

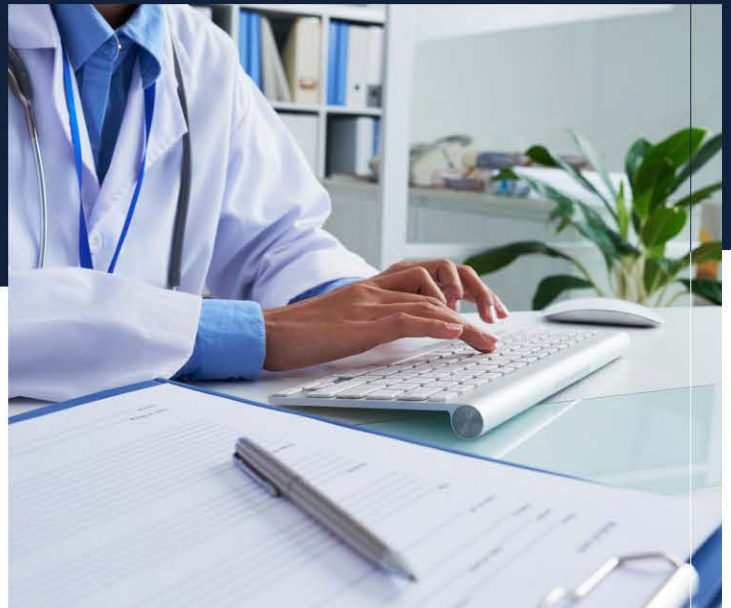


HOW UKRAINE'S DIGITAL TRANSFORMATION IS STRENGTHENING ITS HEALTH SUPPLY CHAIN AND PROTECTING PATIENT ACCESS

Ukraine's long-term investment in digitalizing its health system has become one of the country's most effective tools for ensuring patient access—especially during the pressures of full-scale war. Over the past seven years, digital systems first envisioned to modernize routine operations have evolved into essential components of a resilient national supply chain.

Before supply chain digitalization, hospitals relied on manual spreadsheets, fragmented workflows, and multiple rounds of data validation. These processes took a lot of time, created additional workload for staff, and caused data inconsistencies that could result in stockouts or delays in procurement—risks that directly affected patients' access to lifesaving medicines.

In 2018, shortly after the establishment of the State Enterprise “Medical Procurement of Ukraine” (MPU), the organization began taking steps to fundamentally change this situation, by creating a digital system for the country's medicines supply, which would close gaps in data collection, transfer, and analysis, and allow new processes to be implemented systematically and transparently. With technical support from SAFEMed,



MPU launched **MedData**—a digital tool designed to improve accuracy, reduce reporting burden, and enable rapid development of future modules in line with national priorities.

Thanks to MedData, it became possible to systematically digitalize key processes: needs collection from health facilities, procurement-related workflows, and later, facility-level inventory monitoring. As the country faced new shocks, the system proved its adaptability. During COVID-19, a hospital supply monitoring module was rapidly introduced. Following the start of Russia's full-scale invasion, a new module was deployed to track humanitarian medical aid and ensure transparency in the distribution of donated commodities.

BUILDING ON THE FOUNDATION: THE DEVELOPMENT OF eSTOCK

Recognizing the need for a comprehensive national system beyond the capacity of MedData, the Ministry of Health of Ukraine (MOH) began envisioning a national logistics system, an eStock, as early as 2020. In late 2021, the MOH tasked MPU to design and develop the eStock system, leveraging and expanding on the functionality of MedData. While MedData provides speed and operational flexibility, eStock serves as the structural platform to ensure overarching management and strategic stability—the “backbone” of the national system supporting strategic supply chain management, from demand collection and procurement planning to logistics, distribution, and accounting. Together, they form a modern digital system for medical supplies that improves accuracy, enhances transparency, and strengthens the government's ability to plan and

respond in real time, guaranteeing patients' uninterrupted access to necessary medicines.

“We are building a digital ecosystem where every process—from demand collection to the delivery of medicines to healthcare facilities—is backed by high-quality data and full transparency. This gives patients confidence that they will have uninterrupted access to quality and free treatment when they need it,” summarizes Oleg Klots, MPU's General Manager.

The first eStock module **Demand Collection** has already been successfully scaled. Today, more than 1,600 healthcare facilities nationwide report their needs for medicines and medical devices through the system, which is seamlessly integrated with MedData. The

system can generate needs based on accurate consumption histories, current stock levels, and forecasted replenishments.

“When all information on needs and stock is collected in one system, it becomes much easier to see the real picture by facility and by region. We can respond quickly to changes, redistribute stock between hospitals when needed, and avoid shortages. MedData is helping us make decisions based on accurate data to ensure proper use, redistribution, and consistent availability of medicines,” explains Yurii Lehkodukh, Head of the Health Department of the Volyn Regional State Administration.

Three additional eStock modules—**Procurement, Logistics, and Accounting**—have been fully developed and are undergoing preparation for phased rollout at health facilities. Once implemented, eStock will function as a full-fledged digital system linked with other national digital systems: ensuring a transparent supply chain from planning and procurement to the delivery and accounting of medicines, medical devices, and vaccines to facilities. The MOH, the National Health Service of Ukraine, and partners will have convenient tools for analytics, monitoring, and decision making.

Although MedData and eStock are closely connected, they serve different and complementary purposes within Ukraine’s digital supply chain. MedData will continue to be the user-friendly operational interface for healthcare facilities, offering a familiar and simple workspace for day-to-day tasks. It was designed to be highly flexible and quick to expand, which made it ideal for digitizing existing workflows and rapidly developing new modules in times of emergency.

eStock, in contrast, is the national, high-performance backend system. It was built with a modern, scalable architecture capable of supporting large-volume, real-time operations—such as processing stock information from thousands of facilities simultaneously and ensuring full nationwide coordination of planning, procurement, and logistics. While MedData provides speed, usability, and adaptability at the operational level, eStock supplies the stability, capacity, and system-wide visibility required for Ukraine’s long-term supply chain management.

Together, they form a unified digital ecosystem: MedData remains the “front door” for facilities, while eStock serves as the powerful “engine” driving the entire system behind the scenes.

STRENGTHENING CAPACITY FOR DIGITAL ADOPTION

A strong digital system requires skilled digital users. In November 2025, MPU, supported by SAFEMed, conducted a national online training on using MedData for demand collection and stock reporting. Up to 360 facility representatives participated in live demonstrations with real-life examples, practical Q&A, and guided navigation of system features. Participants asked questions and MPU representatives provided practical advice. These trainings, coupled with ongoing user support and job aids, are accelerating adoption and improving data quality across the network of facilities.



Yurii Podoshva, Head of the MPU's Stock Management Department during webinar

WHAT THIS MEANS FOR PATIENTS

For patient advocates, the shift to digital systems represents a broader change in how the health system operates, one that prioritizes transparency, reliability, and timely access to medicines.

Inna Ivanenko, Executive Director of the Charitable Foundation Patients of Ukraine, notes demand for such tools is only increasing: “We are already seeing how technology simplifies life for both doctors and patients. MedData, for example, has helped doctors collect

needs faster and more accurately, without dozens of spreadsheets and manual errors. For patients, this means that the state can respond quickly, and patients feel more protected,” Ivanenko explains.

As MedData and eStock continue to expand, the systems have the potential to give patients nationwide real-time visibility into medicine availability, a critical step toward building accountability and trust.