HIV in Migrant Populations 1

Humanising and optimising HIV health care for refugees and asylum seekers

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Displaced populations living with HIV, including refugees and asylum seekers, face substantial challenges across various regions globally. The intersection of forced migration and HIV presents both shared challenges and region-specific differences. Key issues include little access to health care, pervasive stigma, discrimination, and disruptions in the continuity of HIV care. Refugees often encounter barriers such as legal, cultural, and economic disparities that impact their overall health outcomes. Although HIV prevalence differs across regions, displaced populations consistently face disproportionate challenges including high-risk environments and little health-care access. Addressing these challenges requires a focus on equitable health-care access, with both actionable local interventions and broader global policy changes and an emphasis on long-term sustainability. Reliable and continuous drug supplies, interagency collaboration, and holistic health-care approaches are essential. International collaboration, robust evidence generation, and comprehensive responses are urgently needed to address the complex interplay between forced migration and HIV among vulnerable populations.

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Introduction

A person might leave their place of origin for multiple reasons. Economic, political, security, environmental, and labour reasons are the most frequent. In this Series paper, we focus on HIV among refugees and asylum seekers who cross international borders.

Refugees are individuals who have fled their home countries due to conflict, violence, or persecution, seeking safety in another nation. They are recognised as a distinct subset within the broader category of the forcibly displaced. An individual who is seeking international protection is known as an asylum seeker. Not every asylum seeker will ultimately be recognised as a refugee, but every recognised refugee is initially an asylum seeker.[1] A migrant, in contrast, is defined as anyone who changes their usual place of residence and crosses an international border, regardless of the reason for their move.[2]

Forced displacement, which can be internal (within the country) or external (outside the country of origin), is usually due to fear of persecution or potential risk based on race, religion, nationality, political opinion, or membership in a particular social group.[3] Fleeing their homes for safety, individuals who are externally forcibly displaced gain international recognition as refugees with access to assistance from states, the UN High Commissioner for Refugees (UNHCR), and relevant organisations.[3] For a perspective of non-acute, non-humanitarian migration, please see the second paper in this Series.[4]

According to the principles outlined in the 1951 Refugee Convention adopted in Geneva, Switzerland, refugees should have access to the same or similar health care as the host population.[5] However, different governments vary in their approaches to providing health support to refugees and in their flexibility to grant refugee status. Globally, there are 120 million forcibly displaced people as of May, 2024, marking the 12th consecutive annual increase, which is a result of ongoing crises and newly emerging and evolving

Key messages

- In recent years, the COVID-19 pandemic, escalating economic, political, and security crises, and wars have resulted in unprecedented numbers of migrants
- Addressing HIV among refugees requires legal, social, and health system reforms to overcome barriers, reduce stigma, and ensure continuous care, thus mitigating the impact of HIV
- Enhanced data collection is crucial for understanding HIV risk factors and prevalence among forcibly displaced populations
- Continuous access to adequate HIV prevention measures and antiretroviral therapy (ART) is essential for migrating people
- Confidential sharing of medical information between destination and host countries is essential to ensure continuity of HIV treatment and management of comorbidities
- Efforts should be made to minimise discontinuation of ART and to avoid changes to regimens prescribed before displacement
- Late diagnosis and severe opportunistic infections adversely affect health outcomes among refugees newly diagnosed with HIV and must be addressed
- Refugees and asylum seekers face additional challenges in accessing health insurance and navigating complex systems

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conflicts.[6] In 2023, 36·6 million people were refugees, 6·9 million people were asylum seekers, 68·3 million people were internally displaced, and 5·8 million people were in need of international protection.[5] Crucially, 75% of the world's displaced people are hosted in low-income and middle-income countries.[7] More people are migrating now than ever before, yet many refugees and migrants face poverty and worse physical and mental health outcomes than host populations.[8]

Several factors influence the health outcomes of refugees, including: legal status; discrimination; social, cultural, linguistic, administrative, and financial barriers; low health literacy; and fear of detention and deportation.[9] Hence, health systems should consider the needs of refugees when developing, funding, organising, implementing, overseeing, and evaluating national and local health programmes. The long-term integration of refugee health needs into host country services is crucial, and addressing these needs is a global priority, integral to the principle of the right to health for all and aligning with key policy actions needed to reach the Sustainable Development Goals.[8]

Concerning HIV/AIDS in particular, increased rates of HIV transmission in refugee and migrant populations have been observed due to forced displacement, particularly along border areas and transportation routes.[7] The main factors contributing to this increase include high rates of sexual violence, engagement in survival sex work, a context of high social and sexual vulnerability, and insufficient access to proven biomedical prevention interventions (eg, pre-exposure prophylaxis [PrEP], post-exposure prohylaxis [PEP], and condoms). Delays in diagnosis of HIV and AIDS, barriers to receiving antiretroviral therapy (ART), and low treatment adherence and retention prevent refugees with HIV and people with HIV who have been forcibly displaced from benefiting from the U=U (undetectable equals untransmittable) message.[8,10] Refugees living with HIV from key populations, such as men who have sex with men, people who inject drugs, transgender people, and sex workers, also face xenophobia and other forms of stigma and intersectional discrimination from health-care workers, host societies, and their own families and communities.[11]

