Profiling the elderly: Understanding recent trends in acceleration of African population ageing

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Introduction

Recently, the world's population has experienced a remarkable transition from a stage of high birth and death rates to one characterised by low death rates. The core of this transition has been the growth in the number and proportion of older persons. In the history of civilization, the unprecedented growth in the elderly population has been remarkable and calls for urgent attention to the needs of the elderly. As the tempo of ageing in less developed countries (LDCs) is more rapid than in more developed countries (MDCs), LDCs will have less time to cope with the effects of population ageing than MDCs. Since ageing involves social, behavioural and biological processes, studies that range from genetic contributions to chronic disease susceptibility (e.g., Olshansky et al. 2005) to the effects of economic growth on elder's living arrangements (e.g., McGarry and Schoeni 2000) are inevitable. Ageing involves many multifaceted processes that have implications at the micro level for the analysis of individual lives and at the macro level for the analysis of population and historical changes (Schafer and Ferraro 2009).

The unprecedented international demographic change has resulted in some striking imbalances. For example, the United Nations (2009) reports that one out of five Europeans compared with one out of twenty Africans is 60 years or older. Considering the rapid pace of ageing in Africa over the last few years, we take advantage of the African census archival data to assess the recent paths of population ageing, report on future levels of indicators of ageing and the speed at which they change. We will show how these depend on whether changes in longevity are taken into account.

Data and Methods

We will use African census data from selected countries[1] from the 1970s to the most recent round of censuses to document past and estimate future trends in the pace and acceleration of population ageing. The data will come from the archives of the African Census Analysis Project at the University of Pennsylvania (www.acap.upenn.edu) and from IPUMS International at the

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[1] The number of countries selected will depend on the availability of archival data. To a large extent, countries with at least two census data points will be selected. Availability of most recent censuses will be a key criterion for inclusion to enable projection of future trends.

University of Minnesota. There are many merits of adopting a comparative approach to studying population ageing in Africa. Briefly, this approach entails a more specific examination of whether processes or structure differ between nations. For example, structural or policy characteristics of one country may influence its inhabitants' ageing experiences in ways that differ from another country. Africa per se, has gone through (and continues to experience) very different socio-political environments that have implications on the elderly.

After addressing data quality issues, the proposed study will use conventional measures of ageing that are based on chronological age. These measures assume that a 70-year-old person in 1960 was just as old as a 70-year-old person in 2000 because each has lived the same number of years. The issue is whether it is reasonable to say that the two have aged at the same rate. After all, the 70-year-old in 2000 would, on average, have many more remaining years of life. This underscores the fact that population ageing is not only about the presence of more old people but also about people living long lives.

To assess the recent trends and estimate the future trends in the course of ageing, we will employ indicators that explicitly take changes in the remaining life expectancy into account. Compared to the traditional age that matters for institutional arrangements such as pension systems, the measures to be employed will provide more information on the changing human condition in which more people can plan for a longer and healthier life with consequences for their behaviour (Lutz et al. 2008).

The conventional measures to be considered will be the proportion of the population aged 60+ (Prop. 60+), the median age (MA) of the population and its average age (Average). The alternative indicators to measure the proportion of the elderly people do not depend on a fixed age boundary but on a fixed remaining life expectancy. The Prop. RLE 15- is the proportion of the population in age groups that have a remaining life expectancy of 15 years or less. If longevity increases, the minimum age included in Prop. RLE 15- increases. The adjusted version of the MA is called standardized or prospective median age (PMA). It is the age of a person in the year under consideration (e.g., an individual in Ghana in 2000) who has the same remaining life expectancy as a person at the MA in the year under consideration (e.g., 2009). The change in the PMA over a defined period is roughly the change in the MA minus the change in life expectancy at the MA (Lutz et al. 2008).

The adjusted version of the average age is the population average remaining years of life (PARYL). It is the weighted average of age-specific remaining life expectancies, where the weights are the proportions of the population at each age. PARLY provides the average remaining years of life of population members. Unlike the other measures, PARYL goes down as a population ages.

Country specific life tables associated with the census year will be used. In the absence of these life tables, indirect methods will be used to generate life tables. Where necessary, the WHO series of life tables for Africa, the United Nations Life tables and the INDEPTH Model Life Tables will also be

used in the analysis.[2] We will assess the future levels of ageing up to 2020, a period that covers the deadline for meeting the Millennium Development Goals and also a period that minimises uncertainty in the estimates particularly for most recent censuses.

Conclusion

Majority of African governments are experiencing a myriad of socioeconomic and political problems. Policy interventions that include social and human, as well as economic investments benefiting the elderly are virtually lacking in many African countries. Supplementing the conventional measures of ageing with ones that incorporate longevity change provides a more understanding of how these dimensions are expected to evolve. In addition to changes in its level, the speed of ageing is very critical since problems associated with adjusting to demographic change increases with the speed of aging. We expect countries with low fertility levels to experience rapid population ageing after taking longevity into consideration. In addition, we hope that this study will contribute to the knowledge of past and future acceleration of African population ageing and call attention of policy makers to address issues that affect the elderly.

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[2] The use and applicability of life tables will vary depending on the available data and demographic trends in the selected country. The absence of reliable life tables for some African countries poses a challenge in the analysis of future demographic scenarios. These and other related issues will be taken into consideration in order to come up with results that meet scientific standards.