

## Legal Framework of Telemedicine and International Experience: an Analytical Approach to the Digitalization of the Healthcare System

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**Abstract:** In recent years, the rapid development of modern information and communication technologies in the field of healthcare has laid the foundation for the implementation of new, remote forms of medical services. The importance of telemedicine has grown significantly, especially during the COVID-19 pandemic. Telemedicine is an innovative system of medical services that enables remote consultations, diagnostics, patient monitoring, and medical data exchange using advanced digital technologies.

Many countries have begun to regulate this area at the legislative level, recognizing telemedicine as a supportive tool in healthcare. The experiences of the Russian Federation, Kazakhstan, Belarus, Armenia, and the Kyrgyz Republic are notable examples in shaping the legal foundations of this sector. These countries have addressed key issues such as the quality of medical services, the protection of personal health data, the professional development of medical personnel, and the implementation of electronic medical documentation.

This article provides an in-depth analysis of the international legal experience in the field of telemedicine, examining existing legal norms and their practical application. It also outlines the need for legal regulation of telemedicine in the Republic of Uzbekistan, taking into account its social significance. The main objective of the article is to study international experience from a legal perspective in order to enhance national strategies for the delivery of digital medical services.

**Key words:** Telemedicine, legal regulation, digital healthcare, remote medical services, international experience, health information technologies, patient data protection, electronic medical records, healthcare policy, medical consultation.

In various countries, the initial steps toward applying information and telecommunication technologies in healthcare were reflected in digitalization policies. These policies gradually evolved into specific strategic directions aimed at regulating telemedicine, defining its goals and objectives. For instance, Australia's National Digital Health Strategy outlines the digital transformation of the healthcare sector, targeting the creation of secure digital communication channels between doctors and patients by 2022. Similarly, in the United States, a dedicated strategy was developed in 2014 by the Department of Health and Human Services to regulate health-related information technologies [1].

According to Grosios K., Gahan P.B., and Burbidge J., by the early 21st century, numerous countries had initiated projects to enhance the efficiency of medical services through IT integration. In the United Kingdom, the 2004 "Health Electronic Storage" project was a significant milestone in this regard [2]. However, as B.V. Zigerman, a member of the Expert Council on ICT under the Ministry of Health of the Russian Federation, noted, one of the major challenges encountered in implementing digital healthcare was the complexity of developing standardized IT solutions across medical institutions [3].

In our view, the core challenges impeding the adoption of telemedicine are inadequate internet infrastructure, limited digital literacy among medical staff, and the absence of comprehensive

international and national legal frameworks. In the United States, the adoption of telemedicine dates back to the 1970s, when efforts focused on systematizing patient data and providing care to individuals in remote or inaccessible locations such as military personnel, astronauts, and rural populations.

France presents a highly developed example of legal regulation in telemedicine. The country legally recognized telemedicine under **Law No. 2009-879 of July 21, 2009** ("Loi HPST"). Article 6316 of Chapter 6 defines telemedicine as the remote provision of medical care via information technology. It includes interactions between healthcare professionals or between a healthcare provider and a patient.

In the Russian Federation, the concept of telemedicine was introduced during a 2002 parliamentary hearing on public health protection. The following key terms were defined:

**Telemedicine technologies** – Remote delivery of healthcare and data exchange using modern technologies.

**Telemedicine service** – The receipt and provision of medical services via telemedicine tools.

**Telemedical consultation and remote diagnostics** – Remote medical interventions aimed at diagnosing and treating patients

**Telemonitoring** – The remote tracking of patient health indicators by healthcare professionals

**Telemedical education** – A remote system of medical personnel training.

Further regulatory progress occurred with the signing of the **Federal Law No. 242** and the **Law on Amendments to Certain Legislative Acts on July 29, 2017**, which came into effect on **January 1, 2018**. These laws provided a formal legal basis for telemedicine and divided its implementation into two main categories:

remote healthcare services (teleconsultations, telemonitoring).

digital medical infrastructure (electronic prescriptions, patient cards, and document circulation).

in the same year, Government Decree No. 2521 introduced a unified citizen information system. The **"My Health"** digital platform was launched to manage doctor appointments, home visits, and electronic access to medical records and preventive services [6].

The Russian Federation has adopted a dual model of telemedicine communication: **"doctor-doctor"** and **"doctor-patient"**. While the former has been long established, the latter is permitted only after an initial in-person examination, following which online interaction is allowed under legal supervision.

According to the **WHO's 2020 report**, Russia was among the leading nations in leveraging telemedicine during the COVID-19 pandemic [7]. This was largely due to **Order No. 1184** issued by the Ministry of Health in 2020, which mandated telemedicine use for outpatient COVID-19 care. Starting **March 17, 2020**, teleconsultation services were activated for non-hospitalized COVID-19 patients, and from **March 23**, 24/7 online consultation services began. These services utilized electronic patient records to ensure continuity of care.

Despite these developments, several barriers remain:

insufficient medical equipment for telemedicine.

limited government funding for technology procurement.

lack of training programs for medical professionals.

weak internet infrastructure in rural areas.

undefined legal status and responsibilities of teleconsultants.

inadequate systems for distance learning and capacity building among medical personnel.

These challenges continue to hinder the expansion of telemedicine in Russia. As noted by Varyushina and Popova [7], in most jurisdictions, telemedicine is treated as a supplementary health tool governed by broader healthcare legislation rather than specific laws.

Other countries have also made significant progress. For example, **Armenia's 1996 Law No. 42** legally recognized telemedicine as a form of healthcare delivered through information and communication technologies. Similarly, **Belarus** launched the "Electronic Belarus" initiative in 2002, followed by strategic planning for telemedicine in national development programs[8].

An analysis of international legal experiences indicates that successful implementation of telemedicine is closely tied to

strategic national planning.

legislative backing.

data protection regulations.

defined interaction models (doctor-patient, doctor-doctor).

digital medical records.

medical workforce training.

public awareness and healthy lifestyle promotion.

The global shift toward digital health services highlights the necessity of improving legal standards for telemedicine. In this context, **Uzbekistan** must also develop a clear and robust legal framework, informed by international best practices.

**Telemedicine** can be defined as a type of remote medical service that includes diagnosing, advising, and monitoring patients through modern ICT tools. It encompasses preventive healthcare, health promotion, remote education of medical professionals, and scientific medical research—serving as a vital component in modern public health systems.

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