

Estimated prevalence of HIV among Ukrainian refugees

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Abstract

Aim

To estimate the number of people living with HIV (PLHIV) among Ukrainian refugees living in Ireland.

Methods

HIV prevalence data from the Global Burden of Disease study were applied to the known number of Ukrainian refugees living in Ireland according to the Central Statistics Office up to 6th June 2023. UNAIDS data was used to estimate the number of PLHIV who know their status, the number who were on antiretroviral therapy (ART) and the number who had suppressed viral loads.

Results

As of 6th June 2023, the estimated number of PLHIV among Ukrainian refugees in Ireland is 509 people (95% CI: 324-807). Of these, 222 (95% CI: 144-342) are likely to be male and 287 (95% CI: 180-465) are likely to be female. The greatest number of expected cases are among those aged 30-44 years. It was estimated that 382 (95% CI: 243-606) of PLHIV knew their status, 316 (95% CI: 201-501) of PLHIV were on ART, and 295 (95% CI: 188-468) of PLHIV had suppressed viral loads prior to the war.

Discussion

It is likely that there are additional PLHIV to be identified and linked into healthcare services among newly-arrived Ukrainian refugees in Ireland. These estimates may aid healthcare service planning.

Introduction

The Russian invasion of Ukraine has forced millions of people to seek refuge throughout Europe. Ukrainian refugees have a multitude of physical, social and psychological needs, and countries throughout Europe have been challenged to provide a rapid and comprehensive humanitarian response, while addressing the healthcare needs of this vulnerable population.

Ukraine has the second highest incidence of HIV in Europe.¹ According to the Global Burden of Disease (GBD) study, there was an estimated 264,448 (95% CI: 203,327-335,088) people living with HIV (PLHIV) in Ukraine in 2019. This equates to 0.63% (95% CI: 0.48-0.79%) of the total Ukrainian population.¹ Other blood-borne viruses (BBVs), hepatitis B and C are estimated to affect 1.39% (95% CI: 1.22-1.56%) and 2.83% (95% CI: 2.28-3.50%) of the Ukrainian population respectively.¹ In contrast, the proportion of people residing in Ireland with HIV, Hepatitis B and C is estimated to be 0.05% (95% CI: 0.03-0.07%), 0.69% (95% CI: 0.55-0.81%) and 0.81% (95% CI: 0.66-0.99%) respectively.¹

The European Centre for Disease Prevention and Control (ECDC) recently estimated that there are between 10,000-30,000 refugees from Ukraine living with HIV in Europe.² This information is relevant to inform healthcare decision making and resource allocation in host countries as the maintenance of HIV care for refugees is vital to optimise disease outcomes and reduce the risk of onward spread.

Between 2015 to 2021, the rate of new HIV notifications in Ireland had been relatively stable at approximately 40 cases per month, but has increased considerably to approximately 100 cases per month since May 2022.³ At present, there is no systematic HIV testing for refugees in Ireland and this has created some uncertainty regarding the burden of HIV in this group. The aim of this study is to estimate the number of Ukrainian refugees living with HIV in the Republic of Ireland in order to inform healthcare service providers.

Methods

This report used similar methods to those of ECDC to estimate the prevalence of HIV among Ukrainian refugees in Ireland.² Data from the 2019 GBD study was used as a basis for estimating HIV prevalence among age and gender sub-groups within the Ukrainian population prior to the Russian invasion in February 2022.¹ Age and gender demographics of people who have sought temporary protection in Ireland due to war-related displacement was determined based on publicly available Ukrainian arrivals data from the Central Statistics Office (CSO) up to 6th June 2023.⁴ Thirteen age groups for both males and females were chosen based on the age groups that were common to both the 2019 GBD study and the CSO data, or which could be combined to derive a common age group. The estimated point

prevalence and 95% confidence interval of HIV for each age and gender sub-group from the 2019 GBD study were applied to the Ukrainian cohort in Ireland to calculate the estimated number of expected HIV cases among the new arrivals.

Data from the 2021 UNAIDS country factsheet for Ukraine was used to estimate the percentage of PLHIV who knew their HIV status, the percentage of PLHIV who were on antiretroviral therapy (ART), and the percentage of PLHIV who had suppressed viral loads prior to the war.⁵ Point estimates from UNAIDS were applied to the new estimated prevalence of HIV among Ukrainians in Ireland derived from this study. The data from UNAIDS was not gender or age specific.

