

**Ewa Szostak**

Wrocław University of Economics  
e-mail: ewa.szostak@ue.wroc.pl

---

**REGIONAL SOCIAL INFRASTRUCTURE  
FROM THE PERSPECTIVE OF AN AGEING SOCIETY**

---

**REGIONALNA INFRASTRUKTURA SPOŁECZNA  
Z PUNKTU WIDZENIA  
STARZENIA SIĘ SPOŁECZEŃSTWA**

---

DOI: 10.15611/pn.2018.537.10

JEL Classification: I11, J11, R11

**Summary:** This article aims to assess the state of the economy by highlighting the regional aspect from the perspective of an ageing population as well as to analyse the adjustments of the economy structure at the level of Polish regions in the area of silver and white economy to the needs of an ageing society. The age of 65+ was analysed. The rate of change in different regions is different, but the ageing process of society can be noticed everywhere. The creation of a silver and white economy is necessary in the face of ongoing processes. Visible delays in these areas are disturbing. It is the responsibility of the authorities to set goals and methods of their achievement in the field of shaping, for example, labour market policy, social insurance and healthcare. Methods used: descriptive, comparative, statistical analysis, synthesis.

**Keywords:** ageing, silver economy, white economy, region, voivodship.

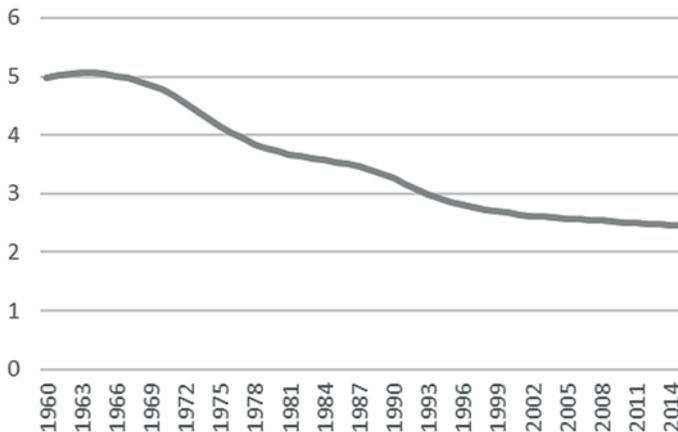
**Streszczenie:** Celem artykułu jest analiza dostosowania struktury gospodarki na poziomie polskich regionów w obszarze srebrnej i białej gospodarki do potrzeb społeczeństwa. Do analizy przyjęto wiek 65+. Tempo zmian w poszczególnych regionach jest różne, lecz wszędzie dodatnie. Budowa srebrnej i białej gospodarki jest konieczna wobec zachodzących procesów, a widoczne zapóźnienia są niepokojące. Do obowiązków władzy należy wyznaczanie celów i metod ich osiągnięcia – w zakresie kształtowania np. polityki rynku pracy, ubezpieczeń społecznych czy ochrony zdrowia. W artykule wykorzystano metody: opisową, porównawczą, analizy statystycznej, syntezy.

**Słowa kluczowe:** starzenie się, srebrna gospodarka, biała gospodarka, region, województwo.

## 1. Introduction

The 21st century is not just an age of accelerated technological and economic change but of social and demographic changes in the world. Ageing of an individual, but also societies, becomes a challenge to politics, structural change, demography and

economics. There are two trends, sets of factors affecting the longer life. Firstly, there is an upward trend which decreases the rate of mortality among children, while at the same time, family's fertility decreases as a result of civilization diseases and a new family model of starting a family later and later or disappearance of large families (cf. fig. 1). The second noticeable trend of changes is ageing from the top of the age pyramid, that is, the prolongation of life, especially the period of old age [Szukalski 2011, p. 9]. We are dealing with the phenomenon of double ageing now, which means an increase in the elderly population's share of "the older elderly" (75-84) and "the eldest" (85+). The European population is living longer – the median age is reaching 41-47 years now, while the median age was lower 6 years ago. In 2030, this rate indicator in Europe will increase to 45.1 and the proportion of people over 60 will increase from 9.9% in 2015 to 14.2. % in 2030 and 19.8% in 2050. In Germany, the age median is 46.2 years and in Italy – 45.9.



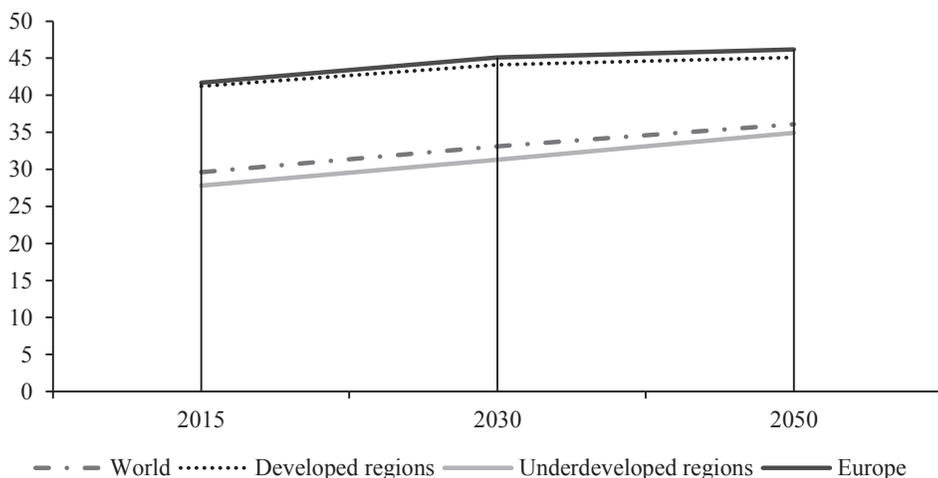
**Fig. 1.** Changes in child's births per 1 woman in the world, 1960-2015

Source: author's own chart based on [World Bank 2017].

