**Adolescent schooling and pregnancy in South Africa: Exploring the causal linkages**

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## Introduction

Societal transformations in South Africa and elsewhere have contributed to lengthening the period between puberty and marriage, particularly for girls, and have led to greater opportunities for young people to extend their education and skills development. In this new global environment, adolescent sexual and reproductive behavior can have crucial implications for opportunities later in life. The effects of unwanted pregnancy and HIV are a particular concern for limiting girls' future possibilities since females inevitably bear the responsibility for raising children and they are much more vulnerable to HIV than young men.

Although South Africa's total fertility rate is low (2.9 children per women in 1998) compared with other countries in sub-Saharan Africa, adolescent childbearing is high and does not appear to be declining very rapidly. In 1998, thirty-five percent of 19 year-olds had been pregnant and thirty percent were already mothers (South Africa Department of Health 1999). Reflecting the broader trend of declining fertility, however, many women who give birth as teenagers have a long interval of time before the birth of a second child. For second and third births, the median birth interval in the 1998 Demographic and Health Survey was nearly 50 months. What effect does this high rate of early pregnancy and childbearing have on female educational attainment in South Africa?

Recent studies find little evidence of gender differences in educational attainment (Lam 1999; Case and Deaton 1999; and UNDFW 2000). Lam (2000) notes that the roughly equal schooling outcomes for males and females are in contrast to the situation in a number of other African countries (as reported by Lloyd, Kaufman, and Hewett 1999). School delay patterns by gender in South Africa, however, are not described in the existing literature. Previous analysis using the current study data (Hallman and Grant 2004; Hallman and Grant 2003) indicates, that gender is an important determinant of the prevalence and timing of school delays in KwaZulu-Natal. Although girls advance more quickly than boys through primary school, girls begin to falter at the secondary level. At age 14-15, 45 percent of males versus 35 percent of females have had school delay. (In this study a delay is defined as a year of non-advancement because of either not having enrolled at all during a particular year but having eventually returned to school, withdrawal during a year, or repeating a grade because of poor performance during the previous year.) By age 20-22, however, 56 percent of males and 57 percent of females report having experienced at least one school delay. Among young people who have had a delay, the major factor reported is economic constraints. Among males, lack of interest and poor performance is another leading cause. Among females who have had a delay, a considerable percentage report a delay due to pregnancy: 5 percent of 16-17 year-olds, 20 percent of 18-19 year-olds, 25 percent of 20-22 year-olds, and 28 percent of 23-24 year-olds.

Although in many settings having a child marks the end of schooling for girls, a policy formalized in South Africa in 1996, but informally upheld by many school principals prior to that, allows pregnant girls to stay in school and young mothers (who can manage it logistically and financially) to return to school (Kaufman, de Wet, and Stadler 2000). This policy is credited with the observed lack of gender differences in total educational attainment and is believed to contribute to the observed long delay before the birth of a second child to adolescent mothers in South Africa. Using the 1993 SALDRU data, Maharaj, Kaufman, and Richter (2001) find that approximately 35 percent of African girls nationally aged 19 and younger who had given birth at least once were currently attending school. In our study data, 32 percent of 14-19 year-olds who have ever been pregnant are currently attending school.

While it is tempting to take the reported reasons for delays at face value, the economic social, and cultural circumstances that create the conditions for school delays/drop-out and premature sexual activity, pregnancy, and childbearing are more complex and multi-faceted and often closely intertwined, thus making causation difficult to determine. Kirby (2001) for example asserts that sexual risk-taking has many nonsexual antecedents, including poor school performance. In other words, doing poorly in school may result in lower motivation to avoid sex and pregnancy. Mensch et al. (2001) find in Kenya that a gender-neutral atmosphere in school appears to reduce the risk of girls engaging in pre-marital sex; in schools with gender-biased atmospheres girls were more likely to drop out. In that population, pregnancy *followed* drop-out and was not the cause of it.

The Transitions to Adulthood dataset, collected in KwaZulu Natal, South Africa, offers a unique opportunity to explore the relationships between educational attainment, schooling interruptions, and pregnancy. By collecting complete education and birth histories, in addition to detailed questions regarding school status at the time of first pregnancy, this survey enables us to gain a nuanced understanding of the relationship between school delays and the timing of pregnancy and childbirth. In addition to describing patterns of educational attainment and childbearing and their interaction, we will use multivariate analysis to explore how the school environment and previous academic performance—such as previous school delays, connectedness to school and community, and age of school entry—and socio-economic factors influence the likelihood that a young woman becomes pregnant, that she is enrolled in school at the time of pregnancy, and if enrolled, the likelihood of drop-out versus continuing her education. A better understanding of these interactions will not only help improve the design and placement of reproductive health education and services provision for young people in South Africa, but will also improve our understanding of the life choices made by young women during their transition to adulthood.

**Data and Methods**

The data are from the 2001 survey of the "Transitions to Adulthood in the Context of AIDS in South Africa" study from KwaZulu-Natal province, South Africa (Rutenberg et al. 2001; Magnani et al. 2003). The overall KwaZulu-Natal environment is characterized

by conservative cultural values with regard to gender roles, high HIV prevalence, and high rates of poverty and inequality. KwaZulu-Natal Province has the largest population in South Africa, about one-half of whom reside in urban areas (as classified by the South African Census Bureau); it is the home of the Zulu nation, and Zulu speakers comprise the majority of the population (82 percent), with Indians making up another 9 percent, and whites and coloreds together comprising the final 9 percent.

Two districts within KwaZulu-Natal province were purposively chosen for the study site, Durban Metro and Mtunzini Magisterial District, as they represented urban, transitional and rural areas of the province. A modified stratified, multi-stage cluster sampling method (Turner et al. 1996) was used with census enumeration areas from the 1996 census serving as the primary sampling unit. Interviews were conducted with all willing young people aged 14–24 years within each census enumeration area.

