

Operational considerations for the provision of the HIV continuum of care for refugees from Ukraine in the EU/EEA

5 July 2022

Background

More than six million people have been forced to migrate across borders since the start of the Russian invasion of Ukraine [1]. From a humanitarian and public health perspective, it is vital that Ukrainians living with HIV and/or at risk for HIV who are displaced from Ukraine have access to HIV testing, treatment, and care services in European Union/European Economic Area (EU/EEA) countries. The Council of the European Union has adopted a Temporary Protection Directive, which offers an appropriate response to the present situation by providing immediate protection and rights, including rights to medical assistance [2]. However, there have been calls for an urgent response and strengthening of services to ensure that Ukrainian refugees living with HIV and/or at risk for HIV are able to access care that is equitable, confidential, and harmonised with care received in Ukraine [3-5]. This document outlines key considerations to inform decision-making and practical service implementation to maintain quality standards of HIV care.

Scope of this document

This document provides an overview of key considerations for the provision of the HIV continuum of care in the context of displaced people from Ukraine in the EU/EEA. This document has two aims: firstly, to outline what is known of the Ukrainian HIV epidemic, and secondly, to use the HIV continuum of care as a framework to set out suggestions based on published evidence and expert opinion on the management of the HIV continuum of care, with special consideration for people living with HIV from Ukraine. The document will also address the needs of those at risk of acquiring HIV. The main findings of this document were presented during an ECDC webinar, 'Key considerations on the continuum of HIV care for refugees from Ukraine,' hosted on 19 May 2022.

Target audience

The primary target audiences for this document are: (i) representatives from public health and/or governmental institutions responsible for HIV programming and policy; (ii) HIV specialist clinicians; and (iii) representatives from the HIV community.

HIV epidemic in Ukraine, including estimated prevalence among refugees

In Ukraine, the number of new HIV diagnoses rose from 14 240 in 2016 to 16 270 in 2019, falling slightly to 15 660 in 2020 (where access to HIV testing fell due to the COVID-19 pandemic) [6]. Around 400-500 new HIV diagnoses occur annually among gay and bisexual men, with around 9 000-10 000 acquired through heterosexual contact and around 5 000 acquired through injecting drug use [6].

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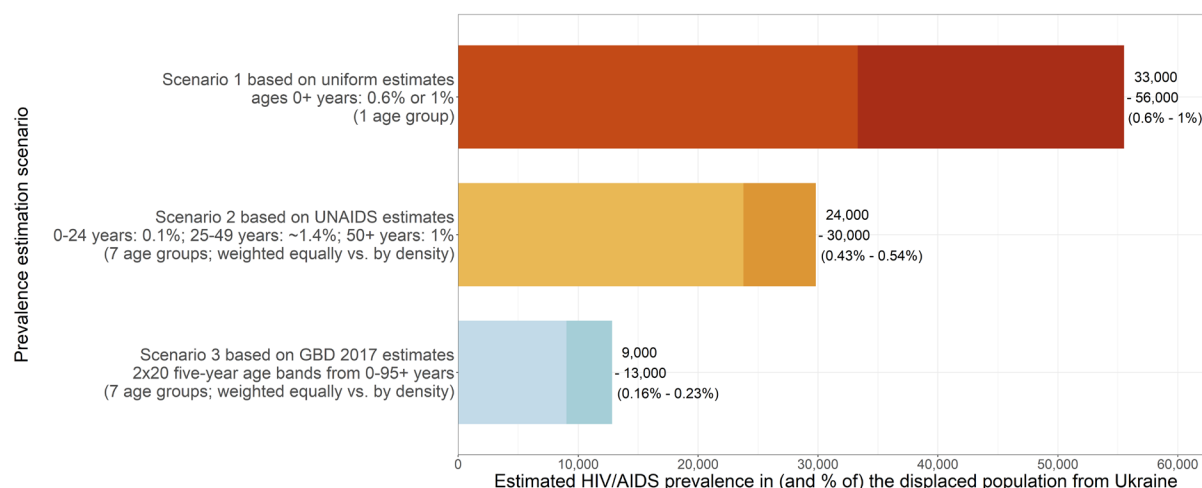
In 2021, it was estimated that 244 900 people in Ukraine were living with HIV, equivalent to 0.6% of the Ukrainian population [7]. Consequently, if the 5.6 million displaced people from Ukraine who arrived in EU/EEA countries by 9 May 2022 [1] are broadly representative of Ukrainians (Figure 1, Scenario 1), up to 33 000-56 000 additional people may be living with HIV in the EU/EEA. However, this is likely to be an overestimate, as the majority of people leaving Ukraine are women and children, populations in which HIV prevalence is likely to be lower than in the general population.

