

RUSSIA-UKRAINE CONFLICT: EMERGING COMMUNICABLE DISEASES AND MEDICAL CRISIS

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Dear Editor,

Exploration and colonization for political dominance have always contributed to the spread of infectious diseases. More people including soldiers have died of the biohazards created by the war situation rather than the war itself. Conflict situations amid humanitarian crises are an ideal platform, creating a perfect balance for the transmission and re-emergence of communicable diseases such as plague, cholera and the spread of smallpox, typhoid and malaria as suggested by the history of such events¹.

Since 2014, Ukraine has been facing a major humanitarian crisis affecting 5 million people, of which 3.8 million are in dire need of emergency health services. The recent escalation of conflict after the Russian invasion of Ukraine on February 24, 2022, has caused a real humanitarian catastrophe in Ukraine and the crises have contributed to the largest migration movement of the 21st century. It has displaced about 2,800,000 Ukrainian refugees^{2,3}. This situation has raised concerns about the spread of certain epidemiological diseases such as Covid-19 and Poliovirus^{2,4}. The disruption of the essential health care system has made people more

susceptible to infectious diseases such as Polio, COVID-19, tuberculosis, and measles. The hundreds of health care facilities based in the areas of conflict have been left liable to structural and functional damage. About 50% of the pharmacies have been closed and the health workers have either been displaced or have stopped operations due to unfavorable conditions. This implies that the citizens have little or no access to essential medicines and treatment⁵.

The public health infrastructure has seen a rapid collapse. The COVID-19 vaccination status of Ukraine also hangs in jeopardy as the country has reported the lowest vaccination in Europe with the immunization numbers barely reaching 35-40% of the total population^{2,3}. There has been a significant increase (555%) of cases reported between January-February 2022, with a fatality rate of 2.2%³.

If the situation persists, numerous other European countries also fear a probable public health threat due to the continued influx of war refugees⁶. Poland alone has welcomed the largest number of refugees which as of 29 March

2022 are (2,405,703) in barely three months^{2,6,7}. This has created ideal conditions for the spread of SARS-CoV-2 and a potential hazard to public health as it was impossible for the thousands of people migrating and living together in camps to maintain social distance and avoid close contacts with one another while crossing the borders. The refugees were also exempted from being tested for COVID-19 or showing any proof of their vaccination profile². Besides the issue of settlement of refugees, Poland is also facing a substantial healthcare challenge because the SARS-CoV-2 infection rate among refugees is twice as high as that in native-born populations⁶.

Concomitant with the COVID-19, there is a significant risk of the spread of poliovirus in the region. Ukraine, although certified polio-free in 2002, reported a new outbreak of vaccine-derived poliovirus type 2 (cVDPV2) in October 2021 owing to low vaccination coverage (84%).⁽³⁾, particularly in the regions of Transcarpathia and Rivne Oblast. To combat the spread of Polio, Ukraine had planned a catch-up polio vaccination campaign from 1st February 2022.⁽³⁾ The development of the Russia-Ukraine war has put the vaccination program on a halt. This has further escalated the threat of the outbreak as the vaccination is the only available preventable measure against the disease. Furthermore, the poor sanitary conditions in the country and the refugee camps have paved a suitable condition for the fecal-to-oral and oral-to-oral transmission of the virus, which is actually the major route of transmission in the recent outbreak in the first place^{3, 8}.

While difficult to accept, the war is unlikely to be ended soon. As the violence continues, there will be many more people forced to flee their homes. So far, Ukraine's neighboring countries have willingly taken on most of the responsibility of supporting those fleeing the war, but they cannot sustain to do it alone for a long time. One lesson of the COVID-19 pandemic was the importance of European solidarity and now, it is a test of whether that idea can be turned into a reality⁷.

The world has just emerged through a discernible economic crisis caused by COVID-19. War situations can cause the spread of other infections in the region due to the mass human migration, poor sanitary conditions, disrupted healthcare and malnutrition. This calls for solidarity at the international level, and for the UN and other powers to intervene and settle the dispute through peaceful talks as another health system challenge cannot be afforded right now.

Table 1: Summary of the COVID-19 vaccination rate in countries encountering a substantial refugee inflow from Ukraine

	Share of people with a complete initial protocol reported till 12 August 2022 [%] ⁽¹⁰⁾	Number of refugees crossing the border from Ukraine by 15 August 2022 ⁽¹¹⁾
Poland	59	5,415,305
Romania	42	1,044,292
Republic of Moldova	40	573,228
Hungary	64	1,182,013
Slovakia	51	687,368

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