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# The war refugees from Ukraine: an HIV epidemic is fleeing as well

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Metrics

The recent Russian invasion in Ukraine has led to a large-scale humanitarian crisis. United Nations High Commissioner for Refugees reported that currently 5.2 million people from Ukraine [estimated population of 44 million] have fled and most likely these numbers will continue to grow [1]. Since males between the ages of 18 and 60 years are not allowed to leave Ukraine due to drafting regulations, the group of refugees consists predominantly of women, minors and the elderly. The principal transmission route for HIV in the Ukraine was heterosexual contact followed by injection drug use [2,3] and the war since 2014 has exacerbated the epidemic [4]. Although the HIV epidemic has slowed recently [5], for 2020 UNAIDS reports 260 000 [210 000–330 000] individuals living with HIV in Ukraine, 120 000 of them being female. The prevalence rate was 1.0 [0.8–1.3] with a male to female ratio among new diagnoses at 1.6 [2], the HIV incidence was at 0.41 [0.28–0.62] per 1000 for 15–49 years olds, and the HIV testing and treatment cascade was concerning (69%, 57%, 53%) [6]. Previous research also shows that regions currently most affected by the war have been HIV epidemic hot-spots [7].

This transfer of a country-specific epidemic resulting from population fleeing Ukraine is unprecedented in the global HIV response. It creates novel challenges for the countries at the forefront of this humanitarian crisis. Based on adjusted aforementioned data [8], this would lead to approximately 8000 female refugees unaware of their HIV status, and up to 18 000 female refugees requiring treatment at the moment. Estimates for specific at-risk populations such as homeless teenagers are difficult at the moment, but should not be overlooked [9,10].

The effects will be very demanding for Central and Eastern European countries, first and foremost Poland that has already received more than 2.9 million refugees [1] that need urgent humanitarian aid to be able to sustain the refugee crisis, and also for exacerbated HIV prevention and treatment needs. This poses a risk of significant strain on medical resources, as there is the need to significantly increase HIV clinic capacity over a small period of time. But also in Western European countries the effects will be felt.

A number of related aspects need to be mentioned here as well but cannot be elaborated for sake of brevity: Those remaining in Ukraine, given the destroyed infrastructure, will have greatly decreased access to testing leading to late presentation, and will have greatly decreased access to ART resulting in the risk of treatment failure. HIV monitoring data from the Ukraine will be disrupted or biased for many years to come. Populations such as sex workers and injection drug users will be disproportionately affected; female refugees may even be forced to turn to sex work to sustain their families. Healthcare providers need to be aware of different manifestations and prevalence of infectious diseases especially tuberculosis [11], and lower vaccination coverage, including coronavirus disease 2019 (COVID-19) [12].

What needs to be done?

The war in Ukraine and its impact on HIV is of course not the first and only one of such conflicts. Yet, what makes this situation unique in Europe is the change of the primary risk population: From men-having-sex-with-men (MSM) to heterosexual females.

National responses also need to take the decentralized reception of refugees into account. Many refugees seek shelter with friends or relatives, or continue to move within European Union countries before they find final settlement. This decentralized, flexible approach brings novel challenges about, too. HIV testing opportunities and medical intake procedures need to be offered by medical service providers broadly – even the general practitioner in a little village – to be able to reach also those refugees supported by private hosts. Point of care, rapid testing approaches may provide advantageous diagnostic opportunities. Medical records should be made available to refugees to avoid repeated procedures.

The focus of many national HIV programs, especially in Western Europe – based on their own epidemic history – was on MSM and migrants from different geopolitical origins, less so on heterosexual women. HIV prevention program communication and healthcare provider focus needs to shift majorly to understand and reach this new target group.

Quite likely, the current priorities of women, especially those untested, but potentially also for those aware of their HIV status, will not be a HIV test or to start treatment. Thus, healthcare providers in general, and community activists working with refugees need to actively offer tests and provide linkage into care.

Yet, this humanitarian crisis also comes with an opportunity to eliminate HIV by 2030. Essentially, this current refugee crisis leads to a dilution of a high prevalence population. If the host countries manage to offer stigma-free and easily accessible HIV testing, a large portion of those untested and unaware of their HIV status can get diagnosed and linked to care. Those refugees living with HIV, but not yet on treatment, should be offered antiretroviral therapy. By sharing the burden of the HIV epidemic fleeing Ukraine amongst more countries, we have the opportunity to significantly

improve the epidemic situation overall – even if it comes with more demands and challenges for countries who were further ahead on the path to eliminate HIV by 2030.

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## Conflicts of interest

There are no conflicts of interests.

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