Serbia: Policy response to demographic challenges

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This is the Accepted Manuscript.

Abstract

Serbia, with its already aged population, is facing demographic challenges that are projected to result in even older population within 30 years. The main drivers of this frightening outlook are low fertility rates, emigration and premature mortality. This book chapter provides an in-depth overview of political response to these challenges. The chapter emphasizes the need for a comprehensive approach to addressing these issues, focusing on socio-economic development, investment in health, education, and environmental programs, as well as closing the gender gap. It discusses the role of active aging, the importance of recognizing and addressing the needs of particularly vulnerable elderly individuals, and the necessity of implementing effective measures to promote childbirth. The chapter also explores the potential benefits of managing migration as a tool for socio-economic development and addressing premature mortality through primary and secondary prevention programs. The existing policy response to low fertility in Serbia, which involves offering direct cash benefits to encourage births, has been ineffective and comes with opportunity costs. Instead, the authors propose investing in the healthcare system as a more effective use of resources, given the substantial economic cost of premature mortality. Policy response especially in the near term should be on stopping the crippling emigration from Serbia. Authors suggest that better data collection, especially on emigration, would allow for more substantial research and enable evidence-based decision-making in the future, ultimately leading to more targeted measures to address demographic challenges in Serbia.

Keywords: births, deaths, migration, ageing, population policy

Statements and Declarations

The authors have no relevant financial or non-financial interests to disclose.
The authors have no conflicts of interest to declare that are relevant to the content of this article.
All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.
The authors have no financial or proprietary interests in any material discussed in this article.

Introduction

Serbia is currently facing several significant population challenges. The most important issues include a low birth rate, which has persisted for several decades and is insufficient for replacing generations, resulting in depopulation and an aging population. In addition, there are relatively high mortality rates and more people emigrating than immigrating (Rašević & Galjak, 2022). To effectively address these issues, action needs to be taken across all three areas of demographic development: fertility, mortality, and migration. This requires addressing socio-economic and cultural dimensions as the basic components. Common priorities include economic development, investment in health, education, and environmental programs, as well as closing the gender gap. To address specific population challenges, the political response must include specific courses of action. This contribution focuses on the demographic situation and expectations related to policy towards fertility, mortality, population aging, and external migration. The assessment of the state of the political response in these areas and expectations for improvements, based on relevant theoretical considerations, research results, experiences of other countries, and recommendations from international organizations are presented.

In this chapter we emphasize the population ageing as the primary demographic consequence facing Serbia. We give an overview of direct policy response to ageing. We then continue with giving policy responses of Serbia to the three drivers of ageing: low fertility, emigration, and premature mortality. We then conclude the chapter with our views on these policy responses and offer general recommendations.

Policy Response to Population Ageing

Serbia has a distinctly old population. The population of Serbia has been aging at an increasing rate since the start of the 21st century. While this process is related to all three demographic components, the main cause of population aging in Serbia is the low fertility rate, along with a decreasing number of live births. As of January 1, 2022, 1,448,000 people over the age of 65 - or 21% of the total population - lived in Serbia without Kosovo[1], according to estimates from the Statistical Office of the Republic of Serbia (SORS) (2023). Additionally, the median age of the population was estimated to be almost 44 years, indicating that exactly half of Serbia's inhabitants were over 44 years old, while the other half were younger (Figure 1). The dependency ratio of the elderly population - the ratio between the total number of elderly persons (age 65 or older) and every 100 persons of working age (ages 20-64) - is estimated to be 36. These indicators of the population's age are at or above the European average (United Nations Department of Economic and Social Affairs, Population Division, 2022). It is important to note that Serbia is an emigration area, and as such, the actual age structure is less favorable since the estimates of the SORS do not include external migration.

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[1] References to Kosovo shall be understood to be in the context of United Nations' Security Council Resolution 1244 (1999).
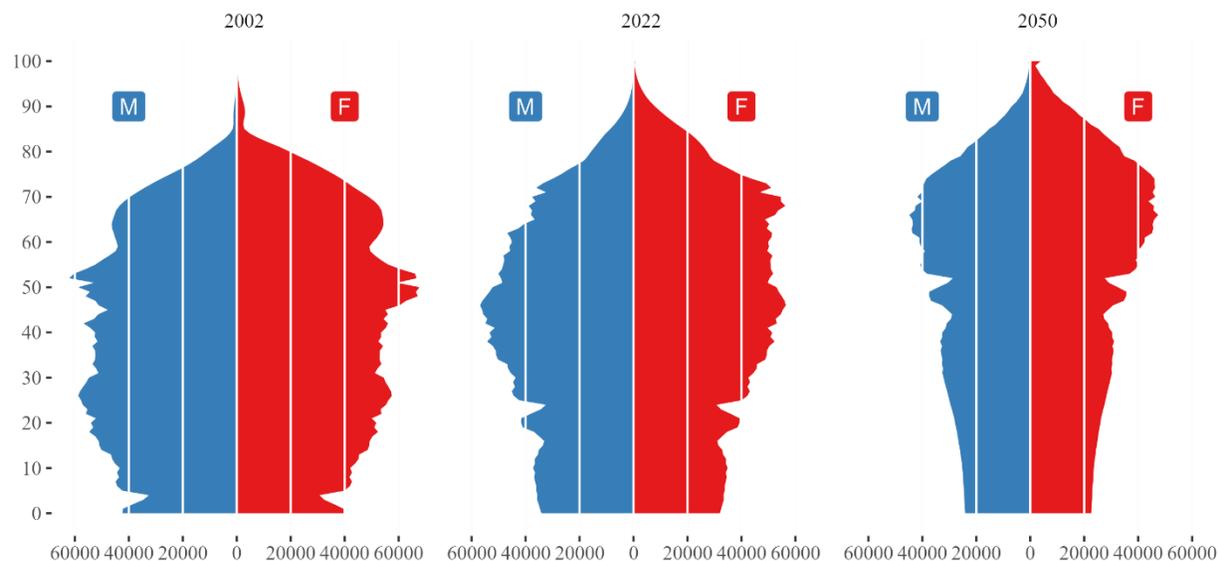
Figure 1. Population pyramids of Serbia 2002-2050.

It is certain that in the near future, Serbia's population will continue to age. According to projections made for the National Report on Human Development (Nikitović, 2022) , the share of elderly people in the total population of Serbia is expected to reach 27% by 2050. Additionally, the median age is projected to be 48 years (Figure 1), and the dependency ratio of the elderly is expected to be 50 (Nikitović, 2022). These projections are based on a baseline scenario assuming that the current trends of population dynamics continue. The definition of an "old person" in Serbia is currently set at age 65 and above. However, some demographers have proposed raising this age limit in response to increasing life expectancy and vitality in older years (Falkingham, 2016; Gierveld, 2001; Ogawa, 2004). It remains an open question whether this concept will change in the coming decades.

The elderly population in Serbia has increased in both absolute and relative terms, together with the expansion of the old population. Currently, there are an estimated 311 thousand individuals aged 80 or above, accounting for 5% of the total population. It is projected that by the middle of the century, the percentage of Serbian citizens aged 80 or above will increase to 7% (V. Nikitović, personal communication, 2023). Along with the aging of the old population, women constitute a numerically dominant group within the elderly population, representing 57% of individuals aged 65 or above as of January 2022.

