



Ukraine



COVID-19 RESPONSE AND IMPACT ON HIV AND TB SERVICES

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Executive Summary

Population (excluding the Autonomous Republic of Crimea and the city of Sevastopol) ¹	41,588,000
COVID-19 deaths per 100,000 population (at 12 March 2021)	70.2
COVID-19 lockdown(s) initiated	12 March 2020
Disruption to harm reduction services	No
Reduced TB and HIV detection	Yes
Integrated TB and COVID-19 testing	No
Reduced access to clinicians	Yes
Reduced access to peer support and/or psychosocial support	Yes
Stockouts of HIV or TB medications	Yes

¹ State Statistics Service of Ukraine, 'Population (by estimate) as of January 1, 2021. Average annual populations January-December 2020', http://database.ukrcensus.gov.ua/PXWEB2007/eng/news/op_popul_e.asp accessed 9 March 2021.

Ukraine is an upper middle-income country of approximately 42 million people bordering Russia, Belarus, Poland, Slovakia, Hungary, Romania and Moldova. It is a country that is undergoing reforms of its healthcare system, with initial reforms in 2015 seeing, inter alia, a state guarantee for healthcare coverage for family medical services, palliative care, emergency medicine, childbirths, rare diseases, cardiovascular, and oncological treatments, and turning over procurement of medicines to UNICEF, UNDP and Crown Agents from 2015-2020², and reforms in 2017 aimed at providing a new system of financing for healthcare, and also to providing people in rural areas with better access to medical services, including telemedicine³. In late 2017, by way of Decree, the Cabinet established a single-payer agency, the National Health Service of Ukraine (NHSU) which signs contracts with hospitals to deliver a predetermined set of health services free of charge to the registered population⁴.

Ukraine has a wide network of hospitals, with over 2,200 hospitals nationwide and over 400,000 hospital beds. Out of pocket payments out of total health expenditure have risen over recent years, with 49.3% of total health expenditure paid out-of-pocket in 2018⁵.

The COVID-19 response in Ukraine has resulted in

high absolute numbers of COVID-19 deaths, with total deaths reaching upwards of 27,000 at time of writing. The Ukraine Forum of Chatham House in April 2020 stated that the pandemic ‘exposed strategic vulnerabilities’ of Ukraine’s system of governance, pointing to vested interests, paralysis of state agencies, and a lack of coordination of these agencies, and the mobilisation of the private sector to fill in the gaps in the ‘dilapidated public health system.’⁶ Further, according to one data analyst, data initially collected in the start of the pandemic was insufficiently robust, and there was a need for more transparency on data, including on higher-than-usual rates of deaths from pneumonia, and the need for mass testing a la South Korea⁷. The country also underwent a change of three health ministers in the space of one year – with overlaps during peak stages of the pandemic, and with these, medical procurement controversies⁸.

The COVID-19 crisis coincided with the second phase of the health financing reform. Beginning on 1 April 2020, the reforms were aimed at the secondary or specialised level of healthcare, including HIV and TB services. The new funding system was aimed at covering the per-patient costs of medical facilities, and the reforms sought to promote a patient-oriented approach, ‘ensure better funding,’⁹ and provide treatment for patients with tuberculosis.

² Piotr Romaniuk and Tetyana Semigina, ‘Ukrainian health care system and its chances for successful transition from Soviet legacies’ (2018) 14:116 Globalization and Health <https://doi.org/10.1186/s12992-018-0439-5>, 6

³ Piotr Romaniuk and Tetyana Semigina, ‘Ukrainian health care system and its chances for successful transition from Soviet legacies’ (2018) 14:116 Globalization and Health <https://doi.org/10.1186/s12992-018-0439-5>, 6

⁴ Judy Twigg, ‘Ukraine’s healthcare system is in critical condition again’ Atlantic Council (21 July 2020) <https://www.atlanticcouncil.org/blogs/ukrainealert/ukraines-healthcare-system-is-in-critical-condition-again/> accessed 3 March 2021; Decree of the Cabinet of Ministers of Ukraine, ‘Про утворення Національної служби здоров’я України (On the establishment of the National Health Service of Ukraine)’ № 1101(27 December 2017) <https://zakon.rada.gov.ua/laws/show/1101-2017-п#Text> accessed 16 March 2021

⁵ World Bank, ‘Out-of-Pocket Expenditure (% of Current Health Expenditure) – Ukraine’ (2018) <https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=UA> accessed 3 March 2021

⁶ Orysia Lutsevych, ‘Fighting COVID-19 the Ukrainian Way’ Chatham House (28 April 2020) <https://www.chathamhouse.org/2020/04/fighting-covid-19-ukrainian-way> accessed 3 March 2021

⁷ Anatoly Bondarenko, ‘Скільки насправді хворих на COVID-19 в Україні і як зрозуміти, коли пом’якшувати карантин (How many COVID-19 patients are actually in Ukraine and how to understand when to mitigate quarantine)’ Texty (8 April 2020) <https://texty.org.ua/articles/100689/skilky-naspravdi-hvoryh-na-covid-19-v-ukrayini/> accessed 3 March 2021

⁸ Tetiana Bezruk, ‘The Medical Purchasing Scandal That Preceded Dismissal of Ukraine’s Health Minister, Explained’ (30 March 2020) <https://en.hromadske.ua/posts/how-a-medical-purchasing-scandal-led-to-resignation-of-ukraines-health-minister-during-pandemic> accessed 11 March 2021

⁹ Government Portal, ‘Healthcare Reform’ <https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya> accessed 9 March 2021

According to our interviewees, both HIV and TB care systems displayed an inadequate ability to address challenges during the COVID-19 pandemic due to, inter alia, lack of coordination and operational capacity within the responsible agencies, i.e. the Public Health Center, oblast-level health authorities, and the agency responsible for medical procurement, 'Medical Procurements of Ukraine'. As a result, the country faced procurement gaps of HIV and TB drugs, including much-needed first-line medications, with planned procurements for 2020 valued at UAH168m (approximately «\$5.96m) left unfulfilled¹⁰. Fortunately, due to prompt support from the Global Fund and other external donors, who authorised exceptional procurements by NGOs, risks of treatment interruptions for approximately 100,000 patients across the country were avoided. It should be noted that as the reforms were launched on 1st April 2020 and required time to be fully implemented, these coordination issues are unlikely to have been caused by the health reforms, but are indicative of pre-existing issues.

Interviewees for this report estimated that there were decreases in HIV and TB testing due to restrictions under lockdown and reorientation of hospital resources towards COVID. While there is no official data, the Head of the TB Diagnosis and Treatment Coordination Department from the Public Health Center, Dr Yana Terleeva, and Olya Klymenko, an activist from TB People Ukraine, pegged the reduction in TB detection at 30% at least. Emerging from our interviews were concerns around reduced TB detection and therefrom expected growth of late diagnoses and drug resistant TB forms. And while there has been widespread discussion elsewhere about the need for COVID and TB service integration due to similarities in 'disease presentation, transmission, and control strategy'¹¹, Ukrainian officials did not adopt TB screening for COVID patients due to resource limitations, although TB inpatients were provided access to COVID-19 screening.

In terms of access to HIV and TB treatment, and OST, the Ministry of Health adopted regulations to maximise take-home supply of medication for patients. The average take-home supply for antiretrovirals was 3 months, TB medications were 10-14 days, and for OST – 10 days.

The role of Ukrainian NGOs was critical to mitigate COVID-19 impacts to HIV and TB services. Online and mobile services provision was adopted widely, including expansion and further institutionalisation of video-observed therapy for TB patients. Stakeholders interviewed for this report suggested, however, that there was a need to strengthen psychological care, as well as socioeconomic support to ensure TB treatment adherence.

For this report, we reviewed country legislation, health system recommendations and guidelines, national strategies and plans as related to COVID-19 response, documents on international assistance and humanitarian support, as well as media articles. From these media articles we quoted Dr Victor Lyashko (Deputy Minister of Health and Chief State Sanitary Doctor of Ukraine), and interviewed representatives of national TB services, NGO leaders, community activists and patients, including Dr Yana Terleeva (Head of the TB Diagnosis and Treatment Coordination Department, Public Health Center, Ministry of Health of Ukraine), Anton Basenko (Alliance for Public Health ICF), Olya Klymenko (Head of TB People Ukraine), Natalia¹² (Chair of the Board of "100% Life Cherkasy", in Cherkasy, a city in Central Ukraine), Olena¹³ ("100% Life Kyiv Region") and Dmitry¹⁴ (HIV and TB social worker from Cherkasy).

¹⁰ Personal communication with Dr Volodymyr Kurpita, formerly Public Health Center, Ukraine (email dated 15 March 2021)

¹¹ G. Echeverría, W. Espinoza, J.H. de Waard, 'How TB and COVID-19 Compare: an Opportunity to Integrate Both Control Programmes' The Union (25 June 2020) <https://theunion.org/news/how-tb-and-covid-19-compare-an-opportunity-to-integrate-both-control-programmes> accessed 9 March 2021

¹² Surname excluded per request.

¹³ Surname excluded per request.

¹⁴ Surname excluded per request.



