Living Arrangements of the Elderly: Trends, Drivers, and Implications for Global Aging Societies

David Reher (Universidad Complutense),

Maria Pohl (Universidad Autónoma de Barcelona),

Federica Becca (Centre d'Estudis Demogràfics),

Albert Esteve (Centre d'Estudis Demogràfics and Universidad Autónoma de Barcelona)

Presentation / abstract

Understanding the living arrangements of older adults is crucial for addressing the growing and diverse needs of aging populations. These arrangements vary significantly across societies, as well as by gender and educational level. However, we lack a comprehensive overview of how living arrangements shape the aging process and the macro-level factors that drive this variation across societies. This paper makes use of household-level data from 405 censuses and surveys, including IPUMS and LFS data, harmonized by the Coresidence Living Arrangements database (CoLADB), in order to provide a general classification of the living arrangements of older adults in societies around the world. We identify key demographic and social factors influencing existing patterns of co-residence and empirically validate their impact. Finally, we forecast future trends in old age living arrangements, based to a large extent on UN population projections. The results highlight the vast diversity in living arrangements among older adults, both within and between countries. Gender, marital status, and educational level emerge as critical factors at an individual level, while demographic conditions, development levels, and social norms regarding co-residence contribute to explaining macro-level differences. In the course of this paper, we hope to explore some of the implications of the different outcomes for societies around the world.

Strategies for assessing the living arrangements of the elderly in the contemporary world

The importance of old age living arrangements for society is difficult to overemphasize, especially in rapidly aging societies. This is unquestionably the case of a wide array of societies around the world, where rates of aging are in a state of rapid growth, unlike the situation existing only a few short decades ago where aging was only extremely important in a relatively small number of societies. Along this line, pinpointing where societies rank on the scale of aging is a preliminary, but important, challenge that is addressed in part in this paper.

Old age living arrangements in any given society is the product of a series of factors including: aging and population trends specific to that society; existing and expected levels of health and wellbeing; the specific needs for care and support among the elderly; the willingness of kin to take on the care of its elderly members by means of co-residence; the financial implications of different co-residential options for society and for the elderly themselves; existing cultural and social values often related to existing family systems; levels of policy and social services existing in different societies; underlying levels of intergenerational support; the independence and autonomy of the elderly themselves, and existing housing markets. In other words, it is the product of factors related to development, to governance and to family organization. Some of these factors are based on the micro or personal characteristics of any given population, while others

may be more macro, referring to society as a whole. Any clear assessment of this question involves a careful understanding of all of these aspects. They are discussed in this paper.

Despite the evident importance of this question, debates tend to be limited by the relative lack of knowledge regarding the specific living arrangements among the elderly around the world. It is not difficult to detect weak points in our understanding of the living arrangements of the elderly, especially in certain regions of the world. Along this line, in most countries there is no systematic assessment of living arrangements among the elderly. Most research focuses on single countries and specific subgroups (eg. Women living alone). Much of this research addresses the situation only for western countries, leaving large parts of the world relatively untouched. Much of it focuses on the importance of living arrangements for different dimensions of health, the economy, or other specific situations. Contrary to what is commonly held, strategies for addressing the challenges of old age show considerably more variability than we might expect, even when analysis is restricted to the most developed world. Gender, place of residence, the availability of kin, levels of health among the elderly, public and private sources of support for the elderly all come into play in the contemporary world. The array of explanations is ample, as are the way they play out in different areas of the world. In an aging world, the residential options available to the elderly constitute an issue of enormous importance. This paper represents a first attempt to crack open this nutshell of determinants affecting the choices of the elderly.

Goals / structure of the paper

This paper is divided into two parts, one of which is dedicated to measuring the actual living arrangements of the elderly and the other to the macro and micro level determinants of residential choices. Our main overarching goal here is to develop a framework for interpreting how these determinants function at present and how are they likely to change in the future. Our goal in this paper is to carry out a global analysis of the living arrangements of the elderly in different societies and at different points of time over the past half century around the world. In order to do this, we will make intensive use of the data made available in the *IPUMS International* data set and in other international repositories that includes a wide variety of countries around the world at very different stages of development, of the timing of their demographic transition, of aging and of many other existing indicators. In other words, it is a global sample in every sense of the world. The size and variety of the data set constitute a major challenge for our analysis. We accept the challenge because it makes the paper unique in many ways, one of the first to address aging (or at least the living arrangements of the elderly) on a global scale. Using only the most developed countries would make the task of generating a convincing paper much easier, but the authors feel that the potential rewards make the challenge and the risk worth taking.

