Summary of the doctoral dissertation: "The effectiveness of the work of doctors and nurses in hospitals of the Lodz Voivodeship in the perspective of the aging society and the COVID-19 epidemic situation", written under the supervision of: dr hab. Izabela Warwas, associate professor at the University of Lodz and the auxiliary supervisor: dr n. mcd. Tomasz Karkowski.

In the coming years, Poland will become one of the countries with the highest old age rate in Europe. The aging process of the population taking place in our country is dynamic, as indicated by statistical data and demographic forecasts. The same processes also apply to the Lodz Voivodeship. The aging of the society will result in the need to reorganize the functioning of the health care system in Poland. In the near future, healthcare entities should be prepared for new organizational challenges that will increase the availability of health services dedicated to the elderly. It is important to increase the resources of qualified medical staff for this purpose. The demand for doctors, nurses and medical carers is increasing and the issue of the generation gap among medical staff is a real threat to the functioning of the entire health care system. Moreover, the education process in the case of doctors and nurses can be described as complex and long-term, which extends the period of acquiring new resources of medical staff. The aforementioned issues were amplified as a result of the global COVID-19 pandemic. The disturbance in the functioning of the health care system was caused mainly by shortages of medical personnel in hospitals. A recipe for the presented problems and threats may be appropriate management and making efforts to increase work efficiency.

The considerations in the dissertation followed two complementary trends: descriptiveanalytical and research. The application of this method allowed for the implementation of the main goal, the specific objectives of the work and the answer to the research questions asked. The main purpose of the dissertation is to **assess the effectiveness of the work of doctors and nurses in selected hospitals in the Lodz Voivodeship.**

The following specific objectives were also adopted in the dissertation:

- Systematization of knowledge on the aging process of the population in the Lodz Voivodship as against the national situation, taking into account the aspects of access to health services for the elderly;
- 2) Identification of the gap in the availability of nursing and medical staff resources in Poland, with the emphasis on the Lodz Voivodeship;
- 3) Identification of the effectiveness factors of the work of nursing and medical personnel;

 Critical assessment of the effects of the SARS-CoV-2 epidemic for active participants in the treatment of patients, i.e. doctors and murses.

The dissertation posed the following research questions:

- 1) How does the progressive aging of the population in the Lodz Voivodship affect the availability of health services in hospitals in the Lodz Voivodship?
- 2) How big a threat to the functioning of the health care system are the shortages of nursing staff in the Lodz Voivodship in the near future? What does this threat stem from?
- 3) How do doctors perceive the staffing situation of medical staff in hospitals in the Lodz Voivodship and do they consider staff shortages a significant threat to the functioning of hospitals?
- 4) How is effectiveness defined by nurses and doctors?
- 5) How do doctors and nurses perceive the factors influencing the effectiveness of the work of medical personnel and medical facilities?
- 6) What are the consequences of the COVID-19 epidemic for the health care system? How did the COVID-19 epidemic affect the nature of the work of nursing and medical staff in hospitals in the Lodz Voivodeship?

The dissertation uses triangulation at the level of research methods and techniques as well as data sources and methods of their analysis. In the first four chapters of the dissertation, a critical analysis of existing data was used, while the results of own research were presented in chapter five and six. In order to verify the empirical effectiveness of the work of doctors and nurses, quantitative research (questionnaire research) and qualitative research (IDI - Individual In-depth Interview) were carried out. The quantitative study for nursing staff was carried out in multi-profile hospitals in the Lodz Voivodeship. Interviewees in qualitative research were also employed in hospitals in the Lodz Voivodship. The participant observation method supplemented the collection of empirical data.

The dissertation is theoretical and empirical. It consists of six chapters, an introduction and an ending. The first four chapters are theoretical, and the fifth and sixth - empirical, and present the results of quantitative and qualitative own research.

The first chapter presents the demographic processes occurring in Poland and in the Lodz Voivodship, based on the available statistical data and forecasts, along with the demonstrated consequences of an aging population.

The second chapter discusses the main problems related to the complexity of the education process of medical students in the fields of medicine, nursing and midwifery in Poland and the aging of the medical staff and nurses.

The third chapter covers the definition of the concept of efficiency, including work efficiency and the systematization of knowledge in this area. In this chapter an attempt was also made to characterize and present the specificity of the effectiveness of the work of medical personnel.

Chapter four supplements the previous chapters with an unpredictable factor that completely changes the functioning of the health care system, i.e. the COVID-19 epidemic. The knotty problems outlined in the previous theoretical chapters have been amplified and explicated.

The fifth and sixth chapter covers the presentation of the research methodology and the results of own research.

The whole dissertation was concluded with a discussion of the results and the conclusion. At the end, the author included a list of recommendations for improving not only the effectiveness of doctors and nurses in their daily work, but also solutions that may increase the effectiveness of the entire healthcare system in Poland.

Monon 30.08.2022 -