

# Kinlessness in adult and old age across Europe

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## Abstract

In this work we estimate the prevalence of older adults aged 50 and more without close kin in several European countries. Using data from the Survey of Health, Ageing and Retirement in Europe (SHARE), we examine the prevalence of lacking different types and combinations of living kin, considering how kinlessness vary over time and at different ages. In 2019-2020, the prevalence of adults aged 50 and above who lacked a partner/spouse ranged between 22% and 47% across countries, while the prevalence of childless individuals between 4% and 14%. We detected a large variation of kinlessness across countries and age groups. This is of interest to policy makers because kinlessness is associated with poorer economic and health conditions, living alone, and unmet care needs. Aging research should address the implications of kinlessness for public health, social isolation, and the demand for institutional care.

*Keywords:* SHARE data, Family structures, Population aging, Social support

## 1. Introduction

Kinlessness is the lack of close kin. Different definitions have been used in previous studies that vary because of the (combination of) specific kinship ties considered. When studying older adults, it is particularly relevant to focus on the absence of a partner/spouse and children (5) because they are the main providers of care and emotional support, as well as the main agents of social control. Recently, there has been a growing interest on kinlessness. Several studies have focused on the estimation of the prevalence and demographic characteristics of individuals who lack a specific type of kin (e.g., grandchildren) (3). Other studies, have estimated the prevalence of kinlessness, i.e. lack of more than one kin, especially among older adults (5; 6; 9; 10) and its consequences on health, loneliness, care needs, etc. For example, research has shown that kinless individuals tend to report worse wellbeing and health conditions (although this varies considerably across countries and type of health outcome (1; 4; 7) and show higher likelihood of engaging in unhealthy behaviors (2).

In this work we document the size of the population of older adults (aged 50 and more) without close kin in several European countries. Only (9) provided estimates of kinlessness for several European countries in 2015. We contribute to this literature by providing more recent estimates and by showing the variability in kinlessness across age groups and over time.

## 2. Data and Methods

For this analysis we rely on the data from the Survey of Health, Ageing and Retirement in Europe (SHARE), especially wave 8 carried out in 2019/2020. In each wave, SHARE data cover several key

areas of life - health, socio-economic status, social and family networks - of more than 60,000 individuals aged 50 or over, enabling us to detect kinship ties of individuals. We considered all the 25 countries included in the survey. Additional analyses will use wave 2, 4 and 6 of SHARE to examine changes over time. We will not use all waves because in wave 1 fewer countries than in the other waves participated, while the other waves collected only (wave 3) or mostly (wave 7) retrospective information.

In terms of methods, this study is purely descriptive. We present estimated prevalences (with 95% confidence intervals (CI)). We use cross-sectional calibrated weights that account for sampling design and attrition.

### 3. Results

Tables 1 and 2 report the (weighted) estimates (and 95% confidence intervals (CI)) of the prevalence of individuals aged 50 and over without a given type of kinship tie, by country. On average, about one third of 50+ individuals lack a living partner/spouse, ranging from the minimum of Spain and Finland (respectively 22 and 25%) to a maximum of 47% for Luxemburg (values around 40% are registered also for Poland and Latvia). The absence of children is depicted for one older individual out of ten on average. The lowest values appear for Eastern European countries (e.g., Hungary, Romania, Lithuania around 4-7%) and Northern ones (e.g., Denmark and Sweden with 7-8%), and the highest values of the prevalence (13-14%) are found for countries like Belgium, Croatia, Czech Republic and Spain. Overall, a large variability is found across this group of countries. Italy occupies an intermediate position: about 29% of individuals aged 50 and over is without a partner and just under 12% lacks children.

An even larger variation has been found with respect lacking grandchildren. About 33% of older Europeans declare to have no grandchildren, with the lowest values (15-17%) found for Greece and Hungary. In this case, Italy is - somewhat unsurprisingly - the European country with the largest share of older individuals without grandchildren, almost 53%, but values around 50% are found also for France, Finland and Croatia.

