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Population Ageing in Poland Viewed from the Standpoint of Social and Demographic Changes at the Beginning of the Third Decade of the 21st Century

**Starzenie się ludności Polski z perspektywy zmian społeczno-demograficznych
na początku trzeciej dekady XXI wieku**

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Abstract

Aim. The paper explores changes within the population of the elderly in Poland, in particular: changes in their number and educational structure. Educational advancement of the Polish population, observed since the beginning of the systemic transformation in the last decade of the 20th century, sheds new light on population ageing. The latter is also strongly influenced by international migrations and other demographic processes; therefore, the aim of the analysis is to also address their role for the ageing of Poland’s population.

Methods and materials. Research is based on statistical data gathered by Statistics Poland. The first part discusses population ageing across the world. Set against this backdrop, the second part explores these processes in Poland, both those contributing to age-

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ing (fertility decline and rise in life expectancy), and those potentially slowing it down (the COVID-19 pandemic and the influx of refugees, mostly women and children, after the onset of the full-scale Russian invasion of Ukraine).

Conclusion. Immigration from Ukraine, and—to a certain extent—the COVID-19 pandemic, contributed to a decline in the share of the elderly among the Polish population. Moreover, analysis points to a changing definition of old age and changes within the population of the elderly, such as rising level of education and improved health. These processes paint a more nuanced picture of ageing than when the focus is solely on the data on changes in the number of the elderly and their share in the general population.

Keywords: population studies, ageing, definition of old age, COVID-19, Ukrainian immigrants

Abstrakt

Cel. Celem artykułu jest przyjrzenie się zmianom zachodzącym w populacji osób starszych w Polsce, w szczególności odpowiedź na pytanie o to, jak zmieniła się w ostatnich dekadach liczebność oraz struktura wykształcenia osób starszych. Awans edukacyjny polskiego społeczeństwa obserwowany od początku okresu transformacji ustrojowej w ostatniej dekadzie XX wieku rzuca nowe światło na zjawisko starzenia się ludności. W samym procesie starzenia się populacji znaczącą rolę odgrywają natomiast m.in. migracje międzynarodowe. Z tego względu analiza zmierza także do odpowiedzi na pytanie o to, jakie znaczenie mają one (oraz inne procesy demograficzne) dla starzenia się ludności Polski.

Metody i materiały. W celu odpowiedzi na pytania badawcze przeanalizowano dane zastane, przede wszystkim dane Głównego Urzędu Statystycznego ze spisów powszechnych i sprawozdawczości bieżącej. W pierwszej części artykułu omówiono starzenie się ludności świata, z uwzględnieniem zróżnicowań regionalnych. Na tym tle została ukazana sytuacja w Polsce, z naciskiem na procesy przyczyniające się do starzenia się ludności (spadek dzietności kobiet i wydłużanie się przeciętnego trwania życia) oraz na procesy potencjalnie spowalniające starzenie (pandemia COVID-19 oraz napływ do Polski milionów uchodźców z Ukrainy po eskalacji rosyjskiej inwazji w lutym 2022 roku).

Wnioski. Imigracja z Ukrainy oraz, do pewnego stopnia, pandemia COVID-19 przyczyniły się do odmłodzenia ludności Polski. W analizie zwrócono ponadto uwagę na zmieniającą się definicję starości i zmiany zachodzące w zbiorowości osób starszych – poprawę poziomu wykształcenia i stanu zdrowia. Procesy te skłaniają do zmiany sposobu spojrzenia na starzenie się populacji, które to zjawisko rozpatrywane jest najczęściej wyłącznie z perspektywy danych dotyczących zmian liczebności populacji seniorów i ich udziału w ogóle ludności.