In the face of the transpiring changes, gerontology becomes a discipline of knowledge, occupying an increasingly important place in shaping policies. There is an urgent need to rapidly adapt not only to the economy but also to ageing societies. In 2030, the life expectancy of Western Europeans will be nearly 90 years. [International Labour 2013, p. 9].

The European Innovation Partnership for Active, Healthy Ageing may be considered a response to demographic challenges. In November 2011, a strategic implementation plan was developed for this partnership, identifying priority areas and initiatives to be taken by public authorities, businesses and civil society. These include:

- innovative systems that allow patients to follow prescriptions – joint action in at least 30 European regions;



**Fig. 2.** Median of the world populations' age, 2015-2050

Source: author's own chart based on <https://stats.oecd.org/> (access 12.03.2018).

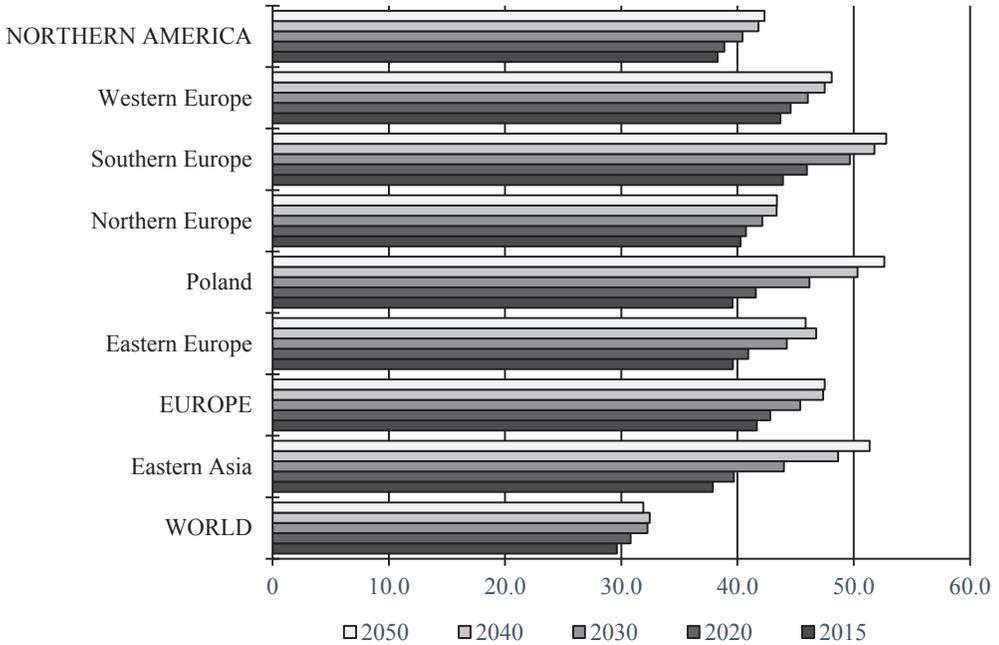
- innovative solutions for preventing collapses and sudden onset of diseases among senior citizens and for early diagnosis of their illnesses;
- cooperation to prevent malnutrition causing states of weakness;
- promoting effective, innovative integrated care models for chronically ill elderly patients, e.g. through remote monitoring (campaigns in many regions of the EU are recommended);
- improve the use of the latest ICT achievements to help senior citizens maintain independence, mobility and active life for longer [*European Innovation...*].

## 2. Ageing of the population – Poland on the background of the world

One may confidently ascertain that the end of the 20th century and the 21st century brought about a phenomenon of an ageing population<sup>1</sup> not only in local, national and world scale<sup>2</sup>. The causes and the accompanying phenomena are multiple: the extension of life – thanks to the inventions of medicine, change of lifestyle or technological achievements, lower fertility, emigration to countries with higher levels of development. Ageing is the major problem in Western and Southern Europe (Figure 3). Poland is demographically young, but over the past 25 years, inhabitants

<sup>1</sup> Ageing population – increase in the percentage of the elderly along with the simultaneous decrease in the percentage of children.

<sup>2</sup> This article adopts 65 years of age or more as a threshold of old age, although in the literature of the subject one can come across the boundary of 60 years. Such an assumption results from the extension of productive age in the economies of the world. The Act of 11<sup>th</sup> September 2015, on the Elderly, defines elderly persons as those who turned 60 years old.



**Fig. 3.** Median of the population age ordered according to the main areas and the age of the population in Poland, 2015-2050. Fixed fertility ratio, 2015-2050

Source: author's own chart based on [United Nations, *The 2015 Revision...*].

of Poland have aged 7 years on average. In 2015 the median age for the population in Poland was 39.6 years, but in 2020 it will be 41.6, in 2030, 46.1 years and in 2050, 51,8 years.

Rapid growth is evident in the increase in the share of this population. In 2000, the share of the elderly in Poland was 12.4%, in 2015, 16.4% of the total population [GUS 2017]. Against the background of EU Member States, we are one of the fastest ageing societies. The Central Statistical Office (GUS) forecasts that in 2050 the share of senior citizens will exceed 30% in rural areas and 35% in cities, which means that the population is growing by 5.4 million [GUS 2014, p. 34]. In parallel, with the increase in the number of people over 65 by 2050, their life will extend – men's by about 9 years and women's by 6.4 compared to today [GUS 2014, p. 36].

