HIV/AIDS and the Breakdown of Marriage Among Women in Rural South Africa

Cara Margherio[1] and Jill Williams[2 3]

INTRODUCTION

The timing of entry into marriage has long been recognized as an important dimension of fertility behavior. Marriage marks the beginning of regular exposure to the risks of pregnancy and childbearing, helping explain variations in fertility patterns across societies. More recently, marital patterns have emerged as an important factor in the HIV/AIDS epidemic. At almost 30 percent, Southern Africa has the highest HIV prevalence rates in the world (Tabutin & Schoumaker 2004). Understanding the dynamics of women's transition into marriage is central to improving our understanding of the exceptionally high HIV prevalence of women aged 15-40 in South Africa.

While the prevalence rates of HIV/AIDS in rural South Africa have increased over the past twenty years, the marital rates have declined (Posel, Rudwick, and Casale 2011; Hosegood, McGrath, and Moultrie 2009). Little is known however, as to how HIV/AIDS may be impacting these changing trends. Studies in Africa have found that marriage, marriage dissolution, and surveillance of potential marital partners are key HIV prevention strategies in sub-Saharan Africa (Reniers 2008, Schatz 2005, Watkins 2004). In this study we examine how HIV/AIDS influences the desirability of marriage to women in rural South Africa.

Variations in marital patterns are understood through Ruth Dixon's (1971, 1978) theoretical framework, which focuses on three categories of determinants: availability of mates, feasibility of marriage and desirability of marriage. The desirability of marriage is generally

[1] Department of Sociology, University of Washington, USA
[2] Population Program, Institute of Behavioral Science, University of Colorado Boulder, USA
[3] MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt), School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

conceptualized as reflecting the availability of alternatives to marriage; previous research has operationalized this determinant as female education levels and economic opportunities. This project expands this understanding by proposing that HIV/AIDS impacts the desirability of marriage. HIV/AIDS may increase the desirability of marriage (e.g. marriage may be seen as a protective mechanism by limiting the total number of sexual partners) or decrease the desirability of marriage (e.g. marriage may be seen as a risk factor if women suspect their husband of extramarital sexual activity).

This study is nested within the Agincourt Health and Demographic Surveillance System (AHDSS) site in the Ehlanzeni District in Mpumalanga Province, northeastern South Africa. The AHDSS has collected demographic information on a population of approximately 100,000 individuals in 26 villages since 1992. One third of this population are former Mozambican refugees, who self-settled in the area after fleeing civil war. In addition to the lack of information concerning how HIV/AIDS may be impacting marital patterns, there is a dearth of information concerning for these decision-making processes may differ for South African and Mozambican women within Agincourt. This study utilizes focus group discussions to draw comparisons across different age groups of women and between South African and Mozambican women.

Analytic Framework

The determinants of entry into marriage can be divided into three broad categories: availability of mates, feasibility of marriage, and desirability of marriage (Dixon 1971, 1978). The availability of mates is largely determined by the relative numbers of males and females eligible for marriage. The feasibility of marriage is a function of economic expectations,

particularly in regards to achieving economic independence. Finally, the desirability of marriage reflects the availability of viable alternatives to marriage.

The availability of mates is generally analyzed through use of sex ratios, the number of single men relative to the number of single women of marriageable ages. Previous research has found that the number of available opposite-sex individuals largely influences the likelihood of forming cross-sex relationships (South & Trent 2010; Posel & Casale 2009; Trent & South 2003; Fossett & Kiecolt 1993; Bhrolcháin 1992).

A number of sex-specific population processes, such as sex-selective abortion, sex-specific mortality patterns and sex-specific migration patterns, may lead to a skewed sex ratio. Although mortality patterns in South Africa have undergone drastic changes in recent years due to increases in HIV-related mortality, these changes have primarily affected adults beyond the prime ages entering first marriage (Williams & Gouws 2001). Thus, it is expected that these recent changes would not have impacted the sex ratio of the marriage market. It is likely, however, that sex-specific migration patterns have skewed the sex ratios in some rural areas of South Africa, due to large levels of circular migration as a lasting effect of apartheid policies, where the majority of the population was forced onto rural homeland areas that were lacking in employment and agricultural opportunities (Posel & Casale 2009; Zwang & Garenne 2008). As men engage in circular migration, they temporarily relocate to work in urban areas and leave behind an excess of women in rural areas.