The 2011 Census[2] revealed that a significant proportion (64%) of the elderly population had either incomplete elementary education, only an elementary school education, or no education at all. Moreover, one-fifth of individuals aged 65 or above were found to be living alone, according to the same source (Devedžić & Stojilković Gnjatović, 2015).

The rate of severe material and social deprivation[3] among the elderly in Serbia is a concerning issue, as it was 19% in 2020, which is much higher than the rate of 5% in the European Union (EU) in 2021. This places Serbia near the bottom of the list of European countries in terms of this indicator. Moreover, elderly women experience higher rates of pronounced material and social deprivation compared to elderly men, with corresponding rates of 21% and 15%, respectively. According to the 2019 population health survey of Serbia, one-third of the elderly reported serious difficulties in performing household and personal hygiene activities independently, with 37% having an unfulfilled need for help with household activities and 45% with personal care. These figures are slightly higher than the EU average (Milić, Stanisavljević, Krstić, Jovanović, Brcanski, Kilibarda, et al., 2021; Eurostat, 2022).

The interviewed Serbian demographers (Rašević, 2013) have identified population aging as Serbia's most significant population challenge and a crucial area of research. Moreover, a survey conducted by the International Union for the

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[2] As of end of April 2023 the 2022 Census data has not yet been released.
[3] Social deprivation is defined as an enforced lack of at least 7 out of 13 deprivation items (Eurostat, 2021).

Study of Population among its members revealed a high level of agreement within the demographic community that population aging is the most significant demographic issue globally and the most important topic for study in the decades to come (Van Dalen & Henkens, 2012). The consensus on this issue primarily results from the observation of various macro-level consequences of population aging, such as changes in the collective system of values and psychology, new intergenerational relations, the emergence of gender issues in traditional societies, different living, working, and housing conditions, higher demand for health and social protection, pressure on pension funds, and problems related to the labor market and the economy in general (Rašević, 2009). With an increasingly long life, individuals face several challenges across their entire life cycle.

The political response to population aging in Serbia, along with its micro and macro-level consequences, is stemming from the National Strategy on Aging: 2006-2015 (Government of Serbia, 2006). The main objective of this strategy is to align health and social protection, labor market, and education policies with demographic changes to create a society that caters to people of all ages, with a special focus on meeting the needs and unleashing the untapped potential of older individuals. The strategy is based on the principles of active aging and meeting the needs of the elderly, and it outlines a set of interrelated obligations across various policy areas, organized around several strategic lines of activity. However, no action plans were adopted to implement the established strategic directions over two-year or three-year periods with monitoring and evaluation indicators. Although the strategic framework of action does not cover the period after 2015, there have been no recent initiatives to update or operationalize this existing strategy.

Active aging is a theoretical and politically oriented concept that provides (seemingly) the most promising solution to the challenges posed by demographic aging and longer life, as it caters to both social needs and individual aspirations (Avramov & Maskova, 2003). The term "active" refers to the continued engagement of the elderly in various social, economic, cultural, spiritual, and civic activities, while also taking into consideration crucial human values and rights such as health, economic independence, security, and participation in social activities (World Health Organization, 2002). The concept aims to mitigate risks at the micro and macro levels, thus enabling a better quality of life in old age and a greater contribution of the elderly to the economic and social well-being of society in line with their needs, wishes, and capabilities.

To realize the active potential of the elderly requires the identification of the scope of political action, which can be accomplished by examining the Active Aging Index (AAI) and its components. The AAI provides a multidimensional perspective as it consists of 22 indicators from four domains: Employment; Social participation; Independent, healthy and secure living; and Capacity and enabling environment for active ageing. The maximum potential value for the AAI and each domain is 100 (United Nations Economic Commission for Europe, 2013). In Serbia, the value of the AAI was estimated to be 29 in 2014, compared to 34 for the EU. The values for each domain were as follows: Employment (19), Social participation (20), Independent, healthy and secure living (60), and Capacity and enabling environment (48). The AAI also revealed a significant gender gap, with men scoring higher than women by up to 7 in Serbia compared to 4 in the EU-28. Men in Serbia scored higher than women in all four domains, with the widest gender gap observed in the employment domain (United Nations Economic Commission for Europe, 2016).

The above-mentioned values of the total index and area-specific values indicate a need for more effective implementation of the concept of active aging in Serbia, particularly among women. This implementation needs to involve all levels of government, local self-governments, expert communities, civil society, the media, and the elderly themselves. It is necessary to take action based on examples of good practice and to apply innovations, both technological and social, to achieve active aging. There are various examples of good practice, and Stern (2012) mentioned the following programs as potentially applicable in Serbia: A program targeting women over 50 in poor Bulgarian municipalities, which provides further education, subsidized employment or self-employment in agriculture, domestic work, and social protection services. The UK Government's program that aims to promote the welfare of workers of different ages in the employer community. The federal Program that encourages volunteer work among seniors in the United States. The Week of promoting the importance of lifelong learning in Slovenia is another such example.

Realizing the concept of active aging requires addressing age-related prejudices and intergenerational tensions. The most recent research conducted in Serbia on this topic confirms the thesis of Cliquet and Avramov (2018) that the social perception of aging is not in accordance with the biology of aging in modern culture and indicates the presence of ageism. The ageism can be attributed to various factors, including facing one's own aging (Ćirović, 2013) and competition for resources (Kamerer, 2013), cultural conditioning (Nemanjić, 2013), and political constructs that

distract from structural obstacles to achieving certain values (Ljubičić, 2013). Of particular concern are the findings of a 2018 qualitative study conducted among final-year students majoring in Geography, Law, and Medicine at the University of Novi Sad. The results indicate that the majority of the students have negative attitudes toward the elderly in their community, whom they rarely support. They view elderly as a homogenous group with reduced abilities and backwards values (Rašević, 2022).

In addition to realizing the concept of active aging, it is essential to recognize and address the needs of particularly vulnerable elderly individuals. Unfortunately, the current Strategy lacks a comprehensive characterization of this population and does not clearly identify direct support activities for them. The vulnerable seniors include those who are impoverished, have significantly reduced physical and/or mental abilities, are in the terminal phase of chronic illnesses, are over the age of 80, live alone, or reside in remote rural areas. To support them, targeted measures are necessary, such as alleviating poverty, establishing home care centers and other non-institutional forms of support, developing institutional care for the elderly and providing adequate health care (Rašević & Mijatović, 2004). Gietel-Basten (2021) also emphasizes the importance of crisis prevention, end-of-life care, and adapting residences and devices to the abilities of the elderly.