Słowa kluczowe: demografia społeczna, starzenie się, definicja starości, COVID-19, imigranci z Ukrainy

Introduction

Rising life expectancy and declining fertility rates lead to a profound transformation of the demographic profile of countries across the world, and Europe in particular. The proportion of people aged over 65 in the EU has risen from 16% in 2000 to 21% in 2023 and is projected to reach 29% by 2050 (OECD/European Commission, 2024). Population ageing will accelerate significantly in the coming decades, aggravating concerns about negative social, political, and economic consequences thereof, such as the reduction in the number of people of working age and the resultant shrinkage of the labour force, insolvency of pension plans, increasing costs of healthcare, and overrepresentation of elderly voters' interests on the political agenda (Cześniak & Zagórski, 2022; Lewandowski & Rutkowski, 2017). Although persons aged 65 and over constitute around 10% of the population globally, their share in Poland, as well as in many other high-income countries, is almost twice this number (United Nations, Department of Economic and Social Affairs, 2024). Ageing affects, however, most countries across the world, including the ones at lower income levels.

The aim of the paper is to analyse changes within the population of the elderly in Poland, with a particular focus on changes in their number and share in the total population, level of education, and health. The following questions are addressed: how advanced is the ageing of the population of Poland, and what are the contributing factors? What is the educational structure of persons 65 years of age and older and how is it likely to change in the future? Moreover, the paper aims to investigate the role of international migrations for the ageing of the Polish population.

In order to address research questions, existing statistics were employed, mostly data collated by Statistics Poland. The focus of the first part of the paper is ageing across the world and in various world regions. Set against this backdrop, the situation in Poland is analysed, with emphasis placed, on the one hand, on factors contributing to population ageing (declining fertility and rising life expectancy) and on the other hand, on factors slowing it down (the COVID-19 pandemic and the inflow of refugees onto Polish territory, mostly women and children, following the Russian invasion of Ukraine). The final part of the paper sets to discuss arguments frequently raised in the context of population ageing, arguments pointing to a breakdown of economic and social stability as its likely consequence. The changing definition of old age is considered, as well as educational advancement taking place in the Polish population since the systemic transformation in the 1990s and the prospective improvement of the levels of education and health of the elderly in Poland. The aforementioned processes cast a more nuanced light on population ageing than when the focus is solely on the data on changes in the number of the elderly and their share in the general population.

Population Ageing Across the World

Among the approximately 8 billion people currently living in the world, every tenth is aged 65 and over, while every fourth is under 15. There are, however, significant differences between various regions and countries, contingent upon social and economic development. In high-income countries (located mostly in Europe and North America) the share of population ages 65 and older is 19%, in countries classified as middle income this number stands at 9% and in low-income countries (mostly in Sub-Saharan Africa) at only 3% (PRB, 2024). The share of children and youth (under age 15) is the reverse of the above: 16, 25 and 42%, respectively. Apart from Japan—the oldest country in the world, where the share of persons 65 and older is 29%—the most advanced in terms of population ageing are mostly European countries such as Italy (24%), Greece (23%), and Portugal (23%). In Poland, the share of this age category is 19%. Table 1 shows data on world regions distinguished in publications by Population Division of the UN Department of Economic and Social Affairs.

Table 1

Population ages 65 and over in world regions according to the UN population prospects medium variant (in %)

| Region | 2024 | 2030 | 2050 |
|---|------|------|------|
| World | 10 | 12 | 16 |
| Sub-Saharan Africa | 3 | 3 | 5 |
| Northern Africa and Western Asia | 6 | 7 | 11 |
| Central and Southern Asia | 7 | 8 | 13 |
| Eastern and South-Eastern Asia | 14 | 17 | 26 |
| Latin America and Caribbean | 10 | 12 | 19 |
| Australia/New Zealand | 18 | 20 | 24 |
| Oceania (excluding Australia/New Zealand) | 4 | 5 | 8 |
| Europe and Northern America | 20 | 22 | 27 |
| Europe, North America, Australia, and New Zealand | 20 | 22 | 27 |
| Least-developed countries | 4 | 4 | 6 |

Source: Authors' own study based on the United Nations, Department of Economic and Social Affairs (2024).

