Aging Independently: Understanding Older Adults' Living Arrangements Across Societies

Maria Pohl[1,2], Federica Becca[1,2], Albert Esteve[1,2], David Reher[3]

[1] Universidad Autónoma de Barcelona, [2] Centre d'Estudis Demogràfics; [3] Universidad Complutense de Madrid

Short Abstract

Living arrangements among older adults are heterogeneous and reflect contextual factors such as population aging, economic development, cultural norms, as well as individual characteristics. Although coresidence with children or grandchildren remains common, independent living, either alone or with a spouse, has become increasingly prevalent. Yet, the fundamental determinants of independent living at older ages remain poorly understood. Combining census and survey data from the harmonized novel Global Living Arrangements Database (GLAD) with Demographic and Health Survey (DHS), this article examines the determinants of independent living arrangements among older adults aged 65 to 85 across 128 countries and 550 country-year samples, over the past six decades. We conduct descriptive and multilevel analysis, combining individual-level characteristics (age, sex, marital status, and educational attainment) with macro-level determinants such as share of older adults in the population, a development indicator (proxied with HDI), and level of values secularization. We compare the prevalences of living alone or with a spouse to other forms of living arrangements, and assess cross-national and temporal variation. Our findings highlight the dominant role of macro-level determinants such as the share of older adults in the population, economic development, and value systems in explaining differences in the share of independent living in later life across societies and over time.

Extended Abstract

Introduction

Population aging is an undeniable demographic reality for most countries around the world. What remains far less certain, however, is how populations across societies will experience the aging process and organize their living arrangements accordingly. Broadly speaking, two main patterns emerge: in Europe and other high-income countries, older adults tend to live independently, either with a spouse or alone. In contrast, in much of the Global South, it remains relatively more common for older adults to live with their children or as part of extended family households, to assist younger generations in their transition to adulthood, to provide care for grandparents, or to receive support from kin and non-kin contexts where social security or pension systems remain limited.

In 2005, the United Nations carried out what remains the most comprehensive study to date on the living arrangements of older persons across societies (United Nations, 2005). This study established much of the terminology that underpins current research on the topic, including the concept of aging independently. This report was followed by two brief and descriptive updates (United Nations 2017; Kamiya & Hertog, 2020), and a dataset on the living arrangements of older adults was provided by the United Nations in 2017 (United Nations, 2017). To date, no comparative global study has been conducted to examine and analyze the evolution of living arrangements and their relationship with three major parameters associated with modernization: demographic change, development, and the secularization of values.

Building on this gap, in this article we combine data from the novel Global Living Arrangements Database (GLAD) and Demographic and Health Surveys (DHS), to analyze living arrangements on a global scale, distinguishing between independent and non-independent living arrangements. We further examine their relationship with core indicators of demographic structure, levels of human development, and degrees of secularization. More specifically, we analyze data from 550 country-year samples, covering 128 countries over the past six decades, representing nearly all world regions, to provide first answers to the following research questions: *(1) What are the fundamental determinants of living independently at older ages across countries?* and *(2) To what extent are differences in living independently at older ages driven by individual-level and contextual l factors?*

The article makes two core contributions to the literature: First, we provide a comparative and cross-national overview of independent living arrangements at older ages, to foster a better understanding of the prevalence of independent living arrangements and variation therein across societies and over time. Second, we examine fundamental determinants of differences in independent living at older ages across societies. Analyzing the role of individual-level and contextual-level factors can contribute to providing insights into the complex interplay of determinants of living arrangements at older ages in the context of global population ageing.

Data and Methods

This study primarily uses harmonized census and survey data obtained via the novel open-access and open-source Global Living Arrangements Database (GLAD) (Galeano & Esteve, 2025a), which harmonizes microdata from censuses obtained from the International Integrated Public Use Microdata Series (IPUMS-International) and survey data from the European Labor Force Survey (EU-LFS). Thus, the GLAD provides comprehensive data on living arrangements across continents, countries, samples, by sex, age, marital status, and educational attainment for 107 countries, comprising 392 data points over time from 1960 to 2021 (Galeano & Esteve, 2025b). The database represents the household population and classifies individuals into 19 possible living arrangement types (LAT), ranging from living in a unipersonal household ("Alone") to more complex forms of co-residence ("With partner and children extended composite"). The living arrangement types are constructed based on the underlying micro-data at the individual level, and they reflect the living arrangements from each individual's perspective ("ego") in the household. This information is then aggregated by five-year age groups and individual-level characteristics, such as sex, harmonized educational attainment, and marital status. A more detailed overview of the data harmonization process, as well as the construction and contents of the GLAD, is provided by Galeano & Esteve (2025b). We further include all samples from the Demographic and Health Survey (DHS) for which household files were available and that contained information on the required individual-level characteristics and intra-household relationships, to increase the spatial and temporal coverage of our study, reaching a total of 163 country-year samples.

Additionally, we include information for three contextual determinants: (1) the share of older adults in the population, as a measure of the heterogeneity of the aging process across countries, obtained from the United Nations World Population Prospects (United Nations, Department of Economic and Social Affairs, Population Division, 2024); (2) the Human Development Index (HDI), obtained from the United Nations Development Programme (2025), and (3) the Secularity Index, obtained from two dimensions of cross-cultural diversity of the World Value Surveys (Inglehart et al, 2020). The latter reports a score that indicates traditional versus secular-rational values following the definitions provided by Inglehart and Welzel (2005). The first two indicators were obtained for each country and year corresponding to a sample in our dataset. For the last indicator, due to data availability, we use the score for the closest available point in time, up to five years before or after the year of the corresponding sample. This process results in three datasets, whose composition differs based on the availability of the three contextual indicators, as shown in Table 1.