The feasibility of marriage of marriage depends on a couple's access to economic resources; it varies according to cultural expectations regarding financial and residential independence of the newlywed couple. As Dixon (1971, 1978) noted, marriage is more feasible with joint family norms; this allows couples to marry prior to establishing economic

independence from their households of origin. In the context of Agincourt, it is expected that lobola (bridewealth) will also impact the feasibility of marriage. The level of constraint lobola places on marriage is highly variable according to cultural and ethnic norms. For example, Posel and Casale (2009) found that the probability of marriage varied significantly among women in South Africa according to language spoken at home; the probability was lowest for the languages that correspond to ethnic groups where the practice of bridewealth is strictly observed (i.e. Zulu speakers in KwaZulu-Natal). Furthermore, they found that the women speaking Tsonga at home (the dominant language within Agincourt) were not significantly less likely to marry as compared to African women who spoke Afrikaans at home (and thus, presumably, did not practice lobola), evidence that lobola is not a significant barrier to marriage within Agincourt. In research based in Agincourt, Zwang and Garenne (2008) found that in order to facilitate marriage, it is common for the wife's parents to accept a payment to be made over the course of several years or even to accept a symbolic contribution. Thus it is likely that lobola is becoming less of a constraint to the feasibility of marriage.

The desirability of marriage reflects the availability of viable alternatives to marriage. Dixon (1978) proposed female education a key indicator of alternatives to marriage. While previous research has shown education to be highly correlated to age at first marriage, the existing studies are limited by the endogeneity of education level and entry into marriage (Manda & Meyer 2005; Brien & Lillard 1994). That is, some women may have had to leave school upon entering marriage; for others, the choice to enter marriage may have resulted after the female left school for reasons unrelated to marital decisions. Ignoring the endogenous nature of these variables underestimates the standard errors and biases the results. Although it is therefore quite important to address this issue of endogeneity, existing research has yet to properly handle this

issue. Indeed, numerous studies do not even mention the problem of endogeneity (see, for example: Harwood-Lejeune 2000, Ikamari 2005, Jenson & Thornton 2003). The qualitative nature of this study allows us to investigate directly the impact of female education on the desirability of marriage.

Over the last twenty years there has been an increased feminization of the labor force, as women aged 15-65 who were either working or actively seeking work went from 38% of the workforce in 1995 to 47% of the workforce in 1999 (Casale and Posel 2002). However, a large portion of this increase has been within self-employment in the informal labor sector, and significantly more women than men have joined the ranks of the unemployed. As Casale and Posel argue (2002), women have been pushed rather than pulled into the labor market due to a decrease in women's ability to access and depend on men's income support. As women can no longer depend on men for financial support, they are more and more seeking employment of their own; it is hypothesized that women's employment provides an alternative to marriage. As women are more likely than men to be unemployed, the degree to which employment is seen as a viable alternative warrants further investigation.

Beyond alternatives to marriage, the desirability of marriage may be conceptualized as the motivation to marry. This study expands Dixon's framework by proposing that HIV/AIDS influences the desirability of marriage. Parents may encourage their daughters to marry young, before they become sexually active, as a way to preserve their daughter's virginity (Mensch, Grant & Blanc 2006) or to potentially lower their risk of HIV infection. Alternatively, marriage may be seen as a risk, if individuals suspect their partner of extramarital sexual relations thus exposing both partners to HIV.