Note. Regions are based on Sustainable Development Goals' country groupings.

Since women live longer than men on average (by over 5 years in 2024), they outnumber men at older ages, constituting 56% of the world population aged 65 and over and 62% of the population aged 80 and over. According to forecasts, despite improved survival rates among men, women will still dominate in number

in the middle of the century, although to a lesser extent (United Nations, Department of Economic and Social Affairs, 2023).

While 1 in 10 persons across the world was 65 years old and older in 2021, in 2050, there will be 1 in 6. The number of people in this age category will more than double during this period, from 761 million to 1,6 billion, reaching as much as even 2,5 billion by the end of the century (United Nations, Department of Economic and Social Affairs, 2023). In 2070, at 2,2 billion, it is projected to surpass the number of children (under age 18; United Nations, Department of Economic and Social Affairs, 2024). The growth of the oldest old, aged 80 and more, is even more dynamic: their number is projected to almost triple by mid-century (from 155 to 459 million) and by the mid-2030, it will be larger than the number of infants (1 year of age or less). The share of the 80+ in the global population will increase from 2 to 5% by mid-century.

Apart from the share of the elderly among the total population, two other measures frequently employed to illustrate population ageing are median age and old-age dependency ratio. In 2024 half of the world's population was about 31 years old or older (median age = 31). In low-income countries, however, median age was 18 years, in middle-income countries 30 and in high-income countries 41 years (United Nations, Department of Economic and Social Affairs, 2024). The second measure, old-age dependency ratio, calculated as the number of 65+ per 15–64 years old, equalled almost twice the world's average (16) in high-income countries at 31 and was as low as 6 in low-income countries and 14 in middle-income countries. Whereas high-income states have a large dependant population of the elderly, those on the medium and low-income level have a significant dependant population of the young and high young-age dependency ratios. Across the world, however, it is the old-age dependency ratio that has been on the rise since the 1990s. In 2021, there were 17 persons aged 65 and over per one hundred aged 20–64, whereas by mid-century there will be 29 persons (United Nations, Department of Economic and Social Affairs, 2023).

Population ageing results from declining fertility and concomitant increases in life expectancy. In 2024, there were on average 2.3 children per woman worldwide, compared with 3.3 in 1990 (and 5 in 1950). Further declines in fertility are projected, down to 2.1 children per woman by mid-century (United Nations, Department of Economic and Social Affairs, 2024). Life expectancy (an indicator representing the average number of years that a newborn is expected to live, assuming constant conditions over his/her lifespan) equalled 73 years in 2024 (70 for men and 76 for women) and was about nine years longer than thirty years before. Despite a temporary decline during the COVID-19 pandemic, further increases in life expectancy are projected, up to 77 years in 2050 (75 and 79 for men and women respectively).

