SAFEMed
Technical Brief

NOVEMBER 2022

CATALYZING THE GROWTH AND SUCCESS OF UKRAINE'S
MEDICAL CENTRAL PROCUREMENT AGENCY:
LESSONS FROM SAFEMED

About SAFEMed

*Improving access to safe and affordable medicines for the Ukrainian population is one of the Government of Ukraine's top priorities, with ambitious health reforms underway to ensure that access. The **United States Agency for International Development (USAID) Safe, Affordable, and Effective Medicines for Ukrainians (SAFEMed)** project (2017-2023) is supporting this effort by applying health system strengthening best practices and evidence-based interventions— working to institutionalize rational medicine selection; systematize public procurement of pharmaceuticals and commodities; support sustainable public-sector pharmaceutical financing; and strengthen the pharmaceutical supply chain in collaboration with the government, civil society, and the private sector.*

BACKGROUND

A lack of access to affordable, quality medicines and medical supplies has been a long-standing impediment for patients in this country of roughly 41.2 million people.[1] Further, estimates suggest that patients pay approximately 67%[2] of health care costs out-of-pocket, with the majority of those costs covering medicines and related commodities. High prices for medicines and widespread corruption coupled with poorly managed logistics systems, inadequate quality control, and overregulated legal procedures have exacerbated the problem. Without sufficient medicines, diagnostics, and other supplies, frontline providers cannot address health challenges such as HIV/AIDS and TB as well as cancer and other noncommunicable diseases.

As part of wide-reaching primary health care reforms, the Ministry of Health (MOH), with support from USAID and other donors, launched a modern, fully transparent central procurement agency, the Medical Procurement of Ukraine (known as MPU), in 2018. This entity's objective was to take over the procurement of all medicines procured on behalf of the MOH. Each year, the MOH recommends a list of priority medicines to be procured centrally and distributed to all regions of the country. These medicines generally represent roughly 46%[3] (over the past few years)

ACHIEVEMENTS

5.5B UAH
total state budget savings through MPU.

23%
average reduced patients' out-of-pocket expenses.

MPU purchases are:
40-50%
cheaper than international purchasing organizations, hospitals, and pharmacies.

77%
of MPU prices were better than international organizations' prices in central procurement.

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[1] Ukraine Center for State Statistics, https://ukrstat.gov.ua/druk/publicat/ Arhiv_u/13/Arch_nasel_zb.htm
[2] SMD Database 2022: out-of-pocket expenses SMD Database
[3] SMD Database

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41.2M

Ukraine's total population

67% of health care costs are paid out-of-pocket by patients.

CHALLENGES

high price for medicines

widespread corruption

poorly managed logistics systems

inadequate quality control

46% of medicines covered by public funds are procured from MOH through MPU

From 2019 to 2022, MPU procurements grew from

0% ⤳ 25%

U24 MPU administers urgent pharmaceutical procurements for United24, a charitable fund set up by the President of Ukraine.

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of all those covered with public funds. Other medicines are procured directly by regional entities and hospitals or through the state reimbursement program, also supported by SAFEMed.

