

The Russian invasion of Ukraine has triggered an enormous humanitarian crisis that has inflicted, and continues to inflict, deep and enduring harms on human health. One of the groups most heavily affected, including the greatest impacts on health and wellbeing, is children.

Prior to the outbreak of war, child health in Ukraine was heavily burdened by concerning rates of infant mortality, low provision of routine vaccinations, and high prevalence of infectious diseases including multidrug-resistant tuberculosis.<sup>1</sup> As such, the country's over-stretched and under reform health system, which is officially state funded yet considerably supplemented by out-of-pocket payments,<sup>2</sup> was poorly positioned to respond to the additional burdens of child health created by the war.

#### SEPARATED FAMILIES

Russian aggression has so far triggered over 13 million Ukrainians to flee their homes, including 5.4 million refugees who now reside in neighbouring European countries to the west of Ukraine,<sup>3</sup> and 7.7 million internally displaced people who have left their homes but remain in Ukraine.<sup>4</sup> The majority of these migrants are women and children, because the imposition of martial law on 24 February 2022, in preparation for potential military conscription, prohibits male citizens aged 18 to 60 years from leaving the country. As such, tens of thousands of families have been separated, and many children migrate unaccompanied, as parents remain at home to preserve the household income and dispatch their children westward towards areas of safety.<sup>5</sup>

Before escaping Russian hostilities, many children are forced to shelter for extended periods in crowded, cold, and unventilated spaces that are patently unfit for human habitation. Consequently, they now suffer from infections, infestations, and musculoskeletal disorders, as well as a significant burden of acute illness, uncontrolled chronic disease, poor sanitation and hygiene, dehydration and malnutrition, psychological injury, and mental health deterioration. After managing to escape to safer locations, hundreds of thousands of children now reside in temporary evacuee centres fashioned from repurposed schools, nurseries, and



gymnasiums. Conditions in these facilities are often cramped and unheated, creating optimal conditions for transmission of respiratory infections in groups of children with poor initial health.

#### HEALTH SERVICES UNDER STRAIN

War has significantly disrupted the provision of health care across the whole of Ukraine, but most intensely in those areas directly impacted by hostilities and in those regions receiving huge numbers of internally displaced people. The health systems operating in beleaguered cities have largely collapsed, often as a result of deliberate targeting by Russian forces, while native healthcare professionals have fled to safety, and humanitarian assistance is increasingly unable to access the most desperate locations because of intolerable security risks.<sup>6</sup> Simultaneously, the vast migration of internally displaced people places an immense and increasing strain on existing health services, which further concentrates the elevated burden of disease in a struggling health system, and raises additional barriers to accessing the health care that is of paramount importance to children's health and wellbeing. These

barriers to health care may be even more challenging in those children now living as refugees, who face language barriers, unfamiliarity with the receiving country's health system, and lack of knowledge regarding their rights and entitlements to accessing services. As such, the provision of routine child health care has been enormously disrupted. Primary care baby checks, health visitor reviews, and routine vaccination programmes have largely been suspended, meaning the physical health needs, growth and development assessments, and safeguarding frameworks central to children's health have been greatly neglected.

#### CHRONIC DISEASES

The disruption to health services, and the vast migration of people, have also caused substantial harm to the management of childhood chronic diseases. Many children were forced to flee their homes without warning and with only what they were able to carry by hand. Without an adequate stockpile of regular medications, and the absence of a reliable supply from their new region's health system, continued control of chronic diseases including

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asthma, epilepsy, and type 1 diabetes is an enormous threat to child health. In addition, without a formal transfer of specialist care, many children under outpatient review face interruptions in their management before they can be instated into the receiving region’s system. Navigating this process is a significant challenge, but, in the current context of collapsing health systems, separated families, and children often migrating alone, the impacts on child health are likely to be severe.

The same pressures on health services deeply disrupt the ongoing provision of critical treatment for Ukrainian children, such as for those with oncological disease. In many cases, clinicians were unable to access their hospitals because of aerial bombardment and artillery fire, or opted to take up arms to defend their cities.<sup>7</sup> While some oncology patients were evacuated and their treatment continued abroad,<sup>8</sup> the impact of disruptions to critical treatment in children, as well as interrupted access to emergency medical and surgical services, continues to be profound.