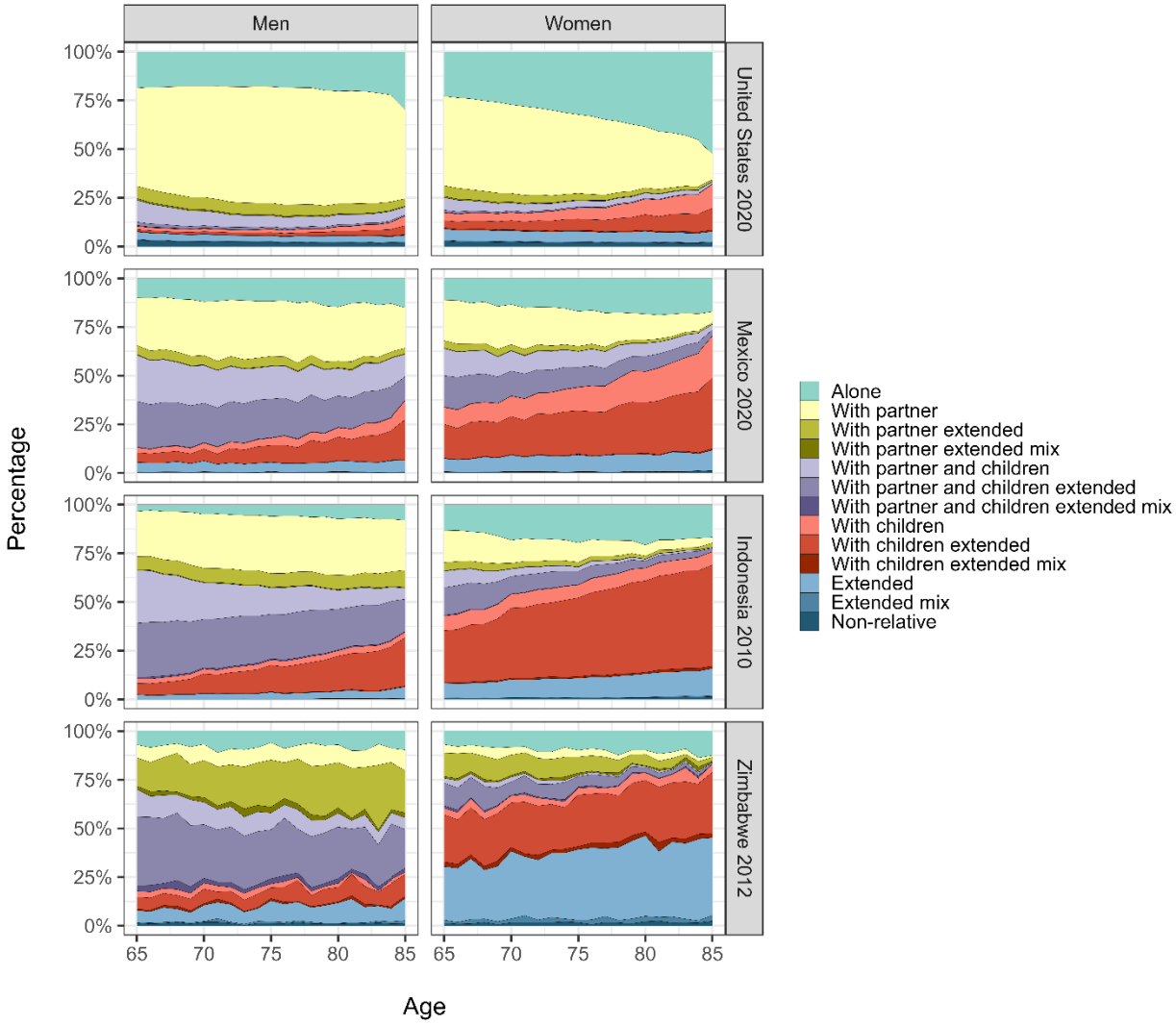
Measuring variations in old age living arrangements across societies