Policy Response to Low Fertility

Serbia has experienced a decline in birth rates since the mid-20th century, with the total fertility rate falling 15% below the replacement level in the 1970s. From 1990 to 1999, the total fertility rate decreased from 1.73 to 1.40 children per woman. Although there was a temporary increase in the birth rate in 2000 and 2001, it subsequently declined again, reaching a record low of 1.38 children per woman in 2007. In the following years, the rate fluctuated between 1.40 and 1.52 (Figure 2). According to recent data from Pison et al. (2022), the fertility level in 2021 was around the European average but still 30% below the replacement level. The average age of mothers at the birth of their first child was almost 29 years, and first-born children accounted for 46% of live births (Statistical Office of the Republic of Serbia, 2022). This decade-long decline in birth rates has resulted in negative natural increase, depopulation, and significant changes in the age structure of Serbia's population.
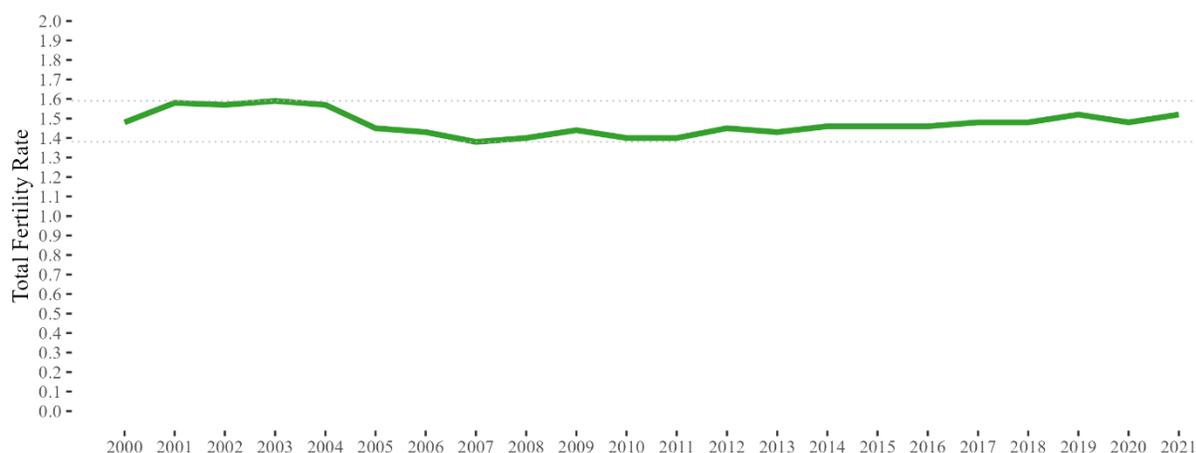

Figure 2. Total fertility rate in Serbia (2000-2021)

The phenomenon of insufficient births in Serbia over the past two decades can be attributed to various factors related to, or in response to, the prolonged economic and social crisis faced by the country. In addition to the structural obstacles to childbirth, such as economic and psychological insecurity, social anomie, and dissatisfaction with partner relationships, family, and society, new factors of individual passivization have emerged. Moreover, the low birth rate can be linked to the significant societal changes that have taken place in developed European countries (Sobotka, 2004), such as the strengthening of individualism, emphasis on self-realization, altered family dynamics, evolving partner relationships, increased focus on the quality of life, and the desire for more consumption and leisure time (Rašević, 2017a).

In Serbia, achieving motherhood is further hampered by risky behavior that endangers reproductive health, including the postponement of the first child until later in life, conservative birth control practices, and widespread risky behavior among young people. A smaller, sub-optimal fertile contingent in Serbia also contributes to the issue of insufficient births, further exacerbating the birth crisis in the country. Additionally, the ongoing emigration of young people from Serbia has further contributed to this phenomenon.

The postponement of childbirth until later in a woman's life is a significant contributor to the low fertility rates that many European countries, including Serbia, are experiencing (Schmidt et al., 2012). This problem is particularly evident in populations where a relatively large proportion of women between the ages of 30 and 34 have not yet had children. For example, in Serbia, this figure was 31% according to the 2011 Census, with the majority living in urban areas (78%) and not in a partnership (73%) and being employed (64%) finishing collage or being even more educated (48%) (Rašević, 2017a). However, for various reasons, such as physiological decline in fertility, secondary infertility, and higher psychological costs associated with having children later in life, a number of these women may not be able to achieve their desired number of children (Rašević, 2017a). Delaying childbirth also carries significant risks for pregnancy complications and unfavorable outcomes (Benzies, 2008).

Recent studies have explored the causes of low fertility rates in Serbia. Findings suggest a shift in attitudes from the expectation that the state would provide cheap loans and childcare support for working mothers, which was prevalent in the 1990s (Rašević, 1995), to a greater emphasis on financial stability and quality partner relationships as prerequisites for parenthood today (Rašević & Sedlecki, 2016; Sedlecky et al., 2011; Tomanović et al., 2016; Veljović, 2015).

It appears that there is a consensus among demographers studying Serbia regarding the fundamental principles of political responses aimed at promoting childbirth. There are five key principles: (1) recognizing that the economic factor of reproductive behavior is not decisive, (2) acknowledging the ineffectiveness of restrictive measures, (3) advocating for a separation of population and social policy measures in the financial support model for families, (4) encouraging families to have a maximum of four children, and (5) recognizing that the most complex problem in population policy related to fertility is resolving findings in the political, social, and individual spheres of consciousness.

For the political response to promoting childbirth to be effective, it must be based on the aforementioned principles, as well as be comprehensive, long-term, and evidence-based. A long-term implementation of pronatal measures provides individuals with a sense of security and enables them to plan parenthood. A comprehensive fertility policy model is necessary due to the complex deterministic basis of the low fertility phenomenon. In addition to financial benefits for parents, key components of this model include supporting modern forms of union between men and women, helping to establish a balance between family and work, and preserving and improving reproductive health. The successful implementation of measures to promote childbirth requires respecting research results, ranging from theoretical and empirical research to critical evaluations of the experiences of other countries, when designing measures and activities (Rašević & Đukić Dejanović, 2018).

Serbia's response to the issue of low fertility rates is expected to be based on the implementation of the Strategy for Encouraging Births (Government of Serbia, 2018a), which is a significant improvement upon the first strategic document developed in this area (Government of Serbia, 2008). The Strategy was developed with the participation of representatives from relevant institutions, experts from various professional backgrounds, and members of non-governmental organizations, and is based on the aforementioned five basic principles of policy response to low fertility rates, for which there is a consensus among stakeholders.

The Strategy represents a comprehensive response to the factors contributing to the birth crisis in Serbia. It sets the goal of achieving a stable population, in which the size of the next generation is equal to the current one, as the general objective for the sustainable demographic development of Serbia in the long term. To achieve this general goal, the Strategy identifies eight specific goals that need to be addressed, including reducing the economic burden of raising a child, facilitating work-life balance for parents, reducing the psychological costs of parenthood, improving reproductive health, addressing infertility, promoting healthy motherhood, population education, and activating local self-government. Within each of these specific goals, a variety of measures and activities are defined, totaling 91 in all. Given the nature of the issue of low fertility rates, the majority of these measures and activities are expected to be implemented in the long term.

The document in question includes some of the elements of an action plan, but it lacks indicators to monitor the implementation of the Strategy and its effects. Although the adoption of the Strategy for Encouraging Births is mentioned in the document, action plans for specific time periods have not been adopted. Two years after the adoption of the Strategy, competent representatives from all ministries responsible for specific measures and activities discussed the implementation of the Strategy for encouraging births. It was found that the Strategy has been partially implemented since 2018. Most measures and activities are being implemented as provided by the Strategy, with some exceptions such as the parental allowance payment model. Additionally, some measures are being implemented through projects instead of being institutionalized. According to interviewees, the lack of coordination among the various holders of individual tasks is the main barrier to implementation (Rašević, 2020).

