Johnson-Hanks et al. 2012: 63) made up of different *conjunctures* or situations (e.g., an unintended pregnancy) that become salient because they force an individual to make a choice. *Conjunctures* hold the capacity for reinforcement of the status quo or a new direction in the context of an individual’s life course. *Conjunctures* are embedded in individuals’ life courses while life courses are further embedded in macro-level structures of time and place (Johnson-Hanks et al. 2012). *Schemas* can be understood as “mental maps” or “frames” that individuals draw on to make sense of the events in their lives. *Materials* are defined as “the artifacts, rituals, and institutions that both embody *schemas* and also have a concrete existence that does not wholly depend on *schemas*” (Johnson-Hanks et al. 2012: 69). Thus, variation in fertility behavior arises out of the interaction of *schemas* and *materials* within *structures* (Johnson-Hanks et al. 2012).

A brief example of these interrelationships should help to clarify this process. When thinking about how different generations of women might construct motives for motherhood, materials could include things like women’s access to contraception; schemas might focus on why women would use contraception (and whether it is acceptable for all women, only married women, etc.); and a conjuncture might be an unintended pregnancy, which prompts a woman to make a decision about how to proceed (i.e., quit school and have the baby; have an abortion; get married; etc). Importantly, these schemas and materials will change depending on the structures in which women’s lives are embedded. Thus, for women to limit births via contraception, at least two things must be in place: contraception (a material) must be available, and schemas supporting the use of contraception to limit childbearing must be normative (Johnson-Hanks et al. 2012).

These insights are useful for the current chapter in that I am exploring the differences between younger and older women's fertility preferences and motives for childbearing while incorporating multiple levels of influence. Respondents' childbearing years have spanned an incredibly important period of time in the history of South Africa – the end of apartheid – a period dense with structural, ideational, and economic change. Drawing on the framework of the TCA by incorporating multiple levels of explanation for women's childbearing preferences and how they differ across generations is particularly relevant because of the unique dimensions of time and place that have structured women's lives over the past few decades. Thus, the TCA serves as a useful orienting framework for thinking about how and why older and younger women's fertility preferences differ as well as what sorts of relationships, structures, and institutions have influenced their preferences.

## **CONTEXT**

South Africa is a unique context characterized by low fertility, high mortality, and a number of evolving social structures. South African total fertility has declined dramatically over the past few decades from 6 children per woman in 1979 to around replacement level at 2.3 children per woman (Garenne et al. 2007). At the same time, HIV prevalence rates have skyrocketed. The adult prevalence rate in Agincourt is 19.4% and there is a considerable gender gap: Women's HIV prevalence is 23.9% and men's is 10.6%. Adult life expectancy in Agincourt was relatively stable until the emergence of HIV in the mid-1990s (Kahn et al. 2007a). As a result of the disease, female life expectancy decreased from 72 to 60 years and male life expectancy decreased from 66 to 52 years (Kahn et al. 2007a). The mid-1990s also brought substantial increases in infant and under-five mortality rates for boys and girls (Kahn et al. 2007a). These mortality shifts have been dramatic

compared to mortality rates in other African countries, given the lower baseline mortality among South Africans (Clark and Ngom 2002; Kahn et al. 2007a; INDEPTH Network 2004).

## **METHODS**

This chapter draws on qualitative data collected from women living in the Agincourt Health and Demographic Surveillance System (AHDSS) site, located in rural Ehlanzeni District of Mpumalanga Province, South Africa. The bulk of the field work for this analysis was conducted from January-June 2010. This chapter draws on data from focus groups, in-depth interviews, observations, and conversations with key informants. In all, 85 women aged 18-79 participated in the study.

Focus groups and in-depth interviews were conducted in the local language (*xiShangaan*) by two female field workers in their mid-30s from the census site who I trained in qualitative methods. Because I drove the field workers to the vast majority of the interviews, I was present as an observer at most, although my fluency in *xiShangaan* is limited. All interviews and focus group discussions were digitally audio-recorded and all respondents provided written informed consent prior to their participation in the study. No one verbally refused participation in the study.

Four focus group discussions were conducted with women of different age groups (18-25; 26-35; 36-45; 46+). A total of 41 women participated in focus groups with approximately 10 in each group. Focus group participants were recruited from public spaces and came from a total of four villages selected because they are generally representative of the AHDSS study site. Each focus group discussion lasted approximately two and a half hours.

Focus groups were conducted prior to the interviews and were useful for obtaining information about social norms about childbearing and how they have varied over time. Focus groups participants were stratified by age, and thus provided a venue for older women to talk about

the relevant childbearing norms that governed their own childbearing choices and experiences and to compare those norms with today's norms. Younger women also talked about childbearing norms in the past as described to them by their own mothers and grandmothers as well as fertility norms that influence their own behavior and desires. Data from focus groups helped to guide the questions that were asked in in-depth interviews. Although the focus group data provide the collective perspective of many women at once, they also include several personal stories of childbearing, which are useful for addressing the research questions in this chapter.

Interview respondents were randomly selected from the Agincourt census's 2009 complete household listing. To be eligible for an interview, women had to be aged 18 or above, have children, and be living in the study site. Twelve women were selected in each of the four age groups listed above. Of each 12, six women were randomly selected for interviews. If we were unable to talk to a potential respondent after two visits to her home, we moved on and attempted to interview the next woman on the list. Additionally, six childless women aged 18-25 and six aged 46+ were randomly sampled from the AHDSS household listing in the same manner described above and three from each age group were randomly selected for interviews. Interviews were conducted with a total of 37 women: 10 aged 18-25 (including four childless women); eight aged 26-35 (including one childless woman); six aged 36-45; and 13 aged 46+ (including four childless women). Interviews lasted approximately one and a half hours and were conducted in two waves.<sup>25</sup>

Interviews provided detailed personal information from women of different ages on childbearing experiences, fertility preferences, marriage, societal changes since 1994, and

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<sup>25</sup> The first wave of interviews was conducted March-April; the second April-June 2010. Some women had to be replaced during the second wave: one woman aged 18-25 was replaced; one woman aged 26-35 was replaced; and four women aged 46+ were replaced. One woman (aged 26-35) was only interviewed during the second wave. Women who were not interviewed during the second wave were replaced by other women in their age group, often because of temporary migration out of the study site, illness (among the older women in the sample), or a death in the family.

HIV/AIDS. Similar to in the focus group discussions, interviews asked women to reflect on childbearing norms and how they have changed over time based on their own experiences as well as the experiences and stories of other women in their lives. The interviews provided more time to probe for details about women's childbearing experiences and thus were useful for gaining a deeper insight into the ways in which women's experiences, behaviors, and preferences are influenced by factors at varying levels of society.

In addition to the structured qualitative data, I engaged in observations and had an ongoing dialogue with key informants over six months during 2010. Additionally, many follow-up conversations with key informants occurred during later visits to the study site between 2007 and 2012. Discussions with key informants were in English and a few of the more structured conversations were digitally audio-recorded. Observations and informal conversations with locals were conducted in and near the study villages in public spaces, such as in more "urban" areas with markets and shops; others were conducted in villages and "neighborhoods" near respondents' homes. Extensive field notes were taken following (or during when appropriate) each observation and conversation. These field notes provide context and texture to the more structured data from interviews and focus groups.

Focus group transcripts were translated and typed by the field workers. Interview transcripts were translated and handwritten by the field workers and later typed in the United States by myself and two hired transcriptionists. Data analysis was an important part of the data collection process. I read entire interview transcripts within two days of their completion and discussed them with the field workers to learn how women were reacting to questions, gauge the tone of the interviews, learn field workers' interpretations of respondents' comments, and gain additional information about cultural practices, beliefs, or phrases that did not translate well. After this process, I wrote unique follow-up questions for each respondent to be asked during the second wave of interviews. These

conversations with field workers also helped to inform the data collection process. For example, after it became clear that a few of the questions were not eliciting the types of responses they were meant to (largely because of nuance lost in translation), I revised the questions and added new questions for future interviews. In this way, although the interview guide was generally standardized across interviews, structuring the guide was an iterative process and the interview questions evolved over time. Once in the United States, the interview transcripts were entered into *NVivo* for more formal data analysis. The data were first coded by question and then by emergent themes that arose during the coding process and from discussions with key informants during field work. These emergent themes oriented the qualitative analysis of interviews, focus group discussions, and field notes. In the sections below, direct quotes have been minimally edited for clarity and all potentially identifying information has been changed to preserve the confidentiality of respondents.

## **RESULTS**

The data reveal important differences between older and younger women's fertility preferences and childbearing motives. Fertility preferences are defined here as the number of children women hope to have while childbearing motives are the motivations behind fertility preferences. The analysis below is stratified by age because of similarities in fertility preferences, childbearing motives, and because all women over age 40 had completed their childbearing (and thus, were providing retrospective data). Women aged 40 and above constitute "older" women and women under 40 constitute "younger" women. However, it is important to note that some of this grouping depends on the type of family structure in which women live (especially for those aged 36-45). Those living in more "traditional" family arrangements, defined as married women living with a husband and his relatives, are more likely to subscribe to older women's childbearing motives and to say they want more children than do younger women. Those who are living with their natal families

– usually their own children, mothers, siblings, nieces, and nephews – oftentimes align more clearly with younger women’s fertility preferences and childbearing motives. This difference is also related to poverty as unmarried mothers living in their natal households are more likely to be poor compared to those living with a husband who helps with financial support of children.

## **Fertility Preferences**

There are fundamental differences in fertility preferences among younger women today and in the past. Rather than choosing the number of children they would have liked to have, older women usually say that they left this up to God. For example, a 44 year old mother said that she had as many children as “God has planned to give me.” Similarly, a 59 year old mother said:

*Hay...* I didn’t count the number. I told myself that any number of children that I will have, it will be fine. Even if I had two children and don’t have any more, I will be fine. You won’t count the number of children because it is a gift from God. If God has given you two children you have to accept it and when he has given you one child, you have to thank God as long as you know that you are important on earth. I didn’t count the number of children.

In contrast, younger women today generally say they prefer to limit their childbearing and have only two children. At times, older women today encourage young women to have many children, but oftentimes younger women resist. For example, a 24 year old mother said: “I mean by our times, even now, older people are telling me to have more children and I tell myself that two is enough.” A 19 year old mother compared fertility in the past and today: “...In the past it was not common that a person has two or three children or less than five. They were having lots of children. But now it is not common that a person has lots of children.” These results show that there are qualitative differences in *fertility preferences* among older and younger women: Older women who had children in the past often did not choose to have a particular number. On the other hand, younger women are intently focused on limiting the number of children they have. Importantly, no women in the sample said they did not want any children, reflecting the fact that motherhood remains an important life

goal and route to adulthood for younger women today. In the sections below I describe the motives behind these different fertility preferences among older and younger women.

### **Childbearing Motives**

Older and younger women's childbearing motives are clearly linked with their different fertility preferences. A main childbearing motive among older women focuses on the importance of children for women's status and respect in their families and communities. Traditional living arrangements among married women are patrilocal and the majority of older women in this study had their first birth in marriage. Therefore, mother-in-laws had an important influence over women's childbearing motives in the past. Consider the following statement from a 44 year old mother:

In the past old women wanted us to have more children as new mothers. They were saying we are still young [and we have] to make their surname big. They wanted to be well known and respected by having a big family. So, this time we don't believe on that. We believe that you have to build a nice house, have a nice car, and you will be well known everywhere.

According to this woman's comments, a woman's in-laws had a lot to gain from her childbearing in that children provide status by "making the surname big." A 27 year old mother reflected on the happiness of the in-laws when a woman had many children in the past:

In the past children were very important. By having a child everybody in the community was happy about you, particularly if he was a boy. I remember my mother's sister. She was having 14 children. Ten of them were men and four of them were women. Her husband's family did her a big party because she didn't get scared on childbearing.

These women's comments highlight the primary difference between younger and older women's childbearing motives: Women in the past were encouraged to have many children to expand the family's status and influence. Women today gain status in other ways, namely through obtaining modern consumer goods that serve as markers of status. For example, a 27 year old mother said: "In



the past they were competing as they wanted to make their surname become big. Now we are not living by that time.”

A main motivation young women draw from to justify limiting their fertility is the economic strain associated with raising children in today’s money-based economy. Thus, these days, having many children is associated with poverty rather than status. A 24 year old mother spoke about the association between childbearing patterns and poverty:

There are those who still give birth like our mothers, particularly those who are not educated. If you can look at their children, it’s a shame. They don’t have jerseys [coats] in winter; they don’t have enough food to eat or enough shelter to sleep. But that person is always giving birth. Even young children are doing like that.

A 40 year old mother similarly talked about differences between childbearing in the past and today:

Since in the past children were very important, and people from the past, they were not doing what we are doing now of limiting the children. They were bearing children and they understand it. They were not thinking about poverty or something. They didn’t mind about that. They were bearing children and you find that that child will grow up using old clothes given by someone, but they didn’t mind. But now we are looking deeply in everything that things have changed. We are using money to make a living, but in the past, *bay*...but they didn’t mind. They were bearing children.

These comments reflect the association of having many children with poverty and also indicate that in the past poverty was more normative than it is today. This view fits well with the historical context of rural South Africa and of Agincourt specifically. Agincourt is part of the apartheid-era Gazankulu Homeland, which was one of ten “homelands” that were defined by separate development under the apartheid government (Worden 2007). These segregated areas were marked by a lack of development, opportunity, and wealth (Worden 2007). Today, however, individuals living in the rural former homelands are subject to the same “modern” desires as individuals in Johannesburg because all South Africans are interconnected through various means, including the media.

Today’s economy is fueled by money and young women feel that they must plan their families accordingly. An 18 year old childless woman said: “When you have a lot of children it is

difficult and even in terms of money, if you don't have enough money, it is difficult to take care of your children." Similarly, a 22 year old mother described her concerns about having a large family:

Many children are causing more problems. If you have more than four children it will be difficult to take care of them. Now it's easy because they are still getting child grants but after, things will be difficult. My spouse is not having a good job and I'm not working also. When they grow up and want to go to the university it will be difficult.

This woman noted that the Child Support Grant – a needs-based monthly stipend providing R240 (around \$34) for each child 18 and younger – helps her and her husband to provide for their children. However, once their children age out of this system, they will struggle to afford the children's educational expenses because they are unable to find employment. This respondent is actually an anomaly among the younger women in the sample because she has a husband to rely on for help with her children's expenses. The more likely scenario among younger women is to be living at home with their own mother and struggling to pay for their children with minimal or no support from their children's father(s). Female-headed and multigenerational households have become more common in Agincourt in recent years (Madhavan and Schatz 2007; Schatz 2007; Schatz and Ogunmefun 2007). Residing in a female-headed household is associated with fewer years of education, a relationship that is likely indicative of the economic vulnerability and lack of power of female-headed households in general (Madhavan and Thomas 2005; Walker and Gilbert 2002). The disassociation between childbearing and marriage discussed in the previous chapters has contributed to these changes in household structure.

Compared to married women, women living at home are subject to different familial pressures which affect their fertility preferences. Whereas married women living with their husband and in-laws are often encouraged to have many children, women living at home with their own mothers are more likely to be encouraged to limit their childbearing due to economic constraints. When asked who she talks to about childbearing, a 27 year old mother said: "It is my mother. She was always saying I must not get children because we are poor. She was saying two children were

okay as I was not married.” A 25 year old mother agreed that limiting her number of children was important so that she could afford to care for them since she was not married: “I want two [children] because I will be able to take care [of them]. Even when they don’t have a father I will be able to take care.” A 29 year old mother who lived at home also spoke about the difficulty of supporting children on few household resources. When asked why she wanted only two children, she said:

I will be able to take care of them. I will maintain them accordingly and they will get everything they want rather than getting children without maintenance.

(What if your fiancé can say: “I want you to get more than five children.” What can you do?)

That will be a problem. I cannot allow that situation. Now food is very much expensive. I have learned that from here at home. We are not eating the way we want to. It’s a sacrifice. Sometimes we can buy a loaf of bread for my child only and she has to eat for a week. The rest of us will eat soft porridge. It doesn’t mean we don’t want bread, but it’s because there is no money to buy.

These results demonstrate that financially supporting children in today’s economy is seen as difficult, especially for women living in their natal homes without the added resources of a husband and in-laws. Living at home is a more common situation than living with in-laws for young mothers today since the majority of first births occur outside of marriage, as highlighted in Chapter 4.

The shift in fertility preferences from wanting as many children as God will provide to the desire to limit the number of children is largely motivated by a shift in the post-apartheid economy. Historically, child caretaking has primarily been the province of mothers in South Africa (Maharaj, Kaufman and Richter 2000). During my field work, women commonly told stories about mothers in the past providing for their families by farming small plots of land on which they planted maize and other “traditional” foods like greens and fruits. My conversations with women and observations in the villages made it clear that farming continues to be done mostly by older women. Indeed, it is common to see older women working small plots of land in the villages during the weekdays and on weekends. Yet, it is quite uncommon to see younger women doing the same. Many younger women

are uninterested in “plowing the fields” because it does not provide them with money and money is viewed as essential in providing for children in today’s economy.

Many women in this study made the distinction between older and younger women’s motives for childbearing by emphasizing the different ways that women have provided food for their children. In the past, women’s food came largely from the field, although at times they would supplement their crops with a bag of *mealie-meal* (maize) from the market. Young women having children today largely provide food for their children by buying it. A focus group respondent’s (aged 26-35) comments highlight this difference and how it motivates women to limit their children today:

*Hey, nowadays we don’t want to get more children because things are expensive. In the past our parents were depending on plowing to grow us. They were not buying any bread or mealie-meal. We were eating only food from the field. Nowadays everything is money. You spend more on food. I think the number [of children] must be limited. If you have two children they are enough.*

During my field work it was common to hear older women complaining about young people’s lack of initiative and laziness when it came to working in the fields. A 47 year old mother talked the connections between working the fields and fertility preferences:

*Yes, sesi [sister]. Mothers of the past wanted more children compared to nowadays. They were having eight, nine. Nowadays it depends to you. If you want one child, there is no problem. As long as you support that child and do everything s/he wants or needs.*

*(Can you still add more about the changes?)*

*Sesi [sister], mothers of nowadays are working, most of them. They are looking for money rather than doing field work.*

As is clear from these statements, the dominance of the money-based economy since the end of apartheid has had a great effect on how women spend their time and provide food for their children. While many older women work the fields to grow food for their families, young women today are more focused on money. These differences underscore the new ways in which mothers think about their families and the “modern” desires they are now forced to contend with. In the sections below, I describe how the “modern” desires of children and women have contributed to women’s shifting

fertility preferences.

### **Children's "Modern" Desires**

Raising children today is expensive for several reasons, especially the costs associated with schooling. Primary and secondary school are free in South Africa, but students must buy their own school uniforms. These costs can cause considerable financial strain on poor households, such as those depending on the Child Grant (Rosenberg 2007). There are also costs associated with providing for children in a "modern" fashion. During my field work many young mothers talked about the difficulty of buying their children the name-brand clothing and shoes that they demanded. Another expense comes from the vendors who hawk food and other wares near schools. These vendors sell junk food like crisps (potato chips) and candy, which are very enticing to students. Although obviously not necessary, mothers feel the need to provide some cash for their kids to be able to purchase these goods while at school. Part of this is so they will not be hungry, but much of it is about fitting in with other students. This was often discussed among young mothers in the villages; providing cash-to-carry was thus constructed as part of being a good mother. Young women feel pressure to provide these sorts of "luxury" items for their children so that they will be viewed as proper mothers by others, so their children will be satisfied and not teased at school, and importantly, so that their family will not be viewed as poor. A 44 year old mother commented on the importance of money and goods for children today:

Money is very much important as the child wants to bathe and wear clean clothes, s/he wants to eat and all that comes from money.

(Was this common in the past?)

No, it was not like that. In the past people were plowing and buying clothes once a year during Christmastime. Nowadays everything you have to spend. In the past our parents were using maize bags to make clothes and now they are not looking to that. Children want to go to school [more] than in the past where it was not a must. In the past boys and girls were looking after cows as their benefits when their parents have died. Now we want money to

raise our children.

A 40 year old mother also discussed children's modern desires:

(You said people from the past they were not worried about money. Why are people nowadays worried about money?)

*Hii*...when it comes to money, we want our children to be educated and it needs money. If you don't have money, they will not be educated, you see? We want our children to wear good clothes and eat well. We have a lot of shops around here. Will your child be happy to see other children eating and he doesn't eat anything? So in the past, shops were far away and they were not seeing nice food. I don't know whether the shops were carrying nice things or not, but nowadays there are nice things. A child will tell you straight that she wants this. Where am I going to get it? So that is why we don't bear lot of children.

The recent availability of new goods in local shops has created desires for modern goods (and foods) among children. Most of the discussions about these issues that I came across during field work were focused in particular on the availability of snacks in local shops and how they enticed children. Because some mothers provided money for these foods for their children, other children demanded the same from their mothers. This creates a situation whereby in order to be a good mother, women are pressured to give their children the same things other children get. This creates competition between mothers (and children) and becomes a way for women to gain and maintain status – depending on how well their child is dressed and what s/he can afford to buy during school breaks. Simply having children no longer provides the status that it used to. Today, mothers must provide modern goods for their children in order to achieve status and respect as good mothers.

As noted above, a main concern among many mothers was affording the cost of school and the importance of educating children for work in today's economy. A 21 year old mother spoke about the value of education for her children's futures:

Another thing is that you will be able to take care of them by sending them to different schools so that they may get qualifications. After, they will work and help you again. But, if you have many children, you won't be able to take care of [them] all.

Mothers with college-age children were also cognizant of the costs of sending children to school. A 44 year old mother described these challenges:

Things are expensive and children need money to grow them. They want to be sent to multi-racial schools [private schools in larger towns]. You spend more than R30,000.00 [around \$4,286.00] per year there. Again, after, they want to go to universities. Again you spend. So, if you have more children it means you will die before they have all completed schooling.

Having children who are educated is a valuable status symbol for mothers. Highly educated children (tertiary level or higher) are able to get good jobs and economically support their mothers in old age – at least that is the assumption. However, children are not the only ones who have modern desires. Women are also able to increase their status and respect by conspicuously acquiring modern goods that others may admire.

### **Women’s “Modern” Desires**

Mothers today gain status by providing for their children but also by consuming modern goods. During my field work, many women focused their consumption efforts on home improvement. Houses in Agincourt exhibit wide variation. People live in everything from one room *rondavels* (round houses) made of mud and thatch with no electricity or plumbing, to two-story houses made of concrete blocks with electric gates, tile roofs, and colorful paint. Most houses are somewhere in between, although this depends on the village as some are generally poorer than others. A 45 year old mother talked about how women’s modern desires have affected childbearing:

Yes, mothers of nowadays have changed a lot. They want big houses with ceramic tiles. They want to drive expensive cars and limit the number of births. It was not like that in the past. All mothers wanted was food from the field. They didn’t mind about clothes, hairstyles, and everything. Theirs was to bear children only and go to plow.

During the in-depth interviews, one way I tried to gauge women’s desires for goods was by asking how they would spend the money if they won the lottery. By far the most common answer

was to make improvements to one's home (90%).<sup>26</sup> Other answers include providing an education for one's children (34%); giving money to help the poor (29%); investing (26%); improving the local school or church building (16%); and providing health services and treatment for people with HIV/AIDS (6%). Many women spoke about improving their homes as one strategy to show others that they have money and are able to buy the type of modern goods and conveniences that they desire. Modern goods essentially serve as a marker of status. For example, a 44 year old mother said: "I can want to have a nice house compared to that one; to eat nice and wear very nice. I can drive luxury cars." A 57 year old mother said:

*Yii...* I can do beautiful things. I can build my beautiful house. I will buy a lounge suite and I can also buy a car so that when I'm too old my children can take me to pension day. I can do very beautiful things. I will show people in the past I was poor but now it has changed.

Today, women who provide well for their children and demonstrate their wealth through their house and other modern goods increase their status in society. Whereas women in the past gained status and respect by having many children and extending the surname, women today are encouraged to limit their childbearing for a variety of reasons. Limiting one's children is necessary because of the expenses associated with raising children but it also provides the ability for women to gain status in other ways, especially through purchasing modern goods. Although the women above were talking about what they *would* do if they were lucky enough to win the lottery – rather than what they currently do with their money – these plans are indicative of the things that matter to women in a context where children no longer provide the status they once did.

