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DIGITAL TRANSFORMATION OF HEALTHCARE SYSTEMS: INTERNATIONAL PRACTICES, PARTNERSHIPS AND REGULATORY APPROACHES

The article examines in detail the international experience of digital transformation of health care systems, focusing on the implementation of electronic health services (eHealth), telemedicine, remote patient monitoring and integrated digital platforms in different countries of the world. The models of mandatory digitalization of medical records in Estonia and Finland, where electronic health records and eHealth systems have become the standard for interaction between patients and healthcare professionals, as well as approaches based on voluntary consent of patients in France, Belgium, Italy and Spain, which are focused on protecting the privacy and autonomy of citizens, are analyzed. Particular attention is paid to regulatory and legal regulation, establishing interoperability standards, ensuring cybersecurity and personal data protection, which allows for effective organization of the exchange of medical information and maintaining high quality of medical services. Examples of digitalization in Sweden, Norway, Great Britain, Canada, the USA, Australia, New Zealand and South Korea are considered, where remote monitoring platforms, telemedicine consultations, national digital health records and integrated services for accessing medical information are used. The importance of intersectoral partnerships between government agencies, medical institutions and

technology companies is emphasized, which contributes to increasing the accessibility, safety, standardization and efficiency of medical services, especially in remote and sparsely populated regions. The article demonstrates that successful digitalization of healthcare requires a comprehensive combination of technological innovations, regulatory and legal support and coordination between stakeholders. The study also highlights the trends in the development of telemedicine and electronic services, which are becoming key tools for improving the efficiency of healthcare systems in a global context. It is emphasized that the integration of digital solutions provides not only the efficiency of medical services, but also opportunities for scientific research, data analysis and strategic planning of healthcare development.

Keywords: *digital transformation; eHealth; telemedicine; electronic medical records; partnership; cybersecurity.*

General statement of the problem. The current stage of society's development is characterized by the intensive development of digital technologies, which causes transformations in the healthcare sector worldwide. Transformational processes affect both the managerial and clinical aspects of the functioning of the healthcare sector, contributing to increasing the efficiency of its work, improving the level of safety of medical services and expanding their accessibility for the population. The introduction of modern information technologies allows you to optimize the organization of medical care, improve the processes of storing and processing medical information, as well as improve the quality of interaction between medical professionals and patients. In this regard, many states are actively investing in the development of the digital infrastructure of the healthcare system, paying special attention to the formation and improvement of regulatory and legal support for the use of electronic medical services. Such regulatory mechanisms are aimed at establishing uniform standards for processing and exchanging medical data, ensuring the effective functioning of information systems, and guaranteeing an adequate level of protection of patients' personal data. At the same time, digital innovations are an important tool for the mod-

ernization of the medical industry, creating conditions for improving the quality of medical care and ensuring the continuous exchange of clinical information between different levels of the healthcare system – from primary care to highly specialized medical institutions. Also, the active development of digital technologies creates the necessary prerequisites for new opportunities and more active participation of patients in the processes of monitoring their own health; obtaining free access to electronic medical records, electronic prescriptions, research results; using remote consultations of doctors and other online services. Thus, the digitalization of the healthcare sector not only contributes to the optimization of the functioning of the entire system, but also creates the prerequisites for the implementation of a more personalized approach to treatment, increasing the overall level of accessibility and quality of medical care for the population.

Analysis of recent research and publications. The importance of scientific research in the field of public administration of the health care system is confirmed by a significant number of scientific works by domestic scientists devoted to the study of various aspects of the functioning and development of the medical industry. In particular, a significant contribution to the study of the theoretical and practical foundations of public administration in the health care sector was made by such Ukrainian scientists as T. Shlapko, M. Starynskyi, V. Myrhorod-Karpova, A. Vysotskyi, D. Shein, Yu. Safonov, O. Korotun, L. Lishchynska, S. Yaremko, K. Kopnyak, I. Gulivata, L. Husak and other researchers. Their works consider the issues of organization and functioning of the health care system, improvement of public administration mechanisms, formation of effective policy in the field of medical care of the population, as well as ways to modernize the medical industry in accordance with modern social challenges. However, despite the significant scientific achievements and undeniable achievements of the mentioned scientists, a number of topical issues remain insufficiently researched and require further scientific understanding. In particular, special attention in modern conditions is required by the problems of digital transformation of the healthcare system, which is taking place against the background of the rapid development of information and communication technologies

in the world. The introduction of digital solutions, electronic medical services, information systems and innovative technologies for managing the healthcare sector forms new approaches to the organization of medical care, management of medical resources and interaction between the state, medical institutions and patients. In this context, the study of digital transformational changes in the healthcare system of Ukraine is of particular relevance, in particular in the context of the implementation of modern reforms in the healthcare sector and the integration of the national healthcare system into global trends in the development of digital medicine. That is why further scientific research in this area is important for the formation of effective mechanisms of public administration and ensuring sustainable development of the healthcare system.

