

## **Transitions to adulthood in rural Malawi: a comparison of the timing and sequencing of major life events using different modes of data collection**

Well timed and sequenced transitions from childhood to adulthood have important consequences for young people. Given the size of the youth population and the critical role played by adolescence in future life circumstances, increasing attention has been devoted to documenting transitions to adulthood in the developing world (Lloyd, 2005 ). While studies have focused on the association between life events, researchers generally limit their investigations to pairs of transitions, be they sexual initiation and the timing of marriage (Mensch, Grant and Blanc, 2006) or school attendance and sexual initiation (Biddlecom et al. 2008) or school dropout and marriage (Lloyd and Mensch, 2008 ), or school attendance and household work/labor force participation (Levison, Moe and Knaul, 2001 ) or labor force participation and age at marriage (Amin et al., 1998). It is the rare study that has explored the timing and sequence of multiple transitions in a representative sample of youth in large part because the data are not available to do so. Yet in order to understand the causes and consequences of successful transitions to adulthood and to develop appropriate policies and programs that will improve the life chances of young people, their experiences in multiple domains need to be described. To that end, and as a first step, the National Academy of Sciences Panel on Transitions to Adulthood in Developing Countries recommended that the Demographic and Health Surveys add “a few questions on the ages of entry and exit from school and the age of entry into the labor force,” so that there could be a “clearer sequencing” of reproductive events and the other major transitions (Lloyd 2005:592).

Documentation of the timing and sequence of major life events among developing country adolescents is not that straightforward. Given problems of both recall and misreporting of age, timing and sequencing of events are subject to considerable error, particularly in sub-Saharan Africa where young people are often not aware of their birthdays. In addition, reporting of premarital sexual behavior is often suspect because young people are unwilling to be forthcoming about sexual activity prior to marriage (Mensch, Hewett and Erulkar, 2003).

This paper takes advantage of recent data from the Malawi Schooling and Adolescent Survey (MSAS), to explore alternative methods for the collection of data on the timing and sequencing of major life events in surveys of young people. The MSAS is a longitudinal study of 2650 adolescents resident in two contiguous rural districts in the southern region of the country, who were aged 14-16 when first interviewed in 2007. In the first three rounds, information on the age at which transitions occurred including, sexual initiation, marriage, pregnancy, childbirth, school leaving, and labor force participation were collected either by conventional face-to-face interviews (FTFI) or, for sensitive behaviors such as sex, by audio computer assisted self interviewing (ACASI) using handheld computers.<sup>1</sup> The advantage of ACASI over FTFI is that neither the investigator, nor anyone else in the area where the interview is being conducted, hears the question or response, presumably reducing social desirability bias. Moreover, unlike self-administered questionnaires, which require literacy, ACASI can be conducted without the respondent reading the questions on the computer screen. The other advantage of ACASI is that

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<sup>1</sup> In round 4, the questionnaire was modified to capture information of events occurring in the last year or since the last interview; thus age at sexual initiation, first pregnancy, and first work were no longer asked.

the interviewing process is standardized; thus variability in interviewer characteristics, behavior and questioning style does not come into play as it does in a FTFI. Numerous studies have demonstrated the feasibility of ACASI in developing country settings (van de Wijgert et al. 2000; Lara et al. 2004; Hewett, Erulkar and Mensch 2004). And, for the most part, ACASI has been shown to produce higher reports of sensitive sexual behaviors than FTFI (Le et al. 2006; Hewett et al. 2008).

The original MSAS sample consisted of 1764 students (875 girls and 889 boys) who were randomly selected from the enrollment rosters at 59 randomly selected primary schools in Machinga and Balaka districts. The probability of a particular school being included was proportional to its enrollment in 2006. At each school approximately 30 students stratified by gender and age who were enrolled in standards 4-8, the last four years of primary school, were interviewed. An additional sample of 886 adolescents (463 girls and 423 boys) who were not enrolled in school was drawn from the communities surrounding the selected primary schools. These respondents were identified through key informants located at the school and resident in the randomly selected school catchment villages. Follow-up interviews have been conducted annually since 2007. The study successfully re-interviewed 91%, 90% and 87% of the original sample in 2008, 2009 and 2010, respectively.

