## Pandemic Covid-19 as a challenge for telemedicine in the Czech Republic

Olga Angelovská<sup>1</sup>, Karolína Dobiášová<sup>1</sup> a Jolana Kopsa Těšinová<sup>1</sup>

## Abstract

The development and dissemination of information and communication technologies (ICT) and digital technologies in healthcare management and delivery, as well as the demographic ageing of the population or the continuous growth of healthcare expenditure, has led health policymakers to introduce new approaches in healthcare over the last two decades with a focus on digital solutions. The COVID-19 Pandemic contributed to the acceleration of the whole process within healthcare systems. At that time, the Czech healthcare system faced the same problems as other European systems and struggled with a temporary limitation of direct provision of healthcare services. It was solved by switching to telemedicine. Czech healthcare system used telemedicine to a minimal extent until then. Despite adopting the law on healthcare digitalisation, it is still one of the countries with a lower level of digitalisation of healthcare processes.

The great potential of digital technologies lies in strengthening the patient-centred approach, increasing the efficiency of work and operational procedures, improving the security of health information, monitoring patients, personalising medicine, sharing information between different entities, as well as supporting decision-making and management of people and processes in healthcare. This paper presents the results of an exploratory expert investigation focused on the implementation and development of telemedicine in the Czech Republic.

The conducted research aimed to identify problems related to the implementation of telemedicine in practice, place them in the broader framework of the healthcare system and structure them, propose possible solutions, and identify the challenges of telemedicine in the Czech Republic in the future. We based our study on the results of a three-phase QUAL-QUAN-QUAL research. Data collection in the first phase took the form of individual semi-structured interviews with patients (25) with practical experience in the field of telemedicine. They aimed to find out the state of telemedicine in practice and to identify the critical problems in the field of telemedicine encountered by the experts. The results provided basic insight into the issue and served as a basis for the follow-up second quantitative phase of the questionnaire survey with patients (650). The third, qualitative phase, included online guided discussions (roundtables) with experts (32) focusing on three aspects of telemedicine 1) medical, 2) pharmacy, 3) financial and legislative.

The introduction and expansion of telemedicine require several fundamental changes. These include adjustments to the legislative environment and changes to the technological infrastructure, organisation of care and work. Several barriers have been identified in this area at the healthcare system level, healthcare providers, healthcare professionals and patients. Changes in the system and the development of telemedicine are only possible with closer cooperation between different institutions and stakeholders. The coordination of individual activities is essential in the implementation of telemedicine.

<sup>&</sup>lt;sup>1</sup> First Faculty of Medicine, Charles University, Prague, Czech Republic