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International Spotlight

Aging in Italy: The Need for New Welfare Strategies in an Old Country

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Abstract

Italy, a Southern European country with 60.8 million inhabitants, has the largest proportion of elderly citizens (aged ≥65) in Europe of 21.4%. The aging of the population is due to a number of reasons, such as baby boomers growing old, an increase in longevity, and low birth rate. Although international migration has increased in recent years, the addition of a foreign segment of the population has neither compensated for nor significantly curtailed the aging phenomenon. The impact of aging on the economic sustainability concerns the progressive reduction of the workforce, high incidence of pension spending in the overall resources allocated to welfare, recent reform of the pension system, and the growing issue of "non-self-sufficiency" in the elderly. Despite limited financial measures dedicated to research, Italy is conducting important studies on aging, both at the national and international level. Physicians and researchers in the field of geriatrics and gerontology are not only promoting quality of life in the elderly, and healthy-active aging, but also contributing to economic stability and social organization. Finally, nutritional and lifestyle habits—and their role in preventing chronic diseases—are the focus of the current international event EXPO 2015, with many sections dedicated to the elderly.

Keywords: Italy, Europe, Welfare, Demographic aging

Italy is a Mediterranean country located in Southern Europe that occupies an area comparable to Arizona of 301,340 km^2, and is constituted by a major peninsula and two islands, Sardinia and Sicily. It is almost completely surrounded by the Mediterranean Sea, except for the Northern part, which borders to the East by Slovenia, to the North with Austria and Switzerland, and to the West with France. Italy has also two small enclaves (the Vatican City State and San Marino), both in the Center. The population accounts for about 60.8 million citizens, distributed over 20 regions, with a higher density in Lombardy, Liguria (North), Lazio (Center), and Campania (South).

Geographically, there are several differences between Northern and Southern Italy, which will be described later in this article.

This spotlight features an overview of the Italian demographic scenario as well as key aspects relating to aging in this "Group of Eight" (G8, a governmental forum of leading advanced economies in the world, which currently comprises Canada, France, Germany, Italy, Japan, the United Kingdom, the United States, and the European Union) country, such as research areas and main projects involving older adults, policy issues, and how the current financial situation is influencing the global experience of aging.

The Italian Demographic Picture

In this century, aging is a major challenge facing developed countries. As of January 1, 2015, with 21.4% of residents aged ≥65, and 6.4% aged ≥80 years, Italy has the largest proportion of elderly population in Europe (Eurostat http://ec.europa.eu/eurostat/data/database). Similar to most European countries, the pattern of this process is mainly linked to the fertility fluctuation which occurred during the second half of the 20th century: the baby boom cohort (born between 1945 and 1964) is progressively reaching the old age, and it will continue up to the 2030s, whereas the baby bust cohort (born between the early 1960s and 1975) now constitutes the bulk of the working age population. This circumstance will lead to a top-heavy age structure, and is expected to last about 30 years, after which the thinnest years at the end of the baby bust generation will enter old age (Italian National Institute of Statistics [ISTAT], 2011; Reher, 2015; Figure 1).

Other factors such as survival expectancy and international migration also affect age structure. On the one hand, the ongoing reduction of mortality at all ages has increasingly involved the elderly, shifting forward the limit of life duration (Barbie & Caselli, 2009). On the other hand, the positive net migration flows experienced during the last 30 years have mitigated the process, by both sustaining the active age population and by positively influencing fertility levels (Billari & Dalla-Zuanna, 2013). However, based on projected data, an extra contribution by the immigrants to the cohort entering old age will be observed as early as 2019 (Blangiardo & Rimoldi, 2013). This older group will progressively increase until 2054, when it will reach around 250,000 individuals.

The impact of aging on economic sustainability exists in a dynamic relationship between the elderly and the active