An initial task is to define the way we have set up the basic typology of living arrangements (see suggested typology below in legend of Figure 1). The pre-defined groups refer to persons living alone (10); persons living with a partner/spouse (40 – 42); persons living with partner/spouse and offspring (50-52); persons living with offspring, no partner/spouse (60-62); persons living with extended kin but no partner or offspring (70-71); persons living with non-kin (80). Categories were also designed to reflect other aspects of co-residence, including living in extended and/or extended and mixed households. In this paper, for the most part, these additional data are not included in the analysis so, in fact, we are looking at six different categories of co-residence. This typology represents an attempt to look at the residential situation of the elderly from the standpoint of the elderly themselves.

In order to get an approximate idea of how these strategies play out among the elderly (65 and above), we have chosen to show the detailed distribution (by sex and age) for the following countries: the USA (2020),

Mexico (2020), Indonesia (2010) and Zimbabwe (2022). The array of different types of behavior, both over the life course and around the world are surprising and require careful consideration.

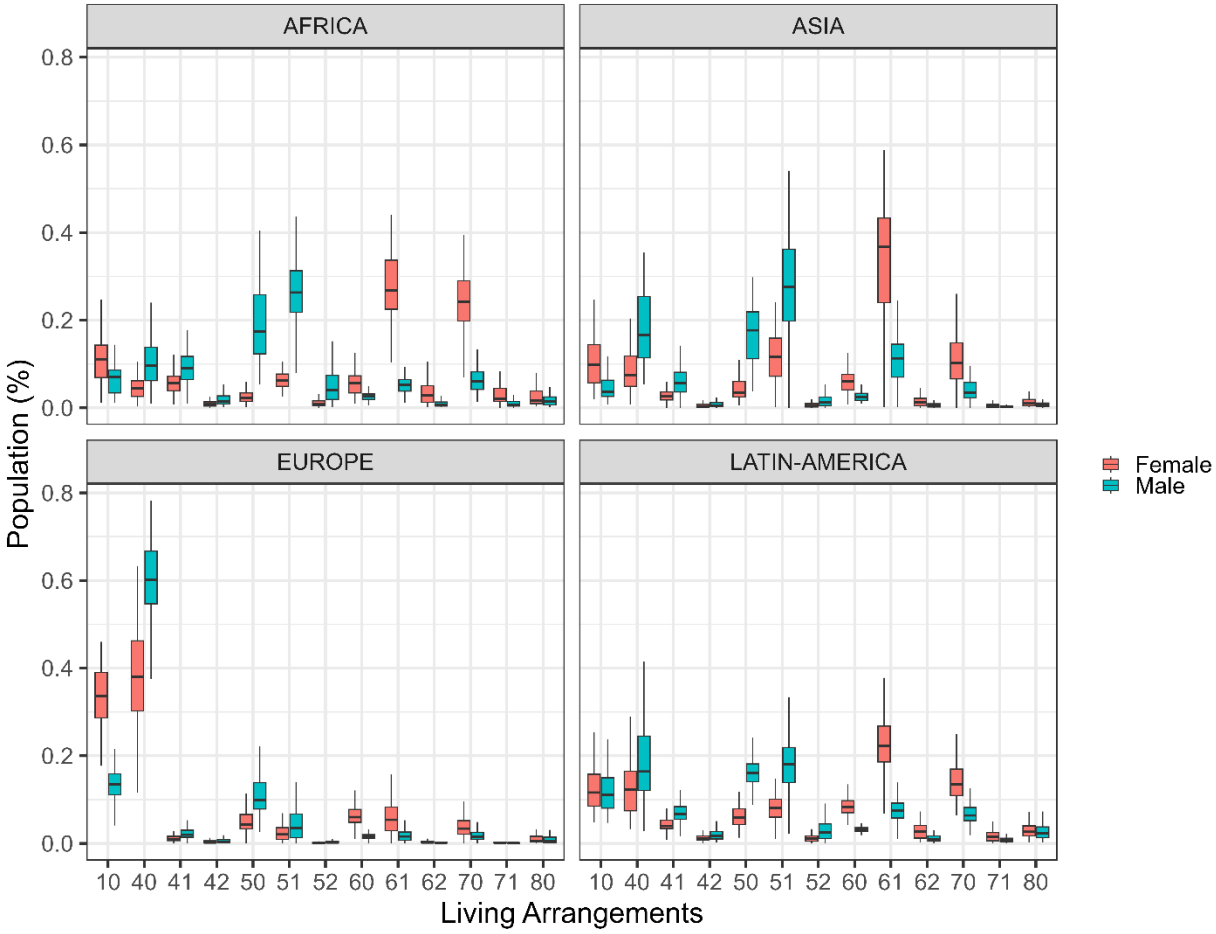
Figure 1. Distribution of Living Arrangements of older adults (age 65-85) by age and sex, in four countries: United States (2020), Mexico (2020), Indonesia (2010), Zimbabwe (2012).



