



PUBLIC  
HEALTH  
CENTER

# ANNUAL REPORT

OF THE PUBLIC HEALTH CENTER OF THE MOH OF UKRAINE

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## **NATIONAL RESPONSE**

of HIV, TB, viral hepatitis and SMT programmes  
in the context of full-scale Russian invasion

2023

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## INTRODUCTION

*Keep fighting — you are sure to win! God helps you in your fight!  
For fame and freedom march with you, And right is on your side!*  
*Taras Shevchenko, Ukrainian poet*

For many months, Ukrainians have heroically resisted Russia's military aggression. Everyone is working to ensure Ukraine's victory over the enemy. The Armed Forces of Ukraine are vigorously fighting the occupiers at the front, while civilians in the rear are helping the army in every way possible. Volunteers and ordinary citizens are raising funds to buy vehicles, drones, ammunition, and food for our frontline soldiers. Each of us is now writing a triumphant chapter in the history of a resilient, strong and independent Ukraine. When the insidious enemy realizes it is losing on the battlefield, it uses weapons and hatred to destroy everything in its path. Missiles repeatedly target residential high-rise buildings, educational institutions, and energy supply facilities, but the aggressor's cynicism extends to hospitals as well. According to the Minister of Health of Ukraine Viktor Liashko, **over 1,000** medical facilities have been damaged by shelling, with more than 200 completely destroyed; **over 100** Ukrainian healthcare workers have been killed since the beginning of the invasion, with a third of them killed on the job. Dozens of patients have died in the war.

**OVER  
1,000**

*medical facilities have been damaged  
as a result of the Russian aggression*



The photos show the destroyed Chernihiv Oblast Medical Centre for Socially Significant Diseases Municipal Non-Profit Enterprise (MNE) and the Chernihiv City Tuberculosis Dispensary.



The destroyed Vuhledar Central Town Hospital,  
Donetsk oblast

*Medicine is of all the Arts the most noble.*  
*Hippocrates*

The war has become the most difficult challenge for the health system. Enormous risks, unprecedented destruction, and internal displacement have also affected work with vulnerable populations, such as people needing treatment for tuberculosis (TB), human immunodeficiency virus (HIV), viral hepatitis, and people on substitution maintenance therapy (SMT). The specialists from the programme departments of the Public Health Center of the MoH of Ukraine SI (UPHC) responded to the crisis with resilience and professionalism. This report summarises our pre-war achievements and describes the damage caused by the enemy. It describes urgent and outstanding measures taken by the Center's experts and all the partners to help reduce losses in the sector. These included managerial decisions, logistical adjustments, gathering and responding to relevant information about the needs of healthcare facilities (HCFs) and patients, as well as liaising with foreign clinics and partners to support patients who had left the country. This report is about brave ACTS and brave PEOPLE.



**IHOR KUZIN**  
**Deputy Minister of Health —**  
**Chief State Sanitary Doctor of Ukraine**

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The war has affected every sector in Ukraine. The public health system is not an exception. Internal and external migration processes have been triggered by the hostilities. Hundreds of thousands of people have fled to other parts of the country and abroad. Patients with chronic conditions like HIV, tuberculosis, viral hepatitis and those on substitution maintenance therapy have become particularly vulnerable. They all require constant and continuous treatment. These issues needed to be addressed quickly and efficiently. The Ministry of Health (MoH), in collaboration with the UPHC, was able to overcome the challenges posed by Russian aggression in the health sector through clear coordination, sound managerial decisions, and international support.



**LIUDMYLA CHERNENKO**  
**Director General, Public Health Center**

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Russia has brought loss, pain, suffering, and destruction to Ukrainians. The war created new challenges for both doctors and patients in Ukraine's health sector. We had to respond immediately. Emotions seemed to take over, but the support of friends and colleagues, as well as unity around a common goal helped us survive. Every employee at the Center understood how important their work was to the lives of hundreds of thousands of fellow citizens, both those under occupation and those forced to flee to safer oblasts. With cynical and insidious shelling of medical facilities and ambulances, Russia has tried to break doctors, but we have grown stronger. In the face of ongoing attacks, we are looking for ways to help both healthcare workers and patients. If there are challenges, we overcome them together. Our team approaches each patient's situation as if it were their own when it comes to saving lives and improving health. This is the only way for a person to fully express their humanity.



**OLHA HVOZDETSKA**  
**Deputy Director General, Public Health Center**

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Despite the numerous challenges that the Russian war has brought to the lives of Ukrainians, we continue to do our best to provide quality services to those who need them most — under fire, without electricity, and in shelters. We are extremely fortunate to have such a dedicated team and partners who deeply understand our country's context and needs, and who support and collaborate with us to help us move confidently towards victory — both in the fight against dangerous diseases and in confronting Russia, our even more insidious enemy.



**DARREN DORKIN**

**Senior Fund Portfolio Manager, Eastern Europe  
and Central Asia Team, Global Fund**



Over the last two decades, the Global Fund has worked with Ukrainian partners to improve access to HIV and TB testing, prevention, and treatment. The war severely undermined the significant progress made in the fight against these diseases. The invasion's devastating consequences include the destruction or damage of healthcare facilities, as well as the deaths of healthcare workers and patients.

The Global Fund has responded quickly, scaling up its support with an additional USD 27.75 million in emergency funding to support brave partners on the ground. This is in addition to the USD 186.7 million allocated to HIV, TB, and opioid substitution programmes during the 2021–2023 implementation period, which includes funds from the Global Fund COVID-19 Response Mechanism.

Since March 2022, our main beneficiaries, the UPHC, the All-Ukrainian Network of People Living with HIV/AIDS (100% Life), and the Alliance of Public Health of Ukraine (the APH), together with civil society organizations and partners have shown extraordinary resilience. They have collaborated to overcome enormous challenges in assessing immediate needs, adapting programmes to maintain essential HIV and TB services and community systems, procuring and delivering medicines to conflict-affected patients, and ensuring their continued access to prevention and treatment services. Furthermore, given the large number of people forced to flee Ukraine and seek refuge in neighbouring countries, they support shelters and remote areas in overcoming difficult barriers to accessing HIV and TB services, and they do exceptional work in patient tracking.

For the 2024–2026 implementation period, the Global Fund has allocated USD 157.16 million to Ukraine to combat HIV and TB and build resilient and sustainable health systems. We continue to go ahead. We remain committed to standing side-by-side with Ukraine and to providing ongoing support and assistance to the country as it recovers and advances.



**AARON BANKS**

**PEPFAR Country Coordinator for Ukraine**



The only thing more impressive than the Public Health Center's (UPHC) emergency response in 2022 is its ability to continue this work in 2023. Ukraine is a country full of heroes, and Ukrainian healthcare workers are at the forefront of them. PEPFAR is proud to continue collaborating with the UPHC to combat the HIV epidemic and to assist Ukraine in developing a sustainable public health system that will be critical to its Euro-Atlantic integration.





**ROMAN HAILEVYCH**  
**UNAIDS Country Director in Ukraine**

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*Despite Russian military aggression, data for 2022 shows Ukraine’s incredible resilience in responding to the HIV epidemic. Of course, this resilience is backed up by funds from the Global Fund and PEPFAR.*

*However, it has a significant human component. We frequently emphasise the difficulties HIV patients face in gaining access to healthcare facilities, the need for them to relocate to safe areas, etc. But doctors and nurses working in multidisciplinary teams and living in the same communities face the same risks and challenges.*

*And I’d like to take this opportunity to thank you for ensuring the long-term viability of Ukraine’s response to the HIV epidemic, the burden of which rests on your shoulders. Often these are women’s shoulders.*



**JARNO HABICHT**  
**Head, WHO Country Office in Ukraine**

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*We would like to express our heartfelt gratitude to the Ministry of Health of Ukraine, the Public Health Center, NGOs, and dedicated healthcare workers for their unwavering commitment during this trying time of war. Even in the most challenging times, we have made significant progress with our colleagues at the UPHC in our work on HIV, SMT, and TB, including comprehensive national programme reviews. We assisted HIV service providers on the ground to ensure HIV treatment continuity. With the help of the Global Fund and the US President’s Emergency Plan for AIDS Relief (PEPFAR), the WHO and the UPHC continued to provide evidence-based recommendations on HIV testing and treatment. Despite the war, HIV prevention programmes such as pre-exposure prophylaxis (PrEP) and SMT were scaled up, with Ukraine’s PrEP programme becoming one of the largest in the European Region. In this time of crisis, the WHO will continue to respond to Ukraine’s changing health needs in collaboration with our partners.*

## HIV INFECTION

*Each of us must work for his own improvement, and at the same time share a general responsibility for all humanity.*

*Maria Skłodowska-Curie, Polish scientist*

**HIV is not a death sentence.** The acquired immunodeficiency syndrome was first reported in the USA exactly forty years ago. Only two cases of complete AIDS recovery have been formally confirmed since then. For four decades, scientists have been trying to invent a vaccine against the disease. But all in vain. At the same time, HIV infection is now recognised as a chronic condition that can be treated, allowing people to live satisfying lives.

**38 million people are living with HIV (PLHIV) worldwide,** 336 million have died of AIDS since the virus began spreading, according to UNAIDS.

**At the beginning of 2022, there were an estimated 245,000 HIV-positive people in Ukraine.** Some of them were at risk of not receiving treatment. The effective response to HIV/AIDS has been challenged by the full-scale military invasion. It has become more difficult to provide a full range of prevention and treatment services. Patients, particularly those in the south-eastern regions, were particularly affected. The negative impact, as well as the resumption of HIV services to the population, is uneven due to operational changes related to the intensity of hostilities, destruction of medical infrastructure, migration, and monitoring of IDPs with positive HIV status.

## HIV/AIDS statistics

as of 01.04.2023

# 152,992

PLHIV linked to care

**The most significant changes occurred in the eastern regions.** With the outbreak of hostilities, testing in Luhansk oblast came to a halt. Only 179 people were tested for HIV in the oblast in the first three months of 2023 (a 98% decrease from 2021). In Donetsk, Zaporizhzhia and Kharkiv oblasts, the number of tests has dropped significantly against the same period in 2021. However, there is an increase in the number of services provided compared to the same period in 2022, suggesting that work continues even in the context of active hostilities and temporary occupation.

**The number of HIV testing services (HTS) provided in the western and central oblasts** increased compared to January–March 2021. It is worth noting that during martial law in Ukraine, there was an increase in HIV testing using rapid tests (RTs) against 2021 (+18.9%). Except for Donetsk and Kherson oblasts, all regions showed an increase in testing.



Number of HIV tests performed

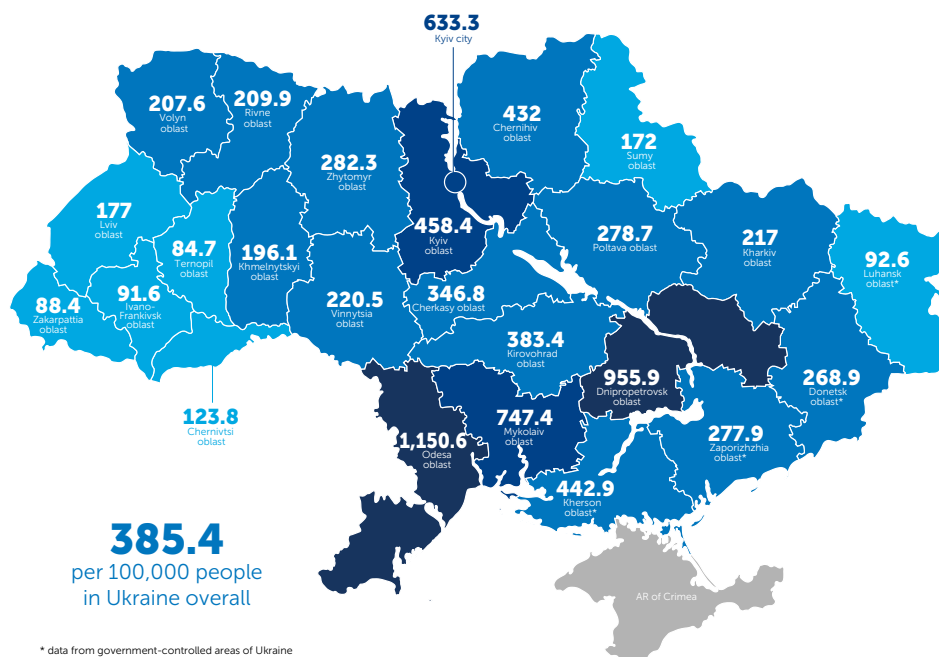


According to the seroepidemiological monitoring of HIV prevalence, the number of HTS increased by 51.4% in the first three months of 2023 (compared to the same period last year)

**+51.4%**

**The number of HIV cases detected is expected to decline.** In the first three months of the year, the number of diagnosed HIV cases decreased by 26.5% (from 5,007 to 3,679), particularly in the east of the country; in the central and western regions, more people with HIV were detected among residents of Ivano-Frankivsk, Sumy, Khmelnytskyi, Lviv, Poltava, Ternopil, Chernivtsi, and Cherkasy oblasts.

HIV infection prevalence in the oblasts of Ukraine, according to medical surveillance data as of 01.04.2023

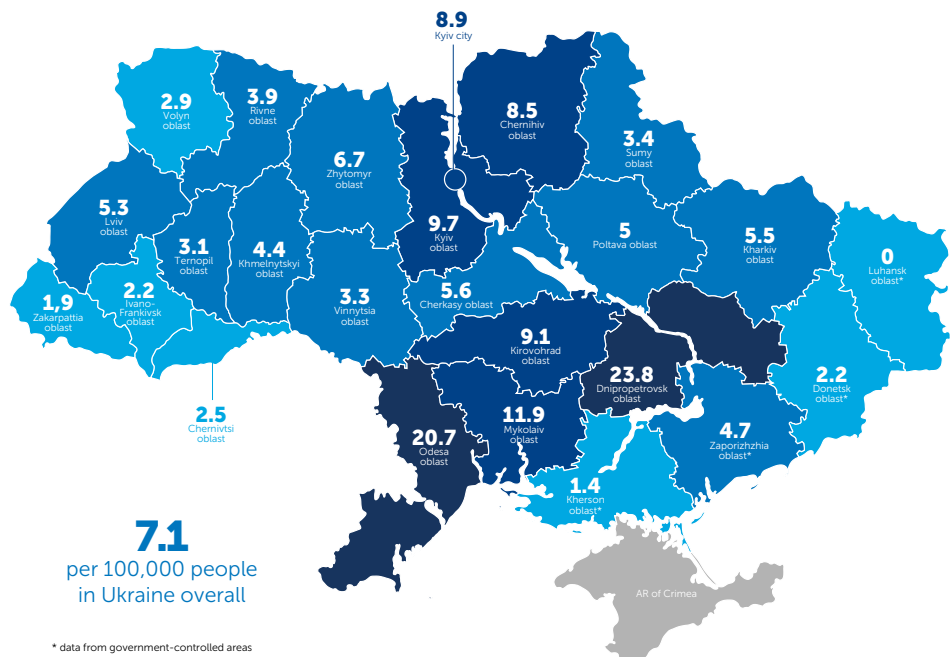


**As a result of the active involvement of primary HCFs in almost all regions of Ukraine,** the number of HTS is expected to increase in 2023. To date, almost 157,000 rapid tests have been distributed for screening to patients having a medical indication for testing or belonging to key populations or populations at high risk of HIV infection. Compared to the same period in 2022, the proportion of provider-initiated HIV tests increased from 16 to 25% in Q1 2023. The number of HTS provided in the western and central oblasts has increased compared to January–March 2022. It is worth noting that the number of HIV tests using rapid tests increased during the full-scale invasion of Ukraine.

**HIV infection prevalence per 100,000 people in the oblasts of Ukraine, according to the surveillance data as of 01.04.2023.** During the first three months of this year, 2,931 cases of HIV infection were detected and formally reported (7.1 per 100,000 people), with Dnipropetrovsk (23.8), Odesa (20.7), Mykolaiv (11.9), Kyiv (9.7), and Kirovohrad (9.1) oblasts having the highest incidence rates.

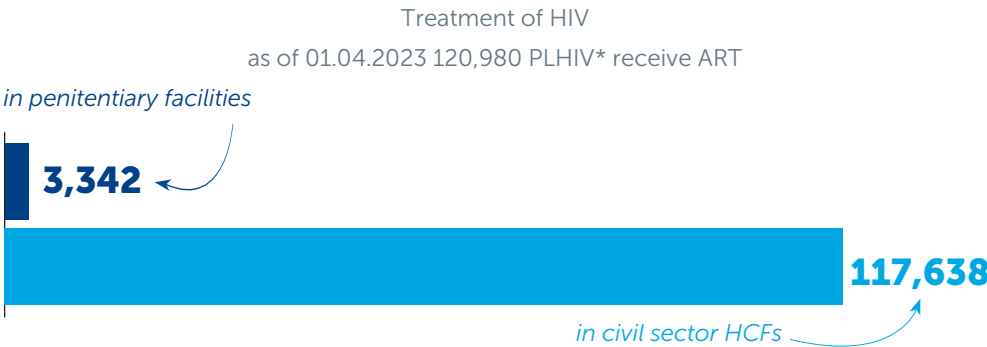
**The incidence rate increased by 13% in Q1 of this year** compared to the same period last year. This is primarily due to the occupation of the eastern areas, population migration, and lower HIV screening coverage in 2022. These changes are most pronounced in the east of the country, where the rate fell by 100% in Luhansk oblast, 48% in Donetsk oblast and 82% in Kherson oblast. The indicators of Chernivtsi (+450%), Kharkiv (+258%), Mykolaiv (+155%), and Khmelnytskyi (+145%) oblasts contribute to the overall positive dynamic.

HIV incidence in the oblasts of Ukraine,  
according to surveillance data as of 01.04.2023



**The highest number of new HIV cases continued to be among people aged 30–49 years**, with men predominating in the gender structure (66%). On average, 33 new HIV cases, 9 new AIDS cases, and 5 AIDS-related deaths were reported per day in Ukraine.

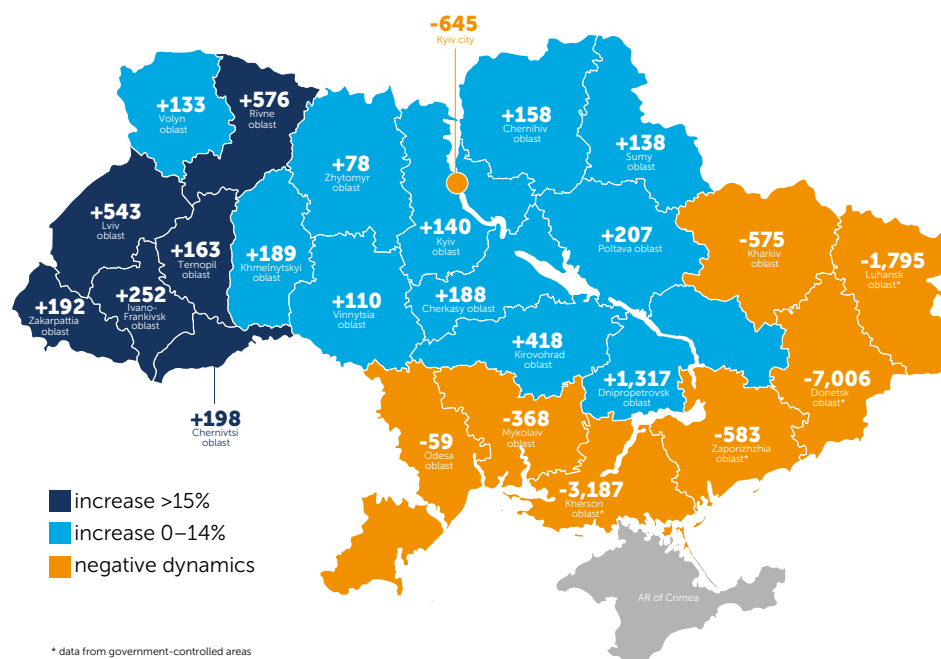
**The vast majority of HIV infections** are sexually transmitted (73.9%), but parenteral transmission due to injecting drug use remains relevant (25.4%). There is a noticeable trend towards an increase in cases of sexual transmission compared to Q1 2022.



\*in the government-controlled areas of Ukraine

Compared to the previous year, the number of people receiving ART has decreased by 6.3%, mainly due to migration abroad and the occupation of the country's territories, making it impossible to include patient data in national reporting. Information on ART provision may be incomplete due to ongoing hostilities and lack of communication with some HCFs in Donetsk, Kherson, Zaporizhzhia and Luhansk oblasts.

Dynamics of number of people on ART compared to pre-war treatment levels



**88.7% of all people living with HIV on ART (107,300 out of a total of 120,980 people)** are on a fixed-dose regimen (1 tablet per day), which is more convenient and improves adherence to treatment. Of all ART patients, 87% are on a regimen containing the effective and safe drug dolutegravir (DTG), which has a high genetic barrier to resistance, extremely low toxicity, and a minimal drug-drug interaction profile. Furthermore, dispensing medications for a longer period of time is a priority to avoid potential interruptions in therapy and improve adherence. As of 01.04.2023, 38% of patients had a supply of medication for more than 6 months, 51% had a supply for 3 to 6 months, and only 11% had a supply for less than 3 months.

## HIV PREVENTION

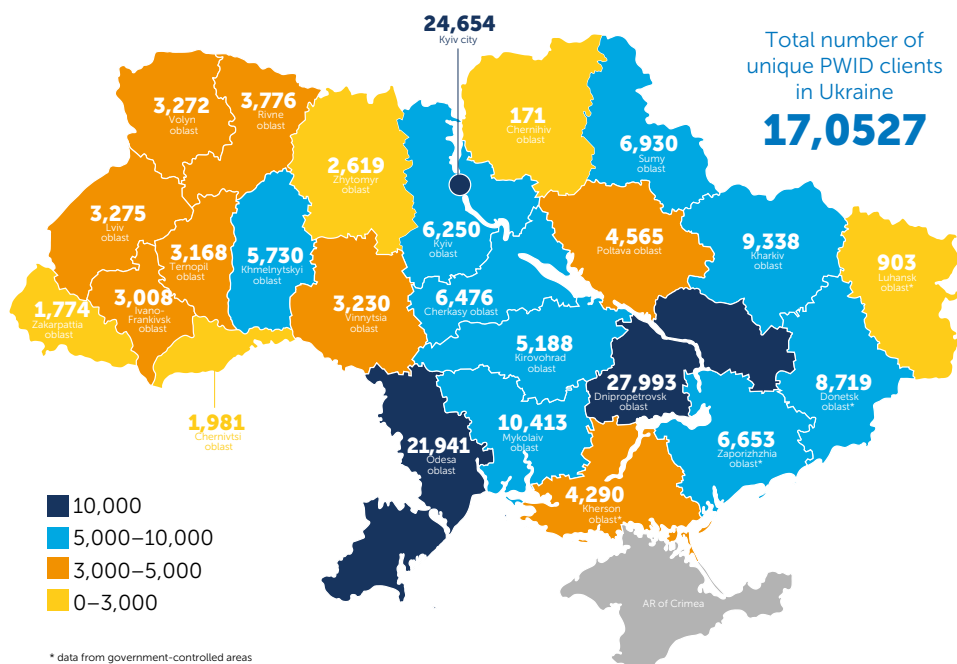
**In 2022, the planned indicators for coverage of key populations with prevention programmes were met by 84–87%, namely:** 84% for persons who inject drugs (PWID), 81% for sex workers (SWs), and 87% for men who have sex with men (MSM), which in absolute numbers amounts to 255,106 programme clients (including 43,159 SWs and 41,420 MSM).

99% of the target coverage of care and support services for PLHIV (31,419 people) was achieved.

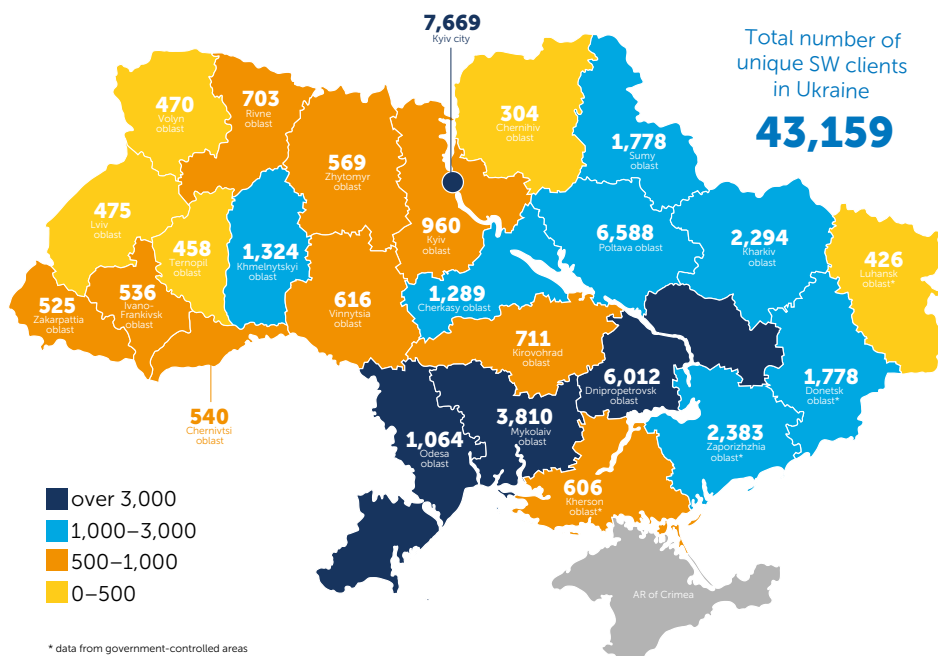
War-related migration led to an unplanned increase from 40% to 176% in the number of prevention programme clients from all key populations in the following western oblasts of Ukraine: Zakarpattia, Ternopil, Lviv and Ivano-Frankivsk. At the same time, the following eastern oblasts lost a significant number of clients (from 10% to 100%): Kharkiv, Sumy, Cherkasy, Donetsk, Kherson, Luhansk, and Chernihiv. As of April 2023, the programmes in Luhansk oblast have not been resumed. HIV prevention services are currently provided by 47 non-governmental organizations (NGOs) in 24 oblasts of Ukraine and the city of Kyiv.

Pre-exposure prophylaxis (PrEP) services were provided to 9,075 people in 2022. 1,795 new clients were engaged in Q1 2023, which is an increase of 33% compared to the same period in 2022 (1,204 in Q1 2022).

