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WORKING PAPER

Headship of Older Persons in the Context of HIV/AIDS in Rural South Africa

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August 2009

Population Program POP2009-05

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Acknowledgements

The authors are indebted to the South African Medical Research Council/University of the Witwatersrand Rural Public Health and Health Transitions Unit (Agincourt) for support in conducting this research. In particular, we thank Mark Collinson, Paul Mee, Samuel Clark, and Benjamin Clark for assistance with constructing the dataset. We are also grateful for guidance provided by Jane Menken. The Agincourt data was collected with generous support from the Andrew Mellon Foundation and Wellcome Trust. The secondary analysis of the data was funded by a seed grant from the Population Aging Center at the Population Program, Institute for Behavioral Science, University of Colorado Boulder and NICHD grant #1R03 HD047760-01A. This research has also benefited from the NICHD-funded University of Colorado Population Center (grant R21 HD51146) through administrative and computing support. The content is solely the responsibility of the author and does not necessarily represent the official views of NIH or NICHD. The paper was originally presented at an NIA sponsored Conference on AIDS and Older Persons, at the Michigan Center on the Demography of Aging, University of Michigan on November 7-8, 2008.

Abstract

This paper examines older persons' living arrangements in the Agincourt sub-district of Mpumalanga Province, South Africa—an area with 32% HIV-prevalence. We concentrate on headship as a measure of older persons' position in rural households. We focus on the role of South Africa's non-contributory old-age pensions as a collective household asset to hypothesize effects on headship. Using descriptive statistics, we examine the presence of pension-age eligible adults (women age 60+, men age 65+) across and within households, compare the characteristics of households across age and sex headship types, and explore how households' composition and experience of a death differ across headship types. While there are some significant differences in household composition across headship types, this analysis does not point to a significantly greater presence of HIV/AIDS deaths in households headed by older persons over the period. These findings are an important starting point for further investigations aimed at understanding how HIV/AIDS is impacting the lives of older persons.

Introduction

In this paper, we propose to examine the living arrangements of older persons in the context of HIV/AIDS in the Agincourt sub-district of Mpumalanga Province, South Africa. South Africa has an adult prevalence rate around 16% (UNAIDS, 2007), while Mpumalanga Province has the second highest provincial prevalence rate in the country at approximately 32% (South African Department of Health [SADOH], 2007). Based on the South African non-contributory old-age pension classification, we define older persons as over 65 for men and over 60 for women.¹ We focus on headship as a measure of older persons' position in rural households, and hypothesize the effects of pensions as a collective household asset on headship. We use descriptive statistics (1) to examine the presence of pension-age-eligible adults across and within households, (2) to compare the characteristics of households across headship types stratified by age and sex, and (3) to explore how households' composition and experience of a death differ across headship types.

There have been some very real changes that have occurred in the Agincourt sub-district in the 1992-2005 period but they cannot be attributed to AIDS alone as other significant social, political and cultural changes have occurred in South Africa (Madhavan & Schatz, 2007). To date household level analyses on change in dependency ratio have shown that the effect of HIV/AIDS-mortality as differentiated from other causes is marginal once age at death and sex of deceased are accounted for (Madhavan & Schatz, Under Review). Similarly, in the qualitative papers emerging from the site, there were fewer differences across households with and without an HIV/AIDS-death than the

¹ The age-eligibility for men will be reduced to 63 as of January 2009, and will be reduced further to match women's age-eligibility at 60 in the future. Since the data we analyze were collected prior to this change, we retain the earlier eligibility age of 65 for men.

researchers expected to find. The permanence of poverty and the knock on effects of HIV-related illness and death on other households make it difficult to isolate the differences between households with and without a death (Schatz & Ogunmefun, 2007).

This being said, there has been a notable increase in the number of deaths due to HIV/AIDS in Agincourt from 10.5% of all deaths in 1997 to 21.9% of all deaths in 2003 (Madhavan & Schatz, 2007); with antiretroviral therapy (ART) roll-out only just beginning in the area, the number of HIV/AIDS-related deaths are likely to continue to increase in the near future. Despite older persons being a small proportion of the total population (about 5%), the Agincourt population is aging (Madhavan & Schatz, 2007; also see Figures I & II below). Additionally, the small overall population of older persons does not appropriately describe their presence in Agincourt—approximately one quarter of all households in the site is home to an older individual (Schatz, 2007). In sum, the high rates of HIV-prevalence, increasing percentage of deaths attributable to HIV/AIDS, and the changing dynamics in household composition and structure emphasize the value in exploring older persons' positioning within households.

AIDS, Aging and Households in South Africa

Partly because of the increased death rate due to AIDS among prime-aged adults and young children, the population of South Africa is aging. The United Nations (1999) predicts that 14 percent of the population will be over 60 in 2050, compared to just 6 percent in 1999. Changes in age and cause-specific mortality have shifted as well, with significant increases in mortality rates, in the Agincourt sub-district and elsewhere in South Africa, among children under five, men 30-49 years old, and women 15-29, 30-49,

and 50-64 years old (Anderson & Phillips, 2006; Kahn et al., 2006). Much of the mortality increase among children and prime-aged adults is due to AIDS, whereas the mortality increase among women in the 50-64 age group is primarily due to non-communicable diseases: stroke, diabetes and hypertension (Kahn, 2006; Thorogood, Connor, Hundt, & Tollman, 2007). AIDS will continue to influence the future age distribution of the South African population, mostly depleting individuals between the ages of 30-50 (US Census Bureau, 2000). This pattern may change as ARTs become more widely available; however, even with some ARTs available in the early-2000s, death rates continued to rise in this age-set (Anderson & Phillips, 2006).

The effects of HIV/AIDS on the older persons are multi-faceted. One key area is their roles as caregivers to grandchildren after the death of their own children particularly in the context of multigenerational households (Møller, 1998; Møller & Devey, 2003). Older persons, more often women, who become caregivers for adult children living with HIV/AIDS and AIDS orphans, experience increased emotional, economic, and physical strain (Ferreira, 2004; HelpAge International, 2003, 2008). Two, they must cope with the loss of income and support previously provided by those who become sick or are lost to AIDS (HelpAge International, 2005; Williams & Tumwekwase, 2001). Three, the death of prime age adults is likely to alter household composition and in particular, the positioning of older persons in the household (HelpAge International, 2004a, 2004b; Monasch & Boerma, 2004).

