Crossing the Marriage Threshold in a High HIV Setting

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Abstract:

Using both quantitative and qualitative data from the Malawi Diffusion and Ideational Change survey conducted in 2004, this paper investigates how sexual behaviors and HIV risks change as adolescents and youth approach and cross into marriage. Despite widespread acknowledgement that marriage is typically not a discrete event in most of sub-Saharan Africa, the details of this often extended process remain largely enigmatic. In this paper, we take a closer look at the evolving relationships between HIV risks, sexual behaviors, and marriage, by focusing on the period immediately before and after marriage for adolescent and young women and men in Malawi. We find that the links between marriage and HIV perceptions and risks are quite strong, but also complex. In general, we find that marriage coincides with higher perceived and actual HIV risks for women, but that marriage does not work in the same way for men. Having a more nuanced understanding of how the process of marriage shapes and is shaped by HIV risks is critical for understanding union formation and developing better HIV protection policies.

Introduction:

A longstanding literature has focused on the effects of the HIV/AIDS epidemic on mortality in sub-Saharan Africa, and a growing body of research emphasizes the direct and indirect effects of HIV on fertility as well (see for example Bongaarts 1996; Donovan 1996; Gregson 1994; Hinde and Mturi 2000). Yet while recent research also demonstrates a link between HIV status and divorce in several countries in the region (Nabaitu 1994; Porter et al. 2004; Reniers 2003), remarkably little attention has been devoted to understanding the potentially strong and dynamic relationships between HIV and first marriage. Because HIV risk, and the transition period leading up to and crossing into marriage differs for men and women, it is likely that the connection between first marriage and HIV risks also differs substantially for both sexes. For instance, men tend to first marry at much older ages than do women, a difference that has the potential for gender-varying implications concerning sexual behavior patterns between the two sexes. This paper thus focuses on the interaction between first marriage, sexual behaviors and HIV risks for young men and women in rural Malawi.

There are several ways HIV risks may be related to the process of marriage. First, marriage-- and the process leading up to it-- are associated with dramatic changes in sexual behaviors. For many adolescent girls, marriage marks their sexual debut. For others, the transition into marriage signifies an abrupt change in the frequency of sexual contact as well as a reduction in the use of contraception, including condoms (Blanc and Way 1998; Chimbiri 2003; Clark 2004; Clark, Bruce and Dude 2005). Fewer young men transition directly into marriage without any prior premarital sexual activity, but a sizeable number of men do marry as young adults, with about a third in Malawi marrying by age 24. Seeking a marital partner may mark a transition from one partner type to another, an action that may have important implications with respect to HIV, since sexual behaviors often differ substantially across partnership type. For instance, one-night stands are one-time encounters that may (or may not) involve condom use, and casual relationship, steady boyfriend, and fiancé relationship modes may vary according to the frequency of sex, the extent of concurrent partnerships, and the use of condoms within these partnerships. Thus moving toward marriage is likely to involve drastically altered characteristics in sexual behavior, which, in turn, have a direct bearing on HIV risks and perceptions of risks. However, much needs to be uncovered about the degree to which young men's and women's perception of risk in these different relationships exists. Further, how these perceived risks correspond to actual risks for youth in high-HIV settings is unknown.

Most of the previous research on sexual behaviors, HIV risks and first marriage compare married and unmarried women's sexual behaviors, risks and HIV status in a given age group (Blanc and Way 1998; Clark 2004; Clark, Bruce and Dude 2005). Yet, such comparisons mask potentially important, but subtle, differences in changes in behavior and risk perceptions. In particular, rather than recognizing that marriage is an often fluid and sometimes extended process in many sub-Saharan African contexts (Bledsoe and Pison 1997; Walle 1993), these studies instead use marital status as a dichotomous

construct. The time preceding marriage is often the time when young people experience sexual debut, but it is also the time when partnership modes change most rapidly, and we suspect these changes are reflective of a movement toward marriage (Caraël et al. 1995; Gage-Brandon and Meekers 1993; Zabin and Kiragu 1998). In this paper, we contend that the marital process and concomitant efforts to find a suitable marriage partner have a profound effect on adolescent and young women's sexual behaviors, and consequently, their HIV risks (Caraël et al. 1995). Marriage and marital aspirations may play a less dominant role in defining young men's sexual behaviors, but may still shape their HIV risks.

Second, concerns about contracting HIV may influence both the timing of marriage and the criteria for spousal selection for both men and women. Depending on whether individuals perceive marriage as a "safe haven" from the risks of HIV, they may be more or less likely to enter into marriages or to form these marital unions at earlier or later ages. Individuals who perceive marriage as offering protection from the risks of acquiring HIV through premarital sex may seek to marry early, while those hoping to avoid sexual activity altogether or the particular vulnerabilities associated with marriage may delay marriage as long as possible. Furthermore, concerns about HIV risks may alter the process of searching for a spouse as well as the preferred characteristics of an ideal spouse. For example, in the absence of an HIV epidemic, wealthier men may be considered preferable husbands, even if such men are on average older and more likely to have migrated in the past. Growing beliefs, however, that wealthy, older, migrant men are more likely to be infected with HIV may dramatically reduce the appeal of such men as potential spouses. Finally, the preparations for marriage may be significantly changed as more and more couples consider getting tested for HIV before formalizing a marriage contract.

The aim of this paper is to take a closer and more nuanced look at the process leading up to and following marriage for young men and women. In particular, we will assess changes in sexual behaviors and HIV risks and risk perception as adolescent and young women and men cross the marital boundary. We will also explore how concerns about HIV risks are related the timing of marriage and characteristics of the ideal spouse.

Data:

Quantitative Data:

Data from the third wave of the Malawi Diffusion and Ideational Change Project (MDICP) were collected during the summer of 2004. Details about this project can be found at http://www.malawi.pop.upenn.edu. This study collected data in three rural sites in southern, central and northern Malawi. The sample consisted of married women ages 15 to 49 as well as unmarried women ages 15 to 24 in selected villages in these regions. For our analyses, we limit our sample to 259 unmarried and 340 married women ages 15 to 24, yielding a total sample of 599 adolescent girls and young women. The study also collected data on about 61 married men ages 15 to 24 as well as 398 unmarried men in this age group.

The survey collected extensive information from both married and unmarried men and women about their past and current sexual partners (including spouses), recent sexual behaviors, and current levels of perceived HIV risk. For example, respondents were not only asked about their sexual partners in the last year, but for each partners they were asked when the relationship began, how frequently they had sex, whether condoms were used, and whether they thought their partner was infected with HIV. For ever married men and women in our sample, the survey collected full marital histories and detailed information about spouses. Never-married men and women were asked a wide range of questions about their marital aspirations and intentions, particularly as they related to HIV concerns and risks.

Because these data are cross-sectional, we cannot follow individual women or men over time as they enter into marriage. We can, however, move beyond simple dichotomous categories of marital status and capture the processual element of marriage by creating a timeline before and after marriage. Specifically, using a unique survey question, "At what age would you like to get married?," we generate a variable for "expected time before marriage" for unmarried adolescents by subtracting the expected age until marriage from the current age of the respondent (note that these values will be negative and approach zero as women get closer to their ideal age of marriage). For married adolescents and young men and women, we calculate the duration since marriage by subtracting their age at first marriage from their current age. Using these constructed, incremental measures of expected time before marriage (for unmarried respondents) and actual time since marriage (for married respondents), we can explore how sexual partnerships and sexual behaviors change (or not) as adolescents approach and transition to marriage, as well as during the period of time shortly after marriage.

In addition, because this survey administered HIV tests to about 75% of the sample, we also examine whether respondents' perceived and actual risk of having HIV/AIDS alters as they approach and enter into marriage.

Qualitative Data:

These quantitative data are supplemented with a set of in-depth interviews with 120 young unmarried and married women and men ages 15 to 24 in two of the three regions of the country. The interviews focused on six general topics including the following three that are relevant for the present paper: 1) partnership beginnings and endings, 2) sexual behaviors (specifically condom use and frequency of sex), and 3) marriage values and expectations. The ordering of the topics was left up to the trained interviewer, so as to circumvent an atmosphere of formality, considered important given the sensitivity of the subject of sexual behavior. Married respondents were asked about current spouses as well as any premarital partners. It is rare to have rich, qualitative evidence from a sub-set of a survey list of respondents in sub-Saharan Africa. The qualitative sample was drawn by simple random selection from the survey sample but by first stratifying according to two regions of the country, southern Balaka and northern Rumphi. Preliminary analyses suggest that the qualitative sample matches the survey sample on important characteristics. For example, about 66% of the qualitative sample of respondents from

Balaka are Muslim, which is similar to the proportion of respondents in the survey sample identifying themselves as Muslim. Experienced local interviewers were matched according to the sex, age, and ethnicity of the respondent, and were trained by one of the author's (Poulin) and Malawians experienced in both qualitative and adolescent research. Interviews were conducted in the local language of the respondent, and then immediately translated into English by the interviewer under the guidance of a Malawian supervisor and the author. All interviews were systematically coded using the software program Nvivo.