### 3. The concept of silver and white economy

With the ongoing demographic changes, there is a need to consider and introduce changes in the structure of economy. The silver economy is based on the Japanese concept of an economic system focused on the needs of the elderly, while taking into account the needs of all other social groups [Klimczuk 2013]. Adopting and

implementing the idea of silver economy means adapting the structure of businesses along with the goods and services they produce to the needs of people of all ages, health, fitness, skills and income. Within the framework of the policy, there should be the following priorities: spatial planning, mobility, environment and healthy nutrition, sport, education and management [Committee of the Regions 2017]. This approach fosters broadly understood social integration. The European Commission also stresses the economical aspect of the economy, which relates to the elderly who actively create demand as the main beneficiaries of health services and long-term care [Commission of the European Communities 2007, p. 102]. In parallel, it is emphasized that the silver economy is a collection of products and services produced by different sectors.

The alarming and increasingly visible processes of the ageing population of the EU countries at the turn of the 20th century have become one of the most important challenges of the 21st century not only for the countries but for the entire European Union. Further documents point to the need for the rapid actions in this area, the systemic approach and the creation of the silver economy. The Lisbon Strategy has already as one of the priorities the increase in the employment rate of people aged 55-64. One of the first important documents indicating the need for higher activity of the ageing people which was published by the European Commission, was the Green Paper: *Confronting Demographic Change: A New Solidarity Between Generations* [Commission of the European Communities 2005]. It emphasized not only the changes in health, work or activity, but also economic aspects, pointing to the opportunities for the creation of demand by senior citizens. In a communication published a year later, the European Commission pointed to the possibility of using the potential of an ageing society to increase the competitiveness of the European economy by increasing the supply offer for this social group. Based on the analysis of this document, it may be concluded that the Commission had not only seen the dangers, but also the opportunities and potentials dormant in the European economy. This concept and its development are reflected in the Commission report on ageing in 2009 [Commission of the European Communities 2009, p. 10]. The target group of senior citizens gives the opportunity for innovative companies to create new goods and services and adjust the old ones to their needs not only in European but also in global markets. The ageing of society is present in the activities undertaken to promote active ageing and intergenerational solidarity, which found its expression in the activities of the European Year 2012. Also in the Europe 2020 Strategy, attention is paid to increasing the professional activity of people over 55 years of age.

Senior policy<sup>3</sup> is not a domain of any ministry in Poland. The activities are carried out by the public administration and most of the ministries. Most programs

---

<sup>3</sup> Senior policy – overall activities of the authorities and other organizations and institutions which carry out the tasks and launch initiatives shaping the conditions of decent and healthy ageing.

are carried out by the Ministry of Families, Labour and Social Policy – 10 programs, among others: Government Programme for Social Participation of Senior Citizens for 2014-2020 (ASOS), Labour Market Program for People over 50 and others.

The purpose of the employment policy in Poland is to increase the professional activity of persons over 50 years of age. Policy implementation tools are the implementation of the “50+ Program”. In addition, the Strategy for Responsible Development for 2020 [Rada Ministrów 2017] identified priorities for increasing and improving the utilization of human capital in the labour market. Special attention was drawn to the support for the active participation of people over the age of 50. Actions to be taken by 2020 to support this objective include:

- active labour market instruments,
- programs for completing or changing qualifications,
- health prophylaxis,
- flexible forms and ways of providing work,
- counteracting discrimination in employment,
- incentives for longer labour market activity [Rada Ministrów 2017, p. 167].

Structural changes in an ageing society mainly concern the development of services for the elderly. Actions taken in this area are often collectively called the white economy<sup>4</sup>. Priority is given to improving access to healthcare, particularly geriatric and long-term care. Within this white economy framework, the monitoring of the situation of the elderly is advocated. According to the Act, *the scope of monitoring the situation of senior citizens includes: demographic situation, [...] the situation of people with disabilities, social and civic activity, educational and cultural activity, sports and recreation activities, health status, accessibility and level of social services, equal treatment and anti-discrimination on the grounds of age and the implementation of seniority policy* [Ustawa z dnia 11 września 2015 r. o osobach starszych, Dz.U z 2015 poz. 1705].

The actions taken are not sufficient. According to the Supreme Audit Office (NIK) report on geriatric care in Poland there is no system of medical care for elderly patients [NIK 2015, p. 24]. The ageing of society creates the demand for the development of the white economy and therefore for a greater number of physicians (especially geriatric doctors), nurses, rehabilitators, medical rescuers, carers and also for various facilities where the needs of these people can be met. However, medical care is only part of the care system for the elderly, others that require support and structural change include, for example, tourism, recreation, education, and change of service standards.