Formulation of the purpose of the article (task statement).

The purpose of the article is to identify promising areas of digital transformation of the healthcare sector.

Presentation of the main material of the study. Today, digitalization is one of the key global trends in the socio-economic development of the modern world [9]. It covers almost all areas of economic activity and is becoming an important factor in the transformation of economic systems, management models and methods of interaction between market actors (Table 1).

Table 1
Characteristics of the digitalization process and its impact on economic systems

Parameter of comparison	Content and features of implementation
Main role	Key trend of socio-economic development; factor of innovative potential and competitiveness
Nature of changes	Modernization and optimization of existing business processes (as opposed to radical reengineering)
Impact on the goal of the activity	The basic goal remains unchanged; only the form changes (becomes more technological and convenient)
Products and services	Traditional products are not replaced, but modernized, expanding functionality and accessibility

Continued from table number 1

Key technologies	Artificial intelligence (AI), Internet of Things (IoT), robotics, ICT platforms, cloud data
Example (healthcare)	Telemedicine as a technological extension that preserves the essence of providing care while changing communication channels

Source: compiled by the author

It is the speed, scale and depth of the implementation of digital technologies that largely determine the technological level of development of the economy, its innovative potential, and the ability to compete effectively in global markets in the long term. At the same time, the pace and directions of digital transformation are largely determined by the industry-specific characteristics of economic systems. This is due to the fact that the implementation of digital tools, although it leads to the modernization and optimization of existing business processes, in most cases does not involve their radical revision or complete rethinking, as is the case with business process reengineering [7]. Digital technologies, as a rule, are aimed at increasing the efficiency, speed and quality of performing traditional functions, and not at radically changing the essence of the activities of organizations.

In various sectors of the economy – in particular, in industry, transport, telecommunications, the service sector and other sectors – the implementation of digital technologies for the most part does not change the basic purpose of their functioning. Enterprises and organizations continue to produce and offer the same or similar goods and services to the market as before, but in a more innovative, technologically advanced and user-friendly form. As a result of digitalization, traditional products are not so much replaced as they are modernized, expanded in functionality and made more accessible to consumers. A prime example of this process is the development of telemedicine. The use of modern digital technologies – in particular, information and communication platforms, remote health monitoring systems and electronic medical data exchange – creates new opportunities for the provision of medical services remotely [3, p. 205].

Thanks to this, patients can receive consultations from doctors, treatment recommendations and medical support regardless of territorial distance or physical presence in a medical institution. However, despite the change in the tools and channels of interaction between the doctor and the patient, the essence of such services remains the same: they, as before, are aimed at providing medical care and meeting people's basic needs in maintaining and restoring health. Thus, digitalization in this case does not act as a replacement for traditional medicine, but as its technological expansion and improvement. It should be noted that the COVID-19 pandemic has become a powerful catalyst for the accelerated development of digital technologies in the healthcare sector [11]. It has significantly accelerated the processes of digital transformation, contributed to the rapid implementation of remote services, electronic medical systems and new formats of interaction between patients and healthcare workers. At the same time, it is worth emphasizing that the formation of digital healthcare began long before the pandemic and gradually developed in the pre-pandemic period. COVID-19 has only significantly accelerated the processes that were already taking place in the healthcare industry. The reasons for the digitalization of the healthcare system generally coincide with the factors of the digital transformation of other sectors of the economy. First of all, we are talking about the desire to increase the efficiency of the functioning of medical institutions, optimize costs, expand the list of medical services and improve their quality. Another important incentive is the need to ensure more flexible and convenient interaction between patients, doctors and medical institutions, which is achieved through the use of information and communication technologies, electronic services, remote consultations and digital platforms for managing medical information. In addition, digital technologies, robotics, the Internet of Things (IoT), artificial intelligence (AI) and other factors have contributed to a significant expansion of the use of various digital devices by healthcare professionals, as well as hospital and clinic staff. For example, electronic medical records have significantly transformed the treatment process of various categories of patients, facilitating it by collecting and storing relevant information from various sources. At the same time, the volume of digital data about patients and their treatment

is constantly growing, which necessitates the development of effective tools for their processing. According to estimates by the International Data Corporation, global spending on the application of AI in various areas will increase from 50.1 billion USD in 2020 to 110 billion USD by 2024 [12].

