

Addressing viral hepatitis among Europe's migrant and refugee population: lessons learnt and the way forward

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The Viral Hepatitis Prevention Board (VHPB) organized a meeting to try to answer the pressing question of managing viral hepatitis in migrant and refugee populations in Europe. The aim was:

- to determine what information was available on viral hepatitis in migrants and refugees, highlighting areas of concern and public health threats;
- how to enhance access to health care in migrant and refugee populations;
- to identify the benefits of and challenges to implementing guidelines for testing, treatment and vaccination of migrants;
- to explore potential collaboration between different stakeholders to enhance prevention and control;
- to draw lessons from projects and initiatives for these populations across Europe;
- to determine progress towards WHO's elimination goals for 2030; and
- to review achievements, describe challenges and propose ways forward.

Terminology¹

The terms “refugee” and “migrant” are often used interchangeably (and will be so in this report) but there is a legal difference. A **refugee** is, legally, a person who has fled their own country because they are at risk of serious human rights violations and persecution there; they have a right to international protection. An **asylum seeker** is a person who has left their country and is seeking protection in another country from persecution and serious human rights violations, but who has not yet been legally recognized as a refugee and is waiting to receive a decision on their asylum claim. Seeking asylum is a human right. The term **migrant** has no internationally-accepted legal definition, but is generally understood to refer to people staying outside their country of origin (“birth country”), who are neither asylum seekers nor refugees. They may be qualified as “economic”, “undocumented”, first-generation and second-generation, or in different ways.

During the meeting, as in the literature, there were many references to marginalized, vulnerable, excluded, at-risk or high-risk populations, without any definition of the various categories.

Who acts to support migrant health?

The meeting focused on two groups deeply involved in trying to improve the health of migrants: intergovernmental organizations and nongovernmental organizations that work internationally. Entities in the two groups follow different approaches: the former top down and the latter bottom up. Both highlighted similar challenges, including growing demand and need for health care, persistent constraints on government funding, increasing politicization of the issue, and frustration among nongovernmental organizations at being expected to fill the gaps and take on work often seen as charitable, as the reach of governments into this area falls short.

Both groups are doing the best they can with limited resources, both financial and human, and within the limits of their different mandates: Member States in the case of intergovernmental organizations and the donors who support the nongovernmental organizations. Intergovernmental organizations can devise, adopt and recommend strategies and policies but recommendations are not requirements; resolutions are not legally binding. The lack of homogeneity of migrant and refugee populations means a greater drive to act locally and respond to the cultural and social needs of individual communities. Civil society does indeed respond strongly, where it can and within its remit, but nongovernmental organizations, even if they act with partners across borders, limit their focus to more local than broadly national levels. Some of the main international organizations working with migrants, most of whom were represented at the meeting, are listed in Box 1.

Box 1. Intergovernmental and international organizations working with refugees and migrants participating in the meeting

Intergovernmental	European Centre for Disease Prevention and Control (ECDC, Solna, Sweden)
	European Union/European Commission (Brussels, Belgium)
	International Centre for Migration Policy Development (ICMPD, Vienna, Austria)
	International Organization for Migration (IOM, Geneva)
	United Nations High Commissioner for Refugees (Geneva, Switzerland)
	World Health Organization (WHO HQ, Geneva, Switzerland)
	World Health Organization Regional Office for Europe (WHO EUR, Copenhagen, Denmark)
International	Centers for Disease Control and Prevention (CDC, Atlanta, Georgia, USA)
	Correlation – European Harm Reduction Network (Amsterdam, The Netherlands)
	EuroHealthNet (Brussels, Belgium)
	European Association for the Study of the Liver (EASL, Geneva, Switzerland)
	European Coalition for Migrants and Refugees (Brussels, Belgium)
	European Liver Patients’ Association (ELPA, Brussels, Belgium)
	European Coalition of Migrants and Refugees (Vienna, Austria)
	Médecins du Monde (Saint-Denis, France)
	Médecins sans Frontières (Paris, France)
	Polaris Observatory, Center for Disease Analysis, (Denver, Colorado, USA)

The health of migrants has been on the international health agenda for some time. In 2008 the World Health Assembly adopted resolution WHA61.17 calling for the promotion of migrant-sensitive health policies and much greater action and in 2023 the Seventy-sixth World Health Assembly extended the WHO global action plan on promoting the health of refugees and migrants to 2030. In 2018 the United Nations General Assembly endorsed the Global Compact for Safe, Orderly and Regular Migration, a non-legally-binding agreement for better managing migration at the local, national, regional and international levels whose objectives include provision of access to health care services and ensuring that migrants have adequate documentation.