### PSYCHOLOGICAL DAMAGE

The psychological impacts of the Russian invasion — triggered by sheltering from bombardment, migrating from homes, having families separated, witnessing the destruction of communities, and suffering the death of family members and friends — are hugely destabilising, especially in children. Upon the outbreak of war, all schools across Ukraine were immediately closed and classroom learning replaced with online instruction. The harmful impacts of such interruptions to children’s academic learning, and perhaps more importantly to their social development and mental wellbeing, were revealed by the lockdowns mandated in response to COVID-19,<sup>9</sup> which are now likely to be repeated and exacerbated by war.

Finally, the desperation for safety, separation of families, and mass human migration towards the west creates

conditions that dangerously increase the risk of children being lured into illegal activities such as human trafficking, sexual and labour exploitation, and modern slavery. Traffickers operate both around Ukraine’s western border (on both the Ukrainian side and within the receiving countries) and across the country itself, especially around besieged cities and evacuee facilities.<sup>10</sup> While the professionals tasked with identifying, disrupting, and preventing these activities are absorbed in their efforts in response to the war — including healthcare professionals, statutory services, and law enforcement officials — the risk of vulnerable children falling prey to trafficking criminals, and suffering the severe health effects associated with these activities, is dangerously high.<sup>11</sup>

For as long as the war in Ukraine continues, the humanitarian crisis it creates will continue to deepen. And while they play no part in geopolitical games, it is children — in particular the maintenance of their health and wellbeing — who pay one of the largest and most deeply unjust costs for the accident of birth in being born in Ukraine.

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This article was first posted on *BJGP Life* on 23 May 2022; <https://bjgplife.com/war-children>

DOI: <https://doi.org/10.3399/bjgp22X719621>

### REFERENCES

1. World Health Organization, Regional Office for Europe. *Evaluation of structure and provision of primary care in Ukraine. A survey-based project in the regions of Kiev and Vinnitsa*. 2010. [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0016/129022/e94565.pdf](https://www.euro.who.int/__data/assets/pdf_file/0016/129022/e94565.pdf) [accessed 4 May 2022].
2. Romaniuk P, Semigina T. Ukrainian health care system and its chances for successful transition from Soviet legacies. *Globalization and Health* 2018; **14(116)**: <https://doi.org/10.1186/s12992-018-0439-5>.
3. Operational Data Portal. Ukraine refugee situation. n.d. <https://data2.unhcr.org/en/situations/ukraine> [accessed 4 May 2022].
4. Migration Data Portal. <https://www.migrationdataportal.org/ukraine/crisis-movements> [accessed 4 May 2022].
5. Ukraine conflict: Children on their own, parents stay behind. *BBC News* 2022; **26 Feb**: <https://www.bbc.com/news/world-europe-60539104> [accessed 4 May 2022].
6. Ahsan S. Seeking accountability for Ukraine health-care attacks. *Lancet* 2022; **399(10331)**: P1215–P1216.
7. Kizub D, Melnitchouk N, Beznosenko A, *et al*. Resilience and perseverance under siege: providing cancer care during the invasion of Ukraine. *Lancet Oncol* 2022; **23(5)**: 579–583.
8. Massimino M, Casiraghi G, Armiraglio M, *et al*. Caring for children with cancer evacuated from Ukraine. *Lancet Child Adolesc Health* 2022; **Apr 14**: S2352–4642(22)00125–0.
9. Lee J. Mental health effects of school closures during COVID-19. *Lancet Child Adolesc Health* 2020; **4(6)**: 421.
10. Fallon K, Cundy A, Crean R. Vigilantes stalk Ukraine border as sex traffickers target fleeing women and children. *Guardian* 2022; **24 Mar**: <https://www.theguardian.com/global-development/2022/mar/24/vigilantes-stalk-ukraine-border-as-sex-traffickers-target-fleeing-women-and-children> [accessed 4 May 2022].
11. Oram S, Stockl H, Busza J, *et al*. Prevalence and risk of violence and the physical, mental, and sexual health problems associated with human trafficking: systematic review. *PLOS Med* 2012; **9(5)**: e1001224.