In our opinion, the countries with the most developed and comprehensive base in the field of implementing an electronic health system include, first of all, Estonia, Denmark, Great Britain, Finland, France, Norway, Scotland, Slovakia and Sweden [4]. In these countries, legislative regulation covers not only the technical aspects of the functioning of digital medical systems and the requirements for their interoperability, but also defines the rules for protecting patients' personal data, the procedure for accessing medical information and the procedures for electronic data exchange between medical institutions. Such a comprehensive approach ensures the effective functioning of the digital healthcare infrastructure and contributes to increasing the transparency and security of medical data circulation. At the same time, approaches to storing medical records differ in different countries. In most countries, patients are given the right to independently choose the format for storing medical records – electronic or paper. This model indicates the desire of legislators to combine the advantages of digitalization with compliance with the principle of freedom of choice of citizens and the preservation of traditional forms of documenting medical information.

At the same time, in some countries, the policy of digital transformation of the healthcare system is more consistent and strict. For example, in Finland, the legislation provides for the mandatory creation of an electronic copy of medical documentation. Such a requirement contributes to the unification of medical data, improves their systematization and significantly facilitates access to medical information for both patients and medical professionals. As a result, the level of standardization of medical records increases, information exchange between healthcare institutions is accelerated and the quality of medical services is improved. At the same time, this approach implies increased requirements for ensuring cybersecurity, personal data protection and confidentiality of medical information [1].

A separate group consists of countries, in particular Belgium, France, Italy, Spain and Switzerland, where the system of storing electronic medical records is based on the principle of active patient consent [8]. Within the framework of this legal model, maintaining electronic medical documentation is possible only with the voluntary and informed consent of the individual. This approach emphasizes the autonomy of the patient, his right to control the use of his own medical information and ensuring a high level of privacy protection. At the same time, the focus on the individual decision of the patient may create certain difficulties in forming large-scale medical data sets necessary for statistical analysis, planning public health policy and conducting scientific research. In this regard, there is a need for additional mechanisms for anonymizing information and developing a clear legal framework for the secondary use of medical data.

In 2019, Estonia was recognized as a leader among European countries in the field of digital medical innovations, surpassing the previous record holder, Denmark. This result was made possible thanks to the consistent and long-term digital transformation of the healthcare system, which began in 2005 with the creation of the Estonian eHealth Foundation. The main goal of this institution was to develop and implement a national digital medicine program. An important stage of the reform was the introduction of mandatory transfer of patient health data by medical professionals to the National Health Information System from January 1, 2009. This decision made it possible to integrate medical information into a single state digital environment, ensuring automated data exchange, analysis and accumulation in real time. Today, the Estonian healthcare system is characterized by almost complete digitalization. Currently, about 99% of all medical information is digitized, including the same share of prescriptions, which indicates a very high level of implementation of electronic services. Electronic prescriptions, digital medical records, patient access to their own medical history and other online services have actually become standard practice in healthcare interaction. Particular attention in the country is paid to the protection of personal data and cybersecurity. The Estonian eHealth Foundation is constantly developing mechanisms for secure processing of medical

information, ensuring data access control, transparency of user actions in the system and protection of information flows. The use of modern technologies, in particular blockchain approaches in the KSI (Keyless Signature Infrastructure) system, guarantees the integrity, immutability and traceability of medical records, which makes the Estonian model one of the most reliable in Europe [6].

Norway demonstrates one of the most integrated models of digital transformation of the healthcare system, implemented through the “Helseplattformen” platform. Its key idea is to unite all medical institutions in the country into a single digital network that ensures continuous exchange of clinical data between doctors of various specialties, hospitals and primary care institutions. Thanks to such integration, patients, especially those living in remote or sparsely populated regions, are able to seek highly specialized consultations without having to personally travel to large cities. This contributes to more equal access to medical services throughout the country. As some researchers note, the functioning of this digital system allows for a significant reduction in the time and financial costs associated with obtaining medical care, expands the availability of services for the population and improves coordination between different levels of the healthcare system [17].