Older and younger women express notably different fertility preferences and childbearing motives. For older women, a main motive for having children is to gain status and respect. This is often described as "extending the surname" or "making the family name great." This is especially

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<sup>26</sup> In all, 31 women answered this question in in-depth interviews. It was not asked of focus group respondents. Most women said they would do several things with the winnings so the percentages do not add up to 100.



important for women living in traditional household arrangements because they face much encouragement, even pressure, from their mother-in-laws and other relatives to have many children and extend their husband's family name. For younger women, a main childbearing motive focuses on limiting the number of children one has in order to be able to financially provide for them. Despite this, it is important to note that all women said they want to have children and infertility in South Africa is still associated with stigma, psychological distress, and disadvantage among women (Dyer et al. 2002; Dyer et al. 2005). This was clear in my interviews with childless older women, who were disadvantaged in several ways and none of whom were childless by choice. Thus, motherhood is still taken as a given and serves as an important marker of adulthood. However, having multiple children no longer provides younger women with the status that it once held for their older counterparts. Instead, "modern" markers of status have taken precedence and younger women thus strive to limit the number of children they have to be able to provide for them in the way modern mothers are expected to today. In the sections below, I describe how the structural changes in post-apartheid South Africa have helped to produce such divergent fertility preferences and childbearing motives among young women in the past and today.

### **Structural Changes in Modern South Africa**

In this section, I draw on the theoretical insights and concepts of the Theory of Conjunctural Action to describe three main structural changes that have affected the fertility preferences and childbearing motives that women describe. These changes are: access to effective contraception; women's empowerment; and access to modern consumer goods. The structural changes outlined here are certainly not the only ones that have occurred in post-apartheid South Africa. However, these are the most prevalent factors that women described during focus groups and interviews when asked about the reasons for changes in childbearing across generations. The

section below highlights how women view the influence of these structural changes on their own and others' childbearing experiences.

### *Contraception*

One of the most commonly discussed factors related to young women's fertility preferences is an increase in access to contraception. Although contraception has been available in South Africa for decades, contraceptive services during apartheid were focused on limiting African population growth rather than on providing comprehensive reproductive health (Brown 1987; Cooper et al. 2004). Despite this, South Africa had a high contraceptive rate under apartheid compared to other sub-Saharan African countries (Cooper et al. 2004). South Africa's 1974 National Family Planning Programme, which increased access to modern contraceptive methods, reached Agincourt a few years after it was instituted (Garenne et al. 2007). One study reported that three out of four women in South Africa have ever used modern contraception (Cooper et al. 2004). According to 1998 Demographic and Health Survey data (DHS) from Shangaan women in rural Limpopo Province – which at the time included Agincourt – 45% of ever-married women and 59% of never-married sexually active women were using modern contraception (Garenne et al. 2007). In 2003, DHS data revealed that 61% of women in rural areas were using modern contraceptive methods (Department of Health 2007).

Nonetheless, several studies have shown that unmarried women have consistently faced barriers to accessing contraception – both during apartheid and after (Cooper et al. 2004; Ehlers 2003; Garenne et al. 2001; Wood and Jewkes 2006). This continues today. During my field work, young, unmarried women often talked about the challenges they faced in obtaining effective contraception. This is supported by several studies that have shown that the lack of contraceptive use by young women is often due to barriers such as a lack of information about contraceptive

methods, side-effects, or scolding from nurses (Abdool-Karim, Preston-Whyte and Abdool-Karim 1992; Mathai 1997; Mfono 1998; Wood and Jewkes 2006). My field work demonstrated that most women verbally supported contraceptive use among younger women today, especially if they already had a child. Thus, many young women only start using contraceptives after their first birth (Garenne, Tollman and Kahn 2000).

This changing material – access to contraception – has undoubtedly affected the ways in which women view childbearing because limiting fertility has now become an acceptable schema. It has also become a realistic possibility because women are no longer ideologically or physically barred from accessing contraceptive services. Many respondents talked about this difference in older and younger women’s lives and childbearing experiences. When asked about this, a 22 year old mother reflected on the change in access to contraception:

In the past women were not using contraceptives. They were not allowed to do that. They were getting child after child. After breastfeeding for one and a half years she was pregnant again until she had many children. Nowadays we do take our own decision and plan: when do I need to have a child? If not so, I will continue with my injection.<sup>27</sup>

However, it was not only changing access that affected women’s propensity to use modern contraceptive methods. Ideological beliefs – or schemas – in support of using contraception also had to change to afford women the choice about whether or not to use contraception. A focus group respondent (aged 26-35) talked about the differences between older and younger women’s beliefs about using contraception:

(Do they [older women] advise you on how many children you must have in your future?)

Sometimes they were saying that we must give birth earlier, child after child so that we might be able to rest. They were not allowing us to use an injection. They were saying we must not prevent until we finish all the children in our wombs.

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<sup>27</sup> Depo-Provera is by far the most common method of contraception among young women in this area. Thus, most women refer to contraception as an “injection” or “that one of two months” because to be effective shots must be followed-up every two months.

Although older mothers often did not use modern contraceptive methods to limit childbearing in the past, they did rely on traditional or “natural” methods for spacing children. These methods were encouraged by the structural conditions of their households and marriages. For example, many women’s husbands were labor migrants to the Johannesburg mines; they effectively lived there most of the year returning to their rural home only once or twice per year. This time apart from husbands, together with breastfeeding for one to three years, provided a natural method of birth control whereby women could space their births. Thus, it is not simply that older women did not actively work to postpone or space children, rather they drew on different schemas and materials in order to make that happen. And, importantly, they used these methods to *space* rather than *limit* their children (see Timaeus and Moultrie 2008). However, with better access to modern contraceptive methods and with schemas available that offer support for using contraception, younger women’s motives for motherhood have also shifted to emphasize the value of limiting children rather than having as many children as you can.

### *Women’s Empowerment & Gender Equality*

In South Africa, the women’s movement was a powerful force for change during the struggle to end apartheid and effectively resulted in the insertion of gender equality concerns into the democratic debate (Hassim 2006). The enshrinement of gender equality in South Africa’s new constitution has had a tremendous influence on many women’s lives. South African women are no longer politically marginalized but rather are active participants working collectively to defend women’s interests in policy decisions and legislative outcomes (Hassim 2006). Not only are women now legally allowed to access the same types of jobs that men have always had access to (e.g., mining, high-ranking government positions), the schemas associated with women’s roles in families, households, and the larger society have also changed. This collective action and the end of apartheid

have helped to increase women's social and political capital, their status in society, and their power in relation to men (Hassim 2006).

Many women described these changes in families (especially marriages) as a policy of "50/50." Not all women agreed that increasing equality in the household was a positive change because of the effects they saw it having on relationships between men and women. However, most of the younger women spoke with pride about their rights and equality in relationships. For example, a 22 year old mother reflected on the differences in gender roles after the advent of 50/50:

*Hay*, there is a great change when coming to that. In the past a woman who is married was listening to her husband and went or worked according to his ways. If he was saying I want to have ten children, as a woman you were doing like that. Nowadays a woman takes her own decision. In the past our mothers were beaten and went back home. The man can come and say I want my wife back. It was a matter of must to forgive him as he has paid lobola. Your parents, they didn't mind about his physical abuse. Nowadays we are not beaten and it's 50/50. Women want to talk and to be heard.

A younger woman (FGD respondent aged 26-35) talked about the differences in marriage compared to the past:

(What are the old ways of marriage?)

A woman was always a woman. There was no 50/50 in the past. Our mothers were beaten up to death but they were not having any say. They were treated like slaves but they were not quarreling. They were not given money, no clothes to wear, and their duties were to plow mealies and pound. Nowadays we don't cook by firewood; though most of the [older] women are still doing like that meanwhile they are having electricity. So, but it is not like in the past. So, I mean you must know how to stand on your own as a woman.

Younger women have not been the only beneficiaries of gender equality as this 44 year old mother described:

Mothers of nowadays are clever. They stand for their own things. So, they are not like mothers of the past who cannot stand for their own things. They were just following their husbands as they were strictly saying they were heads of the families. So, now even if he can talk we have our rights to voice out our thoughts and to be heard. We are also allowed to take a decision meanwhile the heads are there. So, that's the changes. Mothers of nowadays have opened their eyes compared to in the past.

(What was in the past, I mean, how do mothers of the past behave?)

They were not allowed to work if the husbands' didn't want them to do like that. They were not allowed to go to school even if they can pass. Everything you were depended on your husband. Yours was to do field work only. They went to work at Jozi [Johannesburg] and came home after two years without depositing the money. You were not using Ponds or roll-on [soap or deodorant]. So, nowadays we want money to buy drinks, to buy clothes. So, mothers of nowadays, most of them are independent.

Gender equality has not only affected intimate relationships with partners and husbands, but also with relatives, such as in-laws. As described above, older women often talk about how their mother-in-laws encouraged them to have many children. However, as women's relative power in their households has increased and as norms about gender roles have evolved (to an extent); women are now able to make their own decisions about childbearing. The comments from a focus group respondent (aged 46+) below are insightful in this regard:

(What about in the past? Who was taking the decision [about when to have a child]?)

In the past it was my mother-in-law. She was having a song to make you think that she was having something on her mind. She was calling your husband and saying: "We don't want to see a mere person coming from her home just to be a bloom pot here (*a pot for decoration*). We want the one who will bear children so that even if we grown up, they will take care of us." So my husband will come to me and say: "I want you to stop breastfeeding this child." And by then we knew that he wanted a child. Now they [younger women] want to get only two and stop at three.

(How did you feel about this issue?)

We were not having other option. We knew a woman was a woman by giving birth.

This older mother's comments underscore how many changes had to take place for women to be able to make their own decisions – or at least have a say in the decisions – about childbearing. Not only were material changes necessary – such as the government mandating gender equality – but changes in schemas supporting women's rights were also crucial. Older mothers accepted their situations in the past because the relevant schemas governing gender roles and equality dictated that women submit to their partners (and consequently, their in-laws). Additionally, schemas surrounding childbearing supported having large families. For younger women to be able to act on their newfound rights as women equal to men, schemas supporting their rights (50/50) had to shift in

their favor as well. It is likely that these things happened in collusion with one another. One change did not cause the other, rather, the enshrinement of gender equality at the national level helped to push along shifting gender norms, which were arguably already leaning in that direction for the legal change in equality to happen in the first place. This is not to say that traditional gender roles have lost their footing; they are still very much alive for many women and continue to have an influence on most women's lives in one way or another. However, once women gained a voice – however small – they were able to subscribe to a new paradigm of motherhood, one in which limiting children gained precedence.

### *Modern Status Symbols*

After the end of apartheid, the South African government adopted an orthodox economic reform program and began a rapid process of globalization (Carmody 2002; Department of Finance 1996). Rather than resulting in job growth as might be expected and as was promised by the new democratic government, this process of globalization actually resulted in significant job loss (Carmody 2002). This has contributed to South Africa having one of the highest levels of income inequality in the world, with stark differences in living standards between different population groups and in rural and urban areas (World Bank 2003; Biddecom and Bakilana 2003). The forces of globalization contributed to the overthrow of the apartheid regime, yet they are also seen as related to the corruptions of modernity and the desertion of ancestral tradition by women and youth in particular (Marks 2002). The failure of the new post-apartheid government to fulfill the promises of economic and social development to the poor who still live without the basic conveniences of clean water, electricity, and decent healthcare and employment contributes to dissatisfaction with the pace of progress (Benatar 2001; Seidman 1999).

Despite the delays in economic progress, globalization has brought with it changes in access

to consumer goods and services. These goods have taken on significance as symbols of status and modernity. As described above, one's home is for many women an important location of status. This was evident during my field work as people's homes are constantly in a state of improvement and building supply companies constitute a booming business. By improving the structure and aesthetics of one's home and displaying a variety of expensive consumer goods, individuals are able to exert an image of their wealth and status in a community (see Mills 2004). Thus, women today are able to gain social status through education, employment, and by obtaining other markers of economic success, such as material goods. Although it remains important, motherhood is not the only – or primary – route to status for young women today.

These new status symbols are prevalent in women's descriptions of the items they and their children want (and sometimes need) to be successful nowadays. It is not only higher levels of education that cost money (and demand limiting of children) but also all of the material goods that come along with living a "modern" life. These goods are not only more widely available in local shops and markets these days, they are also more popular because they are featured on television programs, commercials, billboards, and other media outlets, which have gained influence in the new money-based economy. Additionally, as people have gained more resources in the wake of structural reform of employment and equality, family members, friends, and neighbors have begun to acquire these modern goods – like nicer homes, furniture, cars, and clothing – thus encouraging others to aspire to these riches as well. For example, when asked to describe a "modern" woman, a 24 year old mother said:

Ah! Now if you want to get married to her, you must be working as they are too expensive (*laughter*). They are too expensive. They don't like cooking. If she is living next to town, every day you will eat take-aways [take-out meals from restaurants]. Another thing is that they don't buy household needs, but they buy wants. I can say it's like beef. It is too much expensive to buy it. Instead, we rely on fish and chicken. But she wants that expensive beef and doesn't mind to pay.

Similarly, when comparing younger and older mothers, a focus group respondent (aged 18-25)



emphasized the difference money makes today:

There is a difference. Older women didn't know anything about money. When her husband comes from Johannesburg and gives her one hundred Rand it was fine to her. They didn't care about having bread and *Rama* [margarine]; as long as they have *guxo* and *nkaka* [traditional greens] it was fine with them. They were eating meat only when their husband has come home from Johannesburg. Young women are able to limit their children because we know that a boy's trouser is R100 and *tekkies* [shoes] are R150 and a shirt is R150. Then I told myself not to have a child because the money I'm getting for a grant is not enough to maintain a child. So, I know that as I'm having two children and I'm getting R480 for grant, I will be able to buy a skirt and top for a girl at R100 as she is not expensive. Then I buy shoes for R50. Then I'm left with the other amount. I will budget it for her brother that the next month I buy him some clothes.

This young mother's comments underscore the many "wants" of children: not only modern food but also expensive clothes. Furthermore, she notes that the child grant is often not enough to be able to provide for all of these needs, necessitating that women budget for their children and, if possible, work well-paying jobs. This woman's comments also highlight the challenges with providing these goods for children. High unemployment in rural areas has restricted women's abilities to purchase the modern goods that they and their children desire. Thus, women are often faced with difficult choices, such as which children to purchase clothing for, whether and when to improve their homes, and how to provide healthy food for their children.

## DISCUSSION

This chapter has documented women's changing fertility preferences and the motives behind those preferences comparing circumstances in the past and today. Mothers in the past said they had as many children as God gave them in order to increase their status and respect. This strategy also improved their relationship with their husband and in-laws, who benefitted from women having children and making their surname great. This strategy, however, is no longer viable for many women in rural South Africa today for several reasons. Money has become an important component of the rural economy. This has fueled changing habits – such as the movement away from growing

food for one's family on small plots – as well as new desires, including the preference to limit the number of children that is so common among young women today. Money has also contributed to the modern desires that children and women hold. Children's desires often center on name-brand clothing and newly-available junk foods, while women's desires are focused on acquiring household luxuries and improving their homes. These new desires create competition among women and children and contribute to women viewing their routes to status as providing well for their children and living up to the new standards for being a “good mother.”

Several structural changes that have occurred in the post-apartheid context have contributed to women's abilities to live up to the new fertility preferences to limit the number of children. Expanding access to effective contraception has given women a tool to effectively limit their family size as they no longer need to depend on natural family planning methods, which are often less effective (Centers for Disease Control and Prevention 2013). Gender equality, which was codified in the new South African constitution and has enhanced women's sense of empowerment in their relationships and households, has given women some control over how many children they have and when they have them. Finally, access to modern consumer goods has opened up an alternative route to status for young women since having a large family no longer provides the same status that it once did – and is no longer possible for many women given the economic strains in the modern economy.

Structural changes alone have not created these new preferences. Ideological changes had to evolve as well. Structural changes in the economy opened the door to acquiring new modern conveniences and goods, but schemas supporting the acquisition of such goods have also emerged. These dual changes – in materials and schemas – support women's new fertility preferences emphasizing limiting your family size in order to afford all that the new, modern South African economy has to offer. Without a change in access to these types of goods as well as to schemas

supporting them, women's childbearing preferences may not have evolved in the ways that they have. In a sense, when having many children disrupts the type of lifestyle that a modern individual hopes to lead, limiting the number of children becomes a possible and popular response. However, it is important to note that all of these structural changes have occurred in tandem alongside many important others that have not been discussed here. Thus, it is the interplay of these structural, material, and schematic changes taken together that have influenced younger women's fertility preferences toward limiting children.

This chapter offers several contributions. First, by contextualizing the changes in women's fertility preferences within the theoretical insights of the Theory of Conjunctural Action, this chapter expands our understandings of the factors that affect women's fertility desires. Considering factors at multiple levels of society provides a more complete explanation of how and why fertility preferences have shifted in post-apartheid South Africa, a context dominated by cultural, social, and structural changes over the past few decades. Additionally, this theory allows researchers to think about an old story – how fertility preferences respond to increasing costs associated with children – in a new way by considering multi-layered factors in the same study. Second, this chapter draws on narratives of younger and older women and thus provides a longitudinal perspective on how fertility preferences have changed over time.

A third contribution provided by this analysis is the new insight into women's modern desires in a rural area of South Africa. Previous research by Hunter (2010) from a peri-urban setting in KwaZulu-Natal, South Africa documented an association between marital status and the types of goods that women choose to consume. Women in Hunter's study were largely single and lived at home. Thus, their desires centered on "stylizing the self" (Nutall 2004) with fashion items like clothing rather than on home improvement items that have been historically important to married women (Hunter 2010). Yet, among essentially the same age group of women, these results show

widely divergent desires among unmarried women in rural Agincourt. The overwhelmingly majority of women desired to acquire items of distinction associated with their homes. Of course, being a modern woman entails many things (as outlined in Chapter 6) including having nice clothes, eating expensive store-bought food, and dating modern men. However, this difference between young women in KwaZulu-Natal and Agincourt is notable. It is likely that the rural/urban setting of women's lives contributes to this difference in desires. Significantly, the young women in Agincourt are almost all mothers – a fact that probably contributes to this difference a great deal. Building a nice house, after all, does not just benefit women but also their families. This is especially important for women who hope to marry in the future and leave their children at home. This was a common refrain among women with children during my field work and has been shown to be common practice in other studies from Agincourt (e.g., Madhavan and Schatz 2007; Schatz 2007).

Despite the contributions of this analysis, there are a few important limitations. First, views about women's fertility preferences in the past were collected retrospectively. This may create some bias in that these stories are essentially *ex-post* interpretations of the events of interest. Although the similarities in the stories told by women across the age spectrum provides some assurance of their accuracy, it is also possible that these accounts constitute a culturally-accepted view of the past that is pervasive throughout society. How much these stories correspond with the reality of how women's lives were structured in the past, as well as their hopes and desires, is difficult to ascertain with these data. Nonetheless, there have been significant shifts in family size over time and these shifts correspond with women's accounts of the past. Although fertility preferences often change (e.g., Hayford 2009; Kodzi, Casterline and Aglobitse 2010; Sennott and Yeatman 2012) and thus are not perfect predictors of behavior (e.g., Bankole 1995; Schoen et al. 1999; Westoff, Mishler and Kelly 1957), it is unlikely that fertility preferences in the past would be the same as today, given how much the fertility rate has changed over time (Garenne et al. 2007).

Second, it is difficult to know to what extent government-mandated gender equality has affected women's lives. Although women of all ages spoke about 50/50 and how it has changed women's power in relationships, especially with their husbands and other household members, I personally had limited opportunities to witness whether this had, in fact, changed relationship dynamics between women and men. Future participant observation research among families of many different types would provide much-needed insight into family and relationship dynamics and how they have been affected by the many changes in post-apartheid South Africa.

This chapter drew on a new theoretical framework, The Theory of Conjunctural Action (Johnson-Hanks et al. 2012), to investigate changes in fertility preferences and the reasons for those changes in post-apartheid rural South Africa. The qualitative data demonstrated that factors at multiple levels of society are associated with a shift from wanting as many children as God would provide to wanting only a few children. The TCA contributes to older theories of fertility transition and family change processes because it provides a framework for incorporating many different factors such as ideational change supporting fertility regulation, and access to new materials allowing the limitation of fertility, among others. This study's findings provide an impetus for future quantitative research able to address the structural factors associated with fertility preference change. Longitudinal data that incorporates information about local structures, beliefs, and materials would be particularly well-suited to further investigating these relationships.

## CHAPTER 8: CONCLUSION

The main goal of this dissertation was to gain a better understanding of women's family formation processes in rural South Africa and to describe how and why these patterns have changed over time. I used quantitative longitudinal data from the Agincourt Health and Demographic Surveillance System (AHDSS) and qualitative data nested in the AHDSS comprised of in-depth interviews, focus groups, observations, and conversations with key informants to examine trends in the timing and union context of first birth. I also used these data to investigate the relationship between HIV and women's childbearing patterns, preferences, and future projects. Finally, I used the qualitative data to examine women's views and experiences of childbearing and how they have changed over time, focusing on generational shifts in fertility preferences. These analyses were grounded in the theoretical frameworks of the life course perspective and the Theory of Conjunctural Action (Johnson-Hanks et al. 2012). I also drew on theoretical insights from sociological theories of aspirations, hope, and future projects to explain the empirical puzzle of why women's future fertility plans do not reference the risk of HIV/AIDS.

In Chapter 4, I documented changes in the timing and union context of first births since 1993 in Agincourt. First births to women aged 20 and above were increasing as a proportion of all first births while births to teenagers were decreasing. Although nonmarital births consistently constituted the majority of all first births in all periods, marital first births were becoming more common in recent years. The type of union had also changed: Marital first births in informal unions were more common in the 1990s but became less common over time while first births in formal unions took precedence.

These demographic results were juxtaposed with qualitative findings that often countered the population-level trends. Women agreed that there had been changes in the timing and union

context of first births, but their interpretations of events were very different from the demographic reality. Women felt that first births today were more likely to be nonmarital and to occur to younger women compared to in the past. Their assessment of the union context of first births was largely correct – the majority of first births were nonmarital – however, marital births were becoming more, not less, common. Additionally, first births to younger women were decreasing, indicating that more women were effectively postponing their first birth beyond the teenage years.

The explanation that I offered for this disconnect between the population-level trends and individual-level perceptions centered on the distance that has been created between different generations in the post-apartheid context. Similar to Stewart's (2000) findings from Uganda, older women in Agincourt felt that they had lost control over today's youth. This was partly due to the new context in which young people transition to adulthood today, which includes the formidable obstacle of remaining free from HIV while negotiating the transitions of forming relationships, getting married, and having children. At the same time, young people today draw on a discourse of rights that became available at the end of apartheid during the transition to democracy. Young people had appropriated this discourse in order to establish independence from their elders. I argued that this exertion of rights contributed to the distance between older and younger women and helped to produce the misinterpretation of what is actually happening in childbearing today.

Chapter 4 also showed that there were links between the progression of the AIDS epidemic in Agincourt and changes in the timing and union context of first birth. At the same time that AIDS-related mortality was increasing in Agincourt, women more often postponed their first birth and resorted to getting married before having that first birth. Notably, this was a minority of women; however, the shifts were statistically significant indicating a real trend. These findings fit with numerous theories of fertility change that predict that individuals will modify their childbearing behavior in response to HIV/AIDS (Gregson, Anderson and Chandiwana 1997; Kirshenbaum et al.

2004; Noel-Miller 2003; Setel 1995). I argued that these changes might signify that women have begun viewing marriage as protective against HIV and therefore are waiting to have a first child until they are in a formal union.

In Chapter 5, I examined the relationship between nonmarital first births and women's union trajectories and risk of mortality using the AHDSS longitudinal census data. I showed that although there was socioeconomic selection into nonmarital motherhood, having a nonmarital birth was significantly associated with several negative outcomes for young mothers, net of selection. First, a nonmarital first birth was associated with a lower likelihood of entering a union, especially when young mothers had young children (aged 6 and younger). This chapter also showed an increase in informal unions as a proportion of all first unions among adolescent and young women (aged 10-35) in Agincourt. Thus, although Chapter 4 demonstrated that marital first births were more likely to occur in formal unions in recent years, this chapter showed a general movement toward informal unions. This chapter also showed that young women with a nonmarital birth had higher rates of union formation in recent years, suggesting that these women's life courses may be approaching those of their rural peers without children as marriage and childbearing trends evolve. I also found that women with young nonmarital children were more likely to enter unstable unions that dissolved through divorce or separation. Finally, I identified a strong relationship between having a nonmarital birth and a higher risk of mortality during adolescence and early adulthood. These findings together indicate that although nonmarital first births constituted the majority of first births in Agincourt from 1993-2010, women who had a first birth outside of a union still faced detrimental consequences.