This Series paper aims first to understand the challenges and social and health determinants faced by people living with HIV who are displaced (ie, refugees, asylum seekers, and forced migrants who have not been able to obtain refugee status), often without resources or medications and in precarious health conditions. Second, it aims to review the evidence focused primarily on access and barriers to HIV diagnosis, prevention, and treatment for displaced people and refugees. We have selected scenarios that represent diverse regions across the globe where the existing evidence is more robust. Although refugees undoubtedly face HIV-related challenges in areas not covered in the following sections, we are confident that the shared challenges that are described adequately represent common factors that are prevalent among refugees worldwide.

Regional perspectives and challenges

North America

The USA and Canada face challenges in migration and health care, with large-scale movements intensifying in the past 5 years, exemplified by the so-called migrant caravans carrying thousands of people from South America, central America, and Mexico who are fleeing poverty, political crises, and widespread violence driven by drug trafficking organisations and weakened governance.[12,13] Many migrants who intend to enter the USA remain in Mexico indefinitely or for long periods of time as a result of increasingly strict eligibility criteria for asylum seekers in the USA.[14,15] The paucity of shelter and protection infrastructure to support migrants in Mexico is compounded by a strained health-care system.[16] In 2022, approximately 22 000 individuals were granted asylum in the USA, of whom approximately 30% were from Venezuela, El Salvador, Guatemala, Honduras, or Mexico. This percentage represents a negligible fraction of the 2·4 million migrant encounters at the Mexico–USA border.[17] Still, US sanctuary cities (which limit immigrant detention and deportation) are currently under pressure, leading to reductions in access to employment, housing, and, inevitably, health care among migrants.[18] Since 2010, HIV screening is no longer mandatory for asylum seekers in the USA; however, the US Centers for Disease Control and Prevention recommend health screenings for refugees within 90 days of arrival that include screening for HIV, tuberculosis, sexually transmitted infections (STIs), and mental ill health, among other conditions.[19] Although this screening should facilitate referral to HIV care, many displaced individuals are asylum seekers or undocumented and multiple factors affect their access to and retention in HIV treatment in the USA, including fear of deportation and of the potential consequences of HIV disclosure such as isolation, stigma, eviction, and loss of employment.[20,21] Canada has played a relatively minor role compared with the USA in facing this crisis due to the Canada–United States Safe Third Country Agreement, which states that asylum seekers who reach Canada at an official port of entry should remain in the USA. Large advocacy movements have challenged the USA's designation as a so-called safe country for refugees in the face of human rights breaches in detention centres. In 2022, Canada welcomed more than 50 000 agricultural workers from Mexico, Guatemala, and the Caribbean, and in 2023, Canada committed to increase its support of refugees through the Trilateral Statement on Joint Commitment to Latin America.[22] In Canada, HIV testing is mandatory for all those seeking to migrate to the country.[23] This requirement is concerning for many asylum seekers, and inconsistencies in transfer

to HIV care for migrants diagnosed with HIV and insufficient support to navigate the health-care system have been reported.[23]

Central America

Central America and Mexico represent a corridor linking South America with the USA and Canada, along with a historical internal migration flow.[24] Poverty, climate change impact on local economies, natural disasters, criminal gangs, targeted violence, and discrimination against LGBTQIA+ groups and key populations force many to migrate or seek asylum in the USA.[25] Each year, more than 2 million undocumented individuals cross the USA–Mexico border, mostly from Venezuela, Cuba, Haiti, and Nicaragua.[26] The Tapón del Darién (Darién Gap), a route between Colombia and Panama used by more than 520 000 individuals in 2023, is considered the most dangerous migration point in the region due not only to its difficult and risky geography, but also to the presence of armed criminal groups.[27]

Data about HIV estimates among migrants in central America are often limited in both availability and quality.[28] The combination of young and vulnerable groups, the change of behaviours across the route, and the high HIV prevalence create a high-risk environment for HIV transmission that is worsened by the poor access to HIV testing and combined prevention, including PEP and PrEP in this region.[29] Violence prevalence is high, in particular among LGBTQIA+ people and sex workers.[30] An ongoing survey in central America has shown high vulnerability of mobile populations (including high rates of sexual work and sexual assault) and higher HIV prevalence compared with the general population, which shows the urgent need for the implementation of PrEP and PEP.[31,32]