Data from the first three rounds of the MSAS illustrate the challenges that arise in attempting to capture transitions to adulthood when age reporting is problematic and premarital sex is proscribed. . Based on a question on age at first sex, 36% of females and 30% of males who reported premarital sex in round 1 via ACASI reported they were virgins in round 2. About one-third of married females in round 3 reported they never had sex in ACASI and 28% of young women who reported childbirth responded they never had sex. Of those adolescents who reported never having sex in round 1, but ever having sex by round 2, 76% of boys and 48% of girls reported an age at first sex in round 2 that was younger than the age at last birthday reported in round 1. On average, about three-quarters of adolescents who were sexually active reported a different age at first sex across rounds with ACASI. While the level of inconsistency is surprising, that we have discrepant data across rounds with ACASI is not unexpected. A study of response inconsistency among unmarried Kenyan adolescent girls revealed that while ACASI produced higher reporting of the most stigmatized behaviors, reporting of sexual activity was more inconsistent in computerized interviews than in face-to-face interviews, a finding that has been replicated in other studies in developing countries (Mensch et al. 2008a, Mensch et al. 2008b).

Because so many adolescents reported discrepant ages within and between rounds for the timing of first sex and marriage (Soler-Hampejsek et al., 2010 ), we developed an additional method for collecting data on sequencing of major adolescent transitions for round 3 in 2009. In the presence of an interviewer we asked participants to order a set of life event cards that displayed pictures of major transitions: first sex, school leaving, first marriage, and first participation in the labor force. After putting the cards in the sequence in which they occur, questions were then asked about the age at each transition. Interviewers were trained to reconcile any inconsistencies with the FTFI data, which included questions about all the transitions except sexual initiation. This exercise was repeated in round 4 in 2010 where we added two more events, pregnancy and child birth. Note that if a particular event had not taken place, the respondent was asked to turn

the card over; on the reverse side of each card a large red x was displayed through the picture. The pictures used for the event cards are displayed below.

In round 3, using the life event cards, all but 13% of adolescent males and 25% of females reported at least one transition, with 30% (males) and 15% (females) reporting one, 34% (males) and 12% (females) reporting two, 20% (males) and 35% (females) reporting three and 4% (males) and 14% (females) reporting all four. As expected, preliminary analyses indicate that within survey inconsistencies were considerably reduced with the life event cards. Almost everyone who was married or who had given birth reported having sex in the life event cards. While reporting of premarital sex in round 3 was lower for girls with the life event cards — 32% of girls reported premarital sex with the cards and 37% with ACASI — overall reporting of sexual initiation for females increased from 51% to 63% because many more married girls reported having had sex, suggesting that some interpreted ACASI questions about sexual activity to refer to premarital sex. Among boys, reporting of premarital sex did not vary much by interview mode with 55% indicating they had premarital sex in ACASI and 52% with the life event cards.

This paper will compare the reporting of sexual initiation using the life event cards with reporting in ACASI for rounds 3 and 4 among both males and females. The paper will also investigate the extent to which the timing of sexual initiation reported in rounds 3 and 4 relative to other adolescent transitions differs with the life event cards and with ACASI/FTFI. In addition, we will investigate the degree of inconsistency between rounds 3 and 4 using the life event cards with the degree of inconsistency found between rounds 1 and 2, which was limited to ACASI and FTFI.<sup>2</sup> While the within-round inconsistency is virtually eliminated with the life event cards, the question is whether the between-round inconsistency is also markedly lower. Finally we will explore the predictors of inconsistency between life event cards and ACASI and between rounds for the life event cards focusing primarily on the effects of the education variables — grade attained, current school attendance, and scores on literacy and math tests. We will conclude with a set of recommendations for the collection of survey data on adolescent transitions in developing countries.

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<sup>2</sup> Note that the number of transitions will be lower in the earlier rounds because the sample is younger; we will account for that in our analyses.

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