Figure 1 illustrates how the trends in the value of MPU procurements relative to other sources of medicines covered by the state grew from 0% in 2019 to 25% in the first part of 2022.
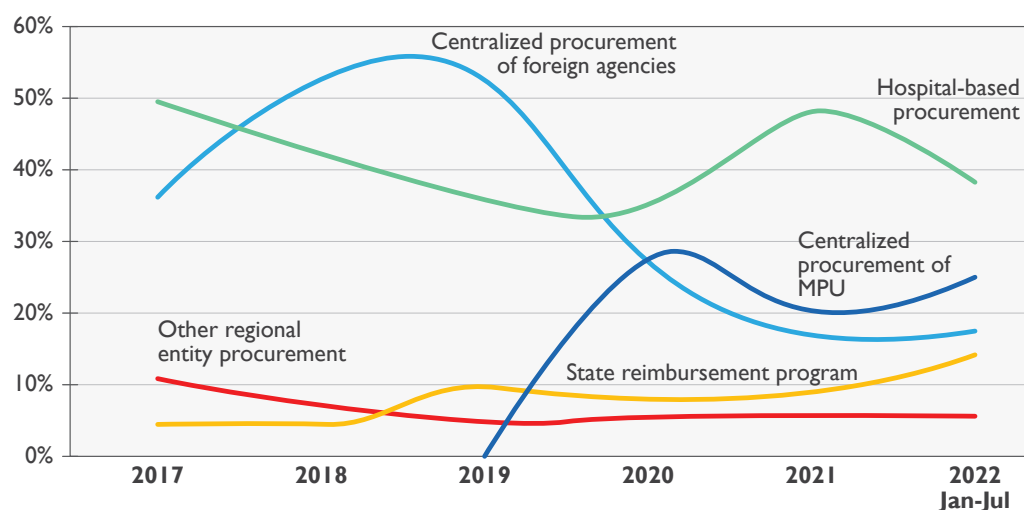

Figure 1. Trends in expenditure (both procurement and reimbursement) for state-covered medicines: 2017-2022

Russia's invasion of Ukraine on February 24, 2022 shook the country and its health system. Through the conviction of Ukrainians and their institutions, including MPU, the country and its development partners responded by relying on the systems they had meticulously built and adapting them innovatively to meet acute needs.

Despite the war, MPU continues to procure on behalf of the MOH while continuing to expand its mandate and services. For example, MPU administers urgent pharmaceutical procurements for United24[4], a charitable fund set up by the President of Ukraine. They also run the Prozorro Market e-Catalog—an online platform designed for hospitals to make small purchases—and expanded the range of products covered. In addition, since the beginning of the COVID-19 pandemic, MPU has been responsible for procuring testing kits, oxygen stations, lung ventilation devices, and medicines.

In October 2018, Ukraine's MOH launched the new medical MPU whose vision is to improve access to medicines and prevent corruption. As of September 2022, MPU has 104 staff members.

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[4] https://u24.gov.ua/

TECHNICAL APPROACH

SAFEMed has supported MPU from the beginning to become the primary government agency responsible for procuring and distributing publicly funded medical goods on the national level (figure 2). SAFEMed's technical approach has focused on four areas: **procurement and supply chain practices, capacity building, digitalization, and anticorruption**—all with an eye toward transforming MPU into a full-cycle procurement agency that is financially independent and sustainable and that has an overarching commitment to anticorruption.

During the war and into the recovery phase the focus will be to keep the public procurement system operating using best practices, while promoting MPU's capacity to become an independent and profitable entity
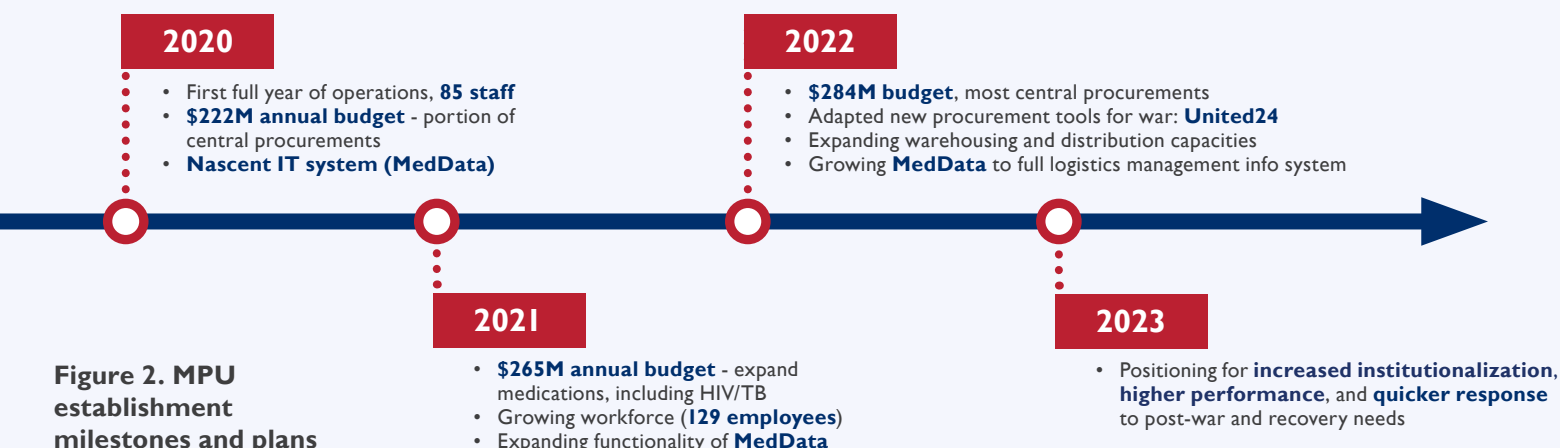
2020
- First full year of operations, **85 staff**
- **$222M annual budget** - portion of central procurements
- **Nascent IT system (MedData)**

