# HIV/AIDS, pensions and older persons' living arrangements: A look at households in rural South Africa 2000-2010

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## **Short Abstract:**

AIDS mortality is significant in South Africa. As in much of Africa, households are the primary locus of care for the sick, orphans and elderly. About 90% of older black South Africans access a non-contributory state-funded pension at age 60. Using cross-sectional Agincourt census data from 2000, 2005 and 2010, we explore how the living arrangements of older persons are shaped by pension-receipt. We track trends in composition and structure of households with and without an older person (defined as aged 50+), as well as disaggregate the "older" category into those pre- and post-pension-eligibility in each cross-section. We hypothesize that pensioners' households are more likely (1) to be headed by older women, (2) to be large and multi-generational, and (3) to contain orphans and fostered children. Preliminary analysis suggests that older persons' households are dependent heavy and poor; thus, while pensions are important, additional targeted interventions are needed.

## Long Abstract:

The proportion of elderly was 7% in 2009 and projected to double by 2050 (United Nations 2009), and it is increasing within the context of a double burden of disease. High HIV-prevalence, particularly in those aged 20-50 (South Africa Department of Health 2011), is coupled with an emerging non-communicable disease epidemic among older adults (Anderson and Phillips 2006; K Kahn et al. 2006; Mayosi et al. 2009). In Black communities, families are still expected to and provide most care for older adults (Bongaarts and Zimmer 2002; Cheng and Siankam 2009). However, the norms of caregiving have been altered by numerous factors. First, household structure in South Africa has been fundamentally altered by the apartheid system. Labor migration, which was institutionalized under apartheid and continues today, has resulted in households functioning as 'stretched' residential units, with family members 'dispersed' between different households for reasons of work, care, support and housing (Murray 1980; Spiegel 1988). The post-apartheid context is marked by continued high rates of labor migration by both men and women driven, in part, by high rates of unemployment in the rural Black population (Bhorat 2007; Posel, Fairburn, and Lund 2006) Older people, particularly women, have always played an important role in child care and social reproduction. Recent studies underscore the importance of substitute caregivers. According to Budlender (2006). only 37% of children lived with both parents in 2005. Other research has shown that fostered and orphaned children are two and three times more likely, respectively, to live in a household with an older woman rather than a household without (Schatz 2007). Against this backdrop increased access to state-funded

pensions in South Africa may profoundly impact on the social roles of older persons. In this paper, we explore how the living arrangements of older persons have responded to pension-receipt in an AIDS-endemic context by looking closely at the composition and structure of household with and without an older person (defined as aged 50+), as well as disaggregating the "older" category into those pre- and postpension eligibility in each cross-section.

Since the early 1990s, AIDS has been a primary cause of increasing child and primeaged adult mortality in South Africa (Anderson and Phillips 2006; Kathleen Kahn et al. 2007). For the most part, older persons' HIV infection rates are regarded as comparatively low, although there is some evidence of growing HIV-positive population over the age of 50 (Arie 2010; Negin et al. 2010; Hontelez et al. 2011). Despite recent rollout of antiretroviral treatment (ART), the older generation is outliving their children (Ford and Hosegood 2005). Not surprisingly, pressures on the family system have emerged (Dayton and Ainsworth 2004: Hosegood et al. 2007; Feldacker, Emch, and Ennett 2010). In particular, families are experiencing a care deficit (Zimmerman, Litt, and Bose 2006), leaving grandparents to raise the young (Møller and Devey 2003; Hosegood and Timaes 2005; Bohman et al. 2007) and leaving older adults without caregivers (Kautz et al. 2010). AIDS-affected households also face enormous financial strain from costs related to illness, funerals and care for orphans (Steinberg et al. 2002; Campbell et al. 2008; Madhayan 2010). While these shifts in care-networks and responsibilities affect older persons' physical, emotional and financial contributions to their families (HelpAgeInternational 2003; Case and Menendez 2007; Schatz and Ogunmefun 2007), these dynamics also alter household living arrangements (Bongaarts and Zimmer 2002; Heuveline 2004).