HIV prevention. Coverage of PWID in 2022 (number of people)  
according to programme reporting

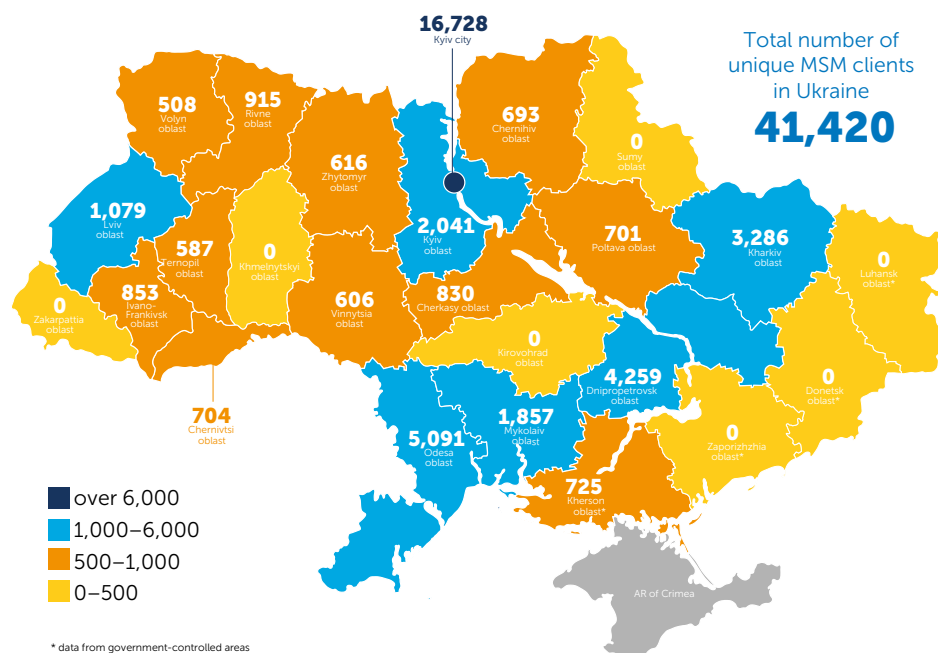


HIV prevention. Coverage of SWs in 2022 (people)  
according to programme reporting

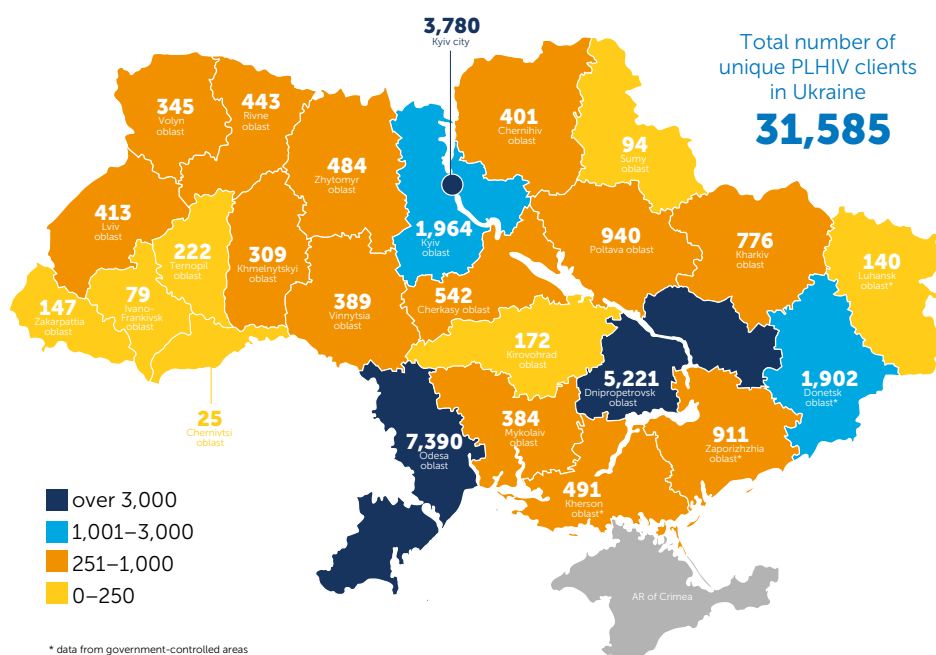




HIV prevention. Coverage of MSM in 2022 (people)  
according to programme reporting



HIV prevention. Coverage of PLHIV in 2022 (people)  
according to programme reporting



**In 2022, 9,075 people received pre-exposure prophylaxis services**, the majority of whom were MSM (42%), discordant couples and people with risk behaviour (37%), PWID (19%), SWs (2%), and transgender people (TP) (0.02%). New clients continued to be engaged in PrEP services: 6,926 people initiated PrEP between 01.04.2022 and 01.04.2023.

In 2023, Ukraine continues to actively engage new clients in PrEP services:

- 1,795 new clients were engaged in Q1 2023, which is an increase of 33% compared to the same period in 2022
- (1,204 people in Q1 2022).

# KEY CHALLENGES AT THE BEGINNING OF THE WAR

In Ukraine, the system for providing services to people living with HIV was developing rapidly. There were long-term plans. However, the Russian invasion brought its own adjustments. As a result, all services, and therefore the health and lives of people living with HIV, have been compromised.

## INTERNAL MIGRATION

People began to flee the cities and towns affected by the hostilities. **Millions of people** have migrated both within Ukraine and abroad. Patient pathways have changed, links between doctors and healthcare facilities have been lost, and the need to find new «points of entry» for receiving services has emerged. Each month, more than 3,000 IDPs living with HIV need services in their new place of residence. Most IDPs moved to the western regions of Ukraine: **two out of five IDPs** moved to Zakarpattia, Ivano-Frankivsk, Lviv, Ternopil, Khmelnytskyi or Chernivtsi oblasts, and one in ten people living with HIV who changed their place of residence chose the capital.

## EVACUATION ABROAD

WHO estimates that the number of adults living with HIV who will be displaced abroad could **exceed 30,000**. So far, the heaviest burden has fallen on Poland, Czechia, Germany, Moldova, Slovakia, Romania. According to the Information System for Monitoring of Socially Significant Diseases (SSD IS), as of 01.04.2023 there were 5,728 Ukrainians who have fled abroad since 24 February and were receiving ART.

## LOGISTICS PROBLEMS

Transport disruptions have delayed the timely delivery of the main stockpile of antiretrovirals and medical supplies for 2022. This has created a critical situation in terms of treatment provision and the risk of HIV treatment interruptions across the country, as well as in terms of monitoring treatment effectiveness.

## VIKTORIYA OVCHAROVA

**Statistician, M&E medical department, Kharkiv Oblast Clinical Centre for AIDS Prevention and Control, Kharkiv city**



*From the first day of the war, there were problems with public transport in Kharkiv. For those who lived outside the city, it was even more dangerous to get to Kharkiv. In a few days, it became impossible to travel by public transport at all, as there were daily air raids and artillery salvos. I and two other nurses — Albina Prozorova and Anna Savilova — were staying in Kharkiv. On the second day of the war, we took some of the drugs home. Albina and I live about 30 minutes walk from the AIDS Centre. We decided that Ania would dispense ART in Saltivka (a region of Kharkiv), while Albina and I would do it at the metro station. It lasted for a week. Shelling, air raids occurred several times a day. Many buildings and a market in Saltivka were destroyed. Ania left. The chief doctor came to the AIDS Centre several times a week when it was possible to get into the city.*

Patients were not always able to receive services unhindered due to active hostilities and occupation. They could not safely get to healthcare facilities to get tested or to receive drugs, and healthcare workers could not safely organize the delivery of blood samples from ART sites to oblast diagnostic laboratories because of shelling.

**IRYNA****Social worker, Chernihiv Network CO, Chernihiv city**

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From the first day of hostilities, Chernihiv was shelled almost around the clock. The occupiers used various types of weapons, including artillery, mortars, aerial bombs, rockets, and cluster munitions. As a result, our work was nearly halted. But we still had an extremely important task ahead of us — to provide treatment for our organization's clients. It was difficult to deliver drugs even within Chernihiv, as shelling could start at any moment, let alone from the almost surrounded Chernihiv to other oblast settlements. So I arranged with clients in Chernihiv to deliver ART to them at a specific time and place. But very often the shelling would start, the connection would be lost, and we would have to wait it out or run quickly under fire to the shelter. In my experience, you feel paralysed on the inside, but the fear fades with time, you come out of the shelter despite the air raid sirens or the shelling, because you understand that you just have to do it.

**OLENA SAMOILENKO****Nurse, «Dovira» office, Ye. Ye. Karabelash Kherson City Clinical Hospital MNE**

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The occupation was depressing. Transport did not work; mobile communication was poor. There was no humanitarian corridor into the oblast. I did not know how to look a patient in the eye and tell them we only had a month's supply of their medications. We are grateful to the volunteers who have occasionally been able to deliver ART to Kherson. We would get the drugs, take them home and then carry several packs through checkpoints to the clinic, trembling lest the occupiers find them in the bag. We made every effort to provide medicines to everyone who sought treatment. I recall being approached by two men who had been temporarily in Kherson and were unable to return home because of the active fighting in the early days of the war. They were concerned about the possibility of interrupting their treatment. Many patients from the left bank of Kherson oblast received medications from the Mangust ICF's mobile clinic.

**EVACUATION OF THE STAFF**

- **Some facilities have had to temporarily suspend operations due to significant damage to their premises** or temporary occupation. From the first day of the war to date, an average of 34 ART sites have not been functioning (as of 01.04.2023, 26 sites were closed). Since the beginning of the war, more than 20 hospitals providing services to people living with HIV have been damaged or completely destroyed in Kyiv, Donetsk, Zaporizhzhia, Mykolaiv, Luhansk, Kharkiv, and Chernihiv oblasts. Laboratories in Donetsk and Luhansk oblasts have temporarily suspended their operations. At present, Luhansk oblast is still occupied, and the laboratory has not resumed its work.
- **A part of the functioning ART sites was operating with some restrictions** due to the forced evacuation of the staff. Personnel responsible for HIV epidemiological monitoring was also forced to evacuate in some regions. Some facilities were only dispensing drugs, while others were closed or destroyed.

**DATA MONITORING AND STORAGE**

- **In Q1 2022, there was a lack of statistical data** for Kharkiv oblast, and partially for Luhansk and Donetsk oblasts. As a result, the number of HIV tests in Ukraine decreased by 36%, the number of newly registered HIV cases decreased by 30%, and the ART initiation rate in the new patients decreased by 32% compared to the same period in 2021.
- Access to the SSD IS in the temporarily occupied territories was suspended **to protect patients' personal data**. Thus, some data was lost.

## FUNDING

- **During the war, there were two more changes in the funding of HIV services.** Firstly, it was decided to return to the State Budget of Ukraine the funds allocated under the budget programme KPKVK 2301400 «Ensuring Medical Treatments under Separate State Programmes and Complex Programmatic Measures» for 2022–2023 for the procurement of antiretrovirals and medical devices for HIV/AIDS diagnostics in order to cover critical needs during the war.
- Secondly, **state funding for HIV prevention, care and support services for people living with HIV during the martial law was suspended** due to special requirements set out in a resolution of the Cabinet of Ministers of Ukraine. Following that, funds from the budget programme KPKVK 2301040 «Public Health and Measures to Combat Epidemics» were reallocated to cover other critical state needs related to the war. As a result, from January to May 2022, about 45 NGOs were at risk of not receiving state funding and suspending their services.

## RISKS OF HIV INFECTION

- Injuries, blood transfusions and sexual violence in Ukraine since the Russian army began its full-scale invasion **have increased the risk of HIV infection.**

# RESPONSE TO WAR-RELATED CHALLENGES

*«The future is not a straight line. We can take any path.  
The most important thing is to understand that the future is up to us».*

We had to act quickly in the early days of the war, overcoming fear and chaos to avoid interruptions in HIV treatment and prevention. We managed to withstand and ensure the continuity of treatment and facilitate the continued provision of HIV services in the context of war.

## MANAGERIAL DECISIONS AND ADAPTATION OF THE HIV SERVICE SYSTEM IN THE CONTEXT OF WAR

- Patients who had moved temporarily could receive ART at the point of care, i.e. where they were actually staying, rather than at the place of registration. The Center developed such recommendations, which were sent to service providers during the first week of the full-scale invasion and immediately implemented in the regions. Relevant recommendations were also prepared for ART monitoring using the SSD IS. The rapid response and reallocation of funds to the regions in the face of intensive migration enabled clients of prevention programmes to receive HIV prevention, care, and support services for people living with HIV. The eligibility criteria for the HIV care and support programme were expanded, allowing a wider range of beneficiaries to access services during the war and ensuring support for all those in need.

## REDISTRIBUTION OF AVAILABLE STOCKS AMONG THE REGIONS AND STOCKPILING

- During the first two weeks of the war, the Center worked with partners to redistribute and deliver ARV drugs throughout Ukraine. To ensure the continuity of ART treatment for all patients, in particular for IDPs, drug stocks were established in healthcare facilities in the central and western oblasts. Moreover, during the martial law, data on monthly ARV consumption and remaining drugs was collected, consolidated, and verified across the regions of Ukraine. This enabled all the stakeholders to respond quickly and prevent drug stock-outs.



## PROCUREMENT OF ARV DRUGS WITH DONOR FUNDS

- The Center negotiated with donors and partners to ensure the continuity of treatment. As a result, with the support of the US President's Emergency Plan for AIDS Relief (PEPFAR), 209,600 packs of tenofovir 300 mg/lamivudine 300 mg/dolutegravir 50 mg (TLD) No. 90 and drugs for other ART regimens were urgently procured to avoid treatment interruptions. The procurement of drugs using donor funds and their delivery in April 2022 enabled ARV drugs to be dispensed to patients for a period of 3 to 6 months. Jointly with the WHO, the nomenclature was approved, and the calculation for the 100% demand of ARV drugs and medical supplies in 2023 was made to be procured with donor funds from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the GF) and PEPFAR for a total amount of USD 12 million.

## ART SUPPLY CHAIN RESTORED

**Through close and coordinated collaboration with donor, partner and volunteer organizations,** a number of immediate managerial decisions were implemented to restore the supply chain and ensure continuity of treatment for thousands of HIV patients during martial law. In particular, the delivery of ARV drugs to all regions of Ukraine was ensured in order to provide continuous ART to more than 120,000 HIV patients.

Communication was also maintained with specialists from facilities providing ART to HIV patients in the regions where active hostilities were taking place (Donetsk, Zaporizhzhia, Mykolaiv, Luhansk, Kharkiv and Kherson oblasts) allowing a number of critical issues related to treatment continuity to be addressed. ARV drugs were also delivered to Ukrainian citizens in the temporarily occupied territories with the assistance of the Red Cross, Médecins Sans Frontières, 100% LIFE CO, Alliance for Public Health ICF, volunteers, etc.

### **Employee, Kherson Oblast Centre for AIDS Prevention and Control, Kherson city**



*The oblast was occupied in the first days of the war. For some time, there was no transport connection between the settlements. In the absence of «green corridors», there was a risk of treatment interruptions due to the total depletion of drug stocks in the oblast. However, with the help of Mangust Kherson Oblast CF, volunteers and in collaboration with the Mykolaiv Oblast Centre for Palliative Care and Integrated Services and the PHC of the MoH of Ukraine, this problem was partially solved. They were delivering the drugs to Mykolaiv and then (risking their lives and using their own transport) to Kherson. In fact, the delivery from Mykolaiv to Kherson was carried out by volunteers and ordinary citizens, residents of Kherson oblast.*

## OPERATIONAL RESPONSE AND REGULATORY FRAMEWORK DURING THE WAR

- **An algorithm was developed to collect and exchange information on ART dispensing to facilities** disconnected from the SSD IS due to occupation, telecommunication problems (Internet, telephone connection) or power outages. The record keeping procedure for PLHIV and HIV-exposed children during the war, especially for IDPs, was explained to doctors of healthcare facilities providing medical follow-up to people living with HIV. The relevant guidance on record keeping for IDPs was developed and provided to the responsible actors. Clinical patient pathways were updated to reflect the displacement of IDPs. In the midst of the military aggression, work continued on the regulatory framework: amendments were made to the Law of Ukraine «On Counteraction to the Spread of Diseases Caused by Human Immunodeficiency Virus, and on Legal and Social Protection of People Living with HIV», and standards of care for HIV prevention, diagnosis, and treatment were updated.

## RE-ENGAGEMENT IN CARE

- At each ART site, the Center and the Alliance for Public Health ICF made an active effort to track patients who had missed their appointment at a healthcare facility. The patients were reached through various applications (phone, Viber, WhatsApp, Telegram, etc.). Remote meetings were held in each region to intensify work in this area. Every week, the results of patient tracking in the regions were discussed, and relevant information was entered into the SSD IS. The active search for patients lost to follow-up has enabled doctors to re-engage 67,000 patients since the beginning of the war.

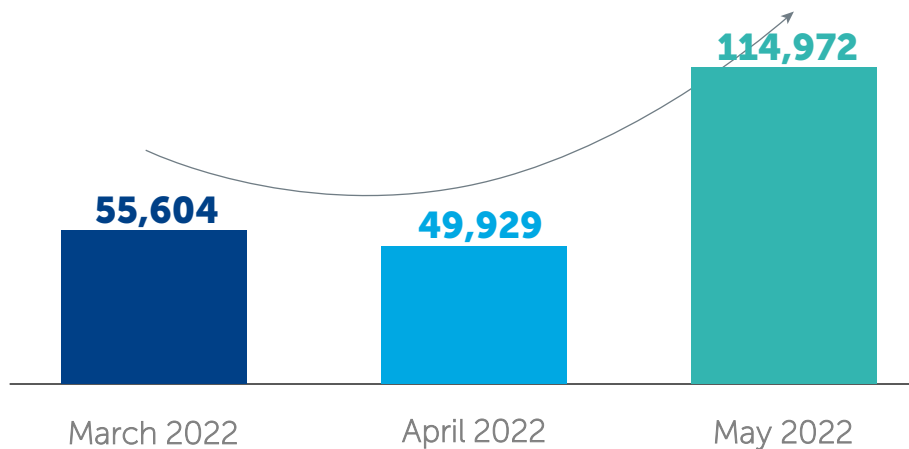
## HIV SERVICES FOR UKRAINIANS ABROAD

- **For people with HIV who have left Ukraine and need continuous treatment,** a clinical management protocol for data exchange between doctors in Ukraine and abroad has been developed in partnership with the World Health Organization (WHO), WHO Collaborating Centre on HIV and Viral Hepatitis Centre of Excellence for Health, Immunity and Infections (CHIP), European AIDS Clinical Society (EACS), Euroguidelines in Central and Eastern Europe Network Group (ECEE). Details: A standardised protocol for clinical management and medical data-sharing for refugees from Ukraine who are PLHIV has been developed. Based on this protocol, an algorithm has been developed for the exchange of medical data between doctors providing medical care to people living with HIV who have ended up abroad because of the war. Patients now also have the option to submit a request to their attending doctor if they find themselves in a situation where they have no confirmed information about the care they received in Ukraine.

## PROMPT REPORTING

- **Since the beginning of the military aggression, the Center has provided the HIV Hotline with timely updates and verified information** on the operation of ART sites and healthcare facilities providing medical care to PLHIV. During the first days of March 2022, a week after the full-scale invasion, the Alliance for Public Health ICF developed and launched a unique service to support people living with HIV and key populations who face difficulties in accessing treatment and other life-saving services. Together with the Center, the HelpNow service has provided a possibility to contact a team of specialists who can promptly refer to receive necessary services in a new (temporary) place of residence.
- **An information campaign on the availability of HIV services** was launched to raise the patients' awareness of where they can go for HIV testing and ART continuation, both within the country and abroad. The #ARTporuch (#ARTnearby) platform and Telegram chatbot were rolled-out with the support from USAID's Innovation to Overcome the HIV Epidemic project to help finding the nearest ART sites in Ukraine and abroad, as well as the #TESTporuch (#TESTnearby) website and Telegram chatbot to promote free HIV testing for at-risk populations and help finding the best routes to testing sites.

HIV prevention services after the beginning of the full-scale invasion  
(number of clients)



## HIV PREVENTION SERVICES

**Despite the State Budget deficit,** NGOs received funding for HIV prevention services provided to key populations (PWID, SWs, MSM) and for care and support of PLHIV, thanks to the cooperation of all major beneficiaries and the Global Fund, with the active participation of the Center. From Q2 2022, the algorithm for transitioning service funding from the State Budget to GF funding has been developed.

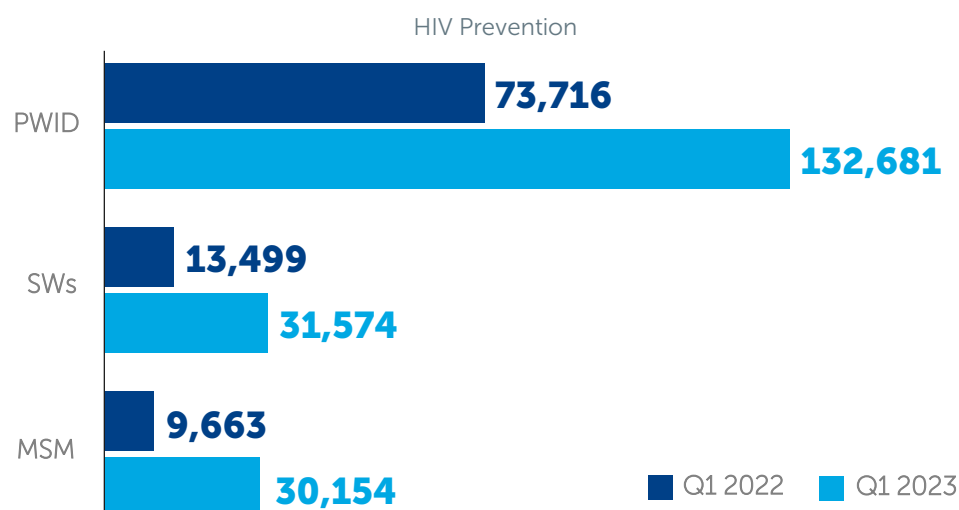


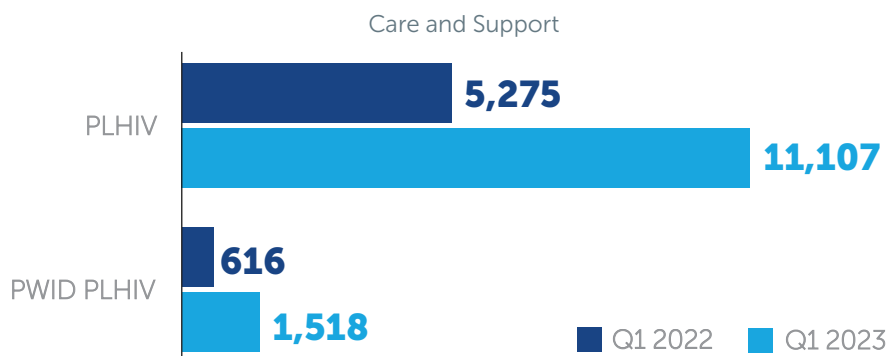
HIV testing in Sumy

**The number of clients increased significantly in Q1 2023** compared to the same period in 2022. HIV prevention services were provided to 73,716 PWID, 13,499 SWs, and 9,663 MSM in Q1 2022, and to 132,681 PWID, 31,574 SWs, and 30,154 MSM in the same period in 2023.

In Q1 2023, care and support services for people living with HIV reached 11,107 PLHIV and 1,518 PLHIV who inject drugs compared to 5,275 PLHIV and 616 PLHIV who inject drugs in the same period in 2022.

The successful interaction and coordinated work of all partners have ensured stable service delivery to clients and maintained the structure of peer-to-peer and NGO prevention services.





**Social worker, «Our Future» Rivne oblast CF, Lutsk city**

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Many clients have left their city (country), but it is important to note that the number of clients has increased because of the IDPs. The question arose: how can we ensure both our own safety and that of our clients when providing services? Together with our colleagues, we decided that we should definitely continue providing services. So we started looking for a solution! Therefore, we made changes to our Needle and Syringe Programme (NSP), taking into account client preferences and the location of shelters in the city, so that in the event of an air raid alert we would be able to find shelter and safely provide services to the project clients.

**Despite the war, Ukraine keeps making plans for the future.** Disease prevention is the best way to protect individual and public health. Despite the forced migration of the population, and thanks to the continuation of PrEP services in areas of active hostilities, every patient at high risk of HIV infection was able to receive PrEP drugs in the place of their actual stay. Except for Luhansk oblast, all regions of Ukraine had supplies of PrEP drugs as of 01.04.2023. A national meeting on PrEP implementation in Ukraine was held in November 2022, and a joint action plan in this area was developed. Ukraine is steadily improving HIV prevention measures and has been selected to introduce long-acting injectable cabotegravir (CAB-LA) as PrEP in Q1 2023. In collaboration with partners, a working group has been established to organize the introduction of injectable HIV prevention drugs and to plan actions for the successful introduction of CAB-LA in Ukraine.



Kharkiv oblast

**IN ORDER TO IMPROVE ACCESS TO PEP AND REDUCE THE RISK OF HIV INFECTION, THE CENTER HAS IMPLEMENTED THE FOLLOWING MEASURES:**

- The algorithm for HIV post-exposure prophylaxis (PEP) has been updated.
- The action algorithm has been provided to facilities and institutions in different regions where people may seek care after the exposure to HIV.
- PEP drugs have been made available at the respective healthcare facilities in each oblast, with the possibility of 24-hour access.
- A series of PEP webinars and meetings with service providers has been launched.



- Together with partners and donor organizations, the Center has started work on providing PEP to survivors of gender-based violence. The Center has also contributed to improving the regulatory framework and inter-sectoral cooperation, and has developed a video course and information materials on medical care provision, including HIV, viral hepatitis and STI testing, post- and pre-exposure prophylaxis in emergencies (during the war).

### MAKSYM

#### **Social worker, HIV prevention among MSM, Zhytomyr city**

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*We wrote to all our clients on messengers, asking where they were and if they were okay. I remember how relieved we were when they wrote back and how scared we were when there was no reply. Cold March, but warm meetings at our community centre. The clients who stayed in Zhytomyr needed not only prevention services, but also humanitarian and psychological support, or just to hear a kind word or good news. I remember when the air-raid alarms went off, we would run outside and rush to a shelter, leaving the tests and sometimes even our things on the table. I remember a lot of things I would rather forget...*

#### **Social worker, Mangust Kherson oblast charitable foundation, Kherson city**

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*A social worker provides services to male and female sex workers according to a schedule; during hard times, we not only provide consumables such as condoms, lubricants and information leaflets, but also encourage clients to get tested for HIV, receive PrEP, and help them with food and clothing. We also counsel them on emergency contraception and where to go in case of danger or violence.*

### ASSISTING REGIONS IN MAINTAINING SERVICE SUSTAINABILITY

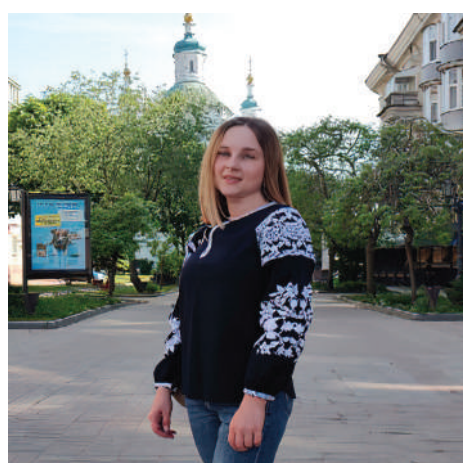
- **On 24 February 2022, we all woke up to a new reality.** Despite the full-scale invasion, rocket attacks and air raids, the Center and its partners continued providing technical support to specialists 24 hours a day, seven days a week, in the following areas: HIV prevention, testing and treatment.
- **29 offline technical assistance visits were carried out in 2022 and Q1 2023.** These included visits to Vinnytsia, Lviv, Kharkiv, and Chernihiv oblasts in 2023. There were also 5 online visits to regional ART sites during this period. Based on the results of each visit, meetings were held with the leadership of the Department of Health of the Oblast State Administration (OSA) to discuss the regions' achievements in ensuring the sustainability of health services for PLHIV in the context of war and active hostilities, address issues and challenges, identify solutions and provide the necessary support. In collaboration with partners, we held quarterly online meetings with all regions on tracking patients lost to ART.
- **To provide training and updated information, 24 online webinars** on HIV issues were held in the regions, with coordination by areas (PMTCT, testing, treatment, PrEP, and M&E).
- **In addition, regular working groups were held** on PrEP, PEP, PMTCT, sustainability of HIV prevention, testing, care and support services, and development of regulatory and legal framework.