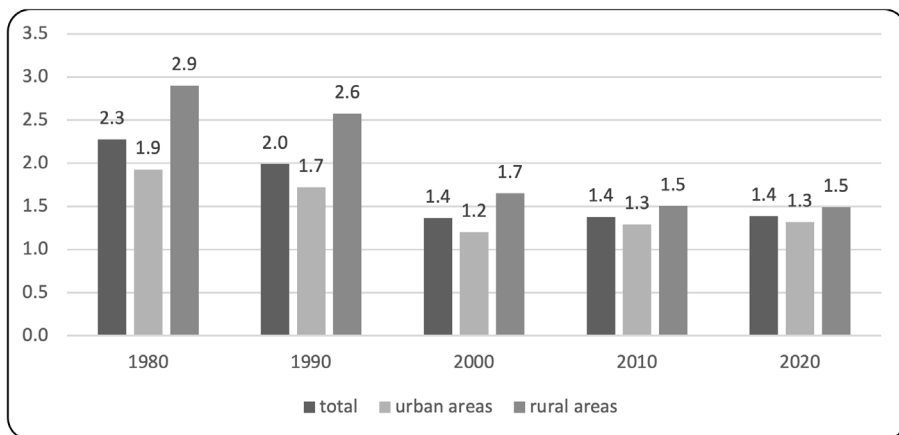
Population Ageing in Poland

National Census of Population and Housing 2021 data points to advanced ageing of the Polish population also (GUS, 2021). During the decade between the last and the previous census (2011–2021) the share of post-working age persons (60/65 years of age and older) increased from 17.1 to 22.8%, whereas the share of persons of pre-working age (0–17 years) slightly decreased (from 18.8 to 18.2%)¹ (GUS, 2022a). Old age ratio (number of persons aged 65 and over per 100 persons aged 0–14) increased from 13.6 to 18.6, while median age reached almost 42 years in 2021, compared with 38 in 2011.

One of the processes contributing to the ageing of Poland's population is very low fertility, following a long-term trend (see Figure 1, showing total fertility rate at ten-year intervals). It is estimated that in 2024, there were 1.1 children per woman on average. This level of fertility is described as *lowest-low*, much below the replacement level at 2.1, when the generation of parents is replaced by the generation of children. As shown in Figure 2, the number of births in 2024 was the lowest in the whole post-Second-World-War history of Poland, at 252 thousands, continuing a declining trend of several years. The number of deaths was almost 157 thousands larger, resulting in a negative natural increase.

Figure 1

Total fertility rate in Poland in cities and in rural areas in 1980–2020*



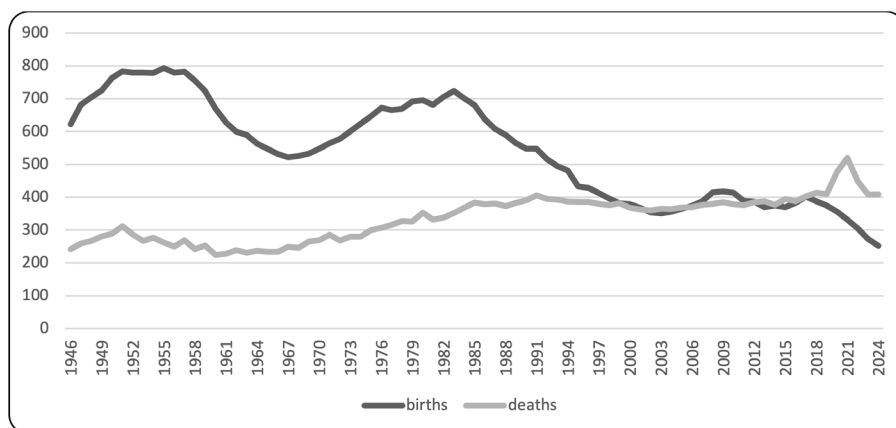
Source: Author's own study based on GUS (2024b).

¹ Data in this paragraph refers to the so-called resident population (residents) and includes: 1) permanent residents, except for persons residing outside their place of residence (*gmina*) for at least 12 months—regardless of their place of residence (in the country or abroad); 2) persons temporarily residing in the *gmina* for at least 12 months, who came from another place in the country or from abroad (foreigners without permanent residence in Poland; GUS, 2022a).

Note. Total fertility rate (TFR) represents the number of children a female can expect to have during the course of her lifetime. The indicator is calculated on the basis of age-specific birth rates for five-year age groupings.

Figure 2

Births and deaths in Poland in 1946–2024 (in thousands)



Source: author's own study based on GUS, 2024a; 2024b.