In Chapter 6 I turned to the qualitative data and investigated women's future childbearing projects in the context of HIV. This chapter aimed to explain why young women hoping to have children in the future did not talk about HIV as a factor in their decision making process even



though having a child implies having unprotected sex. Drawing on sociological theories of hope, aspirations, and future projects, I argued that uncertainty about one's current and future HIV status in combination with newfound confidence in the availability of HIV treatment allowed women to construct ideal futures free from HIV. Furthermore, many young women aspired to a modern life trajectory and focused on the factors that would assist them in achieving their modern life goals – especially gaining employment – rather than on the things that might stymie their goals, such as HIV. I argued that women's modern life goals were encouraged by the rainbow nation discourse, which emphasizes freedom, equality of opportunity, and achievement in the post-apartheid context. Notably, a modern life trajectory was defined by having few (usually two) children that one could support, finding employment, establishing an independent household, and remaining free of HIV/AIDS. However, although the cultural resources for constructing these life goals were readily available, the structural opportunities and resources were not. These findings call into question recent research on future projects and aspirations, which argue that aspirations and idealized futures help women construct their current behavior and choices. In this study, many women's current behaviors did not accord with their future projects, in part because the structural opportunities necessary to reach their goals were not available to them. Furthermore, although women envisioned futures free from HIV, they did not alter their current behavior accordingly by using condoms or sticking to one partner. I argued that these findings provide an impetus to reconceptualize how and when future projects can motivate current behavior.

The final empirical chapter (Chapter 7) described generational changes in women's fertility preferences and the micro- and macro-level changes in post-apartheid South Africa that have helped to create new preferences. I showed how older women's fertility preferences hinged on having many children in order to obtain status and respect for themselves, their husbands, and their in-laws. Conversely, young women today desired to limit their family size due to constraints related to the

money-based economy and the expense of raising children today. These women gained status through other means, such as by providing for their children via nice clothes, cash-to-carry, and store-bought food. Providing these items for children bolstered young women's reputations as good mothers. Additionally, young women today gained status through acquiring modern consumer goods, especially by improving their homes. I drew on the Theory of Conjunctural Action to document factors at multiple levels of society – including improved access to contraception, the expansion of gender equality and women's empowerment, and access to modern consumer goods – that have facilitated this change in fertility preferences and the routes to status for women today as compared to in the past.

## **IMPLICATIONS**

Each empirical chapter (Chapters 4-7) includes a discussion of the theoretical and empirical implications of my findings as well as limitations and areas for future research. Thus, in the sections below I offer some overarching theoretical and empirical implications of the dissertation as a whole.

### **Theoretical Implications**

The findings from this dissertation suggest several ways that existing theories can be expanded and improved. First, sociological theories of aspirations and the future posit that individuals construct current behavior in order to align with their visions of themselves and their lives in the future (e.g., Emirbayer and Mische 1998; Frye 2012; Mische 2009). In other words, individuals create future selves and then alter their current behavior to fit with their projected versions of themselves. Altering their behavior to accord with future goals aids individuals in actually fulfilling the future projects that they have envisioned. However, these theories do not take into account that behaviors and choices are structured by opportunities and constraints that are often

outside of individual control. In the current study, although many young women envisioned themselves as modern and aspired to modern life goals and trajectories, the structures necessary for obtaining those goals were not in place. Women were unable to improve their lot through high-quality education or employment, both of which were unavailable in this part of rural South Africa. This suggests that theories of the future, although sociologically relevant and important, may need to be modified so that contextual factors such as the structural opportunities and constraints that affect current behavior are taken into account.

A second theoretical contribution is in the extension of the Theory of Conjunctural Action to address future fertility desires. This theory was proposed by Johnson-Hanks and colleagues (2012) to provide a comprehensive and cohesive framework for analyzing and understanding fertility transition and family change. The body of concepts the scholars proposed, including schemas, materials, and structures, provide a useful vocabulary for explaining the multiple factors that affect changes in fertility and family structures. Yet, these theorists stopped short of thinking about how factors at multiple levels of society might affect how people view and construct their futures. The findings from this dissertation suggest that this theoretical framework and its concepts can be a useful way to approach future projects because the same structures that affect fertility change in the past help to structure fertility desires in the future.

### **Empirical Implications & Future Research**

Below I discuss two main findings of this dissertation that are empirically novel and provide motivation for future research. First, this project has confirmed that marriage patterns are changing in South Africa. Recent research from other areas of South Africa has demonstrated a movement away from marriage among young people (Hosegood, McGrath and Moultrie 2009). This study confirmed this finding in Chapter 5 by documenting the virtual collapse of marriage among young

women (only 10% of women entered a union between ages 10-35) and the drift toward informal first unions when young women did marry. No studies to date from Africa have documented such a significant decline in marriage among youth. Future research from similarly-situated countries in sub-Saharan Africa would help to verify whether the union patterns documented in South Africa are unique or indicative of a broader shift. Studies from countries with high HIV prevalence levels, similar levels of economic development, and some shared cultural values and practices (e.g., lower fertility levels), such as Botswana, would be illustrative in this regard. A recent comparative study showed that reactions to nonmarital fertility by young women and their partners differ even across South African Provinces (Madhavan, Harrison and Sennott 2013). Thus, research on union formation in other rural areas of South Africa is also much needed in order to develop a more complete understanding of how and why marriage patterns are changing.

Second, this study demonstrated that even though nonmarital births are the majority of all first births in Agincourt, women who have their first child outside of marriage continue to face negative outcomes. Compared to women who postpone childbearing, these women are less likely to enter a union, more likely to enter an unstable union when they do marry, and have higher odds of dying during adolescence and early adulthood. These findings are striking given the prevalence of nonmarital fertility in Agincourt. The good news is that some of the results suggest that nonmarital mothers' outcomes may be converging with the outcomes of women who postpone childbearing. Many studies from the United States have shown selection factors to be largely responsible for the detrimental outcomes of young mothers (Geronimus and Korenman 1992; Grogger and Bronars 1993; Hotz, McElroy and Sanders 1999; Hotz, McElroy and Sanders 2005). In this study there was also evidence of selection into nonmarital childbearing; however, even after accounting for selection effects, the associations between nonmarital motherhood and negative outcomes remained significant. Thus, nonmarital motherhood itself is responsible for some of the disadvantage

encountered by young mothers in this context. Future research that examines how nonmarital fertility affects women across the age spectrum would be helpful for better understanding whether this disadvantage continues throughout the life course. This study focused on the effects of a nonmarital birth for women during adolescence and young adulthood. It may be that as young mothers grow older, their unique trajectories and experiences taper off and they become similar to women who did not have a nonmarital birth. Of course, if they have already died, there is no way to assess this. A wider range of outcome variables would also be illustrative of how nonmarital births may disadvantage young mothers in a variety of ways.

## **CONCLUSION**

This dissertation has shown that the structural changes in post-apartheid South Africa have affected women's family formation experiences and their future fertility preferences and projects. Contextually, low overall fertility has contributed to shifts in women's views and experiences of childbearing and the AIDS epidemic has textured the changes in the timing and union context of first births identified among young women today. Even though HIV serves as the backdrop to life for young South African women, they maintain hope in their ability to obtain the modern life trajectories and goals they have constructed drawing on discourses provided by the new democratic government. The shift to democracy has changed many things. Economic changes have created new desires for modern goods, which now increase women's status, while at the same time high unemployment has limited women's abilities to obtain the status symbols that they now desire. These shifts, together, have contributed to changing fertility rates and preferences and led to the overarching desire among young women to limit their family size. Importantly, children remain essential to young women's lives and there is no indication that fertility will drop below replacement levels as we have seen in some European countries. These results provide a complex picture of the

factors that women must contend with as they go about building their families in post-apartheid South Africa today.

## REFERENCES

- Abdool-Karim, Q.A., Eleanor Preston-Whyte, and S.S. Abdool-Karim. 1992. "Teenagers Seeking Condoms at Family Planning Services - Part 1. A User's Perspective." *South African Medical Journal* 80:301-302.
- Agadjanian, Victor. 2001. "Negotiating through Reproductive Change: Gendered Social Interaction and Fertility Regulation in Mozambique." *Journal of Southern African Studies* 27:291-309.
- Agar, Michael, and James MacDonald. 1995. "Focus Groups and Ethnography." *Human Organization* 54:78-86.
- Aka-Dago-Akribi, H., A. Desgrees Du Lou, P. Msellati, R. Doussou, and C. Welffens-Ekra. 1999. "Issues Surrounding Reproductive Choice for Women Living with HIV in Abidjan, Cote d'Ivoire." *Reproductive Health Matters* 7:20-29.
- Albertyn, Catherine. 2003. "Contesting Democracy: HIV/AIDS and the Achievement of Gender Equality in South Africa." *Feminist Studies* 29:595-615.
- Alexander, Karl, Robert Bozick, and Doris Entwisle. 2008. "Warming Up, Cooling Out, or Holding Steady? Persistence and Change in Educational Expectations after High School." *Sociology of Education* 81:371-396.
- Allison, P.D. 1982. "Discrete-time Methods for the Analysis of Event Histories." *Sociological Methodology* 13:61-89.
- Anderson, Kermyt G., Ann M. Beutel, and Brendan Maughan-Brown. 2007. "HIV Risk Perceptions and First Sexual Intercourse among Youth in Cape Town, South Africa." *International Family Planning Perspectives* 33:98-105.
- Asbury, Jo-Ellen. 1995. "Overview of Focus Group Research." *Qualitative Health Research* 5:414-420.
- AVERTing HIV and AIDS. 2009. "HIV & AIDS in South Africa." [www.avert.org](http://www.avert.org).
- Babbie, Earl. 2004. *The Practice of Social Research*. Belmont, CA: Wadsworth/Thomson Learning.
- Babrow, A.S., S.C. Hines, and C.R. Kasch. 2000. "Managing Uncertainty in Illness Explanation: An Application of Problematic Integration Theory." Pp. 41-67 in *Explaining Illness: Research, Theory, and Strategies*, edited by B. Whaley. Hillsdale, NJ: Lawrence Erlbaum.
- Baden, S., Shireen Hassim, and S. Meintjies. 1999. "Country Gender Profile: South Africa." Available from: <http://womensnet.org.za/links/genderpr>.
- Baird, Chardie L., Stephanie W. Burge, and John R. Reynolds. 2008. "Absurdly Ambitious? Teenagers' Expectations for the Future and the Realities of Social Structure." *Sociology Compass* 2:944-962.

- Baird, Sarah J., Richard S. Garfein, Craig T. McIntosh, and Berk Ozler. 2012. "Effect of a Cash Transfer Programme for Schooling on Prevalence of HIV and Herpes Simplex Type 2 in Malawi: A Cluster Randomised Trial." *The Lancet*.
- Bankole, Akinrinola. 1995. "Desired Fertility and Fertility Behaviour among the Yoruba of Nigeria: A Study of Couple Preferences and Subsequent Fertility." *Population Studies* 49:317-328.
- Barnes, H., M. Noble, G. Wright, and A. Dawes. 2009. "A Geographical Profile of Child Deprivation in South Africa." *Child Indicators Research* 2:181-199.
- Barroso, C., and J.L. Jacobson. 2000. "Population Policy and Women's Empowerment: Challenges and Opportunities." Pp. 351-376 in *Women's Empowerment and Demographic Processes: Moving Beyond Cairo*, edited by Harriet B. Presser and Gita Sen. Oxford: Oxford University Press.
- Baylies, Carolyn. 2000. "The Impact of HIV on Family Size Preference in Zambia." *Reproductive Health Matters* 8:77-86.
- Becker, Gary S., and H. Gregg Lewis. 1974. "Interaction between Quantity and Quality of Children." Pp. 81-90 in *Economics of the Family: Marriage, Children, and Human Capital*, edited by Theodore W. Schultz. Chicago: University of Chicago Press.
- Benatar, Solomon R. 2001. "South Africa's Transition in a Globalizing World: HIV/AIDS as a Window and a Mirror." *International Affairs* 77:347-375.
- Bicego, G., J.T. Boerman, and Carine Ronsmans. 2002. "Research Letters: The Effects of AIDS on Maternal Mortality in Malawi and Zimbabwe." *AIDS* 16:1071-1081.
- Biddecom, Ann E., and Anne Bakilana. 2003. "Transitions into Sex, Parenthood and Unions Among Adolescents and Young Adults in South Africa." New York: The Alan Guttmacher Institute/University of Cape Town.
- Blair, J.M., D.L. Hanson, J.L. Jones, and M.S. Dworkin. 2004. "Trends in Pregnancy Rates among Women with Human Immunodeficiency Virus." *Obstetrics & Gynecology* 103:663-668.
- Blanc, Ann K. 2001. "The Effect of Power in Sexual Relationships on Sexual and Reproductive Health: An Examination of the Evidence." *Studies in Family Planning* 32:189-213.
- Bledsoe, Caroline H. 2002. *Contingent Lives: Fertility, Time, and Aging in West Africa*. Chicago: University of Chicago Press.
- Bloom, David, Neil G. Bennett, and Cynthia K. Miller. 1993. "The Influence of Nonmarital Childbearing on the Formation of First Marriages." New York: Columbia University.
- Boileau, C., Sam J. Clark, S. Bignami-Van Assche, Michelle Poulin, Georges Reniers, Susan C. Watkins, Hans-Peter Kohler, and S. J. Heymann. 2009. "Sexual and Marital Trajectories and HIV Infection Among Ever-Married Women in Rural Malawi." *Sexually Transmitted Infections* 85:i27-i33.



- Bongaarts, John. 1978. "A Framework for Analyzing the Proximate Determinants of Fertility." *Population and Development Review* 4:105-132.
- . 2001. "Fertility and Reproductive Preferences in Post-Transitional Societies." *Population and Development Review* 27:260-281.
- . 2006. "The Causes of Stalling Fertility Transitions." *Studies in Family Planning* 37:1-16.
- . 2007. "Late Marriage and the HIV Epidemic in Sub-Saharan Africa." *Population Studies* 61:73-83.
- Bongaarts, John, Thomas Buettner, Gerhard Heilig, and Francois Pelletier. 2008. "Has the HIV Epidemic Peaked?" *Population and Development Review* 34:199-224.
- Bongaarts, John, and John Casterline. 2012. "Fertility Transition: Is Sub-Saharan Africa Different?" *Population and Development Review* 38:153-168.
- Bongaarts, John, Odile Frank, and Ron Lesthaeghe. 1984. "The Proximate Determinants of Fertility in Sub-Saharan Africa." *Population and Development Review* 10:511-537.
- Bongaarts, John, and Susan Cotts Watkins. 1996. "Social Interactions and Contemporary Fertility Transitions." *Population and Development Review* 22:639-682.
- Bonvillain, Nancy. 2007. *Women and Men: Cultural Constructs of Gender*. Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Brashers, Dale E., Judith L. Neidig, Linda W. Cardillo, Linda K. Dobbs, Jane A. Russell, and Stephen M. Haas. 1999. "'In an important way I did die.' Uncertainty and Revival for Persons Living with HIV or AIDS." *AIDS Care* 11:201-219.
- Brashers, Dale E., Judith L. Neidig, Stephen M. Haas, Linda K. Dobbs, Linda W. Cardillo, and Jane A. Russell. 2000. "Communication in the Management of Uncertainty: The Case of Persons Living with HIV or AIDS." *Communication Monographs* 67:63-84.
- Brashers, Dale E., Judith L. Neidig, N.R. Reynolds, and Stephen M. Haas. 1998. "Uncertainty in Illness Across the HIV/AIDS Trajectory." *Journal of the Association of Nurses in AIDS Care* 9:66-77.
- Brown, Barbara B. 1987. "Facing the 'Black Peril': The Politics of Population Control in South Africa." *Journal of Southern African Studies* 13:256-273.
- Budlender, Debbie, Ntebaleng Chobokoane, and Sandile Simelane. 2004. "Marriage patterns in South Africa: Methodological and substantive issues." *South African Journal of Demography* 9:1-26.
- Bumpass, Larry L., and H. Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts." *Population Studies* 54:63-92.

- Bumpass, Larry L., James A. Sweet, and Andrew Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and Family* 53:913-927.
- Burman, Sandra. 1992. "The Category of the Illegitimate in South Africa." Pp. 21-35 in *Questionable Issue: Illegitimacy in South Africa*, edited by Sandra Burman and Eleanor Preston-Whyte. Oxford: Oxford University Press Southern Africa.
- Caldwell, John. 1980. "Mass Education as a Determinant of the Timing of Fertility Decline." *Population and Development Review* 6:223-255.
- Caldwell, John C., I. O. Orubuloye, and Pat Caldwell. 1992. "Fertility Decline in Africa: A New Type of Transition?" *Population and Development Review* 18:211-242.
- Calves, Anne-Emmanuele. 1999. "Marginalization of African Single Mothers in the Marriage Market: Evidence from Cameroon." *Population Studies* 53:291-301.
- Camlin, Carol S., Michel Garenne, and Tom A. Moultrie. 2004. "Fertility Trend and Pattern in a Rural Area of South Africa in the Context of HIV/AIDS." *African Journal of Reproductive Health* 8:38-54.
- Campbell, Catherine, Carol Ann Foulis, Sbongile Maimane, and Zweni Sibiyi. 2005. "I Have an Evil Child at My House': Stigma and HIV/AIDS Management in a South African Community." *American Journal of Public Health* 95:808-815.
- Carmody, Pdraig. 2002. "Between Globalisation and (Post) Apartheid: The Political Economy of Restructuring in South Africa." *Journal of Southern African Studies* 28:255-275.
- Carpenter, Charles C., Margaret A. Fischl, Scott M. Hammer, Martin S. Hirsch, Donna M. Jacobsen, David A. Katzenstein, Julio S.G. Montaner, Douglas D. Richman, Michael S. Saag, Robert T. Schooley, Melanie A. Thompson, Stefano Vella, Patrick G. Yeni, and Paul A. Volberding. 1998. "Antiretroviral Therapy for HIV Infection in 1998: Updated Recommendations of the International AIDS Society-USA Panel." *Journal of the American Medical Association* 280:78-86.
- Casale, Daniela, and Dorrit Posel. 2010. "The Male Marital Earnings Premium in the Context of Bride Wealth Payments: Evidence from South Africa." *Economic Development & Cultural Change* 58:211-230.
- Case, Anne, and Alicia Menendez. 2009. "Sex Differences in Obesity Rates in Poor Countries: Evidence from South Africa." *Economics and Human Biology* 7:271-282.
- Casterline, John B. 2002. "HIV/AIDS and Fertility in Sub-Saharan Africa: A Review of the Recent Literature." New York: United Nations.
- Centers for Disease Control and Prevention. 2013. "Contraception." [www.cdc.gov/reproductivehealth/unintendedpregnancy/contraception.htm](http://www.cdc.gov/reproductivehealth/unintendedpregnancy/contraception.htm).
- Chesney, Margaret A., and Ashley W. Smith. 1999. "Critical Delays in HIV Testing and Care: The Potential Role of Stigma." *American Behavioral Scientist* 42:1162-1174.

- Chimere-Dan, Orijei. 1996. "Contraceptive Prevalence in Rural South Africa." *International Family Planning Perspectives* 22:4-9.
- Clark, Samuel J., and P. Ngom. 2002. "Comparing Mortality Patterns at INDEPTH Sites." Pp. 51-82 in *INDEPTH Network. Population and Health in Developing Countries, Vol 1: Population, Health, and Survival at INDEPTH Sites*. Ottawa: International Development Research Centre.
- Clark, Shelley. 2004. "Early Marriage and HIV Risks in Sub-Saharan Africa." *Studies in Family Planning* 35:149-160.
- Clark, Shelley, Michelle Poulin, and Hans-Peter Kohler. 2009. "Marital Aspirations, Sexual Behaviors, and HIV/AIDS in Rural Malawi." *Journal of Marriage and Family* 71:396-416.
- Collinson, Mark A., Stephen M. Tollman, and Kathleen Kahn. 2007. "Migration, Settlement Change and Health in Post-Apartheid South Africa: Triangulating Health and Demographic Surveillance with National Census Data." *Scandinavian Journal of Public Health* 35:77-84.
- Cook, Thomas D., Mary B. Church, Subira Ajanaku, William R. Shadish, Jeong-Ran Kim, and Robert Cohen. 1996. "The Development of Occupational Aspirations and Expectations among Inner-City Boys." *Child Development* 67:3368-3385.
- Cooper, Diane, Jane Harries, Landon Myer, Phyllis Orner, and Hillary Bracken. 2007. "'Life is still going on': Reproductive Intentions among HIV-Positive Women and Men in South Africa." *Social Science & Medicine* 65:274-283.
- Cooper, Diane, Chelsea Morroni, Phyllis Orner, Jennifer Moodley, Jane Harries, Lee Cullingworth, and Margaret Hoffman. 2004. "Ten Years of Democracy in South Africa: Documenting Transformation in Reproductive Health Policy and Status." *Reproductive Health Matters* 12:70-85.
- Davis, Kingsley. 1945. "The World Demographic Transition." *Annals of the American Academy of Political and Social Science* 237:1-11.
- de Walque, Damien, William H. Dow, Rose Nathan, Ramadhani Abdul, Faraji Abilahi, Erick Gong, Zachary Isdahl, Julian Jamison, Boniphace Jullu, Suneeta Krishnan, Albert Majura, Edward Miguel, Jeanne Moncada, Sally Mtenga, Matthew Alexander Mwanyangala, Laura Packer, Julius Schachter, Kizito Shirima, and Carol A. Medlin. 2012. "Incentivising Safe Sex: A Randomised Trial of Conditional Cash Transfers for HIV and Sexually Transmitted Infection Prevention in Rural Tanzania." *British Journal of Medicine Open* 2:1-10.
- Denzin, Norman K. 2010. "Moments, Mixed Methods, and Paradigm Dialogs." *Qualitative Inquiry* 16:419-427.
- Department of Education. 2004. "Review of School Governance in South African Public Schools. Report of the Ministerial Review Committee on School Governance." Pretoria: Department of Education.

- Department of Finance, Republic of South Africa. 1996. "Growth, Employment and Redistribution." Pretoria: Department of Finance.  
<http://www.info.gov.za/view/DownloadFileAction?id=70507>.
- Department of Health, Medical Research Council, OrcMacro. 2007. "South Africa Demographic and Health Survey 2003." Pretoria: Department of Health.
- Desroche, Henri. 1979. *The Sociology of Hope*. London: Routledge & Kegan Paul.
- Diaz, Rafael M. 2000. "Cultural Regulation, Self-Regulation, and Sexuality: A Psycho-Cultural Model of HIV Risk in Latino Gay Men." Pp. 191-215 in *Framing the Sexual Subject: The Politics of Gender, Sexuality and Power*, edited by Richard Parker, Regina Maria Barbosa, and Peter Aggleton. Berkeley, CA: University of California Press.
- Dickow, Helga, and Valerie Moller. 2002. "South Africa's 'Rainbow People', National Pride and Optimism: A Trend Study." *Social Indicators Research* 59:175-192.
- Dodoo, F. Nii-Amoo, and Ashley E. Frost. 2008. "Gender in African Population Research: The Fertility/Reproductive Health Example." *Annual Review of Sociology* 34:431-452.
- Doyal, L. 1995. *What Makes Women Sick: Gender and the Political Economy of Health*. London: Macmillan.
- Dyer, S.J., N.A. Abrahams, M. Hoffman, and Z.M. van der Spuy. 2002. "'Men leave me as I cannot have children': Women's Experiences with Involuntary Childlessness." *Human Reproduction* 17:1663-1668.
- Dyer, S.J., N.A. Abrahams, N.E. Mokoena, C.J. Lombard, and Z.M. van der Spuy. 2005. "Psychological Distress among Women Suffering from Couple Infertility in South Africa: A Quantitative Assessment." *Human Reproduction* 20:1938-1943.
- Dyson, Tim. 2003. "HIV/AIDS and Urbanization." *Population and Development Review* 29:427-442.
- Edin, Kathryn. 2000. "What do Low-Income Single Mothers Say about Marriage?" *Social Problems* 47:112-133.
- Edin, Kathryn, and Maria Kefalas. 2005. *Promises I Can Keep: Why Poor Women put Motherhood Before Marriage*. Berkeley, CA: University of California Press.
- Ehlers, V.J. 2003. "Adolescent Mothers' Utilization of Contraceptive Services in South Africa." *International Nursing Review* 50:229-241.
- Elder, Glen H. 1985. "Perspectives on the Life Course." Pp. 23-49 in *Life Course Dynamics*, edited by Glen H. Elder. Ithaca, NY: Cornell University Press.
- Elder, Glen H. Jr., and Angela M. O'Rand. 1995. "Adult Lives in a Changing Society." in *Sociological Perspectives on Social Psychology*, edited by Karen S. Cook, Gary Alan Fine, and James S. House. Boston, MA: Allyn and Bacon.