Certain age and gender patterns emerge when examining headship and household membership in South Africa. Older women are more likely than older men to live in households headed by their spouses or children (Noumbissi & Zuberi, 2001); thus, when

a spouse or adult child who had been the household head dies, the older woman is likely to take over this role. This latter point is corroborated by the fact that female household heads are more likely than non-household heads to be widowed, or divorced (Kinsella & Phillips, 2005; Ogunmefun, 2008). In the Agincourt area there has been a significant increase in the average age of male household heads from 46 in 1993 to 48 in 2003. While there has not been a comparable increase in the average age of female heads, female heads have consistently been on average older than male heads; the average age of female heads has hovered around 52 over the same period. Furthermore, since female household heads are, on average, older than their male counterparts, the increase in the percentage of households headed by women from approximately one quarter of the households in the early 1990s to over a third in 2003 means that more households are being headed by older persons (Madhavan & Schatz, 2007).

Other authors echo the need to explore household headship as a demographic variable that may help elucidate issues related to household composition and structure in high HIV-prevalence societies (Ferreira, 2004; Merli & Palloni, 2004). The trends in the Agincourt site of an increasing percentage of households headed by older persons and women are borne out in other contexts as well. Increases in older persons and women as household heads in sub-Saharan Africa are often associated with households losing members to the HIV/AIDS epidemic (Ferreira, 2004; HelpAge International, 2004a, 2004b, 2005; Monasch & Boerma, 2004). Using headship as a lens to examine the composition and structure of households, our descriptive analysis will contribute to a better understanding of older persons' position in households in the context of HIV/AIDS.

South Africa provides a unique case for studying the impacts of AIDS on older persons because the government provides older persons access to a state-funded non-contributory old-age pension program. The pension requirements are limited to an age threshold and basic means-test (South African Department of Social Development [SADSD], 2002; Case & Deaton, 1998). The pension can add significantly to older persons' household income and is sometimes the most reliable safety-net income source (May, 2003; Møller & Devey, 2003; Schatz, 2007). Pensions may provide the necessary resources to allow older individuals to access nutritional foods and public health services, but the normative pressure is for older persons to share their pensions with their households and kin (Burns, Keswell, & Leibbrandt, 2005; Sanger & Mtati, 1999). As older household members pool their income with kin, the pensions often support the needs of other household members (Case & Menendez, 2007), including pensioners' sick children and grandchildren, instead of the needs of the older persons (SADSD, 2002). Thus, income intended to sustain individuals in their old age is instead used to maintain households (Bohman, Vasuthevan, van Wyk, & Ekman, 2007; Ferreira, 2004; Ogunmefun, 2008; Ogunmefun & Schatz, 2009). This is our point of departure in addressing the issue of elderly headship in the context of HIV/AIDS.

Conceptual Framework

The literature outlined above suggests that there may be a relationship between HIV/AIDS-related deaths in households and headship. In conceptualizing headship, we consider both its utilitarian as well as symbolic aspects. By utilitarian, we mean the role of the head as income earners; symbolic refers to the status and power accorded to the

person. Headship has been linked in the Africa context to both income-earning and decision-making status in the household (Budlender, 2003; Posel, 2001), the former might imply the utilitarian aspect, while the latter might be seen as implying more of the symbolic. In this analysis, we focus on the utilitarian aspect of headship though we discuss some of the possible indirect effects of income on status and power. In examining the role of older persons as heads, our conceptual framework centers on pension receipt and the ways that HIV/AIDS-related deaths might create conditions in which older persons must fill a headship void as a result of the loss of a household member, income loss, and an alteration of intergenerational power dynamics.

The literature on pensions discussed earlier suggests that pension income is regarded as a household rather than an individual asset. In an altruistic model of the household, individuals work for the collective good of the household (Becker, 1974; Hermalin, 2002). While the most obvious expression of this ethic is the pooling of resources, it can also be reflected in household configuration and the designation of headship. Due to high rates of unemployment and non-marital childbearing, older persons often find themselves contributing to the maintenance of households, and supporting grandchildren in their homes (Ogunmefun & Schatz, 2009; Schatz & Ogunmefun, 2007). Children in households with a pensioner, particularly a female pensioner, also fare better than children in households without (Case & Deaton, 1998; Case & Menendez, 2007; Duflo, 2003). The loss or illness of a prime-aged adult, who, in theory, is an income-earner, might further increase the need for older persons' pension income and push them toward taking on even greater responsibility in households including the role of head.

A link between pension receipt and headship does not necessarily mean that elders attain higher symbolic status. In other words, their indispensability as income-earners does not automatically confer higher symbolic status and prestige in the household or community. In this sense, it is unclear if financial exigencies would lead to a change in how the older persons are perceived. Qualitative data coming out of Agincourt, and other South African sites, suggest that while pensions are desired at the household-level, older persons are not necessarily regarded as having a higher social value due to their pension receipt (Bohman et al., 2007; Schatz, 2007). It is clear, however, that pensioners do have a great utilitarian value to households because of the contributions that they can make, particularly in the absence of other income sources.