The COVID-19 Response

11 March 2020

Nationwide quarantine announced pursuant to Cabinet Ministers' meeting

13 March 2020

Establishment of the COVID-19 Headquarters to coordinate the COVID-19 health system response

17 March 2020

Closure of all non-essential businesses (except for grocery stores, medical facilities etc) via Cabinet Ministers decree

25 March 2020

Ukraine declares a state of emergency

20 May 2020

Extension of the nationwide quarantine for the period of 22 May – 31 July 2020 by the Resolution of the Cabinet of Ministers

22 July 2020

Introduction of an "adaptive quarantine" for the period of 1 August – 31 October 2020 with "green", "yellow", "orange" and "red" emergency levels to be applied on a weekly basis across the country regions depending on disease status.

28 November 2020

Ukraine reaches its highest peak of daily cases at 16,294 cases

5 January 2020

Strengthened quarantine measures introduced again.

Ukraine's COVID response is characterised by a high absolute number of deaths relative to countries with similar populations, poor coordination, low testing rates¹⁵, multiple changes in Ministers of Health, and as mentioned in the executive summary, has 'exposed strategic vulnerabilities' in the health system and in overall governance¹⁶. On testing in particular, BBC reports that from the beginning of the pandemic, symptomatic Ukrainians weren't always able to access tests due to long waits in public laboratories or because of the high cost of tests in private laboratories¹⁷.

Mass testing became a key question in the beginning of the pandemic, but was deemed to be impractical considering Ukraine's ability to access sufficient amounts of tests due to the lack of domestic manufacturers. In the words of Victor Lyashko, the Deputy Minister of Health and Chief Sanitary Officer, who commented on South Korea's approach to testing:

(South) Korea is a supplier of tests. They conducted 15,000 tests per day and went in the direction of mass testing. If we had such an economy and healthcare system, and multiple manufacturers of (COVID) tests, we might have followed suit... We see that in countries with their own manufacturers, access to tests is much

better than in (countries without their own manufacturers)¹⁸.

A May 2020 interview with epidemiologist Iryna Kolesnikova for the newspaper Ukrayinska Pravda indicated that large-scale testing would not be possible for a number of reasons, including overburdened laboratories, insufficient human resources and insufficient equipment:

We will not have enough resources (to conduct 640,000 tests a day). First of all, (in terms of) human resources. The laboratories are already working around the clock and in several shifts. Over the past 15 years, the Bogomolets National Medical University¹⁹ has produced one virologist and one bacteriologist (who) do not currently work in their specialty. And for such large-scale testing, additional high-speed centrifuges, amplifiers, biosafety boxes, premises, etcetera are needed²⁰.

¹⁵ BBC, 'Статистика України щодо Covid-19 робить сумнівні. Що з нею не так (Ukraine's statistics on Covid-19 are questionable. What's wrong with her?)' BBC (5 February 2021) <https://www.bbc.com/ukrainian/press-review-55951545> accessed 4 March 2021

¹⁶ Orysia Lutsevych, 'Fighting COVID-19 the Ukrainian Way' Chatham House (28 April 2020) <https://www.chathamhouse.org/2020/04/fighting-covid-19-ukrainian-way> accessed 3 March 2021

¹⁷ BBC, 'Статистика України щодо Covid-19 робить сумнівні. Що з нею не так (Ukraine's statistics on Covid-19 are questionable. What's wrong with her?)' BBC (5 February 2021) <https://www.bbc.com/ukrainian/press-review-55951545> accessed 4 March 2021

¹⁸ Victor Lyashko, interviewed in Natalia Bushkovska, 'Віктор Ляшко: Якщо на релігійні свята не будемо тримати карантин, то 24 квітня дивитимемося на нову динаміку (Viktor Lyashko: If we do not keep quarantine on religious holidays, we will look at new dynamics on April 24)' Українська правда (Ukrayinska Pravda) (14 April 2020) <https://life.pravda.com.ua/health/2020/04/14/240568/> accessed 4 March 2021

¹⁹ A prominent medical university located in Ukraine's capital city Kyiv and established in 1841, and is considered to be one of the top universities in Kyiv for MBBS degrees.

²⁰ Natalia Bushkovska, 'причини низького рівня тестування на COVID в Україні (Reasons for the low level of testing for COVID in Ukraine)' Українська правда (Ukrayinska Pravda) (8 May 2020) <https://life.pravda.com.ua/health/2020/05/8/240906/> accessed 4 March 2021

On 3 March 2020, the first COVID-19 case was confirmed in the Chernivtsy oblast in the western part of Ukraine, among a Ukrainian man who had visited Italy, and flew back via Romania²¹. The first COVID-19 fatality was registered on 13 March 2020. On 11 March 2020, pursuant to a Cabinet meeting, the government announced the prohibition of mass gatherings, the closure of educational institutions, and the deployment of UAH 100 million for the procurement of PPE²². This was followed by a Cabinet Ministers' decree on 16 March 2020²³ suspending domestic travel, closing international borders, as well as announcing closures of non-essential businesses (shopping centres, fitness centres, etcetera), with the grocery stores, banks, and medical facilities remaining operational²⁴.

These meetings had been preceded by a number of early response measures. In February 2020, the Cabinet of Ministers of Ukraine endorsed a "National Plan of anti-epidemic measures to prevent the introduction and spread of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2, for 2020", which, among other measures, provided for the increase

of hospital capacity via the repurposing of departments to accommodate COVID-19 patients, provision of masks, disinfection materials, suits and other PPE materials in all medical care facilities, urgent procurement of diagnostics tools and expendables, involvement of private sector into counter-pandemic activities.²⁵ According to the National Plan, early pandemic preparedness was under the purview of authorities at oblast level.

On 13 March 2020, the Ministry of Health via official order established an 'operational headquarters' body that would play the central coordinating role in the health system response to the pandemic²⁶. Via the same order, medical standards for the care of COVID-19 patients were approved, and designated specific national health laboratories as COVID-19 diagnostics processing centres²⁷. According to the aforementioned National Plan, by the end of March 2020, 247 hospitals across the country were reprofiled fully or partially towards COVID and over 1,880 ventilators were made available for emergency COVID care²⁸. By May 2020, 49 health laboratories in all regions in the country were optimised to

²¹ Anna Myroniuk, 'First Coronavirus Case Identified in Ukraine' Kyiv Post (3 March 2020) <https://www.kyivpost.com/ukraine-politics/developing-first-coronavirus-case-identified-in-ukraine.html?cn-reloaded=1> accessed 4 March 2021

²² Tableau Public, 'COVID-19 in Ukraine: 01-03-2021', <https://public.tableau.com/profile/alya.shandra#!/vizhome/UkraineCOVID-19deaths-cases/Dashboardgraps> accessed 1 March 2021

²³ Ukrainian Government Portal, 'Government adopted a series of decisions designed to protect Ukrainian citizens from COVID-19' (11 March 2020) <https://www.kmu.gov.ua/en/news/uryad-prijnyav-nizku-rishen-shcho-mayut-ubezpechiti-ukrayinciv-vid-covid-19-11-03-20> accessed 3 March 2021

²⁴ Cabinet Ministers' Decree, 'Про запобігання поширенню на території України гострої респіраторної хвороби COVID-19, спричиненої коронавірусом (On prevention of the spread on the territory of Ukraine of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2)' <https://zakon.rada.gov.ua/laws/show/211-2020-п/ed20200317#Text> accessed 3 March 2021

²⁵ Order of the Cabinet of Ministers of Ukraine of 3 February 2020 No.93-р 'On measures to prevent the introduction and spread in Ukraine of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2', Verhovna Rada of Ukraine, <https://zakon.rada.gov.ua/laws/show/93-2020-%D1%80#Text> accessed 28 February 2021.

²⁶ Order of the Ministry of Health of Ukraine of 13 March 2020 No. 663 « Наказ МОЗ України від 13.03.2020 № 663 «Про оптимізацію заходів щодо недопущення занесення і поширення на території України випадків COVID-19(On optimization of measures to prevent the introduction and spread on the territory of Ukraine of cases COVID-19)' <https://moz.gov.ua/article/ministry-mandates/nakaz-moz-ukraini-vid-13032020--663-pro-optimizaciju-zahodiv-schodo-nedopuschennja-zanesennja-i-poshirennja-na-teritorii-ukraini-vipadkiv-covid-19> accessed 27 February 2021.

²⁷ Ibid

²⁸ WHO Euro, 'COVID-19 Health System Response Monitor: Ukraine', <https://www.covid19healthsystem.org/countries/ukraine/livinghit.aspx?Section=2.1%20Physical%20infrastructure&Type=Section> accessed 1 March 2021

provide COVID-19 diagnostics²⁹.

In terms of international support, in March 2020, UNDP launched an Emergency Response Plan for the COVID-19 Pandemic aimed at the mobilization of resources of international humanitarian actors operating in Ukraine to address urgent health needs and health system underfunding, with particular emphasis on oblasts involved in armed conflict (i.e. Donetsk and Luhanska oblasts).³⁰ The Plan consolidated available resources of various UN agencies and other humanitarian stakeholders and identified a funding need of \$158m in pandemic assistance for Ukraine, including on gender-based violence, water access and sanitation, PPE, and multipurpose cash assistance³¹.