- Emerson, Robert M., Rachel I. Fretz, and Linda L. Shaw. 1995. *Writing Ethnographic Fieldnotes*. Chicago: The University of Chicago Press.
- Emirbayer, Mustafa, and Ann Mische. 1998. "What Is Agency?" *American Journal of Sociology* 103:962-1023.
- Emler, Charles A. 2006. "A Comparison of HIV Stigma and Disclosure Patterns Between Older and Younger Adults Living with HIV/AIDS." *AIDS Patient Care and STDs* 20:350-358.
- Fabian, Johannes. 1998. *Moments of Freedom: Anthropology and Popular Culture*. Charlottesville: University Press of Virginia.
- Fassin, Didier. 2007. *When Bodies Remember: Experiences and Politics of AIDS in South Africa*. Berkeley: University of California Press.
- Fern, Edward F. 1982. "The Use of Focus Groups for Idea Generation: The Effects of Group Size, Acquaintanceship, and Moderator on Response Quantity and Quality." *Journal of Marketing Research* 19:1-13.
- Feyisetan, Bamikale, and John B. Casterline. 2000. "Fertility Preferences and Contraceptive Change in Developing Countries." *International Family Planning Perspectives* 26:100-109.
- Fortson, Jane G. 2009. "HIV/AIDS and Fertility." *American Economic Journal: Applied Economics* 1:170-194.
- Freedman, Ronald. 1997. "Do Family Planning Programs Affect Fertility Preferences? A Literature Review." *Studies in Family Planning* 28:1-13.
- Frye, Margaret. 2012. "Bright Futures in Malawi's New Dawn: Educational Aspirations as Assertions of Identity." *American Journal of Sociology* 117:1565-1624.
- Furstenberg, Frank F., Ruben G. Rumbaut, and Richard A. Settersten. 2005. "On the Frontier of Adulthood: Emerging Themes and New Directions." Pp. 3-25 in *On the Frontier of Adulthood: Theory, Research, and Public Policy*, edited by Richard A. Settersten, Frank F. Furstenberg, and Ruben G. Rumbaut. Chicago: University of Chicago Press.
- Garenne, Michel L., Stephen M. Tollman, Mark A. Collinson, and Kathleen Kahn. 2007. "Fertility Trends and Net Reproduction in Agincourt, Rural South Africa, 1992-2004." *Scandinavian Journal of Public Health* 35:68-76.
- Garenne, Michel, Stephen Tollman, and Kathleen Kahn. 2000. "Premarital Fertility in Rural South Africa: A Challenge to Existing Population Policy." *Studies in Family Planning* 31:47-54.
- Garenne, Michel, Stephen Tollman, Kathleen Kahn, Terri Collins, and Shirley Ngwenya. 2001. "Understanding Marital and Premarital Fertility in Rural South Africa." *Journal of Southern African Studies* 27:277-290.

- Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture." Pp. 3-30 in *The Interpretation of Culture*. New York: Basic Books.
- Geronimus, Arline T., and Sanders Korenman. 1992. "The Socioeconomic Consequences of Teen Childbearing Reconsidered." *The Quarterly Journal of Economics* 107:1187-1214.
- Glaser, Barney G., and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- Gogna, Monica, and Silvina Ramos. 2000. "Gender Stereotypes and Power Relations: Unacknowledged Risks for STDs in Argentina." Pp. 117-140 in *Framing the Sexual Subject: The Politics of Gender, Sexuality, and Power*, edited by Richard Parker, Regina Maria Barbosa, and Peter Aggleton. Berkeley, CA: University of California Press.
- Goldberg, Michelle. 2009. *The Means of Reproduction: Sex, Power, and the Future of the World*. New York: The Penguin Press.
- Gómez-Olivé, F. Xavier , Nicole Angotti, Brian Houle, Kerstin Klipstein-Grobusch, Chodziwadziwa Kabudula, Jane Menken, Jill Williams, Stephen Tollman, and Samuel J. Clark. 2013. "Prevalence of HIV Among those 15 and Older in Rural South Africa." *AIDS Care* DOI:10.1080/09540121.2012.750710.
- Goody, Jack, and Stanley Jeyaraja Tambiah. 1973. *Bridewealth and Dowry*. Cambridge: Cambridge University Press.
- Greenhalgh, Susan. 1997. "Methods and Meanings: Reflections on Disciplinary Difference." *Population and Development Review* 23:819-824.
- Gregson, Simon, Geoffrey P. Garnett, and Roy M. Anderson. 1994. "Assessing the Potential Impact of the HIV-1 Epidemic on Orphanhood and the Demographic Structure of Populations in Sub-Saharan Africa." *Population Studies* 48:435-458.
- Gregson, Simon T., Zhuwau M. Anderson, and S.K. Chandiwana. 1997. "HIV and Fertility Change in Rural Zimbabwe." *Health Transition Review* 7:89-112.
- Grieser, Mira, Joel Gittelsohn, Anita V. Shankar, Todd Koppenhaver, Thomas K. Legrand, Ravai Marindo, Webster M. Mavhu, and Kenneth Hill. 2001. "Reproductive Decision Making and the HIV/AIDS Epidemic in Zimbabwe." *Journal of Southern African Studies* 27:225-243.
- Grogger, J, and Stephen Bronars. 1993. "The Socioeconomic Consequences of Teenage Childbearing: Findings from a Natural Experiment." *Family Planning Perspectives* 25:156-161 & 174.
- Gupta, Geeta Rao. 2000. "Gender, Sexuality, and HIV/AIDS: The What, the Why, and the How." in *XIII International AIDS Conference*. Durban, South Africa.

- Gustafsson, Siv, and Seble Y. Worku. 2006. "Marriage Markets and Single Motherhood in South Africa." in *Tinbergen Institute Discussion Paper*. Amsterdam, Netherlands: University of Amsterdam.
- . 2007. "Teenage Motherhood and Long-Run Outcomes in South Africa." Pp. 1-30 in *Tinbergen Institute Discussion Paper*. University of Amsterdam, The Netherlands.
- Hanson, Sandra L. 1994. "Lost Talent: Unrealized Educational Aspirations and Expectations among U.S. Youths." *Sociology of Education* 67:159-183.
- Hargreaves, James R., Mark A. Collinson, Kathleen Kahn, Samuel J. Clark, and Stephen M. Tollman. 2004. "Childhood Mortality among Former Mozambican Refugees and Their Hosts in Rural South Africa." *International Journal of Epidemiology* 33:1271-1278.
- Harris, Kathleen. 1996. "Life After Welfare: Women, Work, and Repeat Dependency." *American Sociological Review* 61:407-426.
- Hassim, Shireen. 2006. *Women's Organizations and Democracy in South Africa: Contesting Authority*. Madison, WI: The University of Wisconsin Press.
- Hattori, Megan Klein, and Ulla Larsen. 2007. "Motherhood Status and Union Formation in Moshi, Tanzania 2002-2003." *Population Studies* 61:185-199.
- Hayford, Sarah. 2009. "The Evolution of Fertility Expectations Over the Life Course." *Demography* 46:765-783.
- Heise, Lori L., and Christopher Elias. 1995. "Transforming AIDS Prevention to Meet Women's Needs: A Focus on Developing Countries." *Social Science & Medicine* 40:931-943.
- Hendriksen, Ellen Setsuko, Audrey Pettifor, Sung-Jae Lee, Thomas J. Coates, and Helen V. Rees. 2007. "Predictors of Condom Use Among Young Adults in South Africa: The Reproductive Health and HIV Research Unit National Youth Survey." *American Journal of Public Health* 97:1241-1248.
- Heywood, Mark. 2003. "Preventing Mother-to-Child HIV Transmission in South Africa: Background Strategies and Outcomes of the Treatment Action Campaign Case against the Minister of Health." *South African Journal on Human Rights* 19:278-315.
- Hoadley, U. 2007. "The Boundaries of Care: Education Policy Interventions for Vulnerable Children." in *Education & Poverty Reduction Strategies: Issues of Policy Coherence Conference*. Pretoria.
- Hoffman, I.F., F.E.A. Martinson, K.A. Powers, D.A. Chilongozi, E.D. Msiska, and E.I. Kachipapa. 2008. "The Year-Long Effect of HIV-Positive Test Results on Pregnancy Intentions, Contraceptive Use, and Pregnancy Incidence among Malawian Women." *JAIDS Journal of Acquired Immune Deficiency Syndromes* 47:477-483.
- Hoffman, John P. 2004. *Generalized Linear Models: An Applied Approach*. Boston: Pearson Education, Inc.

- Hogan, Dennis P., and Nan Marie Astone. 1986. "The Transition to Adulthood." *Annual Review of Sociology* 12:109-130.
- Hosegood, Victoria, Nuala McGrath, and Tom A. Moultrie. 2009. "Dispensing with Marriage: Marital and Partnership Trends in Rural KwaZulu-Natal, South Africa 2000-2006." *Demographic Research* 20:279-312.
- Hotz, V. Joseph, Susan Williams McElroy, and Seth G. Sanders. 1999. "Teenage Childbearing and its Life Cycle Consequences: Exploiting a Natural Experiment." in *National Bureau of Economic Research Working Paper Series*. Cambridge, MA: National Bureau of Economic Research.
- . 2005. "Teenage Childbearing and its Life Cycle Consequences: Exploiting a Natural Experiment." *Journal of Human Resources* XI:683-715.
- Hunter, Mark. 2010. *Love in the Time of AIDS: Inequality, Gender, and Rights in South Africa*. Bloomington, IN: Indiana University Press.
- Hunter, Susan 2003. *Black Death: AIDS in Africa*. New York: Palgrave Macmillan.
- Ignatow, Gabriel. 2007. "Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology?" *Journal for the Theory of Social Behavior* 37:115-135.
- INDEPTH Network. 2004. *INDEPTH Model Life Tables for Sub-Saharan Africa*. Aldershot: Ashgate.
- Jewkes, Rachel, Caesar Vundule, Fidelia Maforah, and Esme Jordaan. 2001. "Relationship Dynamics and Teenage Pregnancy in South Africa." *Social Science & Medicine* 52:733-744.
- Johnson-Hanks, Jennifer. 2006. *Uncertain Honor: Modern Motherhood in an African Crisis*. Chicago: University of Chicago Press.
- Johnson-Hanks, Jennifer A., Christine A. Bachrach, S. Philip Morgan, and Hans-Peter Kohler. 2012. *Understanding Family Change and Variation: Toward a Theory of Conjunctural Action*. New York: Springer.
- Jones, Laura L., Paula L. Griffiths, Shane A. Norris, John M. Pettifor, and Noel Cameron. 2009. "Age at Menarche and the Evidence for a Positive Secular Trend in Urban South Africa." *American Journal of Human Biology* 21:130-132.
- Juhn, Chinhui, Sebnem Kalemli-Ozcan, and Belgi Turan. 2009. "HIV and Fertility in Africa: First Evidence from Population Based Surveys." in *Discussion Paper No. 4473*. Bonn, Germany: IZA: Institute for the Study of Labor.
- Kahn, Kathleen. 2006. "Dying to Make a Fresh Start: Mortality and Health Transition in a New South Africa." in *Epidemiology and Public Health Sciences, Department of Public Health and Clinical Medicine*. Umea, Sweden: Umea University.



- Kahn, Kathleen, Mark A. Collinson, F. Xavier Gomez-Olive, Obed Mokoena, Rhian Twine, Paul Mee, Sulaimon A. Afolabi, Benjamin D. Clark, Chodziwadziwa W. Kabudula, Audrey Khosa, Simon Khoza, Mildred G. Shabangu, Bernard Silaule, Jeffrey B. Tibane, Ryan G. Wagner, Michel L. Garenne, Samuel J. Clark, and Stephen M. Tollman. 2012. "Profile: Agincourt Health and Socio-demographic Surveillance System." *International Journal of Epidemiology* 41:988-1001.
- Kahn, Kathleen, Michel L. Garenne, Mark A. Collinson, and Stephen M. Tollman. 2007a. "Mortality Trends in a New South Africa: Hard to Make a Fresh Start." *Scandinavian Journal of Public Health* 35:26-34.
- Kahn, Kathleen, Stephen M. Tollman, Mark A. Collinson, Samuel J. Clark, Rhian Twine, Benjamin D. Clark, Mildred Shabangu, Francesc Xavier Gomez-Olive, Obed Mokoena, and Michel L. Garenne. 2007b. "Research into Health, Population and Social Transitions in Rural South Africa: Data and Methods of the Agincourt Health and Demographic Surveillance System." *Scandinavian Journal of Public Health* 35:8-20.
- Kahn, Kathleen, Stephen M. Tollman, Michel Garenne, and John S.S. Gear. 2000. "Validation and Application of Verbal Autopsies in a Rural Area of South Africa." *Tropical Medicine and International Health* 5:824-831.
- Kaida, Angela, Irene Andia, Marissa Maier, Steffanie Strathdee, David R. Bangsberg, Jerry Spiegel, Francisco I. Bastos, Glenda Gray, and Robert Hogg. 2006. "The Potential Impact of Antiretroviral Therapy on Fertility in sub-Saharan Africa." *Current HIV/AIDS Reports* 3:177-184.
- Kaler, Amy, and Susan Watkins. 2010. "Asking God about the Date You Will Die: HIV Testing as a Zone of Uncertainty in Rural Malawi." *Demographic Research* 23:905-932.
- Kalichman, Seth C., and Leickness Simbayi. 2004. "Traditional Beliefs about the Cause of AIDS and AIDS-related Stigma in South Africa." *AIDS Care* 16:572-580.
- Kalichman, Seth C., Leickness Simbayi, Demeria Cain, N Henda, and A. Cloete. 2007. "Sexual Assault, Sexual Risks and Gender Attitudes in a Community Sample of South African Men." *AIDS Care* 19:20-27.
- Kalipeni, Ezekiel. 2000. "Health and Disease in Southern Africa: A Comparative and Vulnerability Perspective." *Social Science & Medicine* 50:965-983.
- Kanniappan, S., M.J. Jeyapaul, and S. Kalyanwala. 2008. "Desire for Motherhood: Exploring HIV-Positive Women's Desires, Intentions and Decision-Making in Attaining Motherhood." *AIDS Care* 20:625-630.
- Kao, Grace, and Marta Tienda. 1998. "Educational Aspirations of Minority Youth." *American Journal of Education* 106:349-384.
- Kaufman, Carol E., Thea de Wet, and Jonathan Stadler. 2001. "Adolescent Pregnancy and Parenthood in South Africa." *Studies in Family Planning* 32:147-160.

- Khattab, Nabil. 2003. "Explaining Educational Aspirations of Minority Students: The Role of Social Capital and Students' Perceptions." *Social Psychology of Education* 6:283-302.
- Kidd, Pamela S., and Mark B. Parshall. 2000. "Getting the Focus and the Group: Enhancing Analytical Rigor in Focus Group Research." *Qualitative Health Research* 10:293-308.
- Kingdon, Geeta Gandhi, and John Knight. 2001. "Unemployment in South Africa: The Nature of the Beast." in *WPS/2001-15*. Oxford: Centre for the Study of African Economies, Department of Economics, University of Oxford.
- Kirshenbaum, Sheri B., A. Elizabeth Hirky, Jacqueline Correale, Rise B. Goldstein, Mallory O. Johnson, Mary Jane Rotheram-Borus, and Anke A. Ehrhardt. 2004. "'Throwing the Dice': Pregnancy Decision-Making among HIV-Positive Women in Four U.S. Cities." *Perspectives on Sexual and Reproductive Health* 36:106-113.
- Klasen, S., and I. Woolard. 2008. "Surviving Unemployment Without State Support: Unemployment and Household Formation in South Africa." *Journal of African Economies* 18:1-51.
- Knodel, John. 1997. "A Case for Nonanthropological Qualitative Methods for Demographers." *Population and Development Review* 23:847-853.
- Kodzi, Ivy A., John B. Casterline, and Peter Aglobitse. 2010. "The Time Dynamics of Individual Fertility Preferences Among Rural Ghanaian Women." *Studies in Family Planning* 41:45-54.
- Koenig, Michael A., Iryna Zablotska, Thomas Lutalo, Fred Nalugoda, Jennifer Wagman, and Ron Gray. 2004. "Coerced First Intercourse and Reproductive Health Among Adolescent Women in Rakai, Uganda." *International Family Planning Perspectives* 30:156-164.
- Krueger, R.A. 1994. *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, CA: Sage.
- Laher, Fatima, Catherine S. Todd, Mark A. Stibich, Rebecca Phofa, Xoliswa Behane, Lerato Mohapi, and Glenda Gray. 2009. "A Qualitative Assessment of Decisions Affecting Contraceptive Utilization and Fertility Intentions among HIV-Positive Women in Soweto, South Africa." *AIDS and Behavior* 13:S47-S54.
- Landale, Nancy S., and R.S. Oropesa. 2007. "Hispanic Families: Stability and Change." *Annual Review of Sociology* 33:381-405.
- Lary, Heidi, Suzanne Maman, Maligo Katebalila, and Jessie Mbwambo. 2004. "Exploring the Association between HIV and Violence: Young People's Experiences with Infidelity, Violence and Forced Sex in Dar es Salaam, Tanzania." *International Family Planning Perspectives* 30:200-206.
- Lewis, James J.C., Carine Ronsmans, Alex Ezeh, and Simon Gregson. 2004. "The Population Impact of HIV on Fertility in Sub-Saharan Africa." *AIDS* 18:S35-S43.

- Lichter, Daniel T., Deborah Roempke Graefe, and J. Brian Brown. 2003. "Is Marriage a Panacea? Union Formation Among Economically Disadvantaged Unwed Mothers." *Social Problems* 50:60-86.
- Lloyd, Cynthia B., Carol E. Kaufman, and Paul Hewett. 2000. "The Spread of Primary Schooling in Sub-Saharan Africa: Implications for Fertility Change." *Population and Development Review* 26:483-515.
- Mabin, A. 1992. "Comprehensive Segregation: The Origins of the Group Areas Act and its Planning Apparatus." *Journal of Southern African Studies* 18:405-429.
- MacLeod, Jay. 1995. *Ain't No Makin' It: Aspirations & Attainment in a Low-Income Neighborhood*. Boulder, CO: Westview Press.
- Madhavan, Sangeetha. 2010. "Early Childbearing and Kin Connectivity in Rural South Africa." *International Journal of Sociology of the Family* 36:139-157.
- Madhavan, Sangeetha, Abigail Harrison, and Christie Sennott. 2013. "Management of Non-marital Fertility in Two South African Communities." *Culture, Health & Sexuality*.
- Madhavan, Sangeetha, and Enid J. Schatz. 2007. "Coping with Change: Household Structure and Composition in Rural South Africa, 1992-2003." *Scandinavian Journal of Public Health* 35:85-93.
- Madhavan, Sangeetha, and Kevin J.A. Thomas. 2005. "Childbearing and Schooling: New Evidence from South Africa." *Comparative Education Review* 49:452-467.
- Maharaj, Pranitha. 2001. "Male Attitudes to Family Planning in the Era of HIV/AIDS: Evidence from KwaZulu-Natal, South Africa." *Journal of Southern African Studies* 27:245-257.
- Maharaj, Pranitha, Carol Kaufman, and Linda Richter. 2000. "Children's Schooling in South Africa: Transitions and Tensions in Households and Communities. CSDS Working Paper No. 30." Durban: School of Development Studies, University of Natal.
- Maier, Marissa, Irene Andia, Nneka Emenyonu, David Guzman, Angela Kaida, Larry Pepper, Robert Hogg, and David R. Bangsberg. 2009. "Antiretroviral Therapy is Associated with Increased Fertility Desire, but not Pregnancy or Live Birth, among HIV+ Women in an Early HIV Treatment Program in Rural Uganda." *AIDS and Behavior* 13:S28-S37.
- Makiwane, Monde. 2010. "The Child Support Grant and Teenage Childbearing in South Africa." *Development Southern Africa* 27:193-204.
- Mane, Purnima, and Peter Aggleton. 2000. "Cross-National Perspectives on Gender and Power." Pp. 104-116 in *Framing the Sexual Subject: The Politics of Gender, Sexuality and Power*, edited by Richard Parker, Regina Maria Barbosa, and Peter Aggleton. Berkeley, CA: University of California Press.
- Manning, Wendy D., and A. Jones. 2006. "Cohabitation and Marital Dissolution." in *Paper presented at the Annual Meeting of the Population Association of America, Los Angeles, CA*.

- Manning, Wendy D., Monica A. Longmore, and Peggy C. Giordano. 2007. "The Changing Institution of Marriage: Adolescents' Expectations to Cohabit and to Marry." *Journal of Marriage and Family* 69:559-575.
- Marini, Margaret Mooney. 1984. "Age and Sequencing Norms in the Transition to Adulthood." *Social Forces* 63:229-244.
- Marks, Shula. 2002. "An Epidemic Waiting to Happen? The Spread of HIV/AIDS in South Africa in Social and Historical Perspective." *African Studies* 61:13-26.
- Marteleteo, Leticia, David Lam, and Vimal Ranchhod. 2006. "Schooling and Early Childbearing in Urban South Africa." Ann Arbor, MI: Institute for Social Research/University of Michigan.
- Massad, L. Stewart, Gayle Springer, Lisa Jacobson, Heather Watts, Kathryn Anastos, Abner Korn, Helen Cejtin, Alice Stek, Mary Young, Julie Schmidt, and Howard Minkoff. 2004. "Pregnancy Rates and Predictors of Conception, Miscarriage and Abortion in US Women with HIV." *AIDS* 18:281-286.
- Mathai, M. 1997. "A Study of the Knowledge and Problem Solving Ability of Family Planning Nurses in Mdantsane." in *Maternal and Child Health*. Cape Town: University of Cape Town.
- Mensch, Barbara S., Susheela Singh, and John B. Casterline. 2005. "Trends in the Timing of First Marriage Among Men and Women in the Developing World." in *Population Council Working Papers*. New York: Population Council.
- Meyer-Weitz, Anna. 2005. "Understanding Fatalism in HIV/AIDS Protection: The Individual in Dialogue with Contextual Factors." *African Journal of AIDS Research* 4:75-82.
- Mfono, Zanele. 1998. "Teenage Contraceptive Needs in Urban South Africa: A Case Study." *International Family Planning Perspectives* 24:180-183.
- Miles, Nick. 2005. "South Africa's Broken HIV Promises." in *BBC News*. Cape Town.
- Mills, Mary Beth. 2004. *Thai Women in the Global Labor Force: Consuming Desires, Contested Stories*. Piscataway, New Jersey: Rutgers University Press.
- Mische, Ann. 2009. "Projects and Possibilities: Researching Futures in Action." *Sociological Forum* 24:694-704.
- Moffett, Helen. 2006. "'These Women, They Force Us to Rape Them!': Rape as Narrative of Social Control in Post-Apartheid South Africa." *Journal of Southern African Studies* 32:129-144.
- Mollborn, Stefanie. 2009. "American Adults' Norms about Nonmarital Pregnancy and Their Influence on Willingness to Provide Resources to Parents." *Journal of Marriage and Family* 71:122-134.
- Morgan, David L. 1993. *Successful Focus Groups*. Newbury Park, CA: Sage.

- . 1996a. "Focus Groups." *Annual Review of Sociology* 22:129-152.
- Morgan, Stephen L. 1996b. "Trends in Black-White Differences in Educational Expectations: 1980-1992." *Sociology of Education* 69:308-319.
- Moultrie, Tom A., Victoria Hosegood, Nuala McGrath, Catherine Hill, Kobus Herbst, and Marie-Louise Newell. 2008. "Refining the Criteria for Stalled Fertility Declines: An Application to Rural KwaZulu-Natal, South Africa 1990-2005." *Studies in Family Planning* 39:39-48.
- Moultrie, Tom A., and Ian M. Timaeus. 2001. "Fertility and Living Arrangements in South Africa." *Journal of Southern African Studies* 27:207-223.
- Moyo, W., and M.T. Mbizvo. 2004. "Desire for a Future Pregnancy Among Women in Zimbabwe in Relation to their Self-Perceived Risk of HIV Infection, Child Mortality, and Spontaneous Abortion." *AIDS and Behavior* 8:9-15.
- Mturi, Akim J., Thokozani Xaba, and Dorothy Sekokotla. 2005. "Assessment of Circumstances Facing Contemporary Families in South Africa." Durban, South Africa: School of Development Studies, University of KwaZulu-Natal.
- Myer, Landon, Chelsea Morroni, and Kevin Rebe. 2007. "Prevalence and Determinants of Fertility Intentions of HIV-Infected Women and Men Receiving Antiretroviral Therapy in South Africa." *AIDS Patient Care and STDs* 21:278-285.
- National Research Council and Institute of Medicine. 2005. *Growing Up Global: The Changing Transitions to Adulthood in Developing Countries*. Washington D.C.: The National Academies Press.
- Neugarten, Bernice L., and Gunhild O. Hagestad. 1976. "Age and the Life Course." in *Handbook of Aging and the Social Sciences*, edited by R. Binstock and Ethel Shanas. New York: Van Nostrand-Reinhold.
- Neugarten, Bernice L., Joan W. Moore, and John C. Lowe. 1965. "Age Norms, Age Constraints, and Adult Socialization." *The American Journal of Sociology* 70:710-717.
- Nguyen, Ruby H.N., Stephen J. Gange, Fred Wabwire-Mangen, Nelson K. Sewankambo, David Serwadda, Maria J. Wawer, Thomas C. Quinn, and Ronald H. Gray. 2006. "Reduced Fertility Among HIV-infected Women Associated with Viral Load in Rakai District, Uganda." *International Journal of STDs and AIDS* 17:842-846.
- Noble, Michael. 2006. "The Provincial Indices of Multiple Deprivation for South Africa 2001." Department of Social Policy and Social Work, University of Oxford.
- Noel-Miller, Claire M. 2003. "Concern Regarding the HIV/AIDS Epidemic and Individual Childbearing: Evidence from Rural Malawi." *Demographic Research Special Collection* 1:319-348.