It became evident that the ground between local and intergovernmental or international groups is not well covered, with no coordination of programmes, projects and activities and few, if any, links.

Several speakers highlighted the lack of centralized leadership; furthermore, there is no structured approach. The consequence is a multiplicity of individual or local actions operating in a vacuum. Concerned parties in different countries or even different parts of the same country are unaware of the activities of others. There is no platform for exchange of information or for documentation of actions – one possible proposed model being the Platform for International Cooperation on Undocumented Migrants (PICUM), an umbrella organization for undocumented migrants and social justice in Brussels.

One speaker pleaded for “a new political stance, more to do with viral hepatitis than migrants” but it was noted that migrants’ lack of knowledge about the consequences of viral hepatitis infection pushes it lower on their list of priorities than the basic needs of survival, coping with trauma, linguistic and cultural barriers, discrimination and prejudice besides access to social and health services in their receiving countries. Furthermore, a viral hepatitis infection often occurs without any initial symptoms, further reducing the perceived need for testing. For viral hepatitis, that means sustained efforts and sustainable support, not only to raise awareness about the infections and their consequences but also to put services and linkage to health care in place.

The European situation

Europe was described as a land of migrants, whose contributions to their host countries have been many, as well as a land of forgotten people with health needs and challenges who are being told they are not welcome. Migration is increasingly becoming a highly politicized issue, with rightward political shifts evident in many countries. Politically and practically, health ministries are not necessarily the first to have to cope with and respond to new arrivals; others such as the interior and justice ministries face the immediate problem, and liaison with the health sector is not a given.

The numbers of migrants are increasing (already 10-12% of the population of several countries), arriving by numerous routes (air, sea and land) and for multiple reasons: persecution, extreme poverty, emergencies, violence, civil conflict, war and natural disasters – circumstances that can arise singly or in combination. Others leave their birth countries to seek education or work or to join relatives abroad. The source countries are mostly in Africa, Asia, central America and eastern Europe (swollen by the efflux from Ukraine). In the first three months of 2024 some 43,000 people, mostly men, arrived by sea in Italy, Greece, Spain (nearly 16,000), Cyprus and Malta.²

Many countries from which migrants depart have less favourable health situations than the host countries, with higher prevalence rates (6.5% for hepatitis B markers in sub-Saharan Africa) than the receiving countries, threatening the import of diseases but not always so. The risk factors for viral hepatitis are often the same as those that lead to emigration (such as poverty, conflict and breakdown of social structures). For hepatitis B there is the additional risk of coinfection, with HCV, HDV and HIV. Rates of diagnosis and linkage to care are low in countries where the diseases are endemic. Guidelines for clinical management and the evidence base for treatment of viral hepatitis are not based on trials in low- and middle-income countries (although WHO is reviewing guidance for best practices for clinical trials to address such issues³).

Throughout the EU/EEA countries the proportion of migrants in the total population was estimated to be 8% in 2022 (5% from non-EU countries and 3% from another EU country). The proportion is rising and in some high-income countries (such as Italy, Spain and the UK) was put at 8–15%. Data from 2016 suggest that migrants and refugees accounted for 25% of the burden of hepatitis B and 14% of that of hepatitis C. In the UK more than 95% of the burden of newly-diagnosed chronic HBV infection is in migrants who were infected in their home countries either at birth or in early childhood. Because

of the great diversity of the populations of migrants and refugees it is difficult to ascertain the prevalence of chronic hepatitis B and C; in Europe, rates of anywhere between 1% and 32% for hepatitis B and from 0% to 17% for hepatitis C were quoted. The seroprevalence rate of 6.8% in the Asian migrant population is similar to that reported for Chinese migrants as a whole in Europe.

Countries in Europe are not on track to meet WHO’s goals for eliminating viral hepatitis by 2030 and most are not approaching the intermediate goals set for 2025. The need to include refugees and migrants in interventions to achieve the elimination goals was underlined.