Dataset 1 includes only information on the share of older adults in the population, and covers all 128 countries, yielding 550 country-year samples, covering almost six decades and all continental regions. Dataset 2 comprises both the share of older adults and the HDI. Because the HDI is unavailable prior to 1990, coverage declines to 448 country-year samples. Dataset 3 additionally incorporates the

Secularity Index, whose availability is relatively limited compared to the first two indicators. This results in 67 samples with complete information on all three measures. Table 1 displays the availability of samples by decade, continental region, and by the three Datasets. For ease of visualization of the descriptive findings and the analytical results, we grouped Asia and Oceania, and Europe with North America. A detailed overview of the sample characteristics of the three datasets is provided in Table 2.

Table 1. Sample Selection

	1960-70	1980	1990	2000	2010-20	All Decades
Countries	33	47	66	107	103	128
Samples	42	49	87	175	197	550
Samples by continental regions						
Africa	5	12	25	52	77	171
Asia & Oceania	7	13	29	36	37	122
Europe and North America	8	6	12	54	56	136
Latin America	22	18	21	33	27	121
Dataset composition based on availability of contextual indicators						
Dataset 1: Share older adults	42	49	87	175	197	550
Dataset 2: Share older adults + HDI	-	-	81	172	195	448
Dataset 3: Share older adults + HDI + Secularity Index	-	-	-	8	59	67

Source: Global Living Arrangements Database (GLAD) and DHS data.

Table 2. Sample Characteristics

		Dataset 1: Samples with share older adults					Dataset 2: Samples with share older adults + HDI			Dataset 3: Samples with share older adults + HDI + secularity index	
		1960-70	1980	1990	2000	2010-20	1990	2000	2010-20	2000	2010-20
N Samples		42	49	87	175	197	81	172	195	8	59
Average Proportion Older Adults Living Independently		0,28 (0.07-0.70)	0,27 (0.03-0.76)	0,26 (0.03-0.82)	0,37 (0.02-0.93)	0,34 (0.01-0.96)	0,27 (0.03-0.82)	0,37 (0.02-0.93)	0,34 (0.01-0.96)	0,32 (0.14-0.86)	0,48 (0.04-0.95)
Individual-level Factors											
Age											
65-69	*Ref*	0,41	0,40	0,41	0,39	0,41	0,41	0,39	0,40	0,35	0,4
70-74		0,31	0,30	0,30	0,31	0,30	0,29	0,31	0,30	0,32	0,284
75-79		0,17	0,18	0,18	0,19	0,18	0,19	0,20	0,20	0,20	0,20
80-84		0,12	0,12	0,11	0,11	0,12	0,12	0,12	0,13	0,13	0,127
Sex											
Male	*Ref*	0,47	0,47	0,47	0,46	0,47	0,46	0,46	0,47	0,45	0,46
Female		0,54	0,54	0,54	0,54	0,53	0,54	0,54	0,53	0,55	0,54
Marital Status											
Married	*Ref*	0,53	0,54	0,54	0,54	0,51	0,54	0,54	0,51	0,54	0,53
Single		0,1	0,09	0,10	0,10	0,13	0,10	0,10	0,13	0,09	0,12
Sep/Div/Wid		0,37	0,37	0,36	0,36	0,37	0,36	0,36	0,37	0,37	0,36
Educational Attainment											
Low	*Ref*	0,92	0,93	0,85	0,74	0,61	0,84	0,74	0,61	0,72	0,54
Medium		0,07	0,06	0,10	0,17	0,22	0,11	0,17	0,22	0,22	0,28
High		0,01	0,01	0,05	0,10	0,17	0,05	0,10	0,17	0,06	0,18
Contextual Factors											
Share Older Adults		5,36 (2.25-14.20)	5,27 (1.33-15.10)	5,37 (2.15-15.88)	7,69 (1.96-19.64)	8,03 (1.76-22.45)	5,48 (2.15-15.88)	7,66 (1.96-19.64)	7,91 (1.76-22.45)	6,46 (2.18-15.30)	10,9 (1.83-22.00)
HDI		-	-	-	-	-	0,58 (0.22-0.87)	0,66 (0.34-0.91)	0,67 (0.35-0.94)	0,66 (0.42-0.89)	0,76 (0.37-0.94)
Secularity Index		-	-	-	-	-	-	-	-	0,00 (-1.11-2.06)	0,00 (-1.74-1.80)

Note. All individual-level factors refer to the average proportion of the older adult population with respect to the characteristics across the samples. For contextual factors, the table indicates the average across the samples. In Parenthesis: min-max. Values for the Secularity Index are standardized to have mean equal to 0.

Source: Global Living Arrangements Database (GLAD) and DHS data.

Analytical strategy

We examine the determinants of variation in older adults' living arrangements by classifying them into dependent versus non-independent (or other) living arrangements. Our dependent variable, *independent living*, is defined as the proportion of individuals aged 65 to 85 living alone or with a partner (1) versus the proportion living in all other arrangements (0), following the methodology proposed in a recent United Nations report on older adults (Kamiya & Hertog, 2020). We aggregate these proportions by age, sex, marital status, and educational attainment.

The grouping is based on the premise that the determinants of living alone or with a partner at older ages are expected to be similar and primarily conditioned by marital status and spousal survival. Older adults tend to live alone either if they have never married or are widowed or separated, whereas those who are married and whose spouse is still alive tend to live with their partner. By contrast, the determinants of living in other living arrangements (*e.g.*, with children, grandchildren, or other relatives) are likely more complex and extend beyond individual characteristics such as marital status and spousal survival.

