



Brain health: The hidden casualty of a humanitarian crisis

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The Russian invasion of Ukraine in February 2022 presents substantial threats to the health of the Ukrainian population.¹ Neighbouring countries also face challenges due to an influx of refugees from Ukraine and escalating geopolitical isolation. The collapse of healthcare infrastructure and medicine supply chains, along with mass migration pose immediate risks both in terms of the ability to care for the casualties of war and the capacity to provide appropriate ongoing care of those with other medical problems. The war has sparked Europe's fastest mass migration for a generation, which is likely to have profound downstream consequences for public health.² In such a humanitarian crisis, the increased burden of disease due to traumatic injury, infection and mental illness is typically well recognised but the potential impact on both short and long term neurological health may be neglected.

As neurologists, our immediate medical concern is for those in Ukraine living with common neurological diseases, who are likely to suffer a range of adverse consequences from changes in healthcare provision. For those living with epilepsy (an estimated 250,000 in Ukraine), existing inequalities in access to epilepsy treatments will be exacerbated. This is likely to increase epilepsy-related morbidity and mortality, as a result of seizure-related injuries, status epilepticus and sudden unexpected death in epilepsy (SUDEP).³ Continued availability of treatments for those with Parkinson's disease is vital for maintaining quality of life, and it is likely that this will be disrupted by both medicine supply problems and the longer term consequences of the war, as national economic factors are a key determinant of access to therapies.⁴ For many patients living with

multiple sclerosis, another disease where access to care and treatment across Europe is already highly inequitable, a lack of services would be expected to lead to an increased burden of long term disability.⁵

Perhaps more concerning, however, is the effect that the consequences of war may have on brain health at a population level. Social determinants of neurological diseases such as multiple sclerosis and dementia are of under-recognised importance within European populations.^{6,7} Deprivation is a major factor underlying these disparities, and it has been associated with a large amount of excess dementia mortality at population level.⁸ Chronic stress due to adverse life events is associated with faster cognitive decline later in life.⁹ Numerous factors associated with migration have also been linked to increased risk of cognitive decline.¹⁰ It is entirely possible that the socioeconomic consequences of the war in Ukraine along with mass psychological trauma and enforced migration may combine to have a deleterious effect on the brain health of a nation that will only manifest many years later with an increased burden of cognitive impairment and dementia.

As the burden of dementia grows and it becomes the leading public health challenge of our era, it will be vital to improve our understanding of how social factors influence risk of the disease. This is particularly pertinent in the context of events such as the war in Ukraine that result in large scale shifts in societal infrastructure. Only by recognising and measuring the long term consequences of such an event for brain health and dementia risk can we fully capture its impact on the population health of the region.

Declaration of interests

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Contributors

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