## **COVID-19 Epidemic in Ukraine**

**Abstract**. As of 17<sup>th</sup> of March, there were only 14 registered COVID-19 cases in Ukraine, according to the Ministry of Health. Even though the number of infected was not high in comparison with other European countries, Ukraine took the situation seriously by prior closing its borders, introducing a quarantine, shutting down public transport, domestic travels. However, such preventive measures to slow the spread of coronavirus were not accompanied by more essential ones as mass testing, prior purchase of a sufficient quantity of coronavirus tests or artificial lung ventilation machines for severe cases. The lack of indispensable medical equipment prevented the Ukraine to achieve a more effective response against the novel virus from the very beginning of the COVID-19 crisis. Hence, the government is being criticized, both by society and health care experts, in particular by the former Minister of Health, Ulana Suprun. This report highlights the timeline from the beginning of the epidemic in Ukraine, the number of cases, the number of lethal cases, the cases by regions, groups at higher risk in numbers, Ukraine's health care system readiness, problems and challenges the state is facing in its battle against COVID-19.

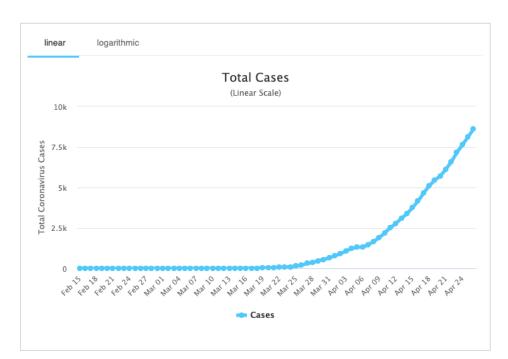
*The Timeline*. The COVID – 19 crises in Ukraine started from the hostile attack on the buses carrying the evacuees from coronavirus-hit China that took place on the 20<sup>th</sup> of February. From that moment, the panic started to spread in the Ukrainian society. The evacuees were brought to Novi Sanzhary, where they stayed in quarantine for 14 days. Later it was confirmed that none of the evacuees were infected.

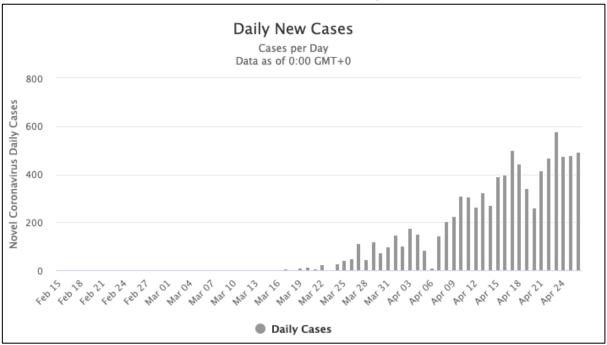
- On 3<sup>rd</sup> of March, the first COVID-19 case was confirmed in Chernivtsi Oblast, a city in western Ukraine.
- On 12<sup>th</sup> of March, with one registered COVID-19 case in the country, the Ukrainian government-imposed quarantine to prevent its spread. It supposed to last until 3<sup>rd</sup> of April.
- On 13<sup>th</sup> of March, two more cases were registered, in Chernivtsi Oblast and Zhytomyr Oblast respectively. The latter became the first lethal case in Ukraine.
- On 16<sup>th</sup> of March, four more COVID-19 cases were confirmed in Chernivtsi Oblast and Kyiv.
- On 17<sup>th</sup> of March, six new cases were registered in Chernivtsi Oblast and one case in Kyiv bringing the total number of infected to 14.
- On 19<sup>th</sup> of March, two more cases were confirmed in Kyiv and Chernivtsi Oblast. There was also one lethal case in Ivano-Frankivsk Oblast.
- On 20<sup>th</sup> of March, 13 more cases were registered, 10 of which were confirmed to be in Chernivtsi. The first case of recovery from COVID-19 was reported in Chernivtsi as well. It was the first infected person in Ukraine.
- On 21<sup>st</sup> of March, 18 new cases were confirmed, particularly in Kyiv, Donetsk Oblast, Lutsk Oblast.
- On 22<sup>nd</sup> of March, 26 new cases were registered.
- On 24<sup>th</sup> of March, 24 new cases were confirmed in Ukraine.
- On of 25<sup>th</sup> of March, 48 new cases were registered. On this day, Ukrainian government extended quarantine until 24<sup>th</sup> of April. The emergency situation was also introduced in the whole country, which allows to undertake certain measures to tackle the pandemic identifying who is infected, isolating such persons for treatment, disinfecting places. Two

more fatal cases were registered – one of a 68-year-old infected person in Ternopil Oblast and an infected person in Ivano-Frankivsk Oblast who did not seek medical assistance promptly and attempted to self-medicate herself.

- On 26<sup>th</sup> of March, there were 51 new cases reported.
- On 27<sup>th</sup> of March, 114 cases were registered. There were three lethal cases registered in Rivne Oblast, Sumy Oblast and Ivano-Frankivsk Oblast. Three more infected persons recovered from COVID-19 in Chernivtsi Oblast.
- On 28<sup>th</sup> of March, 46 new cases were confirmed. 3 more lethal cases were registered.
- On 29<sup>th</sup> of March, 119 new cases were registered. One more lethal case was registered in Kyiv Oblast.
- On 30<sup>th</sup> of March, 73 new cases were confirmed. One more fatal case was confirmed in Kyiv Oblast as well.
- On 31<sup>st</sup> of March, 97 new cases were confirmed. Four lethal cases were confirmed.
- On 1<sup>st</sup> of April, 149 more cases were registered. There were 3 fatal cases registered.
- On 2<sup>nd</sup> of April, 103 new cases were confirmed. Two lethal cases were registered.
- On 3th of April, 175 more cases were registered. Three lethal cases were confirmed.
- On 4<sup>th</sup> of April, 153 new cases were confirmed. Four more lethal cases were registered.
- On 5<sup>th</sup> of April, 83 new cases were registered. There were 5 lethal cases registered.
- On 6<sup>th</sup> of April, 11 new cases were confirmed. One more fatal case was registered.
- On 7<sup>th</sup> of April, 143 new cases were registered. There were 7 lethal cases confirmed.
- On 8<sup>th</sup> of April, 206 new cases were confirmed. 7 fatal cases were registered.
- On 9<sup>th</sup> of April, 224 new cases were registered. There were 5 new deaths confirmed.
- On 10<sup>th</sup> of April, 311 more cases were confirmed. 12 new lethal cases were registered.

## Current Statistics on Coronavirus: Total Cases





Current Statistics on Coronavirus: Daily New Cases

Source – Worldometers<sup>1</sup>

**The Number of Cases**. As of April 27, Ukraine has reported 9009 laboratory confirmed COVID-19 cases out of 93 519 (PCR testing) suspected cases.<sup>2</sup> Out of registered 9009 cases, there are 614 infected children and 1 749 medical workers tested positive for COVID-19.<sup>3</sup> However, this number does not encompass the cases from temporarily occupied territories of the Autonomous Republic of Crimea and Luhansk and Donetsk Oblasts as there is no official data from these regions. 864 persons have recovered from COVID-19.

As of April 27, 2750 patients with coronavirus disease were hospitalized, including 471 children and 1391 medical workers. 5867 more patients get outpatient care. 107 of all patients are those who suffer from severe consequences of the coronavirus disease and need to be connected to artificial lung ventilation machines, this includes one child and 7 medical workers.<sup>4</sup> According to Ukraine's Chief Sanitary Doctor Viktor Lyashko, the number of COVID-19 cases in Ukraine was expected to reach its apex on April 14-15.<sup>5</sup> However, the number of infected with COVID-19 has been gradually rising from 15<sup>th</sup> of April, except a slight decrease on 20<sup>th</sup> of April.

https://www.worldometers.info/coronavirus/country/ukraine/

<sup>&</sup>lt;sup>1</sup> Coronavirus Cases: Ukraine [Electronic resource] / URL:

<sup>&</sup>lt;sup>2</sup> What do you need to know about the novel coronavirus? [Electronic resource] / URL: <u>https://covid19.com.ua/en</u>

<sup>&</sup>lt;sup>3</sup> Center of Public Health of Ukraine. Operative information on coronavirus URL:

https://www.facebook.com/phc.org.ua/photos/a.353782784746456/1872416219549764/?type=3&theater <sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> UkrInform: Chief sanitary doctor says coronavirus will peak in Ukraine in near future [Electronic resource] URL: <u>https://www.kyivpost.com/ukraine-politics/ukrinform-chief-sanitary-doctor-says-coronavirus-will-peak-in-ukraine-in-near-future.html</u>

As of April 27, distribution of patients with COVID -19 by age for the whole period is the following:  $_{6}$ 

Percentage of Infected Persons	Age Group
50%	40-64
29%	18-39
14%	65+
5%	6-17
2%	0-2

According to statistics, the number of female patients suffering from coronavirus amounts to 56%, the number of male patients - 44%, concomitant diseases were found in 19% of patients with COVID-19. The number of medical workers out of the total number of patients is 19%.<sup>7</sup>

**The Number of Lethal Cases**. As of April 27, 220 people have died from COVID-19 in Ukraine.<sup>8</sup> The deceased belonged to a vulnerable group of older adults or persons with chronic diseases or those did not seek medical assistance promptly trying to self-medicate themselves. On April 2, the Ministry of Health stated that age and concomitant diseases have been major predicators of mortality of infected patients in Ukraine. 88 % of deceased had severe cardiovascular diseases, diabetes mellitus, respiratory diseases and kidney diseases, which became the main cause of death, Deputy Minister of Health of Ukraine, Chief Sanitary Doctor of Ukraine said at a briefing on April 2.<sup>9</sup> As of April 27, 209 infected persons died as a result of the complications caused by COVID-19. The number encompasses 108 men and 101 women. Among the deceased, persons aged 50 years and over prevail (86%).<sup>10</sup>

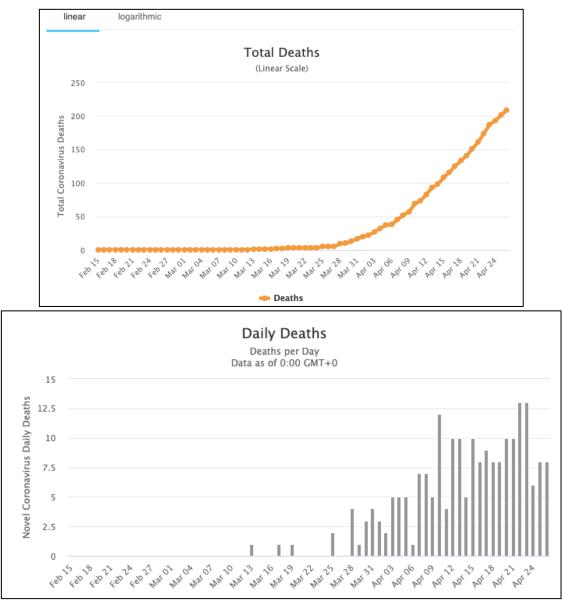
<sup>&</sup>lt;sup>6</sup> The information was published in official Telegram channel of the Ministry of Health of Ukraine. The information was collected with the help of dashboard of operative monitoring COVID-19 of National Health Service of Ukraine.

<sup>&</sup>lt;sup>7</sup> The information was published in official Telegram channel of the Ministry of Health of Ukraine. The information was collected with the help of dashboard of operative monitoring COVID-19 of National Health Service of Ukraine.

<sup>&</sup>lt;sup>8</sup> What do you need to know about the novel coronavirus? [Electronic resource] / URL: https://covid19.com.ua/en

<sup>&</sup>lt;sup>9</sup> Ministry of Health: Age and concomitant diseases are the main causes of COVID-19 patients' death in Ukraine (in Ukrainian) [Electronic resource] URL: <u>https://np.pl.ua/2020/04/vik-ta-naiavni-suputni-zakhvoriuvannia-ie-osnovnymy-prychynamy-smertnosti-patsiientiv-z-covid-19-v-ukraini-moz/</u>

<sup>&</sup>lt;sup>10</sup> Center of Public Health of Ukraine. Operative information on coronavirus URL: <u>https://www.facebook.com/phc.org.ua/photos/a.353782784746456/1872416219549764/?type=3&theater</u>



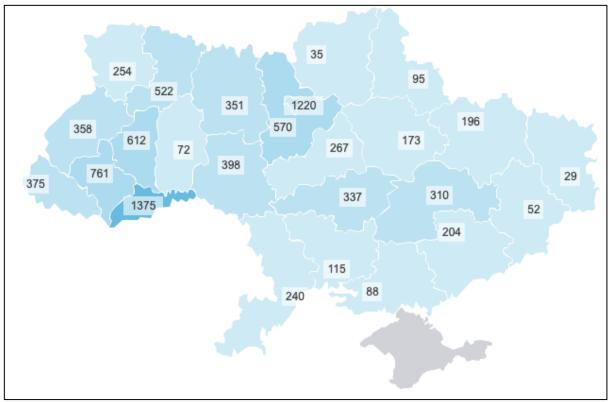
Source - Worldometers<sup>11</sup>

**The Cases by Region**. As of morning, on April 27, Kyiv and Kyiv Oblast have been the epicenter of the epidemic in Ukraine, given that there is the largest number of coronavirus cases - 1790 cases. It is followed by Chernivtsi Oblast from where the epidemic started and there are 1375 confirmed COVID-19 cases, Ivano-Frankivsk with 761 cases, and Ternopil Oblast with 612 cases. Coronavirus cases were also confirmed in other oblasts : Rivne Oblast – 522, Vinnytsya Oblast – 398, Zakarpatska Oblast – 375, Lviv Oblast – 358, Zhytomyr – 351, Kirovohrad Oblast – 337, Dnipropetrovska Oblast – 319, Cherkasy Oblast – 267, Volyn Oblast – 254, Odessa Oblast – 240, Zaporizhya Oblast – 204, Kharkiv Oblast – 196, Poltava Oblast – 173, Mykolaiv Oblast – 115, Sumy Oblast – 95, Kherson Oblast – 88, , Khmelnytskyy Oblast – 72, Donetsk Oblast – 52, Chernihiv Oblast – 35, Luhansk Oblast – 29.<sup>12</sup>

<sup>&</sup>lt;sup>11</sup> Coronavirus Cases: Ukraine [Electronic resource] / URL:

https://www.worldometers.info/coronavirus/country/ukraine/

<sup>&</sup>lt;sup>12</sup> Center of Public Health of Ukraine. Operative information on coronavirus URL: <u>https://www.facebook.com/phc.org.ua/photos/a.353782784746456/1872416219549764/?type=3&theater</u>



Source - Ministry of Finance of Ukraine<sup>13</sup>

**Groups at Higher Risk in Numbers.** While vast majority of COVID-19 cases are reported to be mild, there are groups at higher risk. They are in danger of suffering from severe consequences of the disease. Particularly, older adults, HIV/AIDS infected, people with asthma, chronic respiratory diseases or diabetes, cardiovascular diseases, cancer, belong to these groups.<sup>14</sup> As the COVID -19 pandemic spreads exponentially in Ukraine, people diagnosed with chronic diseases, cancer, cardiovascular problems, and AIDS are at a higher risk than ever before. These groups can be presented in figures. For instance, Ukraine is one of countries with the highest percentage of adult population infected with HIV. As of 2019, there were more than 142.000 HIV infected people and almost 47.000 AIDS cases.<sup>15</sup> Ukraine also has a high number of elderly people – aged 60 years or over. As of 2018, the total number of adults older than 60 amounted to 9, 8 millions and older than 65 – approximately 7 millions.<sup>16</sup> As of 2019, there was more than one million cancer patients,

<sup>&</sup>lt;sup>13</sup> Coronavirus in Ukraine (in Ukrainian) [Electronic resource] / URL: https://index.minfin.com.ua/ua/reference/coronavirus/ukraine/

<sup>&</sup>lt;sup>14</sup> Coronavirus disease 2019 (COVID-19) Situation Report – 63 [Electronic resource] / URL: <u>https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200323-sitrep-63-covid-19.pdf?sfvrsn=d97cb6dd\_2</u>

<sup>&</sup>lt;sup>15</sup> HIV/AIDS Statistics, Center of Public Health, Ministry of Health (in Ukrainian) [Electronic resource] / URL: <u>https://phc.org.ua/kontrol-zakhvoryuvan/vilsnid/statistika-z-vilsnidu</u>

<sup>&</sup>lt;sup>16</sup> The number of existing population of Ukraine, State Statistics Service of Ukraine (in Ukrainian) [Electronic resource] / URL: <u>http://database.ukrcensus.gov.ua/PXWEB2007/ukr/publ\_new1/2019/zb\_chnn2019.pdf</u>

according to Ministry of Health.<sup>17</sup> Amid COVID-19 outbreak, non-coronavirus patients struggle as their treatment is interrupted and vital surgeries are postponed due to the pandemic.<sup>18</sup>

*The Readiness of Ukraine's Health Care Systems*. COVID-19 exposed weaknesses in health care systems of many countries. No country was fully prepared for the coronavirus pandemic. Still, some countries are better placed to handle COVID-19 crisis, while others do not have so many resources and good health care systems. WHO representative in Ukraine, Dr. Yarno Habicht, stated that Ukraine is a not a country with a weak health care system, given WHO's work with Ukraine's Ministry of Health and its experience with handling past crises and outbreaks.<sup>19</sup> However, Ukraine cannot be deemed to have a strong health care system as well, especially taking into account the unfinished health care reform, in which a second phase only started on 1<sup>st</sup> of April at the level of polyclinics and hospitals.

Even though the former Minister of Health Zoryana Skaletska in January stated that the Ukrainian health care system was ready to fight COVID-19, the reality appeared to be different. Particularly, there was an evident lack of tests for coronavirus, artificial ventilation machines from the beginning of COVID-19 spread. On 5<sup>th</sup> of February, the Center of Public Health received the first test systems for the coronavirus. They included reagents for polymerase chain reaction, or PCR, testing. The first 1200 rapid test for coronavirus have arrived in Kyiv on 10<sup>th</sup> of March.<sup>20</sup> Such facts indicate the Ukrainian health care system's readiness to fight COVID-19. In contrast, in mid-January, long before most Germans had given the virus much thought, Charité hospital in Berlin had already developed a test and posted the formula online.<sup>21</sup> By the time the first case of Covid-19 was recorded in Germany, laboratories across the country had built up a stock of test kits.<sup>22</sup> Evidently, the Ukraine lacked such a comprehensive vision and strategy to fight COVID-19.

As of 31<sup>st</sup> of March, Ukraine' top sanitary doctor Viktor Lyashko confirmed that Ukraine has prepared 240 Ukrainian hospitals with 67 000 of beds to receive the first wave of patients. Special sanitary tents have also been set up near hospitals in order to identify patients with moderate and

<sup>21</sup> A German Exception? Why the Country's Coronavirus Death Rate is Low [Electronic resource] / URL: <u>https://www.nytimes.com/2020/04/04/world/europe/germany-coronavirus-death-</u>

<sup>&</sup>lt;sup>17</sup> Ministry of Health: More than 1 million of cancer patients registered in Ukraine (in Ukrainian) [Electronic resource] / URL: <u>https://ua.112.ua/suspilstvo/amoz-v-ukraini-zareiestrovano-ponad-1-milion-onkokhvorykh-liudei-511713.html</u>

<sup>&</sup>lt;sup>18</sup> Non-coronavirus patients struggle in Ukraine as their treatment is interrupted by COVID-19 [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/non-coronavirus-patients-struggle-in-ukraine-as-their-treatment-is-interrupted-by-covid-</u>

<sup>19.</sup>html?fbclid=IwAR1U82NMvY3bddAZRlS1MpZxKDGBRg\_Yc1aVASIxd6Y81\_6qP489W\_H7kRo

<sup>&</sup>lt;sup>19</sup> WHO thinks Ukraine will be able to fight coronavirus (in Ukrainian) [Electronic resource] / URL: <u>https://life.pravda.com.ua/health/2020/01/31/239773/</u>

<sup>&</sup>lt;sup>20</sup> Kyiv received rapid coronavirus tests [Electronic resource] / URL: <u>https://tsn.ua/kyiv/kiyiv-otrimav-shvidki-testi-dlya-diagnostuvannya-koronavirusu-1505661.html</u>

rate.html?algo=top\_conversion&fellback=false&imp\_id=955076418&action=click&module=Most+Popular&pgty pe=Homepage&fbclid=IwAR3drBaxuDow-CHL26zO8euNsP-D\_p5-2PNzSrBweSQ-mkOdxSQbXv68w8E <sup>22</sup> Ibid.

severe symptoms.<sup>23</sup> However, although the number of hospital beds appears to be sufficient, many of those hospitals are not prepared to receive patients with COVID-19. Particularly, infectious diseases units in hospitals are not in a good state. There are unsanitary conditions in toilet facilities, patients are required to share toilets and showers.<sup>24</sup> Beyond missing basic supplies like soap and sanitizer, there is a distinct lack of modern equipment like digital thermometers, lung ventilation machines, which are indispensable in order to fight severe cases of COVID-19. According to Deputy Minister of Health of Ukraine Viktor Lyashko, there are more than 3,500 artificial lung ventilation machines in Ukraine, a nation of 40 million people.<sup>25</sup> The reason for the hospitals being ill-equipped and in bad shape is the fact that they have not been properly financed by the government during the 28 years of independence. There has been no reform at the level of hospitals yet.

## The Timeline of Ukraine's Response to COVID-19 Outbreak.

- On 23<sup>rd</sup> of January, Ukrainian government officially started the fight against COVID-19 from giving a press briefing on the spread of the coronavirus infection following the outbreak in Wuhan, China. On the next day, the Ministry of Health signed an order on preventing the virus entry into Ukraine and its spread on Ukrainian territory. The measures included establishing an emergency operations center, developing guidelines during the outbreak, auditing hospitals and clinics and training medical personnel.
- On 3<sup>rd</sup> of February, the Cabinet of Ministers published a decree on preventing the disease. Its measures included putting government bodies on high alert in case of an outbreak, obligatory 14-day isolation for people who visited Hubei province and adopting a national plan for anti-epidemic measures against COVID-19.
- On 5<sup>th</sup> of February, the Center of Public Health received the first test systems for the coronavirus. They included reagents for polymerase chain reaction, or PCR, testing.
- On 24<sup>th</sup> of February, the government introduced temperature checks for all passengers arriving from countries affected by COVID-19. On the same day, the Center for Public Health received more reagents from the WHO, sufficient for PCR testing of 960 people.
- On 26<sup>th</sup> of February, the government appointed Deputy Health Minister Viktor Lyashko in charge of the response to the coronavirus outbreak.
- On 28<sup>th</sup> of February, WHO began training in coronavirus detection and treatment in all designated Ukrainian hospitals.
- On 3<sup>rd</sup> of March, the government launched a website www.covid19.com.ua containing all the information about the coronavirus.

 <sup>&</sup>lt;sup>23</sup> Ukraine's op sanitary doctor: 240 hospitals, 67 000 beds ready for COVID-19 patients [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/ukraines-top-sanitary-doctor-240-hospitals-67000-beds-ready-for-covid-19-patients.html?fbclid=IwAR3YiQxigpY6rBGCk32Z3WEqy2zC5z0Dk oLraMELdBZoUi35zq8kfVwkHA
<sup>24</sup> Experts say Ukrainian hospitals are not ready for COVID-19 pandemic [Electronic resource] / URL: https://www.kyivpost.com/ukraine-politics/experts-say-ukrainian-hospitals-are-not-ready-for-covid-19</u>

pandemic.html

<sup>&</sup>lt;sup>25</sup> Artificial lung ventilation machines: how many of them Ukraine and other countries have (in Ukrainian) [Electronic resource] / URL: <u>https://www.radiosvoboda.org/a/aparaty-shtuchnoho-dykhannia/30506711.html</u>

- On 4<sup>th</sup> of March, in a government reshuffle, cardiac surgeon Illia Yemets was appointed to be a new Health Minister.
- On 11<sup>th</sup> of March, the health ministry stated to have purchased 19,600 rapid test kits that would allow to test over 90,000 people. The government allocated Hr 100 million (\$3.8 million) for the purchase of protective equipment. The export of those items was banned.
- On 12<sup>th</sup> of March, a three-week nationwide quarantine was imposed until April 3. Schools, universities, and kindergartens were shut down. Public events of over 200 people were canceled.
- On 15th of March, the health ministry announced about its partnership with Facebook, which has 14 million users in the country, to fight misinformation. The social network will push updates from verified sources such as the WHO, the ministry website, and the government coronavirus information website, covid19.com.ua.
- On 16<sup>th</sup> of March, Ukraine banned entry to foreign nationals, except those holding residency permits, diplomats and employees of international organizations. On the same day, President Zelensky created a coordination council to combat the spread of the coronavirus in Ukraine. It consists of a number of ministers, the head of the border guard service, the General Staff and National Security and Defense Council.
- On 17<sup>th</sup> of March, the Cabinet of Ministers ordered closed most public places nationwide, except for pharmacies, banks, petrol stations, insurance companies and grocery stores. All public events and gatherings of over 10 people, including religious ceremonies, were banned. Domestic air, rail, and bus travel halted. On the same day, Ukrainian parliament Verkhovna Rada passed a bill with amendments to legislation aimed at preventing the spread of COVID-19 in Ukraine.

The bill envisions the following:

- 200% salary bonus to medical workers involved in tackling the coronavirus;
- The procurement procedure for purchases of medications and protective equipment;
- Imports of medical goods are exempt from VAT and customs duties;
- Tax deferrals for businesses and individual entrepreneurs;
- The government imposes control over prices on "socially important goods" such as medical masks, sanitizers;
- Strengthened penalties for patients who violate obligatory isolation and intentionally infect people. The crime can be punished with a fine of Hr 17,000-51,000 (\$610-1,830), up to six months of arrest and up to three years in prison. If breaking quarantine leads to another person's infection and death, the person who infected them intentionally may be jailed for five to eight years.
- On 18<sup>th</sup> of March, subways in Kyiv, Dnipro and Kharkiv were closed for the time of the quarantine. Buses, trams and trolleybuses may carry no more than 10 passengers at once. All passengers must wear masks in public transport. However, such a decision aimed at prevention only make the situation worse as it has led to overload of other kinds of public transport.
- On 25<sup>th</sup> of March, the government introduced a nationwide emergency situation for 30 days until April 24.
- On the same day, the central headquarters on the elimination of consequences from the national emergency connected with coronavirus epidemic, was established. The

government appointed Deputy Minister of Health, Chief State Sanitary Doctor of Ukraine Viktor Lyashko, to lead the activities in the central headquarters. The aim of the headquarters is to respond to the threats posed by the coronavirus epidemic. It will collect all relevant information on the COVID-19, make prompt decisions and respond to threats posed by the epidemic. The headquarters works 24 hours a day. In order to prevent large-scale spread of coronavirus disease and eliminate all consequences. In an emergency, it is critical for all information to be gathered in one place, decisions made promptly and implemented immediately. The government is responding promptly to changing the situation with coronavirus infection in Ukraine and in the world and is taking all necessary measures.

- On 30<sup>th</sup> of March, Minister of Health Illia Yemets announced his resignation. On the same day, Ukraine's parliament appointed Maksym Stepanov as a new Minister of Health. On this day, the Ukrainian authorities decided to put all citizens arriving from abroad into obligatory 14-day observation in a hotel, which are often in a bad condition, or in special hotels at their own expense.
- On 1<sup>st</sup> of April, the second stage of transformation of the health care system on the level of hospitals and polyclinics has started.
- On 2<sup>nd</sup> of April, The Ministry of Health of Ukraine has defined a protocol for the treatment of patients with COVID-19. This step was criticized by ex-Minister of Health, Ulana Suprun.
- On 3<sup>rd</sup> of April, the government has ordered new restrictive measures to prevent the spread of COVID-19.
- Starting from 6<sup>th</sup> of April, new restrictive measures are in place until April 24, these nationwide restrictions have progressively intensified over time:
  - Being in public places requires a face mask or respirator mask;
  - Moving in groups of more than two people in public places is not allowed unless accompanying children or carrying out activities required by one's work;
  - People under the age of 14 cannot be in public places without an accompanying adult;
  - No visiting of parks, squares, recreation areas, forests and coastal areas unless carrying out activities required by one's work or walking a pet alone;
  - No visiting of sports grounds and playgrounds;
  - No visiting of palliative and social care units or institutions that provide social services;
  - It is prohibited to hold any type of mass event involving more than 10 people except gatherings that ensure the function of local and national government;
- On the same day, Ukrainian government has ordered 2 million COVID-19 tests produced by domestic manufacturers. Starting from 6<sup>th</sup> of April, local producers will be delivering 2,000-7,000 COVID-19 test kits daily.<sup>26</sup>
- On April 10, Ministry of Health of Ukraine stated during its daily briefing that it has begun to carry out PCR testing in all cases of pneumonia, all contact persons of infected people with COVID-19 and all people who returned from abroad before the symptoms of coronavirus disease appeared.

<sup>&</sup>lt;sup>26</sup> Ukraine to buy 2 million locally produced COVID-19 test kits [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/ukraine-to-buy-2-million-locally-produced-covid-19-test-kits.html?fbclid=IwAR3DduZ7JTpk5FVdPi3MrIPmijtdm4GHNY4Rgb2bvyGMtoz4OxVGfqv2Kzo</u>

- On 13<sup>th</sup> of April, Minister of Health Maksym Stepanov reported that testing capacity has increased by three times, particularly 2 500-3000 tests are being carried out on a daily basis.
- On 14<sup>th</sup> of April, the Verkhovna Rada of Ukraine has amended the state budget and created Coronavirus Fund of UAH 64, 7 Billion, which have to cover additional payments for medical workers, purchase of medical equipment, Minister of Health informed during daily briefing.
- On 15<sup>th</sup> of April, during daily briefing Minister of Health said that authorities provided television and online broadcasts of church services so that Ukrainians could celebrate Easter at home. He also reported that Ukraine managed to receive an additional \$150 million from the World Bank, in particular, \$50 million to support vulnerable populations during the COVID-19 epidemic and \$100 million to improve an overall social protection system.<sup>27</sup> He also told that there were approximately 200 000 PCR tests in Ukraine and their stocks are constantly being replenished. Particularly, Ukraine purchases them in China and South Korea, and produces its own PCR tests.
- On 17<sup>th</sup> of April, the Ministry of Health of Ukraine has introduced a possibility of signing a contract with family doctors online. Minister of Health also said that option of conducting PCR testing for all medical workers is considered, given the increase in the number of coronavirus cases among them.
- On 22th of April, the Cabinet of Ministers extended the quarantine measures in the country until May 12. All the existing quarantine measures remained in force. The decision was made due to increasing numbers of infected with COVID-19. However, using public transport was allowed for persons who expressed a desire to be blood donors.
- On 24<sup>th</sup> of April, the government agreed to pay additional payments (300 % of salary) to medical workers that help in treating patients with COVID-19.
- On April 25, during daily briefing Minister of Health stated that Ukraine has set a record in having the highest number of patients recovering from COVID-19 per day – 181 people. He also reported that 5825 PCR were conducted over the last day.
- On April 27, 4251 PCR tests were conducted over the last day, Minister of Health reported during daily briefing, indicating the increase in testing capacity of laboratories. The Ministry of Health received about 4,500 PCR systems (450,000 tests) of Ukrainian production that meet the world standards in quality and accuracy. Minister of Health highlighted that the Ministry of Health plans to increase the capacity of laboratories and attract more laboratory technicians to increase the number of PCR tests up to 8-10 thousand a day.

The timeline of government's steps to overcome COVID-19 outbreak highlights the following problems and challenges:

 The frequent changes of Ministry of Health administrators. Due to political instability, over the last seven months, there have been three different Ministers of Health – Zoryana Skaletska (29<sup>th</sup> of August 2019 – 4 of March 2020), Illia Yemets (4<sup>th</sup> of March – 30<sup>th</sup> of March),

<sup>&</sup>lt;sup>27</sup> Hjkh URL: <u>https://www.kmu.gov.ua/en/news/svitovij-bank-dodatkovo-vidiliv-ukrayini-50-miljoniv-dolariv-dlya-pidtrimki-vrazlivih-verstv-naselennya-u-period-epidemiyi-koronavirusu</u>

Maksym Stepanov (current Minister of Health). Such instability is one of the factors that prevents Ukraine from fighting COVID-19 more effectively. Frequent changes of main administrators in the field of health care negatively influence ability to develop an effective and consist strategy and react promptly according to it.

2) Lack of tests for coronavirus, artificial ventilation machines, other necessary basic supplies for fighting COVID-19 epidemic. Lack of coordination and preparation for fighting COVID-19 epidemic was a logical consequence of frequent changes of main health care administrators. It left Ukrainians without a sufficient number of coronavirus tests at the beginning of coronavirus epidemic in Ukraine. As WHO representative in Ukraine Dr. Yarno Habicht said, a proper state's reaction to coronavirus means having proper epidemiological surveillance and ability to treat severe cases, availability of all necessary equipment in hospitals and intensive care units.<sup>28</sup> As mentioned above, Ukrainian government imposed quarantine on 12<sup>th</sup> of March, when there was only one infected person in the country. However, the pre-purchase of coronavirus tests did not become a part of Ukraine's effort to overcome COVID-19 from the very beginning.

Former Minister Ulana Suprun criticized the government for lack of coordination and absence of action plan. In interview for Ukrainian Pravda, she told that the government should have developed the action plan in January after having found out what Ukraine needs on order to fight pandemic.<sup>29</sup> Contacting the manufacturers, buying the remedies, first of all supplies for doctors, should have been the government's first steps. In contrast, such supplies were being sold abroad before the pandemic outbreak in Ukraine. Suprun emphasized that, back in January, the Ministry of Health should have conducted an audit of the tests available in the world, whether they could be produced in our country. If it was not possible, or not in the near future, it should have been determined where the tests could be purchased and prepare in advance all documents and regulations for their purchase. Basically, such plan and actions present how she would prepare the country for fight against COVID-19 who would be the measures she if she were Minister of Health.

Beyond the need of coronavirus tests and artificial lung ventilation machines, there is lack of simple medical supplies as for doctors to fight COVID-19. Such basic supply shortages at the local level lead to the spread of COVID-19 among medical workers who are supposed to fight the disease and help patients. For instance, Ternopil Oblast is the region with the highest number of infected medical workers.<sup>30</sup> In particular, medical workers from a small town Monastyryska made a plea to President Volodymyr Zelensky for protective gear masks, gloves, hazmat suits, medications, tests. Absence of basic supplies to fight COVID-19 seriously undermines the country's fight against the pandemic, as a lot of medical

<sup>&</sup>lt;sup>28</sup> It is impossible to test everyone, but the country has to do its best: representatives of WHO and UN in Ukraine on coronavirus [Electronic resource] / URL: <u>https://life.pravda.com.ua/health/2020/03/21/240307/</u> <sup>29</sup>Ulana Suprun: Exclusive interview [Electronic resource] / URL: <u>https://life.pravda.com.ua/health/2020/03/24/240337/</u>

<sup>&</sup>lt;sup>30</sup> Town in Ternopil Oblast reports the highest number of infected doctors [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/town-in-ternopil-oblast-reports-the-highest-number-of-infected-doctors.html</u>

workers decide to quit their jobs due to real risk of infection. Even though according to official data, Monastyryska hospital is equipped with five lung ventilators, 55 beds in the infectious disease unit, locals say this is far from reality. Deputy head of the Monastyrysky District Administration said that the hospital lacks medications, medical equipment, protective gear and test tubes. He told that the hospital has 18 beds ready for coronavirus patients and only one lung ventilator, which contradicts official data.<sup>31</sup> Such situation exists not only in Monastyryska but in most of district hospitals across the country, for the health care reform has not been carried out at this level. Given the lack of sufficient financing of health care system for many years and corruption, hospitals were not properly prepared to fight COVID-19 crisis.

3) The absence of following the best practices such as mass testing from the beginning of COVID-19 epidemic in the country. As Ukraine is amid its fight against COVID-19 pandemic, it has been slow to put together a consistent and effective national testing strategy. As of 3<sup>rd</sup> of April, Ukraine had tested fewer than 4,000 suspected COVID-19 cases in a nation of 40 million people.<sup>32</sup> In contrast, Germany was conducting around 350,000 coronavirus tests a week, far more than any other European country. Medical staff, at particular risk of contracting and spreading the virus, are also regularly tested.<sup>33</sup> As COVID-19 is only approaching its peak in Ukraine, the State's testing capacity is remaining behind. Mass testing has proved to be the key to containing the spread and deadliness of the novel coronavirus in several countries. However, it has not become a part of Ukraine's effort to overcome coronavirus from the very beginning.

The government was critized for lack of testing policy. Volodymyr Kurpita, the former head of the Center for Public Health said that 'without a proper policy, testing efforts will be inefficient, the most critically ill patients may not receive priority and COVID-19 cases could overwhelm Ukrainian hospitals'.<sup>34</sup> The expert said that national protocol does not spell out specifically what kind of tests, where and in which situations should be carried out.<sup>35</sup> The absence of precise testing protocol led to confusion among the public and medical workers. Gradually, it resulted in the situations when a person with very mild symptoms is hospitalized, whereas a person with severe ones is told to quarantine at home. Having understood its mistake, starting from 10<sup>th</sup> of April, the Ministry of Health began to test not only persons with symptoms but also patients with pneumonia, all contact persons of infected people with COVID-19 and all people who returned from abroad before the

<sup>32</sup> Ukraine has tested fewer than 4, 000 suspected COVID-19 cases [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/ukraines-covid-19-testing-capacity-is-behind-most-other-countries.html</u>

<sup>34</sup> Ukraine's national COVID-19 testing policy needs work [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/ukraines-national-covid-19-testing-policy-needs-work.html?fbclid=IwAR3ZweAoDcNaCnSTXe3oV2GQeAZ8tzrpNtLlCsijYwC7-fcLadcYY4ZAktA</u> <sup>35</sup> Ibid.

<sup>&</sup>lt;sup>31</sup> Ibid.

<sup>&</sup>lt;sup>33</sup> A German Exception? Why the Country's Coronavirus Death Rate is Low [Electronic resource] / URL: <u>https://www.nytimes.com/2020/04/04/world/europe/germany-coronavirus-death-</u> <u>rate.html?algo=top\_conversion&fellback=false&imp\_id=955076418&action=click&module=Most+Popular&pgty</u> <u>pe=Homepage&fbclid=IwAR3drBaxuDow-CHL26zO8euNsP-D\_p5-2PNzSrBweSQ-mkOdxSQbXv68w8E</u>

symptoms of coronavirus disease appeared. This decision led to substantial increase in daily testing capacity.

4) Introduction of a single state protocol for the treatment of COVID-19 patients. In lieu of mass testing, Ukraine is fighting the COVID-19 in its way. While the world is looking for a vaccine against COVID-19 and some medications are being used with extreme caution, a protocol for the treatment of medium to severe coronavirus cases has already been introduced in Ukraine.<sup>36</sup> Ulana Suprun criticizes this step. According to her, there is no scientifically valid data on the efficacy and safety of all protocol drugs, and they are used experimentally only. Former Minister of Health emphasizes that the introduction of such a treatment protocol at the country level is 'very dangerous and in general looks like a massive experiment on Ukrainians'. Such measure may lead to the situations of patients' self-medication. Moreover, the uncontrolled use of some drugs, which are required for patients with other diseases, may create a shortage of these drugs for them. Suprun said that the threatening situation in the world is not an excuse to ignore the evidence, and to make dangerous decisions for the whole country to simply reassure people about the existence of the protocol.

**Society's Reaction**. Before first cases were confirmed in Ukraine, panic had started to spread in Ukrainian society. On February 20, it started from the hostile attack on the buses carrying the evacuees from coronavirus-hit China. Locals of Novi Sanzhary – the town in which evacuees were to quarantine – barricaded the road to a sanitarium fearing that they could become infected with coronavirus. Evidently, such actions were influenced by misinformation in Ukrainian society created by lack of good state's communication and news supported by scientific data. Dubious advice, conspiracy theories and fake news were all over the social media. Limited knowledge about coronavirus and low trust in the government motivate many Ukrainians to seek remedies online. There were a lot of fake health advice and advertisements for various medications and products purporting to protect against the coronavirus. Some of nnline sellers and even pharmaceutical companies were trying to take advantage of the climate of fear and advertise prophylactic medications.

Over time, the situation has stabilized in Ukraine. The government started to fight misinformation. One of the steps was partnership between the Ministry of Health and Facebook. The social network has been pushing updates from verified sources such as the WHO, the ministry website, and the government coronavirus information website, covid19.com.ua.

Nowadays, the situation has become better. Ukrainian citizens started to take coronavirus more seriously when the number of cases started rising further. A vast majority of Ukrainians appear to support restrictions on public activities and outdoor movement, as the survey by pollster Rating

<sup>&</sup>lt;sup>36</sup>Ministry of Health introduced a single state protocol for the treatment of COVID-19 patients [Electronic resource] / URL: <u>https://www.dw.com/uk/moz-ukrainy-zaprovadylo-protokol-likuvannia-khvorykh-na-covid-19/a-53001703</u>

Group indicates. The poll results, published on April 1, indicate that as much as 58% of the country's population would endorse placing a curfew on cities as part of the government's measures to prevent the spread of COVID-19, the disease caused by the novel coronavirus.<sup>37</sup>

However, some of government's measures aggravate the situation and create tension in the country. For instance, on March 30, the Ukrainian authorities decided to put all citizens arriving from abroad into obligatory 14-day observation in special hotels at their own expense, which triggered outrage among tourists arriving home from Vietnam and Indonesia. As coronavirus spreads in Ukraine, the government has imposed stricter quarantine measures that will last until April 24 and eventually can be extended until mid-May. A lot of Ukrainians question such strict measures as prohibiting visiting parks, squares, recreation areas, forests and coastal areas at all. Such steps are seen to be too strict by Ukrainian society, especially given that the State only intensifies quarantine measures and does not follow WHO's call for mass testing and other practices that turned out be successful in other countries in the fight against COVID-19.

Still, Ukrainians understand the gravity of the situation for Ukraine's health care system and feel social responsibility to help in the fight against COVID-19. A large number of Ukrainian private business leaders have already made substantial donations to medical and other organizations in Ukraine. The list of sponsors is the following: Phillip Morris Ukraine (10 Million UAH), YUTS-Agroproduct LLC (200 000 UAH), Agro holding Astarta (15 Million AUH), ADM (1 Million USD), SoftServe (10 Million UAH), national chain of SILPO supermarkets (100 Million UAH), ATB supermarket (14 Million UAH) and others.<sup>38</sup>

*Economic Consequences of Shutdown Measures in Ukraine*. Ukraine has already started to count the economic cost of the novel coronavirus, and the prospects are not bright. Ukraine's state budget deficit could grow from 2% of GDP now, to 7% by the end of the year, the government has said.<sup>39</sup>

The Ukrainian government, in its updated macroeconomic report, raised the inflation forecast in 2020 from the previously approved 5.5% to 11.6%. The Cabinet of Ministers expects that the unemployment rate will be 9.4%, the average monthly wage of workers (gross) will be \$380, while the nominal wage will decrease by 4.5%.<sup>40</sup>

<sup>&</sup>lt;sup>37</sup> Poll: Most Ukrainians support imposing curfew amid coronavirus quarantine [Electronic resource] / URL: <u>https://www.kyivpost.com/ukraine-politics/poll-most-ukrainians-support-imposing-curfew-amid-coronavirus-</u> <u>quarantine.html</u>

<sup>&</sup>lt;sup>38</sup> Morgan Williams: More Ukrainian businesses help fight COVID-19 [Electronic resource] / URL: <u>https://www.kyivpost.com/article/opinion/op-ed/morgan-williams-more-ukrainian-businesses-help-fight-covid-19.html</u>

<sup>&</sup>lt;sup>39</sup> COVID-19 already inflicting harm on Ukraine economy [Electronic resource] / URL: <u>https://www.kyivpost.com/business/covid%e2%80%9119-already-inflicting-harm-on-ukraine-economy.html</u>

<sup>&</sup>lt;sup>40</sup> Business Update – April 3: NBU buys dollars, inflation to rise [Electronic resource] / URL: <u>https://www.kyivpost.com/business/business-update-april-3-nbu-buys-dollars-inflation-to-rise-banks-prepare-</u> debt-holidays.html?fbclid=IwAR0h1VEXGXHWIri0zPqAuDhT7kB0PK7oeiUmDQbnkxdvDHs43owsm0iSowI

According to the President of the Chamber of Commerce and Industry of Ukraine, with 650,000 small and medium businesses employing up to 4 million people, the figure of newly unemployed could jump 5-fold in the next month, as most small and medium businesses only have resources to survive until mid-April. A survey in March found that only 46% of those polled were going to receive their full salary in March, another 45% have enough money to last only one month and 34% will run out of money in two months.<sup>41</sup>

Advanter Group survey reveals that 28% of enterprises expect revenue decreases over 60% this year. Many businesses said they may not be able to survive the economic pain of COVID-19, with some 38% of enterprises stating they are not able to hold out for more than two months under the current lockdown conditions. Retailers of non-food products, the hotel and tourism sector, education, and restaurants have the bleakest outlook for 2020, the survey shows.<sup>42</sup>

In March, Ukrainians withdrew UAH 2.7 billion (\$19 million) worth of cash from the country's banks. The National Bank of Ukraine said that this represented 'significant nervousness' around the security of currency deposits. Large amounts of customers withdrew their cash in the second half of March as quarantine conditions were ramped up. The NBU said that pandemic lockdown measures and economic uncertainty had triggered a brief run on bank deposits. At the same time, however, the NBU says that this trend was weak and short-lived. The regulator has repeatedly stated that the banking sector and the NBU has enough liquidity to maintain economic stability in Ukraine.<sup>43</sup>

**Recapitulate**, Ukraine's readiness to fight COVID-19 and protect population against it, government's response showed lack of coordination and action plan from the very beginning of COVID-19 pandemic. Introducing strict quarantine with tight restrictions looks big but is not seen as successful, taking into account the government's failures to secure hospitals with basic medical equipment and supplies. Basically, while Ukraine has been trying to combat the rapidly spreading illness, the government's efforts have been blocked by a lack of indispensable equipment, supplies, as well as of a comprehensive and consistent national strategy. However, with society sticking to quarantine measures and business representatives helping financially, Ukraine has a chance to fight COVID-19 spread. Moreover, having reviewed its national testing regime, the Ministry of Health's decision to test not only people with evident symptoms of coronavirus led to a substantial increase in daily testing in Ukraine, which appears to be promising and positive for fighting COVID-19.

<sup>&</sup>lt;sup>41</sup> COVID-19 already inflicting harm on Ukraine economy [Electronic resource] / URL:

https://www.kyivpost.com/business/covid%e2%80%9119-already-inflicting-harm-on-ukraine-economy.html <sup>42</sup> Business Update: April 6 – Most businesses expect 50% reduction in revenue for 2020 [Electronic resource] / URL: <u>https://www.kyivpost.com/business/business-update-april-6-most-businesses-expect-50-reduction-in-revenue-for-2020.html</u>

<sup>&</sup>lt;sup>43</sup> Ibid.