THE DEMOGRAPHIC FUTURE TREND AND THE SUSTAINABILITY OF SOCIAL HEALTH INSURANCE SYSTEM IN ROMANIA

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Abstract: *This study aims at highlighting the theoretical aspects involved in ensuring a sustainable health insurance system that can be influenced by current demographic evolution in our country. Along with the presentation of demographic forecasting for the demographic quota of the working age by 2025, the potential consequences regarding the sustainability and ethics of this demographic development are analyzed. Thus, given that 66% of the Unique National Health Insurance Fund's income are based on the contribution of employers and employees, the decrease by more than 1 million people from the working age quota can cause major disruptions. There are two possibilities of future evolution, cost restraints situation, in which the sustainability of the health insurance system is preserved, or the negative situation of inability to cover costs due to an aging population.*

INTRODUCTION

The demographic changes induce significant research topics to be explored further in order to understand the many implications that arise, both in the short term, as well as on long term. It is obvious that the structural changes of the population and the prevalence of older generations will significantly affect various sectors of the society, causing changes in the financial sustainability of social health insurance system, in the level of access to healthcare for different populations and regarding the right to health of citizens will be supported. Although there has been discussion about the negative impact of demographic change on the economy of a nation and the impact on the social pension insurance system at political level, the topic on the impact on the health systems and ethical issues that will affect people's access to health care services are less discussed in our country.

PURPOSE

This research aims at highlighting the potential demographic evolution of the population of working age contingent, in parallel with the presentation of scientific theories related to the consequences of population aging on the people's access to health care services in Romania.

METHODS

To achieve the projected number of people expected in each of the years 2007-2025, there has been used the cohort-component method.(1) The technique used in the research can provide an indication of the evolution of the future population, if the components of population change turn out to be as specified by the initial assumptions. The technique took into account patterns of fertility and mortality by specific age groups in 2013, but did not take account of the phenomenon of migration. In creating the database, there have been used secondary type of data as: number of live births, number of persons for each annual age group, number of live births according to the mother's age group, the number of annual deaths by age, the source of demographic data being based on the Tempo-online database of the National Institute of Statistics.(2) The specific fertility rates by age and specific mortality rates by age group were determined for the year 2013, based on these secondary data. The patterns of fertility and mortality phenomena were used to determine the expected number of live births and estimated number of deaths for each age group, for each year of the following years, 2014-2025. By applying these models, the expected number of people in each age group for each of the years covered the period 2014-2025 has been obtained.

In order to find out the demographics losses of the contingent of active population, demographic indicators with a fixed base, absolute type, were determined, computing the difference between the expected number of people in the working age group (18-65 years) for each year from 2014 to 2025 and the number of real people in the same age group that have been recorded in year 2013, and also, between consecutive years.

There has been a review of the scientific literature, in the research being used the most appropriate ideas to the demographic context of our country, in order to highlight the theoretical aspects stemming from the negative downward of the contingent of economically active age population (18-65 years). The limits of this work should be seen in the assumption that the demographic forecasting will preserve the age-specific models of fertility and mortality, and the absence of migration; however, even if the exact model is not plausible, the exercise of projection is useful for highlighting trends and indicating the possible situations to be avoided in the future.

RESULTS

In 2013, according to the data of the National Institute of Statistics, Romania has registered a number of 21 305 097 inhabitants, which means a deficit of 1 906 298 people, or a reduction of 0.08% of the total population compared to the

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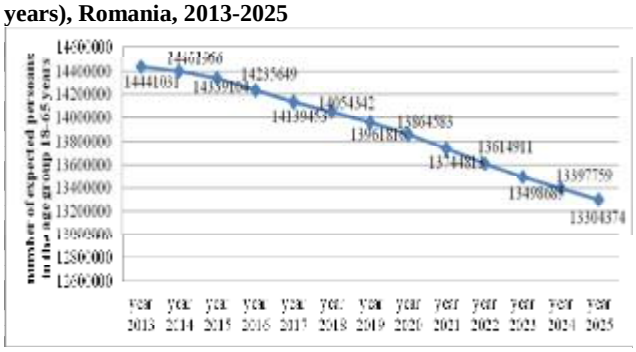
population registered in the year 1990. In the same year (2013), people in the active age group (the age group 18-65 years) amounted to a total of 14 441 031 inhabitants. The evolution of the expected number of people aged between 18-65 years old is a downward one. Thus, in 2015, the expected number of people is 14 339 104, with 62 862 fewer people than in 2014.