Marriage in Post-Apartheid Rural South Africa

Marital norms in rural South Africa are still largely impacted by processes and practices set into motion during the Apartheid period, particularly on the former homelands. The 1952 Pass Laws Act, in effect until 1986, made it illegal for African adults to stay in urban areas without employment and accommodation; thus if an individual found work in a city, their partner was unable to join them. Simultaneously, individuals were forced to live on 'homelands,' based on a system of ethnic identification. This imposed system of circular labor migration persists today, despite the official end to apartheid policies (Hosegood, Benzler, and Solarsh 2005; Collinson, Tollman, Kahn, and Clark 2003). Over time the migrant labor has become longer term with more frequent trips home, due to improved infrastructure (Collinson, Wolff, Tollman, and Kahn 2006)

The 1998 Recognition of Customary Marriages Act, which came into effect in 2000, recognizes the diversity of cultural and religious approaches to marriage. The Act permits customary or traditional marriages to be recognized as legal marriages, so long as they meet the criteria of consent and community of property and the marriage is registered (Hosegood, McGrath, and Moultrie 2009).

Traditionally, the marital process in Agincourt has included both the exchange of lobola and cohabitation. Lobola serves the purpose of forging a relational bond between the families and signaling a male's commitment to the union (Posel, Rudwick, and Casale 2011; Madhavan 2010). Over time this transaction has shifted from cattle and household goods to cash payments (Madhavan 2010).

SETTING AND METHODS

During the apartheid period this area was part of the Gazankulu homeland and was thus particularly economically disadvantaged (Garenne et al 2007). Due to a dry climate and poor soil, local agriculture is only poorly developed. The local economy is based on remittances from migrant workers, pensions, and tourism; 55% of men aged 30 to 49 are migrant workers and live at least part of the year elsewhere (Zwang & Garenne 2008). Female labor migration has increased over time since the end of apartheid, with approximately 25% of women age 15-39 living away from the area for at least 6 months by 2011. HIV/AIDS first arrived in Agincourt in 1990, with the first documented AIDS-related death occurring in 1993 (Garenne et al. 2007). By 2000 it had become the leading cause of death among children and young adults (Garenne et al. 2007; Zwang et al. 2007).

This study investigates the impact such high HIV prevalence and AIDS mortality within a community has on conceptions of marriage via focus groups. The focus groups were conducted during May 2013. The data produced by focus group research includes insight into complex behavior and motivations (Morgan 1996). The participants explain themselves to each other giving researchers access to their reasoning processes (Ansay et al. 2004; Morgan 1996). Focus groups not only provide a variety of viewpoints, but also reveal how subjects interact with and respond to these viewpoints; this allows for researchers to examine motivations for behavior with an increased degree of complexity (Morgan & Krueger 1993). Thus this method is well suited to explore decision-making around the transition into marriage, community-based understandings of HIV/AIDS and gendered narratives of disease response.

Two local fieldworkers were hired to assist with recruitment, facilitation, transcription and translation, as the focus groups were held in the local language, Shangaan. The focus groups were structured around the topics of: (1) motivations for marriage, (2) deciding who and when to marry, (3) parental influence on marital decision-making, (4) cohabitation, (5) how marriage has changed over time, and finally (6) understandings of HIV/AIDS.

Sixty-three (63) total individuals participated in six separate focus groups. Participants were recruited from six villages, Khaya Lami, Kildare C, Newington B, Newington C, Rholane, and Somerset. As noted above, one third of the population within Agincourt is of Mozambican origin. As shown in Table 1, residents in three of these villages predominately identify as Mozambican (according to AHDSS census data), while residents in the other three villages predominately identify as South African. Although we did not recruit based on an individuals' nationality, this recruitment process allows for a comparison of village norms to test for differences in social understandings of marriage between South Africans and Mozambicans within Agincourt. The participants were divided into separate focus groups based on age: 18-24, 25-34, and 35-44.

Table 1. Total Population and Mozambican Population by Village

Village	Total Population	Mozambican Population	Percent Mozambican
Khaya Lami	2182	193	8.85
Kildare C	1184	1107	93.50
Newington B	3533	316	8.94
Newington C	1945	54	2.78
Somerset B	1182	921	77.92
Rholane	2339	2216	94.74

The focus groups were audio-recorded, and then transcribed and translated by the fieldworkers. The transcriptions were coded in an iterative process using selective coding. Field

notes were consulted to ensure accurate interpretations of the participant interactions. Analytic memos were developed on core themes and used to synthesize findings into a summary analysis.