Round table in a shelter in Ivano-Frankivsk oblast



Technical assistance visit (Rivne oblast)



Monitoring visit (Sumy oblast)

## OUR ACHIEVEMENTS

- A person living with HIV can receive treatment in any part of Ukraine, regardless of where they live.
- Urgent procurement, delivery and distribution of ARV drugs based on regional needs have been ensured, and drug stockpiles have been organized.
- Donor support has ensured that treatment for PLHIV continues uninterrupted, and the next procurement is already being planned, taking into account potential risks.
- The supply chain for drugs and medical supplies to frontline areas under martial law has been restored to ensure continuity of treatment for thousands of HIV patients. It became possible thanks to close collaboration with partners.
- In the event of an emergency, the regions have an algorithm for collecting and exchanging information on ARV drug dispensing and ART provision; different scenarios have been considered and detailed algorithms developed.
- From March 2022 to March 2023, active efforts were made to communicate with patients who had not attended healthcare facilities on time, and 67,465 patients were re-engaged in care.
- During the war, continuous post-exposure prophylaxis and other HIV prevention services have been provided. Indicators returned to and exceeded pre-war levels.
- A person living with HIV who has left Ukraine can receive treatment thanks to established cooperation between doctors, partners, and user-friendly organizations, as well as a quick algorithm for data exchange between doctors developed with support of the WHO.

- Platforms and chatbots launched in the first days or weeks of the war, such as the ARTporuch (ARTnearby) chatbot and the HelpNow service, as well as the continuous and thorough work of the HIV/AIDS hotline, have made information about access to ART available in a few clicks.
- An operational plan has been developed to restore HIV prevention, diagnosis, and treatment services.



**LARYSA HETMAN**

**Head, Department for Coordination of HIV Diagnostics and Treatment Programmes**

*Resilience, humanity, patriotism and service to the profession have been tested during 16 months of full-scale war in Ukraine. I am amazed at how healthcare workers, social workers, volunteers at ART sites and HCFs where HIV services were provided before the full-scale invasion have passed these tests. They have all clearly demonstrated that being a healthcare worker is a true calling for them. I express my respect and gratitude for helping and supporting patients, protecting and sheltering them, providing medicines and prevention, and sometimes just a kind word. Those for whom we all work in public health sector. I am also proud of my colleagues. We are all a «team» and a «family» in our department. Despite the terrible events in Kyiv at the start of the Russian invasion, despite the difficult winter, without electricity, heating or internet, we found a thousand and one ways to manage programmes, organize logistics, monitor the availability of medicines and deliver aid to places where there had been fighting and occupation. We found the strength to work, to ignore our own fatigue and fears, knowing that people's lives and health depended on us. As a result, for me, the time since the beginning of the full-scale invasion has been a time of PEOPLE and for PEOPLE.*

## OUR PLANS

- **The war is not over, which means that the risks of interruptions to HIV prevention, diagnosis and treatment services remain,** both from a public health perspective and at an individual level. Our mission is to ensure the sustainability of service provision, to maintain previous years' achievements and to prevent the spread of HIV infection.
- Despite the war, Ukraine keeps making plans for the future. We should move forward, restore services, and implement best practices.
- Constant stress, tension and working in extreme conditions will require mental health support for both patients, social workers and healthcare professionals.
- Initiatives to address these issues are already underway in Ukraine, and it is critical to integrate mental health support services in the HIV service cascade.
- Building the capacity of NGOs, strengthening the training component for social workers, and coordinating all partners providing services at the NGO level are priority areas for the near future.
- We will continue to work on measures such as a capable regional network of healthcare facilities, quality assurance of services, mentoring support for service providers, rapid response to challenges and changes in patient pathways.
- Disease prevention is the best way to protect individual and public health. Pre-exposure prophylaxis is a proven and effective way to prevent HIV infection. We intend not only to expand the programme, but also to introduce innovative approaches. Ukraine has been selected to introduce long-acting injectable cabotegravir (CAB-LA) for PrEP.





- Population migration, changes in patient pathways, loss of communication with healthcare facilities, temporary occupation, and changes in treatment regimens are all factors that reduce treatment effectiveness. In the near future, it will be necessary to ensure the scale-up of the HIV treatment programme, conduct thorough monitoring of ART effectiveness, implement a method of delivering HIV services through telemedicine, and bring services closer to patients by dispensing ART drugs through pharmacies.
- Despite the war, we will keep working to improve the regulatory framework, update training programmes, and hold webinars, trainings, and workshops.

## OUR TEAM





## TUBERCULOSIS

*We have not lost faith, but we have transferred it from God to the medical profession.*

*George Bernard Shaw, writer*

**Tuberculosis (TB)** is another disease that is curable but not eradicated. However, it is both preventable. TB affects 10.6 million people worldwide today, according to the WHO. It is estimated that 1.5 million people die from the TB every year. TB is the 13th leading cause of death worldwide. And it follows COVID! The disease is prevalent in all countries and among all ages.

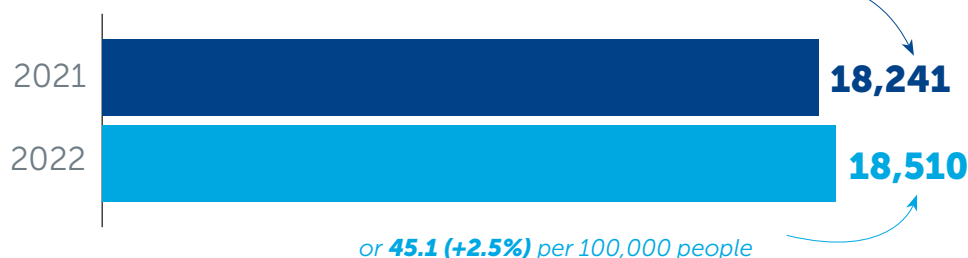
**In Ukraine, more than 18,500 people currently have TB.** In 2022, the incidence of TB increased by 2.5%. The war also had an impact on the spread of the disease.

The TB care sector has undergone critical changes:

- damage to healthcare facilities providing care to people with TB in 13 oblasts of Ukraine (Kharkiv, Chernihiv, Sumy, Luhansk, Kyiv, Donetsk, Zaporizhzhia, Mykolaiv, Dnipropetrovsk, Zhytomyr, Cherkasy, Kherson) and the city of Kyiv;
- uneven burden on the healthcare system in the regions due to the migration of doctors and patients (most TB facilities are affected in the east and south, while most IDPs seek refuge in the west);
- the risk of spreading infectious diseases, including TB, due to overcrowding in damp shelters, malnutrition and constant stress;
- the focus of medical care shifted to injuries, wounds, burns, fractures, etc.;
- the absence or limited functioning of public transport as a barrier to movement and access to healthcare facilities;
- increased risk of treatment interruptions as the availability of drugs and access to healthcare professionals is limited or non-existent in areas of where fierce fighting is ongoing;
- disruptions in drug supply chains and systems;
- loss of control over the administration of anti-TB drugs and difficulties in properly monitoring the treatment of patients from other areas;
- insufficient funding of TB services;
- staff shortages and, as a result, inability to ensure the full operation of a healthcare facility;
- the need to restore expensive equipment destroyed by the enemy for comprehensive TB diagnostic services.

### Number of newly diagnosed TB cases in Ukraine

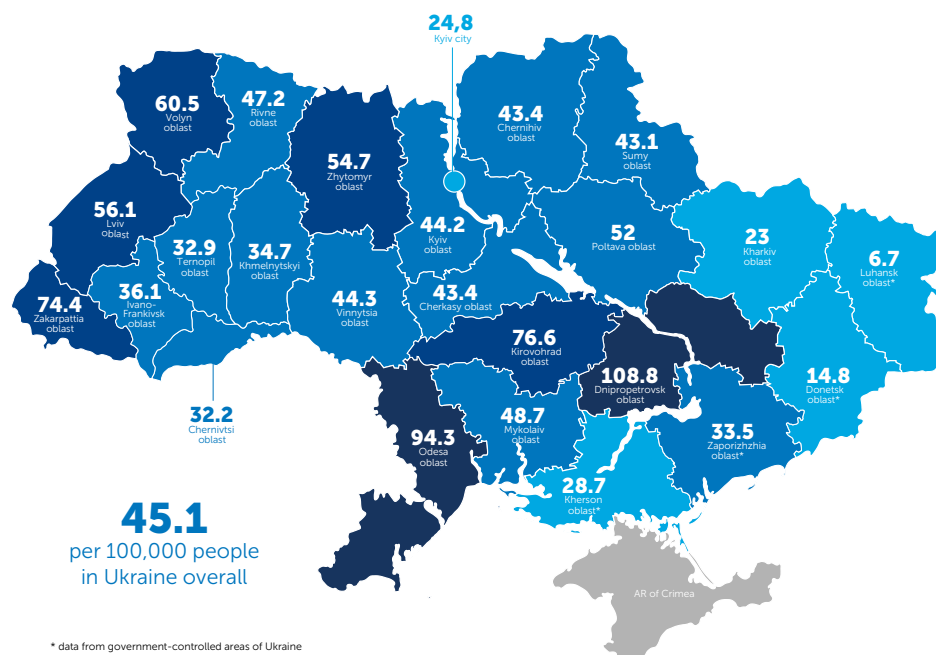
or **44** per 100,000 people



### TB INCIDENCE IN DIFFERENT POPULATION GROUPS

- **TB incidence rate in children under 14 years** remained at the same level as in 2021 — 7.4 per 100,000 children (450 cases). In adolescents it fell by 17.6%, from 12.5 to 10.3 per 100,000 people aged 15–17 years (127 cases). Compared to 2021, the incidence of active TB in combination with diseases caused by HIV decreased from 6.5 to 6.1 per 100,000 people (2,490 cases). In 2022, the incidence of TB in healthcare workers in Ukraine decreased to 148 cases (152 cases in 2021).

### TB incidence, including relapses



### VOLODYMYR

#### Patient from Chernihiv oblast, continued to receive treatment despite active fighting

Volodymyr, a drug-resistant tuberculosis patient, watched from his hospital window as the roofs of neighbouring houses burned. «I heard explosions in the morning. They were initially far away, but they came closer and closer. I was not afraid because I had survived the first phase of the war in Luhansk oblast. The bombing continued for several days, then everyone took their belongings, and we were evacuated,» says Volodymyr.

**SERHII****Patient from Kharkiv oblast, forced to look for new ways to receive medical care due to the Russian army aggression**

77

I fell ill in November 2021 and was forced to leave my work in Kharkiv and return to my native Sumy oblast. I was hospitalised with a fever and diagnosed with pneumonia. But the treatment failed, as a result — a new round of examinations and... tuberculosis. The adjustment of the treatment regimen and the prescription of effective drugs for outpatient treatment allowed me to return to my usual life and work. I received the necessary supply of medication in my hometown and returned to work in Kharkiv. Soon after, Russian troops invaded Ukraine and started attacking Kharkiv. I had a limited supply of drugs, but I could not leave the city to get them in Sumy oblast.

## KEY CHALLENGES AT THE BEGINNING OF THE WAR

**LOGISTICS PROBLEMS**

- With the development of active hostilities, especially in the eastern and southern oblasts of the country, the issue of ensuring patients' continuous access to anti-TB drugs became pressing.

**INTERNAL MIGRATION**

- According to preliminary data, there were about 300 TB patients among the IDPs — they moved mainly to Lviv, Poltava, and Dnipropetrovsk oblasts.

**EVACUATION ABROAD**

- More than 200 patients fled abroad (the vast majority — to Poland, Germany, Czechia and Moldova). This was another area that required the attention and care from state institutions, international partners and NGOs.

# ≈300

According to preliminary data, there were about 300 TB patients among the IDPs — they moved mainly to Lviv, Poltava, and Dnipropetrovsk oblasts.

# >200

More than 200 patients fled abroad (the vast majority — to Poland, Germany, Czechia and Moldova). This was another area that required the attention and care from state institutions, international partners and NGOs.

Regions where healthcare facilities providing TB care were damaged



TB facility in Chernihiv oblast

#### **ZHANNA KARPENKO**

**Medical Director, Chernihiv Oblast Medical Centre for Socially**

**Significant Diseases Municipal Nonprofit Enterprise of Chernihiv Oblast Council**

*We were in the midst of active hostilities from the very first days of the war. All the premises came under fire from enemy artillery, bombardments, as well as missile and air strikes, causing significant damage. About 80% of the windows in the facility buildings were shattered, and power lines were damaged. On 1 March, healthcare workers and patients of the facility were evacuated to the Chernihiv Raion Hospital MNE, but the enemy shelling also began in that area. On 16 March, the facility was evacuated again to the infectious disease department of the children's hospital, where we have stayed to this day. At the time, our facility was operating in difficult conditions, lacking its own premises, the necessary number of staff and essential medicines. However, we survived, did not lose heart professionally or morally, and continued to meet the needs of our patients. To date, almost the entire range of medical services has been completely restored.*

## EVACUATION OF THE STAFF

- As a result of continuous enemy shelling, many healthcare facilities in frontline regions were partially or completely destroyed, making TB diagnosis and treatment services temporarily unavailable. In addition, during the first weeks of full-scale war, a large part of the country was occupied, posing the urgent problem of evacuating medical personnel to safer areas. Despite the high risk to their own lives, many doctors stayed on the ground and continued to provide services.

## DATA MONITORING AND STORAGE

- The constant displacement of people, power outages, destruction of facilities and other consequences of the invasion made monitoring and information storage more important than ever. There was a lack of data from Luhansk, Donetsk and part of Kharkiv oblasts in Q1 2022, which affected statistical information and reporting for that period. To protect patients' personal data, it was decided to restrict access to medical information systems in frontline and temporarily occupied areas, which might result in the loss of some information.

## FUNDING

- The war has resulted in limited state funding for the health system as it has been diverted to meet urgent military needs, creating the risk of financial gaps in the procurement of medicines. Among other things, the GF procured anti-TB drugs and provided logistical support, which had been disrupted due to the war. Additional emergency funding of USD 10,320,000 was approved in February 2023 to continue this support, part of which was used to purchase anti-TB drugs.

## RISKS OF TB INFECTION

- Constant overcrowding in damp shelters due to missile attacks, malnutrition and the constant stress of war have increased the risk of infectious diseases such as tuberculosis.

# RESPONSE TO WAR-RELATED CHALLENGES

We were able to quickly develop a systematic approach to address new challenges in TB control and treatment. The Center developed the National Action Plan for Providing Medical Assistance to People with Tuberculosis During Martial Law or State of Emergency of 16 February 2022.

## MANAGERIAL DECISIONS AND ADAPTATION OF THE TB TREATMENT SYSTEM IN THE CONTEXT OF WAR

- A range of managerial measures have been implemented to restore the supply chain during martial law to ensure continuity of treatment for patients in close cooperation with partner/ volunteer organizations;
- human resources have been mobilised to provide qualified and timely assistance to civilians and military personnel;
- the National Medical Commission's uninterrupted operation is ensured with the support of the Center.

## REDISTRIBUTION OF AVAILABLE STOCKS AND STOCKPILING

- Support has been provided for the supply of humanitarian and charitable aid to regional phthisiopulmonology centres affected by the Russian armed aggression;
- the facilities' need for bulletproof vests, helmets, gas masks, chemical protection suits, medicines, consumables for biochemical testing, respirators has been finalised;



- continuous delivery of consumables to the TB laboratories in Ukraine has been ensured;
- Xpert/MTB/Ultra cartridges have been provided for the detection of tuberculosis in the military.

### PROCUREMENT OF MEDICINES WITH DONOR FUNDS

- In order to avoid financial risks associated with the hostilities and make better use of state budget funds, the MoH of Ukraine, in collaboration with the Center, negotiated with the Global Fund to attract additional extra-budgetary funds for the purchase of anti-TB drugs.

### RESTORATION OF THE SUPPLY CHAIN AS A RESULT OF COLLABORATION WITH DONOR, PARTNER AND VOLUNTEER ORGANIZATIONS

- From the first day of the war, the Regional TB Service, in coordination with the Center, took urgent measures to adapt to the new realities so that each of our patients could continue their TB treatment. Additional security measures were put in place, and access to drugs, medical and social services was ensured.
- The Center urgently identified the needs of TB facilities, both those that had not been directly affected by the war and those that had been damaged or destroyed, and coordinated the involvement of donors and partners to procure essential equipment, drugs, protective equipment, hygiene items, and food.
- Methodological assistance has been provided on the ground, including visits to facilities providing TB medical care in Kyiv, Vinnytsia, Zhytomyr, Chernihiv, and Khmelnytskyi oblasts. This helped to determine the level of preparedness of facilities to operate in the context of hostilities and the level of assistance needed to ensure quality treatment. It should be noted that the regional TB services demonstrated a high level of professionalism, cohesion, courage and commitment, with the priorities and needs of patients being the main focus.
- In the first days of the war, the Center in partnership with the 100% LIFE CO and the Alliance for Public Health ICF, elaborated changes in approaches to the implementation of medical and psychosocial support to TB patients, in order to provide a more flexible and individualised approach to each person facing the problem of tuberculosis.



## OPERATIONAL RESPONSE AND REGULATORY FRAMEWORK DURING THE WAR

A separate area of activities of the Center and the MoH of Ukraine was the improvement of the regulatory framework. Bringing it in line with EU law was one of the Center's priorities before the war, and it remains important today. The Order of the MoH of Ukraine of 16.02.2022 No. 302 «On Approval of the Procedure for Detection of Tuberculosis and Latent Tuberculosis Infection», developed with the input from the UPHC, was approved.

This Procedure is aimed at regulating the relevant legal relations on the organization of the detection of people with tuberculosis and people with latent tuberculosis infection. The document outlines a clear procedure for systematic tuberculosis screening at various organizational levels, as well as the functions of healthcare facilities related to active and/or passive TB/LTBI detection in specific risk groups and the general population.

## RE-ENGAGEMENT IN CARE

- The principle of extraterritoriality was introduced allowing a TB patient to receive medical care in the region to which they had been evacuated during the war.
- A system for monitoring and registering internally displaced TB patients and TB patients who were forced to move abroad was established in order to ensure their continuous treatment.
- The evacuation of TB patients from Luhansk and Donetsk oblasts and children from the city of Zaporizhzhia was coordinated to ensure their safety and save their lives. The MoH of Ukraine, military administrations, regional TB services of these regions, as well as Dnipropetrovsk, Lviv, Ivano-Frankivsk oblasts, volunteers, branches of the 100% Life Network Zaporizhzhia CO were involved in the evacuation.
- As part of the support services, TB medicines were provided to people undergoing TB treatment for 30 days or more.



Ukrainian doctors have completed a course on the treatment and management of drug-resistant TB.

## TB TREATMENT SERVICES FOR UKRAINIANS ABROAD

- Establishing contact with clinics abroad and supporting patients: in coordination with the WHO/Europe and in close cooperation with the Public Health Center, information was collected on where treatment could be provided abroad, contacts were established with foreign HCFs, and regular statistics were collected on patients leaving the country. Specialists of the Center provided support to such patients and also issued and translated certificate forms into English.



## PROMPT REPORTING

- A system for monitoring and registering internally displaced TB patients and TB patients who were forced to move abroad was established in order to ensure their continuous treatment;
- the evacuation of TB patients from Luhansk and Donetsk oblasts and children from the city of Zaporizhzhia was coordinated to ensure their safety and save their lives.

## NATALIIA HONCHARENKO

### Head of Laboratory, Kyiv city «Phthisiology» Municipal Nonprofit Enterprise

*The staff of our laboratory could not stay away from the difficult situation with TB diagnosis, which has developed in Kyiv and Chernihiv oblasts due to the hostilities. The laboratory staff perform all the necessary laboratory tests to diagnose and monitor the treatment of tuberculosis patients in these oblasts. We understand how important it is for patients to receive timely test results, as case management and a patient's future depend on them.*



## PREVENTION SERVICES AFTER THE FULL-SCALE INVASION

Together with the MoH of Ukraine, 6 portable X-ray machines were purchased, which have a number of advantages in a war context.

The National Medical Commission, supported by the Center, has advised on more than 1,000 cases where clinical tactics are difficult to determine. Each story was unique, and the best solutions were sought in each case.

With the support from the Global Fund, the capabilities of the microbiological laboratory of the Kyiv city «Phthisiology» Municipal Nonprofit Enterprise were involved for the period of closure of TB laboratories in Kyiv and Chernihiv oblasts. Measures were taken to fully restore the operation of these laboratories:

- assistance was provided in transporting biological material samples for TB detection and treatment monitoring by covering logistics costs in Vinnytsia, Volyn, Ivano-Frankivsk, Kyiv, Rivne, Sumy, and Chernihiv oblasts (36 visits were conducted);
- new XDR cartridges were introduced for the first time; as a result, the average time to treatment prescription for patients with extensive drug resistance is 4.2 days (the average period between detection of resistance and treatment initiation), which is several times faster than before the war. The National Medical Commission, supported by the Center, provided consultation to more than 300 patients for whom clinical tactics were difficult to determine. The best solutions were sought in each case.



Chernihiv oblast, the consequences of numerous Russian attacks and shelling

#### **IN ORDER TO IMPROVE ACCESS TO TREATMENT AND REDUCE THE RISK OF TB INFECTION, THE CENTER HAS IMPLEMENTED THE FOLLOWING MEASURES:**

- In most regions where there is no active hostilities, treatment of patients with shorter, modified regimens continues as part of operational research, and as of 24 May 2022, 886 patients with drug-resistant tuberculosis were on treatment.
- Together with partners, equipment was purchased to restore the operation of the Chernihiv TB facility, the building of which was destroyed by the invaders.
- Modern molecular genetic GeneXpert systems were installed in coordination with the Center.
- Phthisiopulmonology centres in Chernihiv, Luhansk, Kherson, Zaporizhzhia, and Kharkiv oblasts were provided with support of humanitarian aid during hostilities.

#### **PROVISION OF MEDICINES**

- Support was received from the Global Fund, and agreements were reached on the full allocation of funds to purchase drugs for people with TB.
- In direct coordination with the Center, the delivery of drugs and consumables to Chernihiv was organized after the complete destruction of the facility during active hostilities, as well as the delivery of first-line anti-TB drugs to temporarily occupied Kherson.

#### **LYUBOMYR RAK**



*A large amount of equipment was also moved away from the frontline. We organized remote work for the specialists who had left Kramatorsk and paid the staff who were on forced leave. For some time, our facility partially suspended normal operations, but we continued to provide consultative medical care, supply anti-TB drugs, communicate with the oblast primary care physicians in charge of TB detection, and monitor treatment. The authorities offered evacuation, but not everyone took up the offer: some people, including our patients, stayed at home. And this was key factor in resuming the work of the facility's dispensary departments. We knew we had made the right decision when the deterioration of social and living conditions, combined with constant stress, increased the number of people who needed our help. Another pressing issue requiring immediate attention was the relocation of the oblast medical warehouse, which was located in a dangerous zone of active hostilities. And we succeeded. With the help of volunteers, we have set up a system to deliver the necessary medicines to various parts of Donetsk oblast and to ensure treatment continuity for people with tuberculosis, which is critical for a positive outcome. WE ARE HOLDING THE LINE AND MOVING FORWARD. The TB situation in Donetsk oblast is currently complicated and tense. Nevertheless, medical care is being provided in a timely manner: we have established continuous treatment monitoring, cooperation with primary healthcare doctors, general practice healthcare facilities, colleagues from TB services in other oblasts, humanitarian organizations, and interaction with the Ministry of Health and the Public Health Center. These measures, together with the dedication and courage of our team, have ensured that the facility is now up and running. We are doing our best to keep the epidemiological situation in the oblast and the city under control and to reduce the impact of the war on people living with TB, our patients and our staff.*

## WE HAVE LEARNED TO LIVE NEXT TO THE WAR: HOW A TB FACILITY IN DONETSK OBLAST BRAVELY WORKS ON THE FRONTLINE

Since 2014, Donetsk oblast has been subjected to Russian aggression. Despite the difficulties and hardships, the specialists at the regional TB facility have done everything in their power to ensure that people with TB receive high-quality medical care. And although the full-scale invasion has divided life into before and after, the medical staff at the Donetsk Oblast TB Centre remain dedicated to their profession and work next to the frontline.

Since 2014, the facility's team has been working hard to improve it and overcome all challenges, including treating patients, participating in international projects, purposefully reconstructing the facility, and upgrading diagnostic and laboratory equipment. And then — 24 February 2022... The day that cut everything in half, dividing space into before and after. There was no confusion, no panic, no fear. The team quickly realised that the situation demanded urgent managerial decisions. They had to be quick and balanced, with a well-organized implementation process. These few words were followed by many actions, approvals, meetings and discussions. And a clear conclusion: our first priority is the safety of patients and staff.

The team worked together to evacuate the inpatients. Everything was clearly planned, as we had discussed such options in advance, just in case — people were evacuated and continued their treatment at a tuberculosis facility in Lviv.



Under fire, this ambulance rescued people with tuberculosis.

### HALYNA KOVAL

**Medical Director, Chernihiv Oblast Medical Centre for Socially  
Municipal Nonprofit Enterprise of Kherson Oblast Council**

Thanks to the dedicated work of healthcare workers, the TB service in occupied Kherson and Kherson oblast operates as usual.

The Phthisiopulmonology Medical Centre has a polyclinic, a laboratory and an inpatient facility. In order to improve medical care for patients in their place of residence and to ensure continuity of treatment, specialists from the Phthisiopulmonology Centre work in each district of Kherson every weekday, as do raion TB specialists and primary care doctors in the oblast. As well as providing medical care, the specialists also supply patients with drugs. There are currently enough anti-TB drugs in the oblast to treat both existing and new patients. The drug stocks in the oblast's raion healthcare facilities are also the merit of the rapid response and distribution of drugs by the oblast's healthcare workers.