In April, it became evident that cases were rising, that there was insufficient testing, insufficient amounts of PPE for medical staff, bureaucratic procurement policies, and the need to increase capacity of medical staff. Victor Lyashko, the Deputy Minister of Health explained:

The legal framework provided that each infectious disease hospital must have at least a monthly supply of personal

protective equipment... we reacted only when the first cases had already started. At the same time, we faced certain bureaucratic barriers; it was quite difficult to buy under the old mechanisms. (We then) amended the law on COVID-19, which provides for procurement for the fight against coronavirus disease under simplified procedures... (In addition), we are now retraining doctors who are not specialised in resuscitation to refresh intubation skills that they learned in university.³²

Countrywide lockdown measures were extended till 22 May 2020, which was further extended until 31 July 2020.³³ During this period of time, cases continued to rise. In June and July 2020, lockdown measures were relaxed to permit, inter alia, public transportation. From 1 August 2020, the Cabinet of Ministers introduced a so-called 'adaptive quarantine', which allowed the State Commission on Technogenic and Ecological Safety and Emergency Situations to designate four-level emergency alerts at the oblast level depending on number of cases and burden on

²⁹ Centre for Public Health, 'Testing for COVID-19 in Ukraine is carried out by at least 49 laboratories' (12 May 2020), <https://phc.org.ua/news/testuvannya-na-covid-19-v-ukraini-zdiysnyuyut-schonaymenshe-49-laboratoriy> accessed 27 February 2021.

³⁰ OCHA, 'Ukraine 2020. Emergency Response Plan for the COVID-19 Pandemic', (March 2020), <https://reliefweb.int/sites/reliefweb.int/files/resources/Ukraine%202020%20Humanitarian%20Response%20Plan%20to%20COVID-19.pdf> accessed 1 March 2021.

³¹ OCHA, 'Ukraine 2020. Emergency Response Plan for the COVID-19 Pandemic', (March 2020), 21, <https://reliefweb.int/sites/reliefweb.int/files/resources/Ukraine%202020%20Humanitarian%20Response%20Plan%20to%20COVID-19.pdf> accessed 1 March 2021

³² Victor Lyashko, interviewed in Natalia Bushkovskaya, 'Віктор Ляшко: Якщо на релігійні свята не будемо тримати карантин, то 24 квітня дивитимемося на нову динаміку (Viktor Lyashko: If we do not keep quarantine on religious holidays, we will look at new dynamics on April 24)' Українська правда (Ukrayinska Pravda) (14 April 2020) <https://life.pravda.com.ua/health/2020/04/14/240568/> accessed 4 March 2021

³³ Resolution of the Cabinet of Ministers of Ukraine of 20 May 2020 No.392 'About establishment of quarantine for the purpose of prevention of distribution in the territory of Ukraine of an acute respiratory disease COVID-19 caused by a coronavirus of SARS-CoV-2', <https://covid19.phc.org.ua/postanova-kabinetu-ministriv-ukrayiny-vid-20-travnnya-2020-r-%e2%84%96-392/> accessed 27 February 2021

health systems.³⁴ The emergency alert entailed “green”, “yellow”, “orange” and “red” levels to be introduced at subregional levels - including districts and municipalities - on a weekly basis depending on criteria as bed occupancy in medical institutions for five consecutive days, PCR testing coverage, and incidence rates.³⁵ Each emergency alert level corresponded to different levels of lockdown measures, while rules on mandatory wearing of masks, restrictions on mass gatherings, and closure of entertainment venues remained universal across the country.

In September through to December 2020, COVID-19 cases drastically rose, with more than one million confirmed cases by 31 December 2020,³⁶ and with highest incidence rates registered in late November and early December 2020.³⁷ In December 2020, in light of increased cases and deaths, perhaps owing to open winter fairs and ski resorts, the Prime Minister announced the return of strict lockdown measures until 28 January 2021 with the closure of cafes, restaurants, cinemas, gyms, theaters, and shopping malls, as well as bans on public events and closures all educational establishments,³⁸ although there was lax and unequal enforcement of these

measures.³⁹ In February 2021, cases reduced, and thus restrictions were lifted,⁴⁰ although this was short-lived. In late February 2021, the pandemic worsened in the oblast of Ivano-Frankivsk in western Ukraine as a result of foreign tourists visiting the Bukovel ski resort, resulting in a lockdown of the entire region.⁴¹

The COVID-19 pandemic coincided with the second phase of large-scale health system reforms, mentioned above in the executive summary. The first phase of reform took place in 2018-2019 and was aimed at primary health institutions, while the second phase, launched on 1 April 2020, sought to address specialisation in health care.⁴² The reforms introduced a new funding mechanism behind the health system based on the principle of “the money follows the patient”, i.e. instead of financing hospitals, doctors, and inpatient beds, which was a legacy of the Soviet Union, the National Health Service of Ukraine would pay funds into hospitals or to physicians based on a calculated ‘cost per patient’ figure.⁴³ Under these reforms, in order to receive treatment at the primary healthcare level, each patient is required to sign a declaration with a family doctor.

³⁴ Resolution of the Cabinet of Ministers of Ukraine of 22 July 2020 No.641 ‘On the establishment of quarantine and the introduction of enhanced anti-epidemic measures in the area with a significant spread of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2’, <https://covid19.phc.org.ua/postanova-kabinetu-ministriv-ukrayiny-vid-22-lypnya-2020-roku-%e2%84%96-641/> accessed 27 February 2021.

³⁵ *ibid*

³⁶ WHO, ‘WHO Coronavirus Disease (COVID-19) Dashboard. Ukraine’, World Health Organisation (2021), <https://covid19.who.int/region/euro/country/ua> accessed 27 February 2021.

³⁷ *ibid*

³⁸ Interfax, ‘Lockdown to be imposed in Ukraine on January 8-24, 2021’, <https://interfax.com/newsroom/top-stories/70574/> accessed 28 February 2021

³⁹ Personal communication with Dr Volodymyr Kurpita, formerly Public Health Center, Ukraine (email dated 15 March 2021)

⁴⁰ Reuters, ‘Ukraine completes tough COVID lockdown with optimistic expectations’, <https://www.reuters.com/article/us-health-coronavirus-ukraine-lockdown-idUSKBN29U0RE> accessed 29 February 2021.

⁴¹ Kateryna Choursina, ‘Ukraine Locks Down Region Where President Posed for Ski Selfies’ Bloomberg (19 February 2021) <https://www.bloomberg.com/news/articles/2021-02-19/ukraine-locks-down-region-where-president-posed-for-ski-selfies> accessed 16 March 2021

⁴² Government portal, ‘Health Reform’, <https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya#:~:text=UAH%20686.6%20million%20has%20been,the%20beginning%20of%20the%20year.&text=Healthcare%20worker%20pay%20has%20been,UAH%201%20C181%20for%20nursing%20assistants> accessed 29 February 2021

⁴³ Ministry of Health of Ukraine, ‘Key steps to transforming Ukrainian healthcare’, <https://en.moz.gov.ua/healthcare-reform> accessed 28 February 2021.

The government drew upon this new framework and established a new service package for COVID-19 healthcare via the National Health Service of Ukraine. By September 2020, around UAH 4.9b (\$177.7m) was allocated to COVID-19 treatment, which accounts for 9.5% of the total coverage of the health services under the Health Guarantees Programme.⁴⁴

In October 2020, concerns arose of potential oxygen shortages, with only 11,000-13,000 hospital beds being equipped to treat oxygen-dependent patients, leading the government to further announce provisions of UAH572m (\$20.5m) towards equipping regions with oxygen supplies. As can be seen in below sections on HIV and TB, interviewees indicate that the health system requires further reform.



Effects on HIV Care

Ukraine has the second fastest growing HIV epidemic in Eastern Europe and Central Asia, and has approximately 250,000 people living with HIV.⁴⁵ UNAIDS data indicates that 67% people living with HIV know their status, 54% of PLHIV are receiving antiretroviral therapy and 51% show undetectable viral loads.⁴⁶ In

2019, the total expenditure on HIV/AIDS was over \$107.8m with 43% of that funded by the Government, while the Global Fund and PEPFAR remained to be the main external donors for HIV response with the contributions of \$34.4m and \$21.9m respectively.⁴⁷

⁴⁴ Government portal, “Health Reform”, [https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya#:~:text=UAH%20686.6%20million%20has%20been,the%20beginning%20of%20the%20year.&text=Healthcare%20worker%20pay%20has%20been,UAH%201%2C181\)%20for%20nursing%20assistants](https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya#:~:text=UAH%20686.6%20million%20has%20been,the%20beginning%20of%20the%20year.&text=Healthcare%20worker%20pay%20has%20been,UAH%201%2C181)%20for%20nursing%20assistants) accessed 29 February 2021.

⁴⁵ UNAIDS Country Factsheets ‘Ukraine. 2019’, <https://www.unaids.org/en/regionscountries/countries/republicofmoldova> accessed 1 March 2021.

