Disability-free grandparenthood in Italy. Trends and gender differences

Vita da nonni libera da disabilità in Italia. Tendenze e differenze di genere

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Abstract Longer life expectancies potentially translate into more years of intergenerational overlap, but this effect can be counterbalanced by the delay in the timing of grandparenthood. Grandparents are older today that in the past and it is therefore crucial to study their health, since it could affect the quality of intergenerational exchange. Applying the Sullivan method on Italian data from 1998 to 2016, disability-free grandparenthood at age 65 (period life expectancy as a grandparent free from disability) by gender is estimated, as well as the contribution of changes in mortality and grandparenthood-disability prevalence on the evolution on disability-free grandparenthood.

Abstract *Speranze di vita più lunghe si traducono potenzialmente in più anni di coesistenza fra generazioni diverse, ma questo effetto può essere controbilanciato dalla posticipazione al momento in cui si diventa nonni. Oggi i nonni sono mediamente più anziani che in passato ed è quindi cruciale studiarne lo stato di salute, da cui dipende fortemente la qualità degli scambi intergenerazionali. Utilizzando il metodo Sullivan, viene stimata la speranza di vita da nonni senza disabilità a 65 anni per genere, e viene valutato l'effetto dei cambiamenti avvenuti nella mortalità e nella prevalenza della disabilità tra i nonni dal 1998 al 2016.*

Key words: Disability, Grandparenthood, Life expectancy, Ageing

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1 Introduction and background

Increasing longevity and changes in fertility have been two key demographic features of European countries during the twentieth century. From the one side, longer life expectancies potentially translate into more years of intergenerational overlap than in the past. On the other side, fertility delay and reduction can counterbalance the effect of the longevity revolution on kin networks. One of the intergenerational relationships most affected by these processes is grandparenthood [1]–[3]. Italian grandparents are older today that in the past [4] and whether the years of life gained in later life are of good or bad quality is a major concern [5]–[8]. Indeed, the health status of grandparents can strongly affect the generational overlap with grandchildren, both in terms of duration [9]–[11] and of quality [12]. In particular, grandparents' health is a crucial issue in understanding the direction of intergenerational transfers, since it could impact whether grandparents are providers or recipients of care: on the one hand, when grandparents are healthy, they can eventually generate intergenerational transfers, so as caring for grandchildren, or supporting (financially, functionally, or emotionally) adult children; on the other hand, when grandparents are unhealthy, they are more likely to be recipients of care, turning intergenerational relations into a caring burden for adult children or grandchildren. This is particularly relevant if we also value the beneficial effect of the time spent together, for both grandparents [13] and grandchildren [14], and how informal grandparental care of grandchildren impacts on adult children's outcomes, including labour force participation [15], [16], and fertility decisions [17]. Moreover, Italy is clearly one of the countries in which grandparents constitute a fundamental resource for the provision of informal childcare [18], [19], and families remain the most tenacious and preferred sources of support for individuals [16], [20]. The dynamics of mortality, health and fertility differ between men and women in several regards: women generally marry at a younger age (with older men), have children (thus grandchildren) earlier, live longer but in poorer health [3], [21], [22]. This implies that women can expect to live more grandparent years than men; at the same time, older women live in worst health conditions than men, and this may lead to equal or shorter period as healthy grandparents. Within this context, our study has three main objectives: first, to shed light on the evolution of the disability-free grandparenthood (DFGP) (i.e. the length of time that one can expect to live as a grandparent free from disability) at age 65 between 1998 and 2016 in Italy; second, to disentangle the DFGP evolution according to changes due to longevity revolution and due to grandparenthood-disability prevalence; third, to analyse gender differences in DFGP in Italy and its evolution.