For GLAD samples, we construct the dependent variable from the Living Arrangement Type (LAT) variable. We grouped the categories “Alone” and “With partner only” as the dependent living (1), and all remaining LAT categories as non-independent living (0). For samples from DHS, we used information on household size (HV012) and relationship to head (HV101). Older adults aged 65 to 85 whose household size is 1 are classified as “Living alone”, whereas those whose household size is 2 and the relationship among the household members is classified as “Spouse” and “Household head”, are classified as “Living with a partner only”. These cases are coded as dependent living (1), while all others as non-independent living (0).

We consider individual and structural determinants of living arrangements in the analysis. The first group comprises core demographic characteristics that are expected to influence living arrangements at older ages. These are *age* (five-year age groups), *sex* (male; female), *marital status* (married; divorced/separated/widowed/; never married), and *educational attainment* (low; medium; high). The structural factors are divided into a demographic, a development indicator, and a value indicator. The demographic indicator, *share elderly*, is the proportion of the population aged 65+ in the sample, which provides insights about the aging of the population. The developmental indicator is the Human Development Indicator (*HDI*) for the year corresponding to the year of each sample. The *secularity index* corresponds to the dimension of traditional versus secular-rational values, included in the Inglehart-Welzel Cultural Map. This indicator is one core dimension to measure cross-cultural variation. Countries are positioned along a scale based on the importance and authority of religion, fatherland, and the family (Inglehart & Welzel, 2005).

Multilevel Models

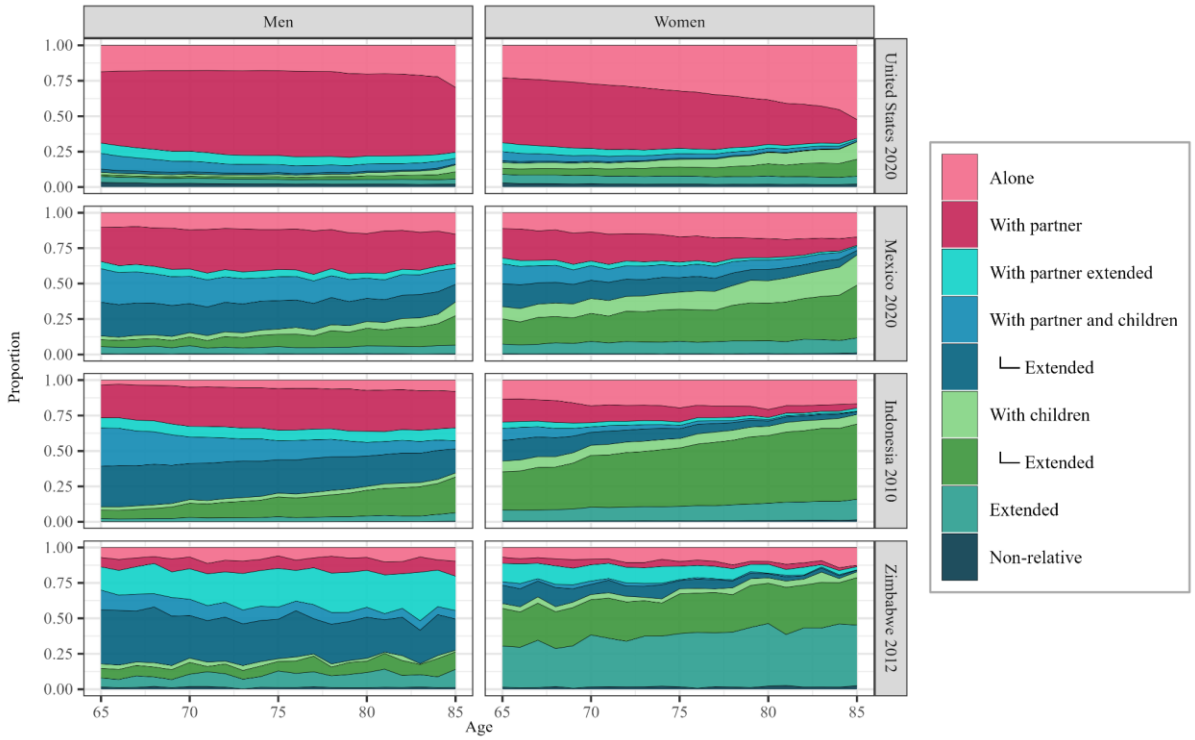
Our final analysis includes six multilevel mixed effects generalized linear models. For each of the three datasets, we include two multilevel mixed effects generalized linear models, one model including only individual controls and one including individual controls as well as the available contextual controls. This design enables within-dataset comparisons because each model pair uses the same set of samples. We evaluated fixed-effects and mixed-effects specifications and, based on the data's hierarchical structure, descriptive patterns, and the Akaike and Bayesian Information Criteria (AIC and BIC), selected a multilevel specification with sample-level random intercepts and fixed effects for individual-level covariates. Between-sample variance was assessed using the intraclass correlation coefficient (ICC). Explained variance was summarized with marginal and conditional R^2, which quantify variance explained by fixed effects alone and by both fixed and random effects, respectively.

Preliminary Findings

Cross-Country Variability of Living Arrangements among Older Adults

Figure 1 displays the proportion of men and women living in different living arrangements for four countries, the United States, Mexico, Indonesia, and Zimbabwe. The countries were selected to showcase the existing diversity in living arrangements across countries in four continental regions, although they are not representative of their respective continental regions.

Figure 1. Living arrangements at older ages by sex in the United States (2020), Mexico (2020), Indonesia (2010), and Zimbabwe (2012)



Source: Global Living Arrangements Database (GLAD).