⁴⁶ UNAIDS Data 2020 ‘Ukraine. Country Data’ 369, https://www.unaids.org/sites/default/files/media_asset/2020_aids-data-book_en.pdf accessed 1 March 2021

⁴⁷ *ibid*

Interviewees for this report told us that through 2020, the biggest issues affecting HIV care were issues with ARV procurement, as well as COVID-19 screening attracting focus away from HIV testing. Anton Basenko from the Alliance for Public Health described the new procurement system, which did not work out to meet the county's needs for medications procurements:

Procurement of ARV medication was assigned to the State agency "Medical Procurements of Ukraine". Perhaps due to the lack of coordination between the Ministry of Health and this agency or low capacity of the latter, procurements for as much as 165 million hryvnia (USD\$5.9m) failed. The agreements were signed, but the money never transferred (to the agency to start the tender process). They collated procurement needs from the oblasts several times, but the scheme turned out to be too complicated: The Public Health Center collates the needs, the Ministry of Health collects the list of medications for procurement, and the agency makes the procurement itself. At what stage the failure occurred remains a big question.⁴⁸

In September 2020, after a six-month delay caused by poor coordination at the Ministry of Health, tenders for HIV drugs were finally announced by the state agency 'Medical Procurements of

Ukraine' leading patient groups in Ukraine to raise concerns about potential stockouts for tenofovir/emtricitabine, tenofovir/lamivudine/dolutegravir, and other fixed dose combinations of first line drugs.⁴⁹ Tenders were issued to the value of 398m hryvnia (approximately \$14.4m), with 57% of these procurements remaining unfulfilled.⁵⁰ This deficit had to be mitigated with urgent support of the Global Fund. This support manifested in a preliminary 6m hryvnia (\$216,000) drug procurement by the "100% Life" Association in October 2020.⁵¹ Anton Basenko told us that this preliminary procurement helped prevent some supply interruptions, but that longer-term solutions were necessary:

The "100% Life" Association bought the missing drugs with Global Fund money... They were purchased as an emergency procurement with Global Fund funds on an exceptional basis, but this was not a systemic solution. The other day there was a committee meeting that was completely devoted (to discussing) these failed procurements.

Anton Basenko told us further that some of the OST patients in Kyiv underwent treatment regimen changes and returned to efavirenz, an older medication which remained in stock. Further, treatment interruptions occurred at oblast level, with some oblasts undergoing complete stockouts of medications.⁵²

In terms of pandemic-related implications to access

⁴⁸ Interview with Anton Basenko, and activist of the Alliance for Public Health (Zoom, 5 February 2021)

⁴⁹ 100% Life, 'ВИЧ-позитивные украинцы могут остаться без лекарств в 2020 году (HIV-positive Ukrainians may be left without drugs in 2020)', <https://network.org.ua/ru/vych-pozytyvnye-ukrayntsy-mogut-ostatsya-bez-lekarstv-v-2020-godu> accessed 8 March 2021; Open Contracting Partnership, 'Fight for life: how Ukraine is fixing medical procurement and serving patients better', <https://www.open-contracting.org/2021/02/22/fight-for-life-how-ukraine-is-fixing-medical-procurement-and-serving-patients-better> accessed 8 March 2021.

⁵⁰ Personal communication with Dr Volodymyr Kurpita, formerly Public Health Center, Ukraine (email dated 15 March 2021)

⁵¹ Open Contracting Partnership (note 47)

⁵² Interview with Anton Basenko, Alliance for Public Health (Zoom, 5 February 2021)

to HIV diagnostics and care, interviewees stated that as a result of lockdown restrictions, physical attendance of medical facilities was reduced. In addition, family doctors working at primary healthcare institutions, who are the first point of contact before being referred to specialised HIV care, became overloaded with COVID testing and referrals, and ceased HIV testing:

One of the most significant problems that directly affected our work was the problem with doctors who stopped testing for HIV infection. In Ukraine, according to the current treatment protocols, therapists and family doctors, should test for HIV, pay due attention to screening for tuberculosis, and so on. We were faced with the situation that this had moved away from the priority, while COVID became the priority. As a result, testing for HIV infection fell by three times, as compared to the same period in 2019.⁵³

Mobile HIV care units were made widely available during the pandemic to provide HIV medications, consultation, and peer support to patients. According to the testimony of Anton Basenko, they were mostly supported by the Global Fund programme, and were instrumental in reaching out to patients in remote areas:

Mobile outpatient clinics were operational for quite a long time. They have always been owned by NGOs, like, for example by the Alliance (for Public Health). With rare exceptions, several outpatient clinics were transferred to medical institutions and then to NGOs affiliated to them. During the COVID period, they became important points for the delivery of ART and harm reduction supplies and thanks to them, it was possible to reach clients in distant places. They were mainly funded by the Global Fund.

Anton Basenko further elaborated that AIDS centres were fully operational during the pandemic and associated lockdowns, and that they weren't reprofiled for COVID as extensively as other health institutions. Overall, NGOs and peer support workers played a key role in trying to mitigate treatment and care support barriers, although ultimately there were deficits in testing and interruptions in treatment in different parts of the country. Failed procurements indicate the need for substantial improvements in coordination and health governance.

⁵³ Interview with Olena, NGO leader from Kyiv (Zoom, 4 February 2021)



Effects on Harm Reduction Services

There are approximately 350,000 people who inject drugs in Ukraine, with HIV prevalence among PWID estimated 22.6%.⁵⁴ Harm reduction services, comprising of needle-and-syringe programmes and opioid substitution therapies, are widely available across the country and are funded by the Global Fund and from 2019, the government of Ukraine through the Public Health Center.⁵⁵ As of 1 February 2021, 15,097 opioid users were receiving OST,⁵⁶ while 2017 data indicates that 58% of PWID are aware of the HIV status, which is relatively low compared to Central Asian countries.⁵⁷

From 2019 onwards, harm reduction implementers would apply to be funded under open tenders funded by the government per a Cabinet Ministers' Decree.⁵⁸ According to the

Eurasian Harm Reduction Association, harm reduction providers at oblast level stated that state funding was insufficient, and that they were unable to provide the same level of quality as under the previous system.⁵⁹

Despite this, interviewees from harm reduction NGOs in Kyiv and Cherkasy, a city in central Ukraine, stated that service provision continued through the pandemic, with some minor modifications:

I can say for our region that, in fact, we did not stop the provision of services, even at the time when we were working from a distance. We have a centre for the

⁵⁴ UNAIDS Data 2020 'Ukraine. Country Data' 369 https://www.unaids.org/sites/default/files/media_asset/2020_aids-data-book_en.pdf accessed 1 March 2021

⁵⁵ Decree of the Cabinet of Ministers of Ukraine, 'Деякі питання надання послуг представникам груп підвищеного ризику щодо інфікування ВІЛ та людям, які живуть з ВІЛ (Some issues of providing services to high-risk groups for HIV infection and people living with HIV)' № 497 (12 June 2019) <https://zakon.rada.gov.ua/laws/show/497-2019-п#Text> accessed 16 March 2021

⁵⁶ Centre of Public Health of the Ministry of Health of Ukraine, 'Статистика ЗПТ (OST Statistics)', <https://www.phc.org.ua/kontrol-zakhvoryuvan/zalezhnist-vid-psikhoaktivnikh-rechovin/zamisna-pidtrimivalna-terapiya-zpt/statistika-zpt> accessed 17 March 2021

⁵⁷ Sazonova Y, Kulchynska R, Sereda Y, Azarskova M, Novak Y, Saliuk T, et al. (2020), 'HIV treatment cascade among people who inject drugs in Ukraine', PLoS ONE 15(12) (31 December 2020): e0244572, 9, 12-13, <https://doi.org/10.1371/journal.pone.0244572> accessed 5 March 2021

⁵⁸ Decree of the Cabinet of Ministers of Ukraine, 'Деякі питання надання послуг представникам груп підвищеного ризику щодо інфікування ВІЛ та людям, які живуть з ВІЛ (Some issues of providing services to high-risk groups for HIV infection and people living with HIV)' № 497 (12 June 2019) <https://zakon.rada.gov.ua/laws/show/497-2019-п#Text> accessed 16 March 2021

⁵⁹ EHRA, 'Harm reduction programmes during the COVID-19 crisis in Central and Eastern Europe and Central Asia', Eurasian Harm Reduction Association (May 2020), 26 https://harmreductioneurasia.org/wp-content/uploads/2020/05/regional-review_FINAL_ENG.pdf accessed 05 March 2021

homeless as part of our organization, and our social workers were staying there on shifts. People were coming for syringes and condoms, and we were continuing service provision. In some difficult periods it went into decline, but it was not for long. We have a branch in Cherkassy region providing prevention services too. So, if some sites had to stop for a while, other sites continued (providing services).⁶⁰

Continuing service provision for key populations, including PWUD, was made possible due to over 200m hryvnia (approximately \$7.2m) from the Ukrainian government, as well as ongoing programmes of the Global Fund, USAID and other donors, who were able reacted flexibly with budgets to respond to the pandemic. Contactless and mobile services were deployed widely during the lockdown times and continued post-lockdown. Anton Basenko, an activist from the Alliance for Public Health, told us about a new “harm reduction 2.0” approach in several countries, including Ukraine, which included leaving harm reduction kits in areas frequented by PWID and deploying harm reduction kits with greater volumes of materials per kit:

We talk about a “harm reduction 2.0”, which includes contactless services for PWUD. (Over the pandemic lockdown), service providers were leaving ‘drops’ containing kits with clean syringes, condoms and other prevention materials in the places known to the clients. At the needle/syringe exchange sites, there was a limitation of only one person who could come in, so the clients were provided with larger sets of prevention materials which

they could further distribute among peers. Finally, antiretrovirals for PWID were delivered by the state mail and courier services; mobile clinics were available to reach people in remote areas.

