

Chapter 28

Medical Equipment and Economic Determinants of Its Structure and Regulation in the Slovak Republic

Beáta Gavurová

Technical University of Košice, Slovakia

Viliam Kováč

Technical University of Košice, Slovakia

Michal Šoltés

Technical University of Košice, Slovakia

ABSTRACT

The changing paradigm of health as well as its new tasks requires constant updating of state health policy. Health of the population in the Slovak Republic is considerably worse according to many indicators in comparison to the advanced countries of the European Union. The new health policy should reflect the economic capacity of the country based on the current data about health of the population, the requirements of the healthcare providers, and the healthcare sector itself. Its modification should be based on updated information on the health status of the population and its trends as well as the situation in use of medical devices and equipment. It reflects the contribution of these factors and should be designed to provide healthcare in the most appropriate way. Aspect of the medical equipment localization in the Slovak regions is an important point making solution of the mentioned issues clearer. Results of the analysis have confirmed the relevant facts there is unsuitable distribution of the medical equipment among the healthcare facilities in the Slovak Republic.

DOI: 10.4018/978-1-5225-7489-7.ch028

INTRODUCTION

Healthy population is a significant component in the process of economic growth of the country, because the full economic potential can only be achieved health. The health sector is affected by the innovation process, which includes skilled workforce healthcare sector is one of the largest in the European Union. Research and development in the health sector has the potential to reach 0.3% of gross domestic product. healthcare sector is one of the largest in the European Union, representing around 10% of the European Union gross domestic product and employs one in 10 workers with a higher than average proportion of workers with tertiary education. Support for human health is an integral part of the objectives of smart and inclusive growth and Europe 2020 (European Commission, 2011). An innovative development is necessary to exist to ensure the sustainability of the sector, as well as to achieve inclusive growth in the context of demographic change. It is not related only with the growing health needs of the population, but also pressure to increase the efficiency of the health system.

BACKGROUND

Modern medical equipment and technologies enable efficient and rapid diagnosis and treatment of diseases, hence their deployment in the health system necessity (Rosina et al., 2014). In addition to the quantifiable economic savings also it happens to humane treatment, prevention of possible complications, and thus to the elimination of the additional costs in the event of subsequent medical care for patients. Timely and successful diagnostics will save unnecessary medical procedures according to experts who make up one third – analysis of the European Association of medical technology Eucomed. Modern medical technologies, modern approaches to diagnosis and treatment combined with early detection also allow to shorten hospitalisation time for some diseases from several weeks to a few days. Reducing the number of hospital admissions and inpatient treatment time and replace feature to make it by the day surgery has been a global trend lately (Gavurová & Šoltés, 2014). In addition to radical savings in the health system derived from therapeutic and diagnostic procedure in conjunction with application of the latest research findings and health technologies, the macroeconomic view on this issue is also important. Within the medical technology industry in Europe more than 500,000 people are employed, making it a production of medical technologies important element of the gross domestic product of individual European countries. Upgrading of medical technologies occurs not only to improve them, but also to their constant replacement of modern and innovative technologies in the short term. This is confirmed by the fact that, for instance in 2012 the European Patent Office received more than 10,000 patent applications in the field of medical technology and the number is increasing. It is related to the significant progress in research and development.

Despite the positive development of modern medical technology an important component in the process of successful diagnosis and treatment becomes their availability. Availability of advanced medical technologies in the Slovak Republic is not proportional and regionally balanced. There are various problems that have long-term systemic nature (Gavurová & Šoltés, 2014; Kneppo et al., 2014).

If we look at the situation abroad, the density of medical equipment in different countries varies considerably in the European countries – for instance in the case of devices for x-ray computed tomography and magnetic resonance imaging. The Greeks have ten times more magnetic resonance imaging devices

12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/medical-equipment-and-economic-determinants-of-its-structure-and-regulation-in-the-slovak-republic/213611

Related Content

Histopathological Image Analysis in Medical Decision Making: Classification of Histopathological Images Based on Deep Learning Model

R. Meena Prakashand Shantha Selva Kumari R. (2019). *Histopathological Image Analysis in Medical Decision Making* (pp. 139-153).

www.irma-international.org/chapter/histopathological-image-analysis-in-medical-decision-making/212542

A Comprehensive Analysis of Findings on Clinical, Radiological, and Histopathological Correlations in Cholesteatoma

Vikas S. Kulkarni, Abhay D. Havle, Anagha Y. Rajguruand Agus Sudaryanto (2024). *Advancements in Clinical Medicine* (pp. 275-286).

www.irma-international.org/chapter/a-comprehensive-analysis-of-findings-on-clinical-radiological-and-histopathological-correlations-in-cholesteatoma/346206

Adaptive Prediction Methods for Medical Image/Video compression for Telemedicine Application

Ketki C. Pathak, Jignesh N. Sarvaiyaand Anand D. Darji (2019). *Histopathological Image Analysis in Medical Decision Making* (pp. 244-275).

www.irma-international.org/chapter/adaptive-prediction-methods-for-medical-imagevideo-compression-for-telemedicine-application/212547

A Review of Prediction on Alzheimer's Disease Using Machine Learning Techniques

A. Praveenaand M. Yogeshwari (2024). *Advancements in Clinical Medicine* (pp. 366-378).

www.irma-international.org/chapter/a-review-of-prediction-on-alzheimers-disease-using-machine-learning-techniques/346212

Improving Allied Health Professions Education With Clinical Training and Interdisciplinary Translational Research: Radiotherapy Vision

Magda Ramos (2022). *Handbook of Research on Improving Allied Health Professions Education: Advancing Clinical Training and Interdisciplinary Translational Research* (pp. 138-152).

www.irma-international.org/chapter/improving-allied-health-professions-education-with-clinical-training-and-interdisciplinary-translational-research/302521