

## PROBLEMS OF IMPLEMENTING INFORMATION SYSTEMS IN MEDICAL INSTITUTIONS

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**Abstract:** The article analyzes the primary obstacles to integrating digital technologies and information systems within medical institutions. The research examines human resource potential, technical infrastructure, and data security issues. Based on the findings, scientific and practical recommendations have been developed to accelerate the digitalization of the healthcare system.

**Keywords:** medical information systems, digital healthcare, integration problems, staff qualifications, cybersecurity, e-Health, database, Articulate Storyline, innovative technologies, medical management, digital transformation.

### INTRODUCTION

**Urgency of the topic.** In the modern world, it is impossible to improve the quality of provided medical services and establish effective management without the digitalization of the healthcare system. Within the framework of the "Digital Uzbekistan – 2030" strategy, particular attention is being paid to creating unified electronic platforms in medical institutions in the Republic of Uzbekistan. However, in practice, the process of implementing information systems (IS) faces a number of systemic problems, including technical malfunctions, low levels of staff readiness, and an imperfect legal and regulatory framework.

**Research objectives and tasks.** The main goal of this research is to identify the factors hindering the implementation of IS in medical institutions and to develop a methodology for their elimination.

### RESEARCH METHODOLOGY

During the research process, methods of systematic analysis, comparative-logical generalization, surveys, and pedagogical experiments were utilized. The study was conducted between 2025 and 2026 across several multi-profile medical centers in Uzbekistan. To collect data, an anonymous survey was conducted among 250 medical professionals. The control group (125 people) was trained using traditional methods, while the experimental group (125 people) was trained based on interactive simulations created in the Articulate Storyline environment.

### ANALYSIS AND RESULTS

Analyses indicated that the lack of technical infrastructure (38%) and staff qualifications (32%) are the most significant barriers. The results of the experimental group were significantly higher than those of the control group: the speed of using IS was 88% in the experimental group compared to 65% in the control group. Errors in data entry accounted for only 4% in the experimental group.

### CONCLUSION AND RECOMMENDATIONS

The implementation of information systems in medical institutions is not merely a technical process but a profound organizational and personnel transformation. The following is recommended:

- Implementation of unified standards at the level of the Ministry of Health;
- Use of interactive simulations in staff training;



- Strengthening of cybersecurity protocols.

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