South America

South America is characterised by a historical internal migration pattern. According to data from the International Organization for Migration,[33] between 2018 and 2022, Chile had some of the largest migrant population growth in South America, with 8% of the population originating from another country in 2019 (mainly Peru, Venezuela, Colombia, and Haiti).[34] Since 2020, the COVID-19 pandemic and the escalation of economic and political crises in neighbouring countries have increased this trend.[35] Armed conflicts, fear of drug trafficking gangs, climate disasters, economic crisis, and scarcity of work fuelled a rise in migration to Argentina, Brazil, and Chile.[36] The main country of origin of migrants in South America today is Venezuela, where the economic crisis, shortage of food and medical attention (including ART distribution), and political polarisation have forced millions of Venezuelans to live outside their country.[34] To date, more than 7·7 million people (25% of the total Venezuelan population) have left their country, and 80% of them are being hosted by 17 other countries within South America.[36] In September, 2018, a multicountry initiative called the Quito Process was created to develop a regional strategy to address the crisis, ensuring mechanisms to serve Venezuelan refugees and migrants. HIV/AIDS was identified as one crucial area of action, highlighting the need to standardise ART (to the WHO-recommended tenofovir disoproxil–lamivudine–dolutegravir regimen) to facilitate the mobility of people living with HIV and expand the efforts of combined prevention among refugees in response to the almost complete disruption of the HIV national programme in Venezuela. 2·9 million Venezuelan migrants have settled in Colombia, and 1·6 million have settled in Peru.[37] National representative surveys in Colombia and Peru evidenced a higher HIV prevalence among natives from Venezuela compared with the local population.[38,39] In Colombia in 2023, 15% of the new ART initiators were from Venezuela, and the country had to request donations from the US President's Emergency Plan for AIDS Relief, the Brazil Government, and the Global Fund to Fight AIDS, Tuberculosis and Malaria in order to maintain ART programmes.[40,41] At the end of 2023, a mandatory licence for dolutegravir was issued by the Colombian Ministry of Health to include migrants and other prioritised populations.[42]

For more on the **Quito Process** see https://www.procesodequito.org/

In Peru, a survey that included 6200 Venezuelan migrants and refugees also recorded a higher prevalence of HIV (1·01%) compared with the estimated national Peruvian HIV prevalence of 0·4%.[38] Nationally, 5% of all patients receiving ART in Peru are from Venezuela. Therefore, sustaining the efforts of the Quito Process to ensure access to free HIV prevention, testing, and care into the public health systems in the region is crucial.[43]

Another important source of migration to South America is Haiti, with people initially fleeing to the Dominican Republic and then mostly to Chile or Brazil due to different bilateral agreements, with some continuing the journey to the USA through the Darién Gap. A survey conducted in Chile among 498 migrants from Haiti showed an overall HIV prevalence of 2·4%, a 4% HIV prevalence among young women, and a 3·4% overall chronic hepatitis B prevalence, which are much higher than among Chilean counterparts.[44]

Central and eastern Europe

Following the Russian invasion of Ukraine, central and eastern European countries have faced unprecedented pressure related to the need to provide aid, housing, and relevant medical support to the wave of refugees from Ukraine. As of July, 2024, more than 8 million people from Ukraine were relocated internally and internationally, with approximately 5·8 million people registered as refugees in Europe.[45] Germany and Poland received 1 million refugees from Ukraine who applied for asylum and temporary protection. Smaller countries such as Czech Republic, Moldova, Romania, and

Slovakia have also supported displaced people from Ukraine. In most of these countries, in contrast to Ukraine, access to HIV care and treatment is largely centralised, with specialist centres providing follow-up for people living with HIV. Ukraine's high HIV prevalence has put substantial pressure on medical systems, including the provision of ART, medical and laboratory follow-up, and the diagnosis and treatment of comorbidities, as the number of refugees with HIV from Ukraine has distorted HIV care in centralised specialised centres in many small European countries. For example, between February, 2022, and June, 2024, around 3500 migrants, including 100 children, had registered to enter HIV care in Poland, which amounts to an 18–20% increase in the total number of people living with HIV.[46] The most commonly used ART in Ukraine is tenofovir disoproxil–lamivudine–dolutegravir, as per WHO guidelines, but this regimen is unavailable in the EU. Despite WHO efforts, no licence waiver for the use of generic tenofovir disoproxil–lamivudine–dolutegravir in the EU was obtained from the licence holder,[47] which resulted in the need to switch antiretroviral regimens for 91·2% of patients followed up in Poland.[48]

Despite ART being available to all registered war refugees, with some limitations in drug options, substantial challenges to ART access remain, including language barriers and fear of stigma. Interchange of medical information across borders is also challenging and especially important for treating comorbidities. A standardised protocol for this interchange was created by WHO, which allows the sharing of medical records between clinics from Ukraine and other European HIV clinics;[49] however, EU countries have no similar medical documentation or data transfer systems. Furthermore, loss of follow-up occurs among Ukrainian refugees living with HIV (13·9% of newly diagnosed people with HIV in Poland and 14·2% of previously diagnosed people in Ukraine were lost to follow-up).[46] Additionally, access to antituberculosis drugs for the treatment of drug-resistant tuberculosis is scarce. Ukraine has one of the highest tuberculosis notification rates in Europe (42·1 per 100 000 people compared with 9·7 per 100 000 in Poland), including a high proportion of rifampicin-resistant and multidrug-resistant tuberculosis (30·5%).[50] WHO-recommended therapies for multidrug-resistant tuberculosis, such as the combination of bedaquiline, pretomanid, linezolid, and moxifloxacin, are not only costly, but also scarce in most EU countries.[51]