There are obvious differences between households that have experienced a death and those that have not in terms of changes to household composition; however, there may also be differences among households that have experienced different causes of death. Households with an HIV/AIDS-related death are different from households that have experienced another cause of death due to the following: (1) the long and recurring illness preceding HIV/AIDS-related deaths, (2) the age pattern of mortality, (3) the clustering of deaths within households, and (4) the stigma related to the disease. These issues may directly and indirectly impact older persons' likelihood of taking on household headship. The protracted illness prior to an HIV/AIDS-related death may increase the need for pensioners' contributions to the household during this period to cover medical expenses, and replace lost income if the sick member had been working. Dependence on pension income may condition the household to depend on that income and the older person as a decision-maker, which may, in turn, catapult the person into a

headship role. In such cases, we might expect to see the older person taking on the headship role during the sickness (i.e. prior to a death) or after the death occurs. The age pattern of mortality, as well as clustering of deaths, may create a situation where there are no other productive household members to take on the role. Finally, HIV/AIDS-related stigma (Kalichman & Simbayi, 2004; Ogden & Nyblade, 2005) may create a situation in which a household is unable to attract other productive-age members to join the household during illness and after an HIV/AIDS-death. In the last two situations, the pensioner may be the only available adult to fill the headship void. If these conditions do lead to older persons being more likely to head households where an HIV/AIDS-death has occurred, we might expect to find that older women are even more likely than older men to take on these roles given that women have a higher life expectancy and currently begin receiving the pension at an earlier age.

While we recognize that the meaning and measurement of headship can be contentious – due to (1) reporting issues, (2) culturally-constructed meanings of the role, and (3) debates about whether the role commutes status or obligation – the designation of household-head, in this context, is not completely arbitrary. In households in this area, there is an emic resonance of the concept that connects to roles and responsibilities in the household. (this paragraph needs something more)

Data & Methods

In this analysis, we use the Agincourt Health and Demographic Surveillance System (AHDSS) data, which allows us to track changes in the population and within

households over time. The research site is located in the sub-district of Agincourt, which is 500 kilometers northeast of Johannesburg in Mpumalanga Province. The province has an HIV-prevalence rate of 32% making it one of the worst areas in the country (SADOH, 2007). Part of a former homeland and a destination for people forcibly resettled under apartheid, this semi-rural area has had high rates of both labor migration and refugee influx from neighboring Mozambique. Intense mobility in and out of the site is a contributing factor to high HIV-prevalence. Other work in Agincourt has shown that people come back to the Agincourt area to die after contracting and/or becoming sick with HIV/AIDS elsewhere (Clark, Collinson, Kahn, Drullinger, & Tollman, 2007). The population has low levels of education and high rates of unemployment. There are two hospitals, a private and public health center, as well as several clinics that service the area. Voluntary testing and counseling services are available in most clinics and anti-retroviral drugs are recently available in selected clinics.

The longitudinal AHDSS has collected data annually since 1992 in 21 villages (3 more villages were added in the 2007 update) with a population of approximately 70,000 people in 12,000 households. Each annual update includes (1) household census to record all changes to household membership that occurred in the previous year, (2) vital events that occurred in the previous year, and (3) subsequent verbal autopsy (VA) to identify cause of death for those who died in the previous year. In this analysis, we use verbal autopsy data to distinguish HIV/AIDS-related deaths from other causes of death. The VA is a structured interview conducted within one year of when the death is reported; it is administered to relatives or friends of the deceased. It covers symptoms of illness, duration of illness and treatment sought. Two trained physicians then independently

examine the data to diagnose probable cause of death by assigning International Classification of Disease codes for main, intermediate and contributing causes. When there is disagreement, a third physician, who is blind to previous reviews, does an independent examination. Agreement with one of the other assessments is used as the basis of assigning a particular death classification. If there is no agreement among the three assessors, the case is classified as “undetermined” (Kahn, Tollman, Garenne, & Gear, 2000). A recent validation against hospital records shows that the VA captures and correctly assesses the majority of HIV/AIDS-deaths in the area in the absence of serotesting (Kahn, 2006). Thus the VAs provide a reasonable estimate of HIV/AIDS-related mortality in the area, although HIV/AIDS-deaths are still prone to underestimation, with a number likely coded as undetermined.

The longitudinal AHDSS with its verbal autopsy data provide a unique opportunity in a developing country setting to track trends at the population, household and individual levels. The availability of household and individual level data at yearly intervals enables us to examine conditions of households prior to as well as following a death. Undoubtedly household structure, composition and positioning of household members prior to a death condition the impact of HIV/AIDS mortality on household level processes.

In the AHDSS, the household member who completes the census form designates, or confirms if unchanged, the household’s head. The reporting member also describes the relationship of each household member to the head (e.g. wife/husband, sister/brother, son/daughter, son of sister, etc). As has been described in other literature (Budlender, 2002; Posel, 2001), the designated head in the majority of households in Agincourt is the

oldest household member (87% in 2005). Since we do not have income data for 2005 in the AHDSS, it is not possible to assess whether this individual is also the primary income-earner in the household. In both 2000 and 2005, pension-age eligible men and women headed about 20% of households where the oldest member was head.

Our descriptive analyses explore household-level differences in household composition across headship types, with attention to the mortality experience of households in the 2000-2005 period. Our intention is to examine older persons' positioning in households at the beginning and end of the period, and determine whether there is an association with HIV/AIDS-related mortality. Since we must acknowledge the differential impact that the loss of an older person and prime-aged adult may have on headship, we have divide HIV/AIDS-related deaths and other deaths into two age-categories in all of the tables and figures; children's deaths are a separate combined (HIV/AIDS and other) category.

We begin by showing the age distribution at the population level. Then we move to households-level statistics that first outline the presence of pension-age eligible persons across and within households in 2000 and 2005. Since our focus in this paper is on older persons' positions as heads of households, we then examine the characteristics of headship in each cross section, and explore household characteristics (which might be related to the loss of a prime-aged adult) by headship type in 2000 and 2005. After providing statistics on the HIV/AIDS-related and other deaths in the site, the final analysis compares the distribution of households with an HIV/AIDS-related death, other death, or no death by headship type. We first examine current status by comparing all households existing in 2005 and then look at headship change in the period 2000-2005 by

1) examining households in which the headship type remained the same throughout the period, and 2) households in which the headship type changed over the period.