Until 2008, South Africa provided its means-tested non-contributory pension to women over age 60 and men over age 65. Eligibility was incrementally equalized at age 60 over a 2-year period ending in April 2010. This is a major policy shift, argued on the basis of gender equality (High Court of South Africa, Case No.: 32838/05). Approximately 90% of age-eligible black elderly South Africans receive the pension, with around 80% coverage in Agincourt (Burns, Keswell, and Leibbrandt 2005; Ferreira 2006; Schatz et al. 2012). As women began pension receipt at a younger age than men prior to 2010 and have a longer life expectancy, more women receive pensions in South Africa than men (Burns et al. 2005). The pension is about 150USD per month, and thus is a substantial cash transfer into households. It is generally pooled and used to sustain the entire household rather than sole use by the pensioner (Ardington et al. 2010; Case & Deaton 1998; Schatz 2007).

# **Conceptual Framework**

The examination of older persons' living arrangements and change over time in South Africa draws upon a well-established, multidisciplinary scholarship for conceptual guidance. Goode's theory of modernization (1963) predicts that households become more nuclear with urbanization and increased education, accompanied by a convergence of family types cross-nationally. The older

generation, in such a model, would reside in separate households. However, the trends in Black South Africa, like other African contexts, challenge this idea; households have become smaller, yet more complex (e.g. multigenerational) (Amoateng and Heaton 2008). Whereas South Africa clearly exhibits some of the classic forces of modernization, such as increases in women's labor force participation and education, along with a move from an agrarian to a more industrialized labor market, it has also experienced increasing unemployment, an HIV/AIDS epidemic and socio-political upheaval from the collapse of apartheid that has necessitated alternative family/household arrangements.

As in much of Africa, households in Black communities in South Africa function as the primary locus of care for the sick, orphans and the elderly (van de Walle 2005). The limited research that exists on HIV and living arrangements reveals two findings. First, elders in African countries with higher HIV-prevalence are more likely to be living without caregivers (Kautz et al. 2010). Second, there is a shift toward more multiple generation households that include older adults and children (Bongaarts and Zimmer 2002; Cheng and Siankam 2009). Older Africans are more likely to be heading a household and living with young children, but are less likely to be living with adult children (Bongaarts and Zimmer 2002). Whether these arrangements are caused by AIDS or not is unclear, yet they are important portraits of African households. Given higher HIV-prevalence, these patterns may be a residual of HIV/AIDS-related stigma (Kalichman and Simbayi 2004; Ogden and Nyblade 2005; Ogunmefun, Gilbert, and Schatz 2011). Households may be unable to attract new productive-age members during illness and after an AIDS-related death, leaving the elderly to head the household. Older women are likely to become heads when a spouse or adult child dies (Noumbissi and Zuberi 2001). Female household heads are more likely than non-household heads to be widowed, divorced and poor (Kinsella and Philips 2005; Ogunmefun 2008). Increasing numbers of older persons and female headed households may be associated with the loss of prime-aged members to the HIV/AIDS epidemic (Ferreira 2004; HelpAgeInternational 2004a, 2004b, 2005; Monasch and Boerma 2004).

In order to understand possible shifting dynamics, we also draw upon the livelihoods framework (Long 1997; Rakodi 2002) that has been used in many rural contexts to explain how both inter- and intra- household relationships work over time to ensure the wellbeing of families and communities. However, this framework relies heavily on an altruistic model of households (Becker 1974), which sees all members of households working for the good of the whole. Based on our knowledge of households and intergenerational relationships in rural South Africa, we treat the household as a unit of production and reproduction characterized by both altruism and conflict (Folbre 1986; Sen 1990) and possible labor and resource exploitation (Meillassoux 1981). What is interesting is that the access to pensions in South African households might actually reverse the axes of exploitation set out by Meillasoux who argued that the older generation, particularly men, benefit from the labor of the younger members, particularly females in a household. In the South

African rural context, it is likely to be older women and men who are providing both economic security *and* essential caregiving services to the young.