Preliminary Results:

Comparison Between Never-married and Ever-married Women

Table 1 compares demographic characteristics, sexual behaviors, perceptions of HIV risk, and HIV status between married and unmarried men and women from the MDICP-3 survey sample. The data show that in relation to ever-married girls, unmarried girls are several years younger, have more education, and are more likely to currently attend school. Somewhat notable is that while most of the unmarried girls said they aspire to marry in the future, close to 20 percent said they did not[1]. Of those wanting to marry and using the measure of "expected time before marriage" described above, the mean number of expected time until marriage is slightly more than five years. Ever-married women in our sample entered their first marriage, on average, slightly less than five years ago.[2]

For men, we find that the average age of marriage is much higher than it is for women, but on certain key demographic characteristics we find the differences across men's marital status are not unlike what we observe for women. Thus, married men are on average older and are less likely to be in school. On other characteristics, however, we find patterns that do not reflect those of women. Overall levels of education attained, are similar for both married and unmarried men. At the time of the survey, more than 90% of unmarried men expected to marry in about 6.6 years, and married men reported having been married on average only 2.2 years, again reflecting their later age of first marriage compared to women.

[1] Girls not wanting to marry are younger, (16.3 years versus 17 years), are equally likely to be in school (66.7 percent versus 65.5 percent), but are less likely to have a secondary school education (16.7 vs. 22.6). They are also less likely to ever had had sex (28.6 vs. 42.6). However, when we control for differences in age, we find no statistical differences by educational attainment or sexual experience between girls by marital intentions, suggesting that age plays a large role in a young woman's marital aspirations (results not shown).

[2] In our current analyses, we measure marital duration from date of *first* marriage. About 15% of the ever-married women in our sample report having been married more than once. In our future analyses, we will examine how these women differ from girls in their first marriages. An initial comparison showed that compared women in first marriages, these women are about one year older, have less education, are more likely to think they have HIV and in fact are more likely to be infected (12.5% vs. 5.2%). None of these differences are significant, however. These higher rates of HIV infection among girls with multiple marriages are quite intriguing, and warrant further investigation.

(Insert Table 1 about here)

Sexual Initiation and Partnership Formation

Figures 1 and 2 plot the changes in men's and women's sexual debut and partnership types between the ages of 15 and 24. Not surprisingly, the percentage of young people who report never having had sex declines substantially with age. This decline is quite rapid for girls between the ages of 15 and 17, declining from about 75% to less than 30% in these two years. For boys the decline is more gradual, with less than 60% of 15-year-olds never having had sex and about 40% of 17-year-olds remaining virgins. Females also transit into to marriage much more quickly than males. By the age of 20, about 80% of women are married, and nearly all are married by age 23. In stark contrast, the majority of sexually active men remain unmarried through the age of 24. Indeed, the percentage of married men is negligible until the age of 20. Partnership types also vary by gender: Men at all ages are far more likely than women to report having a partner whom can be categorized as "other" than a steady boyfriend/girlfriend or a fiancé (also called a PTM, a "promise-to-marry", or *chitomelo*), such as a friend or a one-night-stand. While these figures point to the potential differential HIV risks for women and men, they aren't able to tell us about the process of partnership formation, and for this, we turn to the qualitative data.

We know from out in-depth interviews that from the perspective of a young Malawian living in a rural area, many reasons are taken into consideration when deciding whether, when and with whom to enter into a sexual relationship. These include educational aspirations, fears of pregnancy, and, in more recent years, fear of AIDS. Adolescent sexual relationships are largely among peers, who are members of the same or nearby communities. Men almost always "propose" to women, with both considering it unseemly for girls to initiate contact (an exception to this is among sex workers). Young women and men meet each other in schools, in nearby villages, at their churches or mosques, or at football games. Statements such as, "I was in Standard 5 and he was in Standard 6", or "I met her at the football field" are common responses to questions about where they first saw or met their girlfriend or boyfriend. Typically, boys report having admired a girl or young woman from afar. He may then seek an opportunity to speak with her alone, as illustrated by this exchange between an interviewer and a young boy in the southern district of Balaka:

Interviewer: *Where did you meet with her [and] managed to propose to her?*
Respondent: *He saw her alone at the borehole and he just decided to propose her and he diverted his route and found her at the borehole where he proposed her that day.*
Interviewer: *What really attracted him from her that made him to propose her? Was it because he said he saw her alone at the borehole drawing water on her pail?*
Respondent (laughing): *He had been admiring her from the beginning but chance of meeting her was not common. He would meet with her while in a group of her friends.*
Interviewer (laughing)*: Now you saw her alone, and then you just said "it's my chance?*

Respondent laughed and agreed.
Respondent: *On top of that she was beautiful and had the good reputation of not being movious as compared to other girls in the village*[3].

(Male, age 18)

Often and instead of directly approaching women themselves, however, men will use their friends as ambassadors, having them inform their potential partner of their love for her verbally or via a written letter delivered by the friend. Proposals from men often include flattering comments about her beauty. They may also allude to the intensity of his feelings for her. While these proposals do not directly refer to his intentions to have sex, the norms governing premarital proposals, while implicit, are understood to mean sex will follow a proposal's acceptance . As part of these norms, upon receiving a letter or verbal proposal, girls typically delay responding. The waiting period is often as short as two days, but can last as long as two months. In addition, frequently girls will initially reject the proposal outright, with hopes that suitors respond by proposing again. This action may be taken to downplay her (hidden) eagerness or availability, and may also test the sincerity of the boy's interest. Sexual intercourse typically, although not always, occurs within a couple days of the girls' acceptance of his proposal, with the timing of intercourse following acceptance varying across regions, with young people in northern Rumphi typically having extended periods of delay, contrasted to women and men in southern Balaka engaging in intercourse soon after proposals are accepted:

Interviewer: *Did she accept the same day that he proposed her?*
Respondent: *It took 3 weeks before accepting because she was so stubborn.*
Interviewer: *So what really happened that she eventually accepted?*
Respondent: *He had the great effort in coaxing her to accept him and then she accepted.*
Interviewer: *How long did it took from the day she accepted to have sex with her?*
Respondent: *It took 2 days.*

(Male, age 24)

Even after coaxing, it is not uncommon for a girl to rebuff a boy's proposal.

Interviewer: *Do boys propose you?*
Respondent: *She smiled for a while and responded "Yes! Of course they do propose but I always refuse them."*
Interviewer: *"Why?"*
Respondent: *"Because I want to continue my education and I want to be employed and I wish to be a nurse when finished school so I just see that doing* chibwenzi *it's not helpful in my life but school can. And as you know that* kunja kwaposa. *This word means (It's scary out there).*[4]
Interviewer: *"What do you mean if you say so?"*

[3] "Movious" is the word used synonymously with the phrase "moving around", and it means having a lot of partners.
[4] *Chibwenzi* is the chiChewa word that loosely translates as "friend", but is understood as a sexual partner/girlfriend/boyfriend. *Zibwenzi* is the plural form.

Respondent: *She said, "there is AIDS and when people get AIDS he or she die because this disease have no medicine."*
Interviewer: *"Do you mean that all the people who have got* chibwenzi *have got AIDS?"*
Respondent: "*No but since AIDS can be spread through sexual intercourse and if I can have* chibwenzi *may be it can be [that I can] get AIDS.*
Interviewer: *"Do you mean that you will get AIDS by just having* chibwenzi*?"*
Respondent: "*No but may be the* chibwenzi *will want to have sex and if he is positive AIDS I can be easy to take AIDS from him, that's why am saying that I don't want to have* chibwenzi."

(Female, age 17)

Interviewer: *Okey, now Patuma I would like to know have you ever had a boyfriend*[5]*?*
Respondent: *No, I don't have any.*
Interviewer: *Oooh.*
Respondent: *Yes. I don't have.*
Interviewer: *Mmh why not you?*
Respondent: *I know that when I do involve myself in this kind of game I can't finish school for maybe I may end up found pregnant or catch any serious diseases and I can't be going to school and that will be the end of my future so I don't want sex.*

(Female, age 16)

Our data also show further evidence behind girls' motivations for avoiding sexual partnerships, with girls saying they "are just too young to think about these things." Men's responses corroborate girls' reports of refusing proposals. They, too, report being rebuffed. In the following example, the interviewer narrates his conversation with an adolescent boy in southern Balaka:

[I asked]: *How many zibwenzi you had before this one?* [He said] *he proposed to one at Galanje but she rebuffed him and went on saying that he then he proposed another one in Tambala and she accepted....*
[Then I asked]: *Why had that girl at Galanje rebuffed him?* [Then he said]: *He doesn't know what she was thinking and he said that she didn't even mention [it].*

(Male, age 15)

Girls accept men's proposals for various reasons. In our data, often a young woman will describe her *chibwenzi* as popular with other peers, physically attractive, and level-headed. In other cases a girl may report having accepted a proposal because her other friends have boyfriends, and she wants to fit in.

When accepting, girls usually respond via appropriate means, via a letter, as they are expected to be "too shy" to approach the boy directly. Though the specific terms of the relationship, such as the type of partnership and timing of sexual intercourse, are not directly discussed, these letters may contain signals about the girls' feelings and expectations. After proposing to a girl, a 20 year old male was asked:

[5] All names have been changed to ensure the anonymity of respondents.