In other words, in one single year, there is an estimated loss from the active age group of more than 60 000 people. Figure no. 1 presents the expected quota of the working age population in the period 2013 -2025, if the specific mortality pattern by age from 2013 will be maintained. At two years, in 2016, the loss in expected number is of 103 455 people in the working age group, compared to year 2015. In 2020, it is expected to lose 97 233 working age people than in 2019, while in 2025 the number of people of working age will be 13 304 374, with 93 384 people less than in 2024. Over the considered time period there are observed different variances of the estimated working age population quota, the largest deficit, of two consecutive years, being observed for two years: year 2022, when it is estimated 130 000 people less than in 2021, and year 2021, when they shall record with about 120 000 people in active age group less than in 2020.

Regarding the potential deficit that will be recorded in the period 2014-2025 compared to 2013, it will increase continually year, after year. In 2014, the deficit will be of about 40 000 people, reaching in 2025 to register a difference of more than 1 million people.

Figure no. 1. The future demographic trend of the expected number of persons in the active working age group (18-65 years), Romania, 2013-2025



DISCUSSIONS

The social health insurance system in Romania is based on the financial "contribution for health insurance paid by insured, the individuals with economic activities (mainly employees) and companies who employ salaried staff, subsidies from the state budget and other sources", such as donations, sponsorships, etc.(3) Given the fact that there are different categories of persons who receive health insurance without paying the contribution (e.g. children and young people aged up to 18 or 26 years if studying and do not have income, people who receive lower retirement income 740 lei) and the number of those who contribute to the system will diminish, a potential reduction in the revenue in the National Health Insurance Fund is materialized. This should be seen in the context when the revenues of the National Health Insurance Fund for the year 2013 (about 23 billion lei), comes principally from three sources: 33% of employers' contributions, 33% of employee contributions and 27% subsidy, which means that the base funding (66%) consists of contributions of the actually economically active population.(4) Because the life expectancy is increasing and population aging is increasing, as well, which may increase the need for health services, the problem of ensuring the sustainability of the health insurance system is a problem that requires to find solutions and possible interventions. But what is meant by sustainability? The term was used especially in the global environmental problems to explain the scarcity of resources - whenever a resource is exploited at a level that does not allow the recovery, it has been used term "unsustainable".(5) Given the context in which there is a general level of concern about the availability of resources, ensuring the economic sustainability of a health system relates to the responsible use of resources and to the maximizing the strategic goals of the system, and with the need to identify strategies that provide more effective health services, but without derogation from the principle of social welfare.(6,7) On the other hand, it should be taken into account that the evaluation of the primary objective of a health system - to improve the health of the population - is not an assessment simple and easily to be performed, taking into account all the dimensions of health and that the health status depends not only on the system interventions but also on other determinants, so that the health improvement due to the health system itself is ambiguously to be defined.(8)

Is it possible to ensure the sustainability of the social health insurance system, while the population of active age is diminishing and the share of aging population of the population will increase? There are substantiated scientific theories which argue that population aging will not increase healthcare costs. These theories start from certain assumptions such as: large number of very elderly people will not actually increase, the period characterized by diminished physical force will decrease, chronic diseases will occupy a smaller proportion of the average length of life and the need for health care for the population having a very advanced age will decrease.(9) One of the pioneers and leading scientists in the field of aging, James Fries, professor at Stanford University School of Medicine issued and confirmed the hypothesis that the disease burden can be compressed into a short time period before the moment of death, when the age of appearance of the first disability can be postponed. If interventions can be made to delay the occurrence of a disability, and to postpone chronic illnesses, then health care costs will be controlled and the patients overall health will improve.(10,11)

The health endowment of the population (capital) must be preserved and enhanced, as a condition for the compression of morbidity and incapacity; in the UK strategy for 5 years, Public Health becomes a major piece of the sustainability policies: *"The first argument we make in this Forward View is that the future health of millions of children, the sustainability of the NHS, and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health"*.(12)

CONCLUSIONS

In the case when the model of the specific mortality by age from the year 2013 will be mentained and in the absence of the migration phenomenon, the population from the active age group (18-65 years) will decrease within the period 2013-2025, reaching to count more than 1 000 000 persons less in 2025 compared to 2013. Given that in the year 2013, 66% of the National Health Insurance Fund's income is based on the employers and employees' contribution, the decrease of the working age quota by more than 1 million people can cause major disruptions. There are two feasible situations of evolution, the cost control situation, in which the sustainability of the health insurance system is preserved, or the negative situation of inability to cover costs due to an aging population. The health system sustainability can be ensured, only if the onset for the first disability (in the length of life) may be delayed as much as

possible towards the time of death, for the entire population. That means upgrading and enhancing public health as a major policy for sustainability of the healthcare system.

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