Results

Figures I and II show the population age distribution in 2000 (N=70163) and 2005 (N=70843). What is obvious from these figures is that there has been a small increase in the percentage of pension-age-eligible adults (men aged 65 and older, women aged 60 and older) over the period, from 1.5% to 1.6% and from 2.8% to 3.0% respectively. There has been a much larger increase in prime-aged adults (females aged 15-59, males aged 15-64), and a decrease in the percentage of population made up of children (under age 15), from 55.7% to 59.8% and from 40% to 35.5%, respectively. These changes can be attributed to population aging, and a decrease in fertility. The decrease in the proportion of children may also reflect the increase in infant and child mortality related to HIV/AIDS.

Insert Figures I and II here

Tables I-III examine households that were present in 2000 (N=11524) and households that were present in 2005 (N=12077). Some households that were present in 2000 dissolved before 2005 while other households were created during the period. Table I compares the presence of pension age-eligible older persons across and within households in 2000 and 2005.

Insert Table 1 here

In both 2000 and 2005, it is clear that older women have a greater presence in households than older men; even if we were to include all men over the age of 60, their presence in

households is still not as great as older women (14.3% in 2000 and 13.1% in 2005, not shown in table). There were few changes in older persons' overall presence in households between 2000 and 2005. There were slight increases in the percent of households with one or more older man and in the percent of households with one or more older woman; in all likelihood these small changes are simply due to population aging, rather than reconfigurations of households. The percent of households with both an older man and older woman (these might be married couples or siblings) does not change over the period; and the proportion of households made up of elderly members remains virtually the same. Shifting to the characteristics of headship, Table II outlines the average age of household heads, and the percent of households in the site headed by women and older persons.

Insert Table II here

Household heads are on average 2.4 years older in 2005. This is driven both by the increase in average age of both male (.9 year older) and female (.8 year older) heads and an increase in the percentage of female-headed households, whose heads are on average older, from approximately one-third of all households to over 38%. Interestingly, there is both a greater increase in the percent of households headed by older females compared to older male heads over the period, and a larger percentage of all households are headed by older women than older men in both cross-sections.

Table III provides compositional features of households headed by older men, older women, and prime-aged adults in each 2000 and 2005.²

Insert Table III here

² While the popular press often calls attention to the issue of child-headed households as consequence of the AIDS epidemic, there were only 14 households in each time period with a designated head below the age of 15. Given these were less than one percent of households they are not differentiated in the table.

There are interesting comparisons within headship types over time, as well as between headship types in each period. The situation in 2000 could be seen as the baseline or pre-existing conditions for households that experience a death between 2000 and 2005. All of the differences across headship type in 2000 are significant at the .001-level, with the exception of percent of households with at least one orphan, which is not significant. The mean sizes of households headed by older men are larger than those headed by older women or prime-aged adults in 2000 (7.3 compared to 6.0 and 6.0, respectively). In older woman-headed households, a high proportion of household members are, on average, female (.64), whereas the proportion is on average below .5 in the other two household types. While the dependency ratio (individuals over age 60 + children under age 15/individuals 15-59) in households headed by older persons is greater than one, showing “dependent” heavy households, households headed by a prime-aged adult are “productive” member heavy with a value less than one.

All of the differences across household type in 2005 are significant at the .001-level. Most striking among these is the comparatively high proportion of female household members in households headed by older women, similar to 2000. In addition, the high percentage of households with at least one orphan in the prime-aged adult category stands out. We thought this may have been a factor of orphans in households with “near-old” heads (men 60-64 and women 55-59), however the mean age of prime-age adult heads is lower (39 years old) in households with an orphaned child, than in households without (42 years old) (not shown in table).

Examining change over time in Table III, we see that, in general, households have become smaller, have become more productive heavy, but maintained similar average

proportion female. Whereas they have had, on average, fewer children, there has been an increase in the percentage of households with at least one orphan. The orphan change is noteworthy because the increase is seen in households headed by prime-aged adults and older women, but not in households headed by older men. Table IV shows by headship type what happens to households over the period.

Insert Table IV here

Of households that had prime-aged adult head in 2000, 17 percent dissolved before 2005, and 8 percent changed from a prime-aged adult to an older head by 2005. (shouldn't this first line come before when we talk about dissolved and new hh?). Of the 4 percent of prime-aged headed households in 2000 that changed to an older man head by 2005, 71% were headed in 2000 by a man aged 60-64, which may mean that the same individual was head but his status changed (I do not understand this). Of the 4 percent of prime-aged headed households in 2000 that were headed by an older woman in 2005, 47% were headed in 2000 by a woman aged 55-59; for these households the change in headship type may be attributable to aging. For each headship type in 2000, the greatest percentage of households remained in the same headship type in 2005. The least likely change from 2000 to 2005 was from an older woman headed household to an older man headed household; this is likely due to the fact that older women often become heads when their spouses die, so these households are unlikely to have an older man in them to replace the older woman head. Prime-aged headed households had the highest percentage of households that dissolved (17 percent), followed by older woman-headed (15 percent) and older male-headed (12 percent). Interestingly, nearly two-thirds of older male-headed dissolved had experienced a death over the period, compared to one-third of older

female-headed households and one-fifth of prime-aged headed households in 2000 (not shown in table). This may mean that a death, particularly of an older head, may be more likely to lead to the dissolution of households. We now examine more explicitly the role of death in conditioning some of the changes outlined in the tables above.

Table V provides demographic characteristics by cause of death for all deaths in the site that occurred between January 1, 2000 and December 31, 2005. We provide these data for prime-aged adult and older persons deaths in each of the two death categories: HIV/AIDS-related death and other type of death. For these estimates, all men and women aged 60 and above are regarded as older persons.

Insert Table V here

We see that those who die from HIV/AIDS are, on average, significantly younger, more likely to be female, and are more concentrated in the prime-aged adult age group. There are important differences between prime-aged and older person deaths within each death category, as well as striking differences by type of death within each age grouping.

Though few in numbers, the majority of HIV/AIDS-deaths among older persons are male, just over 80%. Among prime-aged adults, the majority of the deaths are female (54%). Older persons dying from HIV/AIDS also died later in the period, 1.4 years prior to 2005, compared to 2.3 years for prime-aged adults. Although the HIV/AIDS older deaths are few in number, this may indicate an escalation in these deaths over the period.