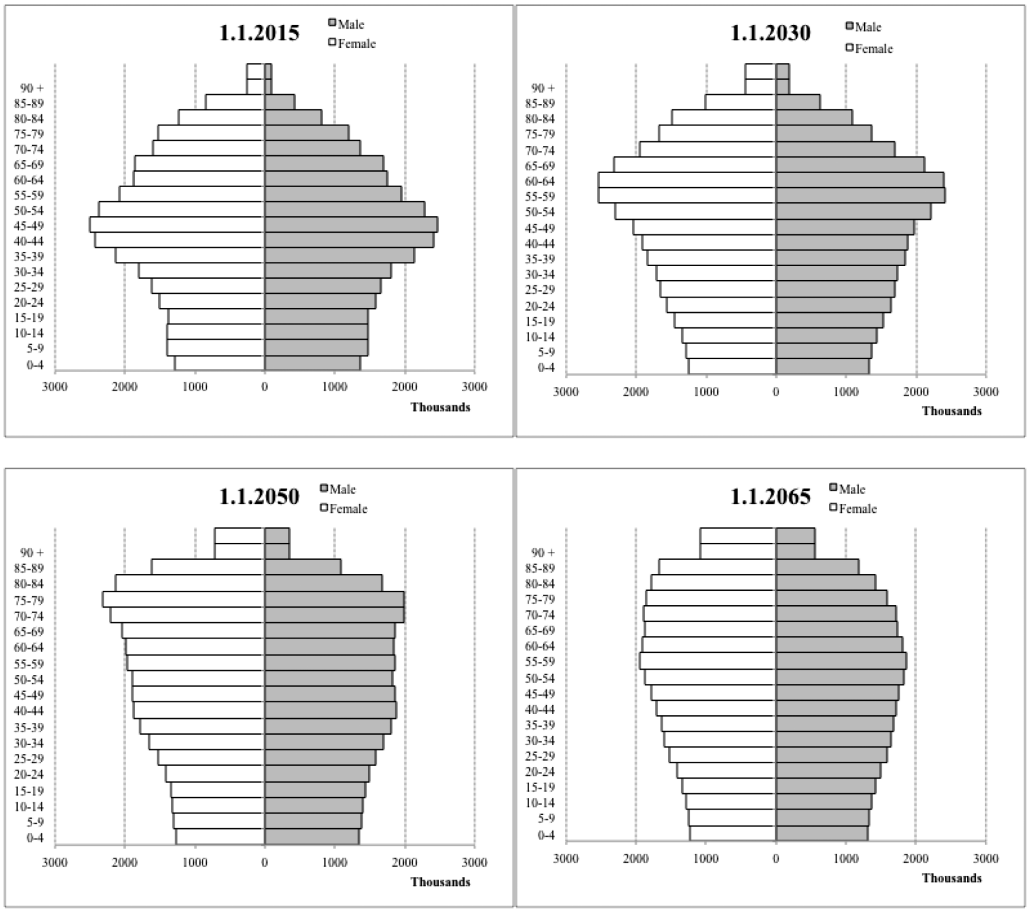

Figure 1. Population by sex and age. Projections at 2015, 2030, 2050, and 2065. *Source:* data at January 1, 2015 are from population register; other years are from ISTAT projections (medium variant). http://demo.istat.it

population, and it is captured by the old age dependency ratio, which is, the ratio of people older than 64 compared with those aged 15–64. This indicator is currently around 34%, but is expected to increase by 2040 due to the baby boomers who are moving to old age, and then by inertia until 2055. Although the old age dependency ratio is currently lower than the average in the Southern regions of Italy, it is expected to gradually reach 70% in that same area (Figure 2).

Population aging causes many concerns in regards to economic growth, sustainability of effective health care and pension systems, and the well-being of elderly persons. Because economic prosperity depends crucially on the size and quality of the workforce, many researchers postulate that the aging countries will experience slower economic growth (Bloom, Boersch-Supan, McGee, & Seike, 2011; Bloom, Canning, & Fink, 2010).

Another consequence that has a high economic impact is the effect on the pension system, as the number of pensioners will increase and the number of contributors will decrease. Following the reform of 2011, all workers in Italy currently contribute to a Notional Defined Contribution scheme (Organization for Economic Cooperation and Development [OECD], 2013; Supplementary Appendix). Although the reform also introduced a flexible window of retirement between the ages of 62 and 70 years, the normal pension age under the new system is scheduled to increase according to gains in life expectancy. However, incentives offered by employers as well as public policies to encourage a prolonged career (Gruber & Wise, 1999) are factors influencing the age at which citizens can retire. Nevertheless, the reform has been effective because it has allowed people more freedom in the timing of their retirement (Bloom et al., 2011).

An additional aspect related to pensions refers to the presumed positive impact of immigration to compensate for the lack of labor force in our country. In the long run, immigrants will accumulate contributions available to them when they retire, in Italy or in their "home" countries, which ends in additional spending for the public system.