To address the uncertainty in the demography of Ukrainian refugees and obtain a more accurate estimate of the number of Ukrainian refugees living with HIV by age and sex, we assumed that the demographic characteristics of the people displaced from Ukraine are broadly similar to the demographics of other populations that have been forcibly displaced in the recent past [8]. We estimated the small proportion of displaced men aged 18-59 years who were able to leave Ukraine (fathers of three or more children are able to leave the country) by the 0.8% of households with three or more children [9]. After rescaling all proportions, we estimate that of Ukrainian refugees, 56.8% were aged 0-17 years, 38.8% adult women aged 18+ years, and 4.4% adult men aged 18+ years (with 4.2% older than 60 years). To explore a finer resolution in age-specific prevalence data, we split up the three age groups into seven groups¹ and then redistributed people across the groups either with equal weight or by the population density of the age groups in Ukraine.

We then estimated the prevalence of HIV among the displaced population in two further scenarios based on different HIV prevalence estimates from UNAIDS [10] (Figure 1, Scenario 2) or the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2017 (Figure 1, Scenario 3) [11]. According to UNAIDS, the prevalence of HIV in Ukraine is 0.1% in individuals aged 15-24 years and 1.0% in individuals aged 15-49 years [10]. Based on these data we assumed the prevalence to be 0.1% in individuals aged 0-14 years, and 1.0% in individuals aged 50+ years. Given the overlapping data for the years 15-24, a slightly higher proportion for ages 25-49 years (of about 1.4%) was applied. In Scenario 3, the modelled prevalence of HIV from the Global Burden of Diseases Study was available for Ukraine as estimates for both males and females and 20 different age groups. While none of the three scenarios is without flaws, they provide nuance and reflect on different uncertainties. All three scenarios assume that the individuals with HIV are not among those who have returned to Ukraine permanently.

Using the UNAIDS data [10], the additional number of people with HIV in the EU/EEA is estimated to be 24 000-30 000 (0.43%-0.54% of the displaced population, respectively) (Scenario 2), and it falls further to 9 000-13 000 (0.16%-0.23%) when using the modelled GBD estimates (Scenario 3). We believe Scenarios 2 and 3 are the most realistic and, therefore, the estimated range is somewhere between 10 000-30 000 Ukrainian people with HIV in the EU/EEA. This population will have needs for securing treatment, care, testing, and other preventative and supportive services.

Figure 1. Estimated prevalence of HIV in the displaced population from Ukraine in the EU/EEA by 9 May 2022



The total population was based on an assumed number of 5.6 million displaced people in Poland, Romania, Hungary, Slovakia, and Moldova (UNHCR, 09 May 2022).
The age groups were informed by the age- and sex-specific demography of previous displacements (UNHCR, 18 June 2021).
The non-zero proportion of displaced men aged 18-59 years was crudely informed by the 0.8% of households with three or more children (State Statistics Service of Ukraine, 2021).