FINDINGS

Defining marriage

The transition to marriage in South Africa is often described as a process, rather than a singular event, consisting of exchange of lobola, a ceremony, and cohabitation. The participants confirmed that this was the usual transition to marriage up until the recent past; they also noted that historically there was a high level of parental involvement, even to the degree that the young bride would not be aware she was being married. For example, one participant noted that "long ago in times of our mothers they were marrying, maybe having 15 years if her parents accept this family want their child, they take to that family to get married and paid you a lobola and stay there until she grew up at that family. Sometimes without knowing that she will be marry at that family." [W1 MZ 35-44] The perception of the participants was that both lobola and parental involvement were becoming less common. The older participants and the women from Mozambican villages were more likely to offer definitions of marriage that included lobola; they were also more likely to note that it was becoming less common.

While discussing the decreasing parental involvement in the transition to marriage, the women were quick to note that this is, at least in part, an improvement as women now have a say in who and when they marry. For example, one participant explained: "In the past you were not marrying a person of your choice, you were marrying a person whom you have seen on the photo. Your parents were choosing a husband or a wife for you and you were not allowed to refuse to marry him or her. Nowadays we are staying with our husbands even if they didn't pay

lobola as long as you have agreed with each other." [W5 MZ 18-25] Furthermore, the women noted that it had become common for pregnancy to be the catalyst for marriage. In discussing the decrease in parental involvement, on participant stated, "They don't talk to you. You see by a pregnancy here at home. If they see by pregnancy they will ask you who is responsible for that pregnancy and they take to there. In many times there is no talking, may some others, that pregnancy is the one that is talking." [W3 MZ 35-44] Participants attributed the decreased role of parents in the marriage process to the parents not realizing that their children were old enough to be sexually active. For example, one participant noted, "Our parents are no longer talking to us about getting married. If they look to their children they think they are still young meanwhile when they go to bed their children will jump the fences and visit their boyfriends and come back home pregnant. They will ask you who is responsible for the pregnancy and when you tell them they will take you there." [W1 SA 25-34]

Feasibility

Feasibility of marriage is often operationalized as employment opportunities or unemployment rates, as employment facilitates the formation of an independent household (see, for example, Goldscheider, Kobrin, and Waite 1986). However, young adults in Agincourt don't expect to form an independent household, thus shifting employment opportunities from an issue of feasibility to desirability, as discussed below. When first entering a union, the couple expects to live with the male's household. While the women did not mention this expectation directly, there were repeated mentions of going to live with their husband's family and the responsibilities of doing chores for their in-laws. For example, one participant explained, "Nowadays it doesn't matter even if I haven't paid lobola if I'm in need of that boy I go by myself, [my in-laws] will see me in the morning when I sweep a yard or pouring bath water." [W7 MZ 35-44]

As individuals are not focused on creating an independent household, the feasibility of marriage has instead traditionally depended on affording lobola. However, as noted above lobola is becoming less of an imperative for the transition into marriage. As one participant stated, "Nowadays we are staying with our husbands even if they didn't pay lobola as long as you have agreed with each other." [W5 18-24 MZ] Thus, the women within this study saw marriage as highly feasible; the more salient issues to them were matters of desirability.

Desirability

Analysis of the data indicates that women in general and young women in particular see very few benefits to marriage. The lack of benefits of marriage is generally tied to uncertainty about the ability or willingness of men to provide financially for their families. As a result, young women discussed the importance of getting an education and being able to take care of themselves. For example, one woman discussing the importance of education for women in the area said the following: "men are no longer responsible for their families, they forgot that they have children that needs their support and there a lots of things children needs in a daily basis. Women must be educated so that they can be able to get jobs." [W4 25-34 SA] High male unemployment leads to uncertainty about men's future financial attributes, thus delaying entrance into marriage. Another woman noted that, "Long ago there was some benefits because you were taken by a father and works for you while you are at home, but nowadays you wake up and work for yourself." [W2 35-44 MZ]