Since 2002, Serbia has implemented two direct population policy measures aimed at encouraging births: parental allowance and maternity leave. The most recent amendments of the Law on Financial Support for Families with Children (Government of Serbia, 2021b) and the Labor Law (Government of Serbia, 2018b) prescribe these measures. Mothers are eligible for parental allowance after giving birth to their first, second, third, and fourth child. The amount of the allowance increases with the order of birth and is adjusted twice a year to reflect the increase in the cost of living. Except for the first child, the allowance is paid in equal monthly installments. On July 1, 2018, significant changes were made to the institution of parental allowance regarding the amount and method of payment compared to the original measure established in 2002 and the amendment from 2005. For children born on or after January 1, 2023, the current amounts of parental allowance are 2,945 euros for the first child (paid in full upon birth), 2,612 euros for the second child (paid in 24 equal monthly installments), 15,672 euros for the third child (paid in 120 equal monthly installments), and 23,508 euros for the fourth child (also paid in 120 equal monthly installments). Additionally, a one-time allowance of 982 euros is paid for the birth of the second and third child born on or after January 1, 2023 (Government of Serbia, 2023b). Working mothers can receive full salary compensation during maternity leave and childcare leave for a period of one year for the first and second child or two years for the third and subsequent child, as stipulated by the Labor Law and the Law on Financial Support for Families with Children. Fathers also have the right to maternity leave and leave from work to care for their child, as well as the right to wage compensation, in accordance with these laws.

At the start of 2022, a third material measure aimed at encouraging childbirth was introduced. This measure allows a mother to obtain a maximum of 20,000 euros for the construction, purchase, or participation in the purchase of a house/apartment through a loan, based on the birth of a child in 2023. However, certain conditions must be met in order to qualify for this benefit. The mother must be acquiring ownership of a house or apartment for the first time, and her spouse or common-law partner cannot own a house or apartment. Finally, the monthly income of a single mother must be lower than the average net monthly salary of employees in the Republic, or the total income of the applicant and the spouse/common-law partner must be lower than the average net monthly salary of employees in the Republic (Government of Serbia, 2023a).

The Republic Fund of Health Insurance has been financing the National Program on Infertility Treatment with Biomedically Assisted Fertilization since the end of 2006. In recent years, the state has been providing women and couples with significant financial support for infertility treatment. However, this support has been criticized as it does not consider expert opinions that suggest an unlimited number of attempts should not be allowed, especially for women of advanced age (Rašević & Sedlecky, 2022).

Therefore, starting from December 2022, insured women up to the age of 45, who do not have a child in an existing marriage or cohabiting relationship, have the right to an unlimited number of biomedically assisted fertilization attempts and frozen embryo transfers, provided they meet the necessary medical criteria. The program also covers insured women up to the age of 45, up to a certain number of attempts, in the following situations: those who have one child in an existing union; those whose partner does not have a child; and those who do neither have a partner nor a child (Republic Fund of Health Insurance, 2022). It is worth noting that the number of children born through biomedically assisted fertilization procedures is not systematically recorded. However, data from 2019 showed that 4% of live births in Serbia were the result of such procedures (Jovanović & Rakonjac, 2020).

The Serbian policy aimed at addressing the issue of low fertility rates primarily relies on financial measures. However, to effectively combat this phenomenon, a comprehensive approach is required that takes into account all factors that contribute to it. This is the key message of the latest research, which focused on small and medium-sized enterprise

employers and working parents with at least one child under the age of 11. The study found that only one-third of respondents believe that material reasons are the most significant obstacle to achieving reproductive norms. It is important to note that this attitude was observed in a sample where approximately 90% of respondents rated the financial status of their household as poor or very poor (Rašević & Bjelobrk, 2021).

To facilitate a more efficient and comprehensive implementation of the Strategy, it is necessary to adopt action plans for two to three years and regularly report on the progress made in implementing the current plan. Additionally, promoting the interdependence between the national framework for action on fertility and the achievement of the United Nations' (2015) 2030 Agenda for Sustainable Development could help achieve the same goals. In particular, Serbia should be dedicated to achieving seven of the 17 sustainable development goals, namely goals 1, 2, 3, 4, 5, 8, and 10 as these goals can help towards the economic empowerment of parents, improve sexual and reproductive health and mitigate existing gender inequalities (Figure 3) (Rašević & Nikitović, 2019).
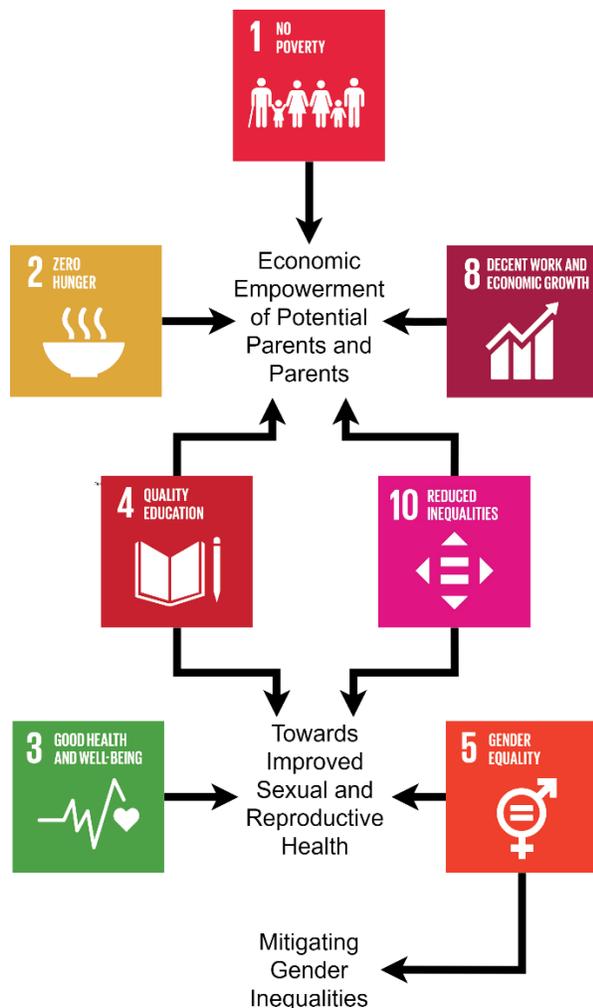

Figure 3. Sustainable Development Goals of United Nation's Agenda 2030 and factors of low fertility in Serbia

Policy Response to Emigration

Migratory movements represent one of the important features of the history of the peoples in this area. Serbia has traditionally been a country of emigration, except for the last decade of the 20th century, when it received refugees from former Yugoslav republics and internally displaced persons from Kosovo and Metohija. Despite some demographic predictions that suggest a shift from emigration to immigration due to population reduction and aging (Fassmann & Reeger, 2012), Serbia still records a net negative migration today. In the post-transition period, the country has faced numerous political, economic, social, and cultural challenges that help may explain why emigration

from Serbia remains a significant potential issue, while the potential for immigration remains limited. Additionally, returning to Serbia is a complex and hard decision to make, resulting in a small number of emigrants who choose to return (Rašević, 2019).