## OUR ACHIEVEMENTS

- We were able to quickly develop a systematic approach to address new challenges in TB control and treatment. The Center developed the National Action Plan for Providing Medical Assistance to People with Tuberculosis During Martial Law or State of Emergency of 16 February 2022.
- From the first day of the war, the Regional TB Service, in coordination with the Center, took urgent measures to adapt to the new realities so that each of the patients could continue their TB treatment. Additional security measures were put in place, and access to drugs, medical and social services was ensured.
- The Center urgently identified the needs of TB facilities, both those that had not been directly affected by the war and those that had been damaged or destroyed, and coordinated the involvement of donors and partners to procure essential equipment, drugs, protective equipment, hygiene items, and food.
- Methodological assistance was provided on the ground, including visits to facilities providing TB medical care in Kyiv, Vinnytsia, Zhytomyr, Chernihiv and Khmelnytskyi oblasts. This helped determining the level of preparedness of the facilities to operate in the context of hostilities and the level of assistance needed to ensure high-quality treatment. It should be noted that the regional TB services demonstrated a high level of professionalism, cohesion, courage and commitment, with the priorities and needs of patients being the main focus.



**YANA TERLEIEVA**

**Head, Department for TB Management and Control, UPHC**



*Our primary responsibility was to make managerial decisions and implement organizational measures to ensure access to essential drugs, tools, equipment, and other TB facility needs in the context of a humanitarian crisis. Coordinating the continuation of treatment for both internally displaced patients and those who had moved abroad was an important part of the work. Urgent procurements were carried out, and logistical and humanitarian issues were addressed. Our coordinated efforts have enabled us to maintain TB services even in the face of war.*

## OUR PLANS

- Promote universal access to high-quality TB services (make proposals and advocate for coverage of medical services for unidentified patients).
- Develop and implement a strategy and plan to improve the quality of TB services.
- Introduce new innovative TB treatment regimens (mSTR, BPAL).
- Combat stigma and discrimination against TB patients.
- Promote a multi-sectoral approach to TB treatment.

- Promote the elimination of legal and gender-related barriers to TB treatment, taking into account international recommendations, national research findings, and partners' experience.
- Run an awareness-raising campaign to improve TB detection rates and coordinate the work of partners in this area through the activities of the working group to mitigate the negative impact of coronavirus infection and ensure the sustainability of TB services.
- Conduct operational research on TB control (patient costs, reasons for underreporting of TB cases, compliance with standards of care).



## OUR TEAM

The professionals at the Center will not stop and will continue to do all they can to change this turbulent world for the better. Let us hold on! Let us do it! We will win!





## SUBSTITUTION MAINTENANCE THERAPY

*Only those few people who practice it believe in goodness.*

*Marie Von Ebner-Eschenbach, Austrian writer*

Supporting vulnerable groups and ensuring their right to healthcare is the main purpose of our work. In case of people with drug dependency, we must help them to reduce the harm caused by the dependency without reproach or blame. A healthy and humane approach to this problem benefits the entire society. The Center always works hand in hand with its partners towards this end. We are united by our love for people, our empathy and our desire to help. Substitution maintenance therapy is a globally recognised and the most cost-effective method of treating people with mental and behavioural disorders due to opioid use.

According to a biobehavioural survey, there are 317,000 people who inject drugs (PWID) in Ukraine. 200,661 (63% of the total number of PWID) inject opioids, 38,674 (12.2%) inject stimulants, and 77,665 (24.5%) inject multiple drugs at the same time.

The SMT programme has been implemented in Ukraine since 2004. From then on, due to the diligent work of public sector professionals and NGOs, qualitative changes have been achieved:

- up-to date, evidence-based standards of care have been adopted, as well as a progressive regulatory framework, allowing doctors of all specialties to provide SMT;
- since 2017, SMT drugs have been procured at the expense of the state budget, which fully covers regional needs, and since 2020, SMT services have been paid for under the Programme of Medical Guarantees;
- ambitious national targets for SMT coverage of people in need of treatment have been defined and approved;
- SMT has been implemented in penitentiary institutions and private sector facilities;
- the target of 95% ART and SMT coverage of HIV-positive patients has been achieved nationwide;
- a widespread distribution of SMT drugs for self-administration has been ensured (over 70% of patients);
- simple treatment pathways have been introduced;
- a successful system of in-person and distance training for service providers has been developed and implemented;
- effective interagency cooperation and interaction with the SMT patient community has been established to ensure the most effective decision-making, etc.

**Over the years of implementation, the SMT programme has become the largest in the Eastern Europe and Central Asia region.**

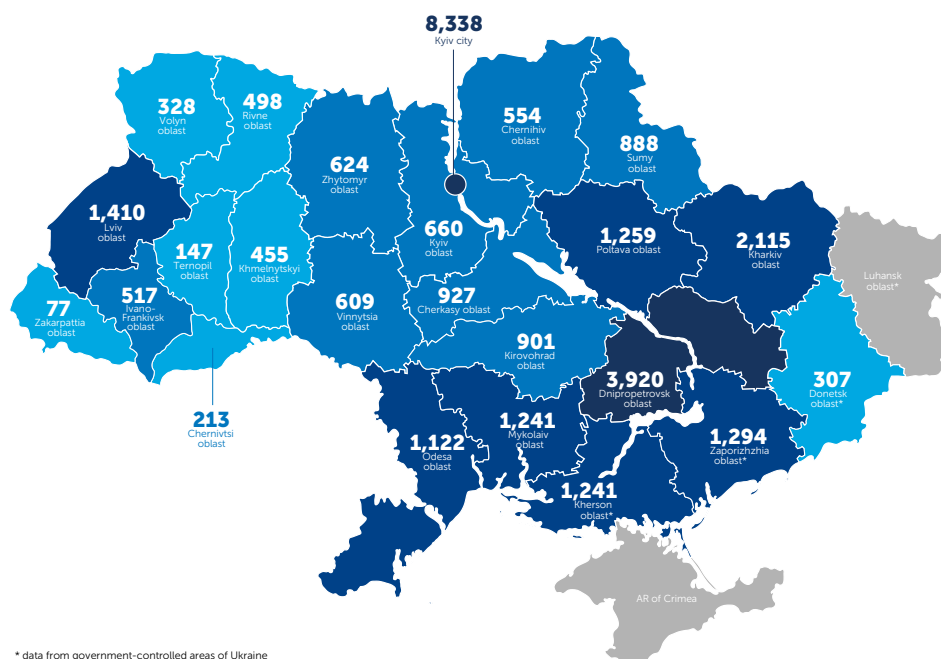
# 28,521

Number of patients on SMT as of 01.01.2023 (municipal and private HCFs)



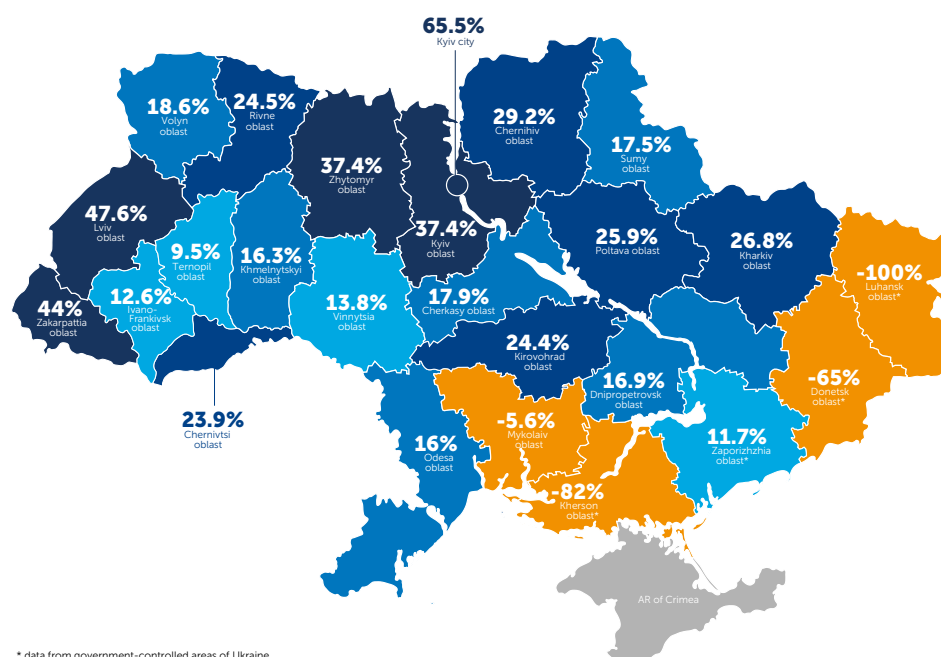
As of 1 January 2023, there were 28,521 people with mental and behavioural disorders due to opioid use receiving treatment with SMT drugs (hereinafter — SMT clients) in HCFs (of whom 19,919 were treated in municipal HCFs and 8,604 in private HCFs).

Despite Russia's military aggression, the percentage increase of SMT clients in municipal HCFs in 2022 was 14.4% (2,876 persons). The number of private facilities reporting to the Center increased in 2022, and the number of SMT clients in private facilities increased by 5,822 persons as of 01.01.2023, to a total of 8,696 persons.



The scale-up of the SMT programme was uneven across the regions, with Kyiv city (+53.2%), Zakarpattia (+42.9%), Lviv (+40.0%), Chernihiv (+30.3%), and Kyiv (+29.0%) oblasts recording the highest rates in municipal HCFs. In other oblasts of Ukraine, the number of SMT clients increased by 14.9%. At the same time, the number of SMT clients decreased in several oblasts, including Luhansk (-100%), Kherson (-81.4%), Donetsk (-64.1%), Kharkiv (-13.4%), and Zaporizhzhia (-3.6%). By the end of the reporting period, SMT services had resumed in the city of Kherson, with 119 SMT clients treated by the end of December 2022.

Increase in new SMT clients as of 01.01.2023 compared to 01.01.2022, %  
(municipal and private HCFs)





A significant increase in the number of SMT clients in some oblasts is associated with intense internal displacement within the country. At the same time, the decline in some of the oblasts mentioned above is primarily due to Russia's active hostilities and military aggression, which has forced many SMT clients to move to safer regions and seek care there.

The closure of private HCFs in some oblasts coincided with the outbreak of large-scale military operations in Ukraine, which contributed to an increase in the number of SMT clients in municipal HCFs.

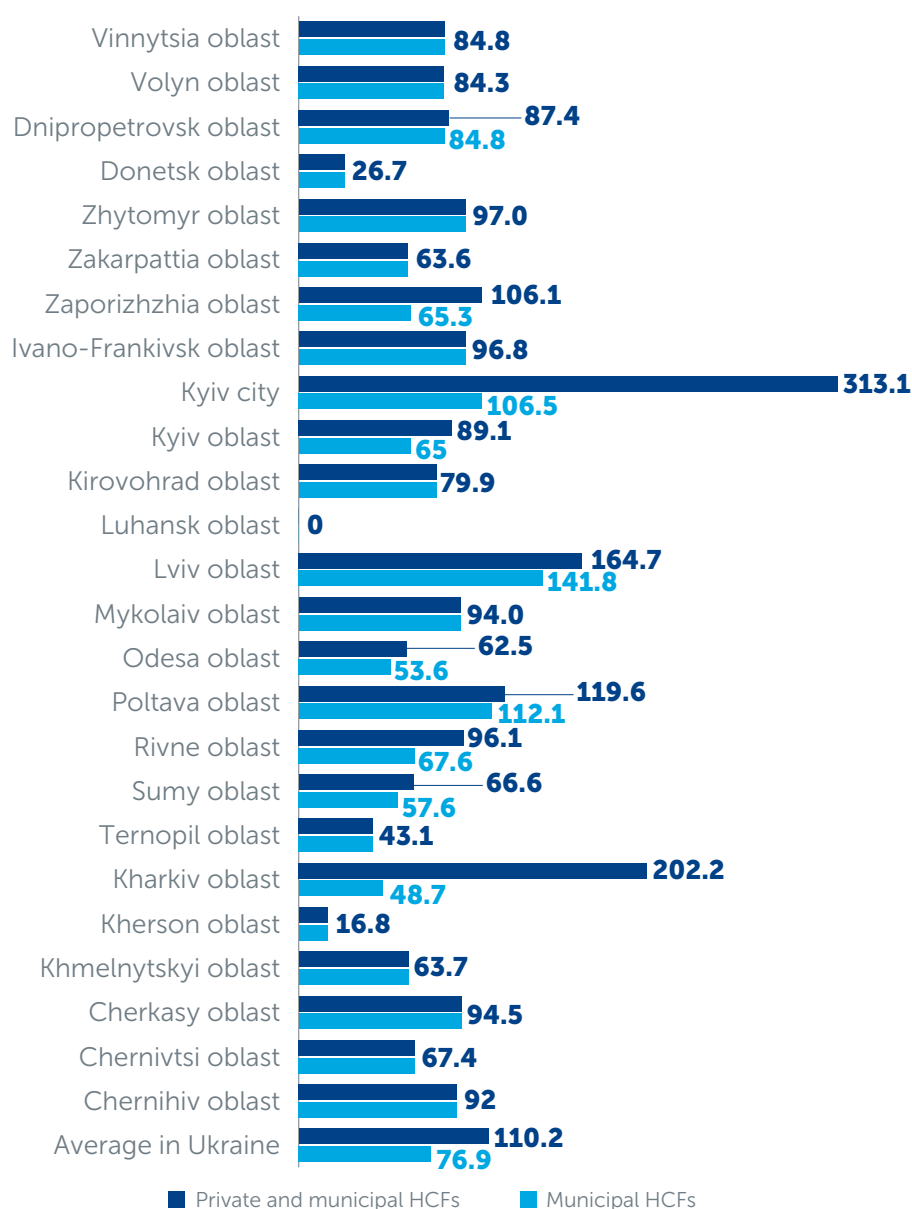
#### NATALIIA DIOMINA

##### **Ivano-Frankivsk Oblast Clinical Infectious Diseases Hospital of Ivano-Frankivsk Oblast Council MNE**

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*It is extremely challenging, especially emotionally, to work during military operations. After two years of providing care for COVID-19 patients, the medical staff was exhausted. Coronavirus disease and post-COVID syndrome affected many of us. Now we are working in wartime, sometimes to the sound of sirens. We know that some regions have suffered hundreds of times more due to the hostilities. Providing medical care to internally displaced people is crucial. More than 250 IDPs have come to us since the beginning of the war. They sought ART, medical examinations, certificates and other documents, and in-patient care. We also provide psychological and social support.*

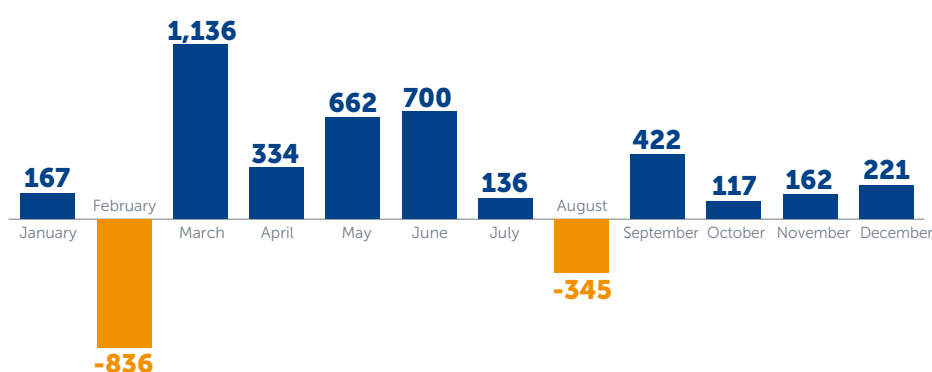
% of targets achieved by municipal and private HCFs in 2022



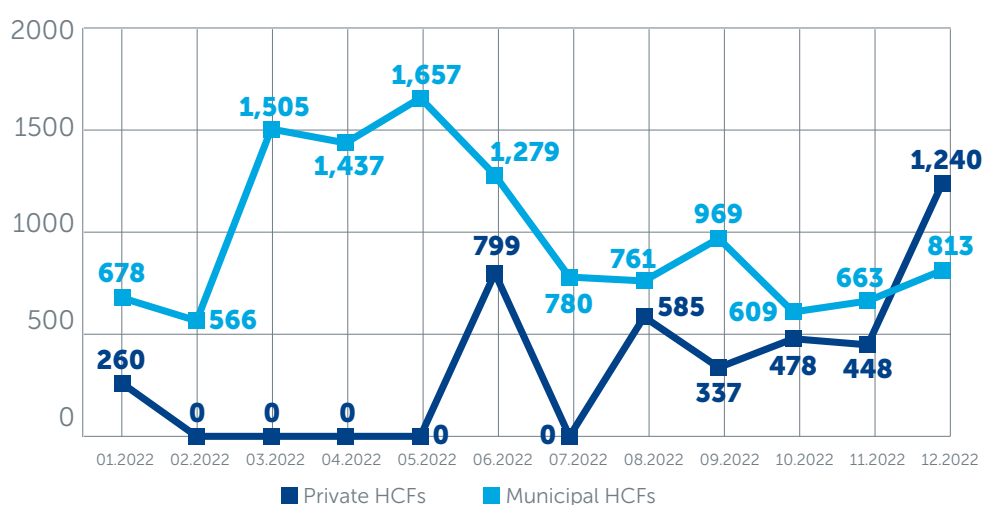
**The achievement of the 2022 targets by municipal and private HCFs** was 110.2% (76.9% for municipal facilities separately). It should be noted that as a result of the large-scale Russian invasion and temporary occupation of the territories in Ukraine, SMT has been suspended in a number of regions and areas where active hostilities are (were) taking place or where the occupation forces have banned activities. These areas/oblasts include Luhansk oblast, where SMT implementation has been completely halted, as well as some towns in Kharkiv (Chuhuiv, Kupiansk, Balakliia), Donetsk (Mariupol, Bakhmut), and Zaporizhzhia (Melitopol, Berdiansk) oblasts. In addition, the provision of SMT in Kherson oblast was suspended during the summer. Following the de-occupation, SMT was resumed in Kherson city as soon as possible.

**As a result of the hostilities in Ukraine, a total of 20 facilities ceased operations in 2022, with 1,442 clients being treated at these HCFs as of 1 February 2022.** According to the available information, some SMT clients were transferred to other sites in the oblast. In particular, some SMT clients from the HCFs in the towns of Balakliia, Chuhuiv and Kupiansk are being treated at the HCFs in Kharkiv city. Clients from the separate subdivision in Bakhmut town were transferred to the subdivisions in the towns of Sloviansk and Kostiantynivka after it ceased providing SMT in May 2022 due to the difficult operational situation and intense hostilities. The situation for SMT clients in the temporarily occupied areas of Zaporizhzhia, Luhansk, Donetsk, and Kherson oblasts remains challenging.

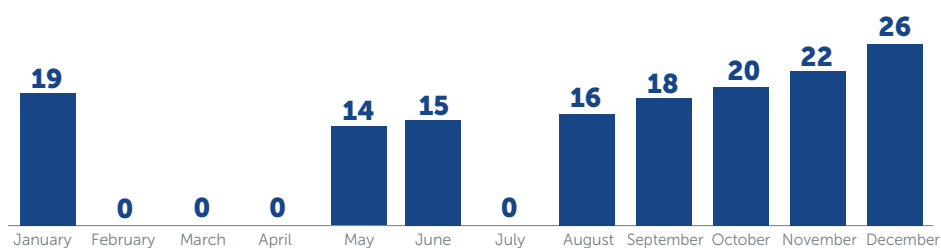
Increase in SMT clients per month in 2022 (municipal HCFs)



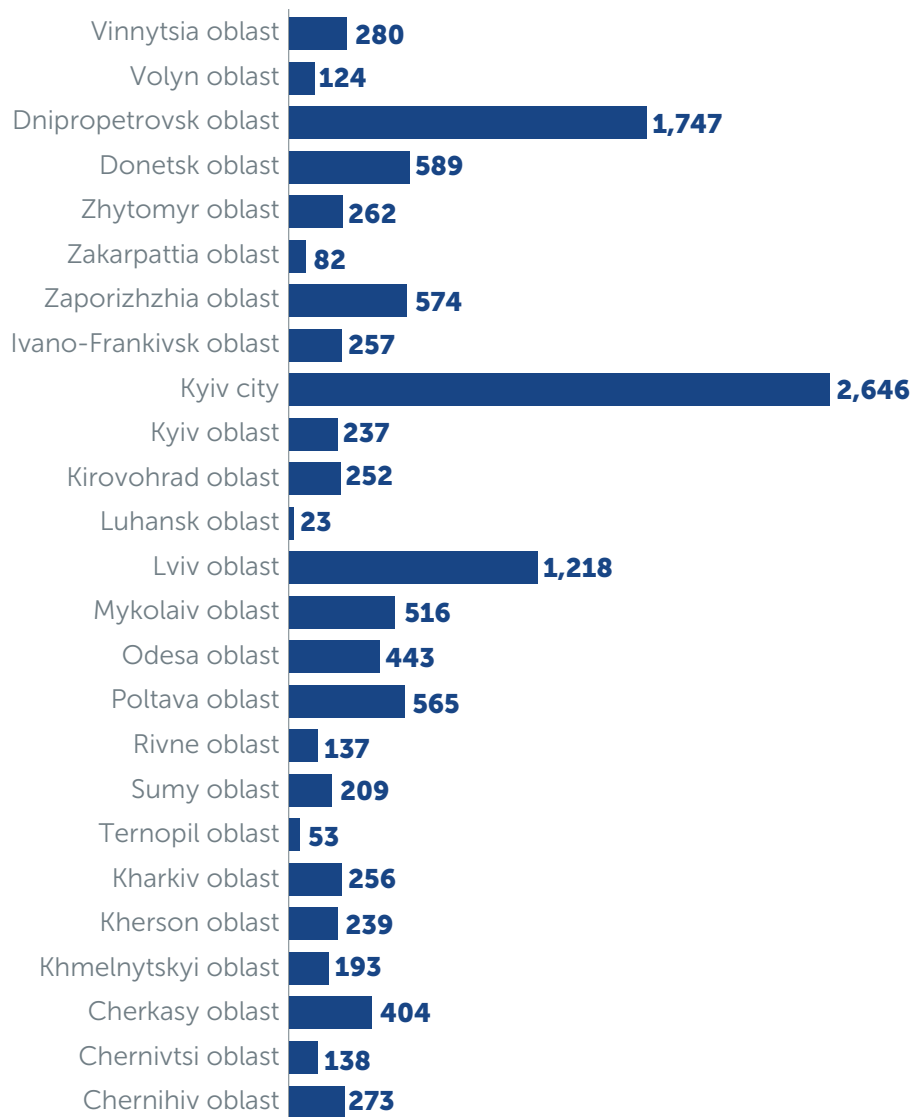
New clients in municipal and private HCFs in 2022



The number of new clients in private facilities reporting to the Center



The number of new clients in municipal facilities



**The number of new clients in 2022 was 15,864. These include:**

- 11,717 in municipal facilities (66% self-referred, 22% referred by another HCF, 11% by an NGO and 1% by law enforcement agencies);
- 4,147 in private facilities (1% referred by another HCF and 99% self-referred).

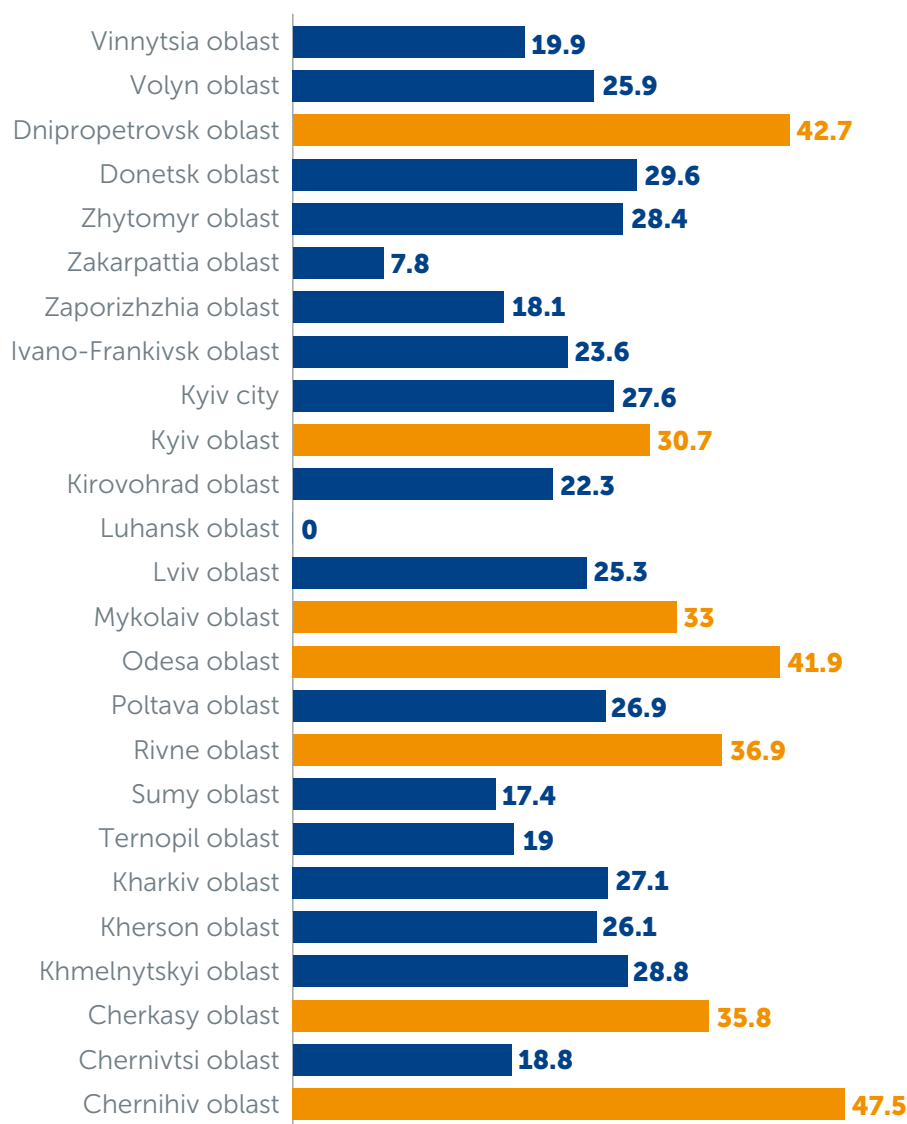
## QUANTITATIVE AND QUALITATIVE INDICATORS OF PROGRAMME IMPLEMENTATION

By the end of 2022, 31.0% of people on SMT had HIV. At the same time, ART coverage rate among PLHIV on SMT was 96%, which is 1% higher than at the end of 2021. There are 22 oblasts in Ukraine where ART coverage was at least 90%, and in 15 of them ART coverage was 95% or higher. Lviv oblast had the lowest average rate (86.6%).