Interviewer: *How did she reply?*
Respondent: *She answered through a letter as well.*
Interviewer: *Who gave you that letter which was her reply?*
Respondent: *Herself when she was coming from the market ..[Here interviewer continues to narrate]: He saw her and waved her to stop. She stopped while smiling and he asked her about his reply and she just produced the letter from her pocket in her skirt and then she left.*
Interviewer: *What was your reaction friend before reading the letter?*
Respondent (laughing): *[My] heart throbbed fast with fear that maybe the smiling was so hypocritical while she had refused in the letter and then [I] read the letter and it was okay.*
Interviewer: *What did she write?*
Respondent: *She said that: I have accepted you but make sure that the affair should be a secret because my parents will shout at me if they will happen to discover about the affair and moreover my brothers will beat me if they happen to discover because I am at school. He laughed and said the letter was full of love flowers and words like kiss to kiss, our love will not end until Jesus come and take one of us. We laughed and he said, [oh], the English of primary school.*

(Male, age 20)

In some cases, girls may be quite explicit about the terms of the relationship that are acceptable to them, particularly if they wish to marry the man proposing. Here the interviewer narrates his conversation with a male respondent:

As they were going chatting on the street and [he] propose her, and she told him that if he was serious enough to marry her he should visit her. And then he said [that] one day he visited her. [Then I asked]: How long did it took for him to visit her [after] they first talked to each other? [He answered]: Only 2 weeks passed. [I asked]: To whom he visited? [He answered]: Her parents whom [I] agreed with them about [my] aim of marrying her. The parents asked some questions. [I asked]: Like what questions? [He answered]: Mwafuna zeni zeni? (Chichewa: are you seriously wanting?). He said yes to her parents.

(Male, age 24)

Type of Partnership and Sexual Behavior

During the formative phases of partnerships, with the clear exception of marriage, the terms of the partnership—such as whether the relationship will be causal or more serious—are not always discussed. Instead, the degree of partnership intensity may be partially defined by sexual activity, (i.e. how frequently sex occurs and whether a condom is used) as well as the duration of the relationship and the degree of mutual exclusivity. In Tables 2 and 3, we examine variations in sexual behavior within specific types of relationships, using information from girls' and boys' most recent partner type. Though the sample sizes by type of partnership are small, they suggest some clear

differences. Most notably, we find that for both men and women condom use is most common with PTMs (*chitomelo*), and least common with spouses. Of course, condoms may be used by a couple not only to prevent STI transmission, but also to avoid pregnancy. As we see in the example below, a common motivation underlying condom use with a PTM is to avoid "getting caught" with an unintended pregnancy. In contrast, after marriage condoms may be particularly undesirable because the couple is explicitly seeking pregnancy.

(insert Tables 2 and 3 about here)

The interviewer narrates:
[I asked]: How many times did you have sex with your chitomelo? She smiled for a while and said let me remember very well and she looked up while counting her fingers and said it is almost twenty-five times. With this chotomelo? [I asked], and she said "yes with this chitomelo. As I have already told you that I do not have another chibwenzi since before and I never had sex since before but with only this chitomelo. And we always use condoms because I do not want to get pregnant because once I get pregnant my parents will be disappointed and they will become angry because they want me to continue my school. But we are doing sex with him secretly without anybody knows that why we use condoms."

Female (age 17)

The quantitative data show frequency of sexual intercourse between spouses to be dramatically higher than between any type of non-marital relationships. Table 5 shows that almost half (45%) of women had sex more than three times with their spouses in the last week, while less than 10% of women in any other type of relationship have sex this often. For men, 43% of husbands report having had sex more than three times in the previous week compared to less than 14% in all other types of sexual partnerships. The qualitative data support findings from the survey data, demonstrating that as relationships become more serious, particularly as male partners move from boyfriend-status to the more serious, PTM-type, sexual frequency increases. Indeed, women with "steady boyfriends" report a surprisingly low number of sexual contacts, often due to geographic distance or to lack of privacy:

Interviewer: *Ruth did you have sex with this boyfriend?*
Respondent: *Yeah we had sex but it was only twice and then it ended.*
Interviewer: *For how long did you stay with him?*
Respondent: *We stayed together for 2 years in friendship and we then promised to marry in future but nobody knew this it was our own agreement.*
Interviewer: *Ruth 2 years in friendship [chibwenzi] and also had sex only twice, why so?*
Respondent: *The problem was that I was staying in Zomba with my sister who is staying with her husband there, so we missed a lot… [Zomba is about one hour's drive from the southern, Balaka site, where this interview took place.]*

Female (age 19)

One anomaly, however, is the surprisingly high frequency of sex found with "infrequent partners". Eight percent of women in these partnership types reported having had sex more than three times a week. Many of these "infrequent" partnerships began fairly recently, with about 9% being formed within the last week. Such findings may suggest that these "infrequent partnerships" are better characterized as being short-term—but sexually intensive—relationships. For men too there is surprisingly little difference in reported frequency of sex with girlfriends and "infrequent" partners. Additional assessments are required before we can draw any further conclusions.

Some of the largest variations found between girlfriend/boyfriend-types as compared to infrequent-partner-types are in expectations about sexual exclusivity. Both young men and women expect about one-third of their infrequent partners to have other sexual partners. Men expect their wives to be the most faithful, while women believe that their fiancés are the most exclusive. For both men and women, self-reports of multiple partnerships are lower than whether they expect their partners to have other partners. Roughly 8% of women with infrequent partners, boyfriends, and PTMs reported having other concurrent sexual partners, compared to about 3% of married women. For men, reports of having multiple partnerships range from 15% to 21% with no clear pattern by partnership type.

With the exception of marital unions, there is also surprisingly little variation in the reported level of economic transfers or in women's exclusivity by type of non-marital partnership. This finding supports qualitative evidence of the normative nature of gift and money transfers in premarital partnerships, and further suggests that money transfers are utilized for reasons that extend beyond financial (Poulin 2005). Women report that more than half of non-marital sexual relationships entailed some form of gift transfer at last sex. Adolescent and young men report being less likely to give money to their non-marital partners, perhaps because these young men have relatively fewer resources.

Partnership Evolution and Marital Aspirations

As men and women approach their ideal age of marriage, we might expect that existing partnerships will evolve and change. When a couple becomes engaged, for example, this partnership would transit from being a *chibwenzi* (boyfriend/girlfriend) to a *chitomelo* (promised-to-be-married). Alternatively, other partnerships may end. Figures 3 and 4 show changes in type of partnerships as girls and boys approach their ideal age of marriage. As shown in Figure 3, a notable increase in girls' sexual activity occurs as girls get closer to the time they wish to marry. Of those stating an ideal time to marriage in the next year, about 30% report having never had sex. These young women are likely to enter directly into marriage, perhaps even abstaining altogether until marriage. Among sexually active girls, most report their partners to be steady boyfriends or fiancés, though there is also an increase in infrequent or "other" types of partnerships as girls move toward expected time of marriage. For men under the age of 24, very few (8%) say they are within a year of marriage. However, men too show a clear decline in virginity rates

as well as an increase in the number of men promised-to-be-married as they anticipate marriage.

(insert Figures 3 and 4 about here)

The qualitative interviews strongly suggest that many of these partnerships, for both young women and men, are established to determine the suitability of particular partners for marriage. While it is not uncommon for girls to be encouraged by elder family members to marry when they reach certain ages, relatives-- including parents-- often expect girls to find and select their future spouses. It is not uncommon for girls and boys to decide secretly, along with their partners, to become "engaged" and will only announce their intentions to their relatives when they are able to fix a date for a more formal or public wedding ceremony. The data in Table 4 show that young women and men in Malawi expect to choose their own spouses, though they also expect that *ankhanswe* or marriage mediators, who are typically non-parental relatives such as aunts and uncles will be involved in officially negotiating and legitimizing the marriage. Thus, for many young women and men this period of dating and courtship plays a critical role in determining whom they will marry.

(insert Table 4 about here)

Some men explicitly state that they currently have two or more girlfriends because they are trying to decide which one will make the better wife. One formerly married female respondent stated that before taking another husband she would first accept him as a *chibwenzi*. Only after learning about his behavior and character would she agree to marry him. And as another young female respondent commented in response to the following:

Interviewer: *Do some people first have* chibwenzi *or* chitomelo *[a PTM] and then marry that person?*
Respondent: *Yes.*
Interviewer: *Why?*
Respondent: *Because they know each other well and love each other.*

(Female, age 21)

For both women and men, but more commonly for men, building trust in the relationship and testing a partners' sexual fidelity appear to be very important in determining whether a particular relationship will end or transform into something more serious, as noted in the following:

Interviewer: *Now that your chibwenzi is still on, what are your plans with your girl?*
Respondent: *I want to marry her when we finish school for I trust her, even though she learns very far from here. I have not heard of her having another boyfriend and I see no obstacles that can make me fail.*

(Male, age 20)

In contrast, if infidelity is suspected by either partner in premarital relationships, the partnership will often end.