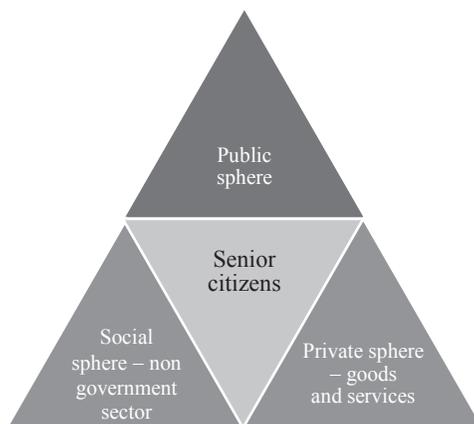
The Active Ageing Index (AAI) can be used to better illustrate the state of the economy, policy and performance of older people. The indicator is built on four pillars that make up the sub-indicators: employment, participation in society,

---

<sup>4</sup> White economy – professions related to caring for senior citizens and persons with disabilities and their needs.

independent, healthy and secure life, opportunities and a favourable environment for active ageing. According to the ranking among the EU28 countries, Poland does not properly utilize the potential of the elderly in the area of active and healthy ageing. In 2014, Poland was in the penultimate place with a 28.1 index, ahead of Greece with an EU average of 33.9. The leading countries were Scandinavian countries with a score not lower than 40. In the years 2010-2014 there was an improvement and an increase of only 1.1 points. At that time, the three countries recorded a decrease: Greece by 1.1, Latvia by 0.7 and Slovenia by 0.2, while the highest increase was recorded in Italy by 4, in Luxembourg by 3.9 and in the Czech Republic by 3.4.

Creating a system for an ageing society should not be based solely on bottom-up initiatives. It is the responsibility of the authorities to set goals and methods of their achievement in the field of shaping, for example, labour market policy, social insurance and healthcare. Public, non-governmental and private spheres should complement, co-operate on a partnership basis, and their actions should have a positive impact on senior citizens (cf. Fig. 4).



**Fig. 4.** Senior Policy

Source: author's own visualisation.

One of the areas of the ageing society system is long-term care. In many countries, a decentralized approach is used, for example in Austria, Germany or France, while in the Netherlands and Poland the approach is centralized, but only in Poland it is the family who is primarily responsible for long-term care [*Informacja o sytuacji...*2016, p. 21].

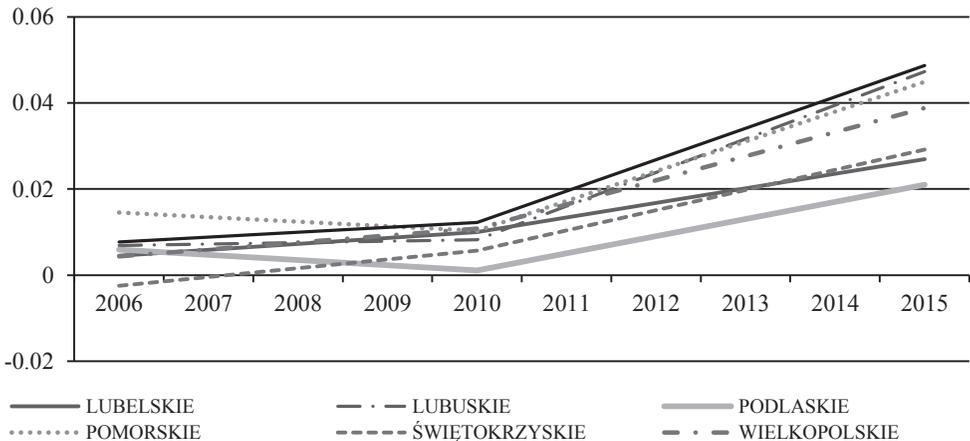
#### 4. Ageing in Polish regions

The number of senior citizens in Poland has been steadily increasing since 2005, and was growing in particular from 2010 to 2015. The highest increase in the percentage of the elderly in the total number of inhabitants took place in the Łódzkie Voivodship

and in 2015 it amounted to 17.64%. The “youngest” voivodship in 2015 was Warmińsko-Mazurskie Voivodship, where the percentage of the elderly in the general population was 14.05% (see Figure 9).

The change rate in the number of elderly people in various regions of the country was different. The highest rate of change in 2015 compared to 2005 was recorded in the Pomorskie Voivodship. In the analysed period, the number of senior citizens in this region increased by 29.26%, while the lowest, but also increasing rate of change, was recorded in the Podlaskie Voivodship (10.21%) (figure 5).

The average change rate in this period for Poland was 1.81%, the highest rate of changes was recorded in the voivodships: Pomorskie, Zachodnio-Pomorskie and Wielkopolskie, while the lowest in Lubelskie, Świętokrzyskie and Podlaskie.

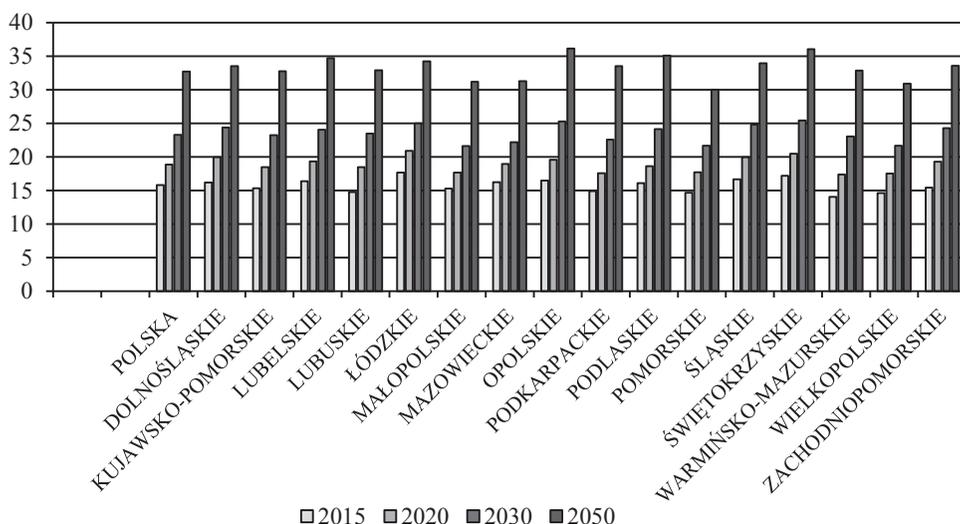


**Fig. 5.** The pace of changes in the number of people over 65 years old in voivodships

Source: author's own chart.