Accessible from Asia, the Middle East, and Europe is Türkiye. Since the beginning of the conflict in Syria in 2011, more than 7 million Syrians have left their country and sought refuge in Türkiye. Globally, Türkiye hosts the largest population of refugees, which exceeds 3 million (90% from Syria) and accounts for 3·49% of the population.[52] In addition, the country is estimated to host up to 1 million additional unregistered Syrians. Although registered refugees in Türkiye are granted free access to all health-care services in their city of registration, unregistered refugees have access only to emergency services and vaccination services.[53] Very few migrants in Türkiye are employed, and those with financial difficulties often work illegally with a salary lower than the minimum wage or might engage in sex work with high-risk behaviours such as drug use and low or no condom use, with little or no access to health care or legal advice and low knowledge and awareness about sexual health.[54,55] Currently, Türkiye has no programme for HIV, STIs, and sexual health tailored to the needs of refugees. Because refugees often live in precarious settlements, several infectious diseases that were previously eradicated or nearly eliminated have seen a resurgence and now pose a threat to the public health system.[53] Although current data suggest that HIV infection is not a serious threat among refugees in Türkiye, the unresolved crisis might soon lead to a rapid increase in new HIV infections in the already high-burden central and eastern European region.[56]

The Middle East and north Africa

The Middle East and north Africa region has had continuous voluntary and forced migration, with forced displacement increasing due to conflict in the past decade.[57] As of 2023, approximately 52% of the world's refugees originated from just three countries, two of which are in the Middle East or north Africa: Syria (6·5 million refugees) and Afghanistan (5·7 million refugees).[58] As of October, 2024, many countries remain affected by protracted and unresolved conflicts, such as Sudan, occupied Palestinian territory (including Gaza and the West Bank), Afghanistan, Libya, Somalia, Syria, and Yemen.

The Middle East and north Africa region generally has a low HIV prevalence; however, it is one of three regions where HIV incidence is rising, particularly among specific key populations: people who inject drugs, men who have sex with men, and female sex workers.[59] In displaced populations, robust estimates are very scarce due to difficulties establishing sampling frames, mobility, and a scarcity of attention and financial resources during massive, forced displacement.[60,61] Given the low HIV prevalence, countries in the region largely provide free ART and can afford to do so. The degree to which these policies cover non-nationals and refugees varies by country. For refugees, access to treatment is typically facilitated by UN agencies; this includes the UNHCR, the UN Relief and Works Agency for Palestine Refugees in the Near East, and the International Organization for Migration.[62] One additional issue of concern in the region is gender and HIV. Evidence suggests under-detection among women in particular, due to the pronounced stigma that can prevent choosing to be tested for HIV and the insufficient HIV testing in antenatal care.[63]

Africa

Despite the substantial migration from Africa to Europe, a large majority of migrants still move within Africa: nearly 75% of all migrants from middle Africa resided in another African country as of mid-2020.[64] Of an estimated population of 445 million, African countries outside of middle Africa hosted 7·7 million international migrants in mid-2020 and 3·6 million refugees and asylum seekers in 2019.[65,66]

The HIV prevalence among refugees in Africa varies from 0·5% to 5·9% depending on the region and the country of origin of the refugee.[67] In Uganda, a country that hosts a large number of refugees, the HIV prevalence among individuals aged 15 years and older is reported to be 1·5%.[68]

Southeast Asia and Hong Kong

Southeast Asia, comprising 11 countries, had an estimated population of 669 million people in mid-2020.[69] The majority of the 23·6 million migrants from southeast Asia remain in Asia, and a third of them remain in southeast Asia. Almost half of the migrants of southeast Asian origin are women.[70] HIV care and treatment in southeast Asia is either free or heavily subsidised.[71] However, migrant populations bear a disproportionate HIV burden and face more HIV vulnerabilities than native populations, which limits access to ART. These vulnerabilities can include low host country-language proficiency, insufficient knowledge of how to navigate the health-care system, fears of being arrested or deported, perceived social marginalisation, and poor HIV literacy.[72,73] HIV drug resistance prevalence rates in southeast Asia are influenced by poor access to ART, the cost of travelling for seeking medical care, and stigma and discrimination against people with HIV that are particularly evident among refugees.[74]

Migrants and refugees in Hong Kong face a lengthy and tedious evaluation process (~10 years) by the UNHCR and the Hong Kong Government. While awaiting assessment, migrants and refugees receive HK$2200 (~US$280) per month from the government, but are not allowed to have a bank account, study, or work. Not even children are allowed to study. Migrants and refugees can access health care through a social worker on a case-by-case basis. Migrants have reported that doctors in Hong Kong do not understand their needs, with language and culture being substantial barriers, but more importantly, many migrants feel that health professionals would refrain from providing a complete clinical evaluation or medical procedures unless absolutely needed.[75] Refugees are strongly discriminated against, and female migrant workers who have experienced sexual violence in Hong Kong perceive themselves to be at risk of HIV acquisition.[76]

The table describes the main countries from which people are fleeing, the HIV rate in the country of origin, and the main countries of arrival.

