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Functioning of Telemedicine in the Polish System Health Protection

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Abstract:

Purpose: *The aim of the study is to discuss key aspects of telemedicine in Poland, to review the most important concepts and legal regulations concerning its functioning, to indicate the directions of development, benefits and threats of using information and communication technologies in the provision of health services, as well as to present data and prospects for the development of telemedicine in Poland. It is also crucial to further develop telemedicine infrastructure and educate patients so that they can fully benefit from modern forms of healthcare.*

Design/Methodology/Approach: *Own research, analysis of source data*

Findings: *Telemedicine enables the delivery of healthcare services at a distance. It encompasses a wide range of healthcare specialities and practices delivered using information and communication technologies. Initially, telemedicine was to be used for patients in areas distant from the healthcare provider, but the COVID-19 pandemic was a key impetus for intensifying its development.*
Practical Implications: *Implementation of modern teleinformatics solutions, adjustment of legal regulations and education of patients and doctors will be crucial for further popularisation of telemedicine in Poland, which in practice means that, apart from the advantages of these solutions, there are disadvantages and barriers to the introduction of healthcare in the form of telemedicine.*
Originality/Value: *Currently, telemedicine covers various areas such as teleconsultation, teleradiology, telemonitoring, e-prescriptions and e-referrals. In Poland, this field is gaining importance, which contributes to improving the availability and efficiency of health services.*

Keywords: *Telemedicine, teleportation, private medical packages, digitisation.*

JEL codes: *I18, I15, O33, L86, H51.*

Paper type: *Research article.*

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1. Introduction

Telemedicine in medical subscriptions and insurance is becoming a standard and a key element of competitiveness for companies in the healthcare industry. Using modern information and communication tools, it combines the needs of patients and technological advances, transcending the barriers of traditional healthcare systems, playing an increasingly important role in private medical packages due to its numerous benefits for patients and medical facilities.

It is also an important element in making public healthcare services more attractive. It responds to the needs of modern patients seeking a fast, convenient and accessible way to receive medical care. Among the most important changes that can be observed in recent years are online consultations and the move away from paper-based medical records and the introduction of electronic medical records, i.e., referrals, prescriptions or access to an account for each patient.

In addition, telemedicine offers numerous benefits, such as quick access to specialists, time savings, improved efficiency of the healthcare system and increased patient safety. It is an important complement to traditional medicine, especially in situations where a face-to-face examination of the patient is not necessary, and it becomes possible to interact between medical staff and patients by means of telephones (so-called teleporades), remote devices, e-mails, video chats or remote conferences[3].

However, its development also comes with challenges, such as diagnostic limitations, technological difficulties and data protection concerns. It is therefore crucial to further develop the telemedicine infrastructure and educate patients so that they can take full advantage of modern forms of healthcare.

The aim of the study is to discuss key aspects of telemedicine in Poland, to review the most important concepts and legal regulations concerning its functioning, to indicate the directions of development, benefits and threats of the use of information and communication technologies in the provision of health services, as well as to present data and prospects for the development of the use of telemedicine in Poland.

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[3] *G. Glanowski, Telemedicine in the light of the Law on the Profession of Physician and Dentist, 'Legal Monitor' 2020, no. 18, pp. 978-982.*

2. Overview of Definitions and Regulations Relating to Telemedicine

Telemedicine is increasingly being addressed in academic and specialist literature as an important part of modern healthcare. Its development, particularly in the context of digital technologies, the transformation of healthcare systems and the COVID-19 pandemic, is the subject of much research and analysis.
The term telemedicine comes from Greek and Latin from a combination of the words tele - at a distance and medicina - the science of diagnosing and treating disease[4].

It might seem that the proliferation of remote medical services would contribute to the creation of a definition of telemedicine, but this has not been the case as a result. In practice, therefore, there are many definitions developed by different entities, but three are cited as examples, created by the World Health Organisation (WHO), the European Commission and the American Telemedicine Association (ATA) respectively[5].