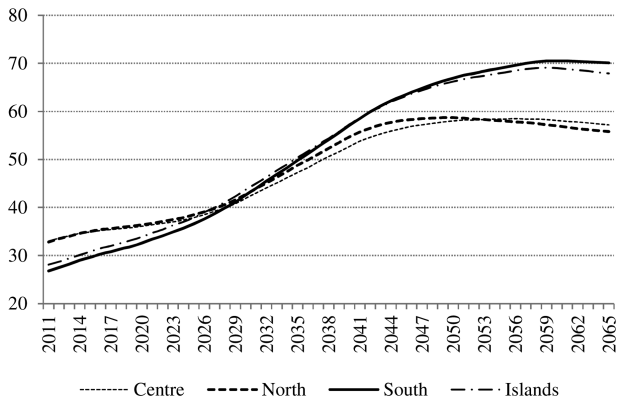

Figure 2. Old age dependency ratio across the Italian territory. January 1, 2011–January 1, 2065. *Source:* ISTAT projections (medium variant). http://demo.istat.it

In this scenario, where aging will become increasingly relevant, our country is moving to address these issues through many research fields.

Main Research Focuses

One of the most important studies on aging carried out in Italy during the 1990s was the "Targeted Project on Aging," which was funded by the National Research Council (CNR) and aimed to analyze the biological, clinical, and psychosocial aspects of aging. The "Italian Longitudinal Study on Aging" (ILSA), one of CNR's collaborative subprojects, was included in the larger study (http://www.italz.it/CNRPFINV/ilsa.htm). Starting out at baseline in 1992 with 5,628 subjects aged 65 years or older, and proceeding with follow-ups in 1995–1996 and in 2000, the ILSA study has furnished important data on the prevalence, incidence, and risk factors of diseases linked to aging, as well as on transitions from self-sufficiency to physical and/or mental impairment (Maggi et al., 1994; The ILSA Working Group, 1997).

More recently, in 2012 the Minister of Instruction, Universities and Research (MIUR) funded "The Aging: Technological and Molecular Innovations Aiming to Improve the Health of Older citizens" project (http://www.progettoinvecchiamento.it). This is a large-scale multidisciplinary research program, based on advanced analytical instruments to analyze, diagnose, prevent, and treat degenerative processes linked to aging. It aims to evaluate epidemiologic aspects and to study the molecular mechanisms of neurodegenerative diseases using molecular imaging and diagnostic techniques.

Interesting research experiences cofinanced by the public and private sectors already exist in our country; one of these is the "Train The Brain" project, which was completed in 2014. The project aimed to train physical, intellectual, musical, and recreational functions in patients with mild cognitive impairment in order to delay progression to Alzheimer's Disease (http://www.cnrweb.tv/train-the-brain-allena-il-cervello-a-restare-giovane/).

At a European level, Italy shows a large participation at the call "Horizon 2020," the biggest EU Research and Innovation program up to now (http://ec.europa.eu/programmes/horizon2020/). Within its work programs, several projects are oriented toward the older population and aim to accomplish the following goals: to promote healthy and active aging, study mechanisms underlying age-related diseases, improve disease detection and management, and test new technologies and new organizational models for the sustainability of the health care system. This call attracted many multicenter projects oriented toward the development of automatic monitoring technologies and information and communications technology (ICT) systems to make it easier for elderly people to live more safely, promoting wellness, physical activity, cognitive training, and early detection of risk factors for different medical conditions. The University of Milano-Bicocca and many Italian institutions actively participated in designing these research projects.

Moreover, the Innovative Medicines Initiative (IMI, a large public-private project aiming to hasten the development of better and safer medicines for patients), in collaboration with the European Federation of Pharmaceutical Industries and Associations (EFPIA), has financed the "Sarcopenia and physical frailty in older people: multicomponent treatment strategies" (SPRINTT) clinical trial, carried out under the guidance of Italian investigators (http://www.mysprintt.eu/it). Using physical activity, dietary advice, and modern technologies, the project aims to delay the onset of sarcopenia and frailty.

Finally, Italy is also participating in "the Survey of Health, Ageing and Retirement" (SHARE), a multidisciplinary, cross-national panel database of micro data on health, socioeconomic status, and social and family networks with regard to more than 85,000 individuals aged 50 years and older from 20 European countries, which began in 2004 (http://www.share-project.org/; Litwin & Stoeckel, 2014; Mair, Quiñones, & Pasha, 2015).