Main challenges for refugees living with HIV

Limited information

This Series paper, which seeks to identify challenges and propose solutions, does not encompass all regions experiencing conflicts (eg, Myanmar, Somalia, Eritrea, Afghanistan, and the Democratic Republic of the Congo are not covered); therefore, people who become refugees and asylum seekers due to non-reported conflicts might not be fully represented, a key limitation of this paper. Moreover, data and publications from these regions are currently few, especially regarding refugees living with HIV.

Poor health coverage in strained health systems

Most people who have been forcibly displaced remain in their regions and face challenges in accessing health

	Number of refugees from country of origin	HIV prevalence* in country of origin	Number of countries of arrival	Principal countries of arrival (% of all refugees)	HIV prevalence in country of arrival
Afghanistan	6 403 100	<0·1%	96	Iran (59%) and Pakistan (31%)	<0·1% (Iran); 0·2% (Pakistan)
Syria	6 355 800	<0·1%	77	Türkiye (51%) and Lebanon (12%)	Not reported (Türkiye); <0·1% (Lebanon)
Venezuela	6 103 100	0·5%	48	Colombia (47%) and Peru (17%)	0·6% (Colombia); 0·5% (Peru)
Ukraine	5 960 400	1·0%†	66	Russia (21%) and Germany (18%)	Not reported (Russia); 0·1% (Germany)†
South Sudan	2 292 500	1·6%	46	Uganda (40%) and Sudan (30%)	5·1% (Uganda); 0·2% (Sudan)
Sudan	1 496 900	0·2%	92	Chad (62%) and South Sudan (24%)	1·0% (Chad); 1·6% (Sudan)
Myanmar	1 283 400	0·9%	37	Bangladesh (76%) and Malaysia (10%)	<0·1% (Bangladesh); 0·3% (Malaysia)
Democratic Republic of the Congo	978 200	0·7%	94	Uganda (51%) and Burundi (9%)	5·1% (Uganda); 0·9% (Burundi)
Somalia	842 000	<0·1%	95	Ethiopia (37%) and Kenya (35%)	0·7% (Ethiopia); 3·2% (Kenya)
Central African Republic	759 200	2·9%†	50	Cameroon (47%) and Democratic Republic of the Congo (28%)	3·0% (Cameroon)†; 0·7% (Democratic Republic of the Congo)

Unless indicated otherwise, data are from 2023.[77] *HIV prevalence rate for individuals aged 15–49 years. †Data are from 2021.[78]

Table: **Countries of origin of the largest number of refugees and HIV prevalence in their countries of destination and origin**

services and social security benefits, particularly in low-income and middle-income countries, with frequent long asylum processes that exacerbate their vulnerability.[79,80] Spiegel and colleagues[81] recapitulate the challenges of refugees, including commonly weak national health systems in receptive countries, poor access to health coverage, few economic resources, conflicts, hazardous travel circumstances, house damage, violence-related relocation, and eligibility to medications that depends on meeting multiple requirements. The challenges to meet the health needs of the forcibly displaced are common across all health issues, but in HIV are specifically likely to limit the continuity of treatment. In humanitarian situations, innovative HIV-related solutions are needed to ensure uninterrupted distribution of medications and treatment supplies, good care adherence, access to services, and continuity of treatment delivery, and to avoid emergence of drug resistance.[82,83] Access to health insurance coverage to provide essential health services is incomplete and highly difficult in most refugee-receiving countries. Prime examples of this difficulty are those whose asylum applications have been rejected and the children of undocumented parents who are neglected and outside of any coverage.[84,85]

Relevance of stigma and discrimination

Many structural barriers within the health system for refugees and asylum seekers exist, including stigma and discrimination.[86] Key populations, such as men who have sex with men, people who inject drugs, transgender people, and sex workers, are stigmatised and sometimes criminalised. Xenophobia and racism contribute to the HIV-related discrimination faced by forced migrants when they access HIV prevention and treatment.[79,87] This discrimination, based on stigma against people living with HIV, stigma against specific key populations, and stigma and xenophobia against refugees or asylum seekers requires urgent attention to develop evidence-based interventions.[88]

Barriers are also reported in high-income countries despite many having universal health care.[89] Communication challenges, linguistic barriers, and cultural barriers often hinder access to health services and treatment for refugees.[90]