2022
- **$284M budget**, most central procurements
- Adapted new procurement tools for war: **United24**
- Expanding warehousing and distribution capacities
- Growing **MedData** to full logistics management info system

2021
- **$265M annual budget** - expand medications, including HIV/TB
- Growing workforce (**129 employees**)
- Expanding functionality of **MedData**

2023
- Positioning for **increased institutionalization**, **higher performance**, and **quicker response** to post-war and recovery needs

Figure 2. MPU establishment milestones and plans

STRENGTHENING PROCUREMENT AND SUPPLY CHAIN PRACTICES

To build direct relationships with suppliers, SAFEMed supported MPU's participation in international networking events and market consultations including hosting online events reaching more than 200 new and targeted suppliers. Introducing MPU to the industry increased competition among qualified manufacturers and enabled MPU to ensure suppliers' continued market in the market and to negotiate advantageous contract terms. In 2020, the first year MOH delegated MPU to procure ARVs, more than 70% of ARV suppliers selected were pre-qualified by the World Health Organization (WHO). Since then, advocacy for more comprehensive drug quality and safety assessments resulted in mandatory WHO prequalification or stringent regulatory authorities' registration criteria for all government procured ARVs in the 2021 procurement cycle.

In 2020, for the first time, MPU used the national electronic procurement system for ARV drugs, which produced nearly **UAH 73M (USD 1.97M[5])** in savings.

Quicker patient access to innovation health technologies

*A new law approved in January 2021 allows **managed entry agreements** with manufacturers, which is an innovative procurement mechanism that accelerates access to new, often high-cost, evidence-based health technologies. Raising awareness and ensuring the support of important stakeholders are essential to its success; therefore, before the war, SAFEMed helped MPU to organize roundtable events, consult with the pharmaceutical industry, and design and carry out a media campaign to build public recognition of the government's new ability to expand access to lifesaving medicines using this procurement tool.*

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[5] Exchange rate UAH 36.66 = USD $1 as of November 15, 2022: https://www.oanda.com/currency-converter/en/?from=USD&to=UAH&amount=1

For 2021 procurements SAFEMed helped MPU:

- Analyze market prices to understand the market and guide creation of category strategies
- Organize consultation events to attract potential tender participants from local and international markets to grow MPU's supplier's base
- Initiate tenders more than three months earlier than the previous year to support timely replenishment of central stocks
- Sponsor access to a national pharmaceutical market analysis tool that provides critically important information on pharmaceutical market trends, new suppliers, and pricing

*In 2020, MPU procured for **6 central programs**, which include 14 central fields, ambulances and personal protective equipment and other equipment to overcome Covid-19, saving over **UAH 3.6B (USD $97.13M[5])** or 24.8% of the MOH's estimated price. Savings for 2021 amounted to **2.3B (USD $62.1M[5])** or 24.4%. Savings were used to procure **245 additional ambulances**.*

1,200

health care facilities used e-Catalog in 2021, spending **UAH 30M (USD $809,400[5])** on medical equipment and goods.