According to the 2010 WHO definition, telemedicine is the provision of health care services, where distance is a critical factor, by all health professionals using information and communication technology to exchange vital information for diagnosis, treatment for disease and injury prevention, research and evaluation, and for continuing education of health care providers, all in the interest of improving the health of individuals and their communities[6].

The definition from the Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions indicates that it is the provision of health services using ICT[7] where the health professional and the patient (or two health professionals) are not in the same location.

These services involve the transmission of medical data and information (as text, images, sound or in any other form) which are necessary for preventive action, diagnosis, treatment and control of the patient's health[8].

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[4]*I. Wrześniewska-Wal, D. Hajdukiewicz, Telemedicine in Poland - legal, medical and ethical aspects, Studia Parawnoustrojowe No. 50, UWM Olsztyn 2020, p. 511.*
[5]*K. Parśniak, Regulacje dotyczące telemedycyny w prawie polskim, "Przegląd Legislacyjny", 3/2023, p.118.*
[6]*WHO, Telemedicine. Opportunities and developments in Member States. Report on the second global survey on eHealth, 2010, p. 9.*
[7]*ICT stands for Information and Communication Technologies.*
[8]*Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the benefits of telemedicine for patients, healthcare systems and society, Commission of the European Communities COM(2008)689, Brussels, 4 .11 .2008, p. 3.*

In contrast, as defined by the American Telemedicine Association, telemedicine is the exchange of medical information between two or more users using electronic communication to improve a patient's health[9].

The entry into force of the amendment to the Act on the Information System in Health Care and Certain Other Acts[10], although the concept of telemedicine still does not have a statutory definition in Poland, is considered to be a watershed moment in terms of telemedicine regulation in Poland.

The point of reference for the analysis of national regulations is the general definition contained in the Act on Medical Activity, according to which it consists of providing health services that can be provided via teleinformatics systems or communication systems[11]. This means that on the grounds of Polish law, the legislator defines the scope of telemedicine quite broadly[12].

In addition, telemedicine on the ground of Polish law regulations has been directly related to medical activity. Telemedicine benefit is understood as a form of providing health services, and telemedicine is understood as an activity consisting in providing benefits in such a form[13]. Article 3(1) of the Act on medical activity also refers to the teleinformation system, which is understood as a set of cooperating IT devices and software ensuring processing, storing, as well as sending and receiving data via telecommunication networks by means of a telecommunication terminal device appropriate for a given type of network, within the meaning of the Telecommunication Law[14].

Also important from the point of view of the Polish legal regulations is Article 42(1) of the Act on the professions of physician and dentist, which states that a physician decides on the state of health of a particular person after a prior personal examination of that person or examination through ICT systems or communication systems, as well as after analysing the available medical records of that person[15].

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[9]*I. Wrześniewska-Wal, D. Hajdukiewicz, Telemedicine in Poland - legal, medical and ethical aspects, Studia Parawnoustrojowe No. 50, UWM Olsztyn 2020, p. 512.*

[10]*Act amending the Act on the information system in health care and certain other acts of 9 October 2015 . (Dz . U . pos . 1991 as amended).*

[11]*Act on therapeutic activity of 15 April 2011. (Journal of Laws of 2011, No. 112, item 654 as amended), art.3, para. 1.*

[12]*I. Wrześniewska-Wal, D. Hajdukiewicz, Telemedicine in Poland - legal, medical and ethical aspects, Studia Parawnoustrojowe No. 50, UWM Olsztyn 2020, p. 513.*

[13]*K. Parśniak, Regulacje dotyczące telemedycyny w prawie polskim, "Przegląd Legislacyjny", 3/2023, p.126.*

[14]*Act on Informatisation of Activities of Entities Performing Public Tasks of 17 February 2005 (Journal of Laws of 2005, No. 64, item 565).*

[15]*Act on the professions of physician and dentist of 5 December 1996 (Journal of Laws 2024, item 1287, 1897).*

This means that medical advice can take place with the personal presence of the doctor and the patient, as well as through ICT systems[16] . Also important is the provision of Article 4 of the Act on the professions of doctor and dentist, according to which an online visit is treated in the same way as an in-patient visit, as the doctor is obliged to provide medical services with the use of information and communication technology, in accordance with current medical knowledge and with the use of available methods and means, with due diligence and professional ethics.