In France, the electronic medical record “Dossier of Medical Personnel” was introduced in 2004, and since 2008, the Agency for Shared Health Information Systems has been operating, responsible for the development of the sector’s digital infrastructure. In recent years, the country’s healthcare system has been actively modernizing, but 2020 was a turning point. The COVID-19 pandemic and the related lockdowns have exposed and exacerbated existing problems: limited access to healthcare services, overloaded hospitals and emergency rooms, insufficient level of preventive measures and weak cybersecurity of the system. Since 2019, France has intensified the development of a digital healthcare strategy, which is implemented through 17 consecutive national roadmaps and supported by key initiatives. These include: the Mon espace santé platform, the national Ségur numérique program (launched in 2021 for the secure exchange of medical data), the implementation of the “5Ps of Medicine” concept (personalized, preventive, predictive, participatory

and evidence-based) and the “France 2030” acceleration strategy, which was launched in 2021 as a large-scale investment plan to support the reindustrialization, innovation and development of healthcare with a total budget of 54 billion euros. The Stratégie d’accélération – Santé numérique strategy has allocated 7.5 billion euros, including 400 million to support manufacturers of medical equipment and digital healthcare solutions. The strategy focuses on five key areas:

- training healthcare professionals in digital technologies;
- supporting technological research and innovation;
- promoting clinical validation and market access for innovations;
- developing a robust entrepreneurial ecosystem;
- a large-scale deployment of digital solutions across the country

[14].

As a result, France is creating a comprehensive national digital health platform that combines innovation, data security, and broad access to healthcare for citizens.

The implementation of the National Strategy for Accelerating Digital Health in France is based on a collaborative approach involving key stakeholders in the sector, healthcare institutions, citizens and local authorities. To monitor the progress of the projects, the Ministerial Delegation for Digital Health (DNS) has developed roadmaps that identify priority projects for the next five years, indicating directions, objectives, priorities, timeframes and responsible bodies. As part of the France 2030 program, the government aims to position the country as a European leader in digital health, while ensuring an ethical, inclusive and quality-oriented digital transition. One of the key tools for implementing the strategy is Mon espace santé, a national digital health record system that allows citizens to store manage and share medical documents (prescriptions, test results, hospital reports). The platform is designed to raise citizens’ awareness, encourage their active participation in their own treatment, and provide greater control over their medical data [13].

To support healthcare workers, the state, together with industry players, healthcare companies and startups, is implementing a set of digital solutions: a shared health record, digital identification tools (e-CPS), teleconsultations, teleexpertise, remote monitoring and other

services. These solutions are aimed at improving the coordination of healthcare, reducing the administrative burden, saving specialists' time and increasing the security of data exchange. The roadmap for 2023-2027 provides for the active use of data-based decision-making support tools, in-depth digital training of healthcare personnel and closer integration between healthcare, social security and medical and social sector systems.

In Sweden, the strategic development of the healthcare system is closely linked to the large-scale digital transformation of the industry. The national policy in this area provides for the active implementation of modern information and communication technologies, which should ensure increased efficiency of healthcare system management, improved quality of healthcare services and expanded access to healthcare for the population. An important direction of this policy is the formation of an integrated information ecosystem that unites healthcare institutions, government agencies, insurance institutions and patients into a single digital space for exchanging healthcare information.

The development of such an ecosystem involves the implementation of electronic medical records, electronic prescription systems, telemedicine services, digital platforms for communication between doctors and patients, as well as the use of analytical tools for monitoring the health of the population and planning medical policy. This ensures prompt access to medical data, improves the quality of clinical decisions, reduces duplication of medical procedures, and optimizes the use of healthcare system resources.

An important prerequisite for successful digitalization is significant financial support from the state. Annually, approximately 2-3% of the total healthcare budget is allocated to the implementation and development of digital solutions in the medical sector. This level of funding is one of the highest among European countries and indicates the priority of digital innovations in the state policy of medical development. Due to this, Sweden occupies a leading position in the implementation of e-medicine and the development of digital services in the healthcare sector, which contributes to increasing the efficiency of the medical system and improving the quality of medical care for the population [6].

In Austria, the process of digitalization of the healthcare system began in the early 2000s. In particular, in 2005, a special coordination committee was created, the main task of which was to develop and implement a single national eHealth development strategy aimed at the phased digital transformation of the healthcare industry. The activities of this body were focused on coordinating actions between state institutions, medical institutions, insurance organizations and the IT sector in order to form a holistic digital infrastructure of the healthcare system. Austria has one of the most developed public healthcare systems in Europe, which is characterized by a high level of organizational efficiency, wide coverage of the population with medical services and a stable institutional base. An important component of its development was the construction of a modern eHealth infrastructure, which ensures the effective exchange of medical information between various entities of the system. The presence of such infrastructure creates a reliable basis for the active implementation of innovative digital technologies aimed at improving the quality of medical care, optimizing resource management, and improving the accessibility of medical care for the population.