Estimates of Serbia's average annual negative migratory balance during the period of 2010 to 2019 vary from about 5 to 7 thousand, according to the National Human Development Report (Arandarenko, 2022), to about 13 thousand, according to the SORS (2019). Since data on emigration flows are not available, estimates of migratory balance are necessary. Both estimates are based on the scale of emigration, relying on migration statistics from the destination countries of Serbian citizens. However, the estimates differ depending on the resolution of methodological dilemmas. Generally, there is a problem with statistical data on migration, and it should be noted that data on immigrants are typically more reliable than data on emigrants (Willekens et al., 2016).

Effective migration management in emigrating countries necessitates more than just reliable data; it requires a comprehensive understanding of the causes and consequences of emigration, especially with respect to the potential utilization of external migration to facilitate a country's development. While the economic factor is often seen as the most important in an individual's decision to emigrate, it is crucial to take individualized perception of labor market conditions, the level of income, and the speed of career advancement in the country of origin compared to a potential destination country.

The revised push and pull model by Fassmann & Musil (2013) highlights the importance of other factors, including the sense of security, quality of life, development of educational, health and social institutions, overall concern for the well-being of citizens, degree of environmental protection, and future prospects. In addition to differences in living conditions between the two environments, individuals and couples must weigh the potential benefits of migration against the economic and psychological costs of emigrating. The authors of the theory also emphasize the importance of established migrant networks, which can provide help and support in making informed decisions about the choice of destination country and lower the cost of migration.

The importance of non-economic factors and other variables in the decision-making process for emigration has been substantiated by several studies conducted in Serbia. For instance, Krstić and Ljubičić (2015) discovered that working conditions, such as inadequate facilities, lack of modern equipment, and limited opportunities for skill development, were deemed more crucial than low income as a possible reason for medical doctors to emigrate. Additionally, Pavlov's (2011) qualitative research identified four categories of reasons for scientists' emigration from Serbia, including the degree of democratization in society, the standard of living, the social climate regarding valuing of knowledge, and the status of science in society. Furthermore, the data from the four previous censuses revealed three prominent emigration zones, referred to as "hot zones," in Serbia (Penev & Predojević-Despić, 2012). It is noteworthy that the destination countries for these hot zones have similar durations of stay abroad, indicating that new migrants frequently opt for locations where migrant networks have already been established.

The research on the consequences of emigration from Serbia has been limited. However, it is undeniable that the long-term emigration of a significant number of individuals from the country has had an impact on the population, resulting in insufficient births and an increase in population aging. The population dynamics of certain municipalities in emigration zones (Penev & Predojević-Despić, 2012) and non-urban settlements (Stanković, 2014) are particularly vulnerable. Moreover, long-term emigration significantly reduces the size of the labor force and creates labor market disruptions when professionals from specific fields leave the country. Over the last few decades, healthcare workers have been emigrating from Serbia, and this has led to a shortage of doctors in certain specialties, particularly in the interior of the country, as the baby boomer generation retires. Consequently, many retired specialists are resuming their work in the private sector, where their services are not included in the mandatory health insurance package. Furthermore, the lack of artisans and workers with diverse profiles has become increasingly noticeable in Serbia in recent years, as pointed out by the country's president in his public address (Vučić, 2022).

Emigration is often viewed positively by the public because of the inflow of remittances. According to the World Bank's estimates, in 2021, Serbian emigrants sent 4.6 million USD to their relatives in Serbia (World Bank, 2023b), and the share of remittances in GDP was 7% that year (World Bank, 2023a). The same source indicates that between 2007 and 2021, remittances amounting to 59 million USD arrived in Serbia, with an estimated average annual share of this type of personal transfer being 8% of GDP. The SORS (2015) conducted a survey on remittances during 2014-2015, revealing that more than 250 thousand households, or every tenth household in Serbia, received remittances during the preceding 12 months. However, only 47% of the total remittances were transferred through formal channels. The majority of remittances were utilized for basic needs (70%) and house/apartment purchase or renovation (26%),

while business investments (3%) and savings (1%) constituted the smallest share of utilization. Along with remittances, social remittances are also essential for emigration countries. Emigrants can contribute new knowledge, skills, ideas, and professional contacts to their country of origin through return migration, circular migration, or different forms of transnational activities (Rašević, 2019). According to the latest research, 46% of more than 700 surveyed members of the diaspora were willing to invest their acquired resources in the development of their motherland (Vesković Anđelković et al., 2022).
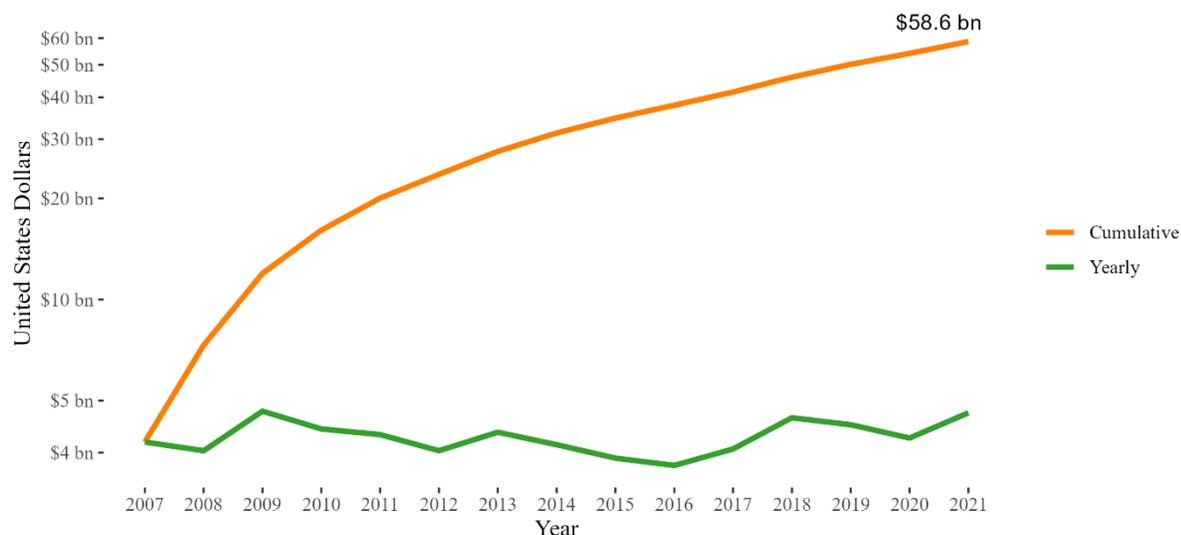

Figure 4. Remittances coming into Serbia (2007-2021), annual and cumulative.

To effectively manage migration, it is crucial to embrace the novel idea that migration can act as a tool for socioeconomic development across all areas impacted by the migratory process. This paradigm shift is supported by theoretical considerations of migration and development, empirical research across diverse populations, and political discourse. The United Nations plays a pivotal role in shaping and implementing a comprehensive perspective on the interplay between migration and development (Rašević, 2019). Incorporating this new concept involves integrating migration into strategic development documents in a balanced and harmonized manner.