MPU's sustainability strategy relies on expanding procurement services to regions and health facilities which are responsible for procuring medicines and medical supplies on the national essential medicines list. MPU administers the health commodities on Ukraine's national public sector electronic ordering platform, e-Catalog, which allows health facilities to bulk order small-value items at reduced prices. SAFEMed helped scale up the e-Catalog by enhancing its content and promoting its benefits through regional events and webinars. Furthermore, because e-Catalog was MPU's first profit-generating instrument, SAFEMed conducted a small qualitative study to learn the barriers and facilitators affecting its use so that it could be fine-tuned.

In 2021, 1200 health care facilities used e-Catalog, spending UAH 30M (USD $809,400[5]) on medical equipment and goods. E-Catalog has proven to be an efficient procurement mechanism for public health care customers.

+60%

increase in 2021 MPU sales over the same period in 2020—inching closer to breaking even and making a profit.

In October 2021, the GOU granted MPU status as a centralized procurement agency, which paved the way to launch a regional pilot project to expand its benefits by allowing regional customers to request procurement services. The regional pilot, supported by SAFEMed, demonstrated successful results up until the war through a savings of 18% of budgeted funds across 6 international nonproprietary names for 8 regional hospitals. While the war has stalled the expansion of this important initiative, MPU and the MOH are discussing the best model to support regional procurement. A recent cancellation the national e-Catalog program to include more high-value items may serve as the optimal approach for MPU to meet the needs of hospitals and regional bodies to competitively procure certain categories of medicines and medical devices.

Over five months of the pilot, MPU procured **six items** valued at **UAH 2.2M (USD $59,359[5])** and average savings were **21%**, namely in terms of INN:

1. Levofloxacin	33.4%
2. Linezolid	26.6%
3. Metronidazole	0.7%
4. Propofol	4.3%
5. Fluconazole	55.5%
6. Enoxaparin sodium	14.2%

Private sector collaboration in supply chain practices

As MPU launched its national procurement services on behalf of the MOH, it began a successful collaboration with existing private firms offering warehousing and logistics services. Since 2020 with SAFEMed support, MPU has conducted annual open tenders to subcontract a private warehouse and logistics provider to manage customs clearance, storage, and distribution of all its centrally procured commodities. Using these services, MPU was able to cover warehousing and distribution for the state-purchased Pfizer/BioNTech COVID-19 vaccine from the central to regional level.

INDIVIDUAL AND ORGANIZATIONAL CAPACITY BUILDING

Throughout the years, SAFEMed has supported MPU's establishment and institutionalization of transparent, effective, and sustainable systems and processes; and in just four years, MPU now serves as Ukraine's key national procurement and supply chain player.

Before its launch, SAFEMed helped MPU prepare detailed designs for a procurement and distribution strategy, legal framework, product category management approach, initial antiretroviral (ARV) procurement pilots, and transition and rollout plans. The project identified potential risks based on prior experience with public procurements in Ukraine and other countries and developed mitigation strategies.