Source: Coresidence Living Arrangements database (CoLADB), Centre d'Estudis Demogràfics

A major goal of this paper is to document this typology across different countries. In the figure below (Figure 2), there is an example of the full spread of possible typologies. On the vertical axis, there is the percentage of the total population represented by the sum of all typologies that, by definition for any single country or region, is 1.0. The horizontal axis has the detailed distribution of typologies. The importance of each category is represented by a boxplot, with females in red and males in blue. The figure is also divided into four parts, where the values for major macro regions are shown (Africa, Asia, Europe and North America and Latin America). The amount of information in this graph makes it very difficult in detail. Nevertheless, the following results warrant mention.

Figure 2. Variability in Living Arrangements by continent and sex, 70-74 years old.



Source: Coresidence Living Arrangements database (CoLADB), Centre d'Estudis Demogràfics

(1) The importance of elderly women alone stands out especially in the most developed world, where nearly 35 percent of elderly women live alone. This figure is far higher than it is with men (nearly double), and much higher than it is in any other region. In this region, living with a partner is also very important, though it is nearly 50 percent higher among men than it is among women. In the most developed world, all other residential options pale by comparison.

(2) In Africa, by comparison, living with a partner and children is much more prevalent among women, especially in the context of extended families. For elderly men, this is not a relevant co-residential option. For men, by contrast, living in extended family households, with or without offspring, ranks highest among all living arrangements.

(3) In Asia, among women the most important option is to co-reside with children in extended family households (nearly 35 percent of all women). For men, on the other hand, the most prevalent option (nearly 30 percent) is to be living with a partner and offspring in an extended family household.

(4) In Latin America, on the other hand, the distribution is not as dominated by single options than it is in other world regions. Here, among females the highest levels of co-residence is found among

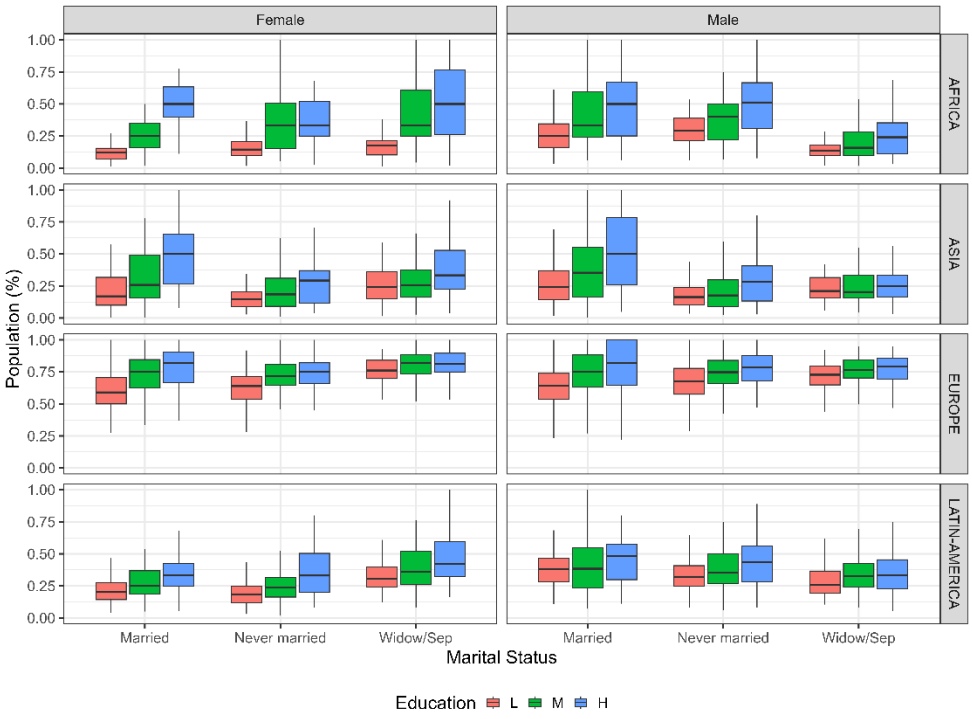
women living in extended households, both with and without offspring. Among men, the highest levels are among men living with a partner or those with children living in extended families.