Sexual violence

Sexual assault is a constant concern for women and girls across the world,[86] and is made worse under circumstances of violent conflict and displacement, including in the place of origin, during the journey, and at the destination of people who are displaced.[91] Displaced women and girls can be exposed to political and cultural restrictions, abuses by smugglers, extortion, kidnapping by traffickers, physical mistreatment, and psychological and sexual abuses including forced sex work, among other harms.[86,92,93] Gender-based violence is also increasingly reported among men and boys, including the forced sex trade, highlighting the abuse of boys and young adolescents.[94]

Fear of being penalised or deported, especially for unregistered refugees, can substantially affect seeking health care and reporting acts of violence, including sexual violence, to the authorities for both men and women.[95,96]

Epidemiological changes and health-care workers who are also refugees

During conflicts, health-care workers also migrate, which weakens the local capacities in the country of origin, as recently evidenced in Ukraine.[79,80] For example, Parczewski and colleagues[48] described from a clinical perspective changes in HIV acquisition routes and subtype variability, an increase in the number of new HIV diagnoses, and the need for ART modification. The extended periods during which displaced people wait to formalise their migratory status without being able to work or study impact their mental and physical health and, in turn, their ability to adhere to ART.[79] Another example of an effect of health-care worker migration is illustrated by Syrian health-care workers (especially Syrian physicians who are not legally authorised to work in Lebanon), who conduct their professional activities for other refugees illegally and undercover. These activities remain poorly documented and misunderstood by the academic, policy-making, and humanitarian communities.[97] Panel 1 summarises the frequent challenges faced by displaced migrants to effective access to ART care.

Proposals to address the needs of refugees living with HIV

Equitable access

To ensure HIV services are equitable, refugees should have the same access to HIV treatment as local populations.[87] In addition to humanitarian and refugee financing (provided by donors to organisations for either direct implementation or to be passed on to implementing partners), incorporation of innovative long-term financing instruments is also possible. Examples are non-traditional applications of overseas assistance, joint public–private mechanisms, and fundraising by using new and varied resources that deliver new financial solutions.[81] Many challenges in the access to HIV prevention and treatment can be addressed by expanding peer networks, increasing peer-to-peer distribution of HIV self-tests and PrEP for people at risk, ART, and implementing digital solutions for improved retention and adherence.[83,104] Rabkin and colleagues[104] proposed a uniform course of care, expedited laboratory and clinical monitoring, and a strong emphasis on patient empowerment, education, and involvement.

Ensure the stable provision of preventive and treatment services

Maintaining reliable and consistent drug and medical supplies in settings of conflict, political instability, or natural disasters is crucial. Countries should define risk

assessment exercises and contingency plans that ensure stocks and distribution through formal and informal networks.[83]

Non-governmental organisations and private services should work together closely to standardise medication regimens; lower ART access restrictions; bridge the gap between first-line, second-line, and third-line regimens; and facilitate international transfer processes between sites.[49,83] Primary health-care and community treatment groups can be appropriate for some local environments.[104] Mann and colleagues[82] proposed several measures for a rapid resumption of care and continuity of HIV treatment, including optimised ART-stopping strategies and improved patient follow-up. Building the data infrastructure to enable the protected sharing of medical records of asylum seekers and refugees living with HIV between origin, transit, and destination countries could facilitate treatment resumption and the appropriate management of comorbid conditions upon arrival, as currently used in Europe for Ukrainian refugees.[49]

Eliminate criminalisation

Criminalisation of individuals based on their gender identity, sexual orientation, or participation in sexual practices is still enforced in more than 60 nations, and efforts should be directed towards the elimination of such laws.[80]

Provide access to contraception, condoms, and voluntary HIV and STI testing and counselling

Access to condoms, PrEP, PEP, and contraception should be ensured for refugees by destination countries.

Panel 1: **Challenges faced by displaced refugees and asylum seekers globally to effective access to antiretroviral therapy**

Access to health care
Displaced populations face difficulties in accessing health-care facilities due to a variety of factors, including insufficient understanding of the local health system, fear of deportation, inadequate transportation, and the remote location of some refugee camps.[98]

Access to HIV services
Refugees and displaced people might not have had access to HIV awareness information, prevention, diagnostics, or treatment in their country of origin, or their treatment might have been interrupted during their travel.[99]

Access to health insurance
Free health care is not guaranteed across host countries, and additional barriers are faced by refugees and asylum seekers to navigate complex insurance systems.

Language and cultural barriers
These barriers can obstruct communication between health-care workers and refugees, limiting access to information and services and the ability to comply with recommended practices affecting their quality of life.