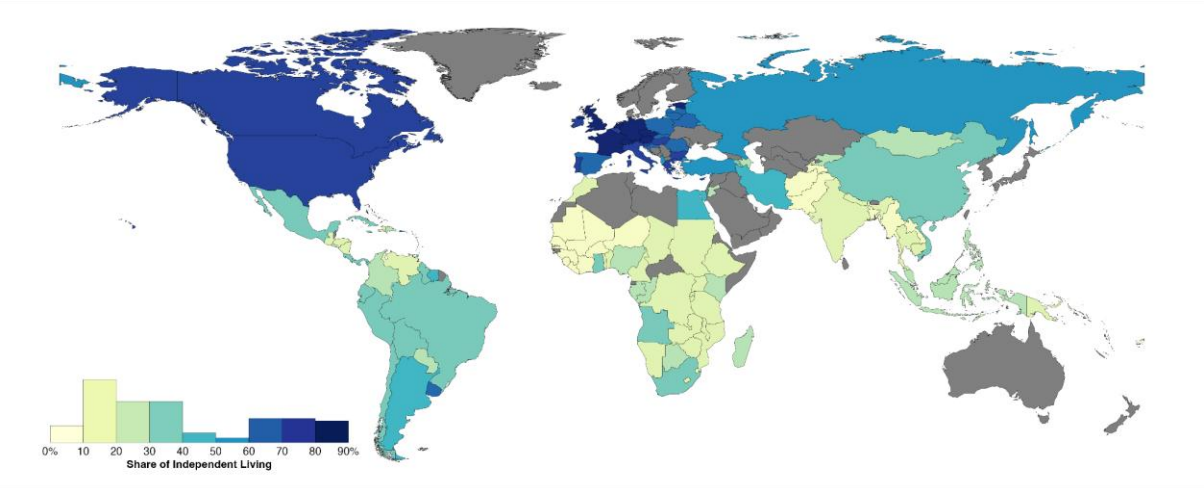
The combination of individuals living alone or only with a partner constitutes our population living independently. We observe distinct patterns by gender that become more pronounced as individuals age. In all four countries, more women live alone, compared to men, with an increase over age. This increase is stronger in the United States, where the percentage of women living alone increases from 20 percent at age 65 to 50 percent at age 85. This increase is mirrored in the decrease of women residing with a partner, suggesting that as women enter widowhood, they tend to live alone. In Mexico and Indonesia, it appears that after a partner's death, the transition to living with children in an extended arrangement is the more common choice. In Zimbabwe, about 10 percent more women live alone at age 85 compared to age 65. However, this group remains small, with most women living either in an extended household with children or in an extended household without children.

For men we do not observe a strong increase in living alone over time. In the United States, around 50 percent of men live only with a partner and this number only decreases slightly at higher ages. Similarly, the share of men living alone or with a partner is nearly constant at younger and older ages in Mexico and Indonesia, although these two nuclear arrangements account for just over 30 percent in Mexico and slightly less in Indonesia. In both countries it appears that a large share of older men live with a partner and children in an extended arrangement at younger ages and without a partner in similar co-residential units at higher ages. In Zimbabwe, nuclear arrangements at higher ages account for just over 10 percent of men at any older age. The majority of men live either with only a partner or with a partner and children in an extended living arrangement.

Living Independently at Older Ages

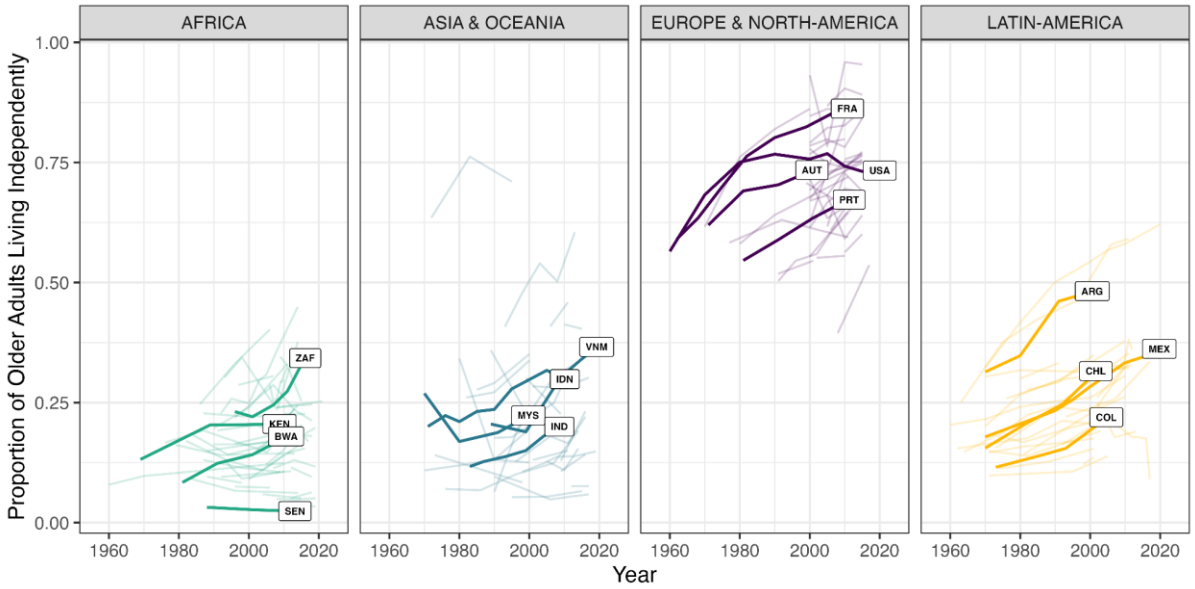
The prevalence of older adults living independently varies vastly across countries. Figure 2 shows the average proportion of older adults in independent living arrangements across countries included in our dataset, for the most recent sample after 2000. The histogram legend provides information about the country-level distribution with respect to the prevalence of independent living. The figure highlights that living alone or with a partner only is most prevalent among European and North American countries. Living independently is less common among countries in Africa, Asia, and Latin America. The figure further illustrates the diversity of living arrangements at older ages on a global scale and the absence of clear regional patterns, with the exception of Europe and North America, where the vast majority of older adults live independently. Similarly, trends over time in the prevalence of older adults living independently, shown in Figure 3, suggest that while the proportion of older adults living independently over time has increased across countries in all world regions, stark differences within and across continental regions remain, in particular among African and Asian countries. It should be noted that the map highlights country-level trends and living arrangements likely differ within countries, for instance across rural and urban areas.