- Notestein, Frank W. 1945. "Population - The Long View." Pp. 36-57 in *Food for the World*, edited by Theodore W. Schultz. Chicago: University of Chicago Press.
- Nutall, Sarah. 2004. "Stylizing the Self: The Y Generation in Rosebank, Johannesburg." *Public Culture* 16:430-452.
- Obermeyer, Carla Makhlof. 1997. "Qualitative Methods: A Key to a Better Understanding of Demographic Behavior?" *Population and Development Review* 23:813-818.
- Ortner, Sherry B. 2003. *New Jersey Dreaming: Capital, Culture, and the Class of '58*. Durham, N.C.: Duke University Press.
- Oster, Emily. 2012. "HIV and Sexual Behavior Change: Why not Africa?" *Journal of Health Economics* 31:35-49.
- Outwater, Anne, Naeema Abrahams, and Jacquelyn C. Campbell. 2005. "Women in South Africa: Intentional Violence and HIV/AIDS: Intersections and Preventions." *Journal of Black Studies* 35:135-154.
- Paiva, Vera. 2000. "Gendered Scripts and the Sexual Scene: Promoting Sexual Subjects among Brazilian Teenagers." Pp. 216-239 in *Framing the Sexual Subject: The Politics of Gender, Sexuality and Power*, edited by Richard Parker, Regina Maria Barbosa, and Peter Aggleton. Berkeley, CA: University of California Press.
- Pearce, Lisa D. 2002. "Integrating Survey and Ethnographic Methods for Systematic Anomalous Case Analysis." *Sociological Methodology* 32:103-132.
- Peltzer, Karl, Li-Wei Chao, and Pelisa Dana. 2009. "Family Planning among HIV Positive and Negative Prevention of Mother to Child Transmission (PMTCT) Clients in a Resource Poor Setting in South Africa." *AIDS and Behavior* 13:973-979.
- Peltzer, Karl, Supa Pengpid, and Teresa-Ann B. Mashego. 2006. *Youth Sexuality in the Context of HIV/AIDS in South Africa*. New York: Nova Science Publishers, Inc.
- Peltzer, Karl, Supa Pengpil, and Teresa-Ann B. Mashego. 2006. *Youth Sexuality in the Context of HIV/AIDS in South Africa*. New York: Nova Science Publishers, Inc.
- Petros, George, Collins O. Airhihenbuwa, Leickness Simbayi, Shandir Ramlagan, and Brandon Brown. 2006. "HIV/AIDS and 'Othering' in South Africa: The Blame Goes On." *Culture, Health & Sexuality* 8:67-77.
- Pettifor, Audrey E., Helen V. Rees, Immo Kleinschmidt, Annie E. Steffenson, Catherine MacPhail, Lindiwe Hlongwa-Madikizela, Kerry Vermaak, and Nancy S. Padian. 2005a. "Young People's Sexual Health in South Africa: HIV Prevalence and Sexual Behaviors from a Nationally Representative Household Survey." *AIDS* 19:1525-1534.
- . 2005b. "Young People's Sexual Health in South Africa: HIV Prevalence and Sexual Behaviors from a Nationally Representative Household Survey." *AIDS* 19:1525-1534.

- Posel, Deborah, Kathleen Kahn, and Liz Walker. 2007. "Living with Death in a Time of AIDS: A Rural South African Case Study." *Scandinavian Journal of Public Health* 35:138-146.
- Preston-Whyte, Eleanor, and Judith Allen. 1992. "Teenage Pregnancy in the Coloured Community." Pp. 226-246 in *Questionable Issue: Illegitimacy in South Africa*, edited by Sandra Burman and Eleanor Preston-Whyte. Oxford: Oxford University Press Southern Africa.
- Preston-Whyte, Eleanor, Christine Varga, Herman Oosthuizen, Rachel Roberts, and Frederick Blose. 2000. "Survival Sex and HIV/AIDS in an African City." Pp. 165-190 in *Framing the Sexual Subject: The Politics of Gender, Sexuality and Power*, edited by Richard Parker, Regina Maria Barbosa, and Peter Aggleton. Berkeley, CA: University of California Press.
- Preston-Whyte, Eleanor, and Maria Zondi. 1992. "African Teenage Pregnancy: Whose Problem?" Pp. 226-246 in *Questionable Issue: Illegitimacy in South Africa*, edited by Sandra Burman and Eleanor Preston-Whyte. Oxford: Oxford University Press Southern Africa.
- Pugh, Allison J. 2013. "What Good are Interviews for Thinking about Culture? Demystifyin Interpretive Analysis." *American Journal of Cultural Sociology* 1:42-68.
- Puoane, T., K. Steyn, D. Bradshaw, R. Laubscher, J. Fourie, V. Lambert, and N. Mbananga. 2002. "Obesity in South Africa: The South African Demographic and Health Survey." *Obesity Research* 10:1038-1048.
- Ramphele, Mamphela. 2000. "Teach Me How to Be a Man: An Exploration of the Definition of Masculinity." Pp. 102-119 in *Violence and Subjectivity: The Prosthetics and Aesthetics of Terror*, edited by Veena Das, Arthur Kleinman, Mamphela Ramphele, and Pamela Reynolds. Berkeley, CA: University of California Press.
- Randall, Sara, and Todd Koppenhaver. 2004. "Qualitative Data in Demography: The Sound of Silence and Other Problems." *Demographic Research* 11:57-94.
- Rao, D., T.C. Kekwaletswe, S. Hosek, J. Martinez, and F. Rodriguez. 2007. "Stigma and Social Barriers to Medication Adherence with Urban Youth Living with HIV." *AIDS Care* 19:28-33.
- Rehle, Thomas, Olive Shisana, Victoria Pillay, Khangelani Zuma, Adrian Puren, and Warren Parker. 2007. "National HIV Incidence Measures - New Insights into the South African Epidemic." *South African Medical Journal* 97:194-199.
- Reniers, Georges. 2008. "Marital Strategies for Regulating Exposure to HIV." *Demography* 45:417-438.
- Reniers, Georges, and Rania T'faily. 2012. "Polygyny, Partnership Concurrence, and HIV Transmission in Sub-Saharan Africa." *Demography* 49:1075-1101.
- Riley, Nancy. 1997. "Gender, Power, and Population Change." *Population Bulletin* 52:1-48.

- Rindfuss, Ronald R. 1991. "The Young Adult Years: Diversity, Structural Change, and Fertility." *Demography* 28:493-512.
- Rindfuss, Ronald R., S. Philip Morgan, and Gary Swicegood. 1988. *First Births in America: Changes in the Timing of Parenthood*. Berkeley, CA: University of California Press.
- Rindfuss, Ronald R., C. Gray Swicegood, and Rachel A. Rosenfeld. 1987. "Disorder in the Life Course: How Common and Does It Matter?" *American Sociological Review* 52:785-801.
- Rintamaki, Lance S., Terry C. Davis, Silvia Skripkauskas, Charles L. Bennett, and Michael S. Wolf. 2006. "Social Stigma Concerns and HIV Medication Adherence." *AIDS Patient Care and STDs* 20:359-368.
- Robins, Steven. 2004. "'Long Live Zackie, Long Live!': AIDS Activism, Science and Citizenship after Apartheid." *Journal of Southern African Studies* 30:651-672.
- Rosenberg, Rebecca. 2007. "School Uniforms Place Burden on Poor Families." in *ioL news*: [www.iol.co.za](http://www.iol.co.za)
- Ross, Amanda, Lieve Van der Paal, Rosemary Lubega, Billy N. Mayanja, Leigh Anne Shafer, and Jimmy Whitworth. 2004. "HIV-1 Disease Progression and Fertility: The Incidence of Recognized Pregnancy and Pregnancy Outcome in Uganda." *AIDS* 18:799-804.
- Rutenberg, Naomi, Ann E. Biddlecom, and Frederick A.D. Kaona. 2000. "Reproductive Decision-Making in the Context of HIV and AIDS: A Qualitative Study in Ndola, Zambia." *International Family Planning Perspectives* 26:124-130.
- Rutenberg, Naomi, Cathrien Kehus-Alons, Lisanne Brown, Kate Macintyre, Anthea Dallimore, and Carol E. Kaufman. 2001. "Transitions to Adulthood in the Context of AIDS in South Africa: Report of Wave I." Durban, South Africa: University of Natal and Population Council.
- Saferstein, B. 1995. "Focusing Opinions: Conversation, Authority, and the (Re)construction of Knowledge." in *Presented at the Annual Meeting of the American Sociological Association*. Washington DC.
- Schatz, Enid. 2007. "'Taking Care of my Own Blood': Older Women's Relationships to their Households in Rural South Africa." *Scandinavian Journal of Public Health* 35:147-154.
- . 2009. "Nesting Semi-Structured Interviews in Surveys or Censuses: More than the Sum of the Parts." in *Institute of Behavioral Science Population Program Working Paper Series*. Boulder: University of Colorado Boulder.
- Schatz, Enid, and Catherine Ogunmefun. 2007. "Caring and Contributing: The Role of Older Women in Rural South African Multi-generational Households in the HIV/AIDS Era." *World Development* 35:1390-1403.



- Schoen, Robert, Nan Marie Astone, Young J. Kim, Constance A. Nathanson, and Jason M. Fields. 1999. "Do Fertility Intentions Affect Fertility Behavior?" *Journal of Marriage and Family* 61:790-799.
- Schuster, Mark A., Rebecca Collins, William E. Cunningham, Sally C. Morton, Sally Zierler, Myra Wong, Wenli Tu, and David E. Kanouse. 2005. "Perceived Discrimination in Clinical Care in a Nationally Representative Sample of HIV-Infected Adults Receiving Health Care." *Journal of General Internal Medicine* 20:807-813.
- Schutz, Alfred. 1967. *The Phenomenology of the Social World*. Evanston, IL: Northwestern University Press.
- Seeley, Janet, Rachel Grellier, and Tony Barnett. 2004. "Gender and HIV/AIDS Impact Mitigation in Sub-Saharan Africa - Recognizing the Constraints." *SAHARA-J: Journal of Social Aspects of HIV/AIDS* 1:87-98.
- Seidman, Gay. 1999. "Is South Africa Different? Sociological Comparisons and Theoretical Contributions from the Land of Apartheid." *Annual Review of Sociology* 25:419-440.
- Sen, Amartya. 1999. *Development as Freedom*. New York: Anchor Books.
- Sennott, Christie, and Sara Yeatman. 2012. "Stability and Change in Fertility Preferences among Young Women in Malawi." *International Perspectives on Sexual and Reproductive Health* 38:34-42.
- Setel, Philip. 1995. "The Effects of HIV and AIDS on Fertility in East and Central Africa." *Health Transition Review* 5:179-189.
- Settersten, Richard A. 2003. "Age Structuring and the Rhythm of the Life Course." Pp. 81-98 in *Handbook of the Life Course*, edited by Jeylan T. Mortimer and Michael J. Shanahan. New York: Kluwer Academic/Plenum Publishers.
- Settersten, Richard A., and Gunhild O. Hagestad. 1996. "What's the latest? Cultural Age Deadlines for Family Transitions." *The Gerontologist* 36:178-188.
- Shanahan, Michael J. 2000. "Pathways to Adulthood in Changing Societies: Variability and Mechanisms in Life Course Perspective." *Annual Review of Sociology* 26:667-692.
- Shapiro, David, and Tesfayi Gebreselassie. 2008. "Fertility Transition in Sub-Saharan Africa: Falling and Stalling." *African Population Studies* 23:3-23.
- Short, Susan E., and Gebre-Egziabher Kiros. 2002. "Husbands, Wives, Sons, and Daughters: Fertility Preferences and the Demand for Contraception in Ethiopia." *Population Research and Policy Review* 21:377-402.
- Simbayi, Leickness C., Seth C. Kalichman, Sean Jooste, Charsey Cherry, Sakhumzi Mfecane, and Demeria Cain. 2005. "Risk Factors for HIV-AIDS Among Youth in Cape Town, South Africa." *AIDS and Behavior* 9:53-61.

- Skinner, Donald, Sakhumzi Mfecane, Tebogo Gumede, Nomvo Henda, and Adlai Davids. 2005. "Barriers to Accessing PMTCT Services in a Rural Area of South Africa." *African Journal of AIDS Research* 4:115-123.
- Smith, Alex Duval. 2013. "South African Platinum Workers Strike Over Job Cut Plans." in *The Guardian*. Cape Town: guardian.co.uk.
- Stadler, Jonathan. 2003. "Rumor, Gossip and Blame: Implications for HIV/AIDS Prevention in the South African Lowveld." *AIDS Education and Prevention* 15:357-368.
- Statistics South Africa. 2005. "Stages in the Life Cycle of South Africans." Pretoria: Statistics South Africa.
- . 2008. "Labour Force Survey: Historical Revisions, March Series, 2001-2007 (P0201)."
- . 2010a. "Estimation of Fertility from the 2007 Community Survey of South Africa." Pretoria: Statistics South Africa.
- . 2010b. "Marriages and Divorces, 2010." in *Statistical Release P0307*. Pretoria: Statistics South Africa.
- . 2011. "Mid-Year Population Estimates, 2011." Pretoria: Statistics South Africa.
- . 2013. "Men, Women and Children: Findings of the Living Conditions Survey, 2008/2009." Pretoria: Statistics South Africa.
- Steinberg, Johnny. 2008. *Sizwe's Test: A Young Man's Journey through Africa's AIDS Epidemic*. New York: Simon & Schuster.
- Stewart, Kearsley A. 2000. "Toward a Historical Perspective on Sexuality in Uganda: The Reproductive Lifeline Technique for Grandmothers and Their Daughters." *Africa Today* 47:123-148.
- Stover, John. 1998. "Revising the Proximate Determinants of Fertility Framework: What Have We Learned in the Past 20 Years?" *Studies in Family Planning* 29:255-267.
- Strand, Steve, and Joe Winston. 2008. "Educational Aspirations in Inner City Schools." *Educational Studies* 34:249-267.
- Strauss, Anselm L., and Juliet Corbin. 1990. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage.
- Taylor, Darren. 2012. "Spector of Xenophobia Haunts South Africa." in *Voice of America*. <http://www.voanews.com/content/spector-of-xenophobia-haunts-south-africa/1553789.html>.

- Temmerman, M., M.S. Moses, D. Kiragu, S. Fusallah, I. Wamola, and P. Piot. 1994. "Post-Partum Counseling of HIV Infected Women and Their Subsequent Reproductive Behavior." in *Women, HIV, and AIDS*, edited by M. Berer and R. Sunanda. London: Pandora Press.
- Terceira, Nicola, Simon Gregson, Basia Zaba, and Peter R. Mason. 2003. "The Contribution of HIV to Fertility Decline in Rural Zimbabwe, 1985-2000." *Population Studies* 57:149-164.
- Thornton, Alice C., Frank Romanelli, and Jana D. Collins. 2004. "Reproductive Decision Making for Couples Affected by HIV: A Review of the Literature." *International AIDS Society - USA, Topics in HIV Medicine* 12:61-67.
- Thornton, Robert J. 2008. *Unimagined Community: Sex, Networks, and AIDS in Uganda and South Africa*. Berkeley, CA: University of California Press.
- Timaus, Ian M., and Tom A. Moultrie. 2008. "On Postponement and Birth Intervals." *Population and Development Review* 34:483-510.
- Tollman, Stephen M., K. Herbst, Michel Garenne, J.S. Gear, and Kathleen Kahn. 1999. "The Agincourt Demographic and Health Study - Site Description, Baseline Findings, and Implications." *South African Medical Journal* 89:858-864.
- Toothman, Erica L., and Anne E. Barrett. 2011. "Mapping Midlife: An Examination of Social Factors Shaping Conceptions of the Timing of Middle Age." *Advances in Life Course Research* 16:99-111.
- Trinitapoli, Jenny, and Sara Yeatman. 2011. "Uncertainty and Fertility in a Generalized AIDS Epidemic." *American Sociological Review* in press: .
- UNAIDS. 2002. "A Conceptual Framework and Basis for Action: HIV/AIDS Stigma and Discrimination." Geneva, Switzerland: UNAIDS.
- . 2006. "Report on the Global AIDS Epidemic: Executive Summary." Pp. 1-24 in *Joint United Nations Programme on HIV/AIDS (UNAIDS) 2006*. Geneva, Switzerland.
- . 2008. "Report on the Global AIDS epidemic." in *XVII International AIDS Conference*. Mexico City, Mexico.
- . 2009. "South Africa." <http://www.unaids.org/en/regionscountries/countries/southafrica/>.
- UNICEF. 2009. "The State of the World's Children: Maternal and Newborn Health." [www.unicef.org](http://www.unicef.org).
- Vaisey, Stephen. 2009. "Motivation and Justification: A Dual-Process Model of Culture in Action." *American Journal of Sociology* 114:1675-1715.

- van Benthem, Birgit H.B., Isabelle de Vincenzi, Marie-Christine Delmas, Christine Larsen, Anneke van den Hoek, Maria Prins, and European Study on the Natural History of HIV Infection in Women. 2000. "Pregnancies Before and After HIV Diagnosis in a European Cohort of HIV-infected Women." *AIDS* 14:2171-2178.
- van de Kaa, D.J. 1996. "Anchored Narratives: The Story and Findings of Half a Century of Research into the Determinants of Fertility." *Population Studies* 50:389-432.
- Varga, Christine A. 2003. "How Gender Roles Influence Sexual and Reproductive Health among South African Adolescents." *Studies in Family Planning* 34:160-172.
- Walby, Sylvia. 1990. *Theorizing Patriarchy*. Oxford, United Kingdom: Blackwell Publishers.
- Walker, Liz, and Leah Gilbert. 2002. "HIV/AIDS: South African Women at Risk." *African Journal of AIDS Research* 1:75-85.
- Wallrauch, C., T. Barnighausen, and Marie-Louise Newell. 2010. "HIV Prevalence and Incidence in People 50 Years and Older in Rural South Africa." *South African Medical Journal* 100:812-814.
- Watson, Mark B., Cheryl D. Foxcroft, Martina A. Horn, and Graham B. Stead. 1997. "Occupational Aspirations of Black South African Adolescents." *Psychological Reports* 80:627-635.
- Weinberger, Mary Beth. 1987. "The Relationship Between Women's Education and Fertility: Selected Findings from the World Fertility Surveys." *International Family Planning Perspectives* 13:35-46.
- Weiss, Robert S. 1994. *Learning From Strangers: The Art and Method of Qualitative Interview Studies*. New York: The Free Press.
- Welz, T., Victoria Hosegood, S. Jaffar, J. Batzing-Feigenbaum, Kobus Herbst, and Marie-Louise Newell. 2007. "Continued Very High Prevalence of HIV Infection in Rural KwaZulu-Natal, South Africa: A Population-Based Longitudinal Study." *AIDS* 21:1467-1472.
- Westoff, Charles F., Elliot G. Mishler, and E. Lowell Kelly. 1957. "Preferences in Size of Family and Eventual Fertility Twenty Years After." *American Journal of Sociology* 62:491-497.
- Williams, Jill, Latifat Ibisomi, Benn Sartorius, Kathleen Kahn, Mark Collinson, Stephen Tollman, and Michel Garenne. 2013. "Convergence in Fertility of South Africans and Mozambicans in Rural South Africa, 1993-2009." *Global Health Action* 6:20-26.
- Wood, Kate, and Rachel Jewkes. 2006. "Blood Blockages and Scolding Nurses: Barriers to Adolescent Contraceptive Use in South Africa." *Reproductive Health Matters* 14:109-118.
- Wood, Kate, and Helen Lambert. 2008. "Coded Talk, Scripted Omissions: The Micropolitics of AIDS Talk in an Affected Community in South Africa." *Medical Anthropology Quarterly* 22:213-233.

- Wood, Katharine, and Rachel Jewkes. 1997. "Violence, Rape, and Sexual Coercion: Everyday Love in a South African Township." *Gender and Development* 5:41-46.
- Worden, Nigel. 2007. *The Making of Modern South Africa: Conquest, Apartheid, Democracy, Fourth Edition*. Oxford: Wiley-Blackwell.
- World Bank. 2003. "Country Brief: South Africa." [www.worldbank.org](http://www.worldbank.org).
- Wright, Gemma, and Michael Noble. 2009. "The South African Index of Multiple Deprivation 2007 at Municipality Level." Pretoria: Department of Social Development.
- Yeatman, Sara. 2009a. "HIV Infection and Fertility Preferences in Rural Malawi." *Studies in Family Planning* 4:261-276.
- . 2009b. "The Impact of HIV Status and Perceived Status on Fertility Desires in Rural Malawi." *AIDS and Behavior* 13:S12-S19.
- Zaba, Basia, and Simon Gregson. 1998. "Measuring the Impact of HIV on Fertility in Africa." *AIDS* 12:S41-S50.
- Zabin, Laurie Schwab, and Karungari Kiragu. 1998. "The Health Consequences of Adolescent Sexual and Fertility Behavior in Sub-Saharan Africa." *Studies in Family Planning* 29:210-232.
- Zierler, Sally, and Nancy Krieger. 1997. "Reframing Women's Risk: Social Inequalities and HIV Infection." *Annual Review of Public Health* 18:401-436.
- Zimbardo, Philip, and John Boyd. 2008. *The Time Paradox: The New Psychology of Time that Will Change Your Life*. New York: Free Press.
- Zwang, Julien, and Michel Garenne. 2008. "Social Context of Premarital Fertility in Rural South Africa." *African Journal of Reproductive Health* 12:98-110.
- Zwang, Julien, Michel Garenne, Kathleen Kahn, Mark Collinson, and Stephen Tollman. 2007. "Trends in Mortality From Pulmonary Tuberculosis and HIV/AIDS Co-Infection in Rural South Africa (Agincourt)." *Transactions of the Royal Society of Tropical Medicine and Hygiene* 101:893-898.

## APPENDIX A: Focus Group Discussion Questions

Interview Schedule

Focus Group

Age Cohort 18-35

### General Views

What are the biggest issues facing Mpumalanga Province these days?  
How have these issues changed from important issues 5 or 10 years ago?  
What are the things you worry about?

Hi swihi swiphiso leswi langutaneke na xifundzha xa Mpumalanga eka masiku lawa?  
Xana swiphiso leswi swi nga va swi cince yini swa nkoka eka ntlhanu kumbe khume ra  
malembe laya hundzeke?  
Xana I yini leswi mi vilerisaka?

### Marriage

What do you think is the best age for a young woman to get married?  
Xana mi ehleketa leswaku hi wahi malembe lama nga kahle eka waxisati leswaku a tekiwa?

Ideally, what should a marriage be like? Do you know marriages like this?  
Kahle-kahle, mi vona onge vukati byi nga va njhani? Xana mi nga va mi tiva vukati  
byin'wana lebyi fanaka na lebyi?

How much of an age difference between husbands and wives is ideal? Why?  
Xana hi wahi malembe lawa nuna na nsati va fanelaka ku hambana ha wona? Hikokwalho ka  
yini?

What is the role of lobola in marriage?  
What is the impact of lobola on the couple? How about the two families?  
Xana hi wihi nkoka wo lovola eka vukati? Xana hi wihi mpfuno wo lovola eka vatekani?  
Xana hi wihi mpfuno eka mindyangu leyimbirhi?

How old would you say is “too old” for getting married? Too young?  
Xana hi wahi malembe lawa u nga vulaka leswaku munhu I nkulu ku va a nga tekiwa?  
Kumbe I ntsongo ku va a nga tekiwa?

Is it easy for women to find a man to marry these days? Why/why not?  
Xana swa olova eka waxisati ku kuma nuna wo n'wi teka masiku lawa? Hikokwalaho ka yini?  
Loko ku ri e-e, hikokwalaho ka yini?

### Childbearing

Have you ever fostered other people's children?  
Xana mi nga va mi hlaysile vana lava nga lovela hi vatswari?

Are you currently on any contraceptives? If so, what method? how do you feel about it? (e.g. pills, injection, condoms, traditional)?

Xana u nga va u kunguhata ke?loko swi ri tano mi tirhisa yini?xana swi mi khoma njhani?