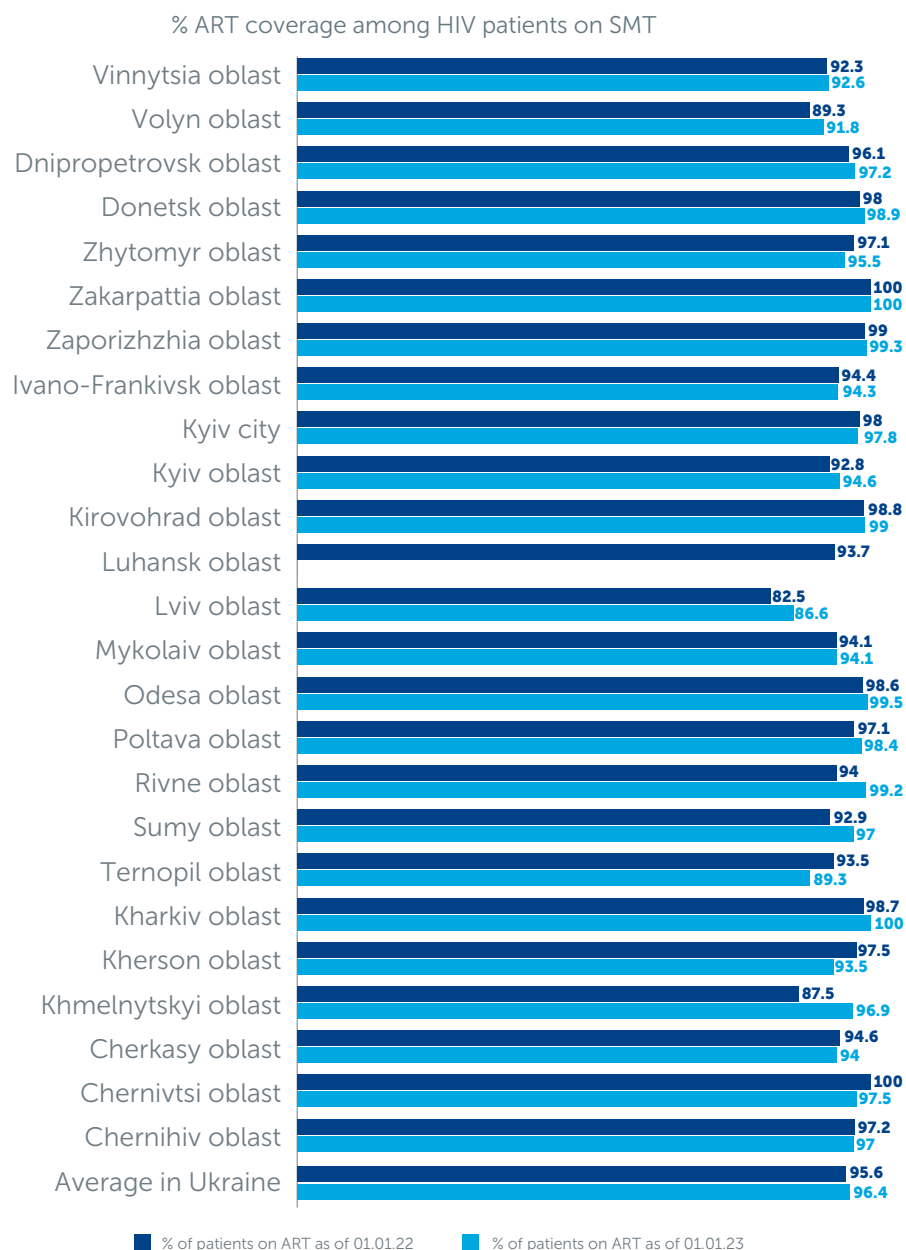
Percentage of people living with HIV among SMT clients at the end of 2022



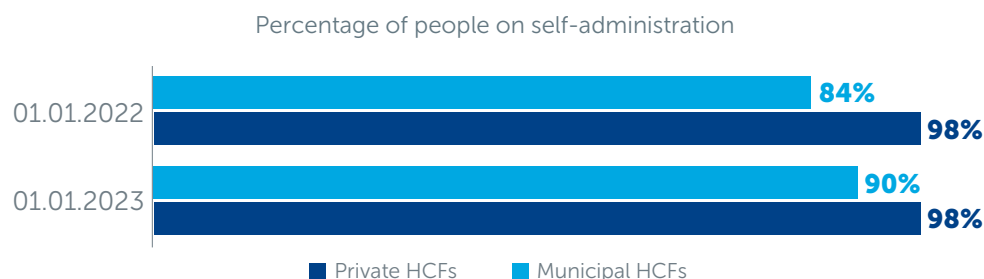
Dynamics of the number of HIV patients on SMT in 2022







**Dispensing of SMT drugs to clients for self-administration outside the healthcare setting** (forms of dispensing: by prescription, directly from the healthcare setting for self-administration and for inpatient home care), which had previously been widely used due to the COVID-19 pandemic, was significantly expanded. As of 01.01.2023, the number of people receiving SMT drugs for self-administration in municipal HCFs was 17,910 (90%). The number of people receiving SMT drugs for self-administration through pharmacies decreased (from 163 at the beginning of the period to 140).

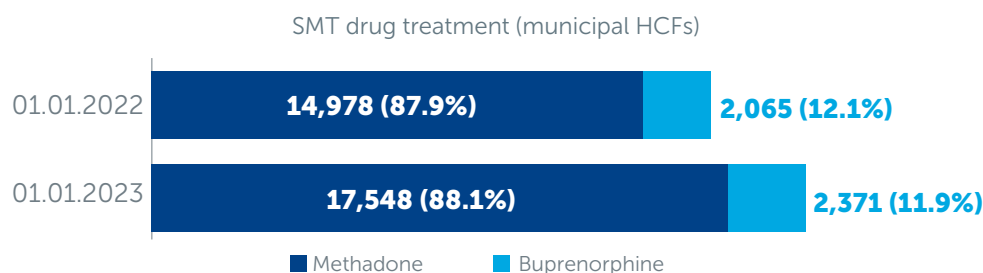


At the end of 2022, **17,548** SMT clients were receiving methadone hydrochloride, representing **88%** of all people treated in municipal HCFs. Of these:

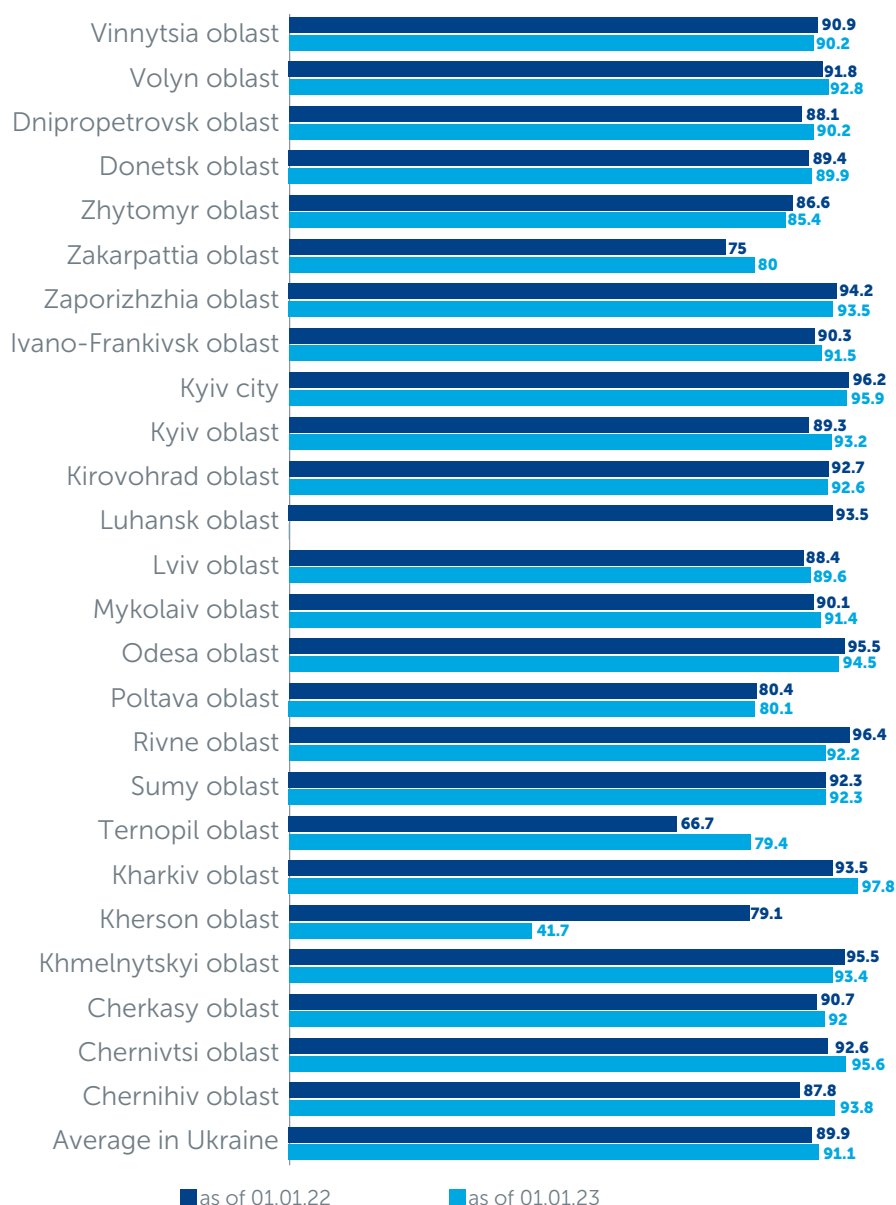
- **17,505** were taking tablets;
- **43** were taking liquid formulations.

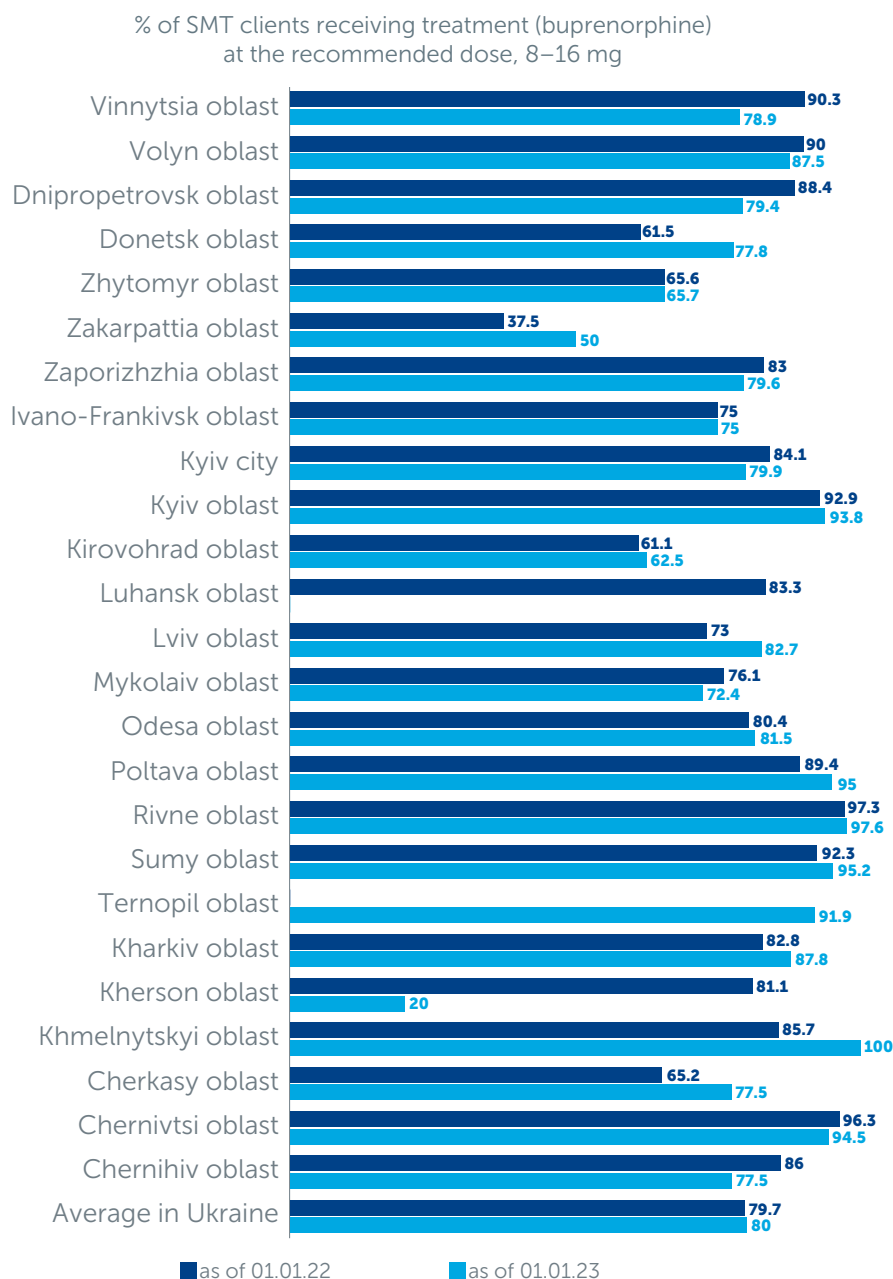
In the stabilisation phase, 17,284 SMT clients (**91%**) are receiving methadone at the recommended dose (60 mg or more).

At the end of 2022, **2,371** SMT clients were receiving buprenorphine hydrochloride, representing **12%** of all people treated in municipal HCFs. In the stabilisation phase, 2,346 SMT clients (**80%**) are receiving buprenorphine at the recommended dose.



% of SMT clients receiving stabilisation treatment (methadone) at the recommended dose, 60 mg or more





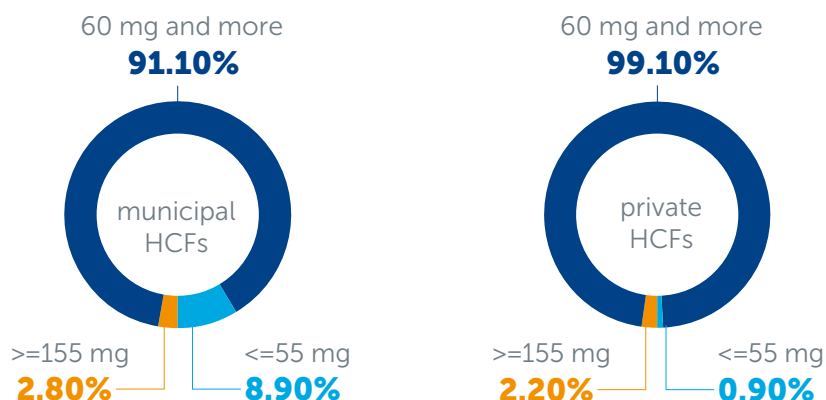
### IRYNA KOVALIOVA

#### Addiction Specialist, Oblast Clinical Facility for Psychiatric Care MNE of Zaporizhzhia Oblast Council

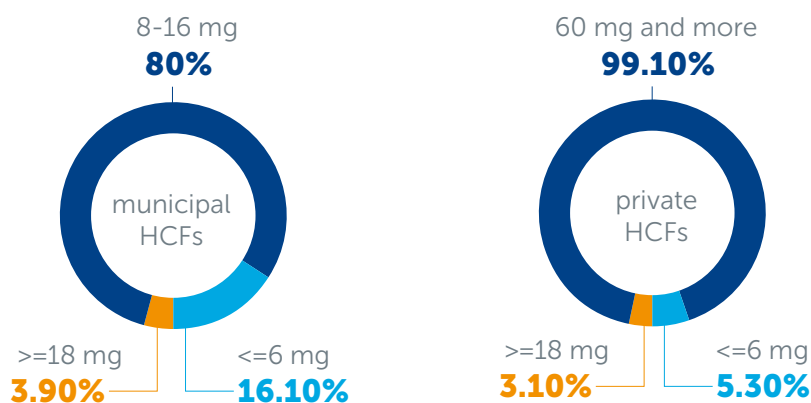
The flow of IDPs was the biggest problem in our region. After all, we are the closest healthcare facility providing SMT to both the occupied territories and the areas of active hostilities. The doctors are overburdened because it is difficult to take on so many new patients who need to be followed up. Sometimes patients come and say they are going to stay with us for a while, but then they leave, and we do not know where they have gone. Sometimes our patients go abroad, and we know nothing about them. We start looking for them and then they come back in a month and a half. Admission to the programme is always preceded by a Medical Advisory Committee (MAC) assessment. The MAC used to have fixed reception days, but this is no longer the case. We receive IDPs at any time, whether a patient arrives at 8 a.m. or 2 p.m., on a MAC reception day or not. In addition, a large number of private offices have closed, adding to our workload. Since the twenties of March, we have had a waiting list. We accept a few people from this list each week, but the number of appointments exceeds our capacity. Today we have received four patients from the waiting list and 12 more have signed up. We already have three SMT dispensing sites and are about to open the fourth. There is a trained doctor, we still need a nurse. In any case, we are holding on.

## COMPARISON OF DOSAGES IN MUNICIPAL AND PRIVATE HCFs

METHADONE. Percentage of SMT clients receiving a dose within the specified range (up to 55 mg; 60 mg and more; 150 mg and more)



BUPRENORPHINE. Percentage of SMT clients receiving a dose within the specified range (up to 8 mg; 8–16 mg; 18 mg and more)



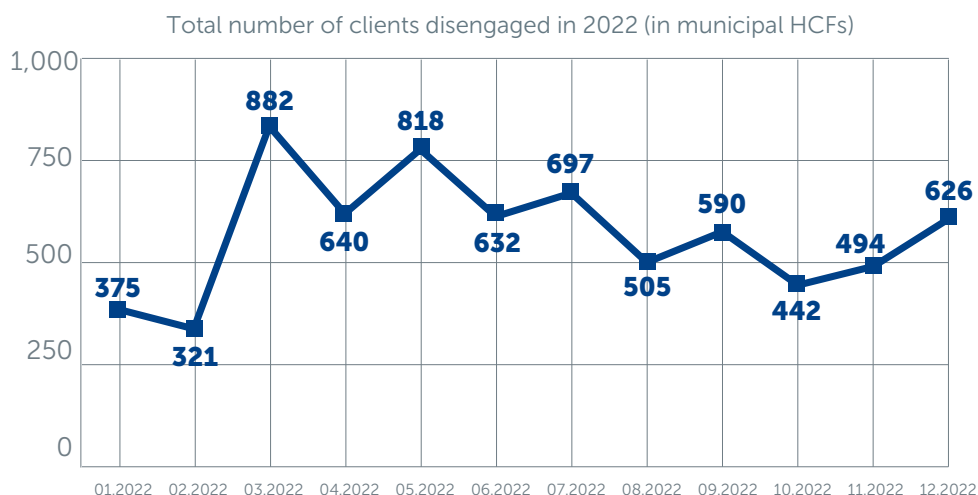
### YURII POKLAD

#### Chernihiv Oblast Narcological Dispensary Municipal Treatment and Preventive Care Institution

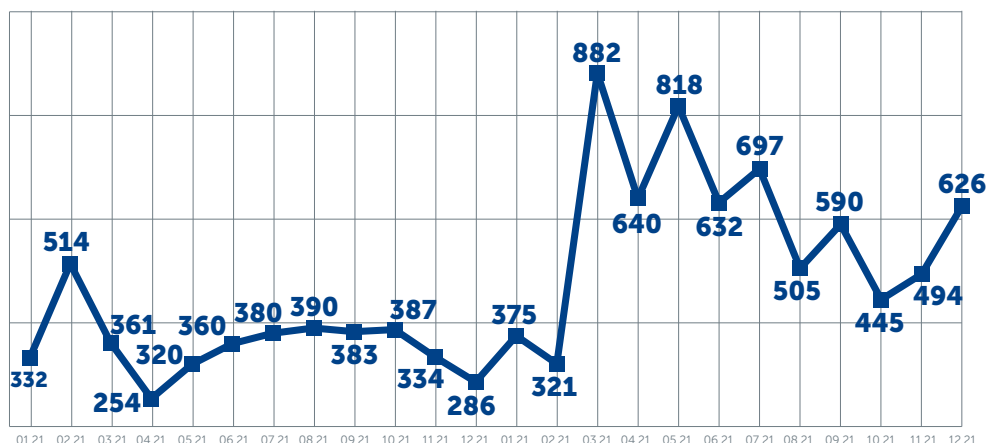
With the start of the full-scale invasion, the private clinics providing SMT moved away. However, the majority of patients stayed on. Of course, it was difficult. Some people have a Black Friday, but I had a Black Monday, with no electricity, no water, no heating, and hundreds of patients waiting for me to help. I am confident that we have acted with dignity.

### DISENGAGEMENT FROM TREATMENT

In 2022, 6,666 clients (in municipal HCFs) were disengaged from the SMT programme, 2,363 more than in 2021.



Number of clients disengaged from January 2021 to January 2022



The number of SMT clients disengaged from treatment more than doubled in the second, third, and fourth quarters of 2022 as a result of a full-scale Russian invasion and active hostilities:

Q1 — 327 SMT clients per month;

Q2 — 780 SMT clients per month;

Q3 — 611 SMT clients per month;

Q4 — 522 SMT clients per month.

\*data from Luhansk oblast as of 01.01.2023 were not provided.

#### NATALIIA SHEVCHUK

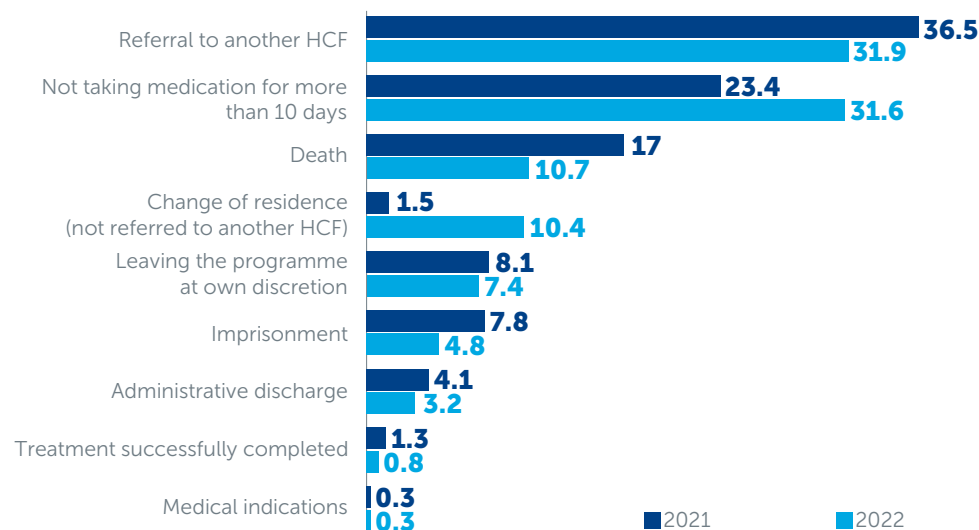
##### Medical Director, Kramatorsk town

”

When I returned to the hospital in September, there were 47 patients; now, there are more than 140 (as of the beginning of March). I am concerned about this dynamic because I cannot say that it is completely safe here. However, patients are coming back, some of them new. I can say that there is a distinct age group — middle-aged people who could probably do without SMT in peacetime, but cannot do so now. I know for a fact that some of them were hostile to SMT before the full-scale invasion.

**The most common diseases among SMT clients are hepatitis C virus (HCV) infection,** which affects 52.7% of programme clients (10,504 people), and HIV infection — 31.0% (6,165 people). Hepatitis B virus (HBV) infection was found in 1,327 people (6.7%) and TB in 1,312 people (6.6%) of the total number of programme clients.

Average monthly rate of SMT disengagement reasons





**In 2022, private medical centres continued to provide medical care using SMT drugs**

in accordance with the Procedure for SMT (the Order of the MoH of Ukraine of 27.03.2021 No. 200 as amended by the Order of the MoH of Ukraine of 27.12.2022 No. 2348 «On Approval of the Procedure for Substitution Maintenance Therapy in Persons Having Mental and Behavioural Disorders Due to Opioid Use»).

The total number of private healthcare facilities reporting to the UPHC increased by 31% and was 26 in 10 oblasts of Ukraine as of 01.01.2023. At the end of the second half of the year, 8,604 SMT clients were receiving treatment (5,822 more than at the end of 2021). Although the number of operating facilities in some regions has not yet reached «pre-war» levels, 11 private HCFs were added to the list of reporting facilities.

At the end of the second half of the year, the total number of people receiving SMT, regardless of ownership (municipal and private healthcare facilities), was 28,521. The percentage of national targets met increased from 76.9% to 110.2%, according to aggregate data.

## KEY CHALLENGES AT THE BEGINNING OF THE WAR

Russia's military aggression could have undone all achievements in the implementation of the SMT programmes. The enemy's attacks on the healthcare infrastructure, the collapse of the logistics network, and the additional stress on the clients provoked an unprecedented crisis with a specific set of negative consequences.

**OLEKSII KVITKOVSKYI**

**SMT client, Co-founder of the VOLNA-Donbas Resource Centre NGO**

*The occupiers are known to have deliberately destroyed civilian objects and infrastructure. Hospitals were attacked as if they were strategic locations. Many transport and drug dispensing sites were damaged. Communications, petrol stations, shops, schools, hospitals and residential buildings were all targeted.*



The attacked Chernihiv Oblast Medical Centre for Socially Significant Diseases MNE

**NATALIIA SHEVCHUK****Medical Director, Kramatorsk town**

”

Yes, there is destruction from time to time. Windows occasionally blow out. Plastic windows are more durable, but old frames are not. Our poor locksmith has had enough of repairing them. However, the town authorities have ordered that the windows be boarded up with plywood. So for now, things are as they are. On the other hand, the facility is quite warm. That is important. The power was only cut when Kyiv suffered its worst blackout. We no longer have any problems with electricity. Despite the difficulties, we are holding on and we believe in victory.

**PAVLO PALAMARCHUK****Director, Khersonskiy MNE**

”

We lost an employee on her way to work. She came under fire. But we cannot abandon 450 patients. After the de-occupation, most of the communications were destroyed, so we had to bring in water to continue treating patients — people from nearby villages provided water from their own wells, it was tonnes of water every day. People also heated water at home and brought it to the facility. We eventually found a field kitchen. It was used for cooking for a while.