Hepatitis B – described as “a neglected tropical disease” by one speaker from a high-income country with a high rate of immigration – and hepatitis C do not monopolize the epidemiological situation for viral hepatitis. Hepatitis D cannot be ignored. Outbreaks of hepatitis A are increasingly problematic, whether between men who have sex with men or through contaminated food and water (as the German experience reported at the meeting showed – [see below](#)).

European responses

In 2022, the WHO Regional Office for Europe reviewed existing national policies and guidelines in the 53 Member States in the European Region for their delivery of services for tuberculosis, HIV and viral hepatitis to refugees and migrants.⁴ It highlighted great variation between countries in the existence, availability and implementation of such instruments, overall finding only 15 primary documents relating to migrant health in the 53 countries. In October 2023, WHO Regional Committee for Europe adopted an [action plan on refugee and migrant health in the WHO European Region 2023–2030](#). The pillars of the plan include universal health coverage, risk-reduction policies, social inclusion, strengthening health governance and policy-making, and partnerships.⁵ The Regional Office works with three other WHO regional offices across the world to implement the action plan and provides technical assistance, runs advocacy and communications programmes, acts through WHO collaborating centres on research on health and migration, and continues to integrate activities on tuberculosis, HIV and viral hepatitis. Other activities include the provision of technical guidance such as the collection and integration of migrant data into national health information systems.⁶

Although not specifically designed for Europe, the International Organization for Migration’s electronic Personal Health Record is designed to ensure that migrant health assessment records are available in both transit and destination countries, while also strengthening national and cross-border disease surveillance and response.⁷ It enables health workers to establish patients’ health status and medical requirements and offers an opportunity to document subsequent treatments, including vaccinations.

The promotion in the European Region’s Member States of policies advocated by WHO and the European Centre for Disease Prevention and Control (ECDC) requires an understanding of the macro-level barriers to implementation. Furthermore, the design of national programmes needs to take account of barriers, at the meso (community) and micro (individual) levels, for uptake by migrant populations and barriers to the adoption of policies by health care practitioners. ECDC aims to identify and target vulnerable population groups in order to reduce the societal burden created by health inequalities.⁸ It collects and publishes data for EU/EEA countries and estimates burdens of disease, models scenarios, surveys payment and reimbursement policies, tracks progress towards WHO’s intermediate goals for elimination for 2025 and collates data on migrants and routes of transmission of hepatitis viruses.

As part of the European Union's health programme, the AcToVax4NAM project on access to vaccination for newly-arrived migrants aims to develop a general conceptual framework for improving vaccination coverage in European countries.⁹ Its objective is to improve vaccine literacy and access to health systems through analysis of barriers and the design of strategies and tools such as country-specific flow charts to overcome obstacles and to strengthen networking and capacity. For eight countries the project has created a glossary of essential vaccine-related terms for medical professionals, refugee reception staff, language teachers, social workers and community leaders and others such as cultural mediators.¹⁰

The European Commission's Europe's Beating Cancer Plan¹¹ covers virus-induced cancers such as hepatocellular carcinoma (HCC). The Commission will help to ensure access to vaccination against hepatitis B and to treatments to prevent HCC associated with hepatitis C virus infection. It is also developing a European Council Recommendation on vaccine-preventable cancers to help to address cancer risks associated with hepatitis B infections;¹² its Expert Group on Public Health is leading work forward on cancer and vaccination.

An Italian study, part of the European Commission's two-year programme on Multi-country Viral Hepatitis COMMunity Screening, Vaccination, and Care "VH-COMSAVAC" ([see also below](#)), assessed the value of community-based viral hepatitis strategies among migrants in Europe, validating and testing a value-based tool.¹³ It assessed 34 real-world interventions, including 14 in Europe and the UK, at community or primary care level, to enhance screening, linkage to care or treatment for migrants in the same way as cost-effectiveness analyses and health technology assessments are judged for value. The most common barriers were language, culture and religion, and lack of medical knowledge. Hardly any included measures of impact.

Cancer RADAR, based in Amsterdam, is a multicountry project funded by WHO's International Agency for Cancer Research (IARC). It analyses data from cancer registries in Europe in terms of type and migration background (typically birth country). Data are collected from cancer registries in Europe, disparities are quantified, and the expected burden of disease predicted. The concept has been proven in the Netherlands. Next steps will be to quantify the information and to make forecasts.