After critically analyzing the extent to which the phenomenon of emigration/immigration is addressed in key Serbian documents, it is evident that implementing these policies would lessen emigration from and increase immigration to Serbia. The degree and quality of migration integration in these documents vary. For instance, some documents do not address migration at all (e.g., the Strategy for supporting the development of small and medium-sized enterprises, entrepreneurship, and competitiveness from 2015 to 2020), while others only mention migration formally (e.g., the Strategy for the Promotion and Development of Foreign Investments). Some strategies partially integrate migration (e.g., the Strategy of Agriculture and Rural Development of the Republic of Serbia from 2014-2024), while others achieve a balanced integration, with a consciousness of migration's potential and limitations in areas such as industry, education, scientific, and technological development (Rašević, 2017b).

Serbia's migration policy adheres to the principles laid out in the Law on Migration Management (Government of Serbia, 2012) and the Migration Management Strategy (Government of Serbia, 2009). These principles include preserving family unity, avoiding artificial changes to the national population composition, promoting balanced and planned economic development, strengthening ties with the diaspora and Serbs in the region, protecting the rights of migrants, and complying with relevant international treaties and laws.

In addition to these foundational documents, Serbia has adopted various strategies to address specific migration issues. By implementing these policies and strategies, Serbia aims to manage migration in a way that benefits both migrants and the country as a whole. The Strategy on Economic Migration of the Republic of Serbia for the period 2021-2027, adopted in 2020, is particularly significant (Government of Serbia, 2020). The Action Plan for the implementation of the strategy during 2021-2023 (Government of Serbia, 2021a) was also developed, outlining the activities to be

undertaken and sources of funding for each measure. To track progress, the first Annual Report on the implementation of the Action Plan in 2021 was prepared in 2022 (Ministry of Labour, Employment, Veteran and Social Policy, 2022).

The Strategy aims to create an economic and social environment that will slow down the departure of the working-age population, strengthen ties with the diaspora, encourage return and circular migration, and attract foreigners with various educational backgrounds. To achieve this overall goal, the Strategy identifies specific objectives, which include:

1. Building and enhancing institutional capacities to monitor and improve the quality of data on economic migration

2. Improving living and working conditions in the economic and social sectors

3. Aligning the education system with the needs of the economy, with a focus on monitoring innovations brought about by the fourth industrial revolution, developing new occupations and professional profiles, and creating conditions to attract foreign students

4. Improving cooperation between the diaspora and the homeland, and encouraging transnational entrepreneurship

5. Creating conditions to monitor, encourage and support circular and return migrations

6. Establishing conditions for more efficient management of internal migration flows.

To achieve these objectives, the Strategy outlines a total of 24 measures that need to be implemented.

The Strategy acknowledges the crucial role of certain assumptions in effective migration management, irrespective of its title. These assumptions include access to high-quality data on emigration/immigration, recognition of the economic and social factors driving migration decisions, consideration of the consequences of migratory movements, and a focus on the potential impact of external migration on Serbia's development. This strategic document places significant emphasis on educational and scientific policy, while also recognizing the links between other state development policies and migratory movements. Notably, the Strategy remains open to considering the conditions for managing internal migration.

This comprehensive document outlines a range of measures aimed at achieving the six special goals identified, with a particular focus on the obligation to adopt three-year action plans and report annually on progress towards implementation. The Strategy underscores the importance of adopting a comparative approach to the implementation of migratory policies alongside those addressing fertility, mortality, and population aging, as a means of enhancing demographic and socioeconomic development in the country.

The local community is an important resource in the implementation of population policy. Therefore, it is imperative to involve local self-government units in the execution of various measures outlined in the Strategy. Notably, the lack of attention to migration at the local level was identified as a weakness, and the absence of an active role by the local administration and coordination between its services was seen as a potential threat to the successful implementation of the Strategy.

To address this, local self-government units can establish a database of emigrants and facilitate dialogue between the local administration, representatives of local community institutions, civil society, and citizens. This will help to recognize the push factors driving emigration, and the knowledge gained from piloting various actions should be leveraged, bearing in mind the strategic objectives of the state in this area.

Policy Response to Premature Mortality

In Serbia approximately 42,000 individuals die annually due to premature mortality, which accounts for just over 40% of total mortality, under normal circumstances, not accounting for the exceptional circumstances caused by the SARS-CoV-2 pandemic. Data from the last six years suggest that there has been a stagnation or even a slight increase in premature mortality. Annually, Serbia experiences half a million lost years of potential life. Premature mortality among men is almost 60% higher than among women in Serbia. The mortality rates for men and women start to diverge from teenage years and continue to increase until the oldest age groups of premature mortality (Figure 5).
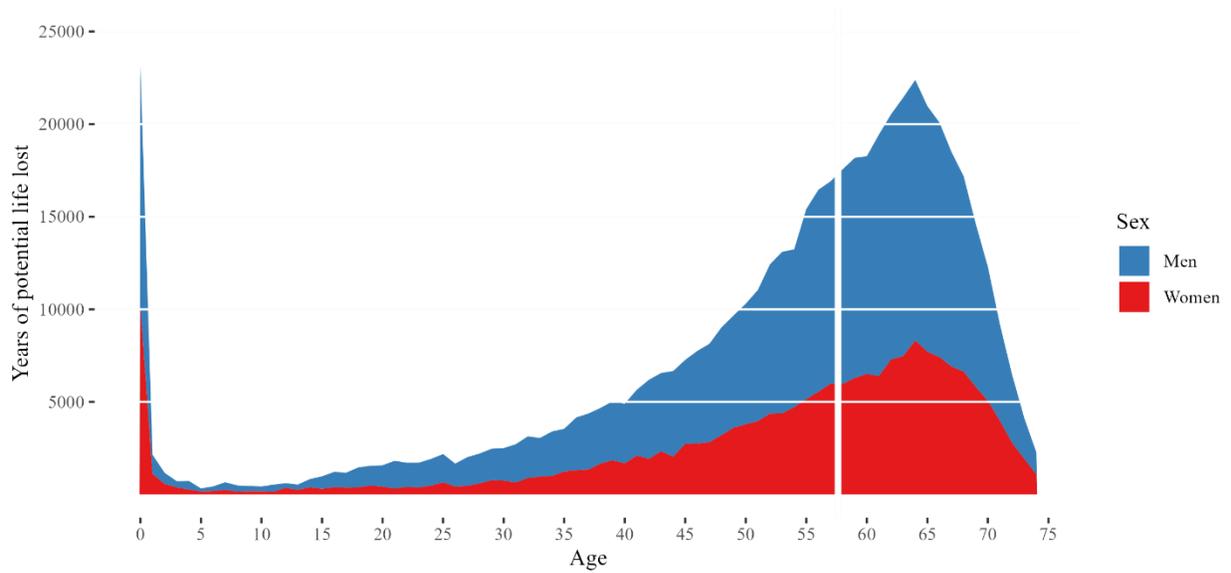
Figure 5. Distribution of lost years of potential life by age and sex (2017-2019)