Assuming 2014 as the basis for forecasting, the proportion of people aged 65 and over by 2050 is projected to double on average from 15.81% to 32.69%. According to the Central Statistical Office (GUS) forecast, in 2014, the highest proportion of elderly people in the general population will be in the Łódź Voivodship, where every fifth inhabitant will be 65+ (figure 6). In the years to come, the change rate and the age structure in the regions of Poland will change. In 2030 the highest percentage of senior citizens will be in the Świętokrzyskie Voivodship (25.44%) and in 2050 in the Opole Voivodship, where almost every third person will be 65 or older.

When analysing demographic changes, it is important to remember that over the next 20 years the number of people over 65 will continue to grow. The reason for this is the low birth rate and entering the age of 65+ by people born in the baby boom period of the '50s and' 60s. The percentage of the population aged 85+ will increase by half from 6% in 2015 to 9% by 2050, which means that every eleventh inhabitant in Poland will be 85 or more years old.



**Fig. 6.** Percentage of the population over 65 years old in 2015 and the forecast for 2020-2050

Source: author's own graph on the basis of BDL.

Technological progress, the development of medicine and pharmaceuticals, the rise of public awareness, etc. contribute to the prolongation of life. A summary of the life span data in relation to health provides a more comprehensive picture of the society. Despite positive changes and prolonged life expectancy, the situation of Poland against other EU28 countries is unfavourable. In 2014, the average life expectancy and life expectancy for people aged 65+ in the EU28 was 18.2 years among men, including 8.6 in good health, while in Poland it was 15.9 and 7.5 respectively. On the other hand, women over 65 in the EU 28 lived on for 21.6 years on average and in good health for 8.6 and in Poland for 20.4 and for 8.1 years respectively. The effect of these processes is the phenomenon of singularization<sup>5</sup> and feminization of old age. By 2030, as many as 53.3% of households will be run by people who are 65 years of age or older, including 17.3% by people 80 years of age and older [Błądowski et al. 2012, p. 6]. The consequence of these processes and phenomena is, among others, the departure in the family model from the multi-generational one in which there is a custom of mutual care for independent, single-person households of the elderly. This will intensify the needs of the elderly on the one hand and the burden on the other.

<sup>5</sup> Singularisation connotes a higher percentage of senior citizens who run a household single-handedly.

## 5. Silver economy in selected regions of Poland

An institution which combines public, private, central and local government representatives, and therefore all actors involved in the policy of the elderly is The Polish Institute of Silver Economy. The Institute's activities are designed to create a functioning, integrated system and give impetus to the creation of a new branch of the economy. The president of the Institute, M. Rudnicka, has coined the term "senior service cluster", which is based on the functioning of a platform for organized and comprehensive care and accompanying services management in the area of senior economy [<http://kigs.org.pl/o-institucie...>].

Despite the development of the silver economy in highly developed countries, it is still associated merely with improving access to health services and the white economy. The evidence supporting this is, among other things, data availability or in fact, its lack. There is no evaluation of changes in the structure of the economy broken down into age groups and adjustments in this regard. Local or regional strategies have identified the problem of ageing. For example, in the Development Strategy for Dolnośląskie Voivodship 2020 (SRWD), we find records of an ageing society and the need to adapt the structure of hospital beds to the needs of the population. SRWD has laid out groups of standards which should be taken into account when implementing development projects. The following social norms were listed [*Strategia Rozwoju...* 2011, p. 26]:

- the dimension of social protection,
- effective use of means of social assistance and stimulation of actions aimed at improving the living conditions of people at risk of social exclusion,
- the dimension of health,
- optimization of the healthcare system in Dolnośląskie, including the improvement of the quality and availability of medical services, the restructuring of medical entities and the balanced distribution of financial resources.

In the communication from the Ministry of the Family of Labour and Social Policy [*Informacja o sytuacji...* 2016, pp. 221-223] general provisions on social policy towards senior citizens at the regional level can be found. The undertaken activities in Dolnośląskie, but also in other regions include:

- social assistance – mainly to reduce the sense of social exclusion and poverty,
- unions, foundations and associations, such as the Association of Siberian Deportees, the Alliance of Veterans,
- universities of the third age,
- senior clubs, rural housewives, folk groups,
- libraries tailoring the offer to the needs of the elderly by organizing computer courses or equipment in a series of books, so-called Uppercase Letters.

In the Łódź Voivodship where the proportion of elderly people is the highest in Poland, the priority of social policy towards senior citizens is to "take action that will enable the elderly to function independently in the environment as long as possible.