Do you get any child grants?

Xana mi nga va mi kuma mudende wa vana? (loko ku ri e-e, hikokwalaho ka yini?)

What do you think about child grants?

Xana mi wu vonisa ku yini mudende wa vana?

What are your biggest worries about having children these days?

Hi swihi leswi mi vilerisaka hi ku va mi ri na vana masiku lawa?

What is best for a young girl when she is thinking about starting a family – getting a child or lobola?

Hi swihi swa kahle eka n’wana waxisati loyi a lavaka ku sungula ndyangu – ku nga va ku kuma n’wana kumbe ku lovorwa?

What do you think is a good age for a young woman to have her first child?

Xana mi ehleketa leswaku hi wahi malembe ya kahle ya leswaku waxisati a kuma n’wana wo sungula?

What happens to a young woman who gets pregnant early?

Xana ku humelela yini eka waxisati loko a tika a ha rintsongo? (Vutisisa: ndzi nyike xikombiso hi loyi u n’wi tivaka)

What do you think are the main reasons young women get pregnant these days?

Xana mi vona ongeti hi xihhi xikongomelo eka vana lavatsongo lexi endlaka leswaku va tika/biha emirini masiku lawa?

Do you talk with your elders about childbearing? What advice do they give you?

Xana ma vulavula ni lavakulu hi timhaka to kuma vana? Xana hi swihi swiletelo leswi vami nyikaka swona?

How do the views of older women and younger women differ on the issue of childbearing?

Xana mavonelo ya vanhu lavakulu ni lavatsongo ya hambana kwihhi etimhakeni to kuma vana?

## **Motherhood**

How did your expectations about what it would be like to be a mother compare with the reality?

Xana a mi langutele leswaku vumanana bya n’wina byi ta va njhani loko mi pimanisa ni nkarhi wa sweswi, leswi byi nga xiswona sweswi?

How did your life change after you had children?  
Xana vutomi bya n'wina a byi cince njhani endzhaku ko kuma vana?

What would your life be like if you didn't have children?  
Xana vutomi bya n'wina a byi ta va njhani loko a mi nga kumanga vana?

Do you think others think of you differently now that you are a mother?  
Xana mi ehleketa leswaku vanhu va vona ku hambana eka leswi mi nga vamanana?

Do you think of yourself differently? Do you feel different now that you are a mother?  
Xana mi ehleketa leswaku ku ni ku hambana eka vun'wina? Xana mi twa ku ri na ku hambana eka n'wina leswi mi nga vamanana?

What are the characteristics of a good mother?  
Xana hi swihi swihlawulekiso swa manana wa kahle?

Who is your role model for the ideal mother?  
Xana i mani manana loyi mi nga n'wi vulaka leswaku u vile manana wa kahle evuton'wini bya n'wina?

How would you describe a bad mother?  
Hlamusela hi manana wo ka a nga ri kahle?

Who do you think is in charge of decisions about childbearing? How do you feel about this?  
Xana mi ehleketa leswaku I mani loyi a tekaka swiboho swo kuma vana endyangwini? Xana mi titwa njhani hi mhaka leyi?

What have you learned about being a mother since your first child was born?  
Xana I yini leswi mi swi dyondzeke swa vumanana ku sukela loko mi ta va mi kume vana va n'wi na vo sungula?

## **HIV/AIDS & ART**

What is the impact of HIV/AIDS on your community?  
Xana hi xihi xiave lexi HIV/AIDS yi nga va na xona emugangeni wa ka ka n'wina?

What do you know about treatment for HIV/AIDS?  
Xana u tiva yini hi vutshunguri bya HIV/AIDS?

Do people talk openly about HIV/AIDS? Why/why not?  
Xana vanhu va vulavula va ntshunxekile hi HIV/AIDS?(Vutisisa: Hikokwalaho ka yini?)

Have you been to many funerals lately? Who would you say is dying from AIDS?  
Xana unga va u yile emikosini yo tala masiku lawa ke? Xana u nga vula leswaku I va mani lava lovaka hikwalaho ka mavabyi lawa?



When someone dies, do people talk about the cause of death? What do they say about HIV/AIDS?

Loko munhu un'wana alovile, xana vanhu va vula leswaku xivangelo xa rifu I yini ke? Xana va ri yini hi HIV/AIDS?

What types of people get HIV/AIDS (e.g. young, old, single, married)?

Xana vari I vanhu va njhani lava khomiwaka hi HIV/AIDS? (Xik:vana, lavakulu, lava nga tekiwa, Lava nga tekiwangiki, kumbe lava tekeke ni lava nga tekangiki?)

How does your community treat people with HIV/AIDS?

Xana emugangeni wa ka n'wina vava khomisa ku yini vanhu lava nga na HIV/AIDS?

Are you worried about becoming infected with HIV/AIDS?

Xana swa ku vilerisa leswaku unga tshuka u khomiwe hi mavabyi ya HIV/AIDS?

What is your biggest worry about HIV/AIDS?

Xana hi swihi leswi ku vilerisaka ngopfu hi mavabyi ya HIV/AIDS?

### **HIV/AIDS and Childbearing**

Do people in your village talk about an association between HIV/AIDS and childbearing?

Xana vanhu emugangeni wa ka n'wina va vulavula hi timhaka ta makumelo ya vana na HIV/AIDS?

What happens to an HIV positive woman who gets pregnant?

Xana ku humelela yini eka vaxisati lava tikeke lava nga HIV positive?

How do health care workers treat people with HIV/AIDS who are pregnant?

Xana va ndzawulo ya swarihanyu vava khoma njhani vanhu lava tikeke naswona va ri na xitsongwa-tsongwana xa HIV AIDS?

How do lay counselors advise pregnant women who are HIV-positive?

Xana ti Lay Counsellors tiva tsundzuxa yini kumbe ti va letela yini vanhu va xisati lava tikeke naswona vari HIV positive?

Has there been someone you knew of who had HIV/AIDS and had children after they found out they were infected?

Xana u kona loyi un'wi tivaka anga na xitsongwa tsongwana xa HIV/AIDS na swona anga kuma n'wana endzhaku ko kuma leswaku u HIVpositive?

What did people say about this? How did you feel about this?

Xana vanhu va vula yini hi mhaka leyi? Xana u titwa njhani hi mhaka leyi?

Is there someone you know of that was HIV positive and decided to not have any more children? Tell me about that person.

Xana kona loyi u n'wi tivaka anga HIV positive ene a teke goza ro ka anga lavi ku kuma vana? Ndzi byele hi yena.

What did people say about this? How did you feel about this?  
Xana vanhu va ri yini hi swona? Xana wena u titwa njhani hi swona?

In general, have people changed their childbearing patterns based on HIV/AIDS in your village?

Loko hi ya hi mavonele ya wena, Xana u vona onge vanhu va cincile makumelo ya vana emugangeni wa ka n'wina hi ku ya hi timhaka ta HIV/AIDS?

Have your childbearing preferences/behaviors changed because of HIV/AIDS?  
Xana ndlela leyi tsakele ku kuma vana hi yona yi nga va yi cincile hikwalaho ka HIV/AIDS?

What happens to the children of people who die from HIV/AIDS?  
Xana ku humelela yini hi vana lava vatswari va vona va loveke hikwalaho ka HIV/AIDS?

### **ART and Childbearing**

Do you know about antiretroviral drug therapy to treat HIV/AIDS?  
Xana u nga va u tiva ti ARV leti tshungulaka mavabyi ya HIV/AIDS?

What do people say about antiretroviral drug therapy (ART)? Are many people on ART?  
Xana vanhu va bula yini hi tona (ARV)? Xana vanhu vo tala va ti tirhisa ke?

Do you think that ART has changed HIV-positive people's feelings about childbearing?  
Xana u vona onge ti ARV ti cince vutitwi bya vanhu lavanga HIV positive etimhakeni to kuma vana ke?

Do you know of anyone who started on ART and then decided to have another child?  
Xana u kona loyi un'wi tivaka loyi asungule ku tirhisa ti ARV na swona a ehlekete ku kuma n'wana un'wana?

What do you think about this person's decision?  
Xana u ehleketa yini hi goza leri munhu loyi ari tekeke?

Do you think that ART will change the ways people think about HIV/AIDS and childbearing?  
Xana u vona onge ti ARV tit a cinca tindlela leti vanhu va ehleketaka hi yona etimhakeni ta HIV/AIDS na makumele ya vana ke?

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### **Interview Schedule**

### **Focus Group**

### **Age Cohort 36 +**

### **General Views**

What are the biggest issues facing Mpumalanga Province these days?  
How have these issues changed from important issues 5 or 10 years ago?

What are the things you worry about?

Hi swihi swiphiqo leswi langutaneke na xifundzha xa Mpumalanga eka masiku lawa?  
Xana swiphiqo leswi swi nga va swi cince yini swa nkoka eka ntlhanu kumbe khume ra  
malembe laya hundzeke?  
Xana I yini leswi mi vilerisaka?

## Marriage

What do you think is the best age for a young woman to get married?  
Xana mi ehleketa leswaku hi wahi malembe lama nga kahle eka waxisati leswaku a tekiwa?

Ideally, what should a marriage be like? Do you know marriages like this?  
Kahle-kahle, mi vona onge vukati byi nga va njhani? Xana mi nga va mi tiva vukati  
byin'wana lebyi fanaka na lebyi?

How much of an age difference between husbands and wives is ideal? Why?  
Xana hi wahi malembe lawa nuna na nsati va fanelaka ku hambana ha wona? Hikokwalho ka  
yini?

What is the role of lobola in marriage?  
What is the impact of lobola on the couple? How about the two families?  
Xana hi wihi nkoka wo lovola eka vukati? Xana hi wihi mpfuno wo lovola eka vatekani?  
Xana hi wihi mpfuno eka mindyangu leyimbirhi?

How old would you say is “too old” for getting married? Too young?  
Xana hi wahi malembe lawa u nga vulaka leswaku munhu I nkulu ku va a nga tekiwa?  
Kumbe I ntsongo ku va a nga tekiwa?

Is it easy for women to find a man to marry these days? Why/why not?  
Xana swa olova eka waxisati ku kuma nuna wo n'wi teka masiku lawa? Hikokwalaho ka yini?  
Loko ku ri e-e, hikokwalaho ka yini

## Childbearing

Have you ever fostered other people's children?  
Xana mi nga va mi hlayisile vana lava nga lovela hi vatswari?

Do you get any child grants?  
Xana mi nga va mi kuma mudende wa vana?  
What do you think about child grants?  
Xana mi wu vonisa ku yini mudende wa vana?

What are your biggest worries about having children these days?  
Hi swihi leswi mi vilerisaka hi ku va mi ri na vana masiku lawa?

What is best for a young girl when she is thinking about starting a family – getting a child or  
lobola?

Hi swihi swa kahle eka n'wana waxisati loyi a lavaka ku sungula ndyangu – ku nga va ku kuma n'wana kumbe ku lovorwa?

What do you think is a good age for a young woman to have her first child?  
Xana mi ehleketa leswaku hi wahi malembe ya kahle ya leswaku waxisati a kuma n'wana wo sungula?

What happens to a young woman who gets pregnant early?  
Xana ku humelela yini eka waxisati loko a tika a ha rintsongo?

What do you think are the main reasons young women get pregnant these days?  
Xana mi vona ongeti hi xihhi xikongomelo eka vana lavatsongo lexi endlaka leswaku va tika/biha emirini masiku lawa?

Do you talk with your children about childbearing? What advice do you give them?

Xana ma vulavula ni vana va n'wina hi timhaka to kuma vana? Xana hi swihi swiletelo leswi miva nyikaka swona?

## **Motherhood**

How did your expectations about what it would be like to be a mother compare with the reality?

Xana a mi langutele leswaku vumanana bya n'wina byi ta va njhani loko mi pimanisa ni nkarhi wa sweswi, leswi byi nga xiswona sweswi?

How did your life change after you had children?

Xana vutomi bya n'wina a byi cince njhani endzhaku ko kuma vana?

What would your life be like if you didn't have children?

Xana vutomi bya n'wina a byi ta va njhani loko a mi nga kumanga vana?

Do you think others think of you differently now that you are a mother?

Xana mi ehleketa leswaku vanhu va vona ku hambana eka leswi mi nga vamanana?

Do you think of yourself differently? Do you feel different now that you are a mother?

Xana mi ehleketa leswaku ku ni ku hambana eka vun'wina? Xana mi twa ku ri na ku hambana eka n'wina leswi mi nga vamanana?

What are the characteristics of a good mother?

Xana hi swihi swihlawulekiso swa manana wa kahle?

Who is your role model for the ideal mother?

Xana i mani manana loyi mi nga n'wi vulaka leswaku u vile manana wa kahle evuton'wini bya n'wina?

How would you describe a bad mother?

Hlamusela hi manana wo ka a nga ri kahle?

Who do you think is in charge of decisions about childbearing? How do you feel about this?  
Xana mi ehlekata leswaku I mani loyi a tekaka swiboho swo kuma vana endyangwini? Xana mi titwa njhani hi mhaka leyi?

What have you learned about being a mother since your first child was born?  
Xana I yini leswi mi swi dyondzeke swa vumanana ku sukela loko mi ta va mi kume vana va n'wi na vo sungula?

## **HIV/AIDS & ART**

What is the impact of HIV/AIDS on your community?  
Xana hi xihhi xiave lexi HIV/AIDS yi nga van a xona emugangeni wa ka ka n'wina?

What do you know about treatment for HIV/AIDS?  
Xana u tiva u tiva yini hi vutshunguri bya HIV/AIDS?

Do people talk openly about HIV/AIDS? Why/why not?  
Xana vanhu va vulavula va ntshunxekile hi HIV/AIDS?

Have you been to many funerals lately? Who would you say is dying from AIDS?  
Xana unga va u yile emikosini yo tala masiku lawa ke? Xana u nga vula leswaku I va mani lava lovaka hikwalaho ka mavabyi lawa?

When someone dies, do people talk about the cause of death? What do they say about HIV/AIDS?  
Loko munhu un'wana alovile, xana vanhu va vula leswaku xivangelo xa rifu I yini ke? Xana va ri yini hi HIV/AIDS?

What types of people get HIV/AIDS (e.g. young, old, single, married)?  
Xana vari I vanhu va njhani lava khomiwaka hi HIV/AIDS? (Xik:vana, lavakulu, lava nga tekiwa, Lava nga tekiwangiki, kumbe lava tekeke ni lava nga tekangiki?)

How does your community treat people with HIV/AIDS?  
Xana emugangeni wa ka n'wina vava khomisa ku yini vanhu lava nga na HIV/AIDS?

Are you worried about becoming infected with HIV/AIDS?  
Xana swa ku vilerisa leswaku unga tshuka u khomiwe hi mavabyi ya HIV/AIDS?

What is your biggest worry about HIV/AIDS?  
Xana hi swihi leswi ku vilerisaka ngopfu hi mavabyi ya HIV/AIDS?

## **HIV/AIDS and Childbearing**

Do people in your village talk about an association between HIV/AIDS and childbearing?

Xana vanhu emugangeni w ka n'wina va vulavula hi timhaka tat a makumelo ya vana na HIV/AIDS?

What happens to an HIV positive woman who gets pregnant?  
Xana ku humelela yini eka vaxisati lava tikeke lava nga HIV positive?

How do health care workers treat people with HIV/AIDS who are pregnant?  
Xana va ndzawulo ya swarihanyu vava khoma njhani vanhu lava tikeke naswaona va ri na xitsongwa-tsongwana xa HIV AIDS?

How do lay counselors advise pregnant women who are HIV-positive?  
Xana ti Lay Counsellors tiva tsundzuxa yini kumbe ti va letela yini vanhu va xisati lava tikeke naswona vari HIV positive?

Has there been someone you knew of who had HIV/AIDS and had children after they found out they were infected?  
What did people say about this? How did you feel about this?  
Xana u kona loyi un'wi tivaka anga na xitsongwa tsongwana xa HIV/AIDS na swona anga kuma n'wana endzhaku ko kuma leswaku u HIV/positive? Xana vanhu va vula yini hi mhaka leyi? Xana u titwa njhani hi mhaka leyi?

Is there someone you know of that was HIV positive and decided to not have any more children? Tell me about that person.  
What did people say about this? How did you feel about this?  
Xana kona loyi u n'wi tivaka anga HIV positive ene a teke goza ro ka anga lavi ku kuma vana? Ndzi byele hi yena. Xana vanhu va ri yini hi swona? Xana wena u titwa njhani hi swona?

In general, have people changed their childbearing patterns based on HIV/AIDS in your village?  
Loko hi ya hi mavonele ya wena, Xana u vona onge vanhu va cincile makumelo ya vana emugangeni wa ka n'wina hi ku ya hi timhaka ta HIV/AIDS?

Have your childbearing preferences/behaviors changed because of HIV/AIDS?  
Xana ndlela leyi awu tsakele ku kuma vana hi yona yi nga va yi cincile hikwalaho ka HIV/AIDS?

What happens to the children of people who die from HIV/AIDS?  
Xana ku humelela yini hi vana lava vatswari va vona va loveke hikwalaho ka HIV/AIDS?

## **ART and Childbearing**

Do you know about antiretroviral drug therapy to treat HIV/AIDS?  
Xana u nga va u tiva ti ARV leti tshungulaka mavabyi ya HIV/AIDS?

What do people say about antiretroviral drug therapy (ART)?

Xana vanhu va vula yini hi tona(ARV)?

Are many people on ART?

Xana vanhu vo tala va ti tirhisa ke?

Do you think that ART has changed HIV-positive people's feelings about childbearing?  
Xana u vona onge ti ARV ti cince vutitwi bya vanhu lavanga HIV positive etimhakeni to kuma vana ke?

Do you know of anyone who started on ART and then decided to have another child?  
Xana u kona loyi un'wi tivaka loyi asungule ku tirhisa ti ARV na swona a ehlekete ku kuma n'wana un'wana?

What do you think about this person's decision?

Xana u ehleketa yini hi goza leri munhu loyi ari tekeke?

Do you think that ART will change the ways people think about HIV/AIDS and childbearing?

Xana u vona onge ti ARV tit a cinca tindlela leti vanhu va ehleketaka hi yona etimhakeni ta HIV/AIDS na makumele ya vana ke?

## APPENDIX B: WAVE 1 INTERVIEW QUESTIONS

### *Interview 1: MOTHERS*

How satisfied are you with your life, all things considered? (PROBE: why?)  
Xana u eneriseka ku fika kwihhi hi vutomi bya wena,katsakanya hinkwaswo leswi ku khumbaka

What religion are you? How important is religion to your life?  
Xana u wela eka rimpfumelo rihhi?i ra nkoka ku fikela kwihhi?

### **First Pregnancy**

How old were you when you got pregnant for the first time? Did you want to have a child at that time? (PROBE: What happened?)  
Xana a wu ri na malembe mangana loko u tika ro sungula? Xana a wu lava ku kuma nwana hi nkarhi wolowo ke?

How did you find out you were pregnant the first time? How did you feel when you found out?  
Xana u swi kumise ku yini ku u tikile?xana u titwe njhani?

Were you excited to tell people you were pregnant? Why/why not?  
Xana a wu tsakile ku u nga byela vanwana ku u tikile?

How did people react when you told them you were pregnant? (PROBE: family members, boyfriend, friends)  
Xana vanhu va endle yini loko u va byerile leswaku u tikile?

Were you using contraception before you got pregnant for the first time? What kind?  
Xana a wu kunguhata u nga si tika ro sungula? A wu tirhisa yini?

Did you worry about being infected? Did you get tested?  
xana awu ehleketa hi kuma mavabyi ke? Xana u kamberiwile ke?

What were the good things about being pregnant the first time?  
Hi swihhi swa kahle loko u tikile ro sungula?

Did you have to change anything about your life because you got pregnant?  
Xana u nga va u ncinile swinwana hi vutomi bya wena hikuva u tikile?  
(PROBE: school, work, where you lived, future plans?)

Did your first pregnancy result in a live birth?  
Xana ku tika ka wena ro sungula ku humelele kahle ke?

Looking back, are you glad you got pregnant at that time? Would you do anything differently regarding your first pregnancy?



Loko u languta endzhaku a wu tsakile ku tika hi nkarhi wolowo ke? Xana swi kona leswi a wu lava ku swi endla mayelana na khwirhi leri ke?

### **First Birth**

Where did you give birth the first time? Where did you recover from birth? Who helped you? Xana nwana wa wena wo sungula u nwi kumele kwihl? A wu tshama kwihl endzhaku ko bebula naswona I mani loyi a ku pfuna?

What did you like about becoming a mother? What was difficult about becoming a mother? I yini leswi u swi rhandzeke hikuva uri manana? I yini leswi ku tikeleke loko u sungula ku va manana?

How did having your first child change your life?  
(PROBE: work, school, getting married, future goals)  
Xana ku kuma nwana wa wena wo sungula swi ncinde njhani vutomi bya wena?

Did you think of yourself differently after your first birth? Did you feel different? (PROBE: How?)  
Xana u tivona u ri na ku hambana eka vuwena andzhaku ko kuma nwana? Xana u twe ku hambana ke?

What did having your first child mean to you?  
Xana ku kuma nwana wa wena wo sungula swi vule yini eka wena?

### **Childbearing**

How many children do you have now? How many total pregnancies have you had?  
(PROBE: what happened?)  
Xana u na vana va ngani ke? xana I makhwirhi mangani lava uveke na wona ke?

How many children are living in your household?  
(PROBE: whose are they? where and with whom are her children living if they're not in her household)  
Xana utshama ni vana vangani ke(nhlayo hinkwayo)?

Do you want to have more children? How many children do you want to have?  
Xana wa navela ku engetela nhlayo ya vana ke? xana I vana vangani lava u lavaka kuva navona ke?

If you found out you were pregnant next month, how would you feel about the news?  
Loko woti kuma u tikile nhwetl leyitaka, unga titwa njhani hi mhaka leyi?

What are your biggest worries about having children these days?  
Xana I yini swi ku vileriaska hikuva u ri na vana masiku lava ke?

Are you currently on any contraceptives? If so, what method (e.g. pills, injection, condoms, traditional)?

Xana unga va u kunguhata eka nkarhi wa sweswi ke? Loko kuri ina, u tirhisa yini?

Do you get any child grants? What do you think about child grants?

Xana u kuma mudende wa vana ke? xana u ehleketa yini hi wona?

(PROBE: if not, why not?)

What is best for a young girl when she is thinking about starting a family – getting a child or getting lobola first? Why?

Hiswihi swa kahle eka n'wana wa xisati loyi a lavaka ku sungula ndyangu-ku nga va ku kuma n'wana kumbe ku lovorwa?

What do you think is a good age for a young woman to have her first child? What is too young? What is too old?

Xana u hleketa leswaku hi wahi malembe ya kahle eka waxisati kuma n'wana wa yena wo sungula? Hi wahi lawa unga vulaka leswaku I ntsongo kumbe I nkulu ku kuma n'wana?

How does this compare to the past?

Xana leswi hi nga swi fananisa njhani na khale?

What happens to a young woman who gets pregnant early?

Xana ku humelela yini eka waxisati loko a tika ahari ntsongo?

What do you think are the main reasons young women get pregnant these days?

Xana mi vona onge hi xihhi xikongomelo eka vana lavantsongo lexi endlaka leswaku va biha emirini masiku lawa?

ONLY FOR 36 AND ABOVE: Do you talk with your children about childbearing? What do you say?

Xana ma vulavula na vana va n'wina hi timhaka to kuma vana ?

ONLY FOR UNDER 46: Do you talk with your elders about childbearing? What do they say?

Xana ma vulavula ni lava kulu hitimhaka to kuma vana? Xana va mi byela yini?

How do the views of older women and younger women differ on the issue of childbearing?

Hikwihi ku hambana eka lava kulu ni lava ntsongo etimhakeni to kuma vana ?

## **Motherhood**

What does being a mother mean to you?

Xana ku va manana swi vula yini eka wena?

How did your expectations about what it would be like to be a mother compare with the reality?

Xana awu langutele leswaku vumanana bya wena byi ta va njhani loko u pimanisa ni nkarhi wa sweswi leswi byi nga xiswona?

Were you looking forward to becoming a mother? Did you always want to have children?

Xana a wu swi languterile ku va manana ke? Xana awu swi lavile ku kuma vanake?

ONLY 36 AND ABOVE: How did your life change after you had children?  
(PROBE: everyday routine, future goals, emotions, relationships with others)  
Xana vutomi bya wena byi ncince njhani endzhaku ko kuma vana?

What did you learn about *yourself* after becoming a mother?  
Xana I yini leswi u swi dyondzeke hi vuwena endzhaku k ova manana?

What were the good things about becoming a mother? What were the bad things?  
Xana hi swihi swa kahle hikuva uri manana? Naswona hi swihi swo ka swi nga ri kahle?