Interviewer: *What made you not to marry her? …*
Respondent: *I found her with another boy under a certain tree that is on the way here.*
Interviewer: *What were they doing?*
Respondent: *I don't know, but I saw them very near to each other but she couldn't recognize me. I had put on a hat and the next day I wrote her a letter ending the relationship and to my surprise, she didn't reply and I did believe that [he] was her boyfriend as well.*

(Male, age 22)

In other cases, for women, levels of emotional commitment, as assessed by his financial support, are tied to the termination of a relationship, as explained by one Malawian man:

Interviewer: *How long did your relationship end?*
Respondent: *It ended only three and half months.*
Interviewer: *Why?*
Respondent: *She ended the relationship because she was claiming that I was not caring for her as I wasn't giving her money for her to buy snacks during the break time and some gifts like soap and lotion which, she claimed, her friends were getting and she did this through a letter.*

(Male, age 24)

HIV Concerns and Timing of Marriage

Table 4 demonstrates the close ties between HIV concerns and the marriage process. About four-fifths of the men and women in our sample said they planned to get tested for HIV prior to marriage. This contrasts with the mere 17% of married women and 23% of married men in our sample who report having actually been tested. While unmarried respondents may be overstating their desire to be tested at the time of marriage in the hopes of providing a socially desirable response, these discrepancies may, however, point to an important opportunity for programmatic interventions for the recruitment of couples planning to marry. Interestingly, half of the women and men said they would remain with their PTM even if their partner was found to be HIV-positive.

Both unmarried men and women were deeply divided about whether they thought marriage offered protection for men or women with respect to AIDS. Roughly half of the respondents in our sample believed that it was possible to avoid getting AIDS by marrying, while the remainder were not convinced, perceiving marriage as an unreliable form of protection. On average, if it were to offer protection, women said the ideal age to marry to avoid AIDS was around 21, an age well above the median age of first marriage in this population (age 17). Yet this stated age roughly corresponds to the

average expected age of marriage for these unmarried women (age 22). Our qualitative data contains similar information regarding perceptions of marriage as a form of protection, thus providing a nuanced understanding of the seeming conflict of this matter. Frequently, the qualitative information suggests these perceptions depend on assumptions of faithfulness within the pre-supposed marriages. For instance, the interviewer narrates a conversation she had with a young Malawian woman who believes marriage is an effective means for avoiding AIDS:

[I asked]: Do you think a woman or a man can avoid AIDS by getting married?
She said, "yes".
I asked, "why"?
She said, "if someone get married it means he or she is settled and don't have time to move with other partners".
[I asked]: At what age do you think a woman or a man should get married to avoid AIDS?
She said, "at the age of 19 or 20 years."
I asked, "why"?
She said, "because some young people at the age of 19 or 20 they had not yet started having sex and after getting married they will avoid AIDS.

(Female, age 23)

Yet others do not believe that marriage can protect against AIDS, simply because it is believed that no one can completely avoid infection:

> *Do you think a woman can avoid AIDS by getting married?*
> *She said, "a woman can not avoid AIDS by getting married because anybody can get AIDS whether married or unmarried."*
>
> (Female, age 20)

The in-depth interviews also show that married women perceived themselves to be particularly vulnerable to infection in cases where husbands may have other sexual partners, as this interviewer tells us:

[I asked]: " Do you think a woman can avoid AIDS by getting married?" She said, "a woman can not avoid AIDS by getting married because she can not be sure, may be [her] husband have another partners so she can [get] AIDS while she is married.

(Female, age 17)

While this information provides insight into HIV risk perceptions as it relates to marriage, given the nature of these data, we cannot determine whether these concerns about HIV affect the timing of marriage for either men or women. However, both married and unmarried youth were asked whether they thought getting married "earlier" or "later" would carry a higher risk of HIV infection. Again, we find that both men and women are divided about this question, with unmarried respondents slightly more likely to perceive early marriage as a risk than married women and men. Views about whether early or late marriage increase HIV risks are, however, correlated with both ideal and

actual behaviors. The ideal age of marriage stated among unmarried girls who believe that early marriage is riskier is 1.6 years later than among unmarried girls who think early marriage is safer (22.9 vs. 21.3 years). Similarly, among already married women, the average age of marriage among those who think getting married later less risky is 16.7, while those who think getting married earlier is better married on average at age 15.7. This same pattern is seen for men as well. If the respondent thinks early marriage is riskier, he tends to not only want to get married later (25.6 vs. 24.6), but also actually marries later (20.6 vs. 19.7).

HIV Concerns and Spousal Characteristics

During the survey interview, unmarried women and men stating they wished to marry were then asked to name up to three of the most desirable characteristics they sought in a prospective spouse. Table 5 indicates that for women, by far the most important qualitites in potential husbands were those who are educated, faithful, and HIV negative. These same desirable spousal characteristics are echoed by respondents in the in-depth interviews. As described by an interviewer who chatted with a 17-year old, school-going respondent:

She said, "I hope to get married after I finish school and I should be almost twenty-five years when I get married. I hope to married with a man who will respects my parents not movious, a man who will not have another partners [and] who will be cool. In additional he should be educated."

(Female, age 17)

For men, finding a wife who was HIV-negative was the single most important characteristic. Men also sought future wives who were attractive, educated, skilled at cleaning and cooking, and faithful. One young man from northern Rumphi chose his wife because of her work ethic:

Interviewer: *How did you choose your wife?*
Respondent: I *chose her because she was always hard working as I could see her working in the fields. I also found out that she had no boyfriend by then and she was from a very near village of the Nyasulu.*
Interviewer: *Why did you choose her?*
Respondent: *I had found out that she was the right girl I was looking for, a wife as she had everything I wanted.*

(Male, age 22)

Both men and women expressed clear views about perceived HIV risk associated with various, hypothesized spousal characteristics (Table 5). A series of questions with dichotomous responses were asked to all survey respondents, designed to ascertain the relative risks of contrasting spousal types. For instance, when asked whether younger or older spouses posed greater HIV risk, between 60% and 68% of all respondents, men and women, married and unmarried, agreed older spouses were the greater risk. On beliefs of the relative risk of city-dwellers versus village-dwellers, consensus among all

respondents was remarkedly high, with >85% believing that a spouse from a nearby city was riskier than a spouse from the same village . Over 90% of both married and unmarried women believe that a wealthier spouse is more likely to have HIV, while over three-quarters of men held a similar view about wealthy wives. For the majority of men and women, being married to a spouse who attended religious services regularly was less risky than marriage to a less religious spouse. Interestingly, over 80% of both men and women said that polygamous unions carried greater risk, as compared to monogamous unions.

(insert Table 5 about here)

Changes in Sexual Behaviors and Risks Before and After Marriage

To gain a clearer perspective on the evolving nature of sexual behaviors with respect to marriage, Figure 5 plots the probability of having had sex last year by the respondents anticipated time until marriage and shortly after marriage. Figure 5 suggests that levels of sexual activity and marriage processes are closely linked. The probability of being currently sexually active (defined as having had sex in the last year) increases as the respondent approaches his or her ideal age of marriage, especially during the years just before and after marriage. For both men and women, we see a sharp rise in sexual activity between those who anticipate marriage in the next year and those who have been married for a year or less. Indeed, after a dramatic increase at the point of marriage, rates of sexual activity tend to plateau for both men and women after marriage.

(insert Figure 5 about here)

Figure 6 examines how the cumulative number of sexual partners changes as women and men cross into marriage. On average, we find that before and after marriage, men report substantially higher numbers of sexual partners than women. For women, the sharpest rise in the total number of sexual partners occurs in the first few years before marriage. The rise in the average number of partners reported by those one year before marriage and those one year after marriage is small (increasing from 1.4 to 1.6 partners). In contrast, the steepest rise in average number of partners occurs as they cross into marriage rising by more than 1.3 partners.

(insert Figure 6 about here)

To further examine these trends in sexual behaviors as well as to control for the effects of age, we employ logistic and OLS regression models to examine changes in the probability of having had sex in the last year and total number of lifetime sexual partners. In Appendix A, we model the variables “expected time before marriage” as well as “duration since marriage” linearly to explore both trends before and after marriage. The linear models help to highlight the sharp changes in sexual behaviors at the point of marriage. For both men and women, we find significant rises in the probability of sexual activity and the number of partners as they approach their ideal age of marriage. The switch between being married and being unmarried coincides with significant increases,

although for men's number of sexual partners this increase is only significant at the 10% level. Sexual behaviors such as level of activity and number of partners do not increase significantly after marriage in these models.

Changes in HIV Perceptions, Testing, and Prevalence Before and After Marriage

In addition to these differences in sexual behaviors, levels of perceive and actual HIV risks may change as individuals approach and cross into marriage. All respondents were asked to evaluate their chance of being infected with HIV/AIDS before being offered an HIV test. Figure 7 shows that for women, there is a steady rise in their belief that they are infected until they reach their ideal age of marriage. After reaching the peak of their concern in the first year after marriage, perceptions of HIV risk tend to level off, and even decline slightly with each additional year of marriage. For men, their perception of HIV risk is much more volatile, showing no strong relationship to timing of marriage. Logistic regressions controlling for age of the respondent are presented in Appendix B and generally confirm these patterns, although men are found to experience a slight rise in their perceived risk of HIV before marriage which is significant at the 10% level.