Among prime-aged adults there are statistically significant differences, at .001-level, between HIV/AIDS-deaths and deaths from other causes with the average age at death significantly younger for HIV/AIDS-deaths (36 vs 39), the percent of female deaths significantly higher for HIV/AIDS-deaths (54% vs. 45%), and the duration since death

longer for HIV/AIDS-deaths (2.3 years vs. 1.9 years). Among persons aged 60 and above, many of these trends are reversed, but the differences continue to be statistically significant at the .01-level or above: older persons who died from HIV/AIDS were significantly younger (64.5 vs. 75) – this is very confusing, the percent female is much lower among HIV/AIDS deaths (19% vs. 50%), and the duration since death is shorter for HIV/AIDS deaths (1.4 years vs. 2.4 years).

Figures III, IV and V bring together headship type and households' mortality experience.³ Figure III shows the percent of households within each headship type in 2005 that experienced a prime-aged or older HIV/AIDS-related or other death over the period.

Insert Figure III here

Households headed by older persons in 2005 (N=893 for older male headed households, N=1438 for older female headed households) experienced a higher percentage of each type of death compared with households headed by a prime-aged adult in 2005; however, these differences across headship type and death category are not significant. Of households headed by older women in 2005, 2 percent had experienced an older HIV/AIDS death and 11 percent had experienced an older death from another cause over the period; in both of these cases, the death may have been of the woman's husband leaving his widow to become head. In households headed both by older men and older women, 7 percent experienced a prime-aged HIV/AIDS-death and 9 percent experienced a death of a prime-aged adult to another cause. A lower percentage of households headed by a prime-aged adult (N=9636) experienced deaths in each category: 7 percent had a

³ Currently these figures show the most recent death over the period. We plan to explore if there are differences by headship type in the percentage of households that have experienced multiple deaths (by age and cause of death) over the period.

prime-aged adult death from another cause, 5 percent a prime-aged adult HIV/AIDS-death, 4 percent an older death from another cause, and 1 percent an older HIV/AIDS death. There was little difference in the percentage of households with a child death across headship types, with approximately 4 percent of each type of household having experienced a child death. The distribution of deaths in across household types is statistically significantly different at the .001-level.

Figure IV shows the distribution of prime-aged and older adult deaths in the HIV/AIDS and other category in households that were headed in *both* 2000 and 2005 by an older woman (N=801), by an older man (N=489) and by a prime-aged adult (N=7100).⁴

Insert Figure IV

Despite considerable differences in the number of households across headship type in these figures (why do we need to say this?), the percent with no death, and within each death category are surprisingly similar (the differences are not significant).

Approximately three-quarters of each type of household did not experience a death over the period. The main differences include: a lower percentage of households with an older male head household have experience a child death (3 %), compared to 5 % of older women headed and prime-aged headed households. But, older male headed households experienced a higher percentage of other older deaths (6 %) and prime-aged HIV/AIDS-deaths (7 %) than among households headed by older women (4 and 6 %, respectively) and prime-aged adults (3 and 6 %, respectively). Prime-aged headed households had experienced the highest percentage of prime-aged deaths from another cause (9 %), but

⁴ These figure currently match on headship type, but are not necessarily the same head in both 2000 and 2005. We plan to check to see if the results differ greatly if we limit it to the same person holding the role of head at both points in time.

older women households (8 %) and older man headed household (7 %) were not significantly different.

Finally, Figure V shows the distribution of households with and without deaths (by age and cause of death categories) for households that changed to a new headship type during the period. Transition types include the following: 1) households that have a prime-aged adult head in 2005 (N=269) could have had an older male or female head in 2000; 2) households that have an older woman head in 2005 (N=514) could have had a prime-aged adult or older male head in 2000; and 3) households that have an older man head in 2005 (N=352) could have had a prime-aged head or an older woman in 2000. The distributions of these three columns are statistically significantly different at the .001-level. (what does this mean?)

Insert Figure V here

There are a number of interesting results in Figure V. Of households headed by a prime-aged adult in 2005, 65 percent experienced a death to an older person (6 percent from HIV/AIDS, 59 percent from another cause) over the period. In all likelihood in each of these cases, the former head, whether parent or spouse, is the person who died, thus mandating the change to a prime-aged adult head. The remaining households headed by a prime-aged adult that experienced a death (3 percent child deaths, 5 percent HIV/AIDS prime-aged death, 6 percent other prime-aged death) are fewer in both number and percent than in households headed by an older person in 2005.

In the households headed by an older individual in 2005 but not in 2000, it is possible that the individual did not change, but rather his/her status changed due to aging (not clear). In 16 % of households headed by an older woman (21 % of households

without a death, 14 % of HIV/AIDS death households, and 11 % of other death household) the change in headship type may be attributed to aging of the 2000 head; in 30 % of households headed by an older man (23 % of households without a death, 34 % of HIV/AIDS death households, and 51 % of households with a death from another cause), the change may be attributed to aging. We have left these individuals in Figure V because although the individual may be the same, the person's status *was* likely to change to that of a pensioner (again I do not understand the status issue). Given our interest the possible association between pensions and headship, it is appropriate to keep these individuals in the calculations for Figure V. Older women headed households that did experience an older death (4 % with an older HIV/AIDS death and 23 % with an older death from another cause) are in most cases likely to be the older woman replacing her deceased husband as household head. Compared to older female-headed households, a lower percentage of older male-headed households experienced an older death (1 % with an older HIV/AIDS death, 6 % with a death from another cause). In older headed households, the percent that experienced a prime-aged death during the period were similar (8-9 % with a prime-aged HIV/AIDS death, 11 % with an other prime-aged death). While the two older person headed household distributions are statistically significant, the differences are driven by the deaths of older persons, when comparing prime-aged and child deaths by cause of death, there are no significant differences.

