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### The vulnerability of older adults: what do census data say? An application to Uganda

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### Abstract

Older adults are generally considered as being among the most vulnerable groups of the population. Yet, being over 55, 60 or 65 years old, does not necessarily mean being vulnerable in any way. Older adults are stakeholders in a social system in which they both receive and give. In Africa, where rapid population growth and economic changes have greatly transformed livelihoods in the past century, the social role of the older population has also undergone substantial change. Even in a context where their power is being eroded, older adults are often involved as providers until very late in life. In a situation where social security for pensioners is almost non-existent, elderly persons who need special care rely exclusively on their children or their social networks. According to their economic or family situation, the capability of older people to withstand difficulties is highly variable. In this context, we define in this paper two components of the vulnerability of older adults based on the structure of the household: structural and relational vulnerabilities. Then, using data from Uganda Population and Housing Censuses of 1991 and 2002, we measure the situations of vulnerability affecting older adults and possible changes that have taken place in this regard over the past two decades in this country. In Uganda older men and women are about equal in numbers. Men are less frequently in situations of vulnerability, however. Logically, the prevalence of vulnerability among older adults increases with age, but has not significantly changed from 1991 to 2002. Structural and relational vulnerability affect women much more frequently than men. Disability is more common among older adults in situations of structural vulnerability than among others, i.e. among older adults who live alone and have children in their care, which questions the capacity of family support systems to care for their members.

### Introduction

Older adults are stakeholders in a social system in which they both receive and give. This complex system must be analyzed from a temporal perspective and over at least three generations (Attias-Donfut, 2000). In Africa, where rapid population growth and economic changes have greatly transformed livelihoods in the past century, the social

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role of the older population has also undergone substantial change (Pilon et Vignikin, 2006 ; Golaz, 2007 ; Antoine 2007). Even in a context where their power is being eroded, older people must not be seen as exclusively dependent on society or as potential beneficiaries of help. Flows of support are far from uni-directional, from young to old (Attias Donfut and Rosemary, 1994; Antoine and Golaz, 2010, Lloyd-Sherlock, 2010). The involvement of older adults as providers often continues for many years, until very late in life. In countries where the social security system has a good coverage, like in Europe, older people can rely on state policies, while in other economic contexts, they take care of themselves and even continue to take care of their dependents until late in their lives. In most cases, cessation of economic activity takes place progressively and implies the inability to accomplish the required tasks. If not due to failing health, this withdrawal is negotiated in line with the possibility to rely on other people, close relatives or further relationships built up over their lifetime. In a situation where social security for pensioners is almost non-existent, elderly persons who need special care rely exclusively on their children or their social networks. According to their economic or family situation, the capacity of older people to withstand added difficulties is highly variable (Williams, 2003). Intergenerational living arrangements have been shown to be mutually beneficial to all generations (Velkoff, 2001), representing a part of the structural solidarity conceptualised by Bengtson and Schrader (1982).

The purpose of this paper is to contribute to the understanding of vulnerability among the older population by using a major data source: the population census and to provide basic results concerning the vulnerability of older people for the case of Uganda. Whereas in the past individual level data from population censuses were hard to access to, they are now available in many African countries through IPUMS-International<sup>3</sup> (Golaz et al., 2009). This source of data is very useful, among others, for the study of rather small sub-populations, which is the case for older adults in young countries. By providing systematic information on household structures it opens the way to analysing the living arrangements of older adults, which impact on their capacity to overcome difficulties. First, we shall precise the framework with which we approach old age vulnerabilities and how census data document these vulnerabilities through household structures. Then, we shall apply these elements to the case of Uganda, and confront the results obtained to situations of incapacity.

# 1 Old age vulnerabilities and census data

The term "vulnerabilities", very commonly used since the 1970s, refers to different settings in different academic cultures, disciplines and languages (Thomas, 2008). Yet, it is often used without much definition.