The desirability of marriage is also linked to the perceived difficulty of marriage. There was a great deal of dialogue among women in the focus group discussion about "not making it" in marriage. The perception among participants was that older women used to persevere in their marriage but now younger women will return to their parents' homes or leave to live in public

housing when faced with marital difficulties. For example, one woman stated, “Nowadays children don’t persevere because they are telling themselves that if their marriages can fail they will find another man.” [W6 18-24 MZ] The participants portrayed this attitude as a norm within their communities. One participant noted, “It’s true there is no parent who promote marriage because they know that marriage is difficult. Some of them have been married but their marriages failed.” [W6 18-24 MZ]

One of the rationales given for the change over time in marriage perseverance was a change in attitudes toward temporary labor migration and multiple partnerships. For example, one participant noted, “Older people didn’t care about it whether their husband were sending money or not, they will stay and support themselves by pounding mealies. It is too different with us nowadays women, because if he can skip a month without sending money home it will be a disaster.” [W1 25-34 SA] Thus the change in perseverance may be linked to economic circumstances, specifically the shift to a cash economy. As rural households have become dependent on cash to survive, they have also increased their dependence on remittances from migrant workers, thus straining marriages if and when husbands fail to send money. Another participant explained, “long ago we used to go to the field to pick vegetables and come back and cook. Is it you are the daughter-in-law you didn’t care whether there is meat on the fridge you just cook and dish up for the whole family.” [W5 35-44 SA]

The women also discussed the expectation of abuse and control within marriage. They saw the likelihood of abuse increase with official marriage, and thus argued for the benefit of cohabitation over marriage. As one participant asserted, “I can say people choose not to get married because mostly men abuse women. … It’s better to find someone to live with rather than getting married.” [W7 35-44 SA] Financial concerns also motivated the rising popularity of

cohabitation over marriage, as even employed men were viewed as not providing for their families. One participant noted, "You will find that you are beaten up, the husband doesn't take care of his family when he earns money he will spend it on beer." [W6 35-44 SA] Another participant noted the benefit of financial transactions that occur while dating, stating, "To be not married is good because you are not controlling by someone. Anytime you want to do something, you do it, even if you want maybe to have many boyfriends that will give you money by month end, each and everyone will give to you. But if you are married you will only expect money from your husband." [W2 35-44 MZ]

In general women do not view marriage as protective from HIV, though younger women were more likely than older women to view marriage as potentially protecting women from diseases. One reason many women do not view marriage as protective from HIV is a baseline assumption that men will have difficulty being faithful and will eventually look for other girlfriends. For example, one participant said, "The benefits of being married are diseases. You find that your husband is a drunkard he spend most his time in the taverns or shabeens and while he is there he will propose girls and sleep with them without a condom and by so doing he will get diseases. He will come home and infect you." [W9 18-24 SA] Another reason that marriage is not seen as protective against diseases is because women may lack the ability to use a condom within marriage. For example, one participant noted that, "Me who is not married I can make use of a condom but the one who is married will not use a condom just because she had paid a lobola." [W8 25-34 MZ]

While the women seemed to think it likely that one would contract HIV regardless of their marital state, it was noted, particularly among Mozambican women, that when you have a husband at least you would know where you contracted HIV and others in your community

would not judge you for being HIV-positive. For example, one women said, "You won't get diseases if you are married because you will have sex with your husband only. If it might happen that you get those diseases you will know who infected you, but if you are not married you will never know because you will have many sexual partners. [W5 18-24 MZ] Another participant echoed this sentiment when she stated, "if I'm not married, today I will get a man, tomorrow I will get another one and the day after tomorrow will be another one. I will not know where I have got the sickness. But if I'm married having one man, even if he goes out and looking for another women, I know that when he comes back, he is coming to me. I will know that I'm getting that sickness from him." [W5 25-34 MZ]

Availability

In none of the focus groups did the participants note any changes or problems with availability of mates. However, the sex ratios in each of the villages are skewed due to men's greater participation in migrant labor. While availability of mates per se was not discussed, there was, as mentioned above, an assumption that husbands will pursue extramarital sexual relations. This assumption is based on the excess of women in the area; that is, there exist plenty of women for them to pursue affairs. For example, one participant stated that, "He will leave you at home and go out to look for those who have curves and stylish hair. When he look at you he find that you are no longer attractive." [W4 25-34 SA] Another participant stated, "Your husband will tell you not to wear trousers but when he go out to the [taverns] he will see someone wearing a trouser and start to like her, only to find that the person is sick. They will fall in love and have sex without using a condom because they will be drunk." [W3 18-24 SA] Both of these quotations discuss the variety of women available to men as presenting a difficulty toward maintain marital fidelity.