Discussion

In this paper, we have tried to assess indirect effects of income on status and power, by exploring the extent to which pensioners (proxied by age) are being thrust into

positions of responsibility (proxied by headship) when deaths occur in households. In particular we are questioning whether HIV/AIDS is different from other types of death in terms of older persons presence as heads and transitions into headship status. Although HIV/AIDS deaths only make up 22 percent of all deaths in the site, we might expect to see them differentially distributed across headship types, with a higher percentage of older heads bearing the burden of these deaths in their households than in prime-aged adult headed households.

The analyses show important differences in change over time between households headed by older women and older men. Older women head a higher percentage of households in the site than older men, and that difference is increasing. More households experienced a transition from older male to older female in the 2000-2005 period than the other way around. While there is some indication of an association between the experience of an HIV/AIDS death and headship by older women in 2005 (Figures III & V), this first level of analysis does not point to statistically significant differences between cause of death and elderly headship. This being said, the age and gender differences that emerge should continue to be tracked and unpacked in future work. The HIV/AIDS-deaths are reflecting an age and sex pattern such that among prime-aged adults the majority of deaths are among women, but in the older age-set it is men who are dying of HIV/AIDS (But the numbers are tiny). If this pattern continues, older women may be the only ones available to fill the role as household heads. The pattern may also contribute to an increase of older women's households with at least one orphan, which more than doubled from 2.2 percent in 2000 to 4.6 in 2005.

Descriptive analysis usually set the stage for more complex analysis. In this case, a number of questions remain unanswered. One, might significant differences in headship patterns emerge in multivariate analysis where we are able to control for other pre-existing household conditions? Two, if we focus only on households that have experienced an HIV/AIDS death, are there differences in age and gender patterns of headship over time? Three, would an event history approach expose a higher risk of headship change in HIV/AIDS-affected households as compared to other households?

None of the results presented in this analysis should be used to minimize the extent to which the elderly are being affected by the epidemic. Indeed our qualitative data point to a deepening sense of desperation from the increased burdens placed on older persons coping with the death of a child from HIV/AIDS. For example, Ester, a 66 year-old female whose daughter recently died from HIV/AIDS, described her roles and responsibilities in the household in this way,

I'm the mother. I do take care of my children and to my grandchildren... I'm a pensioner. When I get my money, I have to buy food. I have to help in cooking, cleaning or sweeping the yard. After we got money in this household, I have to share and give another amount to my grandchild who stays with her mother [mother's sister] because her mother is dead. (Authors, Gender and Generations Project, 2007)

This sentiment of taking on economic and decision-making responsibilities is echoed through out the interviews from this project and other qualitative data we have collected in the site (Ogunmefun & Schatz, 2009; Schatz, 2007; Schatz & Ogunmefun, 2007), even if such responsibilities do not position them formally as household heads. Indeed this is

an interesting discord that merits further examination through qualitative data. To what extent does increased financial responsibility translate into formal headship roles and more importantly, actually lead to higher status in the family and community?

The significance of analyses in this paper is underscored by the ongoing debates about policy responses to the epidemic in South Africa. The National Institute on Aging has called for research to inform policy development in sub-Saharan Africa precisely due to the lack of information on how older persons are affected by the epidemic, and how they are responding to changes in their households and kin-networks. If gendered differences that emerge in this descriptive analysis hold up in more complex analyses, programs may need to bolster support differently for older women and men. Given the recent roll-out of antiretroviral drugs, further monitoring of the impact of morbidity and mortality of prime-aged adults and the roles older household members play, as well as tracking of the individual positioning of older members within households will continue to be crucial to understanding the progression of the epidemic.

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Figure I: Population Age Distribution 2000

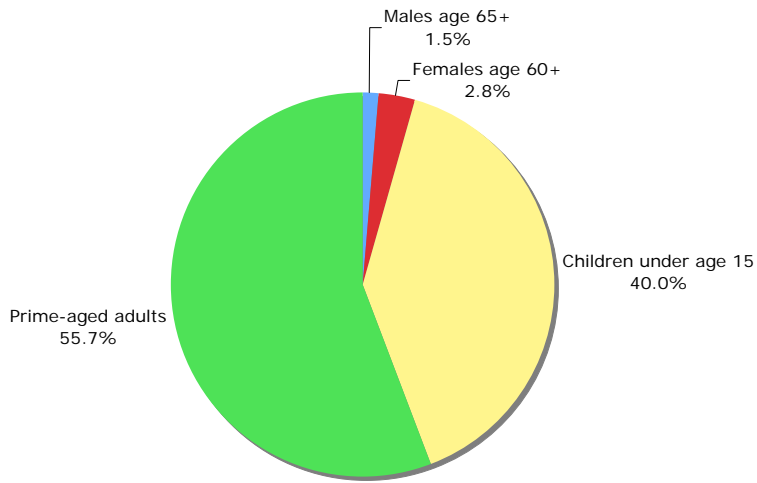


Figure II: Population Age Distribution 2005

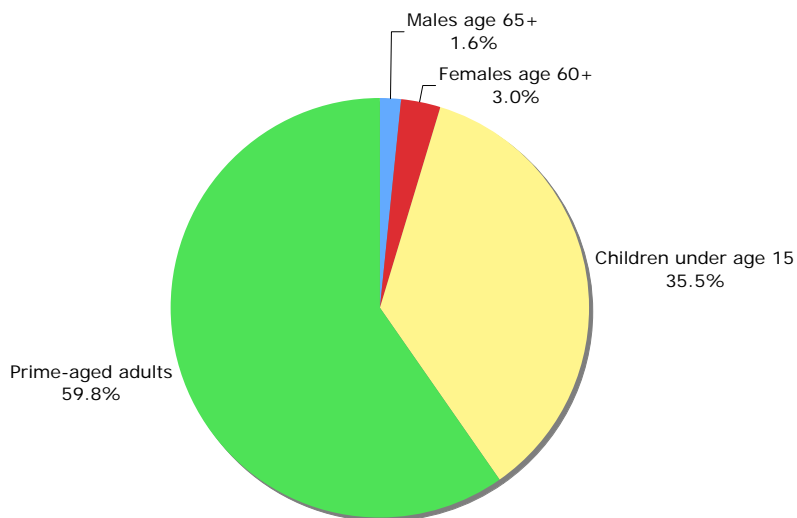


Table I: Presence of pension age-eligible (older) persons across and within households