**HCFs THAT HAVE STOPPED PROVIDING SMT SERVICES**

\*information as of 01.07.2023

Name of HCF
<b>Donetsk oblast:</b>
Dependence Prevention and Treatment Medical Centre MNE of Kramatorsk Town
Dependence Prevention and Treatment Medical Centre MNE of Bakhmut Town
Dependence Prevention and Treatment Medical Centre MNE of Mariupol Town
Primary Health Care Centre No. 1 MNE of Mariupol Town
<b>Zaporizhzhia oblast:</b>
Melitopol Psychiatric Care Institution MNE
Berdiansk Psychiatric Care Institution MNE
<b>Luhansk oblast:</b>
Diagnostic and Consulting Centre MNE of Severodonetsk Town Council
Svatove Oblast Psychiatric Care Hospital MNE of Luhansk Oblast Council
Mental Health Centre MNE of Luhansk Oblast Council
<b>Mykolaiv oblast:</b>
Snihurivka Central Raion Hospital MNE of Snihurivka Raion Council
<b>Kharkiv oblast:</b>
Kupiansk Territorial Medical Association MNE
Balakliia Central Clinical Raion Hospital MNE of Balakliia Town Council of Kharkiv oblast
Derhachi Central Raion Hospital MNE of Derhachi Raion Council (the site is partially operational — only for dispensing buprenorphine)
M. I. Kononenko Chuhuiv Central Hospital MNE
<b>Kherson oblast:</b>
Henichesk Central Raion Hospital MNE
<b>Chernihiv oblast:</b>
Chernihiv Oblast Medical Centre for Socially Significant Diseases MNE of Chernihiv Oblast Council

## HCFs DESTROYED AND CLOSED

Some HCFs have been destroyed as a result of the military aggression. Since 24 February, data on damage to 11 HCFs due to hostilities has been received. The following HCFs have been damaged:

- **Donetsk oblast, Mariupol town:**

- 2 HCFs: Dependence Prevention and Treatment Medical Centre of Mariupol Town MNE and Primary Health Centre No. 1 MNE of Mariupol Town Council; destruction rate: 100%

- **Kharkiv oblast:**

- 1 HCF, Chuhuiv town, M. I. Kononenko Chuhuiv Central Hospital MNE Chuhuiv Town Council in Kharkiv oblast; destruction rate: 5%;
- 1 HCF, Balakliia town, Balakliia Clinical Multidisciplinary Intensive Care Hospital MNE of Balakliia Town Council in Kharkiv Oblast; destruction rate: 50%; measures are being taken to re-open the SMT site;
- 1 HCF, Derhachi town, Derhachi Central Hospital MNE of Derhachi Town Council in Kharkiv oblast; destruction rate: 50%; measures are being taken to re-open the SMT site;

- **Mykolaiv oblast:**

- 1 HCF, Mykolaiv city, Mykolaiv Oblast Mental Health Centre MNE of Mykolaiv Oblast Council; destruction rate: 50% (no information available on the extent of destruction of the premises where the SMT site was located; no information available on the closure of the site due to destruction);

- **Chernihiv oblast:**

- 1 HCF, Chernihiv city, Chernihiv Oblast Medical Centre for Socially Significant Diseases MNE of Chernihiv Oblast Council; destruction rate: 100%; all patients from the site (5 people) were transferred to Chernihiv Oblast Psychoneurological Hospital MNE of Chernihiv Oblast Hospital to continue receiving services;

- **Luhansk oblast:**

- 2 HCFs: Svatove Oblast Psychiatric Care Hospital MNE of Luhansk Oblast Council and Mental Health Centre MNE of Luhansk Oblast Council are not operational due to damage caused by hostilities; information on the extent of the damage is not available;

- **Kherson oblast:**

- 1 HCF, Kherson city; destruction rate: 5% (no information available on the extent of destruction of the premises where the SMT site was located; no information available on the closure of the site due to destruction);
- 1 HCF, Nova Kakhovka town, Nova Kakhovka Central Town Hospital MNE of Nova Kakhovka Town Council; destruction rate: 5% (no information available on the extent of destruction of the premises where the SMT site was located; no information available on the closure of the site due to destruction).

## INTERNAL MIGRATION

- Among the whole set of problems caused by the war, the displacement of SMT clients deserves special attention. Most of them have moved within the country; since the beginning of the full-scale invasion, the total number of internally displaced SMT clients has been around 1,180. The majority of SMT clients fled active hostilities in Donetsk, Kharkiv, Luhansk, Kherson, Mykolaiv, and Zaporizhzhia oblasts.

- The intense internal migration of the clients has created new challenges. These include:
  - the need to introduce new identification mechanisms, as a significant number of SMT clients get their record of previous treatment lost, destroyed or forgotten when displaced;
  - difficulties in forecasting the demand for medicines, as intensive movements to certain oblasts lead to an acceleration in the rate of consumption of medicines, creating the need for additional unscheduled deliveries;
  - a significant increase in the workload of HCFs in the regions receiving IDPs;
  - the need to develop mechanisms for rapid exchange of client information among healthcare professionals in different regions;
  - difficulties in determining the availability of free treatment courses, as the number of clients receiving treatment can change very dynamically due to intense internal displacement and lack of medicines at private HCFs.

## EVACUATION ABROAD

- Some SMT clients have also migrated outside the country. As approximately 75% of the men in the SMT programme do not have the legal right to leave the country, the issue of migration abroad has primarily affected female SMT clients. Such relocation posed significant difficulties due to the lack of foreign language skills and the need to receive SMT quickly in another country, which was not always possible due to legal regulations in other countries. In some cases, SMT clients who had left the country had to wait several weeks to a month for a doctor's appointment and, consequently for an SMT prescription.

### YEVHENIIA

#### **SMT client, Germany**



*On 23 February, I had my last chance to take my medication at my site. When the war broke out, I could not get there because getting from one bank of Kyiv to the other was extremely difficult. The day before my medication ran out, I decided to leave the country. I had no idea where I was going, what would happen to my children or how I would receive treatment. After starting the SMT programme in Germany, I realised that everything is well-coordinated here, but I miss home, and I got on well with my SMT doctor in Ukraine. People sometimes seem more responsive at home, but there are good people everywhere and it seems to me that such people attract each other, which is fair.*

## STORIES OF EVACUATION

### TETIANA LEBID

#### **Director, VONA All-Ukrainian Association of Drug-Dependent Women, SMT client**



*Since 24 February, everyone has been in a very difficult situation, especially women, especially those with children. It is impossible to imagine what to do and where to go if you are a woman, a mother or an SMT patient on ART... No one had an answer, and yet we had to move on, save our children, take them out. Firstly, I went to Bukovel, then to Ivano-Frankivsk. Ukraine has great people and great doctors. I was warmly welcomed and provided with medications for 10 days at the site, but in a few days, there was a missile attack on the city. My son is 10 years old. He was extremely anxious about the war. So we went to Germany. Everything is different here. If you do not have insurance or a certificate confirming that the insurance company will pay for services and medication, you get nothing.*

### NATALIIA

#### **Regional Coordinator, VOLNA Charitable Organization in Donetsk oblast, SMT client, Mariupol town**



*Since the first days of the war, our house had no heating or gas. One day my husband and I decided to spend the night at my mother's. Our house was destroyed 30 minutes after we left. The next day, as a regional coordinator, I decided to help healthcare workers provide SMT medications. We tried to provide patients with medications for as long as possible, because the shelling was getting closer to the hospital every day. We hoped it would all be over in a few days, but the shelling never stopped...*



*Then we packed up and went to my mother'... We counted the available medications and reduced the dosage so they would last longer. We were so scared that we hardly noticed the underdosing. We lived with my mother for a few days until the evacuation corridor was announced. We walked 8 km to the meeting point under fire. My mother refused to leave the house. Eventually we managed to get to Zaporizhzhia. We got a warm reception and were provided with everything we needed, including SMT drugs. We now live in Ivano-Frankivsk oblast. My colleagues from VOLNA helped us with accommodation. There were no problems at the site either. Of my 286 patients from Mariupol, 30 are alive, 6 have died and others are missing. My mother was taken to Astrakhan by the enemy. I do not know how to take her back. We are lucky to be alive...*

## LOGISTICS PROBLEMS

A full-scale invasion of the aggressor country in Ukraine posed **a major logistics challenge for the delivery of medicines and medical devices**. The problem was particularly acute in the regions where active hostilities were taking place (Sumy, Chernihiv, Kharkiv, Donetsk, Luhansk oblasts, etc.). Due to the uncertainty of the situation regarding the temporary occupation of the territories, the risks on the roads, the need to pass through checkpoints, logistics companies delivering medications refused to carry out scheduled supplies. The problem was compounded by the fact that SMT drugs are classified as narcotics and must be transported with a mandatory security escort. The regions, for their part, were used to working under normal conditions, where deliveries are made on time, so they did not inform the scheduled end of the drugs while waiting for delivery. This resulted in a significant risk of treatment interruptions.

Since 2017, SMT drugs have been procured from national manufacturers located in Odesa and Kharkiv oblasts. At the same time, most of the national stock of SMT drugs was stored in Kyiv oblast. This put the possibility of their distribution at risk.

Fearing that the drugs would not be delivered, doctors were forced to reduce doses in some situations, and clients were forced to save some of the prescribed drugs «for a rainy day».

We should also mention the problem of SMT provision in the private sector, which actually stopped working for several months due to the inability to procure drugs, leaving thousands of clients without life-saving medication.

## TARAS ZLYDENNYI

### **Director, Sumy Oblast Clinical Centre for Socially Dangerous Diseases**

*On 24 February, at about 8 a. m. Russian military vehicles were in and around the city. All the healthcare workers came to work and took up their duties, despite being deeply shocked. On 24–25 February, SMT and ART drugs were dispensed to as many patients as possible. The facility operated on reduced working hours. We were closed on Saturday and Sunday. The polyclinic is located on the outskirts of the city, close to checkpoints. Both patients and staff had difficulty in reaching the hospital. A few days later, we made an inventory of the available SMT medicines and found that the supply of the entire oblast would be over in a little more than a month... It was very difficult to transport medications within the oblast for the first two or three weeks. Russian checkpoints were everywhere. A bridge across the Vorskla River on the way to Okhtyrka was blown up. Therefore, Okhtyrka mainly interacted with Poltava at that time. Many patients were transferred there. As the city suffered from regular shelling and frequent street fights, we had to adjust our working hours to the new conditions.*

## EVACUATION OF THE STAFF

Despite significant personal risks, few health workers left their workplaces and relocated. However, even in the face of extremely difficult conditions, announced evacuations and temporary occupations, the vast majority remained in place, providing services to clients, or returned as soon as possible. Even under occupation and aware of the aggressor's negative attitude towards the programme, some facilities continued to operate and provide SMT drugs to clients.

## DATA MONITORING AND STORAGE

- In times of crisis, it is extremely important to provide access to verified and reliable information. The SMT programme is no exception. Military aggression has threatened the continuity of the SMT. Fear and uncertainty about the future of the programme have spread among both clients and health workers. Access to clients' personal information has been severely hampered in areas with poor communication and active hostilities. Communication problems led to difficulties in obtaining clients' certificate confirming their treatment, resulting in an inability to prescribe an appropriate dose immediately, or to manipulation and attempts to receive the drug simultaneously in several HCFs.
- Intensive internal displacement of clients rendered the established system of monitoring SMT consumption ineffective, as did the inability to predict consumption and thus plan supply schedules. Before the Russian invasion, the system for monitoring the consumption of SMT drugs was organized so that full information on stocks at the HCF level was available a month later. For example, information on stocks as of 01.01.2022 only appeared at the end of January, because HCFs were required to submit reports within 10 days of the reporting month, and the reports were then verified, summarised, and made available only at the end of the month following the reporting one.

## FUNDING

Since 2017, SMT drugs have been procured at the expense of the state budget, but there was a significant funding deficit during the full-scale invasion, as the country's main resources were used to defend the integrity of the State. There was therefore a serious risk that SMT drugs would not be procured.

## SUMMARY OF THE MAIN PROBLEMS

SMT clients need to take SMT medications every day. Irregular supply can lead to abuse of other psychoactive substances, overdose, substantial deterioration in health, criminal and illegal behaviours, and even death. Each of the above examples reveals pain and fear for the clients, for themselves, for their loved ones, along with relentless efforts to help. The Center's specialists were well aware of the situation the people got into and wasted no time. To address the issues, experience had to be combined with extraordinary ideas. These were brought to life not least through the involvement of non-governmental organizations and foundations. In summary, the SMT programme faced the following significant challenges as a result of the full-scale invasion:

- difficulties in the supply of SMT drugs, both from a central warehouse and within the regions;
- risks related to the shortage of centrally procured SMT drugs and delays in public procurement;
- difficulties for the clients to visit HCFs due to active hostilities, transport problems and public transport stoppages;
- intensive internal displacement of patients within the country;
- clients moving abroad for SMT;
- panic, uncertainty about the continuation of the programme and lack of communication.

# RESPONSE TO WAR-RELATED CHALLENGES

The Center has implemented the following measures to address the existing issues:

1. **Transition to «manual» monitoring of SMT medication consumption.**

Given the significant internal displacement of SMT clients during the war and the need to plan ahead for supplies, the above mechanism for receiving information with a delay could lead to treatment interruptions. In view of these risks, the monitoring of the availability of SMT medications has been carried out in the «manual mode» since the beginning of the war. UPHC staff collected weekly information on the availability of SMT medications in each HCF. The prompt implementation of the new mechanism prevented treatment interruptions in a number of regions.

2. **Issuance of a separate order by the MoH of Ukraine to regulate the SMT drug supply mechanism to regions with critical stock levels.**

Prior to the invasion, deliveries followed a pre-agreed and approved supply plan and schedule. As mentioned above, after the invasion, the supply was temporarily halted and in order to resume it, a separate ordinance was issued to regulate the delivery of medicines to final recipients. Thus, it has been determined that deliveries within the region would be carried out not only to a certain HCF or pharmacy warehouse in the oblast as usual, but also to specific HCFs that were experiencing difficulties in picking up medications.

**Due to the promptly developed and adopted orders of the MoH of Ukraine, it was possible to distribute medicines to all beneficiaries on time and prevent any interruption in treatment, namely:**

- the Order of the MoH of 08.03.2022 No. 432 «On the Provision of Medicines Purchased at the Expense of the State Budget of Ukraine for 2019 and 2020 to Persons with Mental and Behavioural Disorders due to Opioid Use Who Receive Substitution Maintenance Therapy in the Context of Martial Law»;
- the Order of the MoH of 08.03.2022 No. 433 «On the Provision of Medicines Purchased at the Expense of the State Budget of Ukraine for 2021 to Persons with Mental and Behavioural Disorders due to Opioid Use Who Receive Substitution Maintenance Therapy in the Context of Martial Law».

3. **Use of new logistics mechanisms, in particular, the NGO's mobile outpatient clinic.**

Despite all possible measures, some regions were concerned about the problem of supplying drugs by logistics companies. In this regard, a mechanism for the delivery of SMT drugs using the Alliance for Public Health ICF (the APH) vehicles has been developed and applied. During this time, the APH has managed to deliver medications purchased at the expense of both the state budget and the Global Fund to a number of oblasts.

4. **Establishment of medicine buffer stocks in the regions.**

Considering the risks of temporary occupation of certain regions, disruption of transport links, and refusal of logistics companies to deliver medicines, one of the mechanisms to prevent treatment interruptions was to create buffer stocks of medicines in the regions. To facilitate the implementation of this measure, the Order of MoH of Ukraine of 07.03.2022 No. 425 «On the Storage of Narcotic Drugs, Psychotropic Substances and Precursors under Martial Law» was issued, allowing for the storage of a three-month supply of drugs in HCFs under martial law. Previously, only a one-month supply could be stored in HCFs. This order was cancelled in August 2022, and the scheduled supply of medicines has been restored.

The APH and the 100% Life CO purchased available medication stocks from the national manufacturer the InterChem ALC to create buffer stocks.

Thanks to all the efforts undertaken, the drugs were delivered to all the regions in need, and within a few months the planned supply had been established and resumed.

#### 5. **Prompt search for funding and provision of SMT drugs.**

This year, in accordance with the needs collected from the regions for 2022, the Medical Procurement of Ukraine SE was supposed to procure medicines for SMT. This procurement and in particular the timeliness of its implementation, was at risk due to the budget deficit caused by the invasion of the aggressor country. The situation was further complicated by the fact that, in the months following the invasion, the national manufacturers from whom the drugs had been procured in previous years had actually ceased operations, leaving only foreign manufacturers as an option.

The solution was to promptly agree with the donor on the procurement of **SMT drugs with international funds and to look for drugs from foreign manufacturers.**

To enable drug procurement, the UPHC had to:

- determine the need for the drugs, taking scale-up into account;
- conduct a series of negotiations with international agencies and agree to procure SMT drugs with funds from international technical assistance projects;
- find manufacturers willing to supply the drug to Ukraine;
- organize logistics and sign contracts.

#### 6. **Effective pathways for IDPs.**

Methods for identifying SMT clients were developed using a variety of mechanisms, including:

- information exchange among doctors in charge — UPHC specialists collected contact information for all doctors providing SMT services so that each doctor could contact a colleague if necessary and verify the accuracy of the information provided by the client regarding treatment history, number of doses given for self-administration, etc.;
- iverification of the clients and their previous treatment data in the central eHealth database;
- verification of previous treatment data in the Syrex database.

The identification mechanism has prevented drug abuse cases when SMT clients try to get medications at multiple sites at the same time, or when doctors, unable to identify the client as the one receiving treatment, start therapy from the induction.

A chatbot has been developed to assist SMT clients in quickly getting information about the nearest SMT site on the parameters of clients' interest.

#### 7. **Changes in drug supply and ordering algorithm.**

According to the new mechanism approved by the Order of the MoH No. 665 of 20.04.2022 «On the Provision of Medicines Purchased at the Expense of the State Budget of Ukraine for 2021 to Persons with Mental and Behavioural Disorders due to Opioid Use Who Receive Substitution Maintenance Therapy in the Context of Martial Law» the algorithm is currently as follows:

- the need for SMT drugs is determined by the oblast healthcare structural subdivision or a HCF, taking into account the number of IDPs and anticipated consumption;
- information on the calculated demand is submitted to the MoH of Ukraine and the UPHC;
- the UPHC verifies the submitted application and forwards it to the Medical Procurement of Ukraine SE;
- the Medical Procurement of Ukraine SE organizes the delivery of medicines to the regions.



Previously, medicines were distributed only according to approved allocations. As a result, when a region's drug quota was exhausted, a complex procedure of redistributing drugs from other regions was required to provide additional quantities, which took time and made it impossible to respond quickly.

A new flexible mechanism allows regions and HCFs requesting the amount of medications they need, taking into account the needs of IDPs, rather than being constrained by existing schedules.

#### 8. **Coordination and support for the clients abroad.**

UPHC specialists collected information on where SMT could be provided abroad. In addition, the Center's specialists assisted SMT clients who had travelled or were planning to travel abroad.

The following activities have been implemented in this area:

- providing information on treatment options in various countries;
- providing support to the clients who had difficulties in receiving SMT abroad;
- informing doctors about the possibility of SMT in another country;
- developing a certificate form in English and Ukrainian for SMT clients traveling abroad;
- establishing contacts with HCFs abroad and collecting statistical data on SMT clients who regularly leave the country and continue their treatment abroad.

#### **IRYNA**

##### **Client, received SMT with the help of the Center's specialists in Dresden, Germany**

*Hi. I am very grateful to the Center, particularly Olena. I was desperate to be abroad with an SMT addiction. I just did not know where to go, who to talk to. But thank God, I found a person who helped me a lot. I was texting Olena round the clock bothering her with questions, but she never got irritated or rude. I am just amazed. I did not think anyone could have such a big heart to help a stranger. Thanks for all your help and support. It was not all in vain. Thanks to the efforts of the Center, I have the medication. Olena found me a doctor, arranged everything and now I get support and help at the slightest request. Olena helped me with the translation, the language barrier was another obstacle, but now it is not a problem. I always know where to find help. I am very grateful. Olena, you are my angel. Thank you kindly! With people like the specialists at the Public Health Center, I am sure we will win. Thank you sincerely.*

#### 9. **Innovative solutions to problems of access to healthcare.**

Healthcare workers and SMT clients were often unable to reach medical facilities due to destroyed roads, shelling and the suspension of public transport. This situation significantly increased the risk of treatment interruptions and discontinuation of SMT services at HCFs. Pro-actively, the MoH developed and approved the Order of the MoH No. 409 of 04.03.2022 «On the Provision of Palliative Care and Substitution Maintenance Therapy to the Patients during Martial Law».

##### **This Order greatly simplified access to treatment by allowing:**

- dispensing SMT drugs for self-administration for up to 30 days in regions where active hostilities are ongoing (before the introduction of martial law, it was allowed to dispense SMT drugs for self-administration for up to 10 days);

- in the absence of prescription form F-3, to dispense narcotic drugs to patients receiving inpatient or outpatient treatment based on a list of prescriptions for narcotic drugs, psychotropic substances, and precursors, and to issue such prescriptions on primary documentation form No. 129-11/o with the signature of the doctor in charge, certified by their personal seal, additional certification by the signature of the head of the healthcare facility (authorised person) and the seal of the healthcare facility, within the limits of the individual needs of the client for a period of 30 days. This Order was revoked in August 2022, but its implementation during the first weeks of the invasion ensured the treatment of thousands of clients.

#### 10. **Effective inter-sectoral coordination and access to information.**

Access to new SMT drugs not previously available in Ukraine was ensured. However, the widespread practice of dispensing SMT drugs for self-administration is a measure that, in addition to its benefits, carries a number of risks and disadvantages related to abuse and overdose. During martial law, this practice was greatly expanded, and a thorough examination of its consequences is a separate task. One way to reduce the risk of abuse is to introduce SMT formulations that minimise the risk of abuse and co-use with other substances. A combination of buprenorphine + naloxone and an extended-release injectable buprenorphine are examples of such medications. In early 2023, Camurus AB (Sweden) provided Ukraine with 6,000 monthly doses of Buvidal, an injectable extended-release buprenorphine. Patients are being recruited for treatment with this drug, and research into its use is ongoing.

#### 11. **Innovative approach to ensure the continuity of SMT in Kharkiv oblast.**

Since the outbreak of hostilities, Kharkiv oblast has been in a difficult situation, with active hostilities and heavy shelling in some areas. As a result of the hostilities in the region, the infrastructure has been severely damaged. HCFs in Kharkiv providing SMT services ran out of medicines, and there was no regulation of their receipt from the pharmacy warehouse. HCFs in Derhachi, Balakliia and Chuhuiv stopped dispensing SMT. Timely delivery of SMT drugs from the central warehouse was not possible. In early March, more than 400 clients were at serious risks of treatment interruption. Urgent solutions and bold decisions were needed. It was decided to transfer SMT drugs from the pharmacy warehouse to the private healthcare facility Kharkiv Medical Centre Alternative LLC for further distribution to SMT patients receiving treatment under the state programme. Doctors of the Oblast Narcological Dispensary MNE of the Kharkiv Oblast Council dispensed SMT drugs. This issue was regulated by the Order of the MoH of 08.03.2022 No. 433 «On the Provision of Medicines Purchased at the Expense of the State Budget of Ukraine for 2021 to Persons with Mental and Behavioural Disorders due to Opioid Use Who Receive Substitution Maintenance Therapy in the Context of Martial Law». The implementation of this mechanism ensured treatment continuity for the clients in Kharkiv, Derhachi, Balakliia, and Chuhuiv.

#### 12. **Research on changes in the drug scene**

The military aggression has had a significant impact on all aspects of life, including the market for goods and services. The drug scene is no exception. The disappearance and change of certain drug distribution channels and sites, the deterioration of transport links, decline in material well-being, along with the presence of traumatic experiences and increased stress, may have had a significant impact on the prevalence of the use of various psychoactive substances, their availability, patterns of use, etc. Obtaining information on this issue is critical in the context of organizing effective service provision for drug users and adapting needs to current challenges. With this in mind, the UPHC has initiated and is conducting a study of the drug scene in order to identify trends in drug use.

**YURI POKLAD****Chernihiv Oblast Narcological Dispensary Municipal Treatment and Preventive Care Institution**

*We were impressed by the consolidation of the SMT network. Some have joined the Territorial Defence Forces, while others are still in the ranks of the Armed Forces. The patients helped each other, cared for those in need, and were ready to defend the city – one and all. All the patients were respectful and understanding towards us; no one broke down the door to get a drug and no one complained about anything because we were open to them. The doctors were convinced that this was a significant indicator of their performance and joked, «Well, no one called Kyiv to complain, so everything was fine with us».*

## OUR ACHIEVEMENTS

- Facing the horrors of war, it is difficult not to panic and keep a cool mind. However, a sense of responsibility for the lives of thousands of people, including healthcare workers, prompted us to act. This may have helped to maintain a balance and find ways to address the urgent needs. Today, the joint efforts of the UPHC and the stakeholders have translated into concrete results for the people, making them feel that we are by their side in the most difficult times.
- The most important accomplishment was to ensure the continuity of SMT during the large-scale invasion. In addition, the programme was expanded rather than reduced (except for the closure of HCFs in temporarily occupied areas).
- The «manual mode» of drug supply monitoring and prompt orders from the MoH of Ukraine have prevented treatment interruptions in a number of regions during the first months of the invasion.
- Increasing the amount of drugs allowed for dispensing allowed SMT clients significantly reducing visits to HCFs from the first weeks of the invasion until August, which could have been dangerous or even impossible in the ongoing hostilities.
- The continuity of SMT was ensured by the rapid procurement of drugs, the establishment of a buffer stock of medicines in the regions, and the logistics of medicines during the first months of the invasion through the use of mobile outpatient clinics.
- Efficient patient pathways within the country enabled treatment to continue as quickly as possible in the event of internal displacement.
- The identification mechanism has prevented drug abuse cases, when clients try to get medications at multiple sites at the same time, or when doctors, unable to identify the clients as the one receiving treatment, start therapy from the induction.
- It should also be noted that in addition to the emergency response measures aimed at maintaining the SMT programme, many measures were taken during the year to improve the quality of the SMT programme and strengthen its capacity, in particular through:
  - starting the large-scale implementation of the SMT module as part of the medical information system;
  - implementing a series of mental health and stress resilience support activities for SMT medical staff (4 supervision support groups);
  - implementing WHO interventions to improve mental health indicators in SMT clients;
  - developing an online course on the treatment of opioid dependence and a series of training activities to improve the skills of SMT service providers;
  - starting a study to examine the impact of self-administration on the effectiveness of SMT;
  - completing a study on barriers to SMT and the prevalence of mental health co-morbidity among SMT clients;
  - assessing the skill levels of service providers;
  - conducting a number of monitoring/technical assistance visits to HCFs, etc.

**IRYNA IVANCHUK****Head, Viral Hepatitis and Opioid Dependency Department, UPHC**

3Substitution maintenance therapy has always been a difficult area, and we faced serious risks of programme interruption during the large-scale invasion. Logistical difficulties, suspension of work by national manufacturers, panic, inability to ensure daily distribution of medicines due to risks to the lives of healthcare workers, disrupted transport links, large-scale internal migration — all these put the lives and health of the clients at risk. However, thanks to the collaborative efforts of our partners, the extraordinary dedication of the doctors, and their faith in what we are doing, we have not only been able to not only ensure the continuity of treatment for thousands of clients, but also to expand the programme.

Doctors are people who have greatly impressed me. We have heard many stories about doctors risking their lives, even under occupation and constant shelling, to dispense SMT drugs to the end. There are numerous stories of dedication and heroism, but each of the medical heroes said they were just doing their job and could not do anything else.

Even during the war we did not want or choose, we have the opportunity and freedom to be who we want to be. Professional, dedicated, honest, and brave, doing what we can, even if it never seems to be enough. I truly admire the inner beauty that we can now see in doctors, soldiers, volunteers and «ordinary citizens» who are anything but ordinary, judging by the «size» of their hearts. I believe that Ukrainians have chosen not to be victims, but to be those who assert the triumph of life over death and light over darkness by their ability to make their own choice.

**OUR TEAM****Час обирати здоров'я!**



## VIRAL HEPATITIS

*To be a man is to feel that one's own stone contributes to building the edifice of the world.*  
Antoine de Saint-Exupéry, French writer

**Hepatitis is a disease that makes no difference to a person's age, sex or lifestyle.**

It can happen to anyone. According to the WHO, at least 325 million people worldwide are affected by different types of hepatitis. In 2015, viral hepatitis killed nearly 1,340,000 people.