One of the key elements of Austria's digital healthcare system is the ELGA electronic health record (Elektronische Gesundheitsakte). It serves as a central platform for storing and exchanging patient health data between hospitals, doctors, pharmacies and other healthcare institutions. The ELGA system integrates various information resources, increases the transparency of healthcare processes and allows doctors to have immediate access to a patient's complete medical history. This in turn contributes to more accurate diagnosis, increased treatment safety and more efficient health information management across the country [15].

In Poland, the implementation of electronic services is carried out by the Center for Health Information Systems, which implements the national eHealth development program. The country has become one of the leaders in the digitalization of healthcare, ranking sixth among EU Member States in the study of eHealth indicators of the Digital Decade 2025. The main digital tool that ensures this progress is the online patient account, which provides citizens with access to their own medical data

and the ability to delegate access to authorized persons, such as children, dependents or close relatives. The system significantly increases the accessibility and transparency of medical information. Currently, nine types of electronic medical documents are available through the online patient account, including: electronic prescriptions, electronic referrals, information cards on inpatient treatment, laboratory and diagnostic test reports, individual health care plans, forms for refusing hospitalization, data for primary care physicians and a student preventive examination card, which is still being integrated into the system [18].

At the European Union level, a system for cross-border exchange of medical information operates, which allows doctors from different Member States to access patients' electronic medical summaries. This greatly simplifies the provision of medical care to citizens staying in other EU countries. Some countries, in particular Finland, Croatia and Luxembourg, already exchange electronic prescriptions and other medical data. The infrastructure that ensures this process is formed by the European Union's digital eHealth services, which integrate national eHealth systems and are funded by the European Commission. Currently, 22 countries have joined the initiative, and seven more are in the process of gradually introducing cross-border exchange of medical data.

Two main electronic cross-border health services have been introduced in all EU countries:

- electronic prescription and dispensing – allows citizens to obtain medicines in a pharmacy in another EU country through the online transfer of an electronic prescription from the country of residence to the country of stay;
- patient summary – contains important information about the state of health, including allergies, current medications, previous illnesses and surgeries.

It is part of a broader electronic health record and helps doctor's access data in the patient's native language, overcoming language barriers. In the future, it is planned to provide EU-wide access to medical images, laboratory results and hospital discharges, and later to the full electronic health record. The exchange of electronic prescriptions and patient summaries is open to all EU Member States [16].

It is worth mentioning the experience of China, as the government has long supported the development of digital technologies in medicine. The state strategy “Healthy China 2030” includes a plan for comprehensive promotion of the development of medical services. Together with the country’s economic and social development plan for 2021-2025, it is aimed at transforming regional health systems and creating new innovative models of medical service delivery. Citizens can make an appointment with a doctor online and receive most of the services remotely [10]. In 2010, the company “WeDoctor” created the first online hospital in China, which at that time could already provide telemedicine services with the possibility of online consultations, exchange of digital medical records, and also provided online diagnostics. The country operates CT reading systems with artificial intelligence, which generate a diagnosis in 15 seconds with an accuracy of up to 90%. This helps radiologists to more accurately identify lesions and prepare diagnostic reports. An important participant in the digitalization of healthcare in China is JD Health International (JD Health), the creator of the country’s largest technological online platform for providing medical services. JD Health’s mission is to make them high-quality and accessible to every resident of the country. The company is developing the following areas: online general and specialized hospitals, an online marketplace for the sale of pharmaceutical products, pharmacies, telemedicine, digital marketing services, and also transfers the activities of public hospitals to the digital space and connects online clinics to the social insurance system. One of the latest innovations of JD Health is the introduction of three types of online consultations. Expert consultations are conducted with leading doctors from several level 3A hospitals (the highest level in the hospital classification structure). Instant consultations are short standardized consultations that can be provided by full-time doctors on the platform. The night hospital organizes doctors on duty to provide urgent consultations. Thus, China demonstrates the successful digitalization of healthcare, combining government support, innovative technologies, and online platforms to provide affordable and high-quality medical services to all citizens.