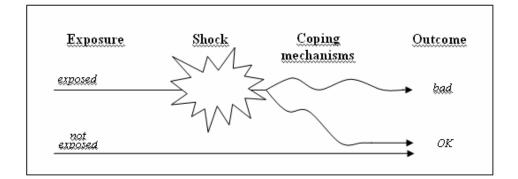
#### Old age vulnerabilities

Some academic works have tried to precise the scope of the use of the term "vulnerabilities" and to define a frame-

<sup>3.</sup> https://international.ipums.org/international/

work for analysing them. Defining vulnerabilities for older adults implies the adaptation of a framework for the analysis of vulnerabilities to this specific age group. The term vulnerability has generally been defined in relation to specific threats that would impact in a negative way on the life of a person. Old age vulnerabilities can be of two different types: exogenous events (drought or floods for example) that equally affect this age group as well as others and endogenous events (health problems for example) which are more likely to occur to older adults. Vulnerable people are those who -were problems or disaster to arise would not be able to cope, following the definition already used for households by lanet Seeley more than 15 years ago (Seeley, 1995). In the event of a threat, Schröder-Butterfill and Marianti (2006) distinguish two possible domains that differentiate vulnerable persons or groups from non vulnerable ones:

exposure and coping capacity. 'Exposure' refers to states which would induce a varied probability of encountering a given threat. The exposure of a person is based on the individual and household characteristics that actually define a person 'at risk'. Among them, economic characteristics such as assets ownership, housing characteristics, employment status as well as remittances flows are commonly mobilized as poor / non-poor indicators. However, exposure is not sufficient to define vulnerable persons, because even within the group of people who are actually going to face a threat, some might be in a position to overcome it, through coping mechanisms. 'Coping capacity' refers to the mechanisms that would prevent a threat from having a negative impact on the person or the group. A large part of the coping capacity of a person relies on the social network around him or her.



**Figure 1** A framework for understanding vulnerability (adapted from Schröder-Butterfull and Marianti, 2006, p12)

#### Understanding the vulnerabilities of older adults through statistical data: goals and limitations

Statistical data are often used in the definition of groups 'at risk'. In economics for example, household surveys provide a strong base for the understanding of economic vulnerability. Some information on household assets and individual occupations can be derived from census data as well, but are sometimes not comparable over space and time and provide more a measure of poverty (in terms of current economic condition) than of vulnerability (in terms of coping capacity to a shock which could include loss of property or of professional activity).

However, population censuses provide individual and household information on the whole population of a country, and as such are representative whatever subpopulation is studied, from a small administrative area to a specific age-group. So even though population censuses are not concerned with detailing the processes that lead to vulnerability nor with documenting the precise economic conditions of the older population since the available data do not generally allow this level of analysis, we would argue that they provide useful elements for approaching some 'exposure' and 'coping capacity' aspects in the study of old age vulnerabilities. The characteristics of the households older adults live in. in terms of structure and composition, are useful elements in the study of their potential coping capacities to specific threats.

It is important to note that population censuses, as well as subsequent national surveys, are always based on the household, a concept which does

not always correspond well to the domestic or economic configurations existing across different cultures (Van de Walle, 2006; Randall et al., 2008; Randall et al., 2011). Thus the economic characteristics and household structure used in this paper only account for a part of the daily life of the older adults who are often affectively and economically linked to other neighbouring households. The household, on which these results are based, represents the visible part of a wider social system that certainly deserves to be better understood (Whitehead, 1984; Bonvalet and Lelièvre, 1995) and that would necessarily have to be taken into account to have a full view of old age vulnerabilities (Shröder-Butterfill and Mariani, 2006; Recommendations of the National Academy of Sciences, 2006).

Nevertheless, the following analysis is based on the basic hypothesis that the household is a relevant unit for studying the living conditions of older adults. Comparable definitions of the household lead to comparable data. Even though data producers have a tendency of defining the household as the smallest unit in any ambiguous case, this is less the case in population censuses than in other demographic surveys (see Coast et al., 2011). Although this unit obviously cannot capture the entirety of the social network around a person, it provides information on the closest persons around him or her. This physical proximity should not overshadow the quality and the intensity of other relationships in a broader social network, like relatives sending remittances or visiting regularly, yet it actually accounts of daily contacts and potential care in case of the event of a threat. We therefore assume that living together provides more physical and emotional support than mere physical proximity, a frequently used starting point (Zimmer and Dayton, 2005; Velkoff, 2001).