Equity in access
Equity should be ensured in terms of access to antiretroviral therapy (ART) for refugees and displaced populations. The exclusion of refugees from HIV national strategic plans makes them invisible in future national funding proposals to major donors.[87]

Adherence to treatment
Optimal adherence to ART is required to promote viral suppression and prevent disease progression and transmission. Forcibly displaced populations can face challenges in adhering to ART that need to be understood and addressed.[100]

Poverty and food insecurity
Poverty and food insecurity can lead to an increase in activities that carry the risk of acquiring HIV.[101]

Stigma and discrimination
Stigma against people with HIV/AIDS, key populations, and, often, forcibly displaced populations can prevent individuals from seeking testing and treatment.

Comorbidities
Comorbidities might be undiagnosed or untreated. Of particular relevance are other sexually transmitted infections (notably syphilis), hepatitis B, hepatitis C, and tuberculosis.

Mental health disorders and substance use
People living with HIV can also face a variety of additional challenges, including substance use, mental ill health, incarceration, unemployment, and trauma-related problems.

Inadequate psychosocial support
Inadequate psychosocial support is a substantial issue for many displaced people. Access to mental health care is extraordinarily scarce, especially considering cultural and language barriers.

Insufficient intervention research
Investigation into HIV care continuum implementation among displaced people living with HIV is insufficient.[7]

Protection of human rights
Human rights are frequently violated in refugees in general, but even more so in refugees with HIV who are denied access to health care and medications.[102] Legal protection for this population is frequently scarce.

Insufficient data infrastructure
No system is in place for sharing medical records between destination and host countries to ensure continuity of HIV treatment and management of comorbidities. Addressing these challenges is crucial for achieving the targets of the UNAIDS strategy, which envisions zero new infections, zero AIDS-related deaths, and zero discrimination.[103]

Panel 2: **Proposals for humanising and optimising HIV health care for refugees and asylum seekers**

Patient preparedness plan
A standardised plan should be developed to prepare patients in origin countries for their journey, incorporating detailed information on their current treatment, longer refills of prescriptions, alternative regimens, and health and HIV services in transit and destination countries.

Long-acting HIV agents for prevention and treatment
Where possible, long-acting injectable pre-exposure prophylaxis (PrEP) and antiretroviral therapy (ART) formulations should be provided in countries of origin and destination to reduce adherence challenges during the journey and upon arrival.

Cross-border collaboration
Cross-border health initiatives, mobile health clinics, and language and cultural training for health workers should be developed.

Equitable access to HIV care
Refugees should have the same access to HIV treatment as local populations, per national HIV recommendations. Access to health insurance for refugees should be provided upon arrival; support in navigating the health-care system is essential to achieve this.

Equitable vaccination strategies
Vaccine history should be reviewed and vaccination strategy should be implemented in line with national recommendations, especially against hepatitis B, measles, influenza, and COVID-19.

Voluntary counselling and testing
Refugee camps and places of transit and short stay of refugees should offer voluntary counselling and testing; community-based testing and self-testing should be expanded.

Clinical severity assessment
Providing clinical HIV severity assessment and ART triage for people living with HIV during mass displacement, with a special focus on diagnosis and treatment of advanced HIV disease, is important.

Prompt response
Access to HIV care and ART should be quickly restored if interrupted to reach viral suppression.

Multidisciplinary mobile teams
These teams can be deployed for ART provision and intensive follow-up during times of crisis. Services might include point-of-care testing, viral load, and ART delivery that can reach transit areas and locations far from sanitary services.

Point-of-care testing
Point-of-care testing and prompt referral during immigration medical examinations should be expanded.

Birth control
Contraception and combined prevention of HIV and other sexually transmitted infections should be provided, including PrEP, post-exposure prophylaxis, emergency contraceptives, and condoms.

Training health professionals
Health professionals should be trained to ensure efficient communication, overcome language barriers, and expand psychosocial assistance. A basic understanding of immigration policies and resources is important to build trust and enable referral to appropriate legal support.

Long-term integration of refugee health needs
Refugee health needs should be integrated into host country services, considering the needs of refugees when developing, funding, organising, implementing, overseeing, and evaluating national and local health programmes. Refugees and migrants should be involved in all the steps of the process, taking advantage of their lived experience.

Addressing stigma and discrimination
Policies should be developed to safeguard against violence against refugees, key populations, and people living with HIV. These policies should address stigma and discrimination from health-care workers, host societies, and the families and communities of those being discriminated against. Immigration policies that require HIV testing before entry should be implemented in the context of supportive referral to care and HIV service navigation.

Data infrastructure
A protected regional or global database for asylum seekers and refugees should be created. This database should be accessible by physicians in origin and host countries to enable the sharing of medical records and secure continuity of treatment for HIV and comorbidities.

Intervention research
The HIV care continuum among HIV displaced populations should ensure the generation of reliable and timely data.