2 Data and methods

Data are drawn from two sources. First, we use two waves of the *Family and Social Subjects* (FSS) survey of the Italian National Institute of Statistics (Istat) for 1998 and 2016[1]. Our analytical sample considers all respondents aged 65 and over, living in Italy and reporting their grandparenthood and disability status (i.e., individuals reporting having severe disability or not, and either being grandparent or grandchild-less). The second data source are Italian life tables of 1998 and 2016, by age and gender, released by Istat. Our research builds on the healthy grandparenthood measure recently introduced by Margolis and Wright [12], as we apply the Sullivan method [23] to calculate the disability-free grandparenthood (DFGP) for older women and men living in Italy in the two target years. We first compute the prevalence of individuals in each status (disability-free grandparent, grandparent with disability, disability-free grandchild-less and grandchild-less with disability). Second, we apply the age-specific prevalence of the four statuses of interest to the age-specific person-years lived from the life tables. In this way, we specify the person-years lived in each status. Finally, we sum these quantities for the ages above 65 and divided them by the lifetable survivors at age 65, resulting in residual life expectancy in the four statuses. The sum of life expectancy at age 65 in each of the four statuses equals the total life expectancy at the same age. Thus, life expectancy is partitioned into years spent being (i) disability-free grandparent, (ii) grandparent with disability, (iii) disability-free grandchild-less and (iii) grandchild-less with disability. The key outcome is the DFGP estimate (i.e., the period life expectancy as disability-free grandparent), which measures the average number of years that a hypothetical cohort of individuals can expect to live as grandparents free from disability, if they experience the mortality, disability and grandparenthood conditions observed in the studied year. Finally, by implementing the Horiuchi decomposition method [24] we analyse the age-specific contribution that the changes in mortality and grandparenthood-disability prevalence have on the evolution of DFGP from 1998 to 2016.

3 Results

Figure 1 shows the partition of overall life expectancy at age 65 (represented by the overall length of the bars and noted in black next to them) into the different states of grandparenthood and health status, by gender, for 1998 and 2016. In 1998, at the age of 65, Italian men have approximately a life expectancy of 16 years and women of almost 20. Of these, the years spent as grandparent (purple and pink part of the bars) outweigh those as grandchild-less, and only half of life expectancy is of

[1] The data processing for the year 2016 was conducted at Istat's Laboratory for the Analysis of Elementary Data (ADELE) and in compliance with the regulations on the protection of statistical confidentiality and personal data protection. The results and opinions expressed are the sole responsibility of the author and do not constitute official statistics.

DFGP (almost 9 and 10 years for men and women, respectively). Women can expect to live more years as grandmothers than men as grandfathers, but the share of years lived as grandparents over total life expectancy is similar for both gender (more than 70%). However, although women having one year more of DFGP than men, the share of DFGP on total life expectancy and on overall years as grandparents, are higher for men (respectively, 55% and 78%) than for women (50% and 70%). In fact, Italian women aged 65 in 1998 have more years with disability than men and, particularly, of those to live as grandmothers. From 1998 to 2016, as life expectancy at age 65 increases (by more than 3 years for men and 2.5 for women), DFGP at the same age increases for both genders, reaching more than 10 years for men and more than 12 for women. Over the same years, the increase in DFGP of men (of around 2 years) is at a slower pace than that of life expectancy, while for women the rise (more than 2.5 years) is faster. As a result, despite the gender difference in life expectancy decreases between 1998 and 2016, the gender difference in DFGP increases and reaches almost 2 years in 2016. Interestingly, in 2016, women and men share the same portion of DFGP life expectancy (around the 56%). However, compared to men, women display a higher portion of life expectancy as grandmothers (almost 70% vs 65% for men), and a lower share of DFGP over the total grandparent years (80% vs 85% for men), implying that the health quality of grandmothers is poorer than that of grandfathers.

