

Examining the pre-war health burden of Ukraine for prioritisation by European countries receiving Ukrainian refugees

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The recent escalation of conflict after the Russian invasion of Ukraine on February 24, 2022, has already displaced 2,800,000 Ukrainian refugees,¹ and the number is expected to rise in days ahead. Ukrainians can move freely between European Union Member States (EU MS) for up to 90 days, while the Council of the European Union has approved for the first time the adoption of the Temporary Protection Directive, which will allow a one-year, renewable permit to reside and to access essential services (including health assistance) in all EU MS.² This will possibly facilitate a fair distribution of refugees beyond Western Balkans, already struggling with migration flows in recent years. Once entitlement to health assistance is formalized in all EU MS, there are some major aspects of the Ukraine health profile that should be considered to forecast refugees' health needs.

With a Human Development Index of 0.779, Ukraine is ranked 40th out of 42 European countries and 74th worldwide.³ Since 2014 the country has been facing a humanitarian crisis affecting 5 million people, of which 3.8 million are in need of emergency health services,⁴ despite the efforts to reorganize the health system and improve healthcare through the release of the 2015-2020 National Health Reform Strategy.⁵ Mortality rate for children under 5-year-old has been constantly declining since 1994, reaching 8.1 per 1,000 live births in 2020⁶ (still far from the EU 3.9). Routine vaccination coverage has gradually increased since 2015, but remains suboptimal.⁷ Measles vaccination coverage is 81.9%, after the outbreak in 2017-2018, which registered the highest European number of cases.⁷ Due to low vaccination coverage (84%), in October 2021 an outbreak of circulating vaccine-derived poliovirus type 2 was registered. Ukraine has been planning a catch-up polio vaccination campaign from 1st February 2022⁷, which was interrupted by the current conflict. The country has the 4th highest tuberculosis incidence rate among WHO EU Region countries,⁸ and the second highest prevalence of HIV/TB coinfection

(26%)⁷, with drug-resistant TB representing 29% of new diagnoses.⁸ Tuberculosis requires a prolonged treatment (6-24 months), including drugs whose administration still represents a challenge in several countries. Ukraine has also the second-largest HIV epidemic in the WHO EU Region (37.5 per 100,000 in 2020), with a treatment coverage of 57%, lower than in EU (82%).⁷ The COVID-19 epidemic situation is also concerning, with a significant increase (555%) of cases between January-February 2022, a fatality rate of 2.2% and a low vaccination coverage (35%).⁷

Further, noncommunicable diseases (NCDs) in Ukraine contribute to 91% of deaths, especially cardiovascular disease (67%),⁹ with an age-adjusted death rate for ischemic heart disease more than six times higher than in EU countries,³ and a diabetes prevalence in adults of 7.1%.⁹ Approximately 33% of the Ukrainian population experience mental illnesses in their lifetime (especially internally displaced people already present in the country), with one of the highest suicide rates of the world¹⁰ and high rates of alcohol related deaths.³

A timely and appropriate health assistance for Ukrainian refugees in all European receiving countries should consider these pre-war public health aspects, adopting some priority actions to tackle them and to ensure the continuity of care within countries:

- A syndromic surveillance system should be implemented,⁷ tailoring it to assess health needs other than epidemic-prone diseases, including NCDs and mental health.
- Vaccination should be strengthened, ensuring COVID-19 protection, polio and measles outbreak containment, and adequate per age immunization coverage.
- Adequate efforts to ensure the continuum of care for NCDs and infectious chronic diseases must be guaranteed (HIV and TB included), ensuring rapid and appropriate procedures for the procurement and distribution of drugs and supply in all EU MS.
- Mental health must be protected with appropriate linguistic and cultural mediation, and encouraging family reunification of refugees, especially as the need for mental health assistance is expected to rise, both for those already affected, and for people

The Lancet Regional Health - Europe
2022;00: 100369
Published online xxx
<https://doi.org/10.1016/j.lanepe.2022.100369>

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experiencing war-related trauma, in both adult and paediatric age.

- An effective European health information system for Ukrainian refugees would facilitate the management of chronic diseases. Personal data protection and cross-border continuity of care could be ensured through the adoption of digital tools, such as that one proposed for the EU Digital COVID green Certificate, where people decide to share their personal information case by case.

The right to a fair and equitable healthcare must always be guaranteed, and particularly protected in emergency situations and vulnerabilities, like those that people fleeing Ukraine are suffering.

Authors' contributions

Conceptualization: MV, FB; Data curation: FB, CN; Project administration: MV; Resources: TJ, RG, CN, BF, MV; Supervision: MV, MM, CF Writing-original draft: MV, FB, CN, RG; Writing-review & editing: MV, FB, CN, RG, TJ, CF, MM.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Declaration of interests

All authors have nothing to disclose.

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