DISCUSSION

Our preliminary analysis suggests that although HIV/AIDS is likely one factor contributing to the breakdown in marriage in rural SA as marriage is not seen as necessarily protective from HIV or other diseases, other more salient factors are socio-economic, including the inability and perceived unwillingness of men to support their families, changing attitudes towards migration and long-distance relationships, and issues of fidelity caused in part by skewed sex ratios. Our finding that the skewed sex ratio impacts the desirability of marriage via its impact on norms around monogamy expands Dixon's framework from the traditional view of the sex ratio impacting only the availability of mates.

The participants repeatedly discussed their reluctance to marry as fueled by their expectations that their husbands would not be able to provide for their families. Thus, the women were making decisions about entering marriage based the future economic prospects of these men. This find lends support to Oppenheimer's Search-Theoretic Model (1988), in which future attributes and the ability to transition to a stable labor position greatly impact the decision to marry. Under this model, as we found in Agincourt, a faltering economy increases the uncertainty of future prospects, thus leading to delayed marriage and decreases in the overall rate of marriage.

ACKNOWLEDGEMENTS

We thank the Agincourt Health and Population Research Unit, School of Public Health, Witwatersrand University and the field assistants Louwin Sibuyi and Tryder Sithole.

REFERENCES

Ansay, Sylvia J., Daniel F. Perkins and John Nelson. 2004. "Interpreting outcomes: Using Focus Groups in Evaluation Research." *Family Relations* 53(3): 310-316.

Bhrolcháin, Máire Ní. 1992. "Age Difference Asymmetry and a Two-Sex Perspective." *European Journal of Population / Revue Européenne de Démographie* 8(1): 23-45.

Brien, Michael J. and Lee A. Lillard. 1994. "Education, Marriage and First Conception in Malaysia." *Journal of Human Resources* 29(4): 1167-1204

Casale, Daniela and Dorrit Posel. 2002. "The Continued Feminisation of the Labour Force in South Africa." *South African Journal of Economics* 70(1): 156-184.

Collinson, Mark, Brent Wolff, Stephan Tollman, and Kathleen Kahn. 2006. "Trends in Internal Labour Migration from the Rural Limpopo Province, Male Risk Behavior, and Implications for the sSread of HIV/AIDS in Rural South Africa." *Journal of Ethnic and Migration Studies* 32(4): 633-548.

Collinson, Mark, Stephen Tollman, Kathleen Kahn, and Samuel Clark. 2003. "Highly prevalent circular migration: Households, mobility, and economic status in rural South Africa." Paper prepared for Conference on African Migration in Comparative Perspective, J ohannesburg, South Africa 4-7 June 2003.

Dixon, Ruth B. 1978. "Late Marriage and Non-Marriage as Demographic Responses: Are They Similar?" *Population Studies* 32(3): 449-466.

---. 1971. "Explaining Cross-Cultural Variations in Age at Marriage and Proportions Never Marrying." *Population Studies* 25(2): 215-233.

Fossett, Mark A. and K. Jill Kiecolt. 1993. "Mate Availability and Family Structure Among African Americans in U.S. Metropolitan Areas." *Journal of Marriage and Family* 55(2): 288-302.

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(Suppl 69): 68-76.

Goldscheider, Frances Kobrin and Linda J. Waite. 1986. "Sex Differences in the Entry into Marriage." *American Journal of Sociology* 92(1): 91-109.

Harwood-Lejeune, Audrey. 2001. "Rising Age at Marriage and Fertility in Southern and Eastern Africa." *European Journal of Population*. 17(3): 261-280.