These initial results are fair testimony to the diversity of world populations with respect to residential options available to the elderly and provides fitting testimony to clear differences existing between males and females.

Variations in living arrangements based on individual (micro) variables such as education and marital status

The two figures presented here include data on the proportion of the elderly (70-74 years of age) living alone or with others and how it is influenced by both micro (sex, marital status, educational attainment), and macro factors (education [as estimated for each ego] and development). To start with, we need to simplify the classification because its complexity makes it extremely difficult to see the main results clearly. We propose to do this in two different categories: 1 for those alone or with only partner; 0 for all other living arrangements. We have named this variable DV and it refers to the likelihood of living alone or with a partner, expressed as a proportion of the entire population (of that age and sex). In the figure below (Figure 3), we plot DV by sex, world region, marital status and educational attainment. Each boxplot refers to females or males and to the relative importance of living alone / with partner among adults 70-74 years of age. These are individual variables that can be included in the model.

Figure 3. Proportion of elderly living alone/with partner by continent, sex, marital status and educational attainment, 70-74 years old (most recent sample).



Source: Coresidence Living Arrangements database (CoLADB), Centre d'Estudis Demogràfics

The structure of Figure 3 is similar in some ways to Figure 2. Again, the entire sample is organized by world region (in the four different panels of the figure). The column on the left refers only to females and the one on the right only to males. In each of the windows of the figure the results for the chosen

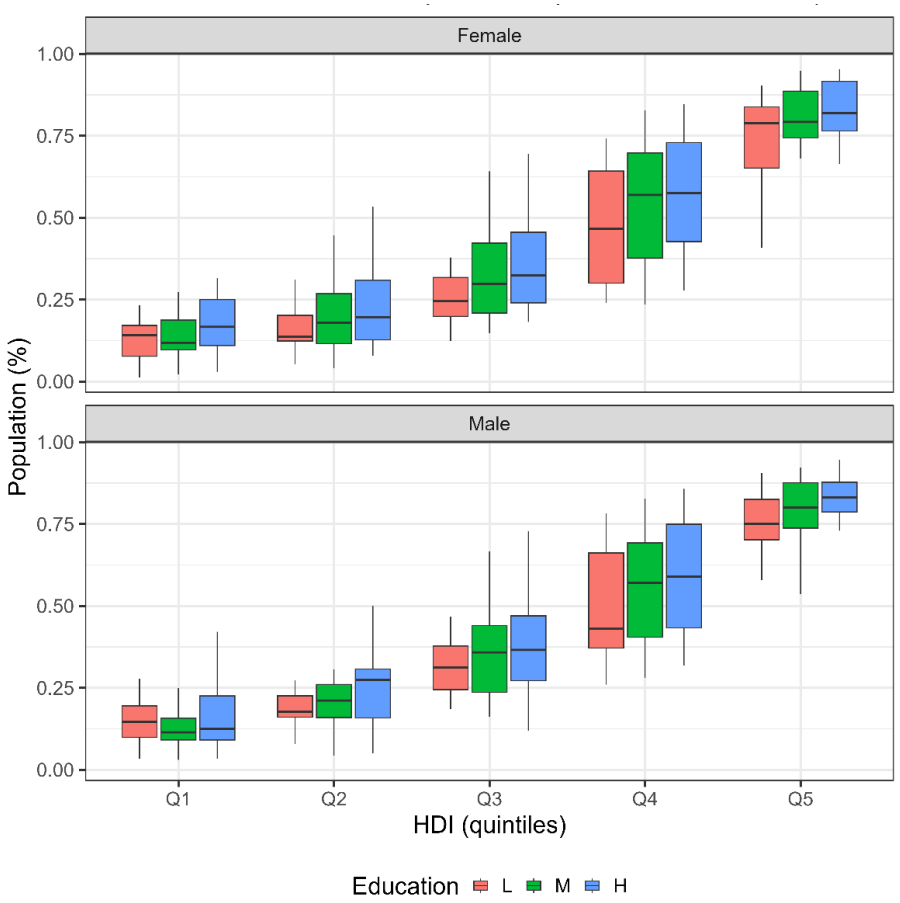
population are shown (say, for example, females and Africa). The color-codings of the bars correspond to educational levels (red = low, green = medium, red = high). Finally, within each window, we find the marital status at the time of the census of the elderly population. Thus, taking the first frame as an example, we have the set of results referring to females in Africa, and we can see the relative importance of education for the proportion of women living alone or with partner at the most recent census date. The same basic interpretation holds for all of the panels in the figure.