Online tools were deployed to address urgent needs of PWID and to reduce transportation (and other) barriers to harm reduction services during the quarantine period, and this included peer-led hotlines on different health areas, including drug dependence, OST, and viral hepatitis.⁶¹ Anton Basenko from Alliance for Public Health told us more about the use of mobile and e-health during the pandemic:

We have specific hotlines on the issues of drug dependency, OST, HIV and tuberculosis, as well as viral hepatitis. They are all run by NGOs. The first has become a super tool: the number of requests has sharply increased, new applications and chat bots started working. People started using them widely (in the pandemic conditions). I have an application, which helps me to see when I last received medications, which regimen I use, my CD4 count and viral load; I can make an appointment with my doctor for a consultation. [...] A new platform <http://drugstore.org.ua/> is aimed at young people who use drugs to facilitate their self-testing for HIV and counselling. The platform helps to find the proper test and to use it in the right way. In case of positive result, you can reach out to consult an infectious diseases specialist, a psychologist or other specialists.⁶²

⁶⁰ Interview with Natalia, an NGO leader from Cherkassy oblast (Zoom, 18 February 2021).

⁶¹ Kyiv Regional Charitable Foundation Hope and Trust, <http://hopeandtrust.org.ua/en/> accessed 05 March 2021

⁶² Interview with Anton Basenko, Alliance for Public Health (Zoom, 5 February 2021)

In terms of access to OST, like other countries in the region, the pandemic opened up opportunities to increase take-home doses of OST, given the need to reduce patients' physical attendance at OST facilities. Anton Basenko elaborated further:

While this didn't occur overnight, eventually our OST hotline worked out, and the Ministry of Health and the Center for Public Health issued recommendations to medical institutions on the maximum transfer of OST patients to self-admission of medications, especially those who take therapy on a daily basis. If at the beginning of March only 53% of the total number of patients were receiving take-home medications, and there were about 13,700 patients in the country, by the first days of April, almost 90% of them were covered. This is our success story.

The average take-home supply was 10 days, while some patients may have had supplies for up to 14 days. Additional measures were taken to streamline appointments and organise flow of patients into facilities to reduce risk of overcrowding at OST sites. Interviewees in Kyiv and Cherkasy described that at least in those cities, there did not seem to be interruptions in OST provision:

Initially, we had three OST sites in the city (of Cherkassy). Due to the health reforms, now there is only one. So, people came to that one site, and there were no OST interruptions. There were also difficulties, to be honest, as we have not been engaged in substitution therapy until now, but we were still in a position to monitor the situation closely. The treatment sites worked in such a way that drugs were dispensed every 10 days. People had no reason to come every day (because of this).

This scenario (of no OST treatment interruption) may not be uniform across the country. In a 2020 Eurasian Harm Reduction Association report, it was reported that a head physician in the regions had decided to prohibit provision of OST medications to relatives of patients should a patient be unable to attend in person for pickup of take-home supplies.⁶³ The report noted, however, that cooperation between head doctors and community groups and pick-up of OST take-home doses were easier in Kyiv.⁶⁴

In summary, harm reduction services saw several modifications during the pandemic, enabling greater enrollment into take-home OST programmes, as well as the deployment and widespread use of mobile health initiatives.

⁶³ EHRA, 'Harm reduction programmes during the COVID-19 crisis in Central and Eastern Europe and Central Asia', Eurasian Harm Reduction Association (May 2020), 26 https://harmreductioneurasia.org/wp-content/uploads/2020/05/regional-review_FINAL_ENG.pdf accessed 05 March 2021

⁶⁴ Ibid



Impact on TB Testing, Treatment, and Care

Ukraine is one of the Top 30 countries in the world with highest absolute numbers of MDR-TB cases.⁶⁵ In 2019, the total estimated number of incident TB cases in the country was 34,000, with an estimate of 11,000 MDRTB cases.⁶⁶ In 2019, Stop TB Partnership estimated that over 3,000 people with DR-TB could be missing from diagnostics coverage.⁶⁷ In 2019, 5,100 people died of TB, which was a 4% reduction to the previous year.⁶⁸ Despite this reduction, TB remains the number 3 cause of death from deaths attributable to communicable, maternal, neonatal and nutritional diseases.⁶⁹ According to WHO, the national TB budget as of 2019 was approximately \$148m with a domestic contribution of 41%,⁷⁰ although these figures may be outdated. According to WHO, Ukraine is among 10 lower-middle-income countries with the largest funding gap for TB services, totaling a gap of approximately \$73m in 2019,⁷¹

i.e. half of the current national TB budget.

Overall, 2020 saw TB services deteriorate due to multiple coinciding factors, including the COVID-19 pandemic, lockdowns restricting access to health facilities, blocked deployments of medications due to closed borders, multiple changes in MOH leadership, and ongoing health reforms resulting in major budgetary effects on the TB health service.

In 2019, in line with the second phase of the reform of the health system, the Government of Ukraine adopted a new State Strategy towards reforming anti-tuberculosis medical care. The rationale for the new State Strategy was due to a number of gaps, including relatively high rates of undetected TB and MDR-TB, an outdated focus on long-term hospitalisation of TB patients, and failure of the previous proposed reform of the national TB service in 2012-2016, which lacked

⁶⁵ WHO, 'Global Tuberculosis Report 2020' (2020), 205 <https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf> accessed 26 February 2021

⁶⁶ WHO, 'Global Tuberculosis Report 2020' (2020), 205 https://worldhealthorg.shinyapps.io/tb_profiles/?inputs_entity_type=%22country%22&lan=%22EN%22&iso2=%22UA%22 accessed 26 February 2021.

⁶⁷ Stop TB Partnership, 'Tuberculosis situation in 2019. Ukraine', http://www.stoptb.org/resources/cd/UKR_Dashboard.html accessed 27 February 2021

⁶⁸ *ibid*

⁶⁹ *ibid*

⁷⁰ WHO, 'Tuberculosis profile: Ukraine', https://worldhealthorg.shinyapps.io/tb_profiles/?inputs_entity_type=%22country%22&lan=%22EN%22&iso2=%22UA%22 accessed 27 February 2021.

⁷¹ WHO, 'Global Tuberculosis Report 2020' (2020), 138, <https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf> accessed 27 February 2021

clear action plans and faced resistance from health staff.⁷² The newly adopted State Strategy prioritised an introduction of new organisational approaches to treatment and to cross-sectional collaboration, including outpatient care, improvement of laboratory diagnostics and early TB detection, optimisation of medical care networks, and better integration health systems information and reporting.⁷³ Dr Yana Terleeva, Head of the TB Diagnosis and Treatment Coordination Department of the Public Health Center of the Ministry of Health, explained to us the underlying reasons for this reform:

The State Strategy on TB service reform showed that, on the one hand, our TB service needed optimisation, that is to say there were low-capacity facilities in some places and the need to reduce bed capacity. On the other hand, there is an understanding that TB services are highly specialised, and in the shape it was in, it had low prospects for sustainability. We looked at other countries which had moved to new funding mechanisms, and realized that we needed one high technology and well-equipped pulmonary centre in each oblast. We welcomed the approach to integrate resources of other health services – infectious diseases, thoracic surgery, and others depending on needs of each specific oblast – under new regional TB centres⁷⁴.

The health reform, and particularly the ‘money follows the patient’ approach, did not sit comfortably with everyone. Natalia, an NGO leader from Cherkasy, told us that clinicians at the primary care level had been dismissed, and this affected diagnostics:

In our country, a package of guaranteed medical services is divided into primary care – i.e. family doctors – secondary, and tertiary care. At each level, the doctor or medical facility provide specific services for specific costs per each patient, so, for example, such and such service costs per ten patients, in such format, etcetera. When such a system came into effect, there appeared that there was not enough money to support the TB clinicians. That is, in every regional hospital, and in many districts of Cherkasy region there was a TB clinician who identified and worked with TB contact people. (After the reforms) they were dismissed, and early TB detection stopped, as patients had no one to come to. The second point is that detection, screening questionnaires and referral for diagnostics were put on family doctors. For several reasons, they did not do this, did not make screening, and, of course, there was no early detection⁷⁵.

These hiccups may be due to localised resistance by TB hospitals against the TB reforms, and either the failure or distraction of individual family doctors.

⁷² Order of the Cabinet of Ministers of Ukraine of November 27, 2019, № 1414-r, ‘About approval of the State strategy of development of system of antitubercular medical care to the population’, <https://zakon.rada.gov.ua/laws/show/1414-2019-%D1%80#Text> accessed 28 February 2021.

⁷³ *ibid*

⁷⁴ Interview with Dr Yana Terleeva, Head of the TB Diagnosis and Treatment Coordination Department, Public Health Center (Zoom, 23 February 2021)

⁷⁵ Interview with Natalia, an NGO leader from Cherkassy region (Zoom, 18 February 2021)

The TB reforms were designed to optimise services, to increase cost-effectiveness, and to move to a new model that removes the need for individuals to stay in a facility, but rather receive outpatient treatment.⁷⁶ A February 2020 article underlines the motive for reorganisation, which includes that there no longer is a need to keep patients in hospitals for long-term therapy, that in some facilities only 3 patients would be hospitalised per year in facilities with 40 beds, and that these facilities were expensive to maintain at such low capacity.⁷⁷ As such, the reforms included that patients are diagnosed and receive outpatient treatment from family doctors or district TB doctors.⁷⁸ As such, the above testimony points to the need to understand in more depth how family doctors in different regions are responding to reforms, and to precipitate dialogues with local NGOs.