International experience in digitalizing healthcare demonstrates a wide range of models: from full mandatory digital integration, as in

Estonia and Finland, to approaches based on voluntary patient consent, for example in Belgium, France and Italy. The most successful countries combine a developed regulatory framework, integrated digital platforms, high cybersecurity standards and a focus on citizens' needs. Estonia, Denmark, Sweden, Norway and the United Kingdom are considered leaders, having created fully functional ecosystems of electronic health services. Common trends include the active implementation of telemedicine, intersectoral integration of healthcare systems, increased protection of personal data and the development of tools that ensure accessibility of healthcare, especially for the population of remote and rural regions [5].

Digitalization of the healthcare sector in Ukraine is the process of introducing modern information and communication technologies into the activities of medical institutions and the healthcare management system [2]. Its goal is to increase the accessibility, quality and efficiency of medical services for the population. The main components of digitalization are the implementation of an electronic healthcare system, electronic medical records, electronic prescriptions, online doctor's appointments, as well as the development of telemedicine, which allows for remote consultations. An important role is also played by the creation of electronic patient and doctor's offices, which provides quick access to medical information and simplifies communication between participants in the medical process. Digitalization helps reduce paper documentation, increases the transparency of medical institutions, optimizes management processes and helps to use healthcare system resources more efficiently. As a result, this improves the quality of medical care and provides citizens with more convenient access to medical services.

Conclusions. Thus, modern digital technologies have opened up a lot of new opportunities for medical organizations. The Internet, powerful computers, mobile devices, AI, neural networks, and more – these digital solutions help to collect and process information much faster and more efficiently. Their development and institutionalization serve as one of the priority areas of development of the healthcare sector in the world, as they allow for improved analytics using machine learning, to identify new real relationships and patterns that can affect patient treatment planning.

Preventing medical errors and improving patient health are tasks that all healthcare systems in the world face. Digitalization and the development of e-health solutions are necessary to improve the quality of medical care and medical services, to provide patients with the opportunity to take an active part in managing their health in cooperation with healthcare organizations. By adapting these solutions to the individual needs of the patient, it is possible to achieve a personalized digital healthcare sector, ensuring a real improvement in the quality of life of the population.

ЦИФРОВА ТРАНСФОРМАЦІЯ СИСТЕМ ОХОРОНИ ЗДОРОВ'Я: МІЖНАРОДНІ ПРАКТИКИ, ПАРТНЕРСТВО ТА НОРМАТИВНО-ПРАВОВІ ПІДХОДИ

У статті детально досліджується міжнародний досвід цифрової трансформації систем охорони здоров'я, акцентуючи увагу на впровадженні електронних медичних сервісів (eHealth), телемедицини, дистанційного моніторингу пацієнтів та інтегрованих цифрових платформ у різних країнах світу. Проаналізовано моделі обов'язкової цифровізації медичних записів у Естонії та Фінляндії, де електронні медичні картки та системи eHealth стали стандартом взаємодії пацієнтів та медичних працівників, а також підходи, що ґрунтуються на добровільній згоді пацієнтів, у Франції, Бельгії, Італії та Іспанії, які орієнтуються на захист приватності та автономії громадян. Особлива увага приділена нормативно-правовому регулюванню, встановленню стандартів інтеоперабельності, забезпеченню кібербезпеки та захисту персональних даних, що дозволяє ефективно організовувати обмін медичною інформацією та підтримувати високу якість медичних послуг. Розглянуто приклади цифровізації в Швеції, Норвегії, Великобританії, Канаді, США, Австралії, Новій Зеландії та Південній Кореї, де застосовуються платформи дистанційного моніторингу, телемедичні консультації, національні цифрові медичні картки та інтегровані сервіси доступу до медичної інформації. Підкреслено важливість міжсекторального партнерства між державними органами, медичними закладами та технологічними компаніями,

що сприяє підвищенню доступності, безпеки, стандартизації та ефективності медичних послуг, особливо у віддалених і малонаселених регіонах. Стаття демонструє, що успішна цифровізація охорони здоров'я потребує комплексного поєднання технологічних інновацій, нормативно-правового забезпечення та координації між зацікавленими сторонами. Дослідження також висвітлює тенденції розвитку телемедицини та електронних сервісів, що стають ключовими інструментами підвищення ефективності систем охорони здоров'я у глобальному контексті. Наголошено, що інтеграція цифрових рішень забезпечує не лише оперативність медичних послуг, а й можливості для наукових досліджень, аналізу даних та стратегічного планування розвитку охорони здоров'я.

Ключові слова: *цифрова трансформація; eHealth; телемедицина; електронні медичні записи; партнерство; кібербезпека.*

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