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# Addressing vaccine inequities among Ukrainian refugees



Russia's invasion of Ukraine has resulted in the displacement of over 14 million citizens; 6 million have fled the country and 8 million have been internally displaced.<sup>1,2</sup> These populations are highly susceptible to vaccine-preventable diseases; therefore, optimising vaccine coverage to prevent disease outbreaks must be an international priority.

Before the war, vaccination rates in Ukraine were among the lowest in Europe. Childhood vaccination coverage consistently fell below WHO target thresholds required to establish herd immunity for some of the most serious diseases. In 2021, 20% of children in Ukraine were not fully vaccinated against measles and 13% were not protected against poliovirus; this proportion is likely to have risen due to the conflict.<sup>3</sup> Similarly, COVID-19 vaccination coverage has been poor; by February, 2022, less than 35% of the general population had received two vaccine doses, compared with a mean of 65% across the rest of Europe.<sup>4</sup> Multiple factors have contributed to low vaccination uptake in Ukraine, including widespread vaccine hesitancy fuelled partly by social media campaigns that have served to disseminate vaccine misinformation and undermine public trust in Ukrainian authorities.<sup>5</sup> Faltering trust has been compounded by vaccine supply issues and disruption to immunisation services related to the COVID-19 pandemic.

As a result of low vaccine coverage, Ukraine has recently experienced outbreaks of vaccine-preventable diseases. In 2017–20, Ukraine reported over 115 000 cases of measles and 40 measles-related deaths, representing the largest epidemic in Europe in over a decade.<sup>3</sup> In 2021, an outbreak of vaccine-associated paralytic poliovirus type 2 was confirmed. Poliovirus was isolated from over 20 children, two of whom suffered acute flaccid paralysis.<sup>3</sup> A mass vaccination campaign in response to this outbreak commenced in February, 2022, but was ultimately disrupted by the Russian invasion, leaving the children of Ukraine at risk of this type of poliovirus.

The risk of further outbreaks of vaccine-preventable diseases has been heightened by the conflict. Ukraine has faced widespread disruption to health-care services, including immunisation programmes. Most internally displaced people are fleeing to rural areas or small towns within Ukraine, which do not have the adequate

infrastructure to run disease surveillance programs or vaccination campaigns.<sup>2</sup> Most families who have fled Ukraine include young children, older adults (aged >60 years), or individuals with chronic illness, and many are being housed temporarily in crowded reception centres. There is an acute risk that crucial doses of vaccines are being missed or delayed.

Concerningly, many of the neighbouring nations receiving refugees also have low vaccine coverage, affected by both disruption related to the pandemic and declining vaccine confidence. For example, in Poland, which is currently hosting over 3.5 million Ukrainian refugees,<sup>1</sup> measles vaccination coverage has decreased from 96% in 2013 to 80% in 2020, due in part to a rise in anti-vaccine sentiment.<sup>6</sup>

The need to optimise vaccine coverage is recognised by the European Centre of Disease Prevention and Control, who recommend that all Ukrainian refugees without evidence of previous vaccination should be offered vaccinations under the immunisation schedule of the host country, ideally within 14 days of arrival, and with prioritisation of COVID-19, measles, and polio vaccines.<sup>7</sup> Considerable funds from the EU have been made available to support host countries to deliver these objectives, and international organisations, such as Médecins du Monde, are supporting health-care establishments in Ukraine and neighbouring countries.<sup>8</sup> This action is in the context of broader initiatives to address vaccine inequalities among migrant populations in Europe, recognising that such populations, which include many refugees from Syria and Afghanistan, face substantial barriers to health care and are susceptible to vaccine-preventable diseases.<sup>9</sup> The COVID-19 pandemic has highlighted these issues and strengthened resolve to better understand how vaccine uptake can be improved for displaced people and migrants, as set out in WHO's *Immunization Agenda 2030*.<sup>10</sup>

Although we applaud current efforts to tackle vaccine inequities, we argue that further urgent and collaborative action is imperative to prevent potentially devastating disease outbreaks within Ukraine and across Europe. First, availability of free vaccines for all refugees and displaced people must be guaranteed, and barriers to health-care access must be addressed. Second, public awareness about the urgent need for



vaccination must be improved through provision of information in the multiple languages, media coverage, and community outreach programmes. Finally, concerted effort is needed to restore trust in vaccines, which requires the training of health-care workers to identify and address community-specific vaccine concerns, the provision of transparent and reliable information, and the engagement of trusted community representatives.

At a time when the power of innovative vaccines to triumph over a pandemic is being so celebrated, it would be a tragedy if we failed to act to prevent morbidity and mortality from vaccine-preventable diseases among refugees and displaced populations in Ukraine.

We declare no competing interests.

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