Figure 2. Prevalence of living independently at older ages (most recent sample after 2000)



Note. No data available for countries shaded in grey. For all countries, we use the most recent samples after the year 2000, with the exception of Israel (1995). **Source:** Global Living Arrangements Database (GLAD) and DHS data.

Figure 3. Proportion of individuals aged 65+ living independently over time by country and continent

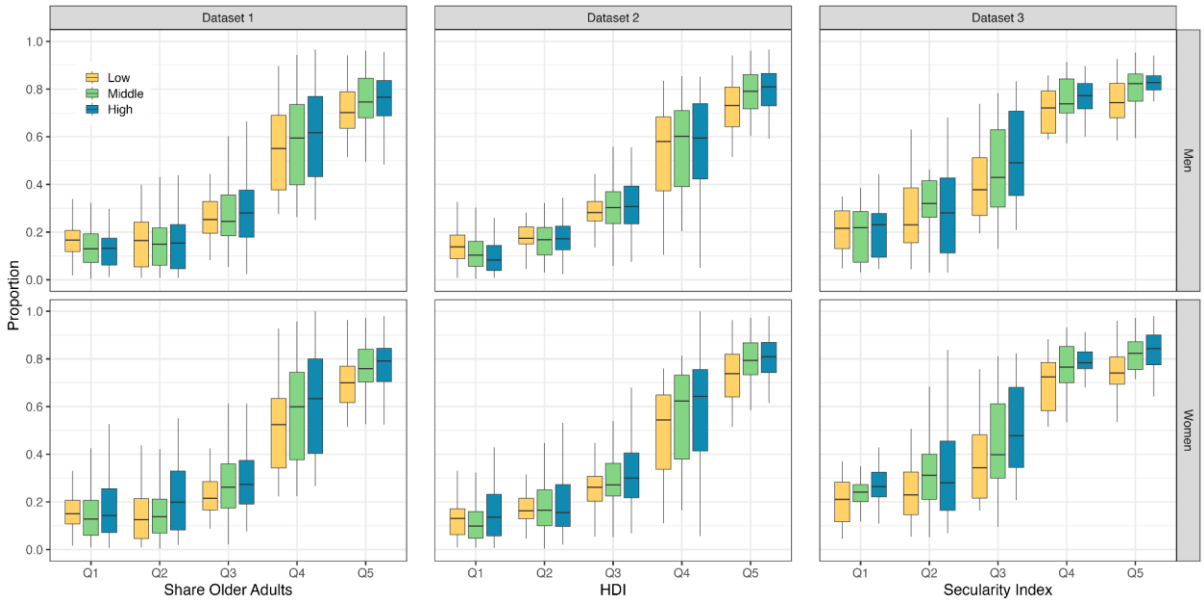


Note. Trendlines only combine datapoints from the same source. All highlighted trendlines correspond to census data obtained from IPUMS-international via the GLAD. **Source:** Global Living Arrangements Database (GLAD) and DHS data.

Interplay between individual-level and contextual Determinants of Living Arrangements

Figure 4 explores the association between contextual and individual determinants of living independently for the three datasets. Each panel shows the sample-level prevalence of independent living across quintiles of the distribution of each contextual indicator. Within each quintile, prevalences are disaggregated by educational attainment. The upper and lower panels show the pattern for women and men, respectively. Panels on the left illustrate the variability in the prevalence of living independently for countries within each of the quintiles of the demographic contextual factors (share of older adults in the population), the middle panels for those in the different quintile of the development factor (HDI), and panels on the right for samples across the quintiles of the secularity index (traditional vs. rational-secular values).

Figure 4. Proportion of individuals aged 65+ living independently by dataset and individual and structural determinants



Source: Global Living Arrangements Database (GLAD) and DHS data.

The proportion of older adults living independently is highest in countries within the fifth quintile (top 20%) with respect to the share of older adults, HDI, and secularity index, and lowest in the first quintile. Diversity in the share of older adults living independently is highest among countries in the middle of the distribution for all contextual factors, especially within the fourth quintile. While educational attainment appears to be linked to independent living, we do not find a clear educational gradient in relation to the contextual factors. Similarly, we do not observe substantial gender patterns with respect to independent living, suggesting that a higher proportion of living alone among women at older ages is linked to differences in spousal survival rather than to differences in independent living arrangements among men and women in later life. Thus, the figure suggests that macro-level factors, such as development, population ageing, and value systems are linked to the heterogeneity of living

arrangements among older adults on a global level. Moreover, differences in micro-level characteristics may shape individual differences among population subsets but are outweighed by differences in the contextual determinants of living arrangements. It is important to note that the contextual factors included in the analysis are correlated to some extent; however, they capture different dimensions of demographic and socio-economic change.

Multilevel Model Results

We estimated six different linear regression models, shown in Table 3, with random slopes at the sample-level. Our outcome variable is the proportion of older adults living independently at the sample-level. We estimate two different models for each of the three datasets, one including only individual controls (baseline model) and one including the available contextual controls. On the individual level, we control for age, sex, marital status, and educational status, all included as categorical variables. For the second model for Dataset 1, we add the share of older adults in the sample (share elderly) as a contextual factor. For the second model of Dataset 2, we add controls for the share of older adults in the sample and the HDI. Lastly, for the second model of Dataset 3, we add controls for the share of older adults in the sample, HDI, and the indicator of cultural change (Secularization Index). All contextual factors are included as normalized values, thus the coefficients represent the average effect of a one-standard deviation change from the mean rather than a one-unit change. Additionally, in all models we include a control for time, by controlling for the decade of the census or survey sample.