High mortality recorded particularly during 2020 and 2021 was the consequence of the COVID-19 pandemic. All over the world, a substantial increase in the number of deaths was observed, and therefore a reduction in life expectancy. The risk of dying from the disease was higher among persons aged 60 and over since the beginning of the pandemic. Despite the fact that COVID-19 affected people of various ages, older people experienced higher incidence of the disease, which was caused by concomitant higher incidence of non-communicable diseases among them, such as cardiovascular diseases, respiratory infections, and cancers, which made them more susceptible (PRB, 2020). In the EU countries, the overall number of deaths increased from 4.65 million in 2019 to 5.18 million during the first year of the pandemic in 2020 and 5.29 million in 2021, before falling slightly to 5.15 million deaths in 2022 (OECD/European Commission, 2024). The elderly (along with other vulnerable groups) were disproportionately affected. In the first months of the pandemic deaths per million people aged 60/65 and over across EU countries were on average 3.7 times higher than amongst the population as a whole (OECD/European Union, 2020). In almost all of these countries, 90% or more deaths caused by COVID-19 were among this age group, while people aged 80 and over accounted for around half of all deaths resulting from the disease. Excess mortality also remained relatively high in 2022 partly due

to the resurgence of the flu and other infections as well as heatwaves during the summer of 2022 (OECD/European Commission, 2024).

As a result of the pandemic, the total number of deaths in Poland increased from 409.7 thousand in 2019 to 477.4 thousand in 2020 and as much as 519.5 thousand in 2021. Subsequent years brought about a decrease in the number of deaths, however, the elevated mortality during the pandemic resulted in a decline of life expectancy. Between 1960 and 2019 life expectancy for men increased from 65 to 74 years, and for women from 71 to 82 years (GUS, 2024c). During the pandemic, however, life expectancy dropped by around two years for both sexes. In 2023, it returned again to pre-pandemic levels (GUS, 2024c).

Inflow of Ukrainian Refugees

On the one hand, from a purely demographic perspective and due to excess mortality particularly among the elderly, the COVID-19 pandemic temporarily slowed down population ageing in Poland. On the other, immigration over the past several years had similar effect. According to numerous studies on international migrations, immigration results in increases in the share of young people in the receiving population and in ageing of the sending one, since young people are more likely to take the risk involved in leaving one's country, as well as more capable of using opportunities which such move entails. In the Polish case, the tragic background of these processes is the Russian invasion of Ukraine in February 2022 and the resulting inflow of thousands of refugees on Poland's territory. According to various sources, the number of Ukrainian refugees in Poland in 2022 ranged between one million (according to the PESEL register) and over 2 million, apart from around 1.3 million economic immigrants who had arrived in Poland before 2022 (Pędziwiatr *et al.*, 2022). The Centre of Migration Research at the University of Warsaw estimated the number of Ukrainian citizens on the Polish territory at 2.1–2.3 million at the end of December 2022, including 1.1–1.2 million who had immigrated before the outbreak of war, and 1–1.1 million refugees (Duszczyk *et al.*, 2023).

According to more recent data by Statistics Poland, there were 997,737 inhabitants of Ukraine in Poland as of 31st of March 2023 under temporary protection (who came from Ukraine as a result of armed conflict in Ukraine; GUS, 2023). Most of them (over 81%) lived in cities. More than half were women (64.8%), while the sex ratio was 184 females per 100 males. From the standpoint of the subject of this paper, of particular importance is the fact that the immigrant population is very young: almost 42% are of pre-working age, while only 6.3% are of post-working age.

Preliminary assessment of immigration's impact on the age structure of Poland can be delivered by careful examination of official statistics. Statistics Poland provides data on population size and structure based on 2021 Census Data (GUS, 2021), vital statistics registers (on births and deaths) and migration data from the Ministry of the Interior and Administration. The deficiency of the latter though is the inclusion of people who emigrated but are still registered as inhabitants and the omission of immigrants without permanent residence permits. EU regulations, however, require member countries to collate statistics which exclude population absent for at least 12 months but count population present for at least 12 months, including legal immigrants. As shown in Table 2, the latter so-called *usual residence population*, differs in numbers when compared with data in the Local Data Bank. When permanent emigrants are excluded and immigrants are included, the actual number of elderly people in Poland is almost 5% smaller than according to official data (the young, aged 0–14, are also overcalculated but to a lesser extent: by almost 129 thousand, which constitutes 2.3% of the Local Data Bank record; GUS, 2025).