In 2020, the government admitted that funding shortages meant that mental health and tuberculosis services had been at the ‘brink of closure.’⁷⁹ In June 2020, the government took urgent measures to allocate additional funding and support to health care staff and facilities, albeit at the same level as the 2019 budget.⁸⁰ These hiccups due to the ongoing health reform coinciding with the COVID-19 pandemic did not bode well for TB service provision. Dr Yana Terleeva described how TB facilities were repurposed for treatment of COVID patients, and as this occurred, it became evident that there would need to be sharing of resources with COVID-19 services. In addition, as the virus spread, doctors became sick with COVID-19, leading to additional workloads on doctors who were well:

Eight large regional pulmonary centers were identified as institutions for the management of patients with COVID, but not one of them stopped working to provide care to patients with tuberculosis, but (worked on both) in parallel... Can we say that this has led to a little less attention to patients with tuberculosis, to financial resources? Well, of course, yes, because when we started to treat COVID, we all understood perfectly well that there were not always enough means for infection control. All infection control (measures) were not always observed, so the doctors were sick and now they are sick quite a lot, because they are on the front line and they are not always protected. (There was) additional load (due to working on both COVID and TB) and additional load due to the fact medical staff were off sick.

Interviewees told us that the COVID-19 pandemic and the TB care system reforms jointly reduced access to TB diagnostics. Dr Terleeva estimated that the reduction in detection and registration was at least 30% in both children and adults.⁸¹ Dmitry, peer HIV and TB consultant from Cherkasy, told us about major barriers faced by patients at the primary care level due to an interplay of COVID-19 and health reform impacts:

⁷⁶ Victoria Guerra, ‘Епідемія страху, або Чому закриваються туберкульозні диспансери в Україні (Epidemic of fear, or Why Tuberculosis Dispensaries are Closing in Ukraine)’ LB.ua (26 February 2020) https://lb.ua/society/2020/02/26/451026_epidemiya_strahu_abo_chomu.html accessed 22 March 2021

⁷⁷ Ibid

⁷⁸ Ibid

⁷⁹ Government portal, “Health Reform”, [https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya#:~:text=UAH%20686.6%20million%20has%20been,the%20beginning%20of%20the%20year.&text=Healthcare%20worker%20pay%20has%20been,UAH%201%2C181\)%20for%20nursing%20assistants](https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya#:~:text=UAH%20686.6%20million%20has%20been,the%20beginning%20of%20the%20year.&text=Healthcare%20worker%20pay%20has%20been,UAH%201%2C181)%20for%20nursing%20assistants) accessed 29 February 2021.

⁸⁰ Ibid

⁸¹ Interview with Dr Yana Terleeva, Head of the TB Diagnosis and Treatment Coordination Department, Public Health Center (Zoom, 23 February 2021)

In our region, the city TB dispensary, where every person could come and undergo chest fluorography and X-Ray directly, was decommissioned (from providing these services directly). Now, a person must first approach a family doctor to have a prescription for an X-Ray or fluorography. During the pandemic, it was almost impossible to have an appointment with family doctor. Our organisation has an agreement with a polyclinic located nearby, so it was helpful for issuing necessary prescriptions and to refer the person to X-ray or fluorography.⁸²

In addition, the COVID-19 pandemic resulted in challenges arising in terms of molecular diagnostics of drug resistant forms of TB. Notably, challenges arose in particular for logistics and testing for Hain tests, i.e. testing to determine resistance to rifampicin and isoniazid. Dr Terleeva elaborated:

The Hain system (Genotype MDRTBplus), is concentrated in only four regions... The issue of transportation of biological material to laboratories and interregional transportation of patients to the facilities with Hain testing capacity has become urgent. Therefore, we, together with one of the main partners, which is funded with the support of USAID, divided the country into two halves; USAID works in 12 regions, we are the National Program, we work in 13 regions for the GF.

Interviewees for this study reported that TB patients were provided a maximum of one-month supply of medications. However, transportation and the need for valid COVID-19 test were among the most significant barriers in accessing health facilities, especially for patients from rural and remote areas during the lockdown period. Olya Klymenko from TBpeople Ukraine told us:

It was much more difficult to help patients, especially during the period of a strict lockdown, when there was no transport connection, when it was impossible to get medical care without a COVID test. For big cities it was not a big problem, but for remote regions of Ukraine it was very difficult. [...] COVID testing started late, and, in some regions, very late. Health facilities required valid tests, but it was not possible to get them. So, it became a real barrier⁸³.

In addition to patients living in rural and remote areas, a Stop TB Partnership assessment on communities, rights, and gender identifies additional populations at risk of TB, including PLHIV, people with silicosis, internally displaced persons, prisoners, PWID, people with alcohol dependency, heavy smokers, Roma ethnic minorities, homeless persons, persons with mental illness, and the urban poor, and emphasises that consequences and barriers for these populations are more significant⁸⁴.

⁸² Interview with Dmitry, peer HIV and TB consultant from Cherkassy (Zoom, 22 February 2021)

⁸³ Interview with Olya Klymenko, TB People Ukraine (Zoom, 12 February 2021)

⁸⁴ Stop TB Partnership, 'Communities, Rights, and Gender: TB Tools Assessments in Ukraine' (2017) <http://www.stoptb.org/assets/documents/communities/CRG/TB%20CRG%20Assessment%20Ukraine.pdf> accessed 16 March 2021

Integrated screening for both TB and COVID-19, together with TB patient support services at COVID-19 testing facilities, has been suggested as part of a package of solutions to restore and accelerate TB services that have been lost due to the COVID-19 pandemic.⁸⁵ Dr Yana Terleeva explained to us that this approach was considered and discussed, but that testing all patients suspected of having COVID for TB did not make practical sense. In Terleeva's own words:

Testing both COVID and tuberculosis without any differentiation, in our opinion, is an extra cost of human resources without an appropriate output. While we agree with WHO recommendations on the clearly defined symptoms, we think that the entry point for tuberculosis (and COVID) should be to look for patients with COVID who have had a history of coughing for two weeks and who have had a history of pulmonary diseases, and (in that case) we should not forget about tuberculosis (as a potential diagnosis). There are some partners who suggest we should test everyone (for TB). But we think there should be good vigilance among doctors, and we need to train them. We cannot physically test everyone (for TB). The percentage is small – last year (2020) only 41 patients were identified as co-infected with tuberculosis and COVID-19 nationwide. We understand that there are more of them and they are walking around somewhere, but imagine if in one day there are 15,000 cases of COVID and we have to test them all for TB as well when the resources of primary healthcare are already overloaded?

When asked about whether integrated COVID and TB testing is included in national protocols, Olya Klymenko, Head of TBpeople Ukraine told us that there were efforts to campaign for integrated testing, but ultimately there were insufficient resources:

We were not able to achieve (integrated COVID and TB testing), although we tried. For me, this is really incomprehensible. Actually, so many people could have been tested for COVID. And if people were tested in parallel for tuberculosis, then there would have been such a big coverage of tests, but we were not able to achieve this... I think the issue was the following: in order to test for COVID and tuberculosis, it would be necessary to purchase much more materials for tuberculosis tests. This is a serious burden on laboratories and our system would not have managed it.

Two interviewees for this report, notably Dr Yana Terleeva and Olya Klymenko, conservatively estimated that TB detection had reduced by at least 30% in 2020 compared to 2019.⁸⁶ Olya Klymenko, Head of TB People Ukraine, told us:

The biggest challenge for us today is how much the detection rate of tuberculosis has decreased. I understand that it will be very difficult for us in 2021.

⁸⁵ The Global Fund, 'COVID-19 Information Note: "Catch-up" Plans to Mitigate the Impact of COVID-19 on Tuberculosis Services', The Global Fund to Fight AIDS, tuberculosis and Malaria (23 October 2020), 7

⁸⁶ Interviews with Dr Yana Terleeva (Zoom, 23 February 2021), and Olya Klymenko, an activist of Stop TB Ukraine (Zoom, 12 February, 2021).

COVID-19 resulted in reduced treatment coverage for TB patients, particularly during the months of July-September 2020. The months of November 2020 through to January 2021, however, saw an increase in treatment coverage, but it is unclear at time of writing as to the conclusive causes of these changes. Overall, however, according to Dr Yana Terleeva representing TB Diagnosis and Treatment Coordination Department of the Public Health Centre estimates that treatment coverage has reduced:

When we analysed treatment coverage of patients with tuberculosis, we saw that (through) July, August, September, (those receiving treatment) were less than the number of registered patients, so we understood that registration fell by 30% and those who registered were less likely to have been initiated on treatments during these months [...] But then we saw that from November (2020) to January 2021 more of those registered received treatment, so it was clear that the medication arrived [...] But these are only our assumptions, as we have no operational research [...] Overall, the number of patients receiving treatment is less than the numbers registered (with us). Somewhere, (they've) either gotten lost, or they no longer need treatment.