Our primary concern lies in identifying the influence of those factors that might promote patterns of household compositional change that are different from those that result from the natural life course of households (Hareven 1993). Drawing on Bronfenbrenner's (1981) work, Cheng and Slankam observe that "socio-economic development and the HIV/AIDS pandemic are two powerful exo-system forces that impact on the family micro-system in this region of the world, and their simultaneous effects need to be investigated in greater depth." (2009:147). For the purposes of this study, old-age pensions, which "extend" the productive life span, can be seen as a compensatory mechanism for chronic unemployment and income loss resulting from HIV-related illness and premature death.

## **Data & Methods**

Beginning in 1992, the boundaries of the Agincourt Health and Demographic Surveillance Site (AHDSS) were demarcated and a household census conducted. This became the baseline for a comprehensive annual updating of household rosters by recording all vital events – births, deaths and in and out migrations. Migration in this community is classified as temporary or permanent. A temporary migrant is a household member who was physically absent for at least six months in the year preceding interview, but who remained a "de jure" household member while away. This allows the HDSS to track individuals who are important household contributors while absent for a majority of the time. A permanent migrant is someone who either entered or exited the study area permanently, i.e. without intent to move back. Each household member receives a code for "relationship to household head" using the 8 elemental relationships (mother, father, daughter, son, wife, husband, sister, brother). For example, a grandson of the head might be coded as SS (son's son) or DS (daughter's son). A verbal autopsy, to establish probable cause-of-death, is conducted for every death. Table 1 provides the age structure of the population at the three cross-sections of 2000, 2005 and 2010.

Table 1: Age structure of Agincourt population for 2000, 2005, and 2010

	2000		2005		2010	
	Males	Females	Males	Females	Males	Females
0-4	4440	4431	4029	4123	5370	5411
5-9	4868	4854	4212	4307	4748	4768
10-14	4829	4910	4542	4622	4861	4967
15-19	4079	4047	4652	4538	5253	5265
20-24	3562	3584	3748	3788	5324	5234
25-29	2780	2863	3119	3175	4014	4146
30-34	2277	2514	2330	2450	3278	3391
35-39	1762	2095	1935	2153	2330	2529
40-44	1305	1578	1512	1809	1938	2323
45-49	1089	1283	1076	1377	1450	1862
50-54	834	914	898	1130	1082	1441
55-59	603	770	705	840	886	1150
60-64	588	750	472	685	634	845
65+	1049	2010	1164	2273	1333	2821

Population	14218	14114	12783	13052	14979	15146
<15	(41.6)	(38.6)	(37.2)	(35.0)	(35.2)	(32.8)
Population	1637	2760	1636	2958	1967	3666
>59	(4.8)	(7.6)	(4.8)	(7.9)	(4.6)	(7.9)
N	34,146	36,522	34,394	37,270	42,501	46153

Table 2 shows selected characteristics related to older persons of the population at three points in time. Not only has the number of people aged 50+ increased but the percentage of households containing at least one older person has risen substantially.

Table 2: Population and Household Characteristics 2000-2010, AHDSS

Year	Population	Number of households	Population 50+	% of pop 50+	Households with person aged 50+	% of households with person 50+
2000	70520	11540	7503	10.6	5607	39.9
2005	71461	12140	8194	11.5	6136	50.5
2010	74201	14065	8676	11.7	7632	54.3

# **Analysis Plan**

In this paper we will examine the distribution of household types in which older persons reside at three time points (2000, 2005 and 2010). Household types include single person, couple only, nuclear, multiple generation and skipped generation. We will also examine variation within household types in selected household attributes (e.g. size, headship and presence of orphans). Descriptive analysis is important to (1) determine whether there has been a significant increase in the proportions of multiple and skipped generation households over time which would likely reflect a response to AIDS-related mortality and/or pension eligibility and (2) identify trends in the burden on the elderly reflected by particular household attributes. This descriptive paper will set up transition probability analyses to see if factors like the pension or AIDS-mortality within a sending/receiving household help determine household structure and composition.