Results

As of 6th June 2023, 84,613 individuals had arrived to Ireland from Ukraine according to the CSO.⁴ The age and gender profile of the new arrivals is presented in Table 1. The majority of Ukrainian refugees in Ireland were female (61.9%) and 32.1% were aged 0 – 19 years.

The estimated number of PLHIV from Ukraine in Ireland is 509 people (95% CI: 324-807). Of these, 222 (95% CI: 144-342) are likely to be male and 287 (95% CI: 180-465) are likely to be female. The greatest numbers of expected HIV cases are among those aged 30-44 years. (Table 1).

When the UNAIDS data⁶ were applied to the new point estimates and 95% confidence intervals, it was estimated that 382 (95% CI: 243-606) of PLHIV knew their status, 316 (95% CI: 201-501) of PLHIV were on ART, and 295 (95% CI: 188-468) of PLHIV had suppressed viral loads prior to the war.

Conversely, it is estimated that among the Ukrainian refugee cohort living in Ireland, 127 (95% CI: 81-202) PLHIV were undiagnosed, 194 (95% CI: 123-307) PLHIV were not on treatment, and 214 (95% CI: 136-339) PLHIV did not have suppressed viral loads.

Table 1. Estimated number of people living with HIV (PLHIV) among Ukrainian refugees in Ireland based on Global Burden of Disease 2019 data.

Age group	Females			Males		
	[1] Prevalence of HIV in Ukraine (per 100,000)	[2] Registered number of Ukrainian refugees in Ireland	[3] Estimated number of PLHIV among Ukrainian refugees in Ireland	[1] Prevalence of HIV in Ukraine (per 100,000)	[2] Registered number of Ukrainian refugees in Ireland	[3] Estimated number of PLHIV among Ukrainian refugees in Ireland
0 - 4 years	19.5 (11.1-34.8)	2,079	0.4 (0.2-0.7)	15.6 (8.8-27.8)	2,256	0.4 (0.2-0.6)
5 - 14 years	28.3 (17.7-42.1)	7,682	2.2 (1.4-3.2)	23.1 (14.6-33.9)	8,138	1.9 (1.2-2.8)
15 - 19 years	31.1 (21.6-41.3)	3,440	1.1 (0.7-1.4)	17.8 (11.5-23.6)	3,578	0.6 (0.4-0.8)
20 - 24 years	210.3 (100.4-355.3)	3,382	7.1 (3.4-12.0)	122.7 (60.9-196.5)	1,633	2.0 (1.0-3.2)
25 - 29 years	751.5 (339.8-1,669.0)	3,928	29.5 (13.3-65.6)	946.7 (437.5-2,035.4)	2,135	20.2 (9.3-43.5)
30 - 34 years	1,149.2 (634.4-1,962.8)	4,948	56.9 (31.4-97.1)	2,131.4 (1,270.6-3,362.4)	2,588	55.2 (32.9-87.0)
35 - 39 years	1,167.2 (737.2-1,881.5)	6,076	70.9 (44.8-114.3)	2,402.0 (1,647.3-3,529.3)	3,022	72.6 (49.8-106.7)
40 - 44 years	1,005.2 (735.3-1,458.8)	5,216	52.4 (38.4-76.1)	1,690.8	2,361	39.7 (30.1-52.7)

45 - 49 years	828.7 (602.3-1,157.4)	3,940	32.7 (23.7-45.6)	991.6 (719.6-1,423.5)	1,727	17.1 (12.4-24.6)
50 - 54 years	542.3 (376.7-755.1)	2,988	16.2 (11.3-22.6)	578.7 (355.3-870.9)	1,152	6.7 (4.1-10.0)
55 - 59 years	439.0 (276.5-647.6)	2,433	10.7 (6.7-15.8)	380.6 (184.8-686.6)	714	2.7 (1.3-4.9)
60 - 64 years	240.1 (145.7-361.5)	2,442	5.9 (3.6-8.8)	206.7 (84.6-382.5)	1,239	2.6 (1.0-4.7)
65 years +	34.6 (47.3-22.8)	3,851	1.3 (0.9-1.8)	30.9 (16.3-50.4)	1,665	0.5 (0.3-0.8)
Total		52,405	287.2 (179.8-465.1)		32,208	222.1 (144.0-342.4)

[1] Prevalence estimates from the 2019 Global Burden of Disease (GBD) study.¹

[2] Central Statistics Office (CSO) Data – 6th June 2023.⁴

[3] Estimates derived from applying GBD estimates to CSO data ([1] x [2]).