In the USA, the CDC has recommended that all adults aged 18 years and older are screened at least once in their lifetime for markers of hepatitis B and C infection. It was suggested that a similar policy be considered across Europe, where some countries are already implementing this policy. A stronger recommendation from ECDC and WHO could facilitate realization of such a policy in the other countries.

National responses

Several laudable and successful local projects and programmes for viral hepatitis that have been initiated in migrant populations in different countries were described. Overall, few screening or linkage-to-care programmes are in place.

In *Belgium*, targeted "opportunistic screening" of multiethnic minorities using point-of-care screening tests for hepatitis B and a dedicated nurse and contact person led to successful linkage to care of ethnic minorities.¹⁴ The protocol of the "China on the Scheldt" project¹⁵ in three major cities was revised to use "community partnership" (opportunistic) screening and point-of-care testing (fingerprick and saliva). This change lowered the cost by almost 80% compared with the previous use of outreach. Serum testing meant that the project became sustainable and increased linkage to care. Subjects were recruited through established community-based organizations but the project relied

on people attending governmental integration and citizenship classes. A dedicated nurse assured follow-up.

A mobile vaccination team¹⁶, commissioned by the Flemish Government, operates in Flanders and aims to reach and vaccinate asylum seekers, refugees and other disadvantaged groups such as Roma and homeless people. It also provides support in instances such as outbreaks of hepatitis A in day-care centres. The approach is based on networking, building trust and adapting to the target population and differing needs. The self-organizing team comprises a physician and two to three nurses.

In *Italy*, nearly 11,000 migrants (about 80% men) arrived in the first three months of 2024.¹⁷ Epidemiological data on viral hepatitis in migrants are fragmented, owing to a lack of structured surveillance and consequent reliance on the initiatives of numerous individual research groups. Over the past decade, these have put prevalence rates at between 2% and 40% for hepatitis B and 0.8% and 20% for hepatitis C; one study reports 23% for hepatitis D. Hepatitis B vaccination is recommended free for all people in at-risk groups and all those born since 1980, but every year the surveillance system for acute viral hepatitis, SEIEVA, which covers 86% of the population, receives several reports of acute viral hepatitis (A, B, C and E) in migrants. In many cases of hepatitis A, migrants had recently made a return visit to their birth country, Morocco in two thirds of the cases. The incidence rates of hepatitis B in Italy have been decreasing, in part owing to vaccination in countries of origin or in Italy. Most cases of infection among at-risk groups, however, are still being recorded in people living in the same household as chronic carriers of hepatitis B.¹⁸ Access to vaccination against hepatitis B as well as hepatitis A is recommended for migrants. A national guideline on procedures and practices to protect the health of migrants on arrival and while hosted in reception centres has been published.¹⁹

In Campania, a model programme based on primary care centres has been created for the diagnosis and treatment of viral hepatitis infection in migrants.²⁰ With cultural and linguistic mediators to facilitate the programme and after an educational phase on routes of transmission and treatment availability, nearly 98% of participants agreed to be screened and evaluated for HBV and HCV infections; moreover, the rate of linkage to care and of start of antiviral treatment was more than 90% for both viral infections.

Spain. Numerous activities among various institutions make Catalonia a centre of excellence for innovative projects and strategies. Examples included the use of point-of-care testing, dried blood spots, different protocols, and programmes for sex workers including transgendered women, PWID and homeless people. A new digital tool to support detection of infectious diseases, including viral hepatitis, and decision-making by health professionals, IS-MiHealth, is being developed and tested in primary care centres in Catalonia.²¹ Another part of the VH-COMSAVAC project looked at screening and vaccination in Africans (mostly from Ghana). Applied in other parts of Spain as well as Greece and Italy it scales up and adapts a community-based programme by identifying migrants and refugees from countries with high viral hepatitis incidence and providing them with treatment and care or hepatitis B vaccination.²² The entire VH-COMSAVAC project has fared well with its cascade of care and is being extended to other settings in the country.