Key Research Organizations

A large part of research on aging in our country is conducted by public research organizations or by the Universities. The National Institute of Statistics (ISTAT) is the main supplier of official statistical information, and is available through the http://www.istat.it/it/ website. It is possible to compare data collected in Italy with other from European countries using the statistical information processed by EUROSTAT, the statistical office of the European Commission (http://ec.europa.eu/eurostat).

Utilizing data from various Departments and Institutes, CNR addresses the topic of aging from demographic, epidemiologic, and clinical points of view, also studying molecular imaging, diagnostics, and therapeutics.

The National Institute of Health (ISS) is the leading scientific public body of the Italian National Health Service (http://www.iss.it/). It serves as a major source of information regarding public health and biomedicine through online connections to national and international scientific databases as well as data banks.

There are currently 34 residency programs in Geriatrics distributed throughout the country. These are post-graduate programs for physicians who completed the 6-year school of medicine, and aim to train specialists in Geriatric Medicine and in research on this specific population.

The Italian Society of Gerontology and Geriatrics (SIGG), founded in 1950, is dedicated to the study of aging for the purpose to determine the best ways to treat and assist elderly patients (www.sigg.it). One of its principal aims is to promote and coordinate scientific research in the gerontology-geriatrics field, carried out in collaboration with other national and international scientific organizations. Several geriatricians belonging to the SIGG are also associated to the Board of Directors of the European Union Geriatric Medicine Society (http://www.eugms.org/home.html) and the International Association of Gerontology and Geriatrics for the European Region (http://www.iagger.net). The Italian Journal of Gerontology (Giornale di Gerontologia; http://www.giornaledigerontologia.it/ from 2016 will become an international Journal, fully published in English, available at the website http://www.jgerontology-geriatrics.com/) and "Aging, Clinical and Experimental Research" (http://www.springer.com/medicine/family/journal/40520 from 2016 will become an international Journal, fully published in English, available at the website http://www.jgerontology-geriatrics.com/) are the official peer-reviewed organs of the SIGG.

Data Resources

Italian observational studies investigating large populations are usually carried out using electronic health care databases. The two main types of health care data archives are Healthcare Utilization databases (HCU) and Medical Record databases (MR).

Unlike the U.S. archives [Medicare (Bussell & Gonzalez-Fernandez, 2011), Medicaid (Arora, Mannalithara, Mithal, Triadafilopoulos, & Singh, 2012), and Veteran Administration (Gupta et al., 2006)], the European HCU databases were created more recently and include virtually every citizen, that is, those beneficiaries of the National Health Service, providing high quality information of more stable populations. Specific to Italy, an automated system of databases was created with the aim of recording any cost for public health services (e.g., drug prescriptions, hospital admissions, surgical procedures, outpatient visits, etc.). In this way, when a patient goes to a pharmacy and gets a drug dispensed, pharmacists are required to report prescriptions in detail to obtain reimbursement from the NHS, and incorrect reports about the dispensed drugs have legal consequences. Analogously, if a patient goes to a public or private hospital, physicians are required to report all information about the medical care: the diagnosis of the medical condition that led to the hospital admission (the principal diagnosis and up to five secondary diagnoses), diagnosis-related group (DRG) and procedures (if any). Therefore, HCU databases provide highly accurate data.

HCU databases are used in several investigations on elderly patients (Corrao & Mancia, 2015; Ghirardi et al., 2014; Nobili et al., 2011; Percudani, Barbui, Fortino, & Petrovich, 2005; Piscitelli et al., 2010).

Data are recorded independently of patient agreement and are available over long time frames. Their major limitations are exposure misclassification (due to factors such as real drug consumption vs. prescription, calculation of days covered, lack of records about over-the-counter medications) and confounding (see Supplementary Appendix for further details). Nevertheless, new analytic techniques—such as sensitivity analysis or propensity score calibration—are increasingly applied to HCU databases to account for residual confounding.

Regarding to MR databases, Health Search is the major Italian archive, established in 1988. It currently involves 1,000 general practitioners and 1.2 million citizens.

Health Search provides data for a wide number of medical and public health research purposes (Lapi et al., 2012; Sultana et al., 2014). The most important MR database is probably the UK General Practice Research Database (Garcia Rodriguez & Perez Gutthann, 1998; Scowcroft, Lee, & Mant, 2013), although similar databases are available in other European countries.