During MPU's design, SAFEMed assisted in defining organizational roles and responsibilities and major internal policies as well as building staff capacities, which was achieved through the internal placement of technical advisors, international learning trips, setting up performance management human resource systems, and targeted staff training such as courses on procurement and operations planning and patent searching for medicinal products to help develop category strategies for HIV and TB medicines. MPU, with SAFEMed support, is launching a large-scale learning and development program for MPU staff.
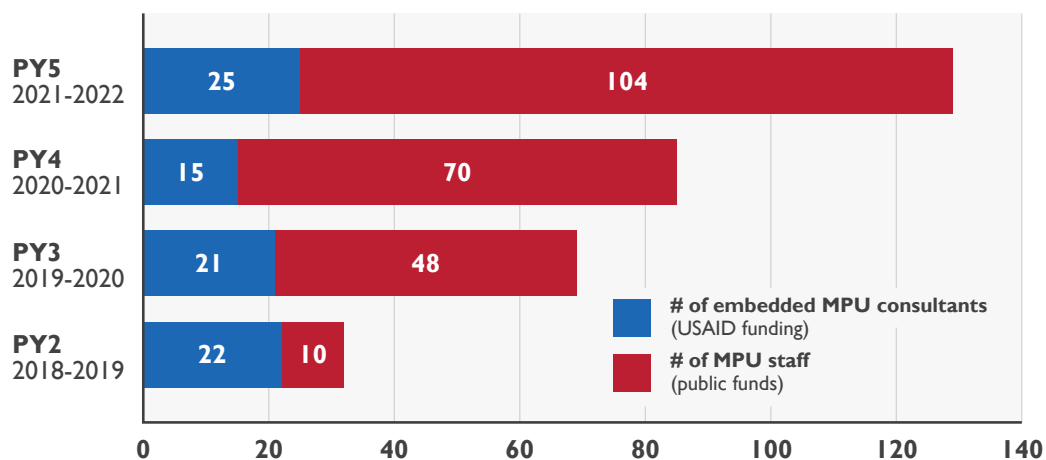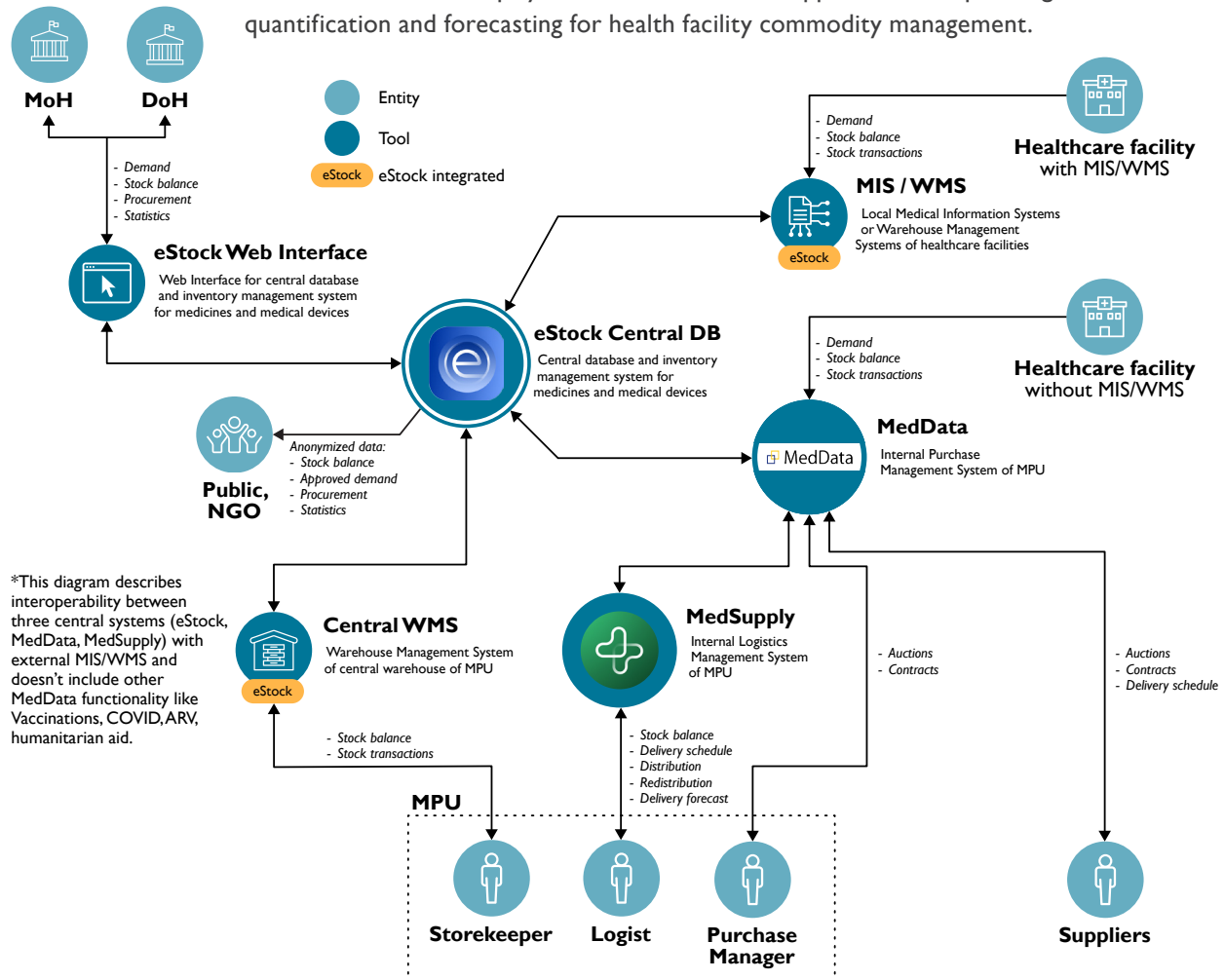