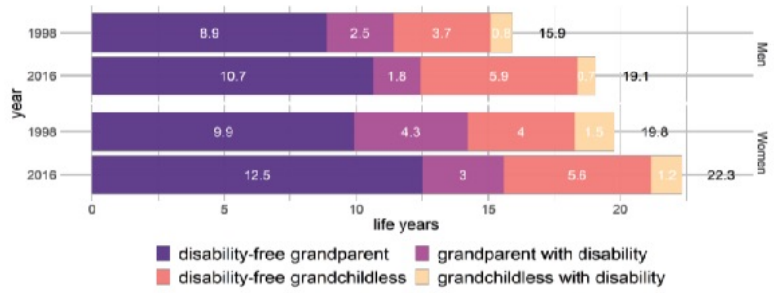

Figure 1: Life expectancy at age 65 by grandparent-disability status for Italian men and women in 1998 and 2016

Figure 2 displays the contribution of changing mortality rates and prevalence of disability-free grandparents to the change in DFGP between 1998 and 2016, by gender. For women, the contribution of mortality and prevalence of disability-free grandparents increase with ages (except for mortality contribution at age 85+). Up to the age 80, the contribution of the improved survival is more important in determining the evolution (increase) in DFGP, while for the oldest old women (aged 80+) there is a greater contribution of the prevalence of disability-free grandparents. Overall, from 1998 to 2016, there is an improvement in women's survival and an increase in the prevalence of healthy grandmothers for each age, which contributes to 2.6 years increase in DFGP. For men, mortality always contributes positively to the increase in DFGP, however, after the age of 70 its relevance decreases with age. In determining the evolution of DFGP, the prevalence of disability-free grandparents contributes less than mortality and, moreover, negatively between the ages of 65 and

74. Therefore, from 1998 to 2016, improvement in survival reduce its contribution to the change in DFGP as men gets older, while there is a reduction in the prevalence of disability-free grandparents for men, which lead to a decrease of 4 months (0.19 + 0.16 years) in the average number of years as DFGP. Knowing that overall population health improves from 1998 to 2016, this indicates that there is a noticeable reduction of the prevalence of grandparents during this period, resulting in a slowdown in the increase of DFGP, offsetting the positive effect of the reduction in disability and mortality along the observed period.

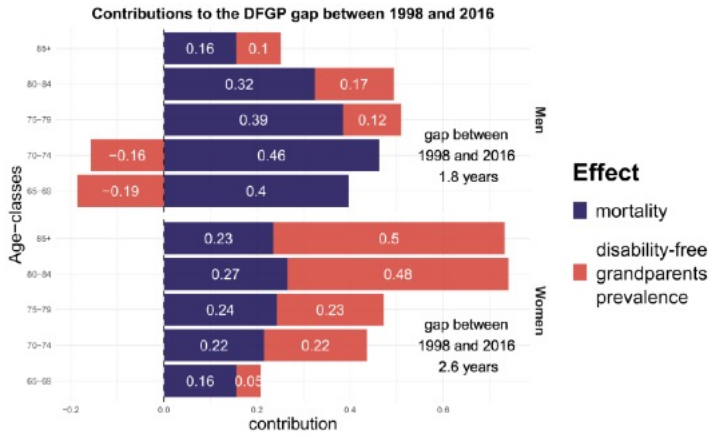

Figure 2: Mortality and disability-free grandparents prevalence contributions to the DFGP gap between 1998 and 2016 for Italian older men and women, by age classes

4 Conclusions

The average number of years individuals spend in DFGP is influenced by patterns of grandparenthood, disability, and mortality observed in the years under consideration. Because these rates and prevalence vary over time and across several dimensions, demographic methods such as Sullivan's can help to explain the effects of these changes on the quality and duration of intergenerational overlaps. Our study shows that, from 1998 to 2016, absolute DFGP and its share on the overall years spent as grandparents increases for both women and men. This reveals that, on average, Italian grandparents have more disability-free years of overlap with their grandchildren. Moreover, our results suggest that the speed of increase of DFGP is primarily led by the sharp improvement of health and survival conditions; hence, it has been slowed down by the postponement in the transition to grandparenthood. Overall, this study provides the first evidence on DFGP evolution in Italy and its gender differences. It also contributes to reflections on the roles of mortality, health, and family dynamics as measures to be considered simultaneously in a synthetic indicator, as life expectancy by disability and grandparenthood status.

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