(insert Figure 7 about here)

The probability of not being tested for HIV in the survey as well as the HIV prevalence rates among those who were tested are shown in Figures 8 and 9, respectively. A significant proportion of respondents in some groups were not tested either due to refusal to be tested or missing information. Tracing the probability of not being tested by sex and time until or after marriage reveals an interesting pattern (Figure 8). Both men and women have similar and increasing refusal rates before marriage. Shortly after marriage, however, the refusal rate among women increases considerably, while it plummets among men. In the logistic regression results shown in Appendix B, we find that only the rise in female non-testing before marriage is significant once we control for age. We should, therefore, be careful not to over-interpret these findings. However, if respondents refuse to be tested because either they already know they are infected or because they fear the repercussions if they are found to be infected, then these results could reflect substantially different consequences of being HIV positive for recently married women as opposed to recently married men.

(insert Figure 8 about here)

These different levels of refusal rates should be borne in mind when interpreting the HIV prevalence levels shown in Figure 9. No men or women are found to be HIV positive among those who are within a year of their ideal age of marriage. However, about 20% of men and 25% of women in this group were not tested. For women, HIV prevalence rates remain low (less than 4%) for the first three years following marriage, but the rates of non-testing also remain high (above 30%). For women married four years or longer, rates of non-testing fall to less than 25%, but the prevalence rates among those tested skyrocket to over 9%. For men, both refusal rates and HIV prevalence rates remain low

after marriage, although there appears to be a notable increase in HIV prevalence among men who have been married for longer than two years. Given the low levels of HIV prevalence in these groups, we could not assess patterns in HIV status in logistic regressions.

(insert Figure 9 about here)

Limitations and strengths:

The greatest limitation of these analyses is that these data are cross-sectional rather than longitudinal; thus, we cannot follow individual men and women as they cross the marital boundary. Consequently, for unmarried respondents, our analyses can only evaluate how sexual behaviors and HIV risks change with respect to the stated ideal age of marriage rather than actual age of marriage. In-depth studies of the marriage process have been stymied by two main problems. First, most longitudinal studies only follow already married men and women. Second, among the handful of longitudinal studies that included unmarried individuals, follow-up rates for unmarried individuals, particularly for unmarried girls, are often extremely high. Follow-up rates for girls who become married can be close to zero in patrilocal societies where newly married girls are expected to leave their home village when they marry.

While using the stated ideal age at marriage has obvious drawbacks, it also has some advantages. One could argue that beliefs about the best age to marry are more important in determining current sexual behaviors and HIV risks than the actual time of marriage, which may or may not coincide with their plans, hopes and expectations. Moreover, this study offers several unique features. First, by combining both qualitative and quantitative information about relationship formation and marital goals and intentions, we obtain a fuller picture of this complex process. Second, by framing adolescent sexual transitions from the perspective of marital aspirations, we draw attention to what we believe is an important motivating factor of these behaviors-- gaining information about and experience regarding potential spousal partners. We believe that the preparation for marriage shapes many pre-marital sexual encounters. Yet, too often non-marital adolescent and youth sexual activity is viewed as disjointed from the process of seeking and forming more stable unions. Third, by comparing both male and female experiences in relation to their marital status and expectations, we can more clearly identify the similarities and the differences in the pathways towards marriage for men and women.

Discussion and Conclusions:

This paper has three main aims: 1) to assess sexual initiation, partnership formation, and partnership evolution as part of the process leading to marriage; 2) to investigate whether concerns about HIV/AIDS are influencing the timing of marriage and the selection of marriage partners; and 3) to examine how sexual behaviors and HIV risks change as men and women approach and cross into marriage.

We find clear evidence from our qualitative in-depth interviews that marriage figures prominently in the decisions of whether to initiate a sexual relationship and with whom to have such relationships. Nearly all men, and a non-negligible fraction of women, form some type of sexual partnership before marriage. Men spend a longer period of their adolescence and youth in these non-marital partnerships, while girls quickly progress either directly from virginity to marriage or from steady-boyfriends and fiancés to husbands. This period of time often gives both men and women the opportunity to get to know their partners and to assess their potential as spouses. Of particular importance to men are their partners' sexual fidelity, attractiveness, and "good behavior". Women also are looking for a partner who will remain faithful, but also men who will provide them with economic support.

These are nearly the same characteristics unmarried boys and girls report desiring in a future spouse with on exception. For both men and women, one of the most important characteristics of a potential spouse is that he or she is HIV-negative. A full 80% of unmarried youths report that they want to be tested at the time of marriage. Surprisingly, over half say they would still marry their partner if he or she was HIV-positive. This contrasts with the small fraction of married youth who report having already been tested. Concerns about HIV are also related to the age at which men and women get married. Although men and women have mixed views about whether it is better to marry earlier or later to avoid HIV, both their stated ideal age at marriage (among those currently unmarried) and their actual age at marriage (among those currently married) correspond to their beliefs. In general, men and women who believe that getting married earlier is associated with higher HIV risks get married about a year later than those who believe that getting married later is riskier.

Finally, while it is widely recognized that sexual behaviors, and subsequently HIV risks, are associated with age, it also appears that they are closely linked to expectations about marriage and duration of marriage. For both men and women the probability of engaging in sex in the last year as well as their total number of partners increases before marriage and then levels off shortly after marriage. High rates of respondent refusal to be tested make examining actual rates of HIV status difficult, but among those tested in this survey HIV prevalence is much higher among ever-married women (7.4%) than never-married women (1.3%). This is not the case among men, where HIV prevalence is 1.5 for those unmarried and 1.8 for those married. Interestingly, these general patterns of HIV prevalence rate reflect patterns of perceived risk. While women's perceived risk rises as she approaches and enters marriage, men's perceived risk remains relatively flat.

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Table 1. *Characteristics, Sexual Behaviors and HIV Perceptions for Married and Unmarried Men and Women Aged 15-24*

	MEN		WOMEN	
	Never Married	**Ever Married**	**Never Married**	**Ever Married**
N	*(398)*	*(61)*	*(259)*	*(340)*
Demographic characteristics				
Age (mean years)	18.7	22.3	16.9	20.9
Currently in school	59.2	3.6	66.7	1.2
Level of eduction				
Some primary	74.1	70.5	76.7	80.1
Some secondary	25.9	29.5	23.4	10.9
Marriage				
Want to get married (%)	93.2	na	82.9	na
If want to marry, expected time till marriage (mean years)	-6.6	na	-5.2	na
Married only once (%)	na	86.9	na	84.4
Time since marriage (mean years)	na	2.2	na	4.9

Table 2: *Sexual Behaviors and HIV Perceptions by Most Recent Partnership Type (Men)*

	Infrequent partner	**Steady girlfriend**	**Promised to be married**	**Spouse**
N	94	84	36	44
Ever Used Condoms	42.55	41.67	61.11	31.82
Beginning of Relationship				
< 1 week	1.15	2.60	0.00	
< 1 month	3.45	7.79	2.86	
<1 year	35.63	29.87	28.57	
> 1 year	59.77	59.74	68.57	
Frequency of Sex				
> 3 times per week	18.48	17.86	23.53	36.36
couple times per week	29.35	29.76	5.88	40.91
couple times per month	28.26	29.76	23.53	18.18
< 2 times per month	23.91	22.62	47.06	4.55
Any gifts or money exchanged at last sex	28.72	43.90	44.44	
Respondent had other partners	16.13	21.44	19.44	15.91
Respondent suspected partner of having other partners	32.89	23.61	12.50	6.25
Partner's age/ age differences…	2.29	2.49	2.41	

Table 3: *Sexual Behaviors and HIV Perceptions by Most Recent Partnership Type (Women)*

	Infrequent partner	Steady girlfriend	Promised to be married	Spouse
N	27	41	29	289
Ever Used Condoms	30.8	36.8	50.0	23.1
Beginning of Relationship	14.0	22.0	17.0	
< 1 week	7.1	4.6	0.0	na
< 1 month	7.1	9.1	5.9	na
<1 year	35.7	22.7	41.2	na
> 1 year	50.0	63.6	52.9	na
Frequency of Sex				
> 3 times per week	7.4	7.5	13.6	43.4
couple times per week	14.8	25.0	18.2	39.5
couple times per month	37.0	22.5	27.3	11.7
< 2 times per month	40.7	45.0	40.9	5.3
Any gifts or money exchanged at last sex	61.5	52.5	57.1	
Respondent had other partners	7.7	7.3	6.9	3.5
Respondent suspected partner of having other partners	39.1	18.2	14.3	20.8
Partner's age/ age differences…	-3.3	-2.8	-2.6	

**High level of non-response

Table 4. *HIV concerns, marriage expectations, and timing of marriage.*

	Female		Male	
	Unmarried %	Married %	Unmarried %	Married %
N	*(259)*	*(340)*	*(398)*	*(61)*
Expectations at marriage*				
Gifts and money given by spouse's family	71.9		72.4	
Choose own spouse	97.7		97.2	
Mediated by *ankhanswe*	97.7		97.2	
Expectations about marriage*				
Plan to get tested for HIV before marriage	83.8		88.6	
If spouse HIV positive would refuse to marry him/he	55.1		59.9	
Concerns about HIV				
Men can avoid HIV through marriage	46.8		58.2	
Women can avoid HIV through marriage	54.8		60.0	
HIV risks are higher if you marry:				
Later in life	42.3	58.4	41.0	57.5
Early in life	57.7	41.6	59.0	42.5