In Barcelona, HeparJoc, a visual educational tool that uses interactive materials, strategically contributes to transforming knowledge and improving accessibility to hepatitis B diagnosis in migrant communities.²³ It was used in a pilot project, HepCLink, for hepatitis C microelimination in an immigrant Pakistani population in Catalonia, which was likely to have a high prevalence of hepatitis C and low awareness of their infection status. It was implemented through a community intervention

using dried blood spots. The project was subsequently expanded to provide screening for HBV infection as well and to include more countries of origin (Romania and Senegal). Other projects include seeking HBV and HCV infection through community screening both at the Pakistani consulate in Barcelona²⁴ and of the Chinese population resident in Catalonia as well as screening and linkage to care for hepatitis D virus infection in Mongolians living in Spain.²⁵ Challenges included language barriers, lack of knowledge and building trust in the populations concerned, including migrants who inject drugs. Lessons learned indicate that community health agents need to be differentiated from peer educators and that both need regular training with the health teams in health and immigration issues.²⁶ Networking and community engagement are vital elements.

In *Germany*, as part of an integrated biobehavioural survey, the HepMig Pilot Study has been designed to understand access for migrants to health care and to determine the burden of viral hepatitis.²⁷ An outbreak of hepatitis A occurred in refugees and a caregiver in a community shelter in Kiel in 2023.²⁸ The infections were probably acquired within Germany, but a source could not be determined. The outbreak was contained through vaccination, improved hygiene and education. The experience was a wake-up call, underlining the need to build trust, to consistently implement existing HAV vaccination recommendations for people who are at increased risk of occupational exposure²⁹ and to improve protective measures among caregivers.

The invasion of *Ukraine* by the Russian Federation in 2022 provoked a massive efflux of refugees. Within two months, more than 4.5 million people had fled the country, primarily to Hungary, Poland, Romania, Slovakia and the Republic of Moldova, many travelling onwards to other European countries – by early 2024 1.14 million to Germany – with 0.96 million remaining in Poland. WHO's Regional Office for Europe noted that by mid-2023, the Russian Federation had recorded some 1.21 million such migrants, including some 34,000 asylum seekers. The Regional Office has reviewed policies and practices in the 10 countries participating in the Ukrainian Situation Regional Refugee Response Plan³⁰ as well as the Russian Federation in terms of services for refugees from Ukraine. ECDC and the European Association for the Study of the Liver (EASL) in collaboration with WHO issued a joint statement on ensuring high-quality viral hepatitis care for refugees from Ukraine, covering vaccination, testing considerations and linkage to care and treatment.³¹

In *Poland*, the influx caused a shock to the health bureaucracy which was described as having for some years become complacent about viral hepatitis. The response was huge, unprecedented and generous. In two years 1.5 million personal identification numbers were issued, entitling Ukrainians to receive social benefits and publicly-funded medical care among other rights. Testing for HBV and HCV infection was offered on a voluntary basis and treatment was initiated or continued as necessary. The costs were not disclosed. Nongovernmental organizations such as the Star of Hope Foundation help to provide patients access to diagnosis and treatment while one of the country's biggest laboratory networks offers free testing. The prevalence of HCV in Ukrainians was four times that in the Polish population. Among people being treated for HCV infection, altogether 11% of all people being treated in 2022–2023, many coinfections (HBV and HIV) were found.

A report from the UK urged greater uptake of testing and HBV vaccination in migrants (including those who are undocumented), asylum seekers and refugees, with better monitoring of vaccination history.³²

Health inequalities

One problem lies not so much in policy as in the complexity of access to health care. Pathways to health care are complex and vary with country and route of arrival of refugees and migrants who can

be housed initially in shelters (variously described as temporary, special or detention centres) for varying periods of time. Direct links to primary or specialized care are neither always guaranteed nor simple.

Mental health and harm reduction are major issues, seen not just in Ukrainian refugees but generally, especially the consequences of traumas experienced both before and during transit. Encouragingly, analysis of the policies of the 10 countries most actively responding to Ukrainian refugees shows that all are committed to providing mental health services. For people who use drugs, continuity of harm reduction and treatment services needs consideration, with an understanding of local needs and responses. Where national policies do not align with the guidelines of WHO and ECDC, WHO was called upon for support to facilitate change in viral hepatitis policies. A study is being undertaken in four cities to help to design integrated services that better meet the needs of migrants who use drugs.³³ Meanwhile, a study is drawing on experts to develop a set of actionable policy recommendations.³⁴

Equally applicable to viral hepatitis are the conclusions of an EU-funded study, RIVER-EU, on reducing inequalities in vaccine uptake generally in most ethnic, religious and cultural minorities and underserved communities in general in several countries in the European Region.³⁵ Recommendations and examples of interventions are ready for adaptation or adoption. Obstacles that were identified included difficulties in registration of migrants, the issue of whether vaccination is free or not, lack of awareness of administrative steps, legal status, lack of trust in public services, vaccine hesitancy, the underestimation of the importance of gatekeepers, and the fact that migrant populations are not homogeneous.

