

ABSTRACT

1. Research project objectives/ Research hypothesis

The aim of the project is to prepare projections of future demand for care among people aged 65 years and over in Poland. The demand for care is defined as the number of people requiring care because of limited independence due to health reasons taking also into account their family situation. Including in the projection the information about the elderly's family situation, which allows for evaluation of potential care resources within family networks, is supposed to allow the estimation of future demand for formal care (provided by public or private institutions) and informal care (provided mainly by family members).

2. Research project methodology

A multistate population projection model including age, sex, health status and the family situation of the elderly will be a tool to project demand for care among people aged 65 years and over in Poland. A multistate model allows to determine changes of the population structure according to the distinct states which an individual can occupy. The „additional” characteristics considered in the project are the health status and the family situation. The projection's time horizon is set to year 2040.

Application of the multistate population projection model will require the estimation of transition probabilities between distinguished states of the health status and the family situation with respect to age and sex. For the estimation purposes the nonparametric approach will be applied using longitudinal data at the individual level (micro). The source of the data will be the panel component of the European Union Statistics on Income and Living Conditions (EU-SILC) database.

Projection at the population level will be obtained through the integration of the already existing Eurostat population projections by age and sex with the results from the original models for the health and family situation changes estimated at the micro level. There are two possible variants of the integration considered – macrosimulation and microsimulation. Each of the integration methods produces a population projection including the health status and the family situation structure at the macro level. Projections will be using variants of assumption concerning respective parameters of the population projection models. Different assumption variants will allow to study a couple of potential scenarios of changes in the demand for care in the future.

3. Expected impact of the research project on the development of science, civilization and society

This study fits well into the current trends of world literature related to advanced research on estimating demand for care among the elderly. There are relatively few studies in the Polish literature dealing with the future demand for care among older people with limited independence. This project attempts to contribute to the field by performing a study that includes changes of the population age structure, changes of health status and changes of the family model and living arrangements. The research will make use of a dynamic multistate projection model that takes into account the health status and the family situation (the household structure) of the elderly. It will allow to estimate the effect of change in the health status by age over demand for care according to various morbidity hypotheses which will be used to formulate projection scenarios. Including in the projection the information about the elderly's family situation will allow to assess the influence of diminishing informal care resources on the demand for formal care.

The work on estimation of parameters that would serve as input to the population projection model will be also a contribution to the research on the interplay of changes in health status and family situation of the elderly.

Changes in the age structure of Poland's population and their consequences are perceived as key socio-economic challenges. Among the major priorities for the newly created senior policy (*polityka senioralna*) in Poland, it is the need of development of social and care services adapted to the elderly's needs that is highlighted. The results of my research may be used for design such a policy and to adjust the supply of formal institutional care according to the future needs.