Table 5: *HIV concerns and spousal characteristics.*

	Female		Male	
	Unmarried	Married	Unmarried	Married
	%	%	%	%
N	*(259)*	*(340)*	*(398)*	*(61)*
Important characteristics of future spouse (up to 3)*				
Attractive	18.6		39.4	
Educated	52.09		36.9	
Employed	33.49		7.6	
Wealthy	12.09		5.9	
Live in same district	17.67		27.2	
Skilled at cleaning and cooking	26.98		35.3	
HIV negative	52.09		49.9	
Faithful	35.81		38.5	
Good personality	24.19		21.8	
Older	6.51		2.7	
Younger	3.26		10.2	
Same Age	4.65		6.5	
HIV risks are higher if you marry someone who is:				
Young	31.75	40.66	36.68	32.5
Old or older	68.25	59.34	63.32	67.5
From the nearest city	91.63	88.1	86.3	94.87
From your village	8.37	11.9	13.7	5.13
Poor	9.91	6.8	22.02	14.29
Wealthy	90.09	93.2	77.98	85.71
Not religious	73.33	68.24	76.64	75.68
Religious	26.67	31.76	23.36	24.32
Polygamous	85	82.27	83.61	91.11
Monogamous	15	17.73	16.39	8.89

* Among those who wish to marry

Figure 1: Type of Partnership by Age (WOMEN)

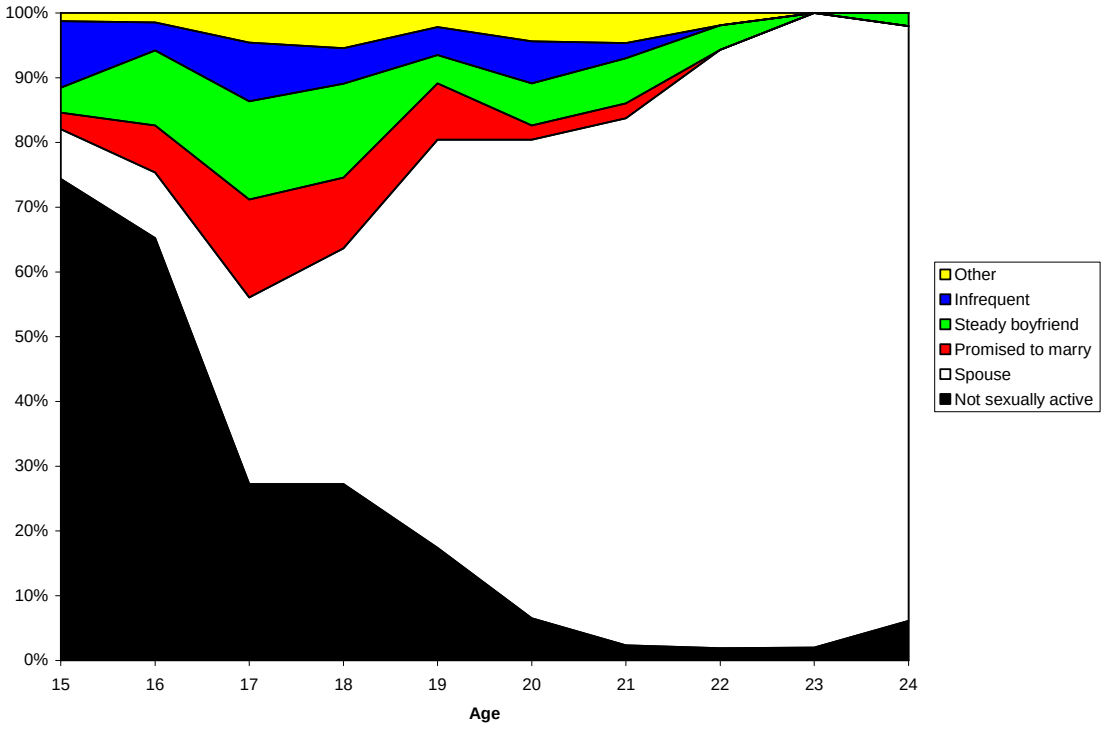


Figure 2: Type of Partnership by Age (MEN)

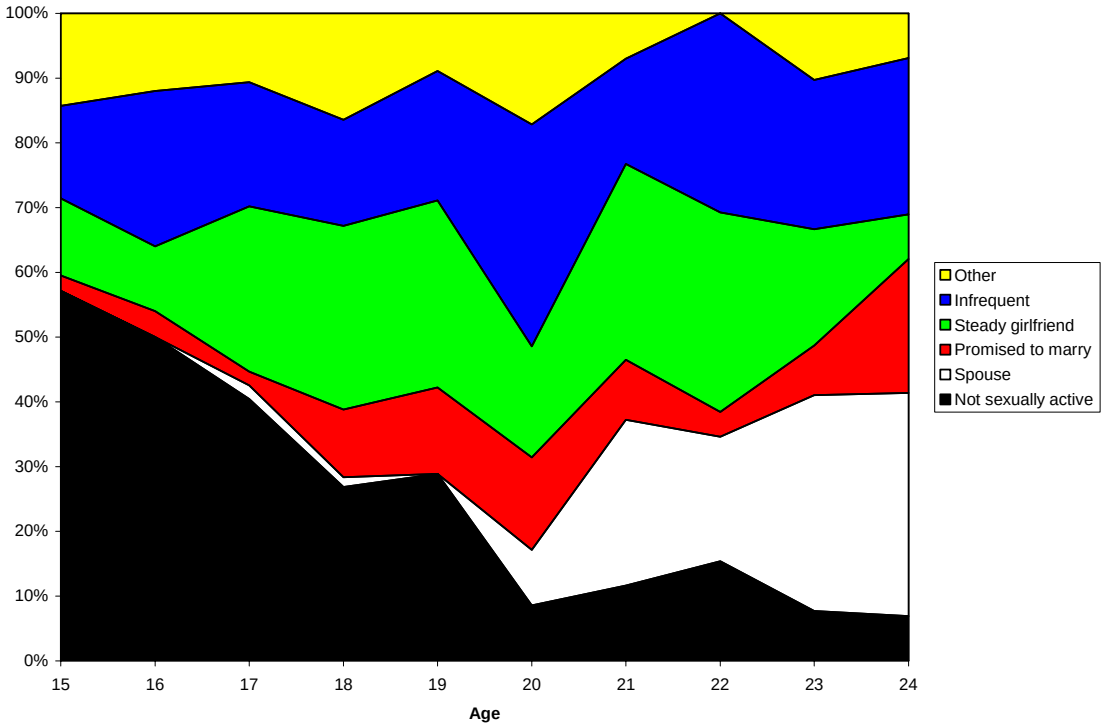


Figure 3: Type of Partnership by Expected Time Until Marriage (WOMEN)

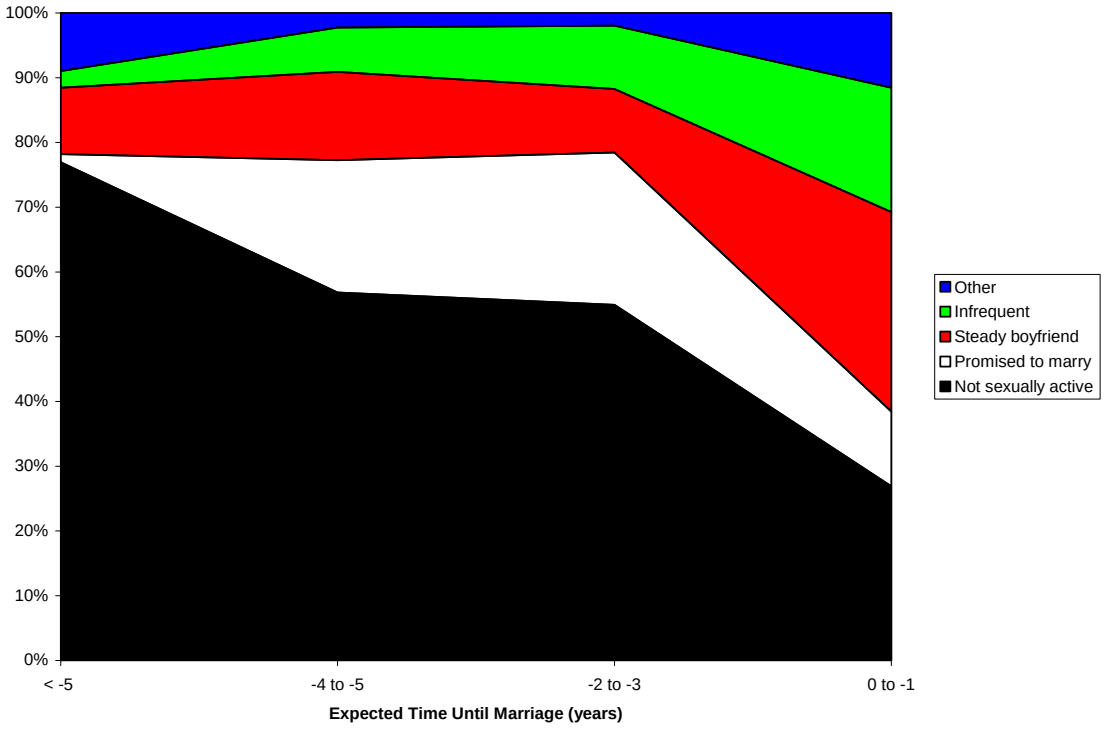


Figure 4: Type of Partnership by Time Until Marriage (MEN)