Within the scope of the disposition of Article 42(1) on the professions of doctor and dentist, a doctor may, in particular, take a history, collect test results, make a diagnosis, as well as issue an e-prescription, e-referral, e-prescription or e-release.

The regulation in question does not indicate what the examination of a given patient by means of ICT or communication systems is to consist of, which de facto means that it is left to the discretion of the doctor as to whether such an examination is carried out by means of a telephone or a communicator connection with the option of a conversation with vision and sound[17].

Changes in the legal regulation of telemedicine were undoubtedly influenced by the COVID-19 pandemic During this period, the legislator decided to introduce the so-called teleporades into the legal order, and the provision regulating them was included in the Act on special solutions related to the prevention, prevention and combating of COVID-19, other infectious diseases and crisis situations caused by them[18]. In the period of the COVID-19 pandemic, a regulation was also issued by the Minister of Health of 12 August 2020 on the organisational standard of teleportation in primary health care, according to which teleportation is understood as a health care service provided at a distance using ICT systems or communication systems[19].

It is evident from the presented changes to the telemedicine legislation that, in particular, the solutions introduced during COVID-19 have revolutionised the solutions used in health services. Subsequent changes in legal regulation of telemedicine have meant that nowadays the provision of health services in this

[16]*I. Wrześniewska-Wal, D. Hajdukiewicz, Telemedicine in Poland - legal, medical and ethical aspects, Studia Parawnoustrojowe No. 50, UWM Olsztyn 2020, p. 515.*
[17]*M . Malczewska [in:] Ustawa o zawodach lekarza i lekarza dentysty. Commentary, ed . E . Zielińska, Lex 2022, art . 42, thesis no. 8, after: K. Paśniak, Regulacje dotyczące telemedycyny w prawie polskim, "Przegląd Legislacyjny", 3/2023, p.130.*
[18]*Act on special solutions related to the prevention, prevention and control of COVID-19, other infectious diseases and emergencies caused by them of 2 March 2020. (Journal of Laws 2020 item 374).*
[19]*Ordinance of the Minister of Health on the organisational standard of teleportation in primary health care of 12 August 2020. (Journal of Laws . of 2022 . item . 1194).*

model is no longer the exception, and patients are increasingly willing to use teleportation, which is becoming an alternative to in-patient visits[20].

3. The Nature and Scope of Telemedicine Services

Telemedicine is a modern form of remote healthcare delivery that responds to the growing demand from patients for fast and convenient access to healthcare. Telemedicine is included in the broader concept of e-health, which also includes elements such as telecare (telehealth), medical informatics, information and communication technology in healthcare or health information management.

This area also includes pro-health IT platforms[21]. E-health also includes e-referrals, e-prescriptions, e-referrals and e-recordings, which, like electronic health records, should not be equated with telecare or telemedicine.

Thus, e-health is the use of information and communication technology tools and services in the broadly defined healthcare[22]. According to the WHO definition, e-health is the combined use in the health sector of information and communication technologies (digital data is transmitted, collected and retrieved electronically) for clinical, educational and administrative purposes, both locally and at a distance[23].

E-health technologies are fostering a new view of the patient's role in the treatment process. The strengthening of the patient's role (patient empowerment) advocated in modern healthcare systems aims to shape new partnerships between doctor and patient[24].

During the XIX Health Market Forum in 2023, telemedicine was defined as a form of contact between the patient and the doctor in a manner other than face-to-face, which should not be a substitute for such contacts, but a complementary element, requiring a good selection of tools.

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[20]K. Parśniak, Regulacje dotyczące telemedycyny w prawie polskim, "Przegląd Legislacyjny", 3/2023, p.144.

[21]D. Gęsicka, Usługi medyczne jako usługi społeczeństwa informacyjnego, [in:] I. Lipowicz, G. Szpor, M. Świerczyński (eds.), Telemedicine and e-health. Law and informatics, Warsaw 2019, p. 75.