Another limitation of the use of household characteristics to assess the immediate contact circle on which an older adult can rely is its flexibility over time. The image of domestic structures given by censuses or cross-sectional demographic surveys is a fixed image, while household structure changes over time and adjusts according to needs and opportunities. Individuals are also mobile; in particular, many people migrate from urban to rural areas when they no longer work in town. In the event of a shock, the composition and structure of the household in which the older adult lives can change. In that case, the coping mechanisms are not necessarily related to the characteristics of the before-shock household, but rather on the after-shock household. But with the exception of the disappearance of key members of the before-shock household, it is likely that these will remain in close relationship with the older person. For this reason, this study is not about drawing conclusions or making catastrophic predictions about the future of the households studied, for which we do not have adequate information. The purpose of this work is simply to point out situations where the issues related to old age are acute and may require some change, involving a process of adaptation by the family in a context where most households will have to change their structure in order to address the difficulties they may face the day they may face them.

All population and housing censuses thus provide information that accounts for a part of the 'coping capacity' mechanisms that older adults may access. These are especially relevant in countries where the coping mechanisms rely primarily on the social network of an older person, that is to say where the pension system is poor or non existent. Of course the vulnerability information derived from household structure is not sufficient to precisely estimate the ability of older adults to overcome difficulties, which is also linked to their economic liability and to other non measurable aspects. Yet, simple policy recommendations could stem from simple analyses, as we will show in this paper and therefore deserve attention.

### Relational and structural vulnerabilities

Going beyond economic vulnerabilities, poorly documented in census data, but well known through the work of economists, it is possible to define two different types of vulnerabilities that are likely to impact on the coping capacity of older adults (Figure 2).

Structural vulnerability concerns older persons whose living arrangements offer very limited sources of support for their daily life, or no support at all. Older adults in most cases live with other adults, spouses, children or others, and thus can be supported, if necessary, by other adults. But some live alone or only with children.

Compared to other African countries, Uganda is a country where a significant proportion of the older population lives alone (Antoine and Golaz, 2009). In Buganda, for example, the central region of the country, it was customary a century ago for married children to move away from their respective parents' homes (Roscoe, 1911, p.96). This resulted in significant nuclearization of households. Living alone does not necessarily mean being away from parents, as most isolated older people live near other related households (for Buganda Nahemow, 1979, cited by Seeley et al. 2009; for the Eastern part of the country, see e.g. Whyte and Whyte, 2004). Physical proximity however impacts on the daily care for people, when necessary, or on the rapidity of the coping processes in the occurrence of a shock.

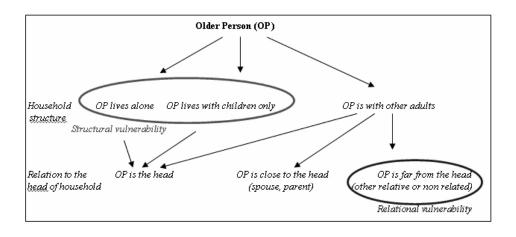


Figure 2 Identifying situations of vulnerability among the older population through household data

The role of grandparents in the care of children has been emphasized (Cattell 1990, Zimmer and Dayton 2005). This role is sometimes imposed upon older adults (Seeley et al., 2009 and Williams, 2003) but the presence of a child within the household often also provides a source of help for an elderly person (Whyte and Whyte, 2004). A common practice in Uganda, as in many African societies, when older persons living alone need help, is to entrust them to one of their grandchildren. The child takes care of his or her grandmother/ grandfather while maintaining the link between the household of origin and that of the elderly person. But, conversely, an elderly person cannot refuse the custody of a child (Williams 2003), to the extent that some older people find themselves with several dependent children in their care. An older adult living with a child is relatively less vulnerable than a person living alone, because, in addition to the help that he or she brings, the child provides access to wider family support. However the child might be a burden to the older person in need of care as children themselves require care. Thus, structural vulnerability can be defined as either older adults living alone or those living with dependent children.

Relational vulnerability concerns older persons, who, despite belonging to households with other adults, are likely to be marginalized in comparison to other household members. For example, older persons living with a distant relative or non-relative do not necessarily hold the same position in the household as a direct relative or spouse of the household head. Thus, if an older adult is neither the household head nor the spouse, nor even his relative, then this can be considered as a situation of relational vulnerability.

Vulnerability defined here corresponds to a variety of situations. Among these vulnerable people, some have relatively comfortable lives, while others struggle to survive. The concept of vulnerability is simply used here to define groups of people likely to not cope as well as others in the event of a threat. The categories defined here are quite rough, and the quantitative results should definitely not be interpreted per se (other definitions would have provided significantly different figures), but shed light on the changes occurring in the lives of older adults over time, when comparing different censuses.