Identifying HIV infection and implementing action to prevent transmission among migrants who are pregnant should be a priority in mobile populations, using intercultural perspectives that address social, cultural, and gender factors.[91] PrEP, PEP, and condoms should also be accessible to adolescents. PEP needs to be considered for children who have been potentially exposed to HIV or abused. Access to voluntary counselling and testing should be linked to services that provide PrEP, PEP, condoms, and contraception for refugees and asylum seekers to promote their availability and usefulness, which are unknown to many people.[105]

Patients' concerns for transport and access to clinics should also be addressed, including road conditions,

transport safety, and water and food safety and availability, to have a holistic view of refugees and not just an HIV-focused one.[82,87]

Resources for proper management of advanced disease

All people living with HIV without stable ART should be assessed for advanced HIV disease using rapid CD4 cell count or WHO staging, ART triage, and the setup of multidisciplinary mobile teams for ART provision that are equipped with point-of-care molecular tests and emergency HIV care.[80,89] This assessment should include systematic screening for tuberculosis, cryptococcosis, and histoplasmosis in areas where this infection is endemic and the provision of the necessary prophylaxis and treatments. An all-encompassing and integrated strategy for health-care provision in extended emergency scenarios is also crucial.[104]

Adequate training of health-care personnel

Training health professionals can ensure efficient communication, overcome language barriers with the support of didactic resources, and facilitate care. Expanding psychosocial assistance is very important, considering that other risks, such as trauma, violence, substance use, and precarious living and working conditions, among others, can accompany HIV/AIDS, syphilis, and STIs.[90] Finally, providing health professionals with a basic understanding of immigration policies and resources can foster trust with patients who are undocumented or seeking asylum and can support the referral to appropriate legal assistance for them to access needed health-care services and immigration counselling.[106]

Conclusion

Globally, fulfilling refugee status for thousands of people and providing them with equitable access to health care while living with HIV is challenging. In many regions and countries, data to document, monitor, and evaluate HIV prevention, diagnosis, and treatment responses among refugees and asylum seekers are poor. However, the evidence is clear on the many challenges, barriers, and problems that these populations face in accessing HIV care. At the same time, an innovative, flexible, and multidimensional body of proposed solutions could be adapted to different realities to support these displaced populations (panel 2).

More comprehensive evidence and urgent capacity building for enhanced interagency and international collaboration are needed. Public health agencies, UN bodies, and philanthropic donors bear responsibility to help to overcome the multiple knowledge gaps and propose efficient approaches to reduce the effect of HIV in this population. The UNAIDS and internationally recognised epidemiological agencies such as the US Centers for Disease Control and Prevention and the European Centre for Disease Prevention and Control should join forces to establish specific definitions and methods to identify and measure this effect. Simultaneously, major donors supporting the global HIV response, including the Global Fund, the US President's Emergency Plan for AIDS Relief, the Bill & Melinda Gates Foundation, and Unitaid, among others, must collaborate and share knowledge to create and support bold policies based on local data. The leveraging of specific strengths and resources can help to reduce HIV disparities among migrants worldwide.

The lives of millions of refugees and asylum seekers living with HIV depend on the capacity for structured, systematic, long-term, and comprehensive cooperation and response offered to them in countries of transit and destination. Providing care for people with HIV today is about caring for the health of societies, reducing avoidable costs to health systems, and ensuring the real and effective implementation of leaving no one behind.

Search strategy and selection criteria

PubMed, Scopus, World of Science, Lilacs, and Google Scholar were searched from database inception to Aug 28, 2024. The search terms used were: ("HIV" [MeSH terms] OR "human immunodeficiency virus" OR "AIDS") AND (transient* OR refugee* OR immigrant* OR migrant* OR "forcibly displaced people") AND ("HIV testing" [MeSH terms]) OR ("HIV infections/prevention and control" [MeSH terms] OR diagnos* OR "viral suppression" OR "antiretroviral treatment" OR "antiretroviral therapy") AND ("migrant care" OR "healthcare in forced migration" OR "health services accessibility" [MeSH terms] OR "acute care" OR "emergency care" OR "early intervention" OR "rapid diagnosis" OR "immediate treatment"). Articles were included if they had a full text available in English, Portuguese, or Spanish; were peer-reviewed primary or secondary research articles; and discussed at least one phase of the HIV care continuum for migrants, particularly emphasising the acute phase. Articles were excluded if they were commentaries, opinion pieces, preprints, or if they primarily addressed regular migration. After 195 papers were initially found, 40 were eliminated for being duplicates, 22 were chosen based on the inclusion and exclusion criteria, and 16 were chosen for review.

Contributors

CPC contributed to the formal analysis, methodology, supervision, validation, and visualisation. All authors contributed to the conceptualisation, data curation, investigation, writing of the original draft, review, and editing.

Declaration of interests

CPC and OS report unpaid leadership or fiduciary roles in the International AIDS Society Governing Council. MP reports payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing, or educational funds from GSK, ViiV Healthcare, Pfizer, Gilead, MSD, and Janssen and a leadership or fiduciary role as a National Infectious Diseases Consultant for Poland. WCWW reports unpaid leadership or fiduciary roles in the AIDS Council Hong Kong and the AIDS Trust Fund Hong Kong. All other authors declare no competing interests.

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