The absence of living parents is clearly higher due to the age group considered. 3 out of 4 respondents aged 50 and over no longer have parents (62-63% in Italy and Romania, 80% in Poland and Sweden). As expected, due to the higher male mortality, the prevalence of individuals without a living father is higher to that of individuals without a living mother (in some countries the difference reaches 15-20 percentage points).

Finally, also the horizontal kinships - existence of living siblings - proves a large variability across countries. Less than 10% of individuals aged 50 and over has no brothers nor sisters in Croatia, Romania and Spain, but the prevalence raises to 30 or even 40% in Luxembourg, Switzerland, Latvia and Slovenia. The average stands around 20%.

It is straightforward to imagine that this overall picture, already highly differentiated by country, varies greatly on the basis of the age considered and the kinship types. If the presence of ascendants is going to reduce as individuals get older, that of descendants (grandchildren) can somewhat compensate for it, especially in those countries where family formation is postponed. In addition, the absence of one type of kinship may be replaced by the presence of other relatives. To get more insights, we considered various combinations of lack of kinship types, differentiating by the level of absence of kinship ties (k1: no partner AND no children; k2: no partner AND no children AND no sibling; k3: no partner AND no children AND no siblings AND no grandchildren; k4: no partner AND no children AND no siblings AND no grandchildren AND no parent).

Figure 1 displays the estimate of the four considered kinlessness types for 3 age groups, considering four countries which represent different models of mortality and fertility. First, it is worthwhile noting that the lack of various types of kinship (k2-k4) remains low in all the countries, especially for younger older individuals (50-64). Nevertheless, in France a large variation across age groups is depicted: the lack of kinships progressively increases by age, and reaches a prevalence of almost 10% for the oldest individuals. On the contrary, in Czech Republic the absence of various types of kinships is rather similar regardless the age class considered, from 0 to less than 5%. Somewhat surprisingly, the picture in Italy and Denmark - two countries differing from a demographic and socio-cultural point of view - appears

Table 1: Prevalence and 95% confidence intervals [CI] (below) of adults aged 50 or over, without partner, child, grandchild and sibling, from the SHARE study 2019-2020