# 2 An application to Ugandan data

Today, Uganda is one of the three youngest countries in the world. As per the latest population census, only 5% of its 26 million people were aged 60 and above in 2002, while 50% were aged less than 15 years. In 2010, the population is estimated at 32 million and these proportions have not changed. The

population growth rate, which has stood at approximately 3% per annum for several decades now, is preceded by a history of economic and political difficulties in the post independence era stretching from 1970 to 1986. Although the Northern part of the country remained embroiled in civil war up to 2005 due to the activities of the Lord's Resistance Army, most of the country has enjoyed peace for more than 20 years and has registered unprecedented economic growth. Similar growth has also been recorded in the north over the last few years. However, this macroeconomic image conceals serious inequalities between and within families. All families were affected by this period of lawlessness and civil wars, and all of them were affected, directly or indirectly, by the HIV/Aids epidemics in the years that followed. Despite the growth already mentioned, poverty remains a major problem<sup>4</sup>, one out of every five children is malnourished and the health sector has only registered slow progress<sup>5</sup>. Although an urban middle class is slowly emerging, the majority of the population is rural and stands to benefit less from public policies (See for example concerning the Eastern part of the country: Jones, 2009, p.61). Studies have singled out the older population as prone to poverty. Older adults have a lesser access to health facilities than others, and there are few adapted health facilities (Najjumba-Mulwinda, 2003). Pensions are rare and mainly concern former civil servants

<sup>4.</sup> According to UNDP, poverty rates are still around 30% in Uganda today.

<sup>5.</sup> HIV prevalence is currently stable, at over 6%. Malaria remains the leading cause of mortality. A two-tier health system was established where the rich can afford the best care and the poor have trouble accessing drugs that ought to be provided free of charge. Infant mortality is estimated at around 130% and life expectancy in good health at 42 years, despite a significant increase in health expenditure per capita (WHO, 2010).

who have worked long enough for the state. Although the introduction of a minimal monthly income for older adults as well as for disabled people has been discussed, it is still awaiting parliament validation. In this context, older Ugandans mainly rely on their own working capacity and on their close network for their daily living as well as in case of punctual difficulties.

The last two Ugandan censuses of 1991 and 2002 define the household as a group of persons who normally live and eat together. The use of a same definition renders households more comparable across data sources than when changes in the definition occur. It is likely that Ugandan household information was collected in a similar way in 1991 and in 2002<sup>6</sup>. The 1991 and 2002 Uganda Population and Housing Censuses are therefore very useful sources of information on the vulnerability of older adults, as defined in the previous section.

The older population in Uganda, some characteristics

As we have already seen, the proportion of older adults in Uganda's population is about 5%. Only one in five households includes a person over 60 (Table I). Households are relatively small compared to other African countries (about 5 people), whether or not they comprise an older person. As in many developing countries, strong contrasts exist between rural areas and towns. Only 12% of Uganda's population lived in urban areas in 2002, but households are smaller than in rural areas, with fewer old persons and children. Only 6.6% of households with a person over 60 years old live in town.

**Table I** Household characteristics, drawn from the 1991 and 2002 Population and<br/>Housing Censuses<sup>a</sup>

	1991	2002
Average household size	4.6	4.7
Proportion of households comprising at least one older person	19.1%	18.5%
Average size of the households comprising at least one older person	5.2	5.0
Proportion of urban households	13.3%	14.7%
Proportion of urban households among households comprising at least one older person	5.8%	6.6%
Total number of households in the samples used	339166	529271
Proportion of the population in urban setting	11.6%	12.2%
Proportion of older people in the total population	5.0%	4.7%
Proportion of women among the older population	50.9%	49.5%
Total number of older people in the samples used	77662	116655

a. The microdata used in this paper are the IPUMS-International 10% samples for Uganda and we are grateful to the UBOS and to IPUMS-International for making these available.