Table 2

Population of the elderly by age group, according to Local Data Bank (LDB) and data on usual residence population in 2023

| Age group | Population according to LDB | Usual residence population | Difference | Difference as % of the number in the LDB |
|-------------|-----------------------------|----------------------------|------------|--|
| 60–64 | 2,343,827 | 2,301,235 | 42,592 | 1.8 |
| 65–69 | 2,519,590 | 2,491,981 | 27,609 | 1.1 |
| 70–74 | 2,108,909 | 2,097,126 | 11,783 | 0.6 |
| 75–79 | 1,320,176 | 1,315,082 | 5,094 | 0.4 |
| 80–84 | 784,361 | 781,945 | 2,416 | 0.3 |
| 85 and more | 816,858 | 813,535 | 3,323 | 0.4 |
| Total | 9,893,721 | 9,800,904 | 92,817 | 4.6 |

Source: Author's own calculations based on LDB and usual residence population data (GUS, 2022a).

The inflow of refugees into Poland poses challenges connected with social and economic integration of newcomers. From purely demographic perspective though there are hypotheses to conclude that it has the positive consequence of prospectively, temporarily slowing down the ageing of the Poland's population.

Ageing as a Social Problem?

As mentioned at the beginning, population ageing is most often perceived as problematic owing to its potential social, economic, and political consequences. Of particular concern are economic effects of ageing, possibly leading, on the one hand, to financial insolvency of the state due to growing costs of healthcare and social care for the elderly, and on the other hand, to higher burden on the working-age population and/or lower pensions in the *pay-as-you-go* systems (in which pensions are financed by contributions of the economically active population). At the base of concerns about the consequences of ageing seems to lie an image of the elderly (aged 60 or 65 and over) as a uniform group, the needs of which inexorably “burden” younger generations (Szukalski, 2006). The meaning of old age, however, is variable across time and space, while the population of the elderly undergoes changes which cast a different light on this age group.

Understanding Old Age

In his social demography textbook, Carter (2016) quotes a story from the life of the famed social scientist Jared Diamond. When the latter was 46, he arrived at a New Guinea village to begin doing field research.

When the local people learned his age, they gasped out *setengah mati!*, meaning “half-dead,” and they assigned a teen-aged boy to walk constantly beside [him] to ensure that [he] would not come to grief. In short, in rural New Guinea, where relatively few people reach the age of 60, even 50-year-olds are regarded as old. (Diamond, 2012, quoted in Carter, 2016, p. 159)

The aforementioned story is indicative of culturally variable understanding of old age, depending on the number of people living until old age, as well as on their condition in the final stage of life. The anecdote above might be juxtaposed with 81-year-old Joe Biden’s decision to run for the US presidential office, announced in April 2023 (PAP, 2023). Even though Biden withdrew his candidacy in the end, amidst mounting concerns about his physical and mental health, his counter-candidate and the final winner of the election, Donald Trump, was at that time only four years younger.

It is emphasised in many studies that ageing does not necessarily trigger either the loss of athletic prowess, or cognitive functions (Kovbasiuk *et al.*, 2022). Symptoms of old age become apparent later in life in subsequent generations, therefore, it seems justified to move the threshold of ageing until older age. This conclusion served as the basis for designing the so-called prospective measures of population ageing (Abramowska-Kmon, 2011; Mamolo & Scherbov, 2009; Sanderson & Scherbov, 2007). At the beginning of the paper the ageing of the world and Poland’s population was outlined using the so-called *traditional measures*, such as old age ratio (share of the elderly among the total population), median age, and old-age