Hosegood, Victoria, Justus Benzler, and Geoff C Solarsh. 2005. "Population mobility and household dynamics in rural South Africa: implications for demographic and health research." *Southern African Journal of Demography* 10 (1/2): 43-68.

Hosegood, Victoria, Nuala McGrath, and Tom Moultrie. 2009. "Dispensing with Marriage: Marital and partnership trends in rural KwaZulu-Natal, South Africa 2000-2006." *Demographic Research* 20 (13): 279-312.

Ikamari, Lawrence D.E. 2005. "The Effect of Education and the Timing of Marriage in Kenya." *Demographic Research* 12(1): 1-28.

Jensen, Robert and Rebecca Thornton. 2003. "Early Female Marriage in the Developing World." *Gender and Development* 11(2): 9-19.

Madhavan, Sangeetha. 2010. "Early Childbearing and Kin Connectivity in Rural South Africa." *International Journal of Sociology of the Family* 36(2): 139-157.

Manda, Samuel and Renate Meyer. 2005. "Age at First Marriage in Malawi: A Bayesian Multilevel Analysis Using a Discrete Time-to-Event Model." *Journal of the Royal Statistical Society*. 168(2): 439-455.

Mensch, Barbara, Monica J. Grant and Ann K. Blanc. 2006. "The Changing Context of Sexual Initiation in Sub-Saharan Africa." *Population and Development Review* 32(4): 699-727.

Morgan, David L. 1996. "Focus Groups." *Annual Review of Sociology* 22: 129-152.

Morgan, David L. and Richard A. Krueger. 1993. "When to Use Focus Groups and Why." Pp. 2-19 in Successful Focus Groups: Advancing the state of the art, Sage Focus Editions, Vol. 156, edited by D. L. Morgan. Thousand Oaks, CA: Sage Publications.

Oppenheimer, Valerie Kincade. 1988. "A Theory of Marriage Timing." *American Journal of Sociology* 94:563-91.

Posel, Dorrit and Daniela Casale. 2009. "Sex Ratios and Racial Differences in Marriage Rates in South Africa." No 153, Working papers, Economic Research Southern Africa, http://econpapers.repec.org/RePEc:rza:wpaper:153.

Posel, Dorrit, Stephanie Rudwick, and Daniela Casale. 2011. "Is marriage a dying institution in South Africa? Exploring changes in marriage in the context of ilobolo payments." *Agenda: Empowering women for gender equity* 25(1): 102-111.

Reniers, G. (2008). Marital Strategies for Regulating Exposure to HIV. *Demography, 45*(2).

Schatz, E. (2005). Take your mat and go!: Rural Malawian women's strategies in the HIV/AIDS era. *Culture, Health and Sexuality, 7*(5), 479-492.

South, Scott J. and Katherine Trent. 2010. "Imbalanced Sex Ratios, Men's Sexual Behavior, and Risk of Sexually Transmitted Infection in China." *Journal of Health and Social Behavior* 51(4): 376-390.

Sweeney, Megan M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review* 67(1): 132-147.

Tabutin, Dominique and Bruno Schoumaker. 2004. "The Demography of Sub-Saharan Africa from the 1950s to the 2000s: A Survey of Changes and a Statistical Assessment." *Population* 59(3/4): 457-519, 522-55.

Trent, Katherine and Scott J. South. 2003. "Spousal Alternatives and Marital Relations." *Journal of Family Issues* 24(6): 787-810.

Watkins, S. C. (2004). Navigating the AIDS epidemic in rural Malawi. *Population and Development Review, 30*(4), 673-705.

Williams, Brian G. and Eleanor Gouws. 2001. "The Epidemiology of Human Immunodeficiency Virus in South Africa." *Philosophical Transactions: Biological Sciences* 356(1411): 1077-1086.

Zwang, Julien and Michel Garenne. 2008. "Social Context of Premarital Fertility in Rural South Africa." *African Journal of Reproductive Health/ La Revue Africaine de la Santé Reproductive* 12(2): 98-110.

Zwang, Julien, Michel Garenne, Kathleen Kahn, Mark Collinson and Stephen M. 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: 893-8.