Many aspects of transitions to adulthood were covered in the survey, including schooling, paid and unpaid work, sexual and reproductive health behavior, HIV/AIDS knowledge and attitudes, childbearing, marriage, and perceptions of social connectedness and safety. The study also includes interviews with heads of youth households, mainly parents, about household demographic composition, living conditions, economic status and shocks, and HIV/AIDS issues; community surveys examining infrastructure, services, and safety; and interviews with secondary school principals to assess the extent of coverage of the government-mandated school-based life-skills curriculum and its impact on youth HIV knowledge, attitudes, and sexual risk-taking behaviors. The survey is beginning to fill important gaps in knowledge about adolescent lives in an environment characterized by both high HIV prevalence and unequal access to opportunities and services, including schooling, employment, and health care.

In addition to standard questions regarding schooling and educational attainment, the Transitions survey collected a complete educational history for all respondents, beginning with the year that the respondent first enrolled in school and ending with their most recent year of enrollment. For each year, the respondent reported whether he or she did not enroll at all during that particular school year (but eventually returned to school), withdrew during the school year, or repeated the grade because of poor performance. Every time that the respondent reported a school withdrawal for all or part of a school year, he or she was asked why their education was interrupted. Since the majority of young people in South Africa have experienced some form of schooling delay or interruption, this level of detail provides a unique opportunity to track a respondent's educational progress.

In addition to the education history, a detailed birth history was collected for every live birth. Information on the month and year of each birth could then be matched to the respondent's education history, enabling us to triangulate information on schooling interruptions related to pregnancy and child care.

Finally, the survey included a comprehensive set of questions regarding any pregnancies that the respondent had had. In particular, data was collected on whether the respondent

was enrolled in school at the time of her first pregnancy, whether she dropped out of school because of her pregnancy, and whether she was subsequently able to return to school. Combined with the education and birth histories, these questions allowed us to improve the reliability of reporting related to educational attainment and schooling interruptions related to pregnancy and child care.

**Results**

Overall, the majority of female respondents aged 14-19 were enrolled in school at the time of the survey (78 percent), as compared to only 29 percent of 20-24 year old females. Among 20-24 year olds still enrolled in school, over 50 percent are still enrolled in secondary school, indicating prior school delays. Sixteen percent of 14-19 year olds have ever been pregnant, as compared to 56 percent of 20-24 year olds. However, of those respondents who have ever been pregnant, 73 percent of 14-19 year olds were in school at the time of their pregnancy, as compared to 68 percent of 20-24 year olds.

Previous analyses of this dataset show that being from a poor household or belonging to a traditionally disadvantaged population group strongly reduce educational advancement and attainment. Furthermore, higher rates of pregnancy are observed among poorer young women, indicating that poverty inhibits schooling both directly and indirectly through raising pregnancy risk (Hallman, 2004; Hallman and Grant, 2004; Hallman and Grant, 2003). This paper will build on these findings, focusing on the educational outcomes of those young women who become pregnant while enrolled in school and investigating the role of pregnancy in predicting who will continue their education to earn their matric.

Using the education and birth histories, we are able to identify the patterns of school continuation following pregnancy. Of those who were enrolled in school at the time of pregnancy, 23 percent of 14-19 year-olds and 16 percent of 20-24 year olds did not drop out of school for any period of time. The fact that a larger proportion of 14-19 year olds than 20-24 year-olds did not drop out of school may reflect recent changes in policy that make school continuation more amenable to young mothers, although the relatively small proportion of 14-19 year olds who have ever been pregnant may bias this statistic. An additional 3 percent of 14-19 year-olds and 11 percent of 20-24 year-olds became pregnant during grade 12 and successfully completed the school year, earning their matric. In contrast, 74 percent of 14-19 year-olds and 73 percent of 20-24 year-olds dropped out of school in response to their pregnancy.

Twenty-three percent of 14-19 year olds who became pregnant while enrolled in school dropped out and were able to continue, as compared to 36 percent of 20-24 year olds. This difference largely relates to the longer period of time that the older cohort has had to return to school; younger females who have dropped out of school because of their pregnancy may return to school in the future.

However, the majority of those who dropped out of school have not had the opportunity to continue. Thirty-three percent of 14-19 year olds and 25 percent of 20-24 year olds

who were in school at the time of their pregnancy either withdrew partway through the final year that they attended school or failed their final year enrolled in school. These individuals then gave birth within nine months of the end of the school year. Although it is difficult to determine whether these interruptions were the result of the pregnancy or whether the pregnancy resulted from the interruptions (e.g. those who became pregnant during a period of truancy), these individuals are distinct from those who completed and passed the academic year during which they became pregnant (18 percent of 14-19 year olds and 12 percent of 20-24 year olds). We will also examine what percent of young women who dropped out and later returned to school passed or failed the school year preceding the birth of their child.

In addition to using multivariate analysis to examine the relationship of these outcomes to socio-economic and household factors such as co-residence with mothers and fathers, household size, education of the household head, household asset ownership, and urban/rural residence, we will also attempt to examine the influence of household composition as it relates to availability of care for infant children (thus enabling a young woman who has given birth to return to school). We will also look at the influence of the school and community environment and the respondent's previous academic performance on these outcomes. This will be captured through variables that measure previous school delays, previous repeated grades, age of school entry, and connectedness to school and community. By examining the relationships among school delays, educational attainment, and early childbearing, this paper will not only contribute to our understanding of the variety of life choices made by young women during their transition to adulthood, but will also shed light on how potential policies and programs may better designed and targeted to improve the educational outcomes and sexual and reproductive health of young women.

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