There were also interruptions in TB medication supply when the agency responsible for centralised medicine procurement, “Medical Procurements of Ukraine”, was unable to follow through with the planned 2020 procurement of TB drugs given delays by the Ministry of Health. Olya Klymenko from TBpeople Ukraine discussed this further as well as the effects on TB patients:

Generally, we have inadequate procurement mechanisms in Ukraine; beginning from data collection from the regions and up to procurement processes... Last year (2020), we contacted the Ministry of Health multiple times regarding this situation, and they were aware of it. Now we have their updates that only 2019 procurements have been accomplished. This is a very sad story... (As a result), treatment regimens changed, and sometimes patients were even unaware of that. As of today, among 1,500 complaints, 282 patients told us about temporary or complete therapy disruption.

As a result of the closure of borders due to COVID-19, a shipment of levofloxacin, planned for arrival in Ukraine in March 2020, was grounded. The TB programme acted quickly and coordinated with the Global Fund to ensure completion of delivery:

A year's batch of Levofloxacin, one of our main drugs, was just frozen at the airport in India and could not be released as the airspace was closed at 12 o'clock on the night when our drug was supposed to take off... We approached our Portfolio Manager at the Global Fund and they allowed us to use the programme funds to order a separate plane so that they could deliver the medications to us. In reality we had 18 thousand patients at risk of treatment interruption. We would then have much greater consequences associated with resistant forms, deceased patients, and so on.⁸⁷

⁸⁷ Interview with Dr. Yana Terleeva, Head of the TB Diagnosis and Treatment Coordination Department, Public Health Center (Zoom, 23 February 2021)

At time of publication of this report, official data on long-term effects of late TB diagnostics and treatment interruptions were unavailable, although interviewees across the board expressed concerns of losing progress made on TB over recent years:

We have now received preliminary data on TB mortality, and the rates appeared to be lower than in the same period of the last year. Our assumption is that TB patients who were out of the TB service radar died from other conditions, including

COVID. But this needs to be further investigated to have an understanding on what happened. In any case, this may be a big problem as we were unable to investigate the contacts of those 'unknown' patients, which means that TB spread will be continuing pretty much beyond our control.⁸⁸

In 2020, Stop TB Partnership modelled the impacts of COVID-19 lockdown measures on the TB situation in Ukraine, which revealed a number of scenarios on TB morbidity and mortality (Table 1), all of which showed projected increases post-lockdown.⁸⁹

Table 1. Impact of COVID-19 policy measures on TB mortality and morbidity in Ukraine (source: AFEW, 2020)

Ukraine	Excess TB cases 2020-2025	Excess TB deaths from 2020-2025
2-month lockdown + 2-month recovery	2348 (1,19% increase)	455 (2,40% increase)
3-month lockdown + 10-month recovery	7589 (3,86% increase)	1578 (8,3% increase)
For every month of lockdown	1058	270

⁸⁸ Interview with Dr. Yana Terleeva, Head of the TB Diagnosis and Treatment Coordination Department, Public Health Center (Zoom, 23 February 2021)

⁸⁹ AFEW, 'AFEW International Report. Interruption and Innovation. The impact of policy measures during the COVID-19 pandemic on key and vulnerable populations for HIV, tuberculosis and viral hepatitis in Eastern Europe and Central Asia' 5 June 2020, 12, <http://www.stoptb.org/assets/documents/COVID/AFEW%20COVID-19%20Report.pdf> accessed 2 March 2021

The AIDS Foundation East West (AFEW) in further analysis of these figures stated that as TB/HIV coinfection was not factored in, these were potentially conservative estimates.⁹⁰

On a more positive note, national COVID-19 response strategies helped to introduce and scale-up a number of innovative approaches in TB care. Ukraine saw a rapid increase of video-observed therapy (VOT) during the quarantine period. VOT was introduced as a recommended intervention by the newly adopted Standards of Health Care on Tuberculosis in 2020,⁹¹ and according to Dr Yana Terleeva, in some regions, the use of VOT increased three-fold during the pandemic time.

During the quarantine period, the number of patients who received video-observed treatment increased threefold. Despite us developing software for VOT implementation that had instructions and regulatory frameworks, providing computers, providing training, online courses and so on for several years, the progress was very slow in the regions as there are many people who do not trust such unconventional methods. There are patients that do not have smartphones for various reasons. At the beginning of the last year, we had only 10% of patients on VOT, that is, every tenth patient. At the end of the last year, 30% of our patients were on VOT. This is significant progress.

Olya Klymenko from TB People Ukraine expressed some reservations on uptake of VOT, cautioning that TB requires a rights based response that puts the support, education and empowerment of people on treatment first, accompanied with psychosocial support and welfare measures rather than on its own:

I am skeptical about video-DOT, which I see in Ukraine and in other countries. It was originally designed to support the patient, not control him or her. But it is now used as a control measure... Other conditions (such as food) have not been sufficiently fulfilled. Video-DOT is better than staying in hospital, but it shouldn't be used to control patients, that's not supportive. I advocate the provision of assistance and support for patients so that they are not alone with additional barriers that affect their adherence and wellbeing. One can't just give people pills for 30 days and say 'live as you want'.⁹²

While the State Strategy on TB Service Reform and Action Plan endorsed in November 2020⁹³ contains elements on psychosocial care, COVID-19 may have exacerbated nutritional and income-related aspects of life that can influence TB outcomes. Overall, Ukraine say multilayered adverse effects on the TB response, and a number of actions are necessary to recover gains, including accelerating the adoption of support services.

⁹⁰ Ibid

⁹¹ Order of the Ministry of Health of Ukraine of 25 February 2020 No.530 'On the adoption of the Standards of Health Care on Tuberculosis', 15, https://phc.org.ua/sites/default/files/users/user90/Nakaz_MOZ_vid_25.02.2020_530_Standarty_medopomogy_pry_TB.pdf accessed 2 March 2021

⁹² Interview with Olya Klymenko, TB People Ukraine (Zoom, 12 February 2021)

⁹³ Order of the Cabinet of Ministers of Ukraine of November 18, 2020, № 1463-r 'About approval of the plan of actions for implementation of the State Strategy to develop a system of antitubercular medical care to the population for 2020-2023', <https://zakon.rada.gov.ua/laws/show/1463-2020-%D1%80#Text> accessed 28 February 2021



Impact on TB Testing, Treatment, and Care

As seen globally, economic consequences of COVID adversely affected access to HIV and TB services. Interviewees from NGOs noted that there were insufficient social care components in health programmes, and that NGOs were adapting to try and mitigate these consequences from their own programmatic budgets. Olya Klymenko, from TB People Ukraine, spoke of patients losing their jobs and struggling without social support:

We have not once spoke of the fact that people were left without support. What happened to tuberculosis? People who were on treatment for a long time but were unable to find jobs - they felt like burdens on their families. Most were just left to go home without any material or social assistance. What DOT and treatment adherence can we talk about if the person had nothing to eat? People were just obliged to get in touch (with the doctor) on time, but no conditions to (allow them to) meet such obligations were provided. It is good that there were NGOs and donor assistance, but the fact was we could not cover all patients.

Loss of income also meant that HIV and TB communities weren't able to access private health services, especially necessary at a time when primary health institutions were unable to provide referrals to specialised care due to COVID-19 health system overload. Olena, an NGO leader from Kyiv, told us:

People had no money, and that was the problem (in accessing diagnostics and specialised care). Those who had money could afford using private clinics, so they did not experience such problems. We are confident that they had more opportunities to get in touch with private doctors. Of course, we're not saying that all doctors working in state-owned clinics were not responsive; there are a lot of them who were available 24/7 to support their patients by phone or for online counselling, but it was so much dependent on the individual. So, if you were lucky to have a caring family doctor using email, Viber or Telegram, you were going to get services. If not, you were then having to think about whether you could get money ready for private clinics. It was hardly possible to jump over the family doctor in accessing, for example, an endocrinologist, gastroenterologist or ophthalmologist.⁹⁴

⁹⁴ Interview with Olena, an NGO leader from Kyiv (Zoom, 4 February 2021)

This report hence recommends that broad social support measures be instituted, and should include mental health, income support, transportation support, and legal aid, and is consistent with recommendations by Stop TB Partnership.⁹⁵

TB patients were able to use a specialized “OneImpact” mobile application, which was developed by Stop TB Partnership to improve their knowledge about TB, locate and access the nearest service sites, communicate with peers and report challenges and barriers in accessing quality, acceptable, affordable TB care and support.⁹⁶ From our interview with Olya Klymenko, we learned that among over 1,500 claims processed through this application in 2020, almost half (44.4%) were related to the needs of financial assistance to pay for medication, diagnostics and access to consultations with psychologists and lawyers. In addition, over 21% of claims lodged through the app contained acknowledgments that some services had to be covered by patients out-of-pocket. In addition, 15% of users of the application reported experiencing TB stigma and 14% spoke to low quality of services provided. Olya Klymenko further elaborated:

The COVID pandemic has thrown us back at least a whole year. There were positive changes before COVID, and given that in Ukraine, COVID coincided with the (health) reforms, these two aggravated the situation a hundredfold. We work offline and online, but relations have become tense, it has become more difficult to conduct dialogues. The country's priority was directed to COVID and medical services were redesigned. Dealing with patient barriers became much more difficult.⁹⁷

⁹⁵ Stop TB Partnership, ‘A Deadly Divide: TB Commitments vs. TB Realities’ (November 2020) http://www.stoptb.org/assets/documents/communities/The%20Deadly%20Divide_TB%20Commitments%20vs%20TB%20Realities%20FINAL%20HLM%20Report.pdf accessed 16 March 2021

⁹⁶ OneImpact, <https://stoptbpartnershiponeimpact.org> accessed 9 March 2021

⁹⁷ Interview with Olya Klymenko, TB People Ukraine (Zoom, 12 February 2021)



Conclusions

The COVID-19 response in Ukraine was uniquely (and perhaps detrimentally) juxtaposed with teething problems associated with the launch of new health system reforms, multiple changes in public health leadership, and uncoordinated procurement. Ukraine has had high absolute deaths albeit having strict lockdown measures in the first half of 2020 and ‘adaptive quarantine’ policies in the second half allowing for differentiated restrictions across the country based on disease burden.