Figure 3. SAFEMed's support to MPU consultants

DIGITALIZATION OF PROCUREMENT AND SUPPLY CHAIN FUNCTIONS

Lack of a comprehensive system to manage end-to-end supply chain processes related to medical product quantification, procurement, distribution, and accounting can lead to serious consequences, including treatment disruption. SAFEMed is supporting MPU's important initiatives to develop a resilient business intelligence system and create a data-driven environment for operational decision-making. Early on, MPU built an agile information system, MedData, designed to facilitate annual needs collections as well as track MPU-procured commodities. As MPU's capacity grew, it continued to grow MedData's functionality; for example, since 2020, 18 modules have been developed including several responding to COVID-19 and wartime emergency needs.

In 2021, MPU extended MedData's supply chain operations through the addition of MedSupply, which forms an integrated platform for MPU to automate and transparently manage business processes related to medicines and medical devices inventory, forecasting, receipt management, and distribution/redistribution. Another high priority is to have an agile, automated stock management system for all medicines purchased with public funds

centrally, regionally, and sub-regionally—eStock. MPU is responsible for designing and managing this new national system, which is linked to the national eHealth ecosystem. Easy to use, eStock is a transparent method to monitor stock that will provide real-time information to respond to consumption fluctuations and avoid commodity stock-outs, overstocks, or expiry. eStock data will also support demand planning and feed into quantification and forecasting for health facility commodity management.

Legend:
- Entity
- Tool
- eStock / eStock integrated

MoH **DoH**
- Demand
- Stock balance
- Procurement
- Statistics

eStock Web Interface
Web Interface for central database and inventory management system for medicines and medical devices

eStock Central DB
Central database and inventory management system for medicines and medical devices

MIS / WMS
Local Medical Information Systems or Warehouse Management Systems of healthcare facilities
- Demand
- Stock balance
- Stock transactions

Healthcare facility with MIS/WMS

Healthcare facility without MIS/WMS
- Demand
- Stock balance
- Stock transactions

Public, NGO
Anonymized data:
- Stock balance
- Approved demand
- Procurement
- Statistics

MedData
Internal Purchase Management System of MPU

*This diagram describes interoperability between three central systems (eStock, MedData, MedSupply) with external MIS/WMS and doesn't include other MedData functionality like Vaccinations, COVID, ARV, humanitarian aid.