[22]I. Wrześniewska-Wal. D. Hajdukiewicz, Telemedicine in Poland - legal, medical and ethical aspects, Studia Parawnoustrojowe nr 50, UWM Olsztyn 2020, p. 510.

[23]S. Carrasquiero, M.H. Monteiro , E-Health Strategic plan ning: Defining the E-Health Services Portfolio [in:] M.M. Cruz-Cunha, A.J. Tavares, R. Simoes Handbook of Research on Developments in E-Health and Telemedicine: Technological and Social Perspectives. IGI Global 2010, pp. 451-475.

[24]M. Duplaga, The importance of e-health technology in the development of an innovative service delivery model in health care. "Zeszyty Naukowe Ochrony Zdrowia. Public Health and Management, No. 2/ 2011, pp. 47-56.

It was pointed out that in the whole range of interactions, these forms account for up to several tens of percent including: telecentres, remote relations, asynchronous elements, i.e. chat and video chat conversations and queries. The implication of this trend is that telemedicine can be a cost-saving element, but not a substitute for traditional forms of contact with the doctor[25].

The definition and scope of telemedicine refers to the provision of medical services at a distance using modern information and telecommunications technologies[26], covering, specialist consultations, analysis of test results (X-ray, ECG, MRI, CT, ultrasound, laboratory tests), diagnosis on the basis of the results provided, issuing e-prescriptions, e-referrals and sick leave, remote monitoring of patients, especially chronically ill patients, but also education of doctors and nurses through participation in distance training or operations "at a distance", allowing specialists from other medical centres to assist[27].

To meet patients' expectations, a number of online platforms have been created to spread information about health and illness, and an increasing number of medical centres, including primary care facilities, now offer electronic patient services.

e-Health services can include online health services such as e-registration, e-prescribing, short message services (SMS reminders) to remind patients of upcoming appointments or necessary medication, receiving electronically the results of tests performed or brief recommendations from the doctor (e-mail, SMS), access to electronic health records (EHR), as well as increasingly available telemedicine services, in the form of teleconsultation with a doctor/nurse and telemonitoring of patients' basic health parameters and behaviour (e.g., tele-EKG, tele-spirometry, tele-diagnostics). tele-EKG, tele-spirometry, remote monitoring of blood pressure, blood glucose, temperature, body weight, fall detectors, motion sensors and others)[28].

To use telemedicine, the patient must have a telephone or computer with internet access. Consultations can take place via phone call, video conference and, in some cases, email. The use of modern technology enables patients to access doctors more quickly and easily, and supports the healthcare system through efficient management of data and medical resources. Although traditional medical appointments are

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[25]*https://www.rynekzdrowia.pl/E-zdrowie/Telemedycyna-wymaga-szerszego-dialogu-zainteresowanych-stron-Tlem-jest-zaufanie-Polakow,251279,7.html*

[26]*R. Zaręba, Telemedicine in the face of the covid-19 pandemic - advantages and disadvantages, ACTA IURIDICA, No. 1(40)/2023, p. 152.*

[27]*D. Gęsicka, Usługi medyczne jako usługi społeczeństwa informacyjnego, [in:] I. Lipowicz, G. Szpor, M. Świerczyński (eds.), Telemedicine and e-health. Law and Informatics, Warsaw 2019.*

[28]*M. M.Bujnowska-Fedak, M. Tomczak, Innovative telemedicine applications and e-health services in the care of elderly patients, Public Health and Management, No. 11(4)/2013, p. 303.*

irreplaceable in some cases, telemedicine is a valuable addition to modern healthcare, but poses certain risks.

4. Advantages and Disadvantages of Telemedicine

The development of telemedicine brings numerous benefits to both patients and practitioners, but also poses some challenges. Highlighting the benefits of telemedicine, it should be emphasised that it primarily combines convenience, low cost and ready availability of health-related information and communication. One of the biggest advantages of telemedicine is its accessibility. In particular, given the shortage of specialists in particular fields resulting in long waiting times and limited availability of doctors, it should be stressed that, when contacted via the Internet, a doctor is able to accept more patients, minimise delays to appointments and contact patients who would have difficulty in arriving at the surgery.