Initially it appears that education is only of modest importance in most world regions, with the clear exception of Europe and North America where the importance is manifest. In this last region, however, the proportions of women and men living alone or with others is by far the highest among currently married individuals, though for both men and for women and for all marital statuses, it is clear that the most educated ever-married women and men have by far the highest likelihood of living alone or with others. In this region, education clearly matters. Indeed, of currently married men and women in Europe and North America, living alone is the chosen option for nearly half of those included in the mode. Even among the never married and among widowed/separated women and men, the likelihood of living alone is also somewhat higher among the more educated individuals, though overall levels are much lower than they are with men and women who are currently married. In other world regions, however, results are far from clear.

From this we can conclude that in the most developed world, where the incidence of living alone among the elderly is by far the highest around the world, is precisely where the role of education and of marital status is most relevant. From these data, it is difficult to predict a future trend towards living alone in other world regions. Visualizing a trend like that would require different input data from the type we have here. In any case, the importance of marital status and of education in the most developed world receives clear confirmation from these data. It is much more difficult to forecast a trend towards living alone in later life from countries in other world regions, at least with the micro-level variables we have used.

If we turn to a different mix of variables (in this case, estimates of levels of development) a somewhat different picture emerges. In order do this we have plotted DV for males and females 70-74 years of age (based on the most recent sample), and include sex, education (based on micro variables) and HDI (macro variable) in order to generate the graphs below (Figure 4). The educational gradient appears in the result at all levels of development, though the incidence of living alone or with others is generally higher in the countries with the highest levels of development. These results are clearest in countries of HDI in the fourth and especially the fifth quintile, corresponding to societies that have the highest levels of development. This figure is only exploratory, but it points to an effect that grows with development and education. Since different countries have been classified by quintiles of development, these results do not necessarily refer to societal inputs, but rather to those associated with levels of societal wealth and development. While we also consider education to be a macro factor, for the most part, the data enable us to estimate it for individuals present on the census. It is important to bear this in mind when interpreting results.

Figure 4. Proportion living alone/with partner by sex, HDI quintiles, and educational attainment, 70-74 years old (most recent sample)



Source Coresidence Living Arrangements database (CoLADB), Centre d'Estudis Demogràfics

Forward from here: future developments

An immediate goal for this paper is to run a linear regression model in which the percentage of elderly living either alone or only with partner is modelled using individual variables (sex, educ, marital status) and macro level variables (HDI, availability of children, Life expectancy, and lag variables regarding coresidence earlier co-residence patterns). This strategy is based on the idea that there are two families of proximate determinants that can and should be included in the model: strictly demographic determinants and socio-economic determinants. Age, marital status, sex and education are introduced based on the micro data that we have at our disposal. Then the macro factors –mainly HDI- can also be introduced. We expect to use all ages within these models, despite the fact that 70-74 was used in parts of this proposal. Our goal will be to estimate a synthetic portrait of living alone that can be used to calibrate different populations. We expect differences to emerge for many of the variables, and these will help define the specific position of different societies around the world.

Once the models are specified, we will also attempt to test the extent to which it can be used to project rates of living alone into the future. This part of the analysis is, of course, exploratory, mostly because of the effect changes over time. Despite this drawback, we hope to be able to show the potential pathways for countries at different stages of aging.