Countries	no partner	no child	no grandchild	no brother	no sister	no sibling
Austria	0.281 [0.243,0.319]	0.101 [0.073,0.130]	0.322 [0.271,0.373]	0.393 [0.346,0.439]	0.381 [0.334,0.428]	0.180 [0.151,0.209]
Belgium	0.320 [0.297,0.342]	0.131 [0.114,0.149]	0.386 [0.361,0.410]	0.461 [0.437,0.485]	0.438 [0.414,0.461]	0.210 [0.192,0.228]
Bulgaria	0.319 [0.286,0.351]	0.086 [0.063,0.108]	0.309 [0.270,0.348]	0.455 [0.419,0.490]	0.407 [0.373,0.442]	0.169 [0.148,0.190]
Croatia	0.284 [0.231,0.337]	0.149 [0.099,0.200]	0.482 [0.417,0.547]	0.239 [0.202,0.275]	0.284 [0.224,0.345]	0.080 [0.063,0.097]
Cyprus	0.288 [0.232,0.345]	0.093 [0.064,0.122]	0.445 [0.376,0.513]	0.342 [0.285,0.399]	0.329 [0.273,0.384]	0.134 [0.108,0.160]
Czech Republic	0.270 [0.235,0.304]	0.149 [0.115,0.183]	0.488 [0.451,0.526]	0.426 [0.390,0.463]	0.440 [0.403,0.477]	0.193 [0.165,0.220]
Denmark	0.320 [0.294,0.346]	0.088 [0.072,0.104]	0.310 [0.281,0.340]	0.376 [0.349,0.403]	0.346 [0.320,0.373]	0.152 [0.134,0.170]
Estonia	0.312 [0.288,0.337]	0.087 [0.071,0.103]	0.310 [0.283,0.337]	0.398 [0.373,0.423]	0.382 [0.357,0.406]	0.142 [0.125,0.158]
Finland	0.253 [0.235,0.271]	0.117 [0.102,0.131]	0.490 [0.469,0.511]	0.448 [0.427,0.469]	0.471 [0.450,0.493]	0.217 [0.201,0.234]
France	0.298 [0.259,0.336]	0.158 [0.126,0.190]	0.510 [0.467,0.552]	0.363 [0.323,0.404]	0.351 [0.311,0.391]	0.112 [0.093,0.130]
Germany	0.308 [0.275,0.340]	0.127 [0.102,0.152]	0.355 [0.318,0.391]	0.369 [0.337,0.402]	0.366 [0.333,0.399]	0.165 [0.143,0.186]
Greece	0.364 [0.264,0.465]	0.079 [0.017,0.141]	0.175 [0.097,0.252]	0.342 [0.254,0.431]	0.257 [0.204,0.311]	0.109 [0.083,0.134]
Hungary	0.288 [0.243,0.333]	0.038 [0.016,0.060]	0.150 [0.100,0.200]	0.484 [0.431,0.537]	0.496 [0.443,0.550]	0.234 [0.196,0.272]
Israel	0.379 [0.352,0.405]	0.102 [0.081,0.122]	0.254 [0.228,0.280]	0.418 [0.393,0.444]	0.350 [0.326,0.375]	0.161 [0.142,0.179]
Italy	0.291 [0.241,0.341]	0.117 [0.082,0.151]	0.529 [0.478,0.581]	0.404 [0.352,0.456]	0.393 [0.343,0.443]	0.174 [0.137,0.211]
Latvia	0.399 [0.322,0.476]	0.112 [0.062,0.163]	0.367 [0.275,0.458]	0.668 [0.585,0.751]	0.624 [0.549,0.699]	0.429 [0.346,0.512]
Lithuania	0.307 [0.278,0.336]	0.066 [0.047,0.085]	0.273 [0.236,0.311]	0.446 [0.413,0.478]	0.426 [0.393,0.460]	0.180 [0.157,0.203]
Luxembourg	0.468 [0.443,0.492]	0.101 [0.084,0.118]	0.237 [0.212,0.261]	0.612 [0.588,0.636]	0.536 [0.511,0.560]	0.319 [0.297,0.342]
Malta	0.344 [0.310,0.378]	0.103 [0.080,0.126]	0.292 [0.259,0.326]	0.521 [0.487,0.555]	0.456 [0.422,0.490]	0.229 [0.201,0.256]
Netherlands	0.353 [0.326,0.381]	0.078 [0.061,0.095]	0.272 [0.244,0.300]	0.497 [0.468,0.526]	0.416 [0.388,0.445]	0.203 [0.181,0.225]
Poland	0.425 [0.387,0.463]	0.074 [0.052,0.095]	0.256 [0.219,0.292]	0.592 [0.554,0.629]	0.574 [0.537,0.612]	0.354 [0.318,0.390]
Romania	0.314 [0.256,0.372]	0.051 [0.025,0.077]	0.260 [0.201,0.319]	0.239 [0.190,0.288]	0.240 [0.186,0.294]	0.074 [0.041,0.107]
Slovakia	0.383 [0.335,0.432]	0.132 [0.098,0.167]	0.412 [0.366,0.459]	0.401 [0.354,0.448]	0.357 [0.310,0.404]	0.154 [0.114,0.194]
Slovenia	0.379 [0.342,0.416]	0.088 [0.067,0.108]	0.281 [0.245,0.317]	0.636 [0.598,0.674]	0.581 [0.543,0.619]	0.413 [0.375,0.450]
Spain	0.224 [0.187,0.261]	0.155 [0.124,0.186]	0.363 [0.320,0.406]	0.193 [0.161,0.225]	0.180 [0.147,0.214]	0.043 [0.025,0.061]
Sweden	0.327 [0.293,0.360]	0.073 [0.054,0.092]	0.237 [0.206,0.268]	0.441 [0.406,0.475]	0.420 [0.386,0.455]	0.207 [0.178,0.236]
Switzerland	0.359 [0.323,0.395]	0.120 [0.096,0.144]	0.318 [0.286,0.350]	0.526 [0.492,0.560]	0.524 [0.490,0.558]	0.328 [0.295,0.361]