	2000	2005
Percent of households with 1+ older male	9.2%	9.4%
Percent of households with 1+ older female	16.7%	17.5%
Percent of households with 1+ older female <i>and</i> male	3.3%	3.3%
Avg proportion of households, older persons	.078	.079
Number of households	11524	12077

Table II: Characteristics of household headship and households

	2000	2005
Avg age household heads	45.8	48.2
Avg age male household heads	45.1	46.0
Avg age female household heads	51.0	51.8
Percent of households headed by females	32.3%	38.1%
Percent of household headed by older male	7.1%	7.5%
Percent of households headed by older female	10.0%	12.0%
Number of Households	11524	12077

Table III: Household characteristics by sex and age of heads (2000, 2005)

	2000				2005			
	Older Male Head	Older Female Head	Prime-aged Head	All HHs	Older Male Head	Older Female Head	Prime-aged Head	All HHs
Avg household size	7.3	6.0	6.0	6.1	7.4	5.9	5.7	5.9
Avg dependency ratio	1.49	1.27	.83	.92	1.30	1.16	.72	.82
Avg proportion female	.43	.64	.49	.50	.43	.63	.49	.50
Mean number children	2.4	2.1	2.5	2.4	2.1	1.8	2.1	2.1
Percent with at least one orphaned child	1.3%	2.2%	2.2%	2.1%	1.1%	4.6%	6.3%	5.7%
Number of households	818	1154	9548	11524	904	1449	9724	12077

* Across household type in 2000: differences are significant at .001-level, except percent with at least one orphan, which is significant at .02-level.

**Across household types in 2005: all differences are significant at .001-level.

Table IV: Change in headship types over period for extant households in 2000

	Headship type in 2005				Total
	Prime-aged head	Older man head	Older woman head	Dissolved	
Prime-aged head 2000	75% (7188)	4%* (345)	4%* (401)	17% (1618)	9552
Older man head 2000	13% (103)	61% (500)	14% (113)	12% (102)	818
Older woman head 2000	14% (166)	1% (7)	70% (812)	15% (169)	1154
Total	7457	852	1326	1889	11524

* Of those households where the head was prime-aged in 2000 and an older man in 2005, 71% were headed in 2000 by a man aged 60-64, 29% are households where the head changed between 2000 and 2005.

* Of those households where the head was prime-aged in 2000 and an older woman in 2005, 47% were headed in 2000 by a woman aged 55-59, 53% are households where the head changed between 2000 and 2005.

Table V: Demographic characteristics by cause of death for all deaths (all individuals) occurring 2000-2005, AHDSS

	All deaths	HIV/AIDS-deaths			Other deaths		
		Prime-Aged	Older persons*	All AIDS	Prime-Aged	Older persons*	All Other
Avg age at death**	41.2	36.2	64.5	30.4	39.1	75.0	44.2
Percent of deaths 0-14	20.4%	--	--	20.1%	--	--	20.5%
Percent of deaths 15-59	49.3%	100%	--	78.1%	100%	--	43.7%
Percent of deaths 60+	30.3%	--	100%	1.9%	--	100%	35.9%
Percent of female**	47.3%	54.3%	19.0%	51.4%	45.2%	50.1%	46.5%
Avg duration since death**	2.2yrs	2.3yrs	1.4yrs	2.3yrs	1.9 yrs	2.4yrs	2.2yrs
Percent of total deaths	--	17.1%	0.1%	21.7%	38.6%	25.5%	78.3%
Number of deaths	4150	711	21	901	1603	1060	3249

*In this table older persons includes all men and women age 60 and above

**Prime-aged adults, HIV/AIDS vs. Other death: age, percent female, and duration all statistically significant at .001-level.

**Older persons, HIV/AIDS vs. Other deaths: age statistically significant at .001-level, percent female at .01-level, duration significant at .001-level.