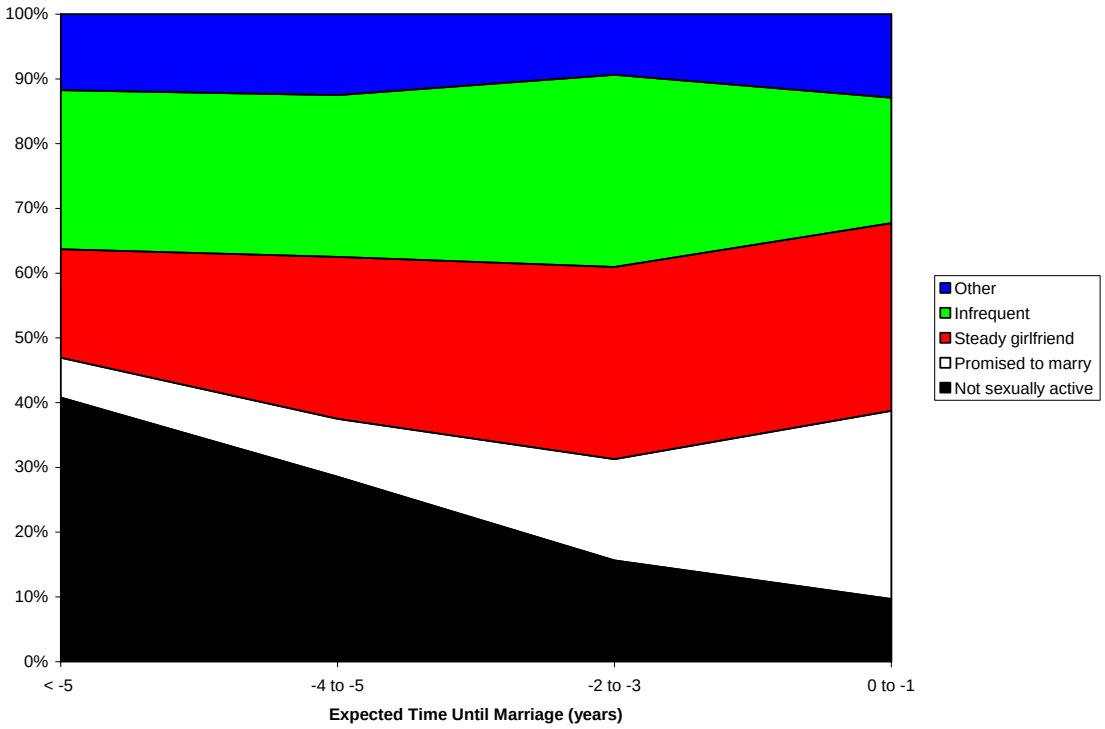


Figure 5: Had Sex in the Last Year by Time Until and After Marriage

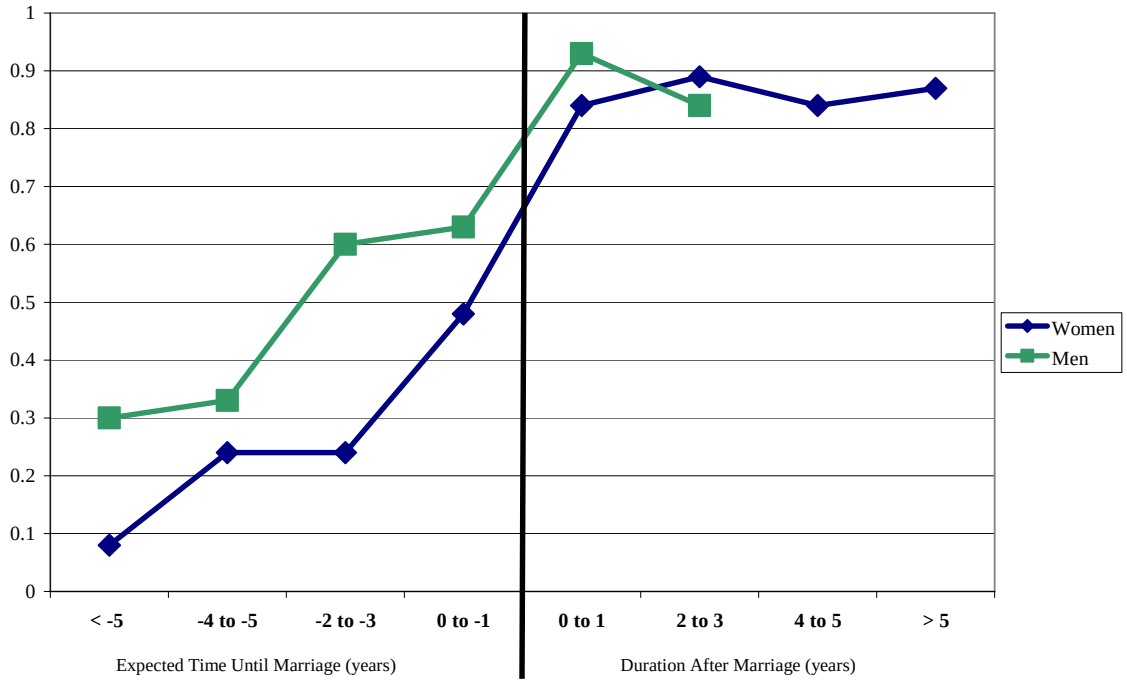


Figure 6: Number of Partners by Time Until and After Marriage

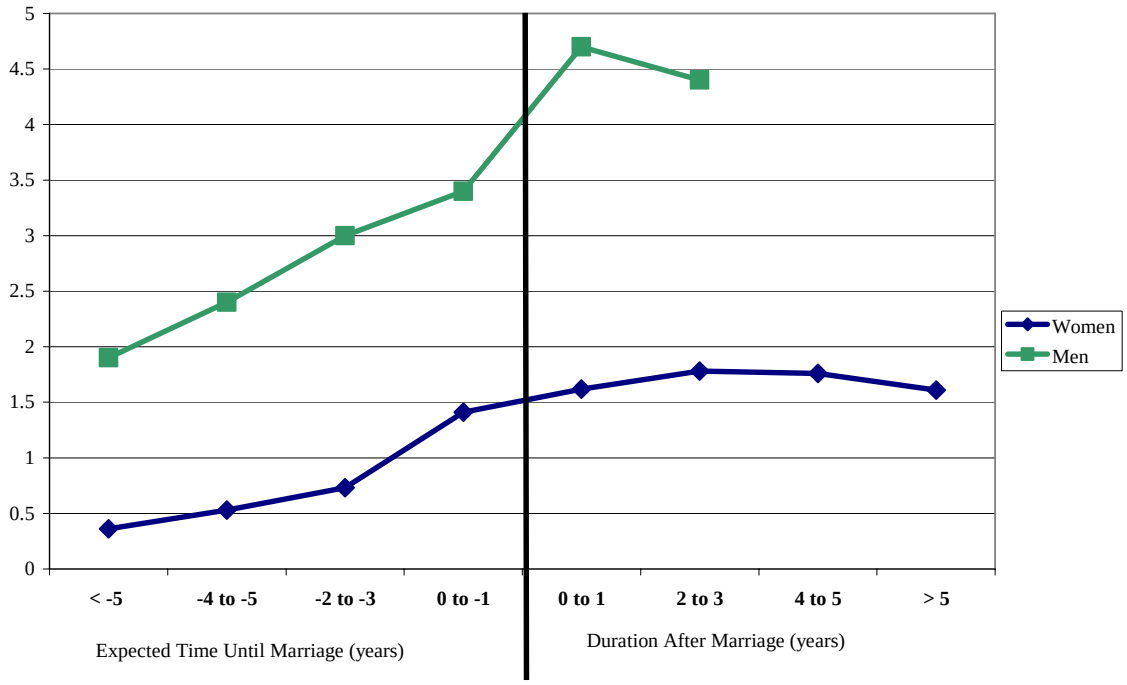


Figure 7: Perceived Risk of Having HIV/AIDS by Time Until and After Marriage

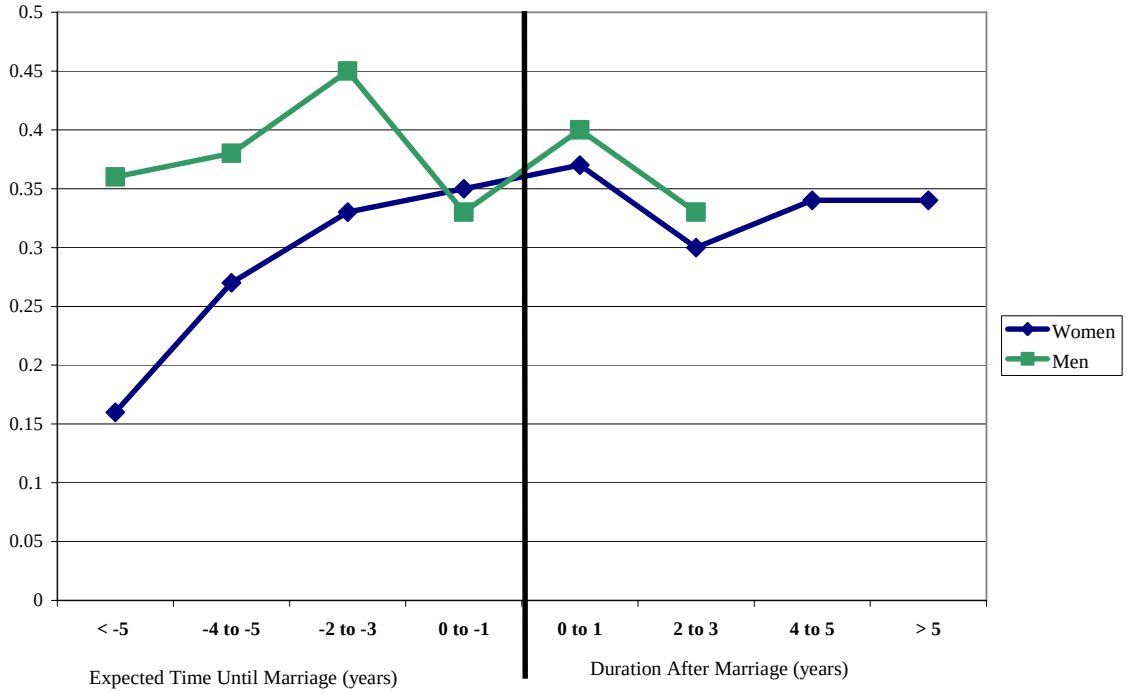


Figure 8: Not Tested for HIV/AIDS by Time Until and After Marriage

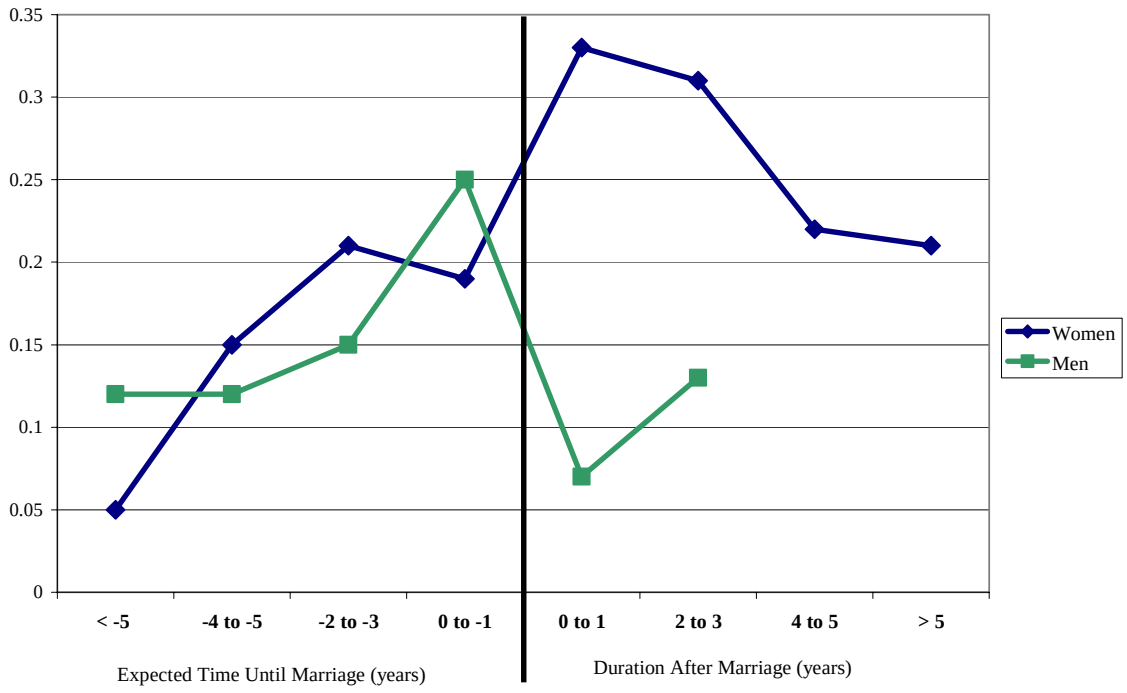
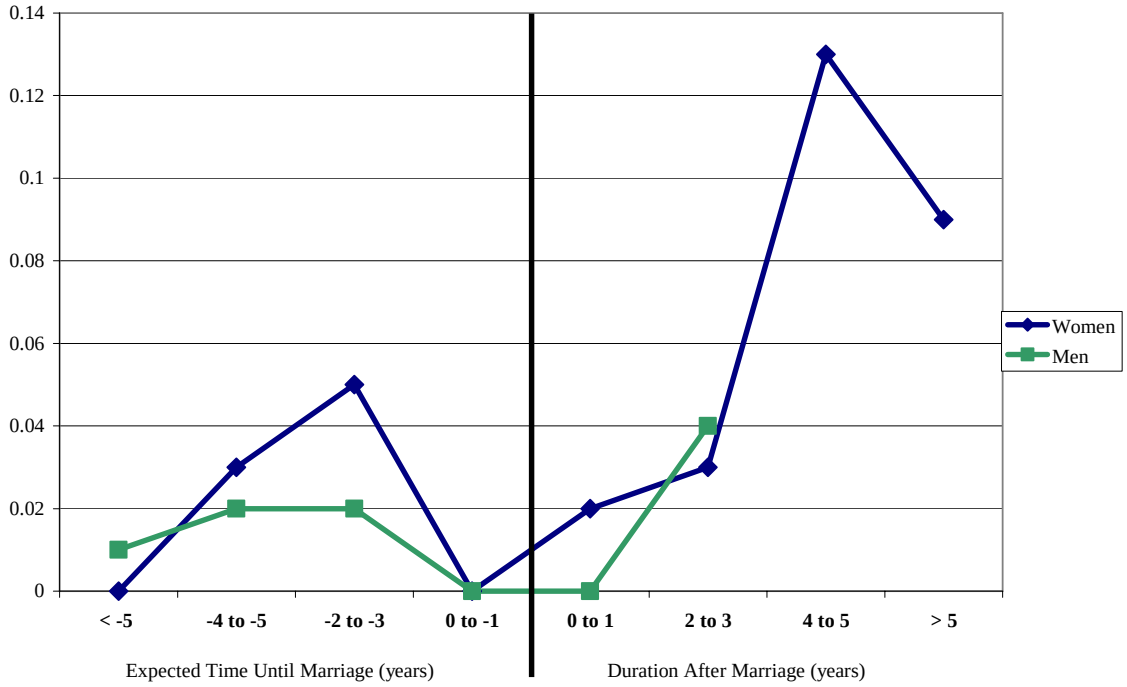


Figure 9: HIV Posititve Status by Time Until and After Marriage



Appendix A. *Changes in Sexual Behaviors Before and After Marriage, Controlling for Age*

	Had Sex Last Year (logit)			No. Partners Ever		
	Coef.	**St. Er.**	***Sig.***	**Coef.**	**St. Er.**	***Sig.***
WOMEN--LINEAR MODELS		483			511	
Expected time til married (-)	0.26	0.07	*0.001*	0.06	0.02	*0.001*
Married	1.93	0.42	*0.000*	0.67	0.15	*0.000*
Time since marriage (+)	0.02	0.05	*0.667*	-0.02	0.02	*0.192*
Age (years)	0.00	0.07	*0.995*	0.04	0.02	*0.063*
Constant	-0.21	1.25	*0.865*	0.26	0.40	*0.520*