For Dataset 1, in the first model we observe small positive but statistically significant differences across the decades relative to the reference category (1960-70), with the difference being largest for the latest decade (2010-2020). This suggests that over time, the proportion of older adults living independently, relative to the proportion of older adults in the 1960s and 1970s, increased. Similarly, we observe small positive but statistically significant differences across age. For sex, we observe that, holding all things constant, the proportion of women living independently is about 2 percentage points lower compared to men. For marital status, the model suggests that individuals who are never married (single) are slightly more likely to live independently, compared to married individuals, whereas for those separated, divorced, or widowed the opposite holds. For education, we observe a strong educational gradient: highly educated individuals are 12 percentage points more likely to live independently compared to low educated older adults. When adding the contextual control, we observe a decrease in the differences across decades, suggesting that increases in the proportion of older adults might capture some of the variation across time in the proportion of older adults living alone. Moreover, we note that the second model contributes to a stark increase in the variance between samples explained by the fixed factors, as the marginal R-squared increases from 6 percent to 37 percent. At the same time, the ICC

declined from 0.63 to 0.37, indicating that a smaller share of the variance in the outcome variable is attributable to differences between samples.

Table 3. Results from multilevel logistic regression analysis.

		Dataset 1 (N Samples = 550)			Dataset 2 (N Samples = 448)			Dataset 3 (N Samples = 67)	
		Individual Controls	Individual and Contextual Controls		Individual Controls	Individual and Contextual Controls		Individual Controls	Individual and Contextual Controls
Random Effects									
Country Intercept		0,04	0,01		0,04	0,01		0,06	0,01
Fixed Effects									
Intercept		0.25***	0.34***		0.30***	0.39***		0.34***	0.52***
Individual-level Factors									
Decade									
1960-1970	*Ref*								
1980		0.05***	0.02***						
1990		0.06***	0.02***	*Ref*					
2000		0.09***	0.03***		0.03***	-0.01***	*Ref*		
2010-2020		0.11***	0.03***		0.06***	-0.02*		0,13	-0.03
Age									
65-69	*Ref*								
70-74		0.02***	0.02***		0.03***	0.03***		0.02***	0.02***
75-79		0.03***	0.03***		0.04***	0.04***		0.03***	0.03***
80-84		0.02***	0.02***		0.03***	0.03***		0.01*	0.01*
Sex									
Male	*Ref*								
Female		-0.02***	-0.02***		-0.02***	-0.02***		-0.02***	-0.02***
Marital Status									
Married	*Ref*								
Single		0.01***	0.01***		0.02***	0.02***		0.01	0.01
Sep/Div/Wid		-0.02***	-0.02***		-0.02***	-0.02***		-0.03***	-0.03***
Educational Attainment									
Low	*Ref*								
Medium		0.08***	0.08***		0.08***	0.08***		0.07***	0.06***
High		0.12***	0.12***		0.12***	0.12***		0.10***	0.10***
Contextual Factors									
Share Older Adults		-	0.13***		-	0.12***		-	0.12***
HDI		-	-		-	0.05***		-	0.06***
Secularity Index		-	-		-	-		-	0.06***
Model Specs									
σ2		0,03	0,03		0,02	0,02		0,02	0,02
Variance Country		0,04	0,01		0,05	0,01		0,06	0,01
ICC		0,63	0,37		0,66	0,31		0,79	0,34
N Sample		550	550		448	448		67	67
N Countries		128	128		126	126		66	66
Marginal R		0,06	0,37		0,05	0,50		0,05	0,68
Conditional R		0,65	0,60		0,67	0,65		0,80	0,79

* p<0.05 ** p<0.01 *** p<0.001

Source: Global Living Arrangements Database (GLAD) and DHS data.

For Dataset 2, the observed differences for the individual and time variables are similar to those observed in the models for Dataset 1. However, when adding two contextual controls in the second model, the differences across time decrease even further in magnitude relative to the reference category of 1990. The effects of the contextual factors suggest positive and statistically significant differences in

the proportion of older adults living independently for samples with higher shares of older adults and higher levels of economic development. For the 448 included samples, the ICC decreased from 0.66 to 0.31 with the inclusion of contextual controls, suggesting that a substantial portion of the variation in living independently across samples can be attributed to these variables. Additionally, the marginal R-squared of 0.50 and the conditional R-squared of 0.65 in the second model indicate that half of the variance in living independently is attributable to the fixed effects, with the additional 15 percentage points captured by the sample-level random effects.

The analysis for Dataset 3 highlights the importance of all three contextual controls for the analysis of variability in living independently across samples. The baseline model suggests a positive, but statistically not significant effect for time relative to the (new) reference category (2000). This coefficient is to be interpreted cautiously due to the stark difference in group sizes across the two decades. Other associations across the individual control variables remain largely stable compared to the other models. We observe positive and statistically significant differences across all three dimensions captured by the three contextual factors, suggesting that older populations, higher economic development, and more secular values are linked to a higher proportion of independent living. For Dataset 3, when including only individual-level controls, the marginal R-squared is 0.05, compared to a conditional R-squared of 0.80, these values change to 0.68 and 0.79, respectively, indicating that individual-level controls explain only a small share of the variance in living independently, with most variation attributable to between-sample differences. After adding contextual controls, however, the fixed effects account for the majority of the variance (68%), while the contribution of the random sample effects is greatly reduced.