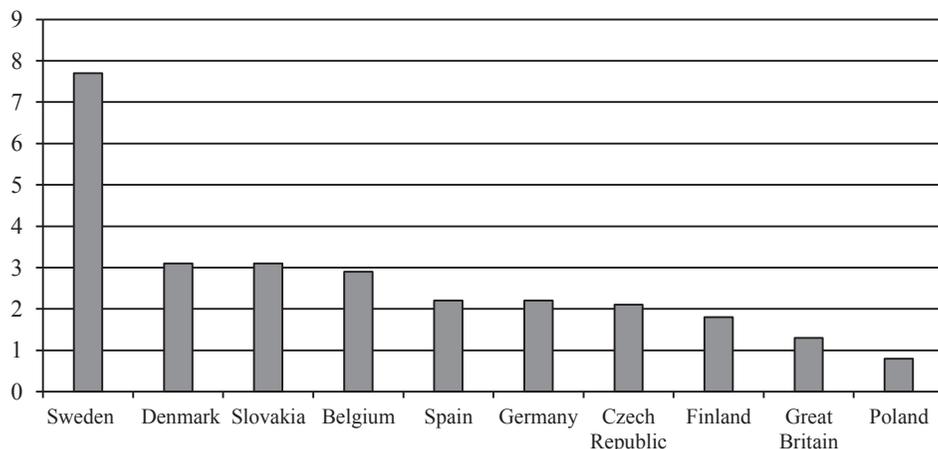
The forms of support which enable the functioning of the aforementioned persons in the environment include care services, specialized day care services, day care homes” [Informacja o sytuacji... 2016, p. 250].

Authorities of all voivodships recognize the problem and the need for action in the field of ageing society. Their initiatives, however, are undertaken mainly *ad hoc* and have the nature of taking care and to a lesser extent they activate or sustain elderly people in good physical health or active condition.

The need to take action by creating the silver economy in terms of raising awareness, satisfaction, activity, self-assessment of the elderly is urgent. This is reinforced by the analyses carried out within the Survey of Health, Ageing and Retirement Policies SHARE 50+ in Europe<sup>6</sup>. According to those analyses, Poles, when compared to other countries, feel much worse, judging their health as being three times worse than other European nationalities’ [Magda, Kielczewska 2017, p. 2].

## 6. White economy in the country’s regions

Existing health legislation does not give special privileges to the elderly. As a result of unfavourable demographic changes and an increase in the number of people over 65 years old, there is a pressing need to improve access to healthcare for the elderly,



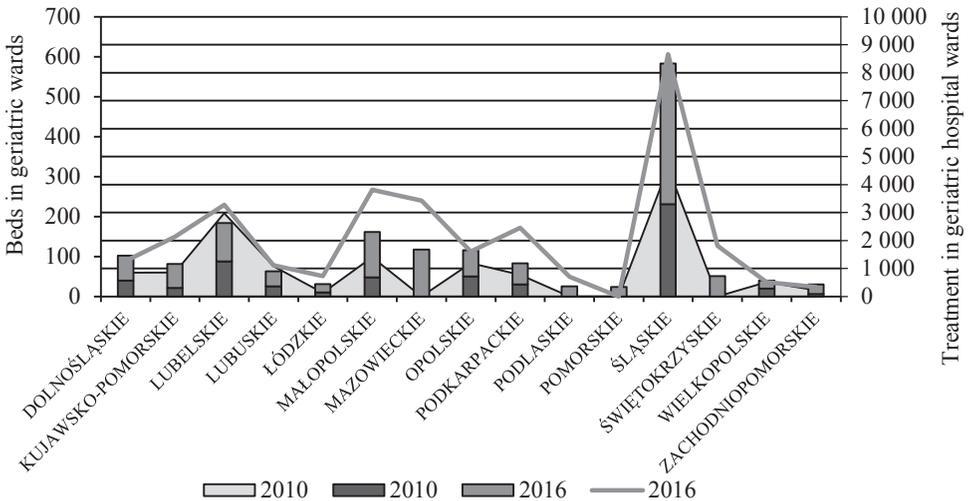
**Fig. 7.** Number of doctors specialising in geriatrics per 100,000 inhabitants in Poland and in selected EU countries

Source: [NIK 2015, p. 24]. Data of the Polish Chamber of Physicians and Dentists and the examples of geriatric care in other countries with special focus on EU countries; K. Wieczorowska-Tobis, excerpt from the presentation during the Panel of Experts.

<sup>6</sup> SHARE 50+ (*Survey of Health, Ageing and Retirement in Europe*) is a panel research which focuses on persons over 50 years old. The research has been conducted since 2004.

with particular focus on geriatric and long-term care facilities, along with the increase in the medical staff. According to Supreme Audit Office’s Survey [NIK 2015, p. 24], the number of geriatric specialists in Poland is significantly lower than in the EU. In Poland from 2010 to 2014, the number of working geriatrics workers increased from 97 to 135 doctors.

In 2010, there were 21 geriatric wards in Poland, with a total of 14,600 patients (Fig. 8). At that time, however, there were regions where there were no geriatric departments: Mazowieckie, Podlaskie, Pomorskie and Świętokrzyskie. Over the last six years, the number of wards has increased more than twofold by doubling the number of patients treated to 31,860. The largest increase in hospital beds in the geriatric ward (three times) was in the years 2010-2016 in the Kujawsko-Pomorskie Voivodship where there are 2 geriatric wards with 60 beds. In 2016, 60% of the elderly were treated in geriatric wards in the following voivodships: Śląskie (27.17%), Małopolskie (11.96%), Mazowieckie (10.76%) and Lubelskie (10.29%). The last province which established a geriatric ward was Pomorskie (in 2016) but by the end of the year no patient was admitted there. Śląskie Voivodship has almost one third of geriatric wards in Poland and 30% of all geriatric patients in Poland were treated there in 2016.