HIV continuum of care in Ukraine

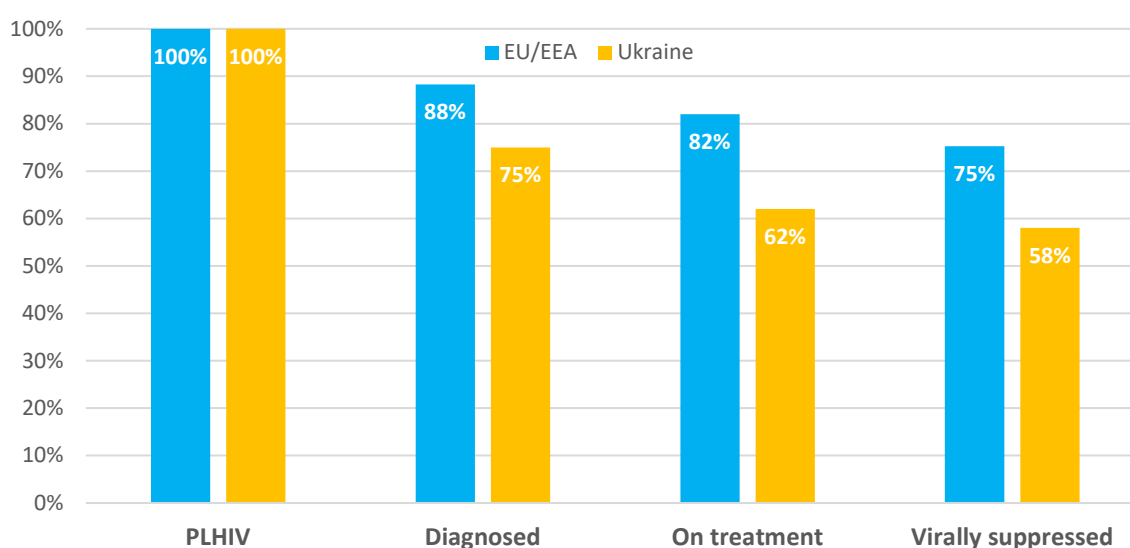
The continuum of HIV care is a framework that provides an overview of the success of a country’s national HIV response in testing, treating, and achieving viral suppression among people living with HIV [12]. The framework monitors the progress made towards the UNAIDS 90-90-90 targets, which is a marker toward reaching the

¹ Seven age groups: 18-24 years, 25-49 years, 50-59 years, 60-69 years, 70-79 years and 80 years and more.

Sustainable Development Goal of ending the AIDS epidemic by 2030 (SDG 3). By 2020, the aim was for 90% of people living with HIV to be diagnosed, 90% of those diagnosed to be treated, and 90% of those treated to have suppressed viral load. If these targets are met, 73% of all those living with HIV will have suppressed viral load [10]. People with suppressed viral load (defined as under 200 copies/mL) cannot pass on HIV [13].

In close collaboration with civil society organisations, the Ukrainian government has been proactive in the national response to HIV, with notable success in delivering antiretroviral treatment (ART) and harm reduction [10]. However, according to recent data collected through the Dublin Declaration survey in 2022, an estimated 75% of the 244 900 people living with HIV in Ukraine were diagnosed, 62% were receiving ART, and 58% were virally suppressed (Figure 2) [7]. Despite progress in the last few years, the continuum of care estimates in Ukraine fall short of the UNAIDS targets and are also lower than that achieved across the EU/EEA data reported up until 2021 (Figure 2).

Figure 2. Continuum of HIV care estimates in the EU/EEA and Ukraine (data collected in 2022)



People living with transmissible levels of HIV virus in Ukraine and among displaced persons

According to 2020 data, 102 858 people living with HIV in Ukraine were living with transmissible levels of HIV virus [14]. Table 1 shows to which categories these people belong (undiagnosed, diagnosed but not treated, or treated but not yet virally suppressed) under the three scenarios of the five million estimated refugees (as of 9 May 2022).

Table 1. Distribution of Ukrainian refugees in the EU/EEA with transmissible levels of virus by scenario, reported in 2021

	Scenario 1		Scenario 2		Scenario 3	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
Estimated number of Ukrainian refugees living with HIV	33 000	55 000	24 000	30 000	9 000	13 000
Estimated number of Ukrainian refugees living with unsuppressed HIV virus	13 860	23 100	10 080	12 600	3 780	5 460
Undiagnosed	8 316	13 860	6 048	7 560	2 268	3 276
Diagnosed but not on treatment	4 297	7 161	3 125	3 906	1 172	1 693
Treated, but not suppressed	1 247	2 079	907	1 134	340	491

Under Scenario 1, 8 316-13 860 (credible interval) Ukrainian refugees may be living with an undiagnosed HIV infection, compared to 6 048-7 500 and 2 268-3 276 under Scenarios 2 and 3, respectively. Furthermore, in 2020, 54% of people newly diagnosed with HIV in Ukraine were diagnosed with a CD4 count under 350 cells/ μ L, synonymous with a late HIV diagnosis [6]. People who are diagnosed late have been living with HIV infection for at least 3-5 years have an increased risk of death compared to those diagnosed promptly and may be at risk of passing on the virus if having sex without condoms or pre-exposure prophylaxis (PrEP).