Initial tabulations (Tables 3, 4 & 5) for the three cross-sections show some clear changes over time, as well as differences between households with and without an older person (defined as aged 50+). In both sets of tabulations, we see the average size of households getting smaller, as well as the percentage of small households increasing; the proportion of households under the age of 15 is decreasing, while the proportion of households over the age of 60 has remained fairly consistent. Female headship is becoming more common over time. The percent of households with at least one orphan is decreasing. This last fact is likely attributable to the rollout of antiretroviral treatment in the area, such that existing orphans are aging out of the category without being replaced with newly orphaned children under the age of 15.

*Table 3: Agincourt household structure 2000, 2005, and 2010 (All Households)* 

	2000	2005	2010
Average size (and range)	6.1	5.9	5.6
Size range	1-34	1-41	1-39
% small (1-4 members)	37.8	39.6	42.7
% medium (5-8 members)	40.5	40.5	39.5
% large (9+ members)	21.8	19.9	17.7
Average proportion of household members under 15	34.2	31.0	29.0
Average proportion of household members over 60	8.3	8.5	8.2
Average proportion of household members female	50.3	50.6	50.3
Percentage of households with female head**	32.7	37.8	41.9
Percentage of households with at least 1 orphan*	14.1	13.7	9.6
n of households	11646	12224	15828

<sup>\*</sup>defined as child under the age of 15

Table 4: Agincourt household structure 2000, 2005, and 2010 (Only households that contain at least 1 person 50+)

	2000	2005	2010
Average size (and range)	7.1	6.9	6.7
Size range	1-34	1-41	1-39
% small (1-4 members)	28.7	29.8	31.3
% medium (5-8 members)	38.2	39.3	40.0
% large (9+ members)	33.1	31.0	28.7
Average proportion of household members under 15	29.7	26.5	24.4
Average proportion of household members over 60	17.2	17.0	16.8
Average proportion of household members female	52.4	52.2	52.0
Percentage of households with female head	40.5	45.2	46.6
Percentage of households with at least 1 orphan*	16.5	16.5	12.1
n of households	5,604	6116	7664

<sup>\*</sup>defined as child under the age of 15

Table 5: Agincourt household structure 2000, 2005, and 2010 (Only households that contain NO person 50+)

	2000	2005	2010
Average size	5.1	4.8	4.6
Size range	1-26	1-27	1-20
% small (1-4 members)	46.2	49.3	53.5
% medium (5-8 members)	42.5	41.7	39.1
% large (9+ members)	11.3	8.9	7.4
Average proportion of household members under15	38.4	35.5	33.4
Average proportion of household members over 60	N/A	N/A	N/A
Average proportion of household members female	48.3	49.0	48.7
Percentage of households with female head	68.5	65.0	62.6
n of households	6042	6108	8164

<sup>\*</sup>defined as child under the age of 15

In terms of differences between household with and without an older person, while older persons' households are getting smaller, they are on average larger at each cross-section. Older persons' households are fairly evenly spread across small, medium and large, household types, where as households without older persons seem to be shift even more toward small household over time—likely a shift toward

<sup>\*\*</sup> some data missing for HHRelationship field

smaller nuclear family units. There is a higher percentage of female headed households among households with an older person—this is likely related to women's longer life expectancy, with older women replacing their husbands as household head upon his demise.

The next stage of the analysis will be to disaggregate by those who are of pension eligible age, which for men in 2000 and 2005 is beginning at age 65, but at age 60 for women in all three cross-sections and for men in 2010. We will also look at potentially relevant factors like number of generations in a household, fostered children in the household, number of migrants in the household, socio-economic status based on an assets index. The aim is to create typologies of households with and without older persons, and among older persons by differentiating households with a pensioner and those without. We hypothesize that pensioners' households are more likely (1) to be headed by older women, (2) to be large and multigenerational, and (3) to contain orphans and fostered children. The paper will trace the potential policy implications and whether there is a need for targeted intervention to particular types of households in which older persons live.

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