Serbia is known for its high cardiovascular mortality rate among the general population (Galjak, 2018), but years of potential life lost show that the main driver of premature mortality are tumors. The leading cause of potential years of life lost in Serbia are neoplasms, i.e., tumors, followed by cardiovascular diseases, external causes of death, respiratory diseases, and all others. The most significant cause of potential years of life lost due to death is malignant neoplasm of the bronchus and lung (C34). Cardiovascular causes of death, acute myocardial infarction (I21), and cardiac arrest (I42) are the second and third leading causes, respectively. The greatest sex differences are observed in cardiovascular diseases, where the mortality structure is similar between men and women, except for the fact that women have an incidence of mortality that is more than two times lower for most cardiovascular diseases (Figure 6).
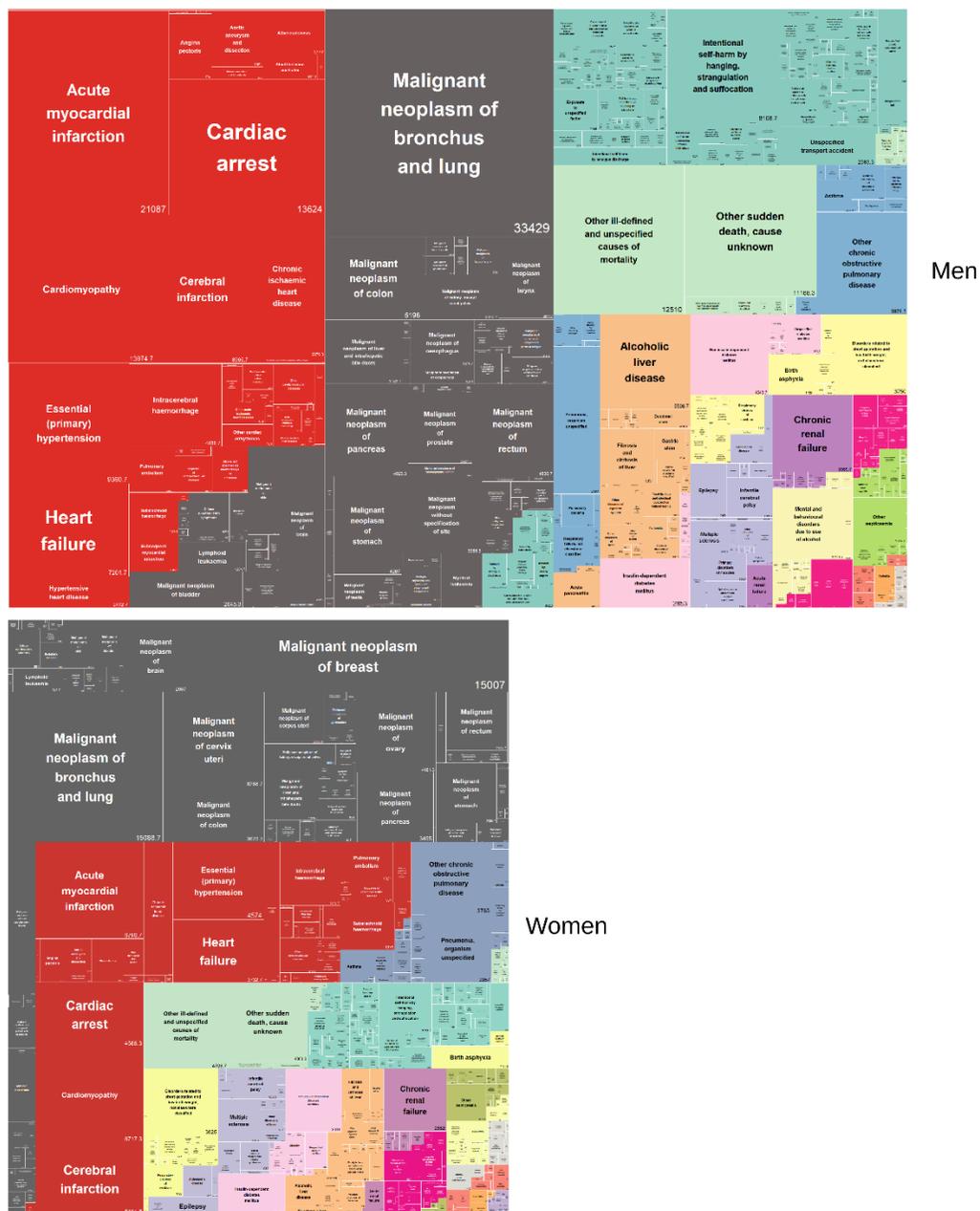
Figure 6. Causes of premature deaths in Serbia by gender in years of potential life lost (three-year average 2017-2019).

The issue of premature mortality in Serbia is not acknowledged as a standalone policy concern, but rather as part of a broader array of problems, particularly in the realm of public health. Consequently, the Republic of Serbia indirectly addresses this issue through various strategic documents. These documents are quite adept at identifying problems, yet frequently lack ambitious goals and fail to take adequate action. Another challenge posed by these documents is that numerous strategies are outdated and no longer in effect. Among them is the "Tobacco Control Strategy," which was adopted in 2007, and may be crucial to mitigating premature mortality in Serbia.

An example of strategic documents that correctly identify problems is the Cancer Control Improvement Program. This program identifies the issue of insufficient equipment, particularly the fact that there are only two PET scanners in the entirety of Serbia. However, the action plan fails to include the need to purchase additional PET scanners. Furthermore, even in cases where specific operational plans are included in the action plan, there is often no dedicated budget allocation for their implementation.

Another issue with existing strategic documents is the lack of ambitious goals, which often only represent marginally achievable improvements that would likely occur even without implementing the steps outlined in the action plans. The level of ambition in national strategic documents does not align with the ambition of the United Nations' Sustainable Development Goals and Millennium Development Goals (2022).

One possible way of addressing premature mortality is to develop a new strategy, which would consolidate various components of existing strategies and include a comprehensive action plan with specific budget allocations. This new strategy could address the limitations of current strategic documents related to premature mortality and operationalize the proposed solutions. Another possible way forward would involve immediate adoption of a new tobacco control strategy. Since smoking is associated with over a quarter of the total mortality in Serbia (Marinkovic, 2017), addressing this significant mortality factor should be paramount. The new strategy could aim to significantly reduce the prevalence of smoking in Serbia and would likely be the most important strategic document that could impact premature mortality in the country. Serbia can draw on examples from other countries, such as New Zealand's recent introduction of an endgame measure that permanently prohibits people born after 2008 from purchasing tobacco (McDaniel et al., 2016). This innovative measure targets generations who do not yet have the right to vote and does not affect the current population who may oppose such a measure if it were intended for them. In Serbia, where the prevalence of smoking is high, there is an opportunity to reduce the number of smokers, particularly among young people, even with less drastic measures.

The best predictor of subnational differences in premature mortality within Serbia is poverty (Galjak, 2022). The strategy for reducing poverty was adopted almost 20 years ago (Government of Serbia, 2003),and there is a need to develop a new strategy that would be aligned with the other mentioned strategic documents and that must include the issue of premature mortality as an integral part. The 2003 strategy does not directly address mortality, but only at the level of indicators for deaths of children under 5 years and infants. Rational use of limited resources, i.e., investment in healthcare as a population policy.