HIV testing not only reduces undiagnosed HIV infection but is the gateway to prevention, treatment, care, and support. These services should be welcoming and free at the point of access regardless of residency status. However, countries within the EU/EEA have historically faced challenges when providing healthcare, not least HIV testing services, among displaced populations [15]. Since most refugees are women and children, expanded testing in hospital, primary care, and community settings may be the most appropriate settings for Ukrainian refugees.

The European AIDS Clinical Society (EACS), ECDC, the European AIDS Treatment Group (EATG), the Euroguidelines in Central and Eastern Europe (ECEE) network group, and the Centre of Excellence for Health Immunity and Infections (CHIP) call for the 'provision for a network of designated and accessible clinics to provide HIV testing' alongside 'testing and care for viral hepatitis, tuberculosis and sexually transmitted infections' [3]. Experts suggest providing testing for HIV and other blood-borne viruses as part of 'general health screening and those being admitted to hospital for care'. [3] By integrating testing, providers can optimise testing opportunities and resources to provide more comprehensive, patient-centred care. Additionally, other testing strategies in the clinical setting, including routine or opt-in testing, where appropriate, and indicator condition-guided testing, can be implemented to reduce missed opportunities for testing [15]. Point of care testing can also ensure streamlined screening and prompt initiation into care. HIV self-testing can be used when patient privacy or discretion cannot be achieved [16].

Increased testing provision should not be a temporary measure and should be targeted for those at risk of acquiring HIV, through the expansion of community-based testing [15]. Furthermore, preventative efforts must follow or be offered in parallel to testing, especially for those at risk for post-arrival HIV acquisition. A recent modelling study has shown that a substantial proportion of HIV acquisition among migrants and other displaced populations occurs in destination countries [17]. When prevention programmes are provided in a comprehensive approach that brings together multiple interventions, HIV combination prevention can make a greater impact on preventing HIV transmission. Therefore, it is crucial that HIV programmes offer prevention and other support services, including HIV pre- and post-exposure prophylaxis (PrEP and PEP), harm reduction, condom distribution, etc. that is tailored to the needs of the population.

Linkage to care following HIV diagnosis

The World Health Organization (WHO) [18,19] and EACS [20] recommend initiation of HIV treatment following a confirmed HIV diagnosis and clinical assessment. Evidence shows that early treatment for HIV improves health outcomes and is cost-effective [19]. Therefore, prompt linkage to care is as important as the diagnosis itself. Clear pathways need to be established to reduce delays in the initiation of treatment and reduce loss to follow-up. Evidence has shown that migrants and other mobile populations experience many individual, interpersonal, organisational, community, and policy-level barriers to linkage to care [21]. For Ukrainian refugees who may be dealing with war trauma and severe psychological stress, establishing strong linkage will ensure that treatment can be rapidly initiated along with other support services, including psychological services. These services should be culturally competent and be made available in Ukrainian. Linkage from HIV testing in community settings need to be especially strengthened because such settings may have less defined pathways into care. Additionally, if the amount of refugees continue to grow, the increased demand on community-based services will need increased support to prevent loss to follow-up [22].

Number of people on antiretroviral therapy

In Ukraine, HIV care and treatment are provided free at governmental HIV clinics throughout the country [23]. According to 2021 data, 83% of people diagnosed with HIV in Ukraine were on ART, equivalent to 62% of all people with HIV [14]. The estimated number of Ukrainian refugees with diagnosed HIV infection who are not receiving treatment range from 4 297-7 161 in Scenario 1, 3 125-3 906 under Scenario 2 and 1 172-1 693 under Scenario 3 (see Table 1).