<sup>6.</sup> Contrarily to employment status which seems to present a suspiciously high variability over time (Golaz, 2010)

Table 2 Older persons, by household type, gender and place of residence (urban/rural) according to the 2002 census (10% sample)	ehold type,	gender and pla	ace of residen	ice (urban/r	ural) accordin	g to the 20	02 census (10%	sample)
		Rural			Urban		Uganda	da
Older person	Men	Women	Total	Men	Women	Total	Proportion	Total
with at least one other adult	85.9%	78.0%	89549	82.8%	81.9%	6178	82.1%	95727
with children only	1.9%	9.4%	5771	1.9%	8.1%	396	5.5%	6467
alone	12.2%	12.6%	13532	15.3%	10.0%	929	12.4%	14461
Structural vulnerability	14.1%	22.0%	17.7%	17.2%	18.1%	17.7	17.9%	20928
Total	55525	53627	109152	3380	4123	7503	116655	116655

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Ch	Characteristic of Household	60 to 64	65 to 69	70 to 74	75 to 79	80+	Total
Older men	with at least another adult	86.8%	86.2%	84.7%	84.1%	85.3%	50517
	with children only	1.9%	2.0%	2.0%	2.0%	1.6%	1102
	alone	11.4%	11.9%	13.3%	13.9%	13.1%	7286
	Structural vulnerability	13.3%	13.9%	15.3%	15.9%	<i>14.7%</i>	14.2%
	Total	19763	12743	11233	5877	9289	58905
Older women	with at least another adult	80.3%	79.3%	75.4%	75.9%	77.9%	45210
	with one child only	10.1%	9.3%	10.3%	8.8%	6.9%	5365
	alone	9.6%	11.5%	14.3%	15.3%	15.3%	6366
	Structural vulnerability	19.7%	20.8%	24.6%	34.1%	22.2%	20.3%
	Total	19422	11288	11637	5182	10221	57750

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In Uganda, men over age 60 are almost as numerous as women. Differences in living conditions between genders are very pronounced at these ages, particularly because of widowhood, a phenomenon mainly concerning women (Antoine and Golaz, 2009). Approximately one in every two older women is a widow, versus one man in 10, which corresponds to the African average (Schoumaker, 2000). Earlier widowhood among women is due to differences in age between spouses and to remarriage, which is more common among men. Men and women have very different lifestyles by place of residence. We shall thus use gender and place of residence, in addition to age, to define conditions of vulnerability among the older population.

### Situations of vulnerability related to household composition

Let us first focus on structural vulnerability, the form of vulnerability concerning older persons living alone or with several children in their care.

Most older persons live with other adults (Table 2). Men, in particular, are more often with other adults than women, a fact which can be largely explained by earlier widowhood in women. Women in both rural and urban settings are more often alone with children than men (8-10% of women and only 2% of men). In about half of the cases, they live with one child only, but in the other half, they live with more children<sup>7</sup>. About 12% of older adults live alone. This is more common for men living in urban areas (15%). It is less so for older women living in urban areas - which can be attributed to predominantly male labour migration to Kampala. The older the person, the more likely it is that he or she will live alone, particularly for women (Table 3).

Structural vulnerability as defined here affects approximately 15% of the older population in Uganda, with women being 1.5 times more affected than men. The proportion of vulnerable older people seems to be declining slightly for men and increasing for women (Table 4). Women are increasingly in a situation of structural vulnerability, mostly because of the increasing proportion of older women with dependent children, but also because of the increasing proportion of older women living alone.

Table 4 Older men and women in structural vulnerability	Table 4 Older	men and	women in	structural	vulnerability
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	1991 Census	2002 Census
Men	14.8	14.2
Women	18.3	20.3
Total	77662	116655

Again according to the 2002 census, 31% of these children are the children or stepchildren of an elderly person, and 65% are other relatives, probably of the children's generation or the next (grandchildren, ...).

In conclusion, while isolation is a situation shared by both sexes, structural vulnerability is largely a female phenomenon, due to the significant number of older women with several dependent children. This phenomenon is growing among women, and isolation mainly affects people over age 70. Older men living in urban areas are more often isolated than others and women living in urban areas are less isolated but are equally likely to have dependent children as in the rural areas.

#### Relationship between older persons and the household head

Most elderly people live with other adults. But access to resources is sometimes dependent upon their position in the household. Among older persons living with other adults, those declared as household heads can be distinguished from the others. Household members who are not close to the household head are sometimes marginalized, and therefore deserve special attention. Due to their distant relationship to head of household, their access to household resources is potentially fragile so we consider them as vulnerable.