dependency ratio. These indicators are based on chronological age, where age 65 is generally the threshold for defining older persons. The underlying assumption is that a person aged 60 in 1900 was as old as a person aged 60 in 2000 (having lived the same number of years; Sanderson & Scherbov, 2007). Meanwhile, conditions of mortality change over time, health and quality of life improve and life expectancy increases (setting aside temporary decline caused by the COVID-19 pandemic). Moreover, persons aged, for example, 70, 80, and 90 are, in general, of differing physical and health condition. According to a study conducted in 2017 almost 40% of Poles aged 50–59 were diagnosed with two or more long-term diseases, compared with 55% aged 60–64, 63% aged 65–69, over three quarters aged 70–79 and 80% aged 80 and over (Wróblewska & Antczak, 2019). Among persons aged 60–64 every tenth person experienced difficulties in everyday activities, such as getting dressed, walking, taking a bath, while it was the case for every fourth person aged 75–79 and every third person aged 80–84. The highest level of disability and dependence on others are, therefore, concentrated at the end of life, during advanced old age.

Numerous studies suggest that inhabitants of high-income countries, but also of some less affluent ones, are likely not only to live a longer life, but also enjoy longer life in good health. This fact is allowed for in the assessment of ageing based on the so-called prospective measures, referring to the expected time until death (thanatological age). For instance, prospective old-age dependency ratio considers as old the ages at which people are expected to live, on average, a certain number of years (*e.g.*, 15 years).

Accordingly, this ratio is calculated as the number of persons above the age for which the remaining life expectancy is closest to 15 years, relative to the number of persons between age 20 and that age. In this way, the number of people with a remaining life expectancy of less than 15 years serves as a proxy for the number who are economically dependent on others due to advanced age. (United Nations, Department of Economic and Social Affairs, 2023, pp. 26–27)

Comparison of traditional and prospective measures suggests that the impact of population ageing may be less than what is implied by the traditional ones in populations with high level of life expectancy.

Changes Within the Elderly Population

The future is frequently perceived through the lens of the present, even though both living conditions and people keep changing. This observation refers also to the elderly who, as mentioned before, enjoy, on average, better health than old people in the past and there are reasons to anticipate further improvements in the future. Even though the COVID-19 pandemic brought about a decline in life expectancy, the aforementioned decline was not correlated with changes in healthy life years and equally large decreases were not reported for the latter (referring to years free from disability; GUS, 2022b, 2024c). As a result,

a longer proportion of people's lives is spent in good health (although it should be noted that significant differences exist between various regions in Poland both with respect to life expectancy and to healthy life years, with some areas lagging behind others)².

An important prospective change within the population of the elderly concerns their level of education. As Table 2 demonstrates, the most common educational level among persons 65 years old and older is "secondary and post-secondary" at over 33%, followed by "basic vocational" and "lower secondary and primary completed," at about one quarter each. Although "secondary and post-secondary" is the most common level of education also among persons aged 20–44, their share of the total is larger, at over 38% and almost equal to the share of persons in this age group with tertiary education. Therefore, the elderly in the future are likely to be better educated than the elderly today.

In general, census data point to the rising level of education of population of Poland. In 2021, compared with 2011, the most dynamic growth was recorded with respect to persons with tertiary education (by over 30%), from 17.1% in 2011 to 23.1% in 2021 among population aged 13 and more (GUS, 2021). People aged 45–69 most frequently reported basic vocational education; their share among the total population with this level of education was 58.8%. Meanwhile, persons aged 60 and more constitute almost 40% of the population with basic vocational education and over 52% of the population with primary completed education. At the same time, the highest share of the population with tertiary education were persons aged 25–44; their share in the total population with this level of education was almost 60%.

Table 3

Level of education by age group according to the 2021 Census

| Age category | Level of education | | | | | | Total |
|--------------|--------------------|------------------------------|------------------|---------------------------------------|--------------------------------------|-------------------|-------|
| | Tertiary | Secondary and post-secondary | Basic vocational | Lower secondary and primary completed | Primary and without school education | Other and unknown | |
| Total | 24.6 | 34.3 | 21.2 | 14.8 | 2.9 | 2.2 | 100.0 |
| 20–44 | 37.9 | 38.1 | 14.1 | 6.0 | 0.4 | 3.6 | 100.0 |
| 45–64 | 21.3 | 35.4 | 32.7 | 8.7 | 0.3 | 1.6 | 100.0 |
| 65 and more | 13.6 | 33.3 | 25.3 | 25.4 | 1.3 | 1.0 | 100.0 |

Source: Author's own study based on the 2021 Census data (GUS, 2021).