The underfunding of the healthcare system in Serbia is a significant problem that could also be addressed. Compared to other countries in the region and beyond, Serbia allocates relatively little funding to healthcare. For example, in 2019, Serbia spent only 641 US dollars per capita per year on healthcare, which is less than many other countries in the region, such as Croatia and Slovenia. Additionally, Serbia's healthcare spending as a percentage of GDP is also low, at only around 9% in 2019. In contrast, countries with lower rates of premature mortality, such as Switzerland, allocate much more funding to healthcare, with spending reaching up to 11% of GDP (Galjak, 2014; WHO, 2022b). Despite the relatively low level of funding, Serbia manages to employ a significant number of doctors per capita. According to data from the World Health Organization (2022a), Serbia employs 31.13 doctors per 10,000 people, which is higher than Croatia (34.7), Slovenia (32.8), and even the United Kingdom (29.1). However, the difference in premature mortality rates between Serbia and more economically developed countries cannot be solely attributed to the number of doctors. Other factors, such as equipment, organization, and human resources, including training in the use of state-of-the-art methods, also play a role. The healthcare system in Serbia is also facing significant demographic challenges, with an aging population. The current system was designed for a society with a much smaller proportion of the elderly, and it is no longer adequate for modern health challenges. Therefore, there is a need for significant reforms and increased investment in healthcare to improve the overall health outcomes of the population (Galjak, 2018).

Preventing a disease is often more cost-effective than treating it (Hankey & Warlow, 1999; Herman et al., 2003). By investing already limited resources into primary prevention programs, significant long-term benefits can be achieved. Evidence from other countries suggests that primary prevention programs have the greatest impact (Laatikainen et al., 2005). The 2019 population health survey in Serbia indicates substantial improvements in measuring blood pressure, blood sugar, and cholesterol levels compared to previous years (2013 and 2006) (Milić, Stanisavljević, Krstić, Jovanović, Brcanski, & al, 2021). However, the same research revealed a significant disparity between the rich and poor in terms of access to other preventive measures such as pap smears (Milić, Stanisavljević, Krstić, Jovanović, Brcanski, & al, 2021).Despite the significant progress made in primary prevention, there is still much work to be done in reducing the number of individuals who have uncontrolled blood pressure, blood sugar, and cholesterol levels to prevent cardiovascular disease. There seems to be a big gap between the rich and the poor when it comes to other types of prevention, such as pap smears (Milić et al., 2021). Immunization also plays a crucial role in primary prevention. For example it would beneficial to create further measures to increase the uptake of the free HPV vaccine

that was recently introduced in Serbia following the WHO's recommendations (Rancic et al., 2022), which was the important milestone in itself.

Due to the significant potential for improvement, secondary prevention is critical for Serbia. The country experiences a substantial burden of premature mortality, which can often be prevented by implementing effective secondary prevention strategies (Galjak, 2022).

It is especially alarming that in Serbia, several causes of death that can be entirely prevented by early detection, such as cervical cancer, breast cancer, and cardiovascular diseases, are prevalent. The implementation of effective secondary pharmacological prevention methods could significantly reduce the incidence of these conditions. A prime example of such a method is the use of statins, a type of medication used to lower cholesterol levels, which has been proven to be a highly effective and cost-efficient way to reduce overall mortality (Nunes, 2017). However, the utilization of statins in Serbia is not yet on par with that of the most developed nations (Blais et al., 2021).

Air pollution has been identified as one of the drivers of premature mortality in Serbia (Artur Gsella et al., 2021; Galjak, 2022; World Bank, 2020; Zander, 2020, p. 202). While it may not be feasible to completely eliminate air pollution, reducing its levels should be a target of a comprehensive policy response against premature mortality. One potential approach is to enforce stricter compliance with existing environmental standards, as well as to tighten these standards further. While a good plan already exists for reducing emissions from major industrial plants, the issue of individual residential heating using coal and wood remains unresolved (Đorđević, 2018; Ilić et al., 2016; Jovcic et al., 2013) and that has been identified as a significant source of air pollution. One potential solution to the problem of burning low-cost coal in residential heating is to increase the cost of this heating method. However, this measure could disproportionately impact low-income individuals and households. Therefore, measures based on incentives for cleaner heating methods must also be put in place simultaneously. The government could consider increasing taxes on coal exploitation while simultaneously subsidizing cleaner heating options. While such measures may be expensive, they align with Serbia's sustainable development goals and its commitments under the Paris Agreement (Negotiators of the Paris Agreement, 2016) to reduce emissions that contribute to global warming.

Discussion and Conclusion

Given the current and the projected age structure of Serbia we can conclude that existing policy response has not done enough to meaningfully change the course Serbia has been on demographically for previous several decades. Low fertility, the most powerful driver of this inevitable population ageing Serbia is facing, seems to be difficult to affect. Direct cash benefits as a measure to encourage births have been proven ineffective (De Santis, 2006; Demeny, 1986, 2011). Therefore, it is important to consider the opportunity costs of such policies. We have shown that the resources that are being invested in trying to increase the fertility rate by the state have been increasing in the past 20 years. Funding such programs ultimately means higher taxes which can act as a "push" factor, leading to emigration. On the expenditure side, these funds could be utilized where they are most needed, such as in the healthcare system. The economic cost of premature mortality is substantial (Galjak, 2021, 2022), and considering the limited funds allocated to healthcare in Serbia, investing further in this sector could yield significant returns in the coming decades. Even modest investments, such as in modern equipment, can generate tangible outcomes. In the case where the state funds Biomedically Assisted Fertilization does lead to concrete results. This is allowing women not only to conceive but it also gives them a reason to stay and not to emigrate. Additionally, recent changes to the Labor Law are a positive change in the right direction that can lead to more desirable outcomes in the future. There is a lot of space for more changes like these to take place that would ultimately be cheaper and provide more benefits than direct cash benefits. In some sense direct cash benefits are the easiest to implement. Compared to the systemic changes that other pathways require, which involve large legislative and operational changes in the government, or even greater when it comes to societal changes. Large scale systematic changes require planning over a longer time frame. A policy shift is necessary, one that would require significant administrative and financial investment, but could ultimately be more effective.

Emigration is a more pressing issue for Serbia than low fertility rates. Any hard-won gains in fertility are easily lost through emigration. In terms of priorities Serbia needs to do as much as possible to become a desirable place to live, and potentially attract migrants who would stay in Serbia long term. This involves not only economic growth, but also an increase in living standards, including stronger environmental standards and their better enforcement. While there have been no wars in which Serbia has been involved for over 20 years, the situation with Kosovo and the potential for conflict, as well as general political instability, could be considered *push* factors for potential emigrants. A stable

and a more democratic Serbia, with stronger institutions and increased trust in the legal system and other systematic improvements could build a positive outlook that could sway potential emigrants. These positive changes could not only keep the potential emigrants *in* and attract immigrants but also allow potential parents to plan their future in Serbia. Accession to the EU means legislative changes and increased administrative capacity in the future. Even though the experience of accession to EU could lead to even more people leaving to the EU countries, experience of the Poland, that has recently started experiencing a positive net migration (Okólski, 2021), shows us that the same could be possible for Serbia. Recent developments have led to many Russian and Ukrainian immigrants in Serbia, which Serbia could potentially retain for a longer term.

Another area where Serbia can do more is collecting and opening data, which is lacking, especially on emigration, a problem that makes researchers and policy makers essentially blind in this domain. Improved and wider data collection (especially on emigration, but also in the sphere of vital statistics and in the form of relevant demographic surveys) would allow for more substantial research and would ultimately enable evidence-based decision making in the future, allowing targeted measures as opposed to blunt instruments such as cash disbursements.

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