How do children benefit your life? What problems do children bring?  
Xana vana va wena va dyondza yini eka wena? xana hiswihi swiphiquho leswi va swi tisaka?

Do your children make you happy? Can you tell me about the last time one of your children made you happy?  
Xana vana va wena va ku tsakisa ke? Ndzi byele hinkarhi lowu un'we wa vona aku tsakiseke ha wona?

How would you describe a good mother? How would you describe a bad mother?  
Hlamusela hi manana wa kahle? hlamusela hi manana wo ka angari kahle?

Who is in charge of decisions about childbearing? How do you feel about this?  
I mani loyi atekaka swiboho swo kuma vana endyangwini, naswon u titwa njhani hi mhaka leyi?

Has motherhood changed compared to in the past? How?  
Xana ku ni ku hambana eka vumanana bya khale ni bya sweswi ke? Hi ndlela yihi?

What would your life be like if you didn't have children?  
Xana vutomi bya wena abyi tava njhani loko awu nga ri na vana ke?

### **HIV/AIDS, ART and Childbearing**

Do people in your village talk about an association between HIV/AIDS and childbearing?  
(PROBE: what do they say?)

Is pregnancy safe for HIV positive women? Why/why not?

What happens to an HIV positive woman who gets pregnant?

How do health care workers treat people with HIV/AIDS who are pregnant?

How do lay counselors advise pregnant women who are HIV-positive?  
(PROBE: do they tell them not to have children? What do they say?)

Should HIV positive people have another child after they test positive? Why/why not?

Why would HIV positive people have another child after they test positive?

Has HIV/AIDS changed childbearing? Do women have children earlier or later based on HIV/AIDS compared to the olden days?

Do you know someone who tested positive for HIV/AIDS and had another child? What did people say about this? How do you feel about this?

***Interview 1: WOMEN WITHOUT CHILDREN (18 – 25)***

How satisfied are you with your life, all things considered? (PROBE: why?)  
Xana u eneriseka ku fika kwihhi hi vutomi bya wena,katsakanya hinkwaswo leswi ku khumbaka

What religion are you? How important is religion to your life?  
Xana u wela eka rimpfumelo rihhi?i ra nkoka ku fikela kwihhi?

---

**Have you ever had a live birth? Do you have children?  
Xana mi nga va mi tshame mi va na n'wana? Xana mi na vana?**

**IF NO: PROCEED WITH QUESTIONAIRE.**

**IF YES: USE QUESTIONARIE FOR MOTHERS.**

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**Marriage**

Are you married? Do you have a boyfriend?  
Xana mi tekiwile? Xana mi na yena muringani kumbe munghana wa xinuna?  
(PROBE: how did you meet your partner? What's he like?)  
Ku vutisisa ku yisa emahlweni: xana mi hlangane njhani? U languteka a ri njhani?

Tell me about dating and getting married to your husband. What happened?  
Ndzi byele hi ta mahlanganelo I vukati bya nwina?ku humelerile yini?

If not married – do you want to get married? (PROBE: to your current partner or someone else? Why/why not? ) When do you want to get married?  
Loko mi nga tekiwanga – xana ma swi lava ku tekiwa? Hikokwalaho ka yini mi swi lava kumbe mi nga swi lavi?

What are the most important qualities for a husband to have? What kind of man is the best to marry?  
Xana hi swihhi swihlawulekisi swa nkoka swa wanuna loyi u faneleke u n'wi kuma? Xana I wanuna wa njhani loyi mi faneleke ku teka hi yena?

What are the most important qualities that husbands look for in wives?  
Xana hi swihhi swihlawulekisi swa nkoka leswi vavanuna va swi langutisaka eka vavasati?

Are you satisfied in your marriage/relationship? Why/why not? What would you change if you could?

Xana wa eneriseka hi vukati bya wena kumbe vunghana bya wena? Hikokwalaho ka yini u eneriseka/nga eneriseki? I yini leswi a wu ta swi ncinca loko a swi koteka?

What are the responsibilities of a man when he's married? How about the woman?

Xana hi tihi timfanelo ta wanuna loko a tekile? Ta wansati ke?

Is it common for men to have multiple sexual partners? Is it common for women? How does this affect marriage?

Xana swi nga va swi andzile ku vaxinuna va va na vanghana vo tala va xisati ke? Swi nga va swi ri tano nile ka vaxisati ke? Xana leswi swi onha kwihi ka vukati?

Did your husband pay lobola? Do/did you want your husband to pay lobola? Why/why not?

Xana u lovoriwile ke? Xana wa swi lava ku lovorwa ke?

Why *would* a woman want to get married? (If married – why did you get married?)

Hikokwalaho ka yini wansati a lava ku va a tekiwa? (Loko u tekiwile – hikokwalaho ka yini u tekiwile?)

Why *wouldn't* a woman want to get married? (If not married – why aren't you married?)

Hikokwalaho ka yini wansati a nga lavi ku tekiwa? (Loko u nga tekiwanga – hikokwalaho ka yini u nga tekiwanga?)

Is marriage different now compared to in the past? How?

Xana kun a ku hambana eka vukati bya sweswi na bya khale? Hi ndlela yini?

## **First Pregnancy**

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**Have you ever been pregnant?**

**Xana u ve tshama u biha emirini?**

**(PROBE: If so, how many times? What happened?)**

**(Vutisisa ku yisa emahlweni: Loko swi ri tano, ka ngani? Ku humelele yini?)**

**IF YES: PROCEED WITH THIS SECTION**

**IF NO: SKIP TO CHILDBEARING**

---

Who was your partner? How long had you been seeing each other? What was/is he like?

A ku ri mani muringani wa wena? Xana mi na nkarhi wo fika kwihi mi ri swin'we? Xana a ri munhu wa njhani/I munhu wa njhani?

How did you find out you were pregnant the first time? How did you feel when you found out?

Xana u swi kumise ku yini ku u tikile? xana u titwe njhani?

Were you excited to tell people you were pregnant? Who did you tell?  
Xana a wu tsakile ku u nga byela van'wana ku u tikile? U byele mani?

How did people react when you told them you were pregnant? (PROBE: family members, boyfriend, friends)  
Xana vanhu va endle yini loko u va byerile leswaku u tikile?

Were you using contraception before you got pregnant for the first time? What kind?  
Xana a wu kunguhata u nga si tika ro sungula? A wu tirhisa yini?

Did you worry about being infected? Did you get tested?  
xana awu ehleketa hi kuma mavabyi ke? Xana u kamberiwile ke?

What were the good things about being pregnant the first time?  
Hi swihi swa kahle loko u tikile ro sungula?

What happened with your pregnancy? How did you feel at that time?  
Xana ku humelele yini hi vuyimani bya n'wina? Xana mi titwe hi ndlela yihi hi nkarhi wa kona?

Looking back, are you glad you got pregnant at that time?  
Loko u languta endzhaku a wu tsakile ku tika hi nkarhi wolowo ke?

### **Childbearing**

Do you want to have children? How many children do you want to have?  
Xana u lava ku kuma n'wana ke? Xana u lava ku kuma vana va ngani?

If you found out you were pregnant next month, how would you feel about the news?  
Loko woti kuma u tikile nhweti leyitaka, unga titwa njhani hi mhaka leyi?

What are your biggest worries about having children?  
Xana I yini lexi xi ku vilerisaka ngopfu hikuva uri na vana ?

What are the reasons that you haven't had children yet? How has this impacted your life?  
Xana hi swihi swivangelo leswi nga endla leswaku mi nga vi na vana? Xana leswi swi nga va swi khumbe vutomi bya n'wina hi ndlela yihi?  
(PROBE: emotionally, relationships with others, future goals)  
(Vutisisa ku yisa emahlweni: emiehleketweni, eka vuxaka na van'wana, eka leswi a swi kunguhatile hi vumundzuku bya n'wina)

Has not having children affected your relationships with men (marriage)? Has it affected your relationship with other family members? How?  
Ku va mi nga vi na vana swi nga va swi khumbile vuxaswika bya wena ni vanhu vaxinuna (vukati)?  
Xana leswi swi nga va swi khumbile vuxaka bya wena na van'wana va ndyangu? Hi ndlela yihi?

What do you think is a good age for a young woman to have her first child? What is too young?  
What is too old?

Xana u hleketa leswaku hi wahi malembe ya kahle eka waxisati kuma n'wana wa yena wo sungula? Hi wahi lawa unga vulaka leswaku I ntsongo kumbe I nkulu ku kuma n'wana?

What do you think are the main reasons women get pregnant?

Xana mi vona ongeti hi swihi swivangelo swa nkoka leswi endlaka leswaku vavasati va biha emirini?

Do many of your friends have children? How has having children impacted their lives? (Can you tell me about one of them?)

Xana vanghana va wena vo tala va ni vana ke? Xana ku kuma ka vona vana swi va onhele ku fika kwihi evuton'wini bya vona ke?

What is the impact of pregnancy and childbirth on education? What about on work?

Xana hi swihi swiphiqo swo tika no kuma n'wana etimhakeni ta dyondzo ke? Etimhakeni ta ntirho ke?

Can you describe the role (and importance) of childbearing in a woman's life?

Xana mi nga hlamusela ntirho (ni nkoka) wo kuma n'wana eka vutomi bya wansati?

## **Motherhood**

Do you regularly take care of any children? How long have you been taking care of them? Do you like taking care of them? Do they make you happy?

Xana mi nga va mi hlayisa vana van'wana na van'wana minkarhi yo tala? Xana mi na nkarhi wo fika kwihi mi va hlayisa? Xana ma swi tsakela ku va hlayisa? Xana va mi endla leswaku mi tsaka?

(PROBE: whose children are they?) (Vutisisa ku yisa emahlweni: xana I vana va mani?)

Does taking care of other children make you want to have children of your own? Why/why not?

Xana ku va u hlayisile vana va van'wana swi ku endlile u lava ku kuma vana lava va nga va wena ke?

What do you think your life would be like if you had children?

Xana mi hleketa ongeti vutomi bya n'wina a byi ta va byi ri njhani loko a mi ri na vana?

Do you think you would feel differently about you if you had children? How?

Xana mi hleketa leswaku a mi ta titwa hi ndlela yin'wana loko a mi ri na vana? Hi ndlela yihi?

Do you think people would treat you differently if you were a mother? How?

Xana mi hleketa leswaku vanhu a va ta mi khoma hi ndlela yin'wana loko a mi ri manana? Hi ndlela yihi?

What does motherhood symbolize to you?

Xana vumanana byi hlamusela yini eka n'wina?

## **HIV/AIDS, ART and Childbearing**

Do people in your village talk about an association between HIV/AIDS and childbearing?

Xana vanhu va le mugangeni wa n'wina va vulavula hi ku hlangana ka HIV/AIDS na ku bebula?  
(PROBE: what do they say?)  
(Vutisisa ku yisa emahlweni: xana va vula yini?)

What happens to an HIV positive woman who gets pregnant?  
Xana ku humelela yini eka manana loyi a bihaka emirirni a ri na HIV?

Should HIV positive people have another child after they test positive? Why/why not?  
Xana vanhu lava nga na HIV va fanele ku va va kuma vana van'wana endzhaku ka loko va kumile leswaku van a HIV? Hikokwalaho ka yini swi fanerile/nga fanelanga?

Has HIV/AIDS changed childbearing? Do women have children earlier or later based on HIV/AIDS compared to the olden days?  
Xana HIV/AIDS yi nga va yi cincile makumelo ya vana? Xana loko hi fananisa na khale, vavasati va kuma vana ka ha ri na nkarhi kumbe endzhaku ka nkarhi hi ku langutisa timhaka ta HIV/AIDS?

Do you know someone who tested positive for HIV/AIDS and had another child?  
What did people say about this? How do you feel about this?  
Xana mi nga va mi tiva un'wana loyi a nga na HIV/AIDS a nga tlhela a kuma n'wana?

If you found out you were pregnant next month would you get tested for HIV/AIDS? Why/why not?  
Xana u nga endla swikambelwana swa HIV/AIDS loko u nga kuma leswaku u bihile emirini eka n'hweti leyi taka? Hikokwalaho ka yini u ta endla kumbe u nga endli?

If you found out you were HIV positive, would you carry through with the pregnancy? Why/why not?  
Xana loko wo kuma leswaku u na HI, u nga hlayisa ndzhwalo lowu u wu tikeke? Hikokwalaho ka yini u ta wu hlayisa kumbe u nga wu hlayisi?

Is there anything else we should have asked you? Is there anything else you'd like us to know?  
Xana ku nga va ku ri na swin'wana leswi a hi fanele hi mi vutisile swona? Xana ku nga va ku ri na swin'wana leswi mi tsakelaka leswaku hi swi tiva?

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***Interview 1: WOMEN WITHOUT CHILDREN (46+)***

How satisfied are you with your life, all things considered? (PROBE: why?)  
Xana u eneriseka ku fika kwihhi hi vutomi bya wena, katsakanya hinkwaswo leswi ku khumbaka

What religion are you? How important is religion to your life?  
Xana u wela eka rimpfumelo rihhi? ra nkoka ku fikela kwihhi?

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**Have you ever had a live birth? Do you have children?  
Xana mi nga va mi tshame mi va na n'wana? Xana mi na vana?**



**IF NO: PROCEED WITH QUESTIONNAIRE.**

**IF YES: USE QUESTIONNAIRE FOR MOTHERS.**

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### **Marriage**

Are you married? Do you have a boyfriend?

Xana mi tekiwile? Xana mi na yena muringani kumbe munghana wa xinuna?

(PROBE: how did you meet your partner? What's he like?)

Ku utisisa ku yisa emahlweni: xana mi hlangane njhani? U languteka a ri njhani?

Tell me about dating and getting married to your husband. What happened?

Ndzi byeke hi ta mahlanganelo ni vukati bya nwina? ku humelerile yini?

Are you satisfied in your marriage/relationship? Why/why not? What would you change if you could?

Xana wa eneriseka hi vukati bya wena kumbe vunghana bya wena? Hikokwalaho ka yini u eneriseka/nga eneriseki? I yini leswi a wu ta swi ncinca loko a swi koteka?

In a good marriage, how does the couple treat one another?

Eka vukati bya kahle, xana vatekani va hanyisana njhani?

In a bad marriage, how does the couple treat one another?

Xana eka vukati byo ka byi ngari kahle vatekani va hanyisana njhani?

Is it common for men to have multiple sexual partners? Is it common for women? How does this affect marriage?

Xana swi nga va swi andzile ku vaxinuna va va na vanghana vo tala va xisati ke? Swi nga va swi ri tano nile ka vaxisati ke? Xana leswi swi onha kwihi ka vukati?

Did your husband pay lobola? Do/did you want your husband to pay lobola? Why/why not?

Xana u lovoriwile ke? Xana wa swi lava ku lovorwa ke?

If a man pays lobola and then this wife isn't able to have children, what happens?

Xana ku humelela yini loko wanuna u humesa mali yo lovola kutani ku kumeka leswaku nsati wa yena a nga kumi vana?

Is marriage different now compared to in the past? How?

Xana kun a ku hambana eka vukati bya sweswi na bya khale? Hi ndlela yini?

### **First Pregnancy**

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**Have you ever been pregnant?**

**Xana u ve tshama u biha emirini?**

**(PROBE: If so, how many times? What happened?)**

(Vutisisa ku yisa emahlweni: Loko swi ri tano, ka ngani? Ku humelele yini?)

**IF YES: PROCEED WITH THIS SECTION**

**IF NO: SKIP TO CHILDBEARING**

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Who was your partner? How long had you been seeing each other? What was/is he like?  
A ku ri mani muringani wa wena? Xana mi na nkarhi wo fika kwihi mi ri swin'we? Xana a ri munhu wa njhani/I munhu wa njhani?

How did you find out you were pregnant the first time? How did you feel when you found out?  
Xana u swi kumise ku yini ku u tikile? Xana u titwe njhani?

Were you excited to tell people you were pregnant? Who did you tell?  
Xana a wu tsakile ku u nga byela van'wana ku u tikile? U byele mani?

How did people react when you told them you were pregnant? (PROBE: family members, boyfriend, friends)  
Xana vanhu va endle yini loko u va byerile leswaku u tikile?

Were you using contraception before you got pregnant for the first time? What kind?  
Xana a wu kunguhata u nga si tika ro sungula? A wu tirhisa yini?

Did you worry about being infected? Did you get tested?  
xana awu ehleketa hi kuma mavabyi ke? Xana u kamberiwile ke?

What were the good things about being pregnant the first time?  
Hi swihi swa kahle loko u tikile ro sungula?

What happened with your pregnancy? How did you feel at that time?  
Xana ku humelele yini hi vuyimani bya n'wina? Xana mi titwe hi ndlela yihi hi nkarhi wa kona?

Looking back, are you glad you got pregnant at that time? Would you do anything differently regarding your first pregnancy?  
Loko u languta endzhaku a wu tsakile ku tika hi nkarhi wolowo ke? Xana swi kona leswi a wu lava ku swi endla mayelana na khwirhi leri ke?

### **Childbearing**

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**NEED TO BE SENSITIVE HERE TO THEIR SITUATION – DISCUSSING THIS SECTION MAY BE PARTICULARLY PAINFUL FOR WOMEN WHO ARE INFERTILE.**

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What are the reasons that you haven't had children? How has this impacted your life?

Xana hi swihi swivangelo leswi nga endla leswaku mi nga vi na vana? Xana leswi swi nga va swi khumbe vutomi bya n'wina hi ndlela yihi?

(PROBE: emotionally, relationships with others, future goals)

(Vutisisa ku yisa emahlweni: emiehleketweni, eka vuxaka na van'wana, eka leswi a swi kunguhatile hi vumundzuku bya n'wina)

Has not having children affected your relationships with men (marriage)? Has it affected your relationship with other family members? How?

Ku va mi nga vi na vana swi nga va swi khumbile vuxaka bya wena ni vanhu vaxinuna (vukati)? Xana leswi swi nga va swi khumbile vuxaka bya wena na van'wana va ndyangu? Hi ndlela yihi?

What do you think are the main reasons women get pregnant?

Xana mi vona ongeti hi swihi swivangelo swa nkoaka leswi endlaka leswaku vavasati va biha emirini?

How do the views of older women and younger women differ on the issue of childbearing?

Hikwihi ku hambana eka lava kulu ni lava ntsongo etimhakeni to kuma vana ?

Can you describe the role (and importance) of childbearing in a woman's life?

Xana mi nga hlamusela ntirho (ni nkoaka) wo kuma n'wana eka vutomi bya wansati?

## **Motherhood**

Do you regularly take care of any children? How long have you been taking care of them? Do you like taking care of them? Do they make you happy?

Xana mi nga va mi hlayisa vana van'wana na van'wana minkarhi yo tala? Xana mi na nkarhi wo fika kwihi mi va hlayisa? Xana ma swi tsakela ku va hlayisa? Xana va mi endla leswaku mi tsaka?

(PROBE: whose children are they?) (Vutisisa ku yisa emahlweni: xana I vana va mani?)

What do you think your life would be like if you had children?

Xana mi hleketa ongeti vutomi bya n'wina a byi ta va byi ri njhani loko a mi ri na vana?

Do you think you would feel differently about you if you had children? How?

Xana mi hleketa leswaku a mi ta titwa hi ndlela yin'wana loko a mi ri na vana? Hi ndlela yihi?

Do you think people would treat you differently if you were a mother? How?

Xana mi hleketa leswaku vanhu a va ta mi khoma hi ndlela yin'wana loko a mi ri manana? Hi ndlela yihi?

What does motherhood symbolize to you?

Xana vumanana byi hlamusela yini eka n'wina?

## **HIV/AIDS, ART and Childbearing**

Do people in your village talk about an association between HIV/AIDS and childbearing?

Xana vanhu va le mugangeni wa n'wina va vulavula hi ku hlangana ka HIV/AIDS na ku bebula?

(PROBE: what do they say?)

(Vutisisa ku yisa emahlweni: xana va vula yini?)

What happens to an HIV positive woman who gets pregnant?  
Xana ku humelela yini eka manana loyi a bihaka emirirni a ri na HIV?

Should HIV positive people have another child after they test positive? Why/why not?  
Xana vanhu lava nga na HIV va fanele ku va va kuma vana van'wana endzhaku ka loko va kumile leswaku van a HIV? Hikokwalaho ka yini swi fanerile/nga fanelanga?

Has HIV/AIDS changed childbearing? Do women have children earlier or later based on HIV/AIDS compared to the olden days?  
Xana HIV/AIDS yi nga va yi cincile makumelo ya vana? Xana loko hi fananisa na khale, vavasati va kuma vana ka ha ri na nkarhi kumbe endzhaku ka nkarhi hi ku langutisa timhaka ta HIV/AIDS?

Do you know someone who tested positive for HIV/AIDS and had another child?  
What did people say about this? How do you feel about this?  
Xana mi nga va mi tiva un'wana loyi a nga na HIV/AIDS a nga tlhela a kuma n'wana?

If you found out you were pregnant next month would you get tested for HIV/AIDS? Why/why not?  
Xana u nga endla swikambelwana swa HIV/AIDS loko u nga kuma leswaku u bihile emirini eka n'hwetile leyi taka? Hikokwalaho ka yini u ta endla kumbe u nga endli?

If you found out you were HIV positive, would you carry through with the pregnancy? Why/why not?  
Xana loko wo kuma leswaku u na HI, u nga hlayisa ndzhwalo lowu u wu tikeke? Hikokwalaho ka yini u ta wu hlayisa kumbe u nga wu hlayisi?

Is there anything else we should have asked you? Is there anything else you'd like us to know?  
Xana ku nga va ku ri na swin'wana leswi a hi fanele hi mi vutisile swona? Xana ku nga va ku ri na swin'wana leswi mi tsakelaka leswaku hi swi tiva?

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## APPENDIX C: WAVE 2 INTERVIEW QUESTIONS

### ***INTERVIEW 2: MOTHERS***

How have things changed since *democracy*? How has this impacted YOUR life? When would you say those changes started occurring (what year)?

Xana swilo swi ncince njhani endzhaku ka tshunxeko? Xana swi khumbe vutomi bya wena ku fikela kwihi? Xana unga vula ku kuncinca loku ku sungule rini?

How has *democracy* changed childbearing and parenting? How do you feel about this?

Xana tshunxeko wu nga va wu ncince timhaka to bebula na vutswari? Xana u ti twa njhani hi mhaka leyi?

### ***UNIQUE FOLLOW-UP QUESTIONS FROM 1<sup>ST</sup> ROUND***

#### **MODERN WOMEN & RELATIONSHIPS**

How does a girl become a woman (or an adult) in this culture? How did YOU become a woman?

Are there significant things/events that let you know that a girl has become a woman?

Xana nhwanyana uva wansati loko swi te yini eka dzavuko wa ka nwina? Xana u sungule rini ku titwa u ri wansati? Xana kuna swilo swo karhi kumbe mintirho leyi u yi tivaka leyi kombisaka leswaku wanhwana u hundzuke wansati

How does a woman gain status and respect in society? How is this different from in the olden days?

Xana wansati u kuma xiyimo xa le henhla no xiximeka etikweni loko swi te yini? Xana hi kwihi ku hambana loko hi swi fananisa na khale?

How would you describe a modern woman? (PROBE: what does she eat? What does she do for work/money? Does she get married? What type of man does she marry? Does she have children? How many? Where does she live? How does she dress?)

Xana u nga ndzi hlamusela hi wansati wa ximanguva lawa? (vutisisa: xana u dya swakudya swa njhani?)

Xana u endla yini entirheni wa yena na hi mali ya yena? xana wa tekiwa ke? Xana I nuna wa njhani loyi a lavaka ku tekiwa hi yena? Xan u na vana ke? Vangani? Xana u tshama kwihi? Xana u mbala njhani?)

Are YOU a modern woman? Why/why not? *If not*: do you want to be a modern woman?

Why/why not?

Xana unga va wansati wa ximanguva lawa? Loko kuri ee: wa swi tsakela kuva wansati wa ximanguva lawa?

**YOUNGER WOMEN (35 and below):** Do you have any goals for the future? What are you expecting in the future?

Xana u na leswi u swi pulaneke hi vumundzuku bya wena? Xana u langutele yini hi vumundzuku bya wena?

**YOUNGER WOMEN (35 and below):** We've heard older people saying that young people today lack respect. Is this true? Why/why not?

Hi twile vanhu lavakulu va vula ku vana lavatsongo a va ha xiximi masiku lawa. Xana ku nga va ku ri ntiyiso?

**OLDER WOMEN (36 and above):** Are your daughters modern women? Why/why not? How do you feel about this?

Xana vana va wena va xisati va nga va ri va ximanguva lawa? Xana u titwa njhani hi mhaka leyi?

If you won the lotto tomorrow, how would you spend the money?

Loko wo wina lotto mundzuku, xana u nga endla yini hi mali ke?