The clinical information provided by Italian MR databases is much more extensive than that of HCU databases. The collected data include lifestyle habits, risk factors, blood pressure values, and patients' clinical history. However, MR databases suffer some limitations. Physicians usually provide information on patients' diagnoses and care dependently on how involved they are in the management of those medical conditions. Also, clinical data are frequently partial, and the patient's overall clinical status is usually not available in a comprehensive database format. Finally, physicians who supply their information to MR databases may not be representative of all general practitioners and therefore, the real clinical practice cannot be suitably described by these data.

Emerging Issues

Some preliminary information about the distinctive features of the Italian welfare system is necessary in order to understand the evolution of the policies toward elderly. From an historical point of view, our welfare system is characterized by its familistic orientation (Naldini & Saraceno, 2008) more so than in other European countries (Esping-Andersen, 1990). The family plays a central role because it is responsible for providing assistance to its senior members, but it is also the main recipient of welfare policies. This orientation lies on a cultural background. First, family members have traditionally provided the care of seniors and children, without the support of external caregivers and with a very limited support from public institutions. Second, the "pervasiveness of the male breadwinner model" (León & Pavolini, 2014) oriented the definition of fiscal and family policies, and indirectly remarked the dependency of the members on the "head of the family," hindering the participation of women in the labor market for a long time.

These trends have undoubtedly been fostered by the role played by the Catholic Church in Italian society, which legitimated the persistence of such a traditional definition of the role of the family and supported policy choices consistent with this interpretation.

Another concern is the high proportion of pension spending in the overall resources allocated to welfare (Fargion, 2009). It is estimated that old age pensions absorbed about 65% of total social protection expenditure (Maino & Neri, 2011), whereas this quota is much lower in the other European member states, where the average value is around 45% (Maino & Neri, 2011). This pension spending was unsustainable in fiscal terms, because most of the social security contributions were disbursed following earning-related schemes. The reforms initiated in the nineties gradually introduced contributory schemes, and opened the domain of pensions to private funds (Natali, 2011).

The demographic evolution of the Italian population and the increase of average age have raised the issue of "non-self-sufficiency" experienced by a growing number of people (Comas-Herrera et al., 2006). This phenomenon brought the necessity to create policies for long-term care, because many families face issues in reconciling the time accorded to caregiving needs with the working commitments. A further emerging issue is the implementation of the *intermediate care*, that is, strategies (facilities, multidisciplinary teams) that complement social care with health care interventions or rehabilitation procedures, in order to provide comprehensive services to the elderly with disabling conditions that have arisen. The ultimate goal of intermediate care is to maintain the seniors' residual autonomy, allowing them to live at home. However, in Italy, these two forms of assistance are provided by two well-separated entities (the municipalities and the NHS), both in terms of responsibilities and budget. Because of this strict separation and of difficulties in optimizing collaboration, intermediate care realities actually implemented and effectively oriented toward the quality of life of the elderly are still sparse. Additionally, specific policies for the non-self-sufficient elderly are still lacking. For these reasons, a large number of families privately employed eldercare assistants (known as *badanti*, literally "those involved in the surveillance and care"). Most *badanti* are women coming from abroad (mainly countries of Eastern Europe), typically hired without a regular job contract, meaning they are not registered workers and do not pay taxes (Da Roit, 2011; Degiuli, 2007). For this reason, the employment of a *badante* is generally cheaper than transferring a senior to a residential care facility. The use of *badanti* has effectively bridged the absence of homecare services provided by public health care system, even if it is possible to argue that the State *de-facto* fostered their diffusion by not implementing systematic control measures on their working conditions.

The wide spread of *badanti* has reduced the rate of elderly staying in residential facilities. This phenomenon is linked to the economic costs of residential stays and to the scarceness of the offer. Another characteristic feature of the Italian welfare system is the lack of homogeneity of the offer of services across regions, both in terms of quantity and quality. The figures of Northern Italian regions are very much higher than those of Southern regions in terms of number of nursing homes (and number of beds), which are the most represented residential care facilities (Pesaresi & Brizioli, 2009). Taking into account the broad geographical differences, it is estimated that about 2% of Italian seniors live in nursing homes (http://www.istat.it).