Figure III: Percent of households with a death across headship types in 2005

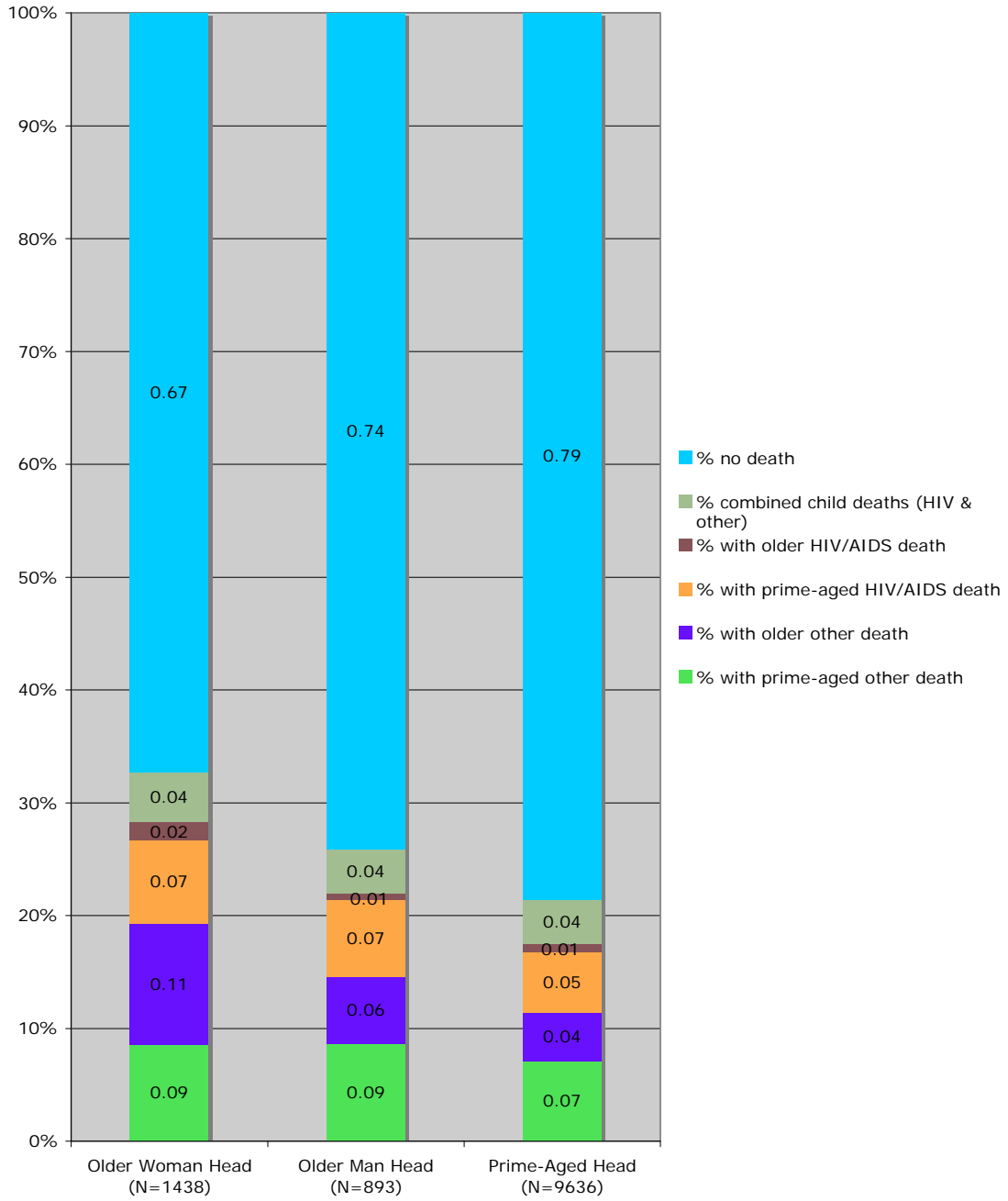
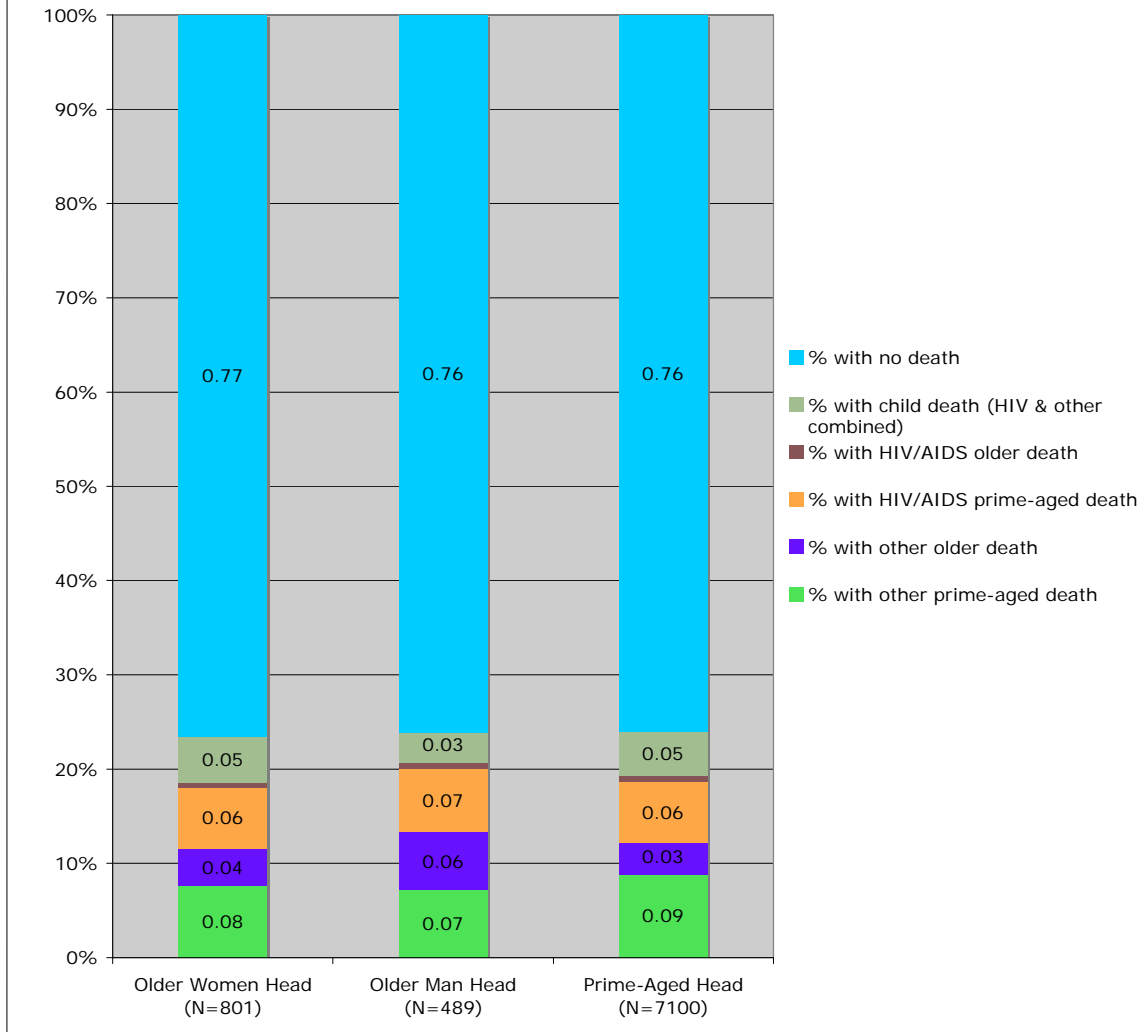


Figure IV: Percent of deaths in households with same headship type 2000 & 2005



*Figure IV: Older HIV/AIDS deaths percentages not shown in figure. Older woman headed households-0.00, Older man headed households-0.01, Prime-aged headed households: 0.01.

Figure V: Percent of deaths in households by headship type 2005, in households that changed headship type 2000-2005