Central WMS
Warehouse Management System of central warehouse of MPU
- Stock balance
- Stock transactions

MedSupply
Internal Logistics Management System of MPU
- Stock balance
- Delivery schedule
- Distribution
- Redistribution
- Delivery forecast

- Auctions
- Contracts

- Auctions
- Contracts
- Delivery schedule

MPU
Storekeeper **Logist** **Purchase Manager**

Suppliers

Coordinating vastly increased quantities of medicines and humanitarian aid

As hundreds of millions of US dollars' worth of medical donations suddenly began flowing into Ukraine to support the war effort, MPU was tapped to play a role in demand estimation, distribution, and accounting. In response, MPU developed new interconnected modules in its IT system, MedData, to cover the humanitarian aid accounting process. MedData collects information on and tracks incoming humanitarian supplies; in addition, more than 4,000 health facilities report on their monthly needs for 438 medical items, while 40 centralized MOH warehouses report on receipts, balances, and distribution of medical supplies. Managed by logistics specialists who track each batch of goods from the warehouse to the final recipient, the system provides real-time product status.

Additionally, MPU developed a feature in MedData that will allow transparent and cost-effective procurement of medical goods via supplier auction. MPU is also partnering with a nongovernmental organization to tap into the SAP Business Network of more than eight million companies to engage suppliers that can meet the urgent need for essential health and humanitarian commodities.

STRENGTHENING ANTICORRUPTION EFFORTS

Transparency is the backbone of any organization's trust and credibility, and proper antibribery and anticorruption processes and policies are pillars of organizational stability. Being International Organization for Standardization (ISO) 37001-certified confirms compliance with the international standard for anticorruption and allows an organization to set up policies to prevent and detect violations before they damage the organization's operations and reputation. Because corruption is a rampant problem in Ukraine that diminishes trust in the health system, combating it as well as fraud and conflict of interest is crucial to instill patient confidence.

With SAFEMed support, MPU established strong anticorruption procedures including mandatory staff integrity training and the creation of a whistleblower platform (Ethicontrol). Although the war caused a shift in priorities, SAFEMed and MPU managed to work toward ISO 37001:2016 antibribery certification and to implement relevant wartime compliance measures based on sanctions against working with the Russian Federation. MPU has continued to carry out its anticorruption measures such as conducting anticorruption inspections in accordance with standard operating procedures. Over the past four years, there have been no corruption cases at MPU and recently they obtained the Anti-Corruption ISO Certificate as a result of six-month compliance and two audits.

MPU may be among the few of those rare state organizations that have continued to reinforce **anticorruption strategies** during the turbulent times of war.

SAFEMed and MPU achieved **ISO 37001 anticorruption certification**.

MPU Achievements over the past four years

On October 25, 2022, MPU turned 4 years since its establishment. According to the analytical review of its performance during these periods, supported by SAFEMed, the following wins were identified:

- *Total number of state budget savings through MPU is at least **5.5 billion UAH** for **4 years**.*
- *Reduced patients' out-of-pocket expenses by an average of **23%**.*
- *MPU purchases are **40-50% cheaper** than international purchasing organizations, hospitals, and pharmacies.*
- *MPU price was better in **77% of cases** than international organizations' prices in centralized procurement.*

WAY FORWARD

In 2022-2023, SAFEMed will support MPU in the following ways:

- Address war-related supply chain management issues to ensure stock levels, mitigate procurement risks, and identify critical items at risk for supply disruption that can be procured through international stakeholders
- Assess subnational procurement practices and use the results to strengthen regional and hospital-based procurements now planned through e-Catalog
- Help to make sure that supply chain information systems (MedData, MedSupply, eStock), linked with other national health information systems, provide stakeholder visibility into the needs, consumption, and stock status of state-procured medicines and those procured through humanitarian aid
- Provide comprehensive support to reorganize Ukrmedpostach so it can be integrated into MPU, as well as further improve warehouse stock management to increase warehouse capacity and cargo turnover and reduce errors, time, and operating costs
- Continue efforts to strengthen anticorruption and compliance in procurement and supply

chain management processes by providing the technical assistance needed to maintain ISO certification in anticorruption.

- Expand MPU's compliance analytics functions to strengthen internal control of operational processes and the results of public procurement including prices, final contracts, and potential cases of supplier lobbying.

Learn more at https://msh.org/projects/safe-affordable-and-effective-medicines-for-ukrainians/

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