This is also of practical use in extreme cases, such as when immediate help is needed in the form of a complex procedure and there is no suitable specialist on site. In such situations, it is possible to use remotely guided medical robots by a suitable professional[29].

Telemedicine minimises the distance between patient and doctor, which is particularly beneficial for residents of small towns and rural areas. Being able to have a consultation without having to travel to a specialised facility significantly facilitates access to healthcare. Patients with limited mobility, the elderly and busy patients can receive medical advice without having to leave home. Using telemedicine avoids long waiting times in queues, which translates into time savings.

Tele-consultations also often prove to be a cheaper option than traditional medical appointments. Although in some cases direct contact with a doctor is irreplaceable, in many situations a telephone or video consultation proves sufficient. This can reduce queues at clinics, reduce waiting times and provide patients with faster assistance in emergencies that do not require a physical presence at a medical facility.

There has also been a shift in patient attitudes towards telemedicine. Their initial distrust was overcome by the COVID-19 pandemic, when remote medical services became crucial to maintaining continuity of healthcare. Many patients who first used teleconsultation during the pandemic appreciated its convenience and continue to prefer this model of contact with their doctor. Telemedicine is also playing an increasingly important role in medical subscriptions and health insurance.

[29]*B.L. Charles, Telemedicine can lower costs and improve access, 'Healthc Financ Manage' 2000, no. 54(4), s. 66-69.*

Many companies offering private medical packages have introduced teleconsultation as a standard service offering, in particular: consultations with GPs and specialists, issuing prescriptions, referrals and sick leave, monitoring patients' health with devices that transmit data to the medical system, psychological support, access to mobile platforms for booking appointments or reviewing test results.

Another benefit of using telemedicine is that insured patients are less likely to contract other diseases. Thanks to telemedicine, patients avoid visits to crowded clinics and hospitals, which reduces the risk of infections. This is particularly important for immunocompromised people, seniors and patients with chronic diseases.

An undoubted advantage of the development of telemedicine is also the possibility of regular health monitoring. This allows patients to contact specialists more frequently and monitor the progress of treatment. In the case of certain conditions, such as heart disease, modern technology makes it possible to constantly monitor health parameters and react quickly to worrying changes.

Telemedicine is also about automating service and treatment processes and modern technology. The introduction of bots to support patient registration significantly improves the management of appointments, the issuing of prescriptions and the receipt of test results. This allows medical facilities to optimise their operations and improve service availability and customer satisfaction.

Despite its many advantages, telemedicine cannot replace all aspects of a traditional visit to a doctor. For many patients, face-to-face contact during a consultation is still important. In some cases, such as gynaecological examinations, the collection of material for cytological examinations or the manual correction of exercises during rehabilitation, personal contact with the doctor is essential.

Therefore, this immediacy of contact with the doctor will continue to be a major barrier to the faster development of telemedicine for a very long time to come. Critics are also concerned that telemedicine may adversely affect the continuity of medical care, claiming that online interactions are impersonal and dangerous because a virtual doctor cannot perform a physical examination[30].

Difficulties in using new technologies are also an issue. In particular, older people and patients less familiar with modern technology may find it difficult to use telemedicine platforms. Another potential barrier to the effectiveness of telemedicine is the accuracy of data transmission. On the medical staff's side, there may be a measurement problem, while on the patients' side, there may be technical problems

[30]*K. Nowosielska, Telemedicine can support treatment but will not replace face-to-face examination, https://www.prawo.pl/zdrowie/telemedycyna-zamiast-osobistej-wizyty-pacjenta,503278.htmlState of Health in the EU Poland Health System Profile 2023.*

such as poor internet connection, interference with audio and video transmission or difficulties in logging into the system. Such situations can affect the speed and quality of diagnosis and patient comfort[31].

A perceived drawback of telemedicine is also patients' concerns about the accuracy of the diagnosis. Some are concerned that a diagnosis made on the basis of a teleconsultation may be less precise than that obtained during a traditional visit. They believe that the lack of direct contact and the possibility of a full physical examination may result in the need for an additional in-person visit. Another danger associated with the development of telemedicine is data protection and legal issues. Remote healthcare involves storing and transmitting medical data in digital form.