**Fig 8.** Changes in the number of beds and geriatric patients in the years 2010-2016

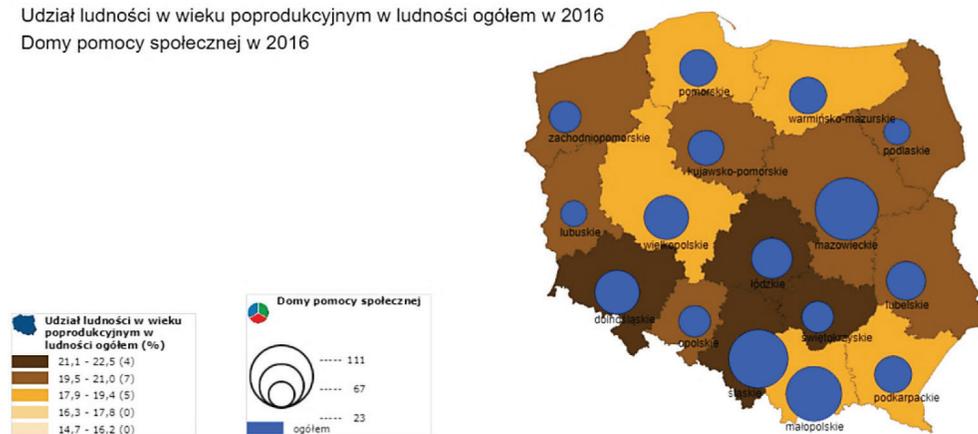
Source: author’s own graph based on BDL.

Such a ward structure and the number of geriatrics doctors essentially means that in Dolnośląskie the number of geriatrics specialists per 100K inhabitants was only 0.45 in 2014, which means 5 geriatricians.

Stationary and 24-hour healthcare services are provided in standard hospitals, long-term care facilities, hospice and palliative care facilities, old homes and nursing

homes<sup>7</sup> for long-term care and in health resorts. The number of patients treated at the age of 65 and over in 2013 per number of inhabitants in the nine voivodships was higher than the national average (4,283), while it was the lowest in Poland in Dolnośląskie (3,199) and in Podlaskie (2,982).

Udział ludności w wieku poprodukcyjnym w ludności ogółem w 2016  
Domy pomocy społecznej w 2016



**Fig. 9.** The percentage of population in the post-productive age against total population and the nursing homes in 2016

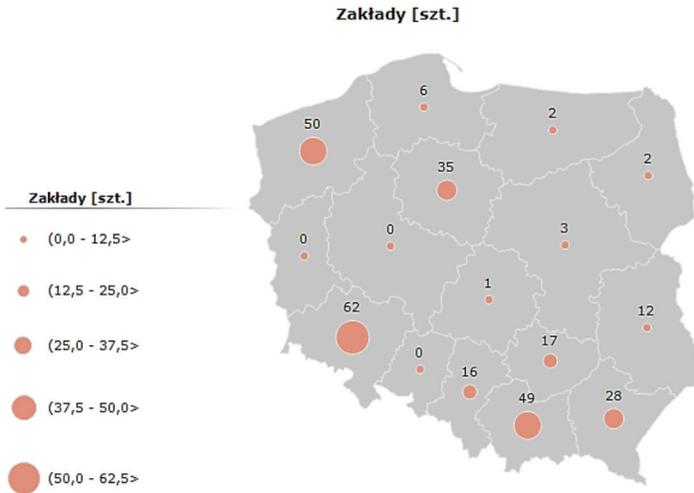
Source: author's own compilation based on [Regional Atlas of GUS 2018].

The long-term care and palliative care both complement generic hospital services. In 2014 there were 685 long-term care facilities in Poland. The largest number of beds was located in Mazowieckie, Śląskie and Dolnośląskie. On the other hand, per each one hundred thousand residents the largest number of beds in hospices, nursing and care and nursing homes was in Dolnośląskie (122,2) and Opolskie (103), and the lowest in Wielkopolskie (32,1) and Zachodniopomorskie (56,1). In 2016, the same regions remained at the top and at the low end of the ranking.

Spa therapies are another form of healthcare services which is used by elderly people. In Poland there are 45 statutory health resorts located in 13 voivodships. The distribution of health resorts in Poland is uneven and depends on climatic and geological conditions. At the end of 2015 there were 283 spa treatment institutions in Poland, 22% of which in Dolnośląskie. In 2014, out of 794,5 thousand, 38.6% (306,5 thousand) patients using spa outpatients and spa stationary treatment were aged at least 65.

The highest number of elderly patients was treated in the Zachodniopomorskie Voivodship (27.2%), Kujawsko-Pomorskie (23.4%) and Świętokrzyskie (11.4%).

<sup>7</sup> Nursing home is an institution providing existential care, assistance and educational services which are up to the required standard. This facility is dedicated to persons requiring 24/7 attention and care due to old age, sickness or disability, who are unable to operate in everyday life.



**Fig. 10.** Sanatorium resorts

Source: [GUS 2018].

Among those aged 65 and over who used stationary spa treatment, 9.5% were foreigners, with the highest percentage of elderly foreigners being treated in establishments operating in Zachodniopomorskie and Dolnośląskie Voivodships (26.6% and 20.7% patients respectively) [GUS 2015, p.167].

## 7. Conclusions

Any initiatives undertaken for the sake of the elderly should be characterised by a systemic dimension rather than constitute one-off projects or be launched in reaction to unfavourable indicators, or social concerns. These initiatives can take the following forms:

1. Solutions targeted at people in older age groups or with special consideration for them.
2. Solutions for workforce and employers.
3. Solutions for the unemployed and employers looking for employees.
4. Solutions addressed to programming institutions and implementing publicly funded activities.
5. Development of the informative system [cf. more Kryńska 2013, pp. 267-279].