To ensure continuity of care, host countries should ensure that ART is available free of charge regardless of residency status. Restricted access to ART leads to an increased risk of illness, death, emergence of resistant strains, and potential onward transmission.

Regarding maintaining the patient care pathway for people on ART, the WHO Regional Office for Europe [16] outlined in detail the main criteria for maintaining care for people living with HIV who have fled Ukraine, taking into account utilising any available information on the most recent HIV-RNA viral load and CD4+ lymphocyte count, previous/current treatment and any adverse effects, and any chronic non-communicable conditions or co-infections to continue treatment.

After appropriate evaluation following the national and WHO consolidated HIV guidelines [16,18], therapy should be initiated or continued along the lines of national recommendations, taking into account the WHO-recommended regimen or, if this is not feasible or possible, other WHO- or EACS- preferred or recommended first-line antiretroviral treatment [20]. Experts recommend that refugees receive enough ART to cover 90 days of treatment [16], but plans should be in place to cover the provision of ART for longer-term stays with the assurance of accessibility as there are increasing concerns over long-term provision of services and the effects of overloading already strained health systems [22].

Number of people virally suppressed

In 2021 overall, 94% of those receiving treatment were virally suppressed, equivalent to 58% of all those living with HIV in Ukraine [6]. The estimated number of Ukrainian refugees receiving treatment who are not yet virally suppressed range from 1 247-2 079 in Scenario 1 907-1 134 under Scenario 2 and 340-491 under Scenario 3 (see Table 1).

This means that under Scenario 1 between 13 860-23 100 people with HIV from Ukraine may have transmissible levels of virus (including those undiagnosed and not yet treated, as well as those not virally suppressed). This falls to between 10 080-12 600 and 3 780-5 460 under Scenarios 2 and 3 respectively (see Table 1).

In addition to scaling up of testing services, it is important that Ukrainian refugees accessing HIV care have sustained access to ART and regular monitoring and support to adhere to treatment to keep or attain a suppressed viral load.

For full details on the recommended principles of clinical management of HIV for refugees from Ukraine, refer to the WHO Regional Office for Europe 'Standardized protocol for clinical management and medical data-sharing for people living with HIV among refugees from Ukraine.' [16]

Reducing stigma and importance of support, housing, and income

Refugees from Ukraine will disproportionately be women and children and this population will be experiencing trauma, an uncertain future, and unstable housing and income. In this context, refugees living with HIV or at risk for HIV may be unlikely to seek access to HIV testing and care services as their immediate priority. This may be compounded by stigma and concerns about the impact of a positive diagnosis on residency status.

It is vital that services rapidly develop culturally competent services that are clearly signposted as welcoming to refugees and free to all in order to reduce the risk of preventable HIV deaths, HIV-related morbidity, and onward transmission of HIV. Free testing and treatment at the point of access will not only be of benefit to the individuals receiving care but also benefit the countries that they stay in, preventing higher care costs and a worse health status in the mid-to-long term. Once in HIV services, people living with HIV will only be able to prioritise HIV treatment and care if they have secure housing and income and a network of support. Addressing stigma and the social context of individual refugees is critical to the public health response regarding the impact of the Ukrainian war on the HIV epidemic in Europe.

General remarks

To ensure host countries are equipped to provide high-quality and accessible care to refugees, experts have highlighted the urgent need to 'develop and deploy national plans to provide free and easily accessible HIV care, including the provision of antiretroviral therapy, therapy for coinfections, prevention of opportunistic infections and opiate-agonist therapy, where needed, for Ukrainian people'. [3]

Host countries are encouraged to create and promote general awareness among displaced Ukrainians, including through the use of translated materials, regarding their right to receiving healthcare, including HIV services, and streamline the administrative processes to increase accessibility.

HIV is still associated with stigma and discrimination in Ukraine [24], so services should also be accessible in Ukrainian with the availability of community interpreters who can act as cultural mediators.

Note

It is important to note that as the situation in Ukraine continues to evolve, there are unforeseen consequences that will impact the ability of countries in the EU/EEA to respond effectively. Hence, the key considerations highlighted in this assessment reflect the most robust data available and the relevant issues at the time of the meeting. However, these may be subject to change and will need to be reviewed and updated on a continuous basis.

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