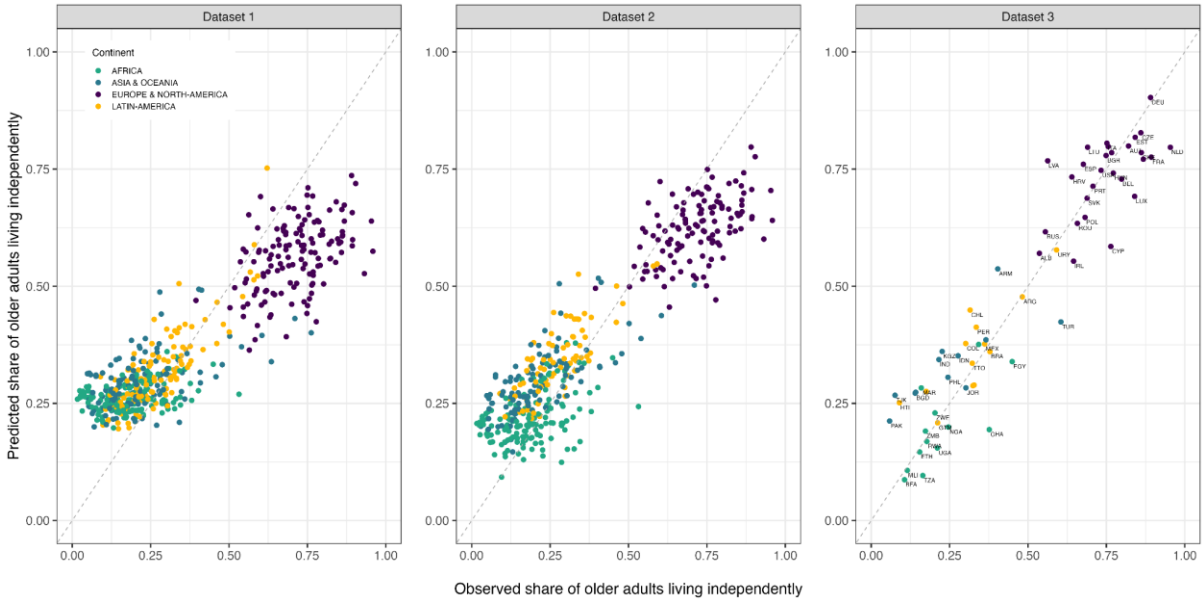
All in all, the analyses across the three datasets show consistent patterns. Initially, much of the variance stemmed from differences between samples, as indicated by high ICC values and low marginal R-squared values in the baseline models. However, when adding controls capturing demographic, economic, and cultural factors, differences across time diminished and larger portions of the between-sample variance were explained. These results suggest that while individual characteristics matter, contextual factors play a critical role in shaping the prevalence of independent living and account for a large share of the observed cross-sample variability.

Model Fit

Figure 5 displays the overall fit of our models by comparing the predicted and observed share of older adults living independently by sample, based on the second model specification for each dataset outlined in Table 3. For visualization purposes, colors indicate the continental region of the sample. From left to right, the panels show the link between observation and prediction for Dataset 1, Dataset 2, and Dataset 3. The dashed diagonal represents the perfect fit; for all samples above the line, the

predicted proportion of older adults on the sample-level exceeds the observed proportion, whereas for all samples below the line the opposite holds.

Figure 5. Observed and Predicted Share of Older Adults Living Independently by Continental Region.



Source: Global Living Arrangements Database (GLAD) and DHS data.

The figure highlights that the model fit improves across the three panels, as dots move, on average, closer to the line. For Dataset 1 and Dataset 2, we observe that the model slightly overpredicts independent living for samples from Africa, Asia, and Latin America, while underpredicting independent living for European and North American samples. In the panel on the right, although far fewer samples were included, the distribution of dots along the line is more balanced, suggesting that the model estimation improves due to the inclusion of additional contextual indicators.

Discussion and Research Outlook

Living arrangements and household structures of older adults reflect demographic, cultural, and socio-economic conditions and provide information about wants and needs of this rapidly growing segment of the population, with vast implications for societies. Despite their importance, to the best of our knowledge, there are no studies that document fundamental determinants of living arrangements of older adults on a global level. This study aims to fill this gap in the literature based on data from 128 countries, covering 550 country-year samples from the 1960s until the 2020s. Our analysis highlights that independent living arrangements at older ages are determined by a complex interplay of individual-level and country-level factors, contributing to a vast heterogeneity in the prevalence of such households on a global scale.

Several limitations should be acknowledged when interpreting the results of this study. Although we aim for a global comparison, several world regions, in particular parts of Asia and the MENA region, are underrepresented in our data. These countries are diverse in their demographic structure, economic development, and cultural aspects of these societies, thus our findings might not adequately represent global trends. Given the scope of the analysis in terms of samples and time periods covered, finding comparable country-level indicators poses methodological challenges. Thus, the contextual factors included in the analysis are only proxies for a vast array of socioeconomic, demographic, and cultural determinants of living arrangements of older adults and might not capture all associated dynamics. Additionally, any interpretation of our findings should consider that the analysis is based only on household-based living arrangements of older adults and does not include individuals living in institutional settings. This omission is particularly relevant for more developed countries, where relatively higher shares of older adults could be excluded from the household population compared to less developed countries, where institutional housing arrangements for older adults remain rare. Lastly, we do not assess the experienced degree of independence of older adults. In our analysis, independence is measured only through the formation of a separate household unit. It is possible that older adults living alone or only with a spouse live in close proximity to kin or rely on daily care by non-kin on whom they depend. An analysis of lived autonomy of older adults would require data that includes information on care provision, health status, among other factors.