Actually, the border between the silver and the white economy cannot be easily determined. At their intersection there are goods and services which can be directed to the healthy and the sick, self-sufficient and those requiring assistance, the younger and the older. The wide spectrum of impact on the one hand, leads to a large market of consumers with individualized needs, and on the other hand – increasing the

awareness, acceptance and adaptation of people who have been excluded so far. However, in order to make senior citizens feel and function better in the economy and society, systemic changes are needed. It is an imperative to recognize senior citizens as a potential, not just a burden.

The undertaken initiatives both in the country and on the regional level are unfortunately insufficient and dispersed, and they are not systemic. Apart from the white economy, it is necessary to disseminate the idea of the silver economy by increasing the awareness of both the authorities on various levels, as well as entrepreneurs and the society.

## References

- BDL GUS, <https://bdl.stat.gov.pl/BDL/start> (access: 12.02.2018 ).
- Błądowski P., Szatur-Jaworska B., Szweda-Lewandowska Z., Kubicki P., 2012, *Raport na temat sytuacji osób starszych w Polsce*, Instytut Pracy i Spraw Socjalnych, Warszawa, p. 6.
- Commission of the European Communities, 2007, *Europe's demographic future: facts and figures*, Brussels, SEC(2007).
- Commission of the European Communities, 2005, Green Paper: *Confronting demographic change: a new solidarity between the generations*, (COM(2005) 94 final), EU COM, Brussels.
- Commission of the European Communities, 2006, *The demographic future of Europe – from challenge to opportunity*, (COM(2006) 571 final), EU COM, Brussels.
- Commission of the European Communities, 2009, *Dealing with the impact of an ageing population in the EU* (2009 Ageing Report), (COM(2009) 180 final), EU COM, Brussels.
- Committee of the Regions 2017, *Promowanie Zdrowia w miastach z myślą o poprawie jakości życia obywateli UE*, 2017, Komisja Zasobów Naturalnych, [www.cor.europa.eu](http://www.cor.europa.eu) (access: 14.05.2017).
- European Innovation Partnership agrees on actions to turn ageing into an opportunity, [http://europa.eu/rapid/press-release\\_IP-11-1309\\_en.htm?locale=en](http://europa.eu/rapid/press-release_IP-11-1309_en.htm?locale=en) (access: 14.05.2017).
- GUS, 2014, *Sytuacja demograficzna osób starszych i konsekwencje starzenia się ludności Polski w świetle prognozy na lata 2014-2050*, Warszawa.
- GUS, 2015, *Zdrowie i ochrona zdrowia w 2014r.*, Warszawa.
- GUS, 2017, *Dane ostateczne za 2016 rok dotyczące wyników bieżących badań demograficznych*, Warszawa.
- GUS 2018, *Lecznictwo uzdrowiskowe*, [http://swaid.stat.gov.pl/ZdrowieOchronaZdrowia\\_dashboards/Raporty\\_predefiniowane/RAP\\_DBD\\_ZDR\\_4.aspx](http://swaid.stat.gov.pl/ZdrowieOchronaZdrowia_dashboards/Raporty_predefiniowane/RAP_DBD_ZDR_4.aspx) (access: 13.05.2017).
- <http://kigs.org.pl/o-instytucje/> (access: 14.05.2017).
- <https://stats.oecd.org/> (access 12.03.2018).
- Informacja o sytuacji osób starszych w Polsce za rok 2015*, 2016, Ministerstwo Pracy i Polityki Społecznej.
- International Labour, 2013, *Office employment and social protection in the new demographic context*, fourth item on the agenda Report IV, International Labour Conference, 102nd session, Geneva, ILC.102/IV.
- Klimczuk A., 2013, *Srebrna gospodarka jako odpowiedź sektora prywatnego wobec starzenia się społeczeństwa*, <http://odpowiedzialnybiznes.pl/artykuly/srebrna-gospodarka-jako-odpowiedz-sektora-prywatnego-wobec-starzenia-sie-spoleczenstwa/> (access: 14.05.2017).
- Kryńska E., 2013, *Rekomendacje dla Polski wynikające z rozwiązań systemowych stosowanych w krajach Unii Europejskiej*, [in:] E. Kryńska, P. Szukalski (eds.), *Rozwiązania sprzyjające aktywnemu starzeniu się w wybranych krajach Unii Europejskiej. Raport końcowy*, Łódź.

- Magda I., Kielczewska A., 2017, *Analityczny Raport Uzupełniający 4. Praca, zdrowie i umiejętności poznawcze pokolenia 50+*, CenEA.
- NIK, 2015, *Opieka medyczna nad osobami w wieku podeszłym*, KZD-4101-003/2014 Nr ewid.2/2015/P/14/062/KZD, Warszawa.
- Rada Ministrów, 2017, *Strategia na rzecz odpowiedzialnego rozwoju do roku 2029 (z perspektywą do 2030 r.)*.
- Regional Atlas of GUS, 2018, Warszawa.
- Strategia Rozwoju Województwa Dolnośląskiego 2020*, 2011, Urząd Marszałkowski Województwa Dolnośląskiego.
- Szukalski P., 2011, *Starzenie się ludności – wyzwanie XXI wieku*, Wydawnictwo Biblioteka, Łódź.
- United Nation, *World Population Ageing 2015*, raport, Department of Economic and Social Affairs.
- United Nations, *The 2015 Revision of World Population Prospects*, Department of Economic and Social Affairs.
- Ustawa z dnia 11 września 2015 r. o osobach starszych, Dz.U z 2015 poz. 1705.
- World Bank, 2017, <https://www.worldbank.org/> (access: 20.12.2017).
- World Population Ageing, Report 2015, United Nations.