Discussion

Displacement of refugees due to the ongoing war in Ukraine poses a significant risk of delayed HIV diagnosis, medical complications, onward transmission, and resistance to medication due to treatment interruptions for PLHIV.⁶ This report presents an estimate of how many PLHIV from Ukraine may have arrived in Ireland since the invasion began in February 2022.² However, these estimates are based on pre-war and pre-COVID-19 HIV prevalence estimates and therefore should be interpreted with caution. The estimated number of people with suppressed viral loads may also be overestimated due to challenges associated with accessing treatment since the war began.

In Ukraine, the transmission of HIV had increased among the general population prior to onset of war, with approximately 65% of new HIV diagnoses reported through heterosexual contact, 32% through injecting drug use and 3% of new diagnoses among gay, bisexual and other men who have sex with men (gbMSM).⁸ However, rates among the gbMSM population may be underestimated due to fears of discrimination and homophobia. Stigma, lack of trust, and lack of knowledge of the healthcare system are potential barriers to people presenting to HIV services in Ireland, and internationally. PLHIV may fear discrimination for multiple reasons, including language and cultural barriers, or perceived judgment relating to their HIV status and how they may have contracted HIV.^{5,7} Ukraine has a high prevalence of HIV among people who inject drugs - approximately 20.9%.⁵ PLHIV in Ukraine who are dependent on opioid substitution treatment face difficulty when considering fleeing conflict zones due to increasing difficulty in accessing medication.⁹ For those that have found refuge a host country, it is important that opioid substitution treatment is easily accessible for this group. Any efforts to identify PLHIV, and engage them with formal healthcare services in their host country, must ensure a high degree of sensitivity and confidentiality.

This study is limited by the assumption that Ukrainian refugees in Ireland were representative of the general population in Ukraine at the time of the 2019 GBD study and 2021 UNAIDS study. The regions of Ukraine which had highest prevalence of HIV prior to the Russian invasion are also the regions most affected by the war, and where there may have been greater levels of displacement.¹⁰ It was not possible to account for variations in socio-economic status of those who arrived in Ireland compared with those who migrated to other countries or remained in Ukraine. Moreover, the reasons why refugees seek protection in certain countries are not always known, and perceptions of healthcare services, including availability of HIV treatment, may be a factor.

UNAIDS data did not have age and gender specific estimates for those who knew their HIV status, those on ART, and those who had suppressed viral loads. Given that the refugee population as a whole is not representative of the Ukrainian population (with a higher predominance of women and children), these estimates should be interpreted with caution.

Nevertheless, this report gives an estimate of the number of PLHIV that may be expected to have arrived in Ireland from Ukraine up to June 2023. Many PLHIV may not know their status, and opt-in screening programmes need to be established in order to identify and support these individuals. The information herein may aid healthcare service planning by ensuring that there are adequate resources for HIV testing and treatment for this vulnerable group.

Recommendations

A holistic approach to addressing the health needs of migrants, which included BBV testing but also includes broader health screening and access to vaccinations, should be implemented.

A systematic, accessible, free, voluntary HIV and other BBV testing programme should be offered to all Ukrainian refugees. All migrants should be asked if they, or their children or dependents, have a known diagnosis of BBVs and offered testing accordingly. Those with a previous BBV diagnosis or positive test result should be able to seamlessly access specialist BBV services. There also needs to be appropriate cultural, language and psycho-social supports in place (including interpreters, counsellors, etc.).

Where possible, medical records from Ukraine should be securely obtained, and PLHIV should be provided with appropriate documentation relating to their HIV treatment plan which can be carried with them if they transit onwards within or outside of the host country.⁶

It is likely that additional PLHIV among Ukrainian refugees have yet to be identified and linked into healthcare services in Ireland. This report has estimated the number of cases that are expected to have arrived in Ireland since the onset of war, and may aid with health service planning.

Declarations of Conflicts of Interest:

None declared.

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