² To complicate the picture of the health situation further, it should also be noted that an increased incidence is recently being reported of diseases such as malignant neoplasms (cancer; GUS, 2024d), as well as deaths caused by cancers, cardiovascular diseases, diabetes and respiratory diseases (GUS, 2024b). The aforementioned rise is attributed to some extent to the impact of the COVID-19 pandemic and the resulting limited access to health care, the long-term effects of which remain to be seen.

Additional factors that might contribute in the future to the increase in the level of education of the elderly is the already mentioned surplus of women among the old, resulting from longer lifespans of women, as well as the opportunity to invest more resources in less numerous generations of children. Women in Poland have, on average, a higher level of education than men: 33.4% of women have secondary and post-secondary education and 26.9% possess tertiary education, compared with 31.2% and 19% of men, respectively. Moreover, a smaller younger generation allows a society to invest more resources in the schooling of each individual (Carter, 2016). Having fewer children, parents can transfer more of their income and wealth to the ones they do have³. Various studies point to the fact that worker productivity is closely tied to level of education and training, with higher levels thereof leading to higher wages and quality of life. While technology has increasingly replaced human effort for low-level, manual work, educated individuals have much lower rates of unemployment. Education brings about also health benefits, as educated people live longer and in better health (OECD/European Union, 2020).

Conclusion

In 2006, Polish demographer Szukalski published a paper *Zagrożenie czy wyzwanie – proces starzenia się ludności* [A threat or a challenge — population ageing], in which he questioned the assumptions of the so-called apocalyptic demography, namely a view dominant in the past, according to which the increasing number of the elderly is likely to have disastrous consequences for societies (Szukalski, 2006). The author pointed to the fact that the term “the elderly” covers a diverse population of persons with varying needs, varying levels of disability or poverty. The elderly are not only recipients of social assistance and welfare benefits, but can remain active members of the labour force—at least to a certain extent and for some period of time—as well as assume new activities, for example taking care of their grandchildren. These past conclusions still seem valid today, even though many aspects of population ageing will remain a challenge for Polish society. Some of them include the increase in the number of very old people, aged 80 and over, who, according to research, tend to rely heavily on others for support in everyday activities, coupled with a shortage of qualified employees in the social services sector and a growing share of communities with a declining

³ On the societal level, this observation refers both to the whole educational system and to healthcare. With fewer young people, more medical and health-related resources can be directed towards other individuals by society in general, as well as by individual families. Healthy persons contribute more to the economy and tax the social safety net less (Carter, 2016).

population (Szukalski, 2024). Even though, according to past studies, in high-income nations long-term care expenditures tend to be concentrated at the end of life, during the two years prior to death (Kluge *et al.*, 2014, quoted in Carter, 2016), profound changes in the design of policy on ageing and elderly people are required, involving both central and local governments (Błędowski, 2012; Błędowski & Szweda-Lewandowska, 2016).

Viewing the future through the lens of the present might lead to hasty conclusions, as seems to be the case in popular discourse, when population ageing is discussed and almost always framed as a threat. It certainly is one if a mental experiment is carried out in which contemporary elderly people are transferred into the future, but in larger numbers (as population forecasts predict). Scholars, however, have for already some time now pointed to the fact that at least two age groups should be distinguished among the elderly: 65–79 years and 80 years and over, significantly different with respect to social and physical activity, health, *etc.* (Mossakowska *et al.*, 2012). Moreover, future elderly of any age, are likely to be different from those living today. First and foremost, they are likely to be better educated, more productive and enjoying better health, in general – a better quality of life. These processes should be monitored and studied in detail, as they are likely to provide a more nuanced picture of ageing in the future than when analysis is based solely on traditional measures of ageing.

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