Table 2: Prevalence and 95% confidence intervals [CI] (below) of adults aged 50 or over, without father, mother and parent, from the SHARE study 2019-2020

Countries	no father	no mother	no parent
Austria	0.890 [0.847,0.932]	0.754 [0.705,0.803]	0.710 [0.658,0.762]
Belgium	0.893 [0.875,0.911]	0.756 [0.732,0.779]	0.720 [0.696,0.744]
Bulgaria	0.882 [0.851,0.914]	0.761 [0.723,0.799]	0.727 [0.689,0.766]
Croatia	0.921 [0.889,0.953]	0.762 [0.703,0.821]	0.729 [0.669,0.790]
Cyprus	0.896 [0.843,0.950]	0.772 [0.703,0.840]	0.713 [0.639,0.787]
Czech Republic	0.887 [0.857,0.916]	0.717 [0.676,0.759]	0.690 [0.648,0.731]
Denmark	0.872 [0.848,0.895]	0.732 [0.704,0.760]	0.691 [0.662,0.720]
Estonia	0.876 [0.854,0.897]	0.767 [0.741,0.793]	0.717 [0.690,0.744]
Finland	0.895 [0.879,0.911]	0.775 [0.755,0.795]	0.753 [0.732,0.774]
France	0.886 [0.851,0.921]	0.719 [0.673,0.765]	0.676 [0.630,0.723]
Germany	0.880 [0.851,0.910]	0.744 [0.706,0.782]	0.695 [0.656,0.734]
Greece	0.926 [0.874,0.978]	0.732 [0.628,0.836]	0.709 [0.606,0.811]
Hungary	0.902 [0.853,0.950]	0.838 [0.795,0.880]	0.777 [0.721,0.833]
Israel	0.918 [0.899,0.937]	0.776 [0.751,0.800]	0.746 [0.720,0.771]
Italy	0.825 [0.768,0.881]	0.705 [0.650,0.760]	0.631 [0.573,0.689]
Latvia	0.971 [0.948,0.993]	0.793 [0.703,0.883]	0.787 [0.697,0.877]
Lithuania	0.909 [0.883,0.936]	0.773 [0.736,0.810]	0.746 [0.709,0.782]
Luxembourg	0.952 [0.938,0.966]	0.814 [0.791,0.837]	0.794 [0.770,0.818]
Malta	0.947 [0.929,0.965]	0.808 [0.778,0.838]	0.790 [0.759,0.821]
Netherlands	0.953 [0.938,0.968]	0.811 [0.786,0.836]	0.788 [0.762,0.815]
Poland	0.938 [0.918,0.959]	0.826 [0.793,0.859]	0.806 [0.772,0.840]
Romania	0.819 [0.764,0.874]	0.673 [0.608,0.738]	0.619 [0.555,0.684]
Slovakia	0.880 [0.845,0.915]	0.756 [0.712,0.801]	0.710 [0.664,0.756]
Slovenia	0.959 [0.941,0.977]	0.804 [0.769,0.838]	0.791 [0.755,0.826]
Spain	0.900 [0.872,0.927]	0.776 [0.737,0.816]	0.750 [0.710,0.789]
Sweden	0.936 [0.917,0.954]	0.840 [0.813,0.868]	0.806 [0.777,0.836]
Switzerland	0.908 [0.889,0.926]	0.792 [0.765,0.819]	0.769 [0.741,0.797]