Would you say that women and men are equal in society? Should they be equal? (PROBE)

Xana u nga vula ku vaxisati na vaxinuna va ringana e tikweni? Xana va fanele va ringana?

Do you think there is more or less violence in society nowadays compared to the past? What about in families and intimate relationships between men and women? (PROBE)

Xana u hleketa ku kuna kwetlembetano wo tala kumbe wutsongo e tikweni masiku lawa loko u fananisa na khale? Xana emindyangwini na le ka vuxaka bya vaxinuna na vaxisati?

Are women today at a greater risk of sexual violence (or unwanted sex) than in the past? (PROBE)

Xana vaxisati masiku lawa va le khombyeni lerikulu etimhakeni ta endla masangu va nga swi lavi loko hi fananisa na khale?

## **WORK & SCHOOL**

What level in school have you completed? When was the last time you were a scholar? Why did you stop going to school?

Xana u dyondze ku fikela kwihi? Hi wihi nkarhi wo hetelela lowu a wu ri nwana wa xikolo?

Hikwalaho ka yini u tshike xikolo?

How did your education impact your childbearing (or vice versa)? Does having children impact the type of work you do? Tell me about it.

Xana ku dyondza ka wena ku kavanyete ku fikela kwihi etimhakeni to bebula (hundzuluxa xivutiso) xana ku kuma vana swiku kavanyete ku fika kwihi e ka muxaka wa ntirho lowu u tirhaka wona?

Have you ever gone to live outside of your village for work or for school? Why? Tell me about it.

[PROBE: Where did you go? When (how old were you)? How long did you stay? Why did you come back?]

Xana u nga va u tshamile e tikweni rinwana hi timhaka ta ntirho kumbe xikolo? Hikokwalaho ka ini?

Ndzi byeke hi swona. (vutisisa: u yile kwihi? Rini (xana a wu ri na malembe mangani) xana u atshame nkarhi wo fikela kwihi? Xana u vuye rini?)

## **BODIES & AGING**

We've heard some people saying that women today are growing old faster than men. What do they mean? Do you agree? (PROBE: why?)

Hi twile van'wana va vula leswaku vavasati masiku lawa va kula hi ku hatlisa ku tlula vavanuna. Xana va vula yini? Xana u yima na swona ke?(hikwalaho ka yini)?

What are the things that make women grow old fast? Are there things that make men grow old fast? (PROBE: describe)

Hi swihi swilo leswi endlaka vavasati va kula hi ku hatlisa? Xana swi nga va kona swin'wana leswi endlaka vavanuna va dyuhala hi ku hatlisa?(Hikwalaho ka yini)?

How do you know when women are growing old fast? (PROBE)

Xana u swi tivisa ku yini leswaku vavasati va kule hi ku hatlisa?

## **MOTHERHOOD & CHILDBEARING**

How do you view breastfeeding (e.g. is it important)? Did/do you breastfeed your children? (PROBE: why/why not? How long?)

Xana u swi vonisa ku yini ku mamisa?(xik:xana I swa nkoka) ? u mamisile kumbe wa mamisa vana va wena? Nkarhi wo fika kwihhi?)

Tell me a little bit about your children. What are their ages? Who takes care of them? How many of them live with you (what ages are they)? Do your children make you proud? How?

Ndzi byeke katsongo hi vana va wena. Vana malembe mangani? I mani a va hlayisaka? Xana I vana vangani lava u tshamaka na vona? Vana malembe mangani? Xana vana va ku tsakisa ke? Njhani?

If there are other children living with you (in your household), what are their ages?

Loko ku ri na vana vanwana lava u tshamaka na vona la ndyangwini, va na malembe mangani?

**YOUNGER WOMEN (under 45):** Do you plan to have more children (under what circumstances – e.g. only if married)? Why do you want more children? What are the benefits of having more children?

What problems might you have if you don't have any more children (or what would you lose out on)?

Xana u kunguhate ku kuma vana vo tala?(loko swi te yini-xik.ntsena loko u tekiwile)? Hikokwalaho ka yini u lava vana vo tala? Xana u vuyeriwa hik yini loko u ri na vana vo tala? Hi swihi swiphigo leswi u nga vaka na swona loko u nga ri na vana ?

Why are children valuable? How does this compare to the past?

Hikwalaho ka yini vana va ri va nkoka? Hi nga swi fananisa njhani na khale?

How do you feel about women who are barren? Can a woman lead a fulfilling life without having children? Why/why not?

Xana u ti twisa ku yini hi vavasati lava nga kumeki vana? Xana wansati a nga hanya vutomi lebyi hetisekeke loko a nga ri na vana?

Are women today stigmatized for having a child before they get married/lobola? What about if they have a child while they are too young? How are they treated by the families/peers/communities? (ASK ABOUT THEIR OWN EXPERIENCES IF THEIR FIRST BIRTH WAS OUTSIDE MARRIAGE). How does this compare to the past? Why do you think there has been a change?

Xana vavasati va hlawuriwa hikuva va kume vana va nga se tekiwa kumbe ku lovorwa? Loko va kume vana va ri vatsongo ke? Xana va khomiwa njhani emakaya, tintanga, emungangeni ke? Xana hi nga swi fananisa njhani na khale? hikwalaho ka yini u ehleketa leswaku kun a ku ncinca?

Looking back, at what age would you have preferred to have your first child? Why?  
Loko hi langutisa endzhaku, I wahi malembe lawa a wu ta va u tsakele ku kuma nwana wa wena wo sungula? Hikokwalaho ka yini?

Do men prefer to marry women who have had a child or who have never had children? Why?  
What do women prefer for their husbands? Do children born before marriage cause a problem in the marriage? What do couples usually do about this?  
Xana vavanuna va tsakela ku teka vavasati lava nga na vana kumbe lava kalaka vana? Hikokwalaho ka yini? Xana vavasati va tsakela yini eka vavanuna? Xana vana lava ngakumiwa ehandle ka vukati va va swirhalanganyi endyangwini? Xana vatekani va endla yini hi mhaka leyi?

How does money impact raising children? How does money impact marriage? How do you feel about this?  
Xana hi wihl mpfuno wa mali eku kuriseni ka vana? Xana mali yi pfuna yini eka vukati? Kumbe yi onha ku fika kwihl? Xana u titwa njhani hi mhaka leyi?

Who helps you with your children? What kind of help (e.g. money, caretaking, transportation) do they provide? (e.g. in-laws, husband/boyfriend, parents, siblings, friends)  
Xana I mani loyi a ku pfunaka ku hlayisa vana? I ku pfuna njhani? XIK.(mali, ku hlayisa, tihakelo ta swo famba)? Xana vandyangu va pfuna?

Are traditional/cultural practices related to childbearing important nowadays? (PROBE)  
Xana ndzhavuko kumbe masiko swini nkoka eku kumeni ka van amasiku lawa ke?

We've heard women talking a lot about 'learning to accept' different situations in their lives (e.g. unplanned pregnancy, husband's infidelity, etc.) Can you describe what this means? How did you learn this (who taught you, when, how)?  
Hi twile vavasati vo tala va vula ngopfu laswaku 'va dyondze ku amukela' swiyimo swo hambana hambana evutonw'ini bya vona. Xik.( Ku ka va nga tiyimiselangi ku kuma n'wana, ku xisiwa hi vavanuna na swin'wana na swin'wana). Xana u nga ndzi byela leswaku leswi swi vula yini? U swi dyonze kwihl? Na swon au dyondzise hi mani, rini na swona njhani?

## **HIV/AIDS & CHILDBEARING**

Why do you think there is so much illness and death nowadays compared to in the past?  
Hikwalaho ka yini u ehleketa leswaku ku ni mavabyi yo tala ni mafu yo tala masiku lawa loko hi pimanisa ni khale?

Is there stigma attached to being HIV positive? How does this stigma impact people's lives? How do you feel when you find out someone you know is HIV positive?  
Xana ku ni ku ni ku ti chava loko munhu ari HIV positive ke? Xana leswi swi onha ku fika kwihl evutonwini bya vanhu? Xana u titwa njhani loko u kuma leswaku un'wana loyi un'wi tivaka I HIV positive?



Are you worried about becoming infected with HIV/AIDS? IF YES: On a scale of 1 – 5, how worried are you? Why? How does this affect your life? Dating/relationships? Sex?  
Xana wa vilela leswaku unga tshuka u khomiwile hi mavabyi ya HIV/AIDS? Loko ku ri ina: Xana u vilela ku fika kwihhi? Hikwalaho ka yini? Xana leswi swi ku khumba ku fika kwihhi e ka vuxaka bya wena na munghana wa wena kumbe swa masangu?

(1 = least worried

5 = most worried)

On a scale of 1 – 5: How likely do you think that you are infected with HIV right now?  
Xana u vona onge enkarhini wa sweswi u nga va u khomiwile hi HIV?

How likely do you think it is that you will be infected with HIV this year?  
Xana u vona onge u nga tshuka u khomiwile hi HIV eka lembe leri?

How likely do you think it is that you will be infected with HIV during your lifetime? (PROBE: Why?)  
Xana u vona onge unga tshuka u khomiwile hi mavabyi lawa enkarhini lowu taka?

How do you plan to protect yourself from getting HIV/AIDS in the future (especially if you want more children)? Xana u kunguhate ku ti sirhelela hi ndlela yihi leswaku unga khomiwi hi vuvabyi lebyi enkarhini lowu taka(ngopfu –ngopfu loko wa ha lava ku kuma vana)?

***VERY IMPORTANT TO PROBE ON THESE NEXT FEW QUESTIONS – NEED TO GET DETAILS ABOUT THEIR THINKING AND REASONING IN REGARDS TO THESE ISSUES***

If you had a friend who was HIV positive who came to you for advice about whether or not to have a child, what would you tell her? [GIVE TWO EXAMPLES: (1) ALREADY HAS A CHILD (2) DOES NOT HAVE A CHILD]

Loko uri na munghana loyi anga na xitsongwa-tsongwana xa HIV loyi a teke ka wena ku ta pfuniwa hi mhaka yo kuma vana kumbe leswaku a nga va kumi, xana u nga n'wi byela yini?

What if a woman already had 4 children, just got remarried, was HIV positive, but was on ARVs and feeling good – would it be okay for her to have a child? Why/why not?

Loko wansati ari na vana va mune, a tekiwa na kambe, u na xitsongwatsongwana xa HIV, kambe u tirhisa ti ARVs na swona u titwa a ri kahle-xana swi nga va swi ri kahle eka yena ku kuma n'wana ke?

If you found out you were HIV positive, what would you do? Would you have a child? Would you go for antenatal care? Would you switch clinics? (PROBE)

Loko wo tikuma leswaku uni xitsongwatsongwana xa HIV, xana unga endla yini? Xana u nga kuma n'wana? U ngaya exikalwini ke? U nga cinca ku ya etliniki ya ka n'wina ke?

If you found out you were pregnant next month would you get tested for HIV/AIDS? Why/why not?

Xana u nga endla swikambelwana swa HIV/AIDS loko u nga kuma leswaku u bihile emirini eka n'hweti leyi taka? Hikokwalaho ka yini u ta endla kumbe u nga endli?

If you were pregnant and found out you were HIV positive, would you carry through with the pregnancy? Why/why not? (PROBE: treatment?)

Loko w ova u tikile naswona u kuma leswaku una xitsongwatsongwana xa HIV, xana u nga ya emahlweni ni ndzhwalo ke?

Do you think that ARVs will change childbearing practices in the future? How?

Xana u ehleketa leswaku ti ARVs ti nga cinca makumelo ya vana enkarhini lowu taka ke? Njhani?

Is there anything else we should have asked you? Is there anything else you'd like us to know?

Xana ku nga va ku ri na swin'wana leswi a hi fanele hi mi vutisile swona? Xana ku nga va ku ri na swin'wana leswi mi tsakelaka leswaku hi swi tiva?

## ***INTERVIEW 2: NON-MOTHERS***

How have things changed since *democracy*? How has this impacted YOUR life? When would you say those changes started occurring (what year)?

Xana swilo swi ncince njhani endzhaku ka tshunxeko? Xana swi khumbe vutomi bya wena ku fikela kwihhi? Xana unga vula ku kuncinca loku ku sungule rini?

How has *democracy* changed childbearing and parenting? How do you feel about this?

Xana tshunxeko wu nga va wu ncince timhaka to bebula na vutswari? Xana u ti twa njhani hi mhaka leyi?

## ***UNIQUE FOLLOW-UP QUESTIONS FROM 1<sup>ST</sup> ROUND***

### **MODERN WOMEN & RELATIONSHIPS**

How does a girl become a woman (or an adult) in this culture? How did YOU become a woman?

Are there significant things/events that let you know that a girl has become a woman?

Xana nhwanyana uva wansati loko swi te yini eka dzavuko wa ka nwina? Xana u sungule rini ku titwa u ri wansati? Xana kuna swilo swo karhi kumbe mintirho leyi u yi tivaka leyi kombisaka leswaku wanhwana u hundzuke wansati

How does a woman gain status and respect in society? How is this different from in the olden days?

Xana wansati u kuma xiyimo xa le henhla no xiximeka etikweni loko swi te yini? Xana hi kwihhi ku hambana loko hi swi fananisa na khale?

How would you describe a modern woman? (PROBE: what does she eat? What does she do for work/money? Does she get married? What type of man does she marry? Does she have children? How many? Where does she live? How does she dress?)

Xana u nga ndzi hlamusela hi wansati wa ximanguva lawa?(vutisisa: xana u dya swakudya swa njhani? Xana u endla yini entirheni wa yena na hi mali ya yena? xana wa tekiwa ke? Xana I nuna wa njhani loyi a lavaka ku tekiwa hi yena? Xana u na vana ke? Vangani? Xana u tshama kwihhi? Xana u mbala njhani?)

Are YOU a modern woman? Why/why not? *If not:* do you want to be a modern woman?

Why/why not?

Xana unga va wansati wa ximanguva lawa? Loko kuri ee: wa swi tsakela kuva wansati wa ximanguva lawa?

**YOUNGER WOMEN (35 and below):** Do you have any goals for the future? What are you expecting in the future?

Xana u na leswi u swi pulaneke hi vumundzuku bya wena? Xana u langutele yini hi vumundzuku bya wena?

**YOUNGER WOMEN (35 and below):** We've heard older people saying that young people today lack respect. Is this true? Why/why not?

Hi twile vanhu lavakulu va vula ku vana lavatsongo a va ha xiximi masiku lawa. Xana ku nga va ku ri ntiyiso?

If you won the lotto tomorrow, how would you spend the money?

Loko wo wina lotto mundzuku, xana u nga endla yini hi mali ke?

Would you say that women and men are equal in society? Should they be equal? (PROBE)

Xana u nga vula ku vaxisati na vaxinuna va ringana e tikweni? Xana va fanele va ringana?

Do you think there is more or less violence in society nowadays compared to the past? What about in families and intimate relationships between men and women? (PROBE)

Xana u hleketa ku kuna kwetlembetano wo tala kumbe wutsongo e tikweni masiku lawa loko u fananisa na khale? Xana emindyangwini na le ka vuxaka bya vaxinuna na vaxisati?

Are women today at a greater risk of sexual violence (or unwanted sex) than in the past? (PROBE)

Xana vaxisati masiku lawa va le khombyeni lerikulu etimhakeni ta endla masangu va nga swi lavi loko hi fananisa na khale?

## **WORK & SCHOOL**

What level in school have you completed? When was the last time you were a scholar? Why did you stop going to school?

Xana u dyondze ku fikela kwihi? Hi wihi nkarhi wo hetelela lowu a wu ri nwana wa xikolo?

Hikwalaho ka yini u tshike xikolo?

How did your education impact your childbearing (or vice versa)? Tell me about it.

Xana ku dyondza ka wena ku kavanyete ku fikela kwihi etimhakeni to bebula (hundzuluxa xivutiso) xana ku kuma vana swiku kavanyete ku fika kwihi e ka muxaka wa ntirho lowu u tirhaka wona?

Have you ever gone to live outside of your village for work or for school? Why? Tell me about it.

[PROBE: Where did you go? When (how old were you)? How long did you stay? Why did you come back?]

Xana u nga va u tshamile e tikweni rinwana hi timhaka ta ntirho kumbe xikolo? Hikokwalaho ka ini? Ndzi byele hi swona. (vutisisa: u yile kwihi? Rini (xana a wu ri na malembe mangani) xana u atshame nkarhi wo fikela kwihi? Xana u vuye rini?

## **BODIES & AGING**

We've heard some people saying that women today are growing old faster than men. What do they mean? Do you agree? (PROBE: why?)

Hi twile van'wana va vula leswaku vavasati masiku lawa va kula hi ku hatlisa ku tlula vavanuna. Xana va vula yini? Xana u yima na swona ke? (hikwalaho ka yini)?

What are the things that make women grow old fast? Are there things that make men grow old fast? (PROBE: describe)

Hi swihi swilo leswi endlaka vavasati va kula hi ku hatlisa? Xana swi nga va kona swin'wana leswi endlaka vavanuna va dyuhala hi ku hatlisa? (Hikwalaho ka yini)?

How do you know when women are growing old fast? (PROBE)

Xana u swi tivisa ku yini leswaku vavasati va kule hi ku hatlisa?

## **MOTHERHOOD & CHILDBEARING**

**YOUNGER WOMEN (35 and below):** Do you plan to have children (under what circumstances – e.g. only if married)? Why do you want more children? What are the benefits of having more children?

**YOUNGER WOMEN (35 and below):** What problems might you have if you don't have any children (or what would you lose out on)?

Xana u kunguhate ku kuma vana vo tala? (loko swi te yini-xik.ntsena loko u tekiwile)? Hikokwalaho ka yini u lava vana vo tala? Xana u vuyeriwa hik yini loko u ri na vana vo tala? Hi swihi swiphiso leswi u nga vaka na swona loko u nga ri na vana ?

Why are children valuable? How does this compare to the past?

Hikwalaho ka yini vana va ri va nkoka? Hi nga swi fananisa njhani na khale?

**YOUNGER WOMEN (35 and below):** How do you feel about women who are barren? Can a woman lead a fulfilling life without having children? Why/why not?

Xana u ti twisa ku yini hi vavasati lava nga kumeki vana? Xana wansati a nga hanya vutomi lebyi hetisekeke loko a nga ri na vana?

Are women today stigmatized for having a child before they get married/lobola? What about if they have a child while they are too young? How are they treated by the families/peers/communities?

How does this compare to the past? Why do you think there has been a change?

Xana vavasati va hlwuriwa hikuva va kume vana va nga se tekiwa kumbe ku loveriwa? Loko va kume vana va ri vatsongo ke? Xana va khomiwa njhani emakaya, tintanga, emungangeni ke? Xana hi nga swi fananisa njhani na khale? hikwalaho ka yini u ehleketa leswaku kun a ku ncinca?

Do men prefer to marry women who have had a child or who have never had children? Why? What do women prefer for their husbands? Do children born before marriage cause a problem in the marriage? What do couples usually do about this?

Xana vavanuna va tsakela ku teka vavasati lava nga na vana kumbe lava kalaka vana? Hikokwalaho ka yini? Xana vavasati va tsakela yini eka vavanuna? Xana vana lava ngakumiwa ehandle ka vukati va va swirhalanganyi endyangwini? Xana vatekani va endla yini hi mhaka leyi?

How does money impact raising children? How does money impact marriage? How do you feel about this?

Xana hi wihhi mpfuno wa mali eku kuriseni ka vana? Xana mali yi pfuna yini eka vukati? Kumbe yi onha ku fika kwihhi? Xana u titwa njhani hi mhaka leyi?

**YOUNGER WOMEN (35 and below):** Are traditional/cultural practices related to childbearing important nowadays? (PROBE)

Xana ndzhavuko kumbe masiko swini nkoka eku kumeni ka van amasiku lawa ke?

We've heard women talking a lot about 'learning to accept' different situations in their lives (e.g. unplanned pregnancy, husband's infidelity, etc.) Can you describe what this means? How did you learn this (who taught you, when, how)?

Hi twile vavasati vo tala va vula ngopfu laswaku 'va dyondze ku amukela'swiwimo swo hambana hambana evutonw'ini bya vona. Xik.( Ku ka va nga tiyimiselangi ku kuma n'wana,ku xisiwa hi vavanuna na swin'wana na swin'wana). Xana u nga ndzi byela leswaku leswi swi vula yini? U swi dyonze kwihhi?Na swon au dyondzise hi mani, rini na swona njhani?

## HIV/AIDS & CHILDBEARING

Why do you think there is so much illness and death nowadays compared to in the past?

Hikwalaho ka yini u ehleketa leswaku ku ni mavabyi yo tala ni mafu yo tala masiku lawa loko hi pimanisa ni khale?

Is there stigma attached to being HIV positive? How does this stigma impact people's lives? How do you feel when you find out someone you know is HIV positive?

Xana ku ni ku ni ku ti chava loko munhu ari HIV positive ke? Xana leswi swi onha ku fika kwihhi evuton'wini bya vanhu? Xana u titwa njhani loko u kuma leswaku un'wana loyi un'wi tivaka I HIV positive?

Are you worried about becoming infected with HIV/AIDS? IF YES: On a scale of 1 – 5, how worried are you? Why? How does this affect your life? Dating/relationships? Sex?

Xana wa vilela leswaku unga tshuka u khomiwile hi mavabyi ya HIV/AIDS? Loko ku ri ina: Xana u vilela ku fika kwihhi? Hikwalaho ka yini? Xana leswi swi ku khumba ku fika kwihhi e ka vuxaka bya wena na munghana wa wena kumbe swa masangu?

(1 = least worried

5 = most worried)

On a scale of 1 – 5: How likely do you think that you are infected with HIV right now?

Xana u vona onge enkarhini wa sweswi u nga va u khomiwile hi HIV?

How likely do you think it is that you will be infected with HIV this year?  
Xana u vona onge u nga tshuka u khomiwile hi HIV eka lembe leri?

How likely do you think it is that you will be infected with HIV during your lifetime? (PROBE: Why?)  
Xana u vona onge unga tshuka u khomiwile hi mavabyi lawa enkarhini lowu taka?

How do you plan to protect yourself from getting HIV/AIDS in the future (especially if you want to have children)? Xana u kunguhate ku ti sirhelela hi ndlela yihi leswaku unga khomiwi hi vuvabyi lebyi enkarhini lowu taka(ngopfu –ngopfu loko wa ha lava ku kuma vana)?

***VERY IMPORTANT TO PROBE ON THESE NEXT FEW QUESTIONS – NEED TO GET DETAILS ABOUT THEIR THINKING AND REASONING IN REGARDS TO THESE ISSUES***

If you had a friend who was HIV positive who came to you for advice about whether or not to have a child, what would you tell her? [GIVE TWO EXAMPLES: (1) ALREADY HAS A CHILD (2) DOES NOT HAVE A CHILD]

Loko uri na munghana loyi anga na xitsongwa-tsongwana xa HIV loyi a teke ka wena ku ta pfuniwa hi mhaka yo kuma vana kumbe leswaku a nga va kumi, xana u nga n'wi byela yini?

What if a woman already had 4 children, just got remarried, was HIV positive, but was on ARVs and feeling good – would it be okay for her to have a child? Why/why not?

Loko wansati ari na vana va mune, a tekiwa na kambe, u na xitsongwatsongwana xa HIV, kambe u tirhisa ti ARVs na swona u titwa a ri kahle-xana swi nga va swi ri kahle eka yena ku kuma n'wana ke?

If you found out you were HIV positive, what would you do? Would you have a child? Would you go for antenatal care? Would you switch clinics? (PROBE)

Loko wo tikuma leswaku uni xitsongwatsongwana xa HIV, xana unga endla yini? Xana u nga kuma n'wana? U ngaya exikalwini ke? U nga cinca ku ya etliniki ya ka n'wina ke?

If you found out you were pregnant next month would you get tested for HIV/AIDS? Why/why not?

Xana u nga endla swikambelwana swa HIV/AIDS loko u nga kuma leswaku u bihile emirini eka n'hwetlile leyi taka? Hikokwalaho ka yini u ta endla kumbe u nga endli?

If you were pregnant and found out you were HIV positive, would you carry through with the pregnancy? Why/why not? (PROBE: treatment?)

Loko w ova u tikile naswona u kuma leswaku una xitsongwatsongwana xa HIV, xana u nga ya emahlweni ni ndzhwalo ke?

Do you think that ARVs will change childbearing practices in the future? How?

Xana u ehleketa leswaku ti ARVs ti nga cinca makumelo ya vana enkarhini lowu taka ke? Njhani?

Is there anything else we should have asked you? Is there anything else you'd like us to know?

Xana ku nga va ku ri na swin'wana leswi a hi fanele hi mi vutisile swona? Xana ku nga va ku ri na swin'wana leswi mi tsakelaka leswaku hi swi tiva?