Big differences exist between men and women in that older men are more likely to be in positions of household head than women (Table 5). While almost 90% of men over age 60 are household heads, this is the case for about 50% of women. However, many more women than men are living with their spouse or with sons. But nearly a fifth of them (versus only 10% of men) live with other relatives. These proportions increase with age (Table 6), with men being gradually divested of their position of household head from age 70. We note that as their age increases,

Table 5 Relation to the head of household by place of residence (urban / rural) according to the 2002 Census	ad of househo	ld by place of	residence (	urban / rui	ral) accordin	g to the 2(	002 Census	
		Rural			Urban		Uganda	а
	Men	Women	Total	Men	Women	Total	Proportion	Total
Household head	89.5%	51.8%	77434	78.8%	51.5%	4787	70.5%	82221
Spouse or parent	1.4%	28.4%	15975	2.8%	19.2%	886	14.5%	16861
Other relative	6.8%	18.4%	13668	11.4%	25.3%	1428	12.9%	15096
Non-related / DK	2.3%	1.4%	2075	7.0%	4.0%	402	2.1%	2477
Relational vulnerability	9.2%	19.9%	15,743	18.4%	29.3%	1,830	15.1%	17,573
Total	55525	53627	109152	3380	4123	7503	116655	6655

older Ugandans are increasingly likely to be supported by people distant from their original family unit<sup>8</sup>, and sometimes non-relatives.

Let us look at the results on relational vulnerability specifically. According to the census, the proportion of older people concerned by this phenomenon is declining slightly, and is about 10% for men and 20% for women (Table 6).

			Men			
	60 to 64	65 to 69	70 to 74	75 to 79	80+	Total
Household head	91.6%	92.2%	90.6%	88.8%	76.4%	52336
Spouse or parent	1.0%	1.0%	1.2%	1.4%	3.5%	859
Other relative	5.0%	4.8%	5.8%	7.4%	16.0%	4172
Non-related / DK	2.4%	2.0%	2.4%	2.5%	4.1%	1538
Relational vulnerability	7.4%	6.8%	8.2%	9.9%	20.1%	9.7%
Total	19763	12743	11233	5877	9289	58905
			Women			Total
	60 to 64	65 to 69	70 to 74	75 to 79	80+	
Household head	51.2%	51.2%	56.2%	55.1%	46.5%	29885
Spouse or parent	35.0%	31.9%	23.6%	21.4%	17.0%	16002
Other relative	12.4%	15.4%	18.7%	21.8%	34.1%	10924
Non-related / DK	1.4%	1.6%	1.4%	1.7%	2.4%	939
Relational vulnerability	13.8%	17.0%	20.1%	23.5%	36.5%	20.5%
Total	19422	11288	11637	5182	10221	57750

Table 6 Relation to the head of household by age according to the 2002 Census

 
 Table 7 Changes in relational vulnerability according to the 1991 and 2002 Population and Housing Censuses

	1991 Census	2002 Census
Men	11.2	9.7
Women	21.3	20.5
Total nr of individuals	77662	116655

In conclusion, situations of relational vulnerability, implied by the presence of

older adults in private households that are not those of their spouse or of their

<sup>8.</sup> Family relationship is given with more precision although it is not sufficient. We can only state here that less than 3% of women aged over 60 years living with other adults are with a brother or sister. This proportion is the same at any age: although women over 80 are more often living in other households, they are still as rare in the households of their brothers and sisters. Could it be possible here that the brothers and sisters of an old woman are not considered as brothers and sisters?

children, remain stable over the years. These elders mainly live with distant relatives. This form of vulnerability affects twice as many women as men, increases with age and is more prevalent in urban than rural areas, where it is nonetheless common.

# 3 Vulnerable older adults and disability

Different components of vulnerability may be aggregated and expressed in terms of the entire older population (Table 8). About 40% of older women and 25% of older men may be classified as vulnerable under the definition adopted here. The two forms of vulnerability affect women more than men, twice as much in some cases, with the exception of structural vulnerability in urban areas that reflects a higher proportion of older men living alone in the city. Relational vulnerability for men increases with age (Table 9). Relational vulnerability of men doubles at the age of 80, which probably shows that at these ages, men experience widowhood, as do women, and tend to live more often with distant relatives or unrelated people than as couples.