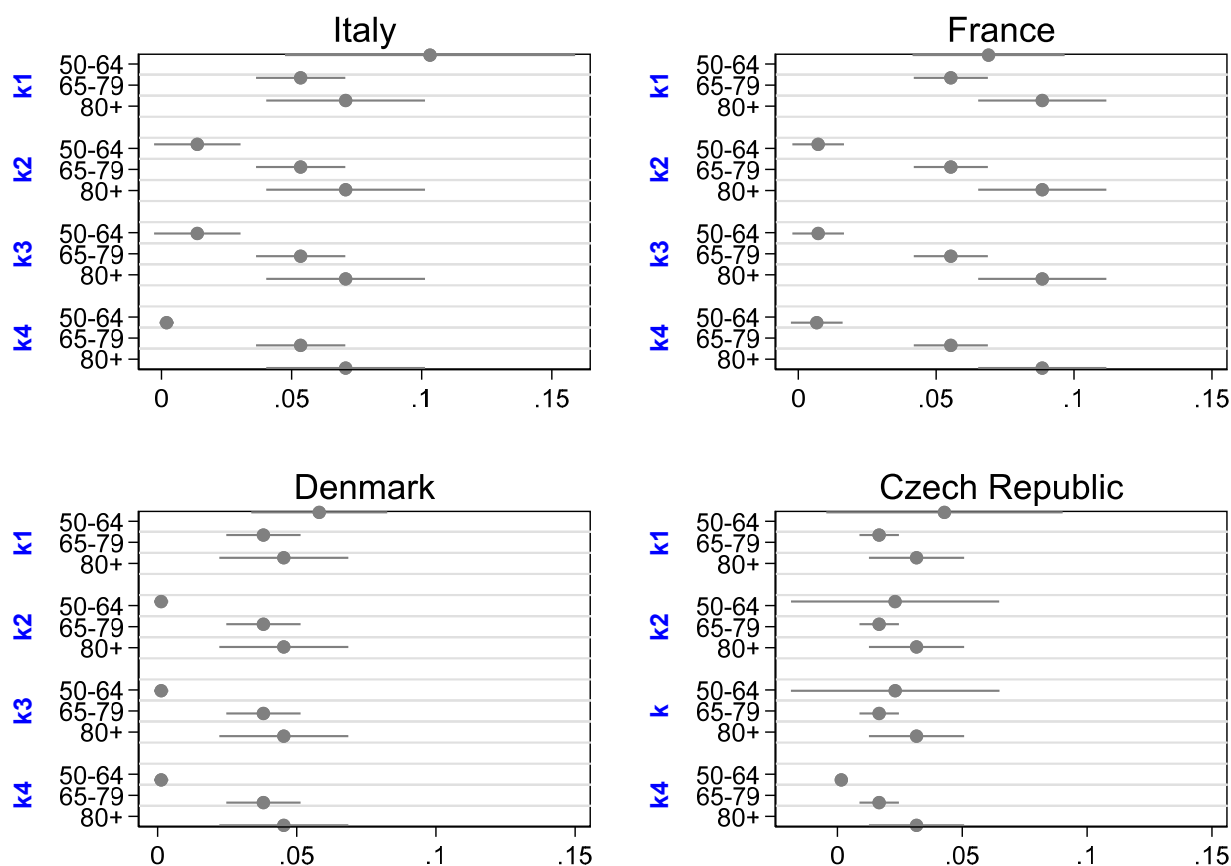


Figure 1: Estimate of kinlessness:  $k_1$ ,  $k_2$ ,  $k_3$  and  $k_4$ , by 3 age groups (50-64, 65-79, 80+) considering countries which represent different models of mortality and fertility.  $k_1$  represents no partner AND no children;  $k_2$  indicates no partner AND no children AND no sibling;  $k_3$  means no partner AND no children AND no siblings AND no grandchildren;  $k_4$  represents no partner AND no children AND no siblings AND no grandchildren AND no parent

more similar than foreseen. For instance, the percentage of those who lack both living partner and children ( $k_2$ ) equals to 6-10% for younger respondents, but the lack of also other relatives is extremely reduced less than 2%. For 65-79 and 80+ individuals, the prevalence slightly increases (around 4-7%), but without showing a significant deterioration for the oldest group.

## 4. Discussion

Our analyses show that the prevalence of kinlessness vary considerably across European countries as the result of different socio-demographic dynamics in the past. Due to the recent and current (decreasing) trends in fertility and (increasing) trends in longevity across European countries, it is not difficult to envisage a progressive shrinking in kinship ties. A deeper investigation of the future progression in kinlessness trends is needed.

In the next steps of the analyses we will also provide estimates of kinlessness over a period of about 12 years (2006/7-2019/20). Preliminary estimates show a considerable increase in kinlessness among the majority of the investigated countries.

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