This raises concerns about the security of patient privacy and the regulatory compliance of telemedicine systems. While it is true that most telemedicine platforms are highly encrypted, none are fully protected against hackers. There are no accountability arrangements in place to ensure telemedicine compliance with patient confidentiality and system security.

Additionally, patient data can be valuable marketing information for insurance or pharmaceutical companies, for example. Such a negative effect of using telemedicine solutions is feared by patients[32] . With the increasing use of telemedicine, caution should be exercised in the context of fraud and abuse[33] . Healthcare providers should therefore be mindful of risk management strategies and familiarise themselves with the potential risks and legal implications associated with telemedicine[34].

Despite the risks, however, it is important to remember that interest in remote techniques in all areas of society, including medicine, is growing. Is this the right direction and is it necessary to accept something that may involve patient data security and information secrecy?

Is there too much patient data being transferred into the system that could pose a risk of breaching medical confidentiality if the wrong person accesses this data? Should changes be made the education of healthcare professionals with an emphasis on the ability to use remote techniques in the diagnosis and treatment process? These are

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[31]*R. Tadeusiewicz, Telemedicine - a new challenge of modern science, Science, No. 3/2004, pp. 57-80.*

[32]*J.S. Clark, M. McGee- Lennon, A stakeholder centred ex ploration of the current barriers to the uptake of home care technology in the UK, Assist. Technol, No 5(1)/ 2011, pp. 12-25.*

[33]*K. Konopka, Protection of medical confidentiality in e-health, Białostockie Studia Prawnicze, no. 2/2020, pp. 245-257.*

[34]*M. Czarnuch, M. Grabowski, P. Najbuk, Ł. Kołtowski, Regulatory environment of telemedicine in Poland - current state and new opening, Telemedyczna Grupa Robocza, Warsaw 2015, p. 30.*

just some of the questions that need to be answered interdisciplinarily before changes to the health care system can be accepted[35].

5. Data on the Use of Telemedicine in Poland

Developments in medicine, the fast pace of life and greater health awareness and access to information have meant that medical facilities have had to adapt to new realities. The COVID-19 pandemic was a strong catalyst for these changes, accelerating the development of telemedicine and the spread of remote consultations. Based on data from SW Research[36] , it should be noted that there are currently more than a dozen services and applications offering telemedicine consultations in Poland, which record a total of around 3 million visits per month, and already 83% of Poles have used telemedicine services.

The main reasons why patients choose telemedicine are: quick availability of consultations, even on the same day (47%), convenience (40%), lack of possibility to travel to a clinic (19%), high cost of private in-patient visits (15%). Telemedicine therefore removes barriers to healthcare, such as long waiting times for an in-patient appointment, lack of availability of doctors or transport exclusion. Most Poles (40%) use telemedicine once every few months. Twenty-two per cent do so once every six months, 11 per cent once a year and 14 per cent of patients use telemedicine once a month or more often, as presented in Figure 1.

Figure 1. *Frequency of use of telemedicine services in Poland*

Source: *https://swresearch.pl/news/telemedycyna-oczami-polakow report?utm_source=chatgpt.com*

[35]*A. Paprocka-Lipińska, Telemedicine - bioethical challenges of the 21st century, Humanities and Natural Sciences 27, Olsztyn 2021, pp.148-149.*
[36]*Report "Telemedicine through the eyes of Poles" May 2023 carried out by SW Research on behalf of Erecept.*

Online consultations make it possible to obtain medical help quickly, especially in emergency situations and in the case of continuing treatment, such as renewing a prescription. As many as 56% of patients choose telemedicine for long-term treatment, and every second patient used it in an emergency situation, when reaching the facility was impossible.

Poles associate telemedicine mainly with medical consultations via telephone or the Internet (71%), the possibility of receiving an e-prescription or e-recall (63%), quick contact with a doctor in case of need (50%), access to consultations from any place in the world (39%), rescue in emergency situations when the waiting time in a clinic is too long (37%). Furthermore, it is worth noting that nearly 80% of patients admit that a telemedicine consultation has always or mostly solved their health problem.