 Table 8 Vulnerability situations by place of residence and gender (2002 census, 10% sample)

Situation	R	ural	Total	U	rban	Total
	Men	Women		Men	Women	
Not vulnerable	77.9%	62.9%	76977	68.2%	57.5%	4675
Structural vulnerability	13.1%	17.5%	16634	16.3%	14.2%	1135
Relational vulnerability	9.0%	19.7%	15541	15.6%	28.3%	1692
Total	55525	53627	109152	3380	4123	7503

 Table 9
 Vulnerability situations by age and gender (2002 census, 10% sample)

Men	60 to 64	65 to 69	70 to 74	75 to 79	80+	Total
Not vulnerable	80.5%	80.6%	77.9%	75.7%	66.7%	45571
Structural vulnerability	12.3%	12.9%	14.3%	14.7%	13.8%	7823
Relational vulnerability	7.2%	6.5%	7.9%	9.5%	19.5%	5511
Total	19763	12743	11233	5877	9289	58905
Women	60 to 64	65 to 69	70 to 74	75 to 79	80+	Total
Not vulnerable	70.2%	69.4%	62.7%	50.2%	49.9%	36890
Structural vulnerability	14.8%	14.5%	20.3%	17.3%	20.3%	9138
Relational vulnerability	13.3%	14.7%	20.6%	20.6%	39.8%	11722
Total	19422	11288	11637	5182	10221	57750

	M	en	Woi	men
	1991	2002	1991	2002
Not vulnerable	75.7	77.3	64.9	62.5
Vulnerable, of which	40.3	52.3	46.6	60.6
Structural vulnerability	13.9	13.3	14.5	17.2
Relational vulnerability	10.4	9.4	20.6	20.3
Total sample	38112	58905	39550	57750

 Table 10 Vulnerability trends from 1991 to 2002

These results on vulnerability point at situations that deserve a closer look with regard to poverty, distribution of resources within the household and the status of older adults in general. One relevant issue concerning the state of the older population is access to health care. The available data do not provide information about this, but one can look at the situation of older people regarding disabilities. According to the 2002 census, disability is defined as any situation lasting more than six months that hampers a person in terms of the type or volume of activity they are able to perform. Vulnerable older people

are more likely to have a disability than others (Table 11) and this is even truer for those affected by structural vulnerability. Thus their vulnerability is even more severe than what is measured here. These results are worrying and are indicative of probable lack of adequate support from the family (or inadequate care), although incapacity does not necessarily imply dependence. However, it is also possible that expectations towards the State could have led to overestimations of disabilities in the census, especially among the people in dire need.

	Men	Women	Total	Proportion with incapacity
Not vulnerable	77.3%	62.5%	70.0%	16.5%
Structural vulnerability	13.3%	17.2%	15.2%	22.0%
Relational vulnerability	9.4%	20.3%	14.8%	16.6%
Total	58905	57750	116655	20220

Table II Vulnerability and incapacities (2002 census)

### Conclusion

The construction of two complementary indicators of vulnerability based on census data on household structure enables us to better capture the changes that have occurred over the past decades. We should underline here that older men and older woman are about equal in number. Men are less frequently in situations of vulnerability, however. Logically, the prevalence of vulnerability among older adults increases with age, but it has also increased a lot from 1991 to 2002. Structural and relational vulnerability affect women much more frequently than men. Hence, in line with widely observed social pattern, older men are often regarded as household heads and live with other adults – in most cases with a spouse at least – whom they provide for until late in life. Older women are more likely to be alone, to be with their children, and they often live with quite distant relatives or even unrelated people. Urban to rural differences go both ways, probably due to the heterogeneity of conditions of living in urban areas

Disability is more common among older adults in situations of structural vulnerability than among others, i.e. who live alone and have children in their care. Although these results should be taken with caution, in relation to possible misreporting of disabilities in the census, this last aspect suggests that older adults are sometimes left to themselves rather than taken care of in a family setting. Might the erosion of the family support system documented in other countries (eg Aboderin, 2004, Van der Geest, 2002) also be taking root in Uganda?

These results support the importance of developing a country-wide system of social support for the older population that could be promoted by the state. Different groups of the older population are more likely to be vulnerable: women, older old people, older adults with incapacities seem to be more vulnerable than others. These groups are in need of an even greater support. We can note that the population census is a crucial data source for providing basic measures of vulnerabilities. We would recommend a special attention in handling policy-related indicators such as disability or even employment status – so that they are precisely defined and comparable over time and as little as possible liable to potential declaration biases.

Furthermore, there is a need to go further in understanding the intergenerational relationships involving older that vulnerability-related adults so issues affecting this population can be targeted through appropriate public policies. More in-depth studies are necessary to assess the share of the vulnerability of older adults measured by our concepts of structural and relational vulnerabilities, to understand the flexibility of living arrangements better, and to account for the relationships surrounding older adults beyond the household, in particular close relatives or friends providing regular affective or economic support.

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