Overall, this study highlights that while individual factors matter, differences in independent living of older adults across societies are primarily linked to contextual factors, such as population aging, economic development, and cultural norms. Our findings further suggest that changes in contextual factors could drive convergence of living arrangements across societies. However, convergence is not inevitable but depends on the interplay of country-level dynamics. The next steps for this article are as follows: First we aim to develop a comprehensive review of the relevant literature and to provide a more detailed explanation for our choice to investigate living independently, rather than living alone or with a partner separately. We will carefully consider and integrate literature on the links between population aging, economic development, and less traditional societies and living arrangements at older ages. Second, we will conduct robustness checks with different indicators on the contextual level. Third, we will work on a more nuanced interpretation of the results and a contextualization of our findings with the relevant literature.

References

Bengtson, V. L. (2001). Beyond the Nuclear Family: The Increasing Importance of Multigenerational Bonds: THE BURGESS AWARD LECTURE. *Journal of Marriage and Family*, *63*(1), 1–16. https://doi.org/10.1111/j.1741-3737.2001.00001.x

Bongaarts, J., & Zimmer, Z. (2002). Living Arrangements of Older Adults in the Developing World: An Analysis of Demographic and Health Survey Household Surveys. *The Journals of Gerontology*

Series B: Psychological Sciences and Social Sciences, *57*(3), S145–S157. https://doi.org/10.1093/geronb/57.3.s145

Bonvalet, C., & Ogg, J. (2008). The housing situation and residential strategies of older people in France. *Ageing and Society*, *28*(6), 753–777. https://doi.org/10.1017/S0144686X08007071

Clark, W. A. V., Ong Viforj, R., & Phelps, C. (2024). Place Attachment and Aging in Place: Preferences and Disruptions. *Research on Aging*, *46*(3–4), 179–196. https://doi.org/10.1177/01640275231209683

Dykstra, P. (2021). Living arrangements in later life. In N. F. Schneider & M. Kreyenfeld (Eds.), *Research Handbook on the Sociology of the Family*. Edward Elgar Publishing. https://doi.org/10.4337/9781788975544.00021

Economic, U. N. D. of, & Social Affairs, P. D. (2024). *World Population Prospects 2024*. https://population.un.org/wpp/

Esteve, A., & Reher, D. S. (2024). Trends in Living Arrangements Around the World. *Population and Development Review*, *50*(1), 211–232. https://doi.org/10.1111/padr.12603

Fernández-Carro, C. (2016). Ageing at home, co-residence or institutionalisation? Preferred care and residential arrangements of older adults in Spain. *Ageing and Society*, *36*(3), 586–612. https://doi.org/10.1017/S0144686X1400138X

Furstenberg, F. F., Hartnett, C. S., Kohli, M., & Zissimopoulos, J. M. (2015). The Future of Intergenerational Relations in Aging Societies. *Daedalus*, *144*(2), 31–40. https://doi.org/10.1162/DAED_a_00328

Gabrielli, G., Paterno, A., & Sacco, P. (2018). Living arrangements in sub-Saharan Africa between modernization and ethnicity. *African Population Studies*, *32*(2). https://doi.org/10.11564/32-2-1206

Galeano, J., & Esteve, A. (2025a). *CORESIDENCE_GLAD: The Global Living Arrangements Database, 1960-2021*. Zenodo. https://doi.org/10.5281/ZENODO.15038209

Galeano, J., & Esteve, A. (2025b). The Global Living Arrangements Database, 1960–2021. *Scientific Data*, *12*(1), 1483. https://doi.org/10.1038/s41597-025-05787-y

Golant, S. M. (2020). The distance to death perceptions of older adults explain why they age in place: A theoretical examination. *Journal of Aging Studies*, *54*, 100863. https://doi.org/10.1016/j.jaging.2020.100863

Inglehart, R., & Welzel, C. (2001). *Modernization, Cultural Change, and Democracy: The Human Development Sequence*(1st ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511790881

Kamiya, Y., & Hertog, S. (2020). Measuring household and living arrangements of older persons around the world: The United Nations Database on the Households and Living Arrangements of Older Persons 2019. *United Nations, Department of Economics and Social Affairs, Population Division*, *Technical Paper* (2020/03), 1–46. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/desa-pd-technicalpaper-living_arrangements_of_older_persons_2019.pdf

Lesthaeghe, R. (2010). The Unfolding Story of the Second Demographic Transition. *Population and Development Review*, *36*(2), 211–251. https://doi.org/10.1111/j.1728-4457.2010.00328.x

Mason, A., Lee, R., & members of the NTA Network. (2022). Six Ways Population Change Will Affect the Global Economy. *Population and Development Review*, *48*(1), 51–73. https://doi.org/10.1111/padr.12469

Reher, D., & Requena, M. (2018). Living Alone in Later Life: A Global Perspective. *Population and Development Review*, *44*(3), 427–454. https://doi.org/10.1111/padr.12149

Sabia, J. J. (2008). There's No Place Like Home: A Hazard Model Analysis of Aging in Place Among Older Homeowners in the PSID. *Research on Aging*, *30*(1), 3–35. https://doi.org/10.1177/0164027507307919

Sereny, M. (2011). Living Arrangements of Older Adults in China: The Interplay Among Preferences, Realities, and Health. *Research on Aging*, *33*(2), 172–204. https://doi.org/10.1177/0164027510392387

Skopek, J. (2021). Grandparent status and multigenerational relationships. In N. F. Schneider & M. Kreyenfeld (Eds.), *Research Handbook on the Sociology of the Family*. Edward Elgar Publishing. https://doi.org/10.4337/9781788975544.00028

United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Ageing 2017. Retrieved from https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Report.pdf (Accessed July 04, 2025).

Inglehart, R., Haerpfer, C., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2020. World Values Survey: All Rounds – Country-Pooled Datafile. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat. https://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp