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## **Health situation update in Ukraine**

### **Report by the Director-General**

**(AS AT 19 MAY 2022)**

1. Since the invasion of Ukraine on 24 February 2022, there have been devastating effects on the country. As at 18 May 2022, the Office of the United Nations High Commissioner for Human Rights reported 7964 civilian casualties, comprising 3778 killed and 4186 injured, though the actual toll is certainly much higher.<sup>1</sup> The current number of internally displaced persons fleeing the ongoing hostilities is estimated at 8 million<sup>2</sup> and a further 6.3 million people have crossed into neighbouring countries.<sup>3</sup> According to the latest estimates from the Office for the Coordination of Humanitarian Affairs, 15.7 million people need humanitarian assistance, of whom 12.1 million are in need of health care.<sup>4</sup>

### **MAIN CAUSES AND DRIVERS OF MORBIDITY AND MORTALITY IN 2022**

#### **Attacks on health care, injuries, and urgent and critical care**

2. The war in Ukraine is having devastating direct and indirect impacts on people's health and the functioning of the health system. Closures of facilities and the displacement of many health care workers have resulted in disruption to health services throughout Ukraine. As at 19 May 2022, a total of 235 attacks on health care have been reported, directly resulting in 59 reported injuries and 75 deaths.<sup>5</sup> These attacks deprive people of urgently needed care, endanger health care providers and undermine health systems.

3. There has been an increase in the number of trauma cases across Ukraine, concentrated in those areas where active fighting is occurring. A total of 7964 civilian casualties due to the fighting were reported.<sup>1</sup> For trauma patients, first aid in the field and rapid transfer to hospital are vital to save lives. The capacity of frontline hospitals to provide trauma care has been impacted by the displacement of

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<sup>1</sup> OHCHR. Ukraine: civilian casualty update 18 May 2022 (<https://www.ohchr.org/en/news/2022/05/ukraine-civilian-casualty-update-18-may-2022>, accessed 19 May 2022).

<sup>2</sup> IOM. Ukraine internal displacement report. General population survey. Round 4, 3 May 2022 (<https://dtm.iom.int/ukraine>, accessed 19 May 2022).

<sup>3</sup> UNHCR. Operational data portal. Ukraine refugee situation (<https://data2.unhcr.org/en/situations/ukraine>, accessed 19 May 2022).

<sup>4</sup> OCHA. UKRAINE situation report (<https://reports.unocha.org/en/country/ukraine>, accessed 20 May 2022).

<sup>5</sup> WHO. Surveillance System for Attacks on Health Care (<https://extranet.who.int/ssa/Index.aspx>, accessed 19 May 2022).

staff and the lack of medicines and consumables. The disruption of the health care delivery is also affecting other critical services and programmes.

## **Mental health**

4. The burden of psychological stress and trauma should not be underestimated. The population is considered at high risk of adverse mental health outcomes and there remains an urgent need to scale up mental health and psychosocial support services. In areas already affected by the protracted conflict in Ukraine, the pre-war prevalence of depression and anxiety was 22% and 17%, respectively.<sup>1</sup> On the basis of estimates of mental health disorders in post-conflict settings,<sup>2</sup> nearly 4 million adults and one million children out of the 18 million affected population may be at risk of developing conflict-related mental health issues. Health care workers are at increased risk of psychological distress and mental health disorders due to the stressful effects of overload and understaffing, and witnessing traumatic events.<sup>3</sup>

## **Chronic diseases**

5. Before the war, noncommunicable diseases were the leading cause of morbidity and mortality in Ukraine. Cardiovascular disease, cancer and chronic respiratory disease accounted for about 80% of all mortality in the country.<sup>4</sup>

6. The discontinuation of treatment and care due to disruption to health services and shortages of medical supplies poses a severe risk of increased mortality and morbidity from noncommunicable diseases (such as diabetes, cancer and stroke) and communicable diseases (such as HIV and tuberculosis). In a survey conducted mid-April 2022 by IOM, 22% of 2001 respondents indicated that they or someone within their family had to stop using their medication, particularly for cardiovascular disease, hypertension and diabetes, because of the war.<sup>5</sup> In a nationwide health needs assessment conducted by WHO in partnership with Premise from 7 April to 11 May 2022, nearly a third (29%) of the 1631 households that responded had at least one person with a chronic disease who reported challenges in accessing care for those conditions.<sup>6</sup>

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<sup>1</sup> Roberts B, Makhshvili N, Javakhishvili J, Karachevskyy A, Kharchenko N, Shpiker M, et al. Mental health care utilisation among internally displaced persons in Ukraine: results from a nation-wide survey. *Epidemiol Psychiatr Sci*. 2019 Feb;28(1):100-111. doi: 10.1017/S2045796017000385. Epub 2017 July 27.

<sup>2</sup> WHO. Mental health in emergencies. Fact sheet (<https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies#:~:text=The%20burden%20of%20mental%20disorders.post%2Dtraumatic%20stress%20disorder%2C%20bipolar>, accessed 10 April 2022).

<sup>3</sup> OCHA. Ukraine humanitarian needs overview, February 2021 (<https://reliefweb.int/report/ukraine/ukraine-humanitarian-needs-overview-2021-february-2021-enuk>, accessed 20 May 2022).

<sup>4</sup> WHO. Noncommunicable diseases Ukraine 2018 country profile (<https://www.who.int/publications/m/item/noncommunicable-diseases-ukr-country-profile-2018>, accessed 20 May 2022).

<sup>5</sup> IOM. Ukraine internal displacement report. General population survey. Round 3, 17 April 2022 (<https://displacement.iom.int/reports/ukraine-internal-displacement-report-general-population-survey-round-3-11-17-april-2022>, accessed 20 May 2022).

<sup>6</sup> WHO. Ukraine: People with chronic diseases face massive challenges in accessing health care, according to new WHO survey (<https://www.euro.who.int/en/media-centre/sections/press-releases/2022/ukraine-people-with-chronic-diseases-face-massive-challenges-in-accessing-health-care,-according-to-new-who-survey>, accessed 20 May 2022).

## Maternal and child health

7. Ukraine remains one of the European countries with the highest maternal mortality ratio. Although ratio decreased from 32 to 19 deaths per 100 000 live births between 2003 and 2017,<sup>1</sup> it remains nearly 10 times higher than that of neighbouring Poland. An estimated 265 000 women are pregnant in Ukraine, and there are about 1000 deliveries per day. Disruptions to antenatal, childbirth and postnatal care, including for caesarean deliveries, may increase the risk of potentially life-threatening obstetric and neonatal complications.

8. Continued access to sexual and reproductive services is being impacted by disruption to the medical supply chain.

9. The infant mortality rate is relatively high in Ukraine compared with other European countries, at around six deaths per 1000 live births, which is approximately double that of neighbouring Poland. The ongoing conflict is likely to worsen the mortality rate through disruption of essential services and access to health care.

10. Before the war, vaccination coverage across Ukraine did not meet WHO targets. Nearly two thirds of Ukrainian children have been displaced, which further complicates their chances of being appropriately vaccinated and reduces herd immunity.

## Sexual and gender-based violence

11. Gender-based violence has long been a serious problem in Ukraine, with an estimate suggesting that approximately 75% of women stated they had experienced some form of violence since age 15, and one in three had experienced physical or sexual violence.<sup>2</sup> Since the beginning of the war, a national hotline on domestic violence has received more than 3000 calls and online communications, with around 79% of them related to gender-based violence. Such reports of sexual violence perpetrated in and outside the family<sup>3</sup> (including by combatants) are expected to increase with the psychological impact of trauma, limited access to protection, treatment and support, as well as crowded, confined shelter conditions.

## Acute infectious diseases

12. Routine childhood vaccination coverage in Ukraine is among the lowest in the WHO European Region, posing a risk of vaccine-preventable disease outbreaks. Despite a substantial increase in routine vaccination coverage since 2017, the country remains below the target for all vaccines under the routine immunization schedule. Prolonged and persistent suboptimal vaccination coverage nationally and subnationally with measles-containing vaccines led to a large nationwide outbreak of measles between

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<sup>1</sup> Trends in maternal mortality 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division (<https://www.who.int/publications/i/item/9789241516488>, accessed 20 May 2022).

<sup>2</sup> UNFPA. Ukraine steadfast in tackling gender-based violence, despite pandemic-related increases, 13 November 2020 (<https://www.unfpa.org/news/ukraine-steadfast-tackling-gender-based-violence-despite-pandemic-related-increases>, accessed 20 May 2022).

<sup>3</sup> UNFPA. Ukraine emergency situation report #7, 20 April 2022 ([https://www.unfpa.org/sites/default/files/resource-pdf/SitRep%237\\_20%20April%202022\\_Ukraine.pdf](https://www.unfpa.org/sites/default/files/resource-pdf/SitRep%237_20%20April%202022_Ukraine.pdf), accessed 20 May 2022).

2017 and 2020.<sup>1,2,3</sup> The country has experienced an outbreak of circulating vaccine-derived poliovirus type 2 since September 2021.<sup>4</sup>

13. There have been decreasing trends of reported coronavirus disease (COVID-19) cases, hospitalizations and deaths since the start of the war; however, caution is needed when comparing the incidence with pre-war reports, given challenges in reporting and testing, and changing denominators. The COVID-19 vaccination roll-out before the war had been slow, with just over a third of the population having completed their primary vaccination series, and 2% having had a booster dose (as at 27 February 2022), the seventh lowest vaccine uptake in the WHO European region.<sup>5</sup>

14. The risk of epidemics of diseases due to other respiratory pathogens, food- and waterborne diseases and vaccine-preventable diseases is known to increase in a context of displacement, overcrowding, poor shelter and insufficient water, sanitation and hygiene, particularly in areas directly affected by conflict. Ukraine experienced a cholera outbreak in 2011 and a vaccine-derived poliovirus outbreak in 2021. Disruption to water supplies increases the risk of such an outbreak happening again.

### **Technological and environmental health risks**

15. Ukraine's chemical industry, mining sites, and oil refineries and storage sites represent a major health risk if impacted as a result of the conflict. Several events have been reported since the start of the war, including an ammonia leak at an industrial site close to Sumy (21 March 2022), leakage of ammonia fertilizers in the Ternopil region due to damage of a storage tank by a fragment of a rocket, and damage of a storage tank containing nitric acid in Luhanska oblast (5 April 2022). Although no significant health consequences related to these have thus far been reported, the events highlight the risks posed by industrial chemical production, storage or transportation during the war.

16. Ukraine has 15 nuclear reactors at four operational nuclear power plants, one decommissioned nuclear power plant in Chernobyl and a research reactor in Kharkiv. In addition, numerous radioactive sources are used in industry and health care facilities nationwide. Although Ukraine's operating nuclear power plants were functioning normally as at 10 May 2022, the risk of a nuclear emergency – as a result of direct damage due to shelling of nuclear power plants, the failure of a reactor's power supply or the inability to provide necessary maintenance – remains high, as underlined in the IAEA's daily updates.<sup>6</sup>

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<sup>1</sup> WHO. Reported measles cases for the period January–December 2017 (data as of 02 February 2018) ([https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0009/362448/epi-data-jan2017-dec2017-eng.pdf](https://www.euro.who.int/__data/assets/pdf_file/0009/362448/epi-data-jan2017-dec2017-eng.pdf), accessed 20 May 2022).

<sup>2</sup> WHO. Reported measles cases for the period January–December 2019 (data as of 07 February 2020) ([https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0007/427930/2020-01-Epi\\_Data\\_EN\\_January-December-2019.pdf](https://www.euro.who.int/__data/assets/pdf_file/0007/427930/2020-01-Epi_Data_EN_January-December-2019.pdf), accessed 20 May 2022).

<sup>3</sup> WHO. Reported measles cases for the period January–December 2020 (data as of 03 February 2020) ([https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0011/492833/WHO-EpiData-January-December-2020-eng.pdf](https://www.euro.who.int/__data/assets/pdf_file/0011/492833/WHO-EpiData-January-December-2020-eng.pdf), accessed 20 May 2022).

<sup>4</sup> GPEI. Ukraine (<https://polioeradication.org/ukraine/>, accessed 20 May 2022).

<sup>5</sup> Data from the WHO Coronavirus (COVID-19) Dashboard (<https://covid19.who.int/>, accessed 20 May 2022).

<sup>6</sup> IAEA. Nuclear safety and security in Ukraine (<https://www.iaea.org/nuclear-safety-and-security-in-ukraine>, accessed 20 May 2022).

## WHO AND HEALTH CLUSTER RESPONSE IN UKRAINE

17. The aim of the response strategy of WHO and health cluster partners is to minimize mortality and morbidity for all people affected by the current humanitarian emergency in Ukraine, wherever they are, by ensuring time-critical, life-saving assistance, non-discriminatory access to emergency and essential health services and priority prevention programmes, as well as supporting and strengthening health systems to cope with and/or recover from this crisis.<sup>1,2</sup>

### Preparedness and immediate response actions

18. Before the war, WHO supported the Ministry of Health of Ukraine to conduct mass casualty preparedness assessments and mass casualty and trauma training in five oblasts. In 25 oblasts, training in primary health care to ensure quality of care for COVID-19 patients was also conducted. More than 800 health care professionals were trained to deal with mass casualty and 3000 family doctors (25% of the country's total) attended the COVID-19 training. A total of 12 facilities in six oblasts received Interagency Emergency Health Kits and Trauma and Emergency Surgery Kits that support 10 000 people for three months and 100 surgical interventions, respectively.

19. With the onset of fighting on 24 February 2022, the conflict in Ukraine was graded a Grade 3 emergency and the Incident Management System was activated. To cover immediate response needs, WHO released US\$ 10.7 million from the WHO Contingency Fund for Emergencies on 24 February 2022. This was followed by a flash appeal for US\$ 57 million, which was fully funded, to cover immediate health sector needs for Ukraine and refugee-hosting countries. An extended appeal provided funding of US\$ 147.5 million, to cover six months of response in Ukraine (US\$ 80 million) and 10 months in refugee-receiving and hosting countries (US\$ 67.5 million); the funds were released on 9 May 2022.

20. The Secretariat would like to thank Member States that have supported the Contingency Fund for Emergencies and contributed to the humanitarian appeal. The current funding gap is US\$ 101 million.

21. WHO had prepositioned emergency health supplies in Ukraine and immediately began to deliver these while dispatching more than 90 metric tonnes of medical supplies immediately. Overall, WHO has delivered 500 metric tonnes of specialist medical supplies and equipment to Ukraine as well as all terrain ambulances and high kVA (kilovolt-ampere) generators for hospitals. As a result of these activities and in partnership with the Ministry of Health, medical supply lines have been established to almost all Ukrainian cities.

22. Medical evacuation processes were put in place through the European Union Early Warning and Response System and Common Emergency Communication and Information System. Three health hubs were established in western Ukraine to ensure safe medical evacuation of patients, including those with cancer, for treatment outside Ukraine. As at 5 May 2022, 430 requests for medical evacuation operations had been made via the European Union Civil Protection Mechanism; of these, 241 operations had been completed and 83 operations were in transit. In addition, 110 patients with psychiatric conditions were evacuated from Ukraine to facilities in Spain.

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<sup>1</sup> OCHA. Ukraine. Health (<https://www.humanitarianresponse.info/en/operations/ukraine/health>, accessed 20 May 2022).

<sup>2</sup> HC partners ([https://docs.google.com/spreadsheets/d/1d0OUPp-ciqc10-Rnpc4\\_Q7QUG\\_A12zg-L3\\_F2TmCGlw/edit#gid=0](https://docs.google.com/spreadsheets/d/1d0OUPp-ciqc10-Rnpc4_Q7QUG_A12zg-L3_F2TmCGlw/edit#gid=0), accessed 20 May 2022).

23. As the health cluster lead, WHO coordinated the timely, predictable, appropriate and effective response of 120 implementing partners, of which 100 partners were active on the ground as at 30 April 2022. A total of 1.5 million people have been reached across 164 settlements and support has been provided to 162 health facilities.

24. WHO is coordinating a network of 16 Emergency Medical Teams<sup>1</sup> working in 37 locations in Ukraine. These teams offer different capacities on the ground, from small, specialized care teams to larger teams with field hospitals, and surgical and intensive care capacities. In Ukraine, Emergency Medical Teams are embedded in the Trauma and Rehabilitation Working Group to conduct life-saving interventions that have included patient transfers to Poland; and delivery of 28 training sessions to 1150 health care workers inside Ukraine on topics including chemical, biological, radiological and nuclear incidents, trauma care, mass casualty management and rehabilitation services. To date, 560 requests for medical evacuations were received and 340 Medevacs were successfully conducted through the Union Civil Protection Mechanism of DG ECHO.

### **Strengthening public health information services**

25. To continue to develop and coordinate evidence-based responses in line with WHO's mandate, access to health information and health facilities, both in Ukraine and in refugee-hosting countries, is required.

26. WHO is supporting the Ukrainian public health centre and regional centres for disease control to enhance surveillance systems for timely detection of outbreaks. The public health centre and the regional centres, supported by WHO, have set up local media monitoring of public health through local epidemiologists, epidemic intelligence from open sources and syndromic surveillance through Emergency Medical Teams and health cluster partners; they also conduct regular situation analyses.

### **Prevention of and response to sexual exploitation, abuse and harassment (PRSEAH)**

27. The risk of sexual abuse and exploitation has increased since the start of the war. WHO has deployed four PRSEAH coordinators, based in Ukraine and Poland or as mobile experts in surrounding countries. WHO works closely with existing inter-agency mechanisms, including PSEA Networks and gender-based violence and child protection sub-clusters. WHO is screening everyone deployed using the United Nations ClearCheck database.<sup>2</sup>

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<sup>1</sup> The following are Emergency Medical Teams or health actors coordinated using the Emergency Medical Teams methodology (some Emergency Medical Teams have several teams): CADUS (Conseil Aide & Défense des Usagers de la Santé), Global Response Management, Humanity & Inclusion, International Committee of the Red Cross, International Medical Corps, Médecins Sans Frontières, MOAS (Migrant Offshore Aid Station, Momentum, Samaritan's Purse, SAMS (Syrian American Medical Society), Team Rubicon and UK Med.

<sup>2</sup> WHO. WHO Director-General's opening remarks at the 36th meeting of the Programme, Budget and Administration Committee of the Executive Board – 18 May 2022 (<https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-36th-meeting-of-the-programme--budget-and-administration-committee-of-the-executive-board--18-may-2022>, accessed 20 May 2022).

## RESPONSE IN REFUGEE-RECEIVING AND -HOSTING COUNTRIES

28. The national governments and health authorities of refugee-receiving and -hosting countries are leading the response to this crisis, with United Nations agencies and partners supporting and complementing State authorities' initiatives and efforts. European Union Member States have activated the Temporary Protection Directive enabling Ukrainians and persons with protection status in Ukraine access to national health services equal to that of host communities, including free-of-charge access to health services in line with national regulations.

29. Emergency Medical Teams in the Republic of Moldova, supported by an Emergency Medical Teams Coordination Cell, have provided 2157 outpatient consultations to the refugee population. Emergency Medical Teams reporting systems also support monitoring for potential outbreaks. The Emergency Medical Teams Coordination Cell in Poland is facilitating quality assurance of care delivery, licensing of international health providers and providing technical support to establish a basic medical reception centre in Rzeszow to receive patients being medically evacuated from Ukraine.

30. In collaboration with the European Centre for Disease Prevention and Control, WHO has developed technical guidance on early warning, alert and response to support refugee-hosting countries in strengthening their existing surveillance capacities.

31. WHO has mobilized medical supplies to refugee-hosting countries, including medicines, medical equipment, diagnostics and personal protective equipment, to serve more than 631 400 refugees.

## INTERNATIONAL HEALTH RISKS

32. Since the start of the war, the risk of infectious diseases has increased and population movement exacerbates this risk globally. With poorer immunity profiles against vaccine-preventable diseases and the recent outbreak of vaccine-derived poliovirus, there is a risk of further such poliovirus outbreaks, as well as outbreaks of other vaccine-preventable diseases. There is also an increased risk of the spread of HIV and multidrug-resistant tuberculosis due to the conflict's effect on long-term care.

33. The conflict is putting Ukraine's facilities with radioactive material in unprecedented danger. The risk of a nuclear emergency as a result of direct damage due to shelling of nuclear power plants, the failure of a reactor's power supply or the inability to provide necessary maintenance, remains significant.

34. Ukraine's significant contribution to global agri-food markets means that commodity markets are heavily impacted by the ongoing war. Exports from the Russian Federation and Ukraine account for about 12% of total calories traded in the world.<sup>1</sup> The war is impacting production and export of food and energy, causing the price of commodities to reach record high levels. The war in Ukraine has led to the largest commodity price shock since the 1973 oil crisis, according to a World Bank report, elevating prices for years to come.<sup>2</sup>

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<sup>1</sup> UNCTAD. The impact on trade and development of the war in Ukraine, 16 March 2022 (<https://unctad.org/webflyer/impact-trade-and-development-war-ukraine>, accessed 20 May 2022).

<sup>2</sup> World Bank Group. Commodity markets outlook: the impact of the war in Ukraine on commodity markets, April 2022 (<https://openknowledge.worldbank.org/bitstream/handle/10986/37223/CMO-April-2022.pdf>, accessed 20 May 2022).

35. Developing countries are particularly vulnerable to the ripple effects of this war as they are the ones most exposed to tightening financial conditions. Households with the lowest incomes will be likely forced to engage in negative coping strategies including forgoing medical care, purchasing cheaper but less nutritious foods, or cutting other essential expenses including schooling.

**ACTION BY THE HEALTH ASSEMBLY**

36. The Health Assembly is invited to note the report.

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