Access to treatment for viral hepatitis has been critical in Ukraine since the start of the coronavirus pandemic, and Russia's full-scale aggression has created new challenges for the Ukrainian healthcare system in this area. Due to internal migration, many patients lost the opportunity to initiate or continue treatment for HBV and HCV infections. There is a risk of a rapid increase in the number of cases of socially dangerous diseases, including viral hepatitis, due to prolonged and intense hostilities on a much larger territory of the country than in 2014–2021, high rates of civilian mobilisation into security and special forces, and an increase in the number of military personnel involved in hostilities. The number of appeals received by the UPHC concerning the possibility of receiving care in different parts of Ukraine is a clear indication of this.

According to a survey conducted before the full-scale Russian invasion, **over a million Ukrainians were unaware that they were infected with HCV.** It is estimated that 5% of the Ukrainian population has HCV and 1.5% has HBV, which in absolute numbers means 1,342,418 people live with HCV and 559,341 people live with HBV.

**For a long time, the viral hepatitis care system was structured so that diagnosis and treatment were carried out exclusively by infectious disease specialists and, in some cases, gastroenterologists.** This was primarily due to the complexity of the treatment. For example, before the advent of direct-acting antivirals (DAAs), HCV infection treatment was complicated, took 24 to 72 weeks, carried the risk of numerous dangerous side effects, and had no proven high efficacy. With the advent of DAAs, the situation has changed dramatically. Treatment is now simple, highly effective, and only lasts 3 to 6 months. Given the ambitious goal of the WHO Global Strategy of eliminating viral hepatitis by 2030, the question arose as to whether the current system would be able to achieve the goals if only highly specialised healthcare professionals were involved in treatment.

**In recent years, special emphasis has been placed on achieving the goals of the Strategy and moving closer to the elimination of viral hepatitis in Ukraine. To this end, the following steps have been consistently taken.**

- Effective and simplified algorithms for viral hepatitis screening, diagnosis and treatment have been developed and approved through the adoption of Standards of Care «Viral Hepatitis C in Adults», «Viral Hepatitis C in Children», «Viral Hepatitis B in Adults» and «Viral Hepatitis B in Children» (Orders of the MoH of Ukraine of 15.01.2021 No. 48, No. 49, No. 50 and No. 51). The adoption of the Standards has enabled simplification and unification of algorithms for diagnosis and laboratory support of treatment. The Standards prevent the prescription of unnecessary and expensive examinations to all categories of patients. They should only be carried out in specific, clinically justified cases. According to the Standards, the treatment of HCV infection can be provided not only by infectious disease specialists, but also by general practitioners — family doctors. Only patients in the following three categories should be treated in specialised centres, i.e. secondary and tertiary HCFs: renal failure, decompensated cirrhosis, failed previous treatment. Simplifying the algorithm for determining the stage of the disease and conducting laboratory tests allow healthcare workers who are not infectious disease specialists providing treatment services. This is an important strategy for ensuring accessibility of treatment.

- The video materials for the course on viral hepatitis B and C have been updated to disseminate information on updates to algorithms and advanced training of medical staff in accordance with the Standards of Care of the Public Health Center of the MoH of Ukraine SI. The course is designed for doctors of all specialties and is available on the UPHC website at <https://courses.phc.org.ua/courses/course-v1:PHC+76+2021/course/>. The Center will also provide regular information and training to doctors on the diagnosis and treatment of viral hepatitis.
- Viral hepatitis treatment services have been widely decentralised (more than 230 HCFs were involved in HCV infection treatment services at the beginning of 2022, compared to about 40 HCFs in 2020). The full-scale invasion of Russia, which generally had a negative impact on HCF activities, did not lead to a decline in decentralised services, but in some oblasts actually strengthened pathways to bring treatment services closer to patients.
- A pilot project for HCV infection treatment in addiction treatment facilities has been launched with the help of partners, including the Ukrainian Institute on Public Health Policy. To date, the project has involved HCFs from four regions, with discussions ongoing to include additional facilities.
- An electronic instrument for monitoring the availability of medicines at HCFs has been introduced, allowing every patient and doctor to receive up-to-date information on the availability of medicines online.
- The list of mandatory medicines and medical devices purchased with state funds has been updated. In particular, the procurement of rapid tests for HBV and HCV markers for mass screening has been included to increase coverage and patient detection.
- Viral hepatitis screening has been included in 11 healthcare packages funded by the National Health Service of Ukraine under the Programme of Medical Guarantees. Doctors are now required to conduct viral hepatitis screening as part of such packages as «Outpatient Healthcare for Adults and Children (Prevention, Observation, Diagnostics, Treatment and Medical Rehabilitation)», «Primary Healthcare», «Surgical Operations for Adults and Children in Inpatient Settings» and «Diagnostics, Treatment and Management of Persons with Human Immunodeficiency Virus (and Suspected HIV)» packages also include viral hepatitis testing.

At the same time, the area of «Outpatient Healthcare for Adults and Children (Prevention, Observation, Diagnostics, Treatment and Medical Rehabilitation)» includes laboratory tests for HCV antibodies and surface antigen (HbsAg), as well as serological tests for HBV and HCV RNA.

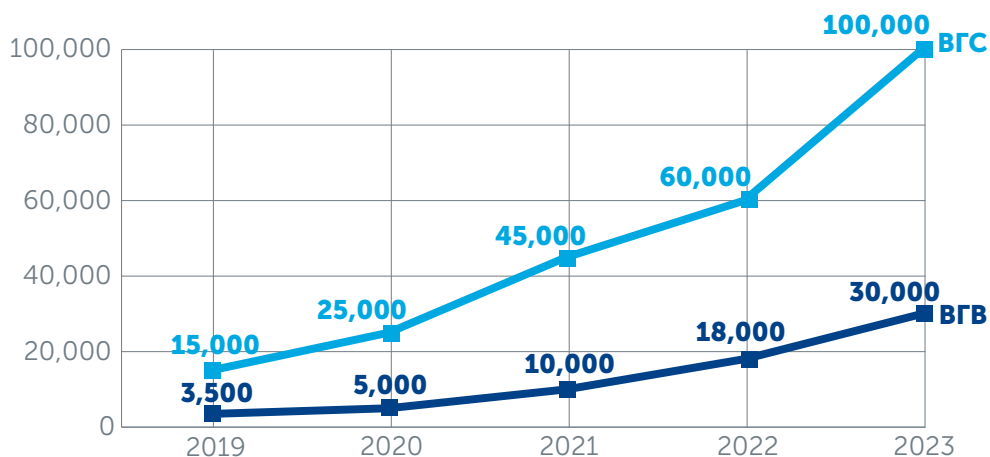
In 2022, in addition to the purchase of medicines, the state budget funds were used for the first time to procure rapid tests (RTs) for the detection of HCV and HBV markers in accordance with the amendments to the Drug and Medical Device Nomenclature by the Order of the MoH of Ukraine No. 2103 of 30.09.2021 in the area of «Drugs and Medical Devices for the Diagnosis and Treatment of People with Viral Hepatitis B and C». Based on the 2022 order, 727,360 tests for HCV and 670,420 tests for HBV were delivered. The tests arrived in Ukraine in mid-November 2022. However, there was an urgent need to review the pre-war 100% annual demand of the occupied oblasts, where full diagnosis and treatment was not possible, for further logistical redistribution to regions where needs had increased due to IDPs. As a result, the Order of the Medical Procurement of Ukraine SE No. 558-R of 21.11.2022 was amended by the Order No. 138-R of 08.02.2023, after reassessing the needs of the regions. The tests were delivered to the regions in April–May 2023 and distributed to 1,071 HCFs in 24 oblasts of Ukraine and the city of Kyiv according to internal regional orders.

Currently, viral hepatitis treatment is free of charge for patients. Consultations with a family doctor are covered under the «Primary Healthcare» package, while services provided by an infectious disease specialist and/or gastroenterologist are covered under the «Outpatient Healthcare for Adults and Children (Prevention, Observation, Diagnostics, Treatment and Medical Rehabilitation)» package of the Programme of Medical Guarantees.

## VIRAL HEPATITIS TREATMENT OUTCOMES DURING THE WAR

According to the WHO Global Strategy, to achieve 100% of the WHO targets, 60,000 people would need to be treated for HCV and 10,000 people for HBV by 2022.

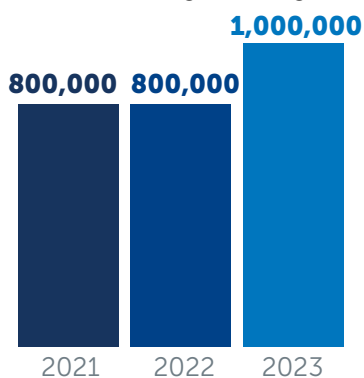
100% elimination scenario. Number of people eligible for treatment



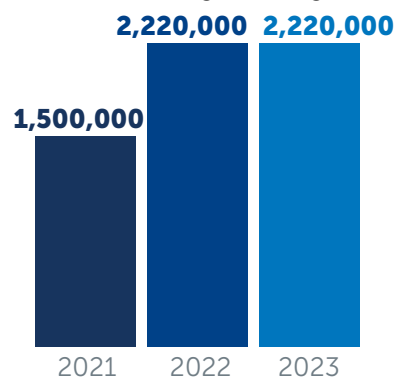
To implement the National Strategy, the 2021–2023 Action Plan for the Implementation of the National Strategy on HIV/AIDS, Tuberculosis and Viral Hepatitis for the Period until 2030 has been adopted.

2021–2023 Action Plan for the Implementation of the National Strategy on HIV/AIDS, Tuberculosis and Viral Hepatitis for the Period until 2030

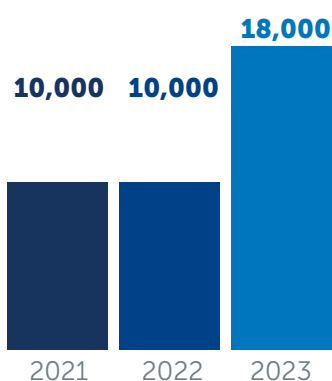
HBV screening and diagnosis



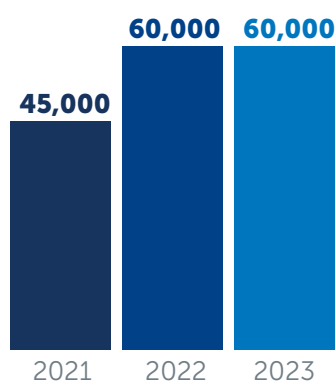
HCV screening and diagnosis



Access to HBV treatment



Access to HCV treatment



However, absolute treatment coverage targets have not been approved at the regional level. Such targets always correspond to the number of available drugs purchased in response to regional requests for state budget funds.

The full-scale invasion has severely hampered access to viral hepatitis services, not only in occupied and de-occupied areas, but also in oblasts with huge flows of internally displaced persons, in regions providing logistical and administrative support, and in regions receiving a significant number of patients from war-affected areas for treatment.

At the same time, direct hostilities, massive missile attacks on civilian cities and towns, and the brain drain from HCFs significantly increase the risks of viral hepatitis infection due to frequent contact with other people's blood, undue sterilisation, overburdening of the emergency medical care system, increased risk of injury and receiving medical care in field conditions, etc.



**OLENA TSARIOVA**

**Head, Hepatology Centre of the 3rd Department of Oblast Infectious Disease  
Clinical Hospital MNE of Zaporizhzhia Oblast Council**

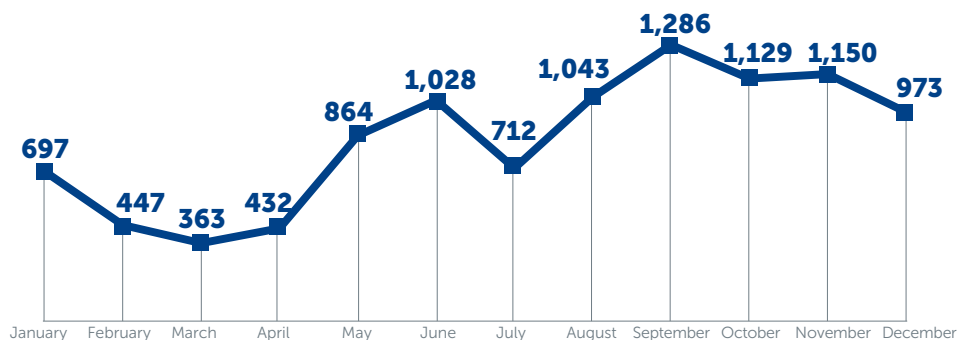
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Since the beginning of Russia's full-scale invasion into Ukraine, a larger part of Zaporizhzhia oblast has been occupied by the aggressor. Being in the territory controlled by Ukraine, Zaporizhzhia Oblast Infectious Disease Clinical Hospital continues operating in the usual mode, including the provision of viral hepatitis treatment services for both adults and children. With the outbreak of active hostilities in the oblast, the number of patients with viral hepatitis has increased as a result of testing at the military hospital. Due to the increase in the number of patients, the issue of availability of drugs for HCV treatment arose in March 2022. We sent requests to Cherkasy and Vinnytsia oblasts where the anti-hepatitis drugs were available in larger amounts. Thus, the facility received drugs for treatment of HCV for more than 200 patients that it lacked. Furthermore, a large part of the patients receiving treatment at the facility were referred from territorial centres of recruitment and social support after a positive viral hepatitis screening result. Zaporizhzhia serves as a temporary or a permanent place of residence for IDPs. Those who have received anti-hepatitis drugs can continue their treatment at our infectious diseases hospital, or undergo additional examinations and receive the necessary medications free of charge.

**According to monthly reports from HCFs collected by the UPHC, 14,631 patients received hepatitis treatment in 2022, including: 12,753 adults with HCV, 1,771 adults with HBV, 27 children with HCV, and 80 children with HBV.**

The consequences of the full-scale invasion and the complication of the patient pathway to HCFs providing treatment affected detection and linkage to care throughout the year. In 2022, for example, only 10,124 patients initiated treatment of HCV infection compared to 16,319 patients in 2021. In 2022, the average treatment initiation rate was 843 people per month. There was an average of 34 people per month per region. In comparison, treatment initiation rates were lower in 2020, with an average of 714 people per month and 29 people per month per region. The spread of coronavirus infection led to the re-profiling of 18 out of 25 HCFs that had been identified in the regions as specialised in the treatment of viral hepatitis, but received patients with COVID-19.

HCV treatment initiation rate in Ukraine by month





In the first few months of the full-scale invasion, the western regions of the country were unprepared to provide services to the large numbers of IDPs and military personnel referred for treatment to rear garrisons. For example, Lviv oblast was the first to decentralise HCV and partially HBV diagnostic and treatment services; in October 2020, viral hepatitis treatment was available in more than 20 HCFs in the oblast. This has helped to accelerate elimination in the oblast compared to other regions, reduce patient registries and, as a result, cut the oblast's annual demand in medicines by 100%. Therefore, the remaining medicines procured from the 2021 budget and the 2022 order did not correspond to the rate of migration to the oblast.

At the same time, the eastern region, which was under occupation and in the «grey» frontline or «red» combat zone, did not receive the anti-hepatitis drugs procured in 2021 and 2022 budget years, which had a negative impact on detection and linkage to care in 2022.

Some of the HCFs providing treatment at the frontline were completely or partially destroyed. For example, in the early days of the full-scale invasion, this happened to the I. K. Matsuk Mariupol Town Hospital No. 4, which treated patients from Donetsk oblast and Azov region in general, stored medicines, and performed clinical and laboratory tests. The HCF provided integrated medical care to at-risk populations: patients with co-infections (HIV/HCV, TB/HCV) and patients on SMT who were diagnosed with HCV infection while being treated for mental and behavioural disorders due to opioid use.



I. K. Matsuk Mariupol Town Hospital No. 4 before the Russian invasion on 24.02.2022



I. K. Matsuk Mariupol Town Hospital No. 4 after the attack on 24.02.2022



**In early March 2022, the hospital was hit by an air raid that destroyed the HCF's building, where the remaining anti-hepatitis drugs, patient records, and reports were stored.**

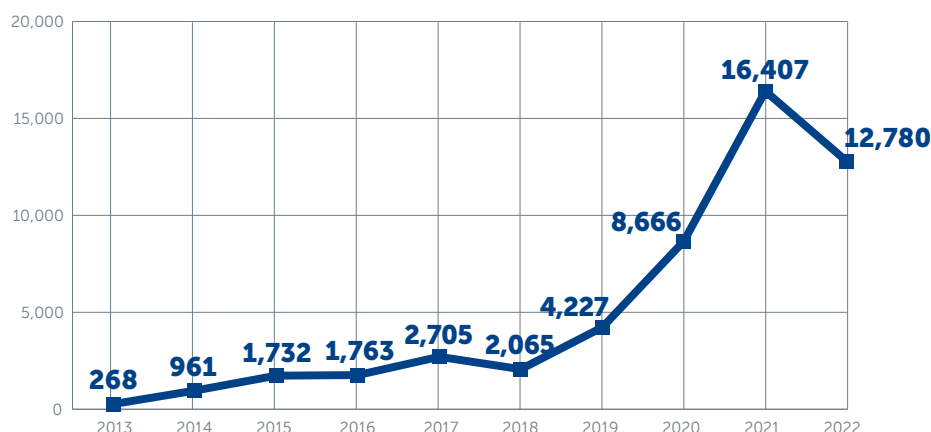


Another part of the hospitals was re-profiled from oblast infectious diseases hospitals or central raion hospitals into stabilisation units or emergency medical care units, focusing primarily on urgent patients with inflammation, surgical needs, bleeding, etc. This was the case of the G. I. Horbachevskiy Kherson Oblast Infectious Diseases Hospital MNE of Kherson Oblast Council. Prior to the occupation, the HCF treated seriously injured civilians as well as the Armed Forces soldiers from the frontlines. During the occupation of the city, the hospital provided emergency care to locals who were unable to leave the area.

Some of the healthcare workers left hospitals in the first days of the full-scale invasion, due to the impossibility of continuing their activities, the risk of death, or the inability to provide medical care without cooperating with the occupiers or collaborators. In particular, nothing is known about the remaining medicines in the Luhansk Oblast Medical Centre for Socially Dangerous Infectious Diseases MNE of Luhansk Oblast Council and the Diagnostic and Consulting Centre MNE of Severodonetsk Town Council, both of which provided services in the frontline areas of Luhansk and Donetsk oblasts during the ATO. Luhansk oblast was quickly and aggressively occupied, hospital personnel were forced to flee, and contact with patients and other HCF workers was lost.

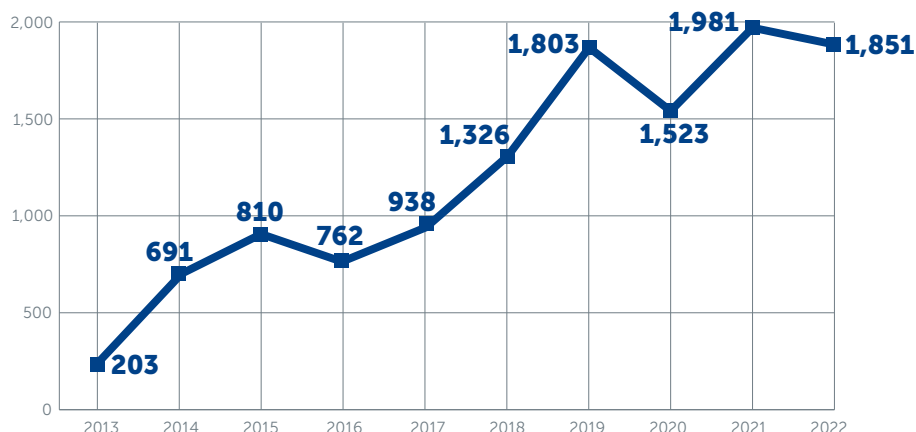
All of these factors had a negative impact on the overall process of treating viral hepatitis patients, so that since 2018, for the first time in five years, the number of patients treated for HCV decreased rather than increased.

HCV cases treated in 2013–2022



In addition, 130 people with HBV left the treatment programme during the year. It is unknown whether they received treatment abroad or resumed it when moving between regions.

HBV treatment coverage in 2013–2022



**In the first half of 2022, only 19 out of 25 oblasts had reported on viral hepatitis cases treated due to the full-scale Russian invasion of Ukraine.** Donetsk, Luhansk, Mykolaiv, Kharkiv, Kherson, and Chernihiv oblasts were unable to report the number of HBV and HCV patients treated. However, 22 oblasts submitted reports in the second half of 2022.

Luhansk, Kherson, and Mykolaiv oblasts were unable to provide information on treated viral hepatitis cases until the end of 2022. The facilities providing viral hepatitis diagnosis and treatment services in these regions temporarily stopped accepting patients. In addition, the specialists responsible for viral hepatitis reporting were located outside these regions.

Reporting on the number of patients receiving HBV and HCV treatment has resumed since the beginning of 2023, and the UPHC now receives reports from all 25 oblasts of the country and non-occupied HCFs. According to the reports submitted to the UPHC for Q1 2023 (as of 01.04.2023), 3,591 people initiated viral hepatitis treatment, including: 3,089 for HCV and 502 for HBV.

## KEY CHALLENGES AT THE BEGINNING OF THE WAR

### INTERNAL MIGRATION

Due to Russia's war against Ukraine and internal migration, many patients lost the opportunity to initiate or continue viral hepatitis treatment. The problem was exacerbated by the absence of medicines for the full treatment courses.

### EVACUATION ABROAD

When calculating the amount of medicines required to treat children with HCV, it was discovered that the need had decreased due to the evacuation of children from Ukraine and the ability to receive treatment abroad. No such trends were observed in the adult population, although internal migration from combat zones to more peaceful regions of Ukraine was noticeable due to an increased need and number of requests from healthcare workers and patients for pangenotypic HCV treatment regimens in the western oblasts and Kyiv city.

### ANDRII ORFIN

#### Deputy Director on Nursing, Lviv Oblast Infectious Diseases Clinical Hospital

Since 24 February we have witnessed a significant rise in the number of IDPs, including the ones dispersed across the oblast. Keeping a proper record of IDPs makes our work much more difficult. Once we had a situation with two IDPs who needed treatment. We have followed all necessary preparatory procedures and decided to contact them once more before allocating the medicines. It turned out that they had moved to Poland the following day. Since our stocks of medicines are very limited, we are now literally handing out drugs in the manual mode in the oblasts only to real people who are ready to start treatment on that very day. The oblast is currently in desperate need of medicines to treat viral hepatitis.



Some of the medicines redistributed to Lviv oblast

## LOGISTICS PROBLEMS

**Drug delivery schedules were severely disrupted by the hostilities. In particular, a significant number of scheduled deliveries did not occur on time, resulting in drug shortages and a lack of regimen supply.** It should be noted that the procurement cycle is supposed to take place during the budget year, but there have been unexpected situations with the supply of medicines to Ukraine in previous procurement cycles. This led to delays in the delivery of medicines to the regions. Furthermore, the majority of medicines procured by Ukraine for the treatment of viral hepatitis are generic drugs manufactured outside the country, which requires careful planning of the supply route.

In particular, the delivery of sofosbuvir, which was due to be procured at the expense of the state budget in 2020, was significantly delayed because of the lack of GMP registration of the generic drug chosen by the supplier (Crown Agents Limited) during the tender procedure. Since the drug was only registered in February 2022, the logistics of its delivery from India to Ukraine was disrupted during active hostilities in the country. The drug was delivered by air to Poland and then by land to the warehouses of the Ukrvaksyna SE when active hostilities ceased in Kyiv oblast and Kyiv city. However, the supplier had previously agreed to ship the medication by sea. This significantly reduced the cost of logistics and insurance, as well as the risk of losing the drugs in the previous period.

Because of the delay in delivery, the MoH was not able to distribute the drug until April 2022. As a result, there was a 7-month delay between the first deliveries of a drug containing daclatasvir, which is part of the sofosbuvir regimen. This made it impossible to treat HCV patients in certain oblasts without additional redistribution of drugs from other oblasts or from the Ukrvaksyna SE warehouse.

The entire volume of 100% of the demand ordered by the regions at state expense in 2020 was distributed by the Order of the MoH of Ukraine No. 674 of 22.04.2022 and delivered to the regions by the Ukrvaksyna SE between 24 April and 5 May 2022. Donetsk, Luhansk, and Kherson oblasts refused to receive the drug. The drug is stored in the Ukrvaksyna SE's warehouse.

The international agency UNDP carried out the procurement process at the expense of the state budget in 2021. This was the last procurement process to be carried out by an international organization rather than the Medical Procurement of Ukraine SE. In total, the procurement of 7,451 HCV treatment courses for adults, 1,478 HBV treatment courses for adults, 111 HBV treatment courses for children and 101 HCV treatment courses for children was approved at the expense of the state budget for 2021.

Prescribed for	International non-proprietary name	Formulation	Dosage	Estimated demand, 100%	Delivery period
Children with HBV	Tenofovir	tablets, capsules, dragees	300 mg	16,845	February–March 2022
	Entecavir	tablets, capsules, dragees	1 mg	365	June–July 2022
	Entecavir	tablets, capsules, dragees	0.5 mg	21,542	August–September 2022
	Peginterferon alfa-2a	ampoules, vials, syringes	135 µg/ 0.5 mL	27	October–November 2022
	Peginterferon alfa-2a	ampoules, vials, syringes	180 µg/ 0.5 mL	236	October–November 2022
Adults with HBV	Tenofovir	tablets, capsules, dragees	300 mg	404,149	March–April 2022
	Entecavir	tablets, capsules, dragees	1 mg	92,135	June–July 2022
	Entecavir	tablets, capsules, dragees	0.5 mg	37,595	August–September 2022
	Peginterferon alfa-2a	ampoules, vials, syringes	180 µg/ 0.5 mL	757	October–November 2022

Adults with HCV	Sofosbuvir	tablets, capsules, dragees	400 mg	181,972	July–August 2022
	Daclatasvir	tablets, capsules, dragees	60 mg	201,288	July–August 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/100 mg	412,817	March–April 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/90 mg	84	March–April 2022
	Ombitasvir/paritaprevir/ritonavir	tablets, capsules, dragees	12.5 mg/75 mg/50 mg	72,088	February–March 2022
	Dasabuvir	tablets, capsules, dragees	250 mg	71,752	February–March 2022
Children with HCV	Sofosbuvir	tablets, capsules, dragees	400 mg	392	March–April 2022
	Ribavirin	tablets, capsules, dragees	200 mg	4,032	March–April 2022
	Sofosbuvir/ledipasvir	tablets, capsules, dragees	400 mg/90 mg	840	March–April 2022
Children with HCV	Sofosbuvir/ledipasvir	tablets, capsules, dragees	200 mg/45 mg	1,008	March–April 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	200 mg/50 mg	2,436	March–April 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/100 mg	3,864	March–April 2022

**During the process of determining the needs for the state budget in 2021, it was decided not to procure the sofosbuvir/ledipasvir regimen due to the economic inefficiency of this drug.** In 2022, for the first time, exclusively pangenotypic HCV treatment regimens were procured for patients who did not require specific treatment (no renal failure, no previous DAA treatment failure).

Minutes No. 25/01/2022 of 25.01.2022 of the meeting of the group of experts and specialists involved in the work of the Permanent Task Force of MoH of Ukraine on specialised support of procurement in the areas of «Medicines for Patients with Viral Hepatitis B and C», «Medicines for Children with Chronic Viral Hepatitis» approved the schedule of supply of medicines procured at the expense of the state budget for 2021. This schedule is shown below.