Resilience of the health system was significantly affected by ongoing health reforms, the second phase of which aimed at specialized health institutions (including HIV and TB care facilities), started in April 2020. On one hand, while the new reforms saw allocations of almost 6 billion hryvnia (approximately \$217m) to support health institutions and staff in the COVID-19 response, simultaneously there was a lack of coordination, gaps in capacity, and changes in leadership that led to adverse effects on the TB and HIV responses, including in detection of new infections, treatment, and procurement of medications.

NGOs and patient communities were instrumental in mitigating health and human rights implications of the pandemic through quick adaptation and flexibility in service provision, wide use of online tools for counselling and monitoring of patient rights, as well as robust advocacy campaigns. And to mitigate failures in medicine procurement, international donors support played a crucial role.

Our findings are as follows:

■ ***Failed procurements threatening access to HIV and TB drugs.***

ARV and TB procurements faced significant gaps during the pandemic crisis, and were hampered by the ongoing health system reform. Stockouts and risks of stockouts were addressed by exceptional procurements by NGOs under the Global Fund, however treatment interruptions had already occurred. NGO and community advocacy and dialogues with agencies on procurement failures was critical in addressing these gaps.

■ ***Use of Mobile and E-Health Interventions during the Pandemic.***

NGO-run hotlines on drug dependence, OST, HIV, TB, and viral hepatitis, were used widely during the pandemic. In addition, mobile apps allowed patients to monitor when they last received a supply of medications, what medications they used, etcetera, as well as to make appointments with doctors through the app. In addition, a new platform called <http://drugstore.org.ua/> was launched and is aimed towards young people who use drugs to help facilitate self-testing for HIV and further linkage to HIV care and treatment. In addition, VOT for TB grew threefold, and there was increased use of mobile applications (i.e. the “OneImpact” app) for TB Care and protection of patient rights;

■ **Accessibility of HIV and TB treatment facilities.** Lockdowns and shifting of priorities towards COVID reduced accessibility to HIV and TB facilities.

There also remains some resistance towards TB reforms in the regions;

■ **Increase in Take-Home Supplies of Medications.**

PLHIV, TB communities, and OST patients were allowed greater take-home supplies. OST patients for example were provided with 10-14 day supplies and the proportion of individuals provided with two-week supplies rose significantly during the pandemic;

■ **Mobile Clinics to Deliver Services.**

During COVID and beyond, mobile out-patient clinics operated by NGOs were available across the country to deliver antiretrovirals, provide harm reduction services and peer counselling;

■ **VOT Increased Threefold, but Need for Psychosocial Support.**

COVID-19 saw an increase in operationalisation of VOT, with a threefold increase in number of users. However, interviewees for our report noted a major gap in psychosocial support, particularly due to socioeconomic effects of the COVID-19 pandemic.

■ **Reduced testing in HIV and reduced TB case detection.**

Interviewees indicated that testing for HIV had respectively reduced by at least 30%, with a similar percentage reduction in TB case detection. Emerging from the interviews also were strong concerns that these would lead to detrimental effects and losses of recent gains in disease response. One official from the National TB Programme spoke of data showing reduced TB mortality, however thought that these could be due to people with TB dying of other conditions and/or had not come into contact with services due to COVID.

■ **Socioeconomic effects and income loss among key populations.**

Income losses due to COVID manifested as a major influencer of HIV and TB outcomes, including that patients may deprioritise medication adherence in favour of working to fulfill basic needs such as obtaining food. In addition, due to an overloaded health system and ongoing health system reforms, HIV and TB communities encountered barriers in accessing specialised care, while others with more financial liquidity could afford services via private clinics. The rural poor was specifically mentioned as being particularly vulnerable, but other reports have also included other populations such as internally displaced persons, Roma ethnic minorities, people with mental illness, and prisoners.⁹⁸

■ **Need to Build Strong Community Systems.**

Strong community systems, are not only critical for national HIV and TB responses, but in pandemic responses as well. Investment in affected communities, key populations and civil society is therefore a critical element in building stronger health systems.

■ **Need to Build a Strong Social Safety Net.**

The innate connection between effective health responses and inclusive, accessible social protection systems, that cover areas including income support, mental health support, nutritional support, legal aid etc. is critical in health prevention and treatment success, for TB, HIV and COVID-19.

⁹⁸ Stop TB Partnership, 'Communities, Rights, and Gender: TB Tools Assessments in Ukraine' (2017) <http://www.stoptb.org/assets/documents/communities/CRG/TB%20CRG%20Assessment%20Ukraine.pdf> accessed 16 March 2021

Based on these, we make the following recommendations:

Problem area	Advocacy Target	Recommendation
Failed procurements	Agency “Medical Procurements of Ukraine” and Ministry of Health	<ul style="list-style-type: none"> ■ To ensure meaningful involvement of key populations and patient communities at all stages of the State procurement process in order to provide the most transparent, people-oriented and timely approach and to avoid delays and gaps in supply chain. ■ To conduct an internal assessment on procurement of HIV and TB medications and make public plans to improve procurement policies and processes ■ To define the role and responsibilities between the parties within the procurement mechanism and make the division of labour clear and transparent ■ Ministry of Health to include WHO prequalification as an obligatory condition for ARVs and TB drugs to be procured within State budgets, regardless of procurement body

Civil society

- Domestic NGOs to advocate for adoption of recommendations in CF Patients of Ukraine assessment on medical procurements,⁹⁹ including for Medical Procurements of Ukraine to conduct detailed assessments of failed procurements, and for the Ministry of Health to act in a timelier manner with procurements.
- To advocate introduction of proactive warning signals and emergency mechanisms to cover emergencies and possible stock outs

Income loss affecting HIV and TB outcomes

Cabinet, Government of Ukraine

- To accelerate psychosocial components within the State Strategy to Combat HIV, TB, and Viral Hepatitis until 2030,¹⁰⁰ and State strategy to develop a system of antitubercular medical care.¹⁰¹
- To endorse the action plan with the set of indicators measuring the progress on the implementation national strategy to combat HIV, TB and VH till 2030

⁹⁹ CF Patients of Ukraine, 'Централізовані закупівлі ліків у цифрах - проміжний звіт ДП «Медичні закупівлі» у 2020 році (Centralised Procurement of Medicines in Numbers – An Interim Report on the State Enterprise “Medical Procurement” in 2020)'

¹⁰⁰ Order of the Cabinet Ministers of Ukraine, 'Про схвалення Державної стратегії у сфері протидії ВІЛ-інфекції/СНІДу, туберкульозу та вірусним гепатитам на період до 2030 року (On approval of the State Strategy in the field of combating HIV / AIDS, tuberculosis and viral hepatitis until 2030)' (27 November 2019) <https://zakon.rada.gov.ua/laws/show/1415-2019-p#Text> accessed 16 March 2021

¹⁰¹ Order of the Cabinet Ministers of Ukraine, 'Про схвалення Державної стратегії розвитку системи протитуберкульозної медичної допомоги населенню (About approval of the State strategy of development of system of antitubercular medical care to the population)' № 1414-р (27 November 2019) <https://zakon.rada.gov.ua/laws/show/1414-2019-p#Text> accessed 16 March 2021

	International Donors	<ul style="list-style-type: none"> ■ To facilitate emergency relief in the form of financial support for communities living with the diseases; ■ To facilitate discussions with government towards comprehensive social support packages for marginalised populations.
TB treatment regimen changes, data gaps on mortality, reduction in detection rates	National TB Programme	<ul style="list-style-type: none"> ■ Comprehensive research to be undertaken on reasons as to the TB mortality reduction in 2020 compared to 2019; ■ COVID-19/TB recovery plans to be instituted to recover reduced TB detection rates, which could involve innovative methods such as using mobile digital chest X-rays and other tools.
Dismissal of TB doctors in Cherkasy, and need for NGO engagement with family doctors	National TB Programme/ Ministry of Health	<ul style="list-style-type: none"> ■ Scoping of services provided by family doctors in Cherkasy; ■ Facilitation of dialogues between family doctors and local NGOs.
Lack of a broad social safety net for marginalised populations	Government of Ukraine	<ul style="list-style-type: none"> ■ Broad social support measures should be instituted, and should include mental health, income support, transportation support, and legal aid for key HIV and TB populations, including internally displaced persons and prisoners.



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