Research conducted for the erecept.pl portal[37] shows that in 2023, one in five visits to a doctor in Europe will be an online appointment. In Poland, on the other hand, 34 million telemedicine appointments are made annually, which places Poland slightly below the average use of telemedicine in Europe (Table 1).

Table 1. *Share of telehealth care in selected European countries*

EU	**20%**
Spain	39%
Estonia	36%
Dishes	34%
Lithuania	30%
Finland	29%
Croatia	27%
Norway	27%
Poland	**17%**
Czech Republic	14%
Slovenia	13%
Belgium	11%
Luxembourg	5%
France	4%

Source: *https://www.erecept.pl/article/artykul/988-telemedycyna-w-polsce-i-europie*

The growing importance of telemedicine in Poland is also confirmed by data presented during the 19th Health Market Forum, according to which 124 million teleporades have been provided in the last three years, since such services are recorded quite accurately. Interestingly, a large percentage of those using teleconcultations are over 65 years of age[38].

[37] *https://www.erecept.pl/article/artykul/988-telemedycyna-w-polsce-i-europie*

[38] *https://www.rynekzdrowia.pl/E-zdrowie/Telemedycyna-wymaga-szerszego-dialogu-zainteresowanych-stron-Tlem-jest-zaufanie-Polakow,251279,7.html*

Forecasts therefore point to a rapid rate of growth in telemedicine in the broadest sense. Fortune Business Insights predicts that the value of the global telemedicine market will grow at an annual rate of 17%. Starting from a level of nearly $95 billion in 2024, estimates that it could be as high as $286 billion by 2030. According to Market Value Insights analysts, these values for Europe will grow at a similar rate, from just over 22 billion in 2024 to almost $104 billion in 2032. In contrast, the value of the Polish telemedicine market is estimated to be around one billion zlotys, and the country is described in global reports as an emerging market. As predicted by analysts from the Kearney consulting firm, at a growth rate of up to 25% per year[39].

6. Conclusions

Telemedicine is an integral part of Poland's modern healthcare system, offering patients convenient and fast access to medical services. Its importance grew especially during the COVID-19 pandemic, when it became a key tool to ensure continuity of treatment. Currently, the trend of using remote forms of medical care not only continues, but the importance of telemedicine continues to grow.

It is of particular value to immobile and elderly patients or those for whom a visit to a medical facility is risky. This has improved the accessibility of medical services in smaller towns and rural areas. The private sector has also recognised the potential of telemedicine by offering patients a wide range of online services through subscriptions and health insurance.

However, it should be emphasised that the further development of telemedicine requires educational and confidence-building measures for patients, especially those who still prefer traditional medical appointments. Experts predict that in the future, telemedicine should be a hybrid model, combining inpatient and remote consultations. Already, modern technologies such as patient telemonitoring and rapid analysis of medical data are changing the quality of healthcare provided.

Telemedicine is a field of great importance that contributes to improving the availability and efficiency of healthcare services. Despite the challenges and threats posed by the digitisation of medicine, the prospects for its development are promising. Implementation of modern ICT solutions, further digitisation of health care, adjustment of legal regulations and education of patients and doctors will be crucial for further popularisation of telemedicine and for effective functioning of the health care system in Poland.

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[39]*https://www.erecept.pl/article/artykul/988-telemedycyna-w-polsce-i-europie*

Act on the professions of physician and dentist of 5 December 1996 (Journal of Laws 2024, item 1287, 1897).

Act on Informatisation of Activities of Entities Performing Public Tasks of 17 February 2005 (Journal of Laws of 2005, No. 64, item 565).

Act amending the Act on the information system in health care and certain other acts of 9 October 2015. (Dz . U . pos . 1991 as amended).

Act of 27 August 2004 on health care services financed from public funds, Journal of Laws of 2004, No. 210, item 2135, as amended.

Bujnowska-Fedak, M.M., Tomczak, M. 2013. Innovative telemedicine applications and e-health services in the care of elderly patients. Public Health and Management, No. 11(4)/2013.

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