Prescribed for	International non-proprietary name	Formulation	Dosage	Estimated demand, 100%	Delivery period
Adults with HBV	Peginterferon alfa-2a	ampoules, vials, syringes	180 µg/0.5 mL	757	October–November 2022
Adults with HCV	Sofosbuvir	tablets, capsules, dragees	400 mg	181,972	July–August 2022
	Daclatasvir	tablets, capsules, dragees	60 mg	201,288	July–August 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/100 mg	412,817	March–April 2022
	Sofosbuvir/ledipasvir	tablets, capsules, dragees	400 mg/90 mg	84	March–April 2022
	Ombitasvir/paritaprevir/ritonavir	tablets, capsules, dragees	12.5 mg/75 mg/50 mg	72,088	February–March 2022
	Dasabuvir	tablets, capsules, dragees	250 mg	71,752	February–March 2022

Children with HCV	Sofosbuvir	tablets, capsules, dragees	400 mg	392	March–April 2022
	Ribavirin	tablets, capsules, dragees	200 mg	4,032	March–April 2022
	Sofosbuvir/ledipasvir	tablets, capsules, dragees	400 mg/90 mg	840	March–April 2022
Children with HCV	Sofosbuvir/ledipasvir	tablets, capsules, dragees	200 mg/45 mg	1,008	March–April 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	200 mg/50 mg	2,436	March–April 2022
	Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/100 mg	3,864	March–April 2022

Only ombitasvir/paritaprevir/ritonavir and dasabuvir were procured and delivered on time according to this schedule. The drugs were distributed in full for 424 treatment regimens (72,072 ombitasvir/paritaprevir/ritonavir tablets and 71,736 dasabuvir tablets). All of them were procured at the expense of the state budget of Ukraine for 2021 and delivered to 19 oblasts of Ukraine (Vinnytsia, Dnipropetrovsk, Donetsk, Zhytomyr, Zakarpattia, Ivano-Frankivsk, Kyiv, Lviv, Mykolaiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Kherson, Khmelnytskyi, Chernivtsi, Chernihiv) and the city of Kyiv.

It is the only original drug procured for HCV treatment. Thus, the cost of procuring this regimen is nearly a quarter of the total state budget for drug procurement in 2021, namely UAH 30,769,827.96. The supply of this drug to Ukraine before the full-scale invasion was therefore a critical issue.

The delivery of pangenotypic treatment regimens was expected to take place in June–July 2022. However, due to the impossibility to deliver via the usual routes, drugs with entecavir and tenofovir, sofosbuvir/velpatasvir were not delivered to Ukraine. This created the potential for treatment interruptions. Entecavir was distributed to the regions in April 2023. For a long time, almost all regions had exhausted their stock of tenofovir. As a result, patients were forced to buy the medications out of pocket. However, not everyone had this option, which led to treatment interruptions. Conditions in the HCFs were such that new patients could not be engaged in HBV treatment. As of March 2023, all state-funded tenofovir has been delivered to the country, patients receive treatment, and healthcare facilities have resumed engaging patients in HBV treatment with both regimens.

The procurement process has been delegated to the MoH of Ukraine with funding from the state budget for 2022. The formation of the order for 2022 funds was completed on 24.02.2022, with the beginning of the full-scale invasion. There was considerable prejudice in the regions about the likelihood of military conflict and the inability to work in conditions of hostilities. As a result, the order numbers were significantly understated. The regions had previously requested 9,547 full HCV treatment courses, but a realistic assessment of the situation resulted in 12,452 courses being ordered.

According to the MoH of Ukraine, the earliest the drugs could be delivered to Ukraine was November–December 2022. The possibility to deliver the drugs appeared in Q4 2022 and Q1 2023. As of 01.05.2023, all 2022 orders had been delivered to the MoH of Ukraine's warehouses for distribution to the regions. First and foremost, the high-cost ombitasvir/paritaprevir/ritonavir regimen and dasabuvir in the amount of 33,600 tablets were delivered in November 2022. They were sent to: Vinnytsia, Dnipro, Zhytomyr, Zaporizhzhia, Mykolaiv, Odesa, Sumy, Ternopil, Kharkiv, Khmelnytskyi, and Chernivtsi oblasts. Despite the Donetsk oblast's refusal, the drug was distributed to Ivano-Frankivsk and Cherkasy oblasts and is now being used to treat HCV in adult patients.

## EVACUATION OF THE STAFF

**Despite significant personal risks, few health workers have left their workplaces and relocated.** However, even in the face of extremely difficult conditions, announced evacuations and temporary occupations, the vast majority remained in place, providing services to patients or returned as soon as possible. Some facilities continue to operate and provide viral hepatitis treatment even in frontline areas where shelling and attacks are common.



There have been no reports of mass evacuation of infectious diseases departments. At present, the Center is only aware of the relocation of the Luhansk Oblast Medical Centre for Socially Dangerous Infectious Diseases MNE of Luhansk Oblast Council. It is now based in Cherkasy oblast and has been receiving IDPs for viral hepatitis treatment since February 2023.

It is also known that some doctors have been transferred within Ukraine and are involved in the treatment process in functioning HCFs.

**Tetiana Yelizarova**

**Head, Infectious Diseases Hepatology Department of Kyiv City Clinical Hospital No. 15 of Podil District of Kyiv City**



*Our institution has provided and continues to provide viral hepatitis treatment to all people who come to us. In March 2022, during the missile attacks on Kyiv, Podil district of the city was at risk of missile strikes. For almost a month and a half, the staff of the facility's infectious disease department continued to work, providing treatment services in the basement, which is fully equipped and has all the necessary resources to continue the treatment process. Since the beginning of the full-scale war, approximately 10 soldiers with HCV diagnosis have been transferred to our hospital, all of whom have received treatment. During the Russian offensive in Kyiv oblast, people in need of hepatitis treatment from Irpin, Bucha and other settlements affected by active hostilities sought care at our hospital. These patients were prescribed treatment and provided with medicines, and the facility also provided them with temporary shelter and food. At the moment, the facility is operating in its usual mode, has all the means to diagnose viral hepatitis and is ready to admit patients at any stage of the disease; however, the amount of drugs for hepatitis treatment available at the facility is running critically low.*

## FUNDING

**At the moment, the procurement of medicines for the treatment of viral hepatitis in children and adults is centralised and funded from the state budget.** Due to the availability of generic DAAs registered in Ukraine, which are significantly cheaper than branded drugs, there is a possibility to increase the volume of medicine procurement compared to previous years.

For the first time, the supply of RTs has been included in the procurement for the 2022 covered by the state budget. At the same time, the Drug and Medical Device Nomenclature (hereinafter — the Nomenclature), updated in 2021 and approved by the Order of the MoH No. 1723 of 11.08.2021

«On Approval of the Nomenclature of Medicines, Medical Devices, and Assistive Products to be Procured by the Areas of Use of Budget Funds in 2022 under the Budget Programme» (as amended by the Order of the MoH of Ukraine No. 2103 of 30.09.2021) does not provide for the procurement of medical devices for the confirmatory diagnosis of HCV. To address this issue, it is planned to involve partner organizations and donor funds in 2023.

In addition, the sofosbuvir/ledipasvir regimen has been excluded from the Nomenclature due to the need for virus genotyping. Such diagnostics are not covered by the state budget, leaving patients with additional financial costs. This regimen is only used to treat patients with genotypes 1 and 4, which is not cost-effective. Thus, in 2021, 2,639 full three-month treatment courses were not used by the expiry date.

To reduce the state budget deficit, it was decided to use savings from the previous period for the first time in the history of drug procurement for the treatment of HBV infection. The group of experts and specialists involved in the work of the Permanent Task Force of MoH of Ukraine on specialised support of the procurement in the areas of «Medicines for Patients with Viral Hepatitis B and C», «Medicines for Children with Chronic Viral Hepatitis» reviewed the UNDP letter No. UKR/HP/CL/2022/087 of 04.04.2022 on the expected budget balance after completion of the procurement process for the «Medicines for People with Viral Hepatitis B and C» at the expense of the state budget for 2021, which amounts to USD 1,686,947.57. It was decided to allocate funds for the procurement of the following items:

International non-proprietary name	Formulation	Dosage	Estimated demand, 100% (taking into account leftovers and expected deliveries)	Estimated quantity taking into account the funding	Notes
Tenofovir	tablets, capsules, dragees	300 mg	14,280	14,280	for children with HBV
Tenofovir	tablets, capsules, dragees	300 mg	795,540	795,540	for adults with HBV
Sofosbuvir/velpatasvir	tablets, capsules, dragees	400 mg/100 mg	726,936	726,936	for adults with HCV

This decision was made because the sofosbuvir/velpatasvir treatment regimen, which does not require prior supply and genotyping, is the optimal choice. Given the changing epidemiological situation with viral hepatitis, it was proposed to strengthen the supply and availability of DAAs in the context of active hostilities throughout Ukraine and increased internal migration. The order covered by the state budget in 2021 was extremely small, allowing only 7,072 full courses of HCV treatment using pangenotypic regimens to be procured. The amount of a tenofovir-based drugs was critically low. There were 188 courses remaining with an expiry date of December 2022 as of 01.06.2022, with an average monthly treatment coverage of 1,880 patients in 2021 and 1,570 patients since April 2022. The next supply of the drug at the expense of the 2021 state budget was expected to take place in September 2022, with 1,105 courses, but the drugs were not physically distributed to the regions until March 2023. As these procurement volumes were insufficient to meet the needs of all HBV patients in Ukraine, it was decided to purchase the drugs listed above.

Average cost of an HBV treatment course when procured with public funds in 2021–2022

Regimen (HBV)	Cost of a course, UAH
Peginterferon alfa-2a	193,200
Tenofovir	2,306.8
Entecavir 1 mg	6,686.8

Cost of an HCV treatment course for adults

Regimen (HBV)	Cost of a course, UAH
Sofosbuvir/velpatasvir	4,262.16
Sofosbuvir/Daclatasvir	2,447.76
3D regimen (high cost due to original medicines)	84,677.04

**At the same time, the market price of drugs sold by distributors through pharmacies was three times higher.**

## RISKS OF HEPATITIS INFECTION

The epidemiological situation with viral hepatitis has worsened as a result of Russia's full-scale invasion of Ukraine, intensified migration processes, prolonged and intense hostilities, and high rates of civilian mobilisation into security and special forces. The war has created new risks of viral hepatitis infection associated with injuries, medical care provided in inadequate conditions, lack of access to sterile instruments, and a reduction in the livelihoods of people from key populations most at risk of infection. At the same time, the material and economic situation of the population has deteriorated, as has their ability to pay for diagnostic services. Rapid tests for HBV and HCV diagnosis have been purchased with state funds, but confirmatory PCR diagnosis is still not available to the public for free.

In addition, monitoring of HCV marker testing shows a negative trend towards a decrease in HCV testing among the Ukrainian population. This leads to a decrease in the number of HCV cases detected and further spread of the infection.

Number of people tested for HBV and HCV markers: epidemic scale

Years	HBsAg			Anti-HCV IgG		
	Number of people tested	Number of positive tests		Number of people tested	Number of positive tests	
		Abs. number	%		Abs. number	%
2014	2,010,342	28,214	1.4	1,037,515	43,798	4.2
2015	1,728,827	27,907	1.6	932,066	39,285	4.2
2016	1,632,440	25,142	1.5	217,325	9,657	4.4
2017	1,523,037	20,699	1.4	884,104	36,409	4.1
2018	1,315,768	19,028	1.4	932,139	34,816	3.7
2019	1,481,858	20,187	1.4	928,463	32,798	3.5
2020	<b>1,013,873</b>	12,140	1.2	<b>631,500</b>	19,840	3.1
2021	<b>1,017,426</b>	11,327	1.1	<b>674,326</b>	16,549	2.5
2022	<b>982,210</b>	9,306	0.94	704,475	19,967	2.8

At the same time, 94,000 people were linked to care for HCV as of 01.01.2023, representing only 7% of the estimated number of people with chronic HCV infection. Almost 20,000 people are linked to care for HBV, accounting for 3.5% of the estimated number of infected people.

Furthermore, the issue of infection and sanitary control among healthcare workers requires special attention. They are the first to receive the injured, the dead corps, and the critically ill patients. Their epidemiological protection is not always adequate, and the conditions in which they provide their services do not always meet infection control standards. Given that only HBV vaccination is currently available (there is no HCV vaccination), and that Ukraine has a low level of vaccination coverage among the adult population in general, doctors are becoming one of the key risk groups for viral hepatitis infection.

## RESPONSE TO WAR-RELATED CHALLENGES

**Managerial decisions and adaptation of the viral hepatitis treatment system in the context of war.** Even in the face of the war's critical impact, the UPHC did not lose sight of the problems of viral hepatitis.

**Redistribution of available drugs among regions.** Here is one of many examples of the Center's direct work: a patient and a healthcare worker addressed the Center asking to help them in finding the drugs they needed to treat chronic HCV infection, since the necessary drug was not available in the oblast, and she could not afford to purchase it. As a result of the coordinated efforts of doctors in Vinnytsia and Ternopil oblast and the employees of the Center, the patient was able to start the treatment.

### **DARYNA**

#### **Patient, Vinnytsia city**



*I would like to express my immense gratitude to you. I did not believe I would get the medicines, especially in such a difficult time for all of us, I thought that would be unreal. I cannot even express how grateful I am. You are doing a noble thing by helping people like me. You have done really much for me. I will always be grateful. I wish you health and happiness.*

## YEVHENIIA PRYHOROVSKA

### Daughter of patients, Kryvyi Rih town



*I'd like to express my sincere gratitude to the Public Health Center for its assistance and prompt response to my father's request for viral hepatitis treatment. Thanks to the Center's efforts, my father was able to start treatment for his underlying disease — hepatocellular carcinoma of the liver — earlier. He had to undergo HCV treatment before starting chemotherapy, and time is so precious in this battle. My mother, too, was able to initiate HCV treatment. She also received the medication and has started viral hepatitis treatment. I am so grateful for this opportunity for my parents!*

### Another request in March 2022 came from a paediatric hepatologist in Kharkiv.

She had a child on the register who did not need treatment before the full-scale invasion. The child lived with parents in Kharkiv oblast. The drug was ordered for the kid at the expense of the state budget for 2021, but its delivery to Ukraine was delayed due to the difficult situation in the oblast. As soon as the diagnosis was made, the child needed to start treatment urgently, and it was decided that the sofosbuvir/velpatasvir regimen was the best option. At the same time, an adult infectious disease specialist from Ternopil agreed to provide treatment. The only problem was how to deliver the expensive drug, given the lack of logistics. However, it was solved within a week thanks to volunteers who delivered the drug to the area of massive missile and artillery attacks. The child received and completed the treatment. The effectiveness of the therapy was noted.



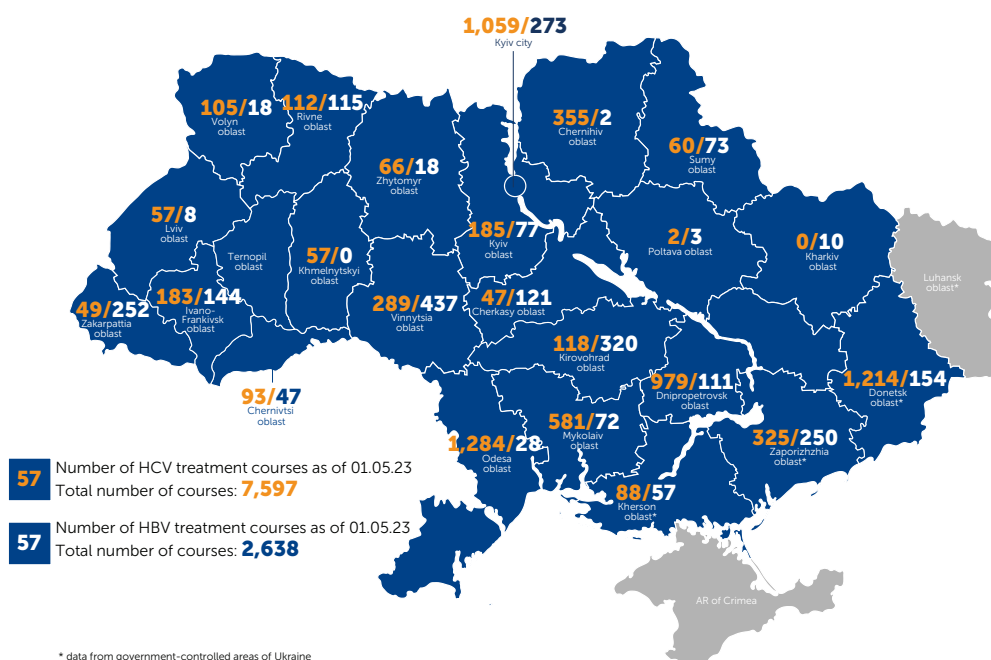
Every day, the UPHC receives such requests for redistribution of drugs for the treatment of viral hepatitis. To ensure the efficient and rational use of medicines, the Center maintains constant communication with doctors and coordinates the redistribution of medicines so that each patient receives the treatment they need in a timely manner.

## PROCUREMENT OF MEDICINES WITH DONOR FUNDS

Ukraine received expensive Gilead Sciences medicines for the treatment of HCV infection in children free of charge as humanitarian aid, giving patients access to high-quality, new-generation medicines. Due to the small volume of the order, which was not contracted by the supplier, these reduced-dose medicines, specifically used for paediatric HCV treatment, were not procured at the expense of the state budget in 2021 and 2022.

Donor funds were used to purchase confirmatory HCV diagnostics, such as cartridges for GeneXpert systems, and drugs for HCV treatment with the pangenotypic regimen sofosbuvir + daclatasvir, for key populations (coinfected patients, SMT patients). Medical devices and medicines were delivered directly to facilities that provide specialised medical care to at-risk patients, greatly simplifying the patient pathway and accelerating the initiation of the treatment. One of the Center's main tasks today is to expand access to confirmatory diagnostics not only for patients from key populations, but also for the general population, as a comprehensive approach is crucial for treatment effectiveness. Support is provided to patients seeking care. The transfer of medicines, particularly from regions where there is a surplus of medicines, is organized directly to the HCF closest to the patient.

## Availability of medicines as of 01.05.2023



As of 01.05.2023, a total of 7,597 HCV treatment courses and 2,638 HBV treatment courses were available in the regions. The following regimens were available: sofosbuvir +daclatasvir, sofosbuvir/ledipasvir, sofosbuvir/velpatasvir, 3D regimen, tenofovir disoproxil fumarate, and entecavir. The Center provides monthly information on the availability of anti-hepatitis drug courses by oblast as of the first day of each month. The information is available at <https://phc.org.ua/kontrol-zakhvoryuvan/farmmededzhment>

## OPERATIONAL RESPONSE AND REGULATORY FRAMEWORK DURING THE WAR

The procedure for epidemiological surveillance of viral hepatitis was developed and submitted to the MoH of Ukraine for approval in the second half of 2022. The guidelines for planning and calculating the order of medicines and medical devices for people with chronic HBV and HCV infection have been updated to improve the methodology for calculating the need for viral hepatitis medicines. Standards of Care for viral hepatitis are being revised to align with current international clinical guidelines and recommendations.

## PROMPT REPORTING

- Information materials on viral hepatitis prevention during martial law have been developed.
- Information on HCFs willing to provide viral hepatitis treatment services is regularly updated and verified. There is an operational chatbot. It provides information on HCFs that have leftover anti-hepatitis drugs and medical devices for viral hepatitis screening.

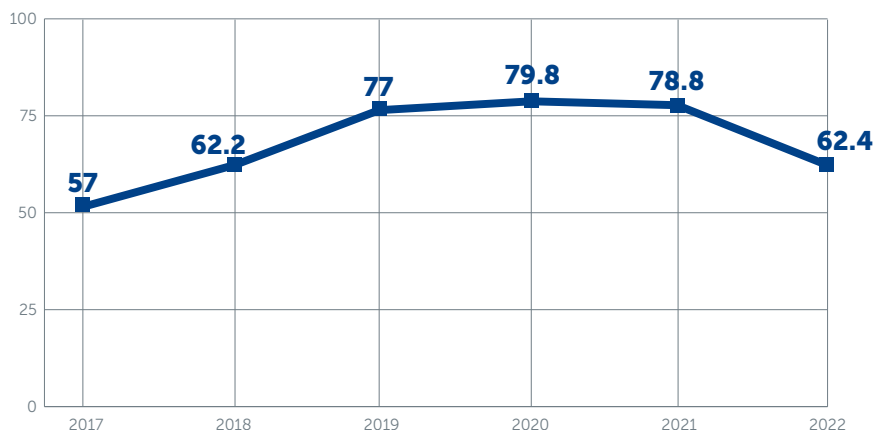
## VIRAL HEPATITIS PREVENTION SERVICES AFTER THE BEGINNING OF RUSSIA'S FULL-SCALE INVASION OF UKRAINE

HBV vaccination is the most effective method of disease prevention. There is no vaccine for HCV, but with the help of modern DAAs, more than 95% of HCV-infected patients can be cured. Hepatitis can affect anyone, regardless of age, gender, or lifestyle.

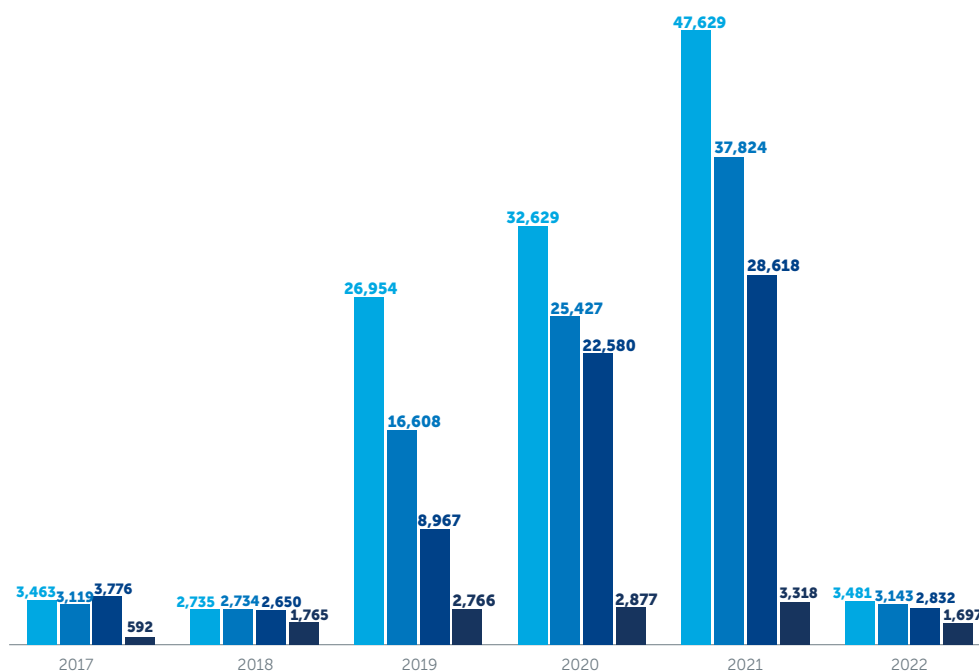
Vaccination is the most effective way to prevent morbidity and mortality. Timely vaccination protects a person, and 95% vaccination coverage can eliminate the disease completely. Newborn HBV infection has a 90% chance of developing into chronic disease. Approximately 30–50% of children infected between the ages of 1 and 6 develop chronic HBV infection. Chronic hepatitis B is incurable. Vaccination effectively prevents the development of the infection and its chronic consequences in 96% of vaccinated people if the full three-dose schedule is followed. Protection lasts for at least 20 years, and in some cases for a lifetime. Vaccination of children against HBV began in Ukraine after 2000. Vaccination coverage was 84–90% between 2004 and 2008, but the number of vaccinated children declined in the following years due to anti-vaccination campaigns and the coronavirus pandemic. The full-scale invasion also had a negative impact on vaccination coverage in Ukraine.



Hepatitis vaccination coverage in children under one year of age (three doses)  
according to the UKRVAC database



In Ukraine, the situation with adult vaccination is even more complicated. The number of people willing to get vaccinated against HBV increased in 2019–2020, but not everyone received three doses — some people only completed the first or second stage of vaccination.



The situation has worsened with the full-scale invasion, but it is now critical to increase vaccination coverage. The war has increased the risk of HBV infection and spread. The rapid pace of mobilisation, people's unawareness of their status, internal migration, and the lack of free adult vaccination will all increase the risk of infection in both military and civilian populations in the future.

The Center advocates for public awareness of HBV and HCV, their transmission and risks of infection, the importance of viral hepatitis testing and vaccination, and the existence of effective and affordable viral hepatitis treatment (covered by the state budget).

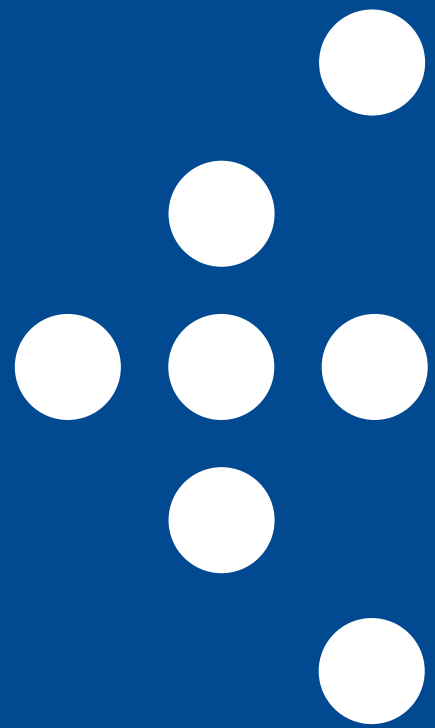
## OUR PLANS

Despite all the obstacles to achieving the strategic goals for viral hepatitis control, we will do our best to make treatment accessible for the majority of people in need of it. That is how we challenge the difficulties we face and ourselves.

1. Revise standards of care for all patient nosologies in line with current clinical guidelines and international recommendations to simplify patient pathways and unify the management approach.
2. Revise the nomenclature of drugs procured at the expense of the state budget for the treatment of HBV infection to align it with treatment standards and the methodology for determining needs.
3. Finalise and implement the Viral Hepatitis module in the SSD IS to improve epidemiological surveillance of the infection and to respond promptly to the health system's needs for screening, diagnosis and treatment of patients with viral hepatitis.
4. Strengthen civil-military cooperation in the treatment of viral hepatitis patients, including the development of long-term patient pathways through inter-sectoral collaboration.
5. Involve private sector representatives in the diagnosis and treatment of viral hepatitis patients.
6. Improve the epidemiological surveillance system to assess viral hepatitis prevalence.
7. Develop the concept of viral hepatitis laboratory diagnostics.

We are moving forward and remaining proactive as the war continues to affect all the aspects of Ukrainians' lives. The Center together with its partners will make every effort to maintain a balance between providing high-quality medical care to patients and being responsive to the needs of doctors, building on the existing experience.

**We do not wait for the right time to become better; we do act here and now.**



**PUBLIC HEALTH CENTER  
OF THE MOH OF UKRAINE**

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