State intervention has mainly focused on the provision of financial contributions. An important measure is the so-called "*indennità di accompagnamento*," a fixed monthly fee (currently 508 EUR) that is paid to the families of non-self-sufficient persons, regardless of their income. This measure was originally founded in 1980 as an intervention in support of disabled people, but was soon extended to elderly people (aged 65 years and older) who had conditions of non-self-sufficiency (Facchini, 2009). In 2012, the ISTAT reported that about 1,530,000 elderly citizens have benefited from this monthly fee. However, some criticisms emerged: first, the absence of coded criteria for the strict selection of people to be provided with this contribution (Micheli, 2007). Secondly, the high incidence of expenditure for this intervention on the whole of the costs of long-term care policies: its value corresponds to the 0.81% of gross domestic product (GDP), whereas other interventions of social assistance provided by municipalities account for about the 0.19%, and the interventions of long-term care with a major medical nature amounted to 0.86% of GDP (Arlotti, 2012).

Given that demographic aging currently represents an indisputable and growing reality in our country, it will be necessary to set up all the possible strategies to govern its consequences, especially the individuals' quality of life and the stability of the economic and social organization. A debate has been going on for a long time—particularly substantial in this period of financial instability—aiming to conceive and foster new balances of welfare that are compatible with an aging society, giving special priority to the issue of pensions and health care. Nevertheless, there are also reflections and proposals with respect to other areas of action such as labor, family, culture, participation in social life, and relationship. Even compared to the production, distribution, and consumption of material goods and services, an aging population requires new behavior patterns and new rules. An area of growing interest is certainly the one of nutrition. Wrong nutritional habits are a major risk factor for several diseases in our society, and food resources represent the core of the EXPO 2015 international event "Feeding the Planet, Energy for Life" (Milano, May 1, 2015–October 31, 2015, http://www.expo2015.org/en/index.html). Within EXPO 2015, some initiatives are focused on the elderly, such as "Care of ideas, to nourish body and soul" (May 28th, organized by National Federation of Retirees), "The Elixir of Life" forum (June 11th, organized by Italian Longevity), "Food Season. Nutrition throughout life" (June 26th, organized by CNR), "Nutritional education and healthy lifestyles" from children to the elderly (organized by Lions Club International), and "Dietary needs of healthy and frail older people" (August 3rd, organized by the School of Geriatric Medicine and Gerontology, University of Milano-Bicocca).

Finally, as mentioned before, a significant number of immigrants will gradually enter the old age. Information about their health status and health care services utilization is fragmentary, because not all of them are regular citizens or are registered at the Office of Vital Statistics (and thus they are not beneficiaries of the NHS). Indeed, many immigrants have just a residence permit, which is necessary to remain in our country for more than 90 days, but the Italian citizenship could be obtained only after several years of "legal residence," that is, being registered at the Office of Vital Statistics (5 years for EU citizens, 10 years for non-EU citizens). From an epidemiological point of view, immigrants are mostly young adults in good health, and generally show a higher birth rate than Italians, but they are progressively being affected by the unfavorable economic situation: growing unemployment rate, decreasing birth rate. Families of immigrants are also more likely to reach the threshold of poverty (ISTAT, 2011 Census). For all these reasons, in the next decades the "graying effect" will also increase their age-related health care needs.

Conclusion

Demographic aging is still growing in Italy, both in intensity and in dissemination. This phenomenon is related to the progressive "aging from above" (increasing longevity), and especially to the "aging from the bottom" (low birth rate, baby boomers growing old), not compensated nor significantly slowed by the effect of migration.

There is urgent need of designing new forward-looking policies oriented toward the promotion of "healthy and active aging," such as educating to prevention since young age, investing resources in research, building realities more oriented toward the needs and the assistance of the elderly, and reducing the tax burden toward the older and frail segment of the population.

In line with these needs, the development of *intermediate care* should be promoted, at the crossroad between the assistance granted by general practitioners on the territory and nursing homes. The purpose of this intermediate form of assistance is to preserve as long as possible the remaining autonomy of each senior, so that he/she can live at home instead of being transferred to a nursing home. Despite significant efforts in this direction, we are still at the beginning of the implementation process. Most importantly, the above-mentioned goals could be successfully addressed and achieved only after an increase of the social awareness toward them.

The Italian welfare system has its flaws, though they are fixable, as long as various institutions collectively endorse an approach that not only respects the independence and dignity of older people, but also reduces avoidable expenditures and optimizes the allocation of the available resources.

Supplementary Material

Supplementary material can be found at: http://gerontologist.oxfordjournals.org.

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