MEN--LINEAR MODELS		391			404	
Expected time til married (-)	0.14	0.03	*0.000*	0.10	0.04	*0.022*
Married	1.99	0.68	*0.004*	1.07	0.64	*0.093*
Time since marriage (+)	-0.21	0.18	*0.247*	0.00	0.19	*0.991*
Age (years)	0.04	0.05	*0.445*	0.15	0.07	*0.025*
Constant	-0.28	1.05	*0.792*	0.13	1.40	*0.929*

Appendix B. *Changes in HIV Perceptions and Testing Before and After Marriage, Controlling for Age*

	Chance Have HIV			Not Given HIV Test		
	Coef.	**St. Er.**	***Sig.***	**Coef.**	**St. Er.**	***Sig.***
WOMEN--LINEAR MODELS		459			517	
Expected time til married (-)	0.10	0.05	*0.057*	0.23	0.08	*0.004*
Married	-0.24	0.37	*0.512*	0.31	0.41	*0.446*
Time since marriage (+)	-0.09	0.04	*0.047*	-0.04	0.04	*0.290*
Age (years)	0.15	0.06	*0.008*	-0.07	0.06	*0.229*
Constant	-3.13	1.06	*0.003*	0.27	1.08	*0.803*
MEN--LINEAR MODELS		374			408	
Expected time til married (-)	0.06	0.03	*0.060*	-0.01	0.04	*0.892*
Married	-0.05	0.48	*0.924*	-0.62	0.72	*0.392*
Time since marriage (+)	-0.04	0.14	*0.781*	0.07	0.20	*0.720*
Age (years)	-0.08	0.05	*0.111*	0.03	0.07	*0.687*
Constant	1.38	1.05	*0.191*	-2.36	1.39	*0.090*