Innovative solutions and approaches

Several individual and general innovations were described at the meeting. They are summarized in Box 2.

Box 2. Some innovative solutions and approaches described in the meeting

<i>Location</i>	<i>Solution or approach</i>
Flanders, Belgium	Mobile vaccination teams (although active for several years, they are now focusing on asylum seeker and refugees)
EU project AcToVax4NAM	Glossary of essential vaccine-related terms for both medical professionals and others such as cultural mediators, refugee reception staff, language teachers, social workers and community leaders; developed in eight countries
Italy	A general conceptual framework for understanding how to improve vaccination coverage among newly arrived immigrants
London, UK	“Bike clinics”
Several countries	Translation of materials into the languages of migrants, from Mongolian and Chinese to Swahili Cultural adaptations and communication tools (e.g. movies and games) about viral hepatitis, social attitudes, health systems and rights Further engagement of health mediators and peer educators, who are considered essential for empowerment (language and culture) and follow-up

Catalonia, Spain	The digital IS-MiHealth tool being developed to provide targeted recommendations to health professionals for migrants in primary care centres
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Issues, challenges, opportunities and the way forward

Discussions centred on barriers and challenges, opportunities and the way forward relating to policy, prevention, testing and treatment.

Policy

A coherent approach to improving health care for migrants and indeed for prevention and control of viral hepatitis generally starts with strategy and policy; influencing policy is essential, but **barriers** exist at all levels. At the macro (national and international) level, migrant health is controversial and given a low priority. Where there are agreed recommendations and guidelines, these are disconnected from legislation and requirements. Resolutions by bodies such as the World Health Assembly are not binding; they need ratification at national level to be brought into practice. Yet that process is how international policy is adopted. Issues arise around data: the lack thereof, questions of protection, and poor sharing of administrative and health care information.

At the intermediate (meso) and national levels, a rightward shift in politics is being widely seen across Europe as elsewhere. Access to care is a constant challenge, especially for undocumented migrants. The concept of security clashes with the idea of health care for all, especially as costs of services and provision rise and funding is reduced or cut.

At the micro level, people who are marginalized face difficulties in finding a community voice, especially for such diverse and heterogeneous populations. Language, culture, religion and uncertain or even illegal status complicate matters.

Several **opportunities** were identified. The timing of the meeting was opportune. The present juncture offers a unique opportunity to harmonize or align strategies and policies on migrants' health between Member States in the WHO European Region. In some initiatives, the initial focus is on other conditions but their success enables their scope to be expanded to cover viral hepatitis. Targets for such leverage include the Europe's Beating Cancer Plan. Drivers range from health inequities, concerns about human rights as well as legal rights, louder voices of the community, and the diversity of stakeholders. Despite the economic worries about financing, it was stressed that cost-effectiveness of interventions can be demonstrated and that economic arguments, including the cost of inaction on liver diseases and transmission of hepatitis viruses, can be very persuasive (and the economic reality that migrant labour remains essential is neglected). Advocacy and education will contribute to raising awareness and tackling stigmatization. Expansion of opt-out testing programmes for all migrants could detect undiagnosed cases of HBV and HCV infection but needs careful consideration.

The **way forward** demands:

- a clear strategy with well-defined, specific aims and which enshrines provision of care with legal protection for undocumented migrants. The cascade of care offers a framework on which to build;
- as ever, good data - current limitations are recognized: blind spots, difficulties in determining numerators, inaccuracies, different sources, lack of interoperability, the reticence of migrants and refugees to complete questionnaires and even policies such as the European

Union's General Data Protection Regulation. Better means of sharing data are being explored, such as electronic health passports.* Further work is needed to engage the pharmaceutical industry in the provision of diagnostics and treatment and in data collection.

Lessons learned from the response to the COVID-19 pandemic, such as unified policy and central funding, need to be considered and applied where appropriate. For the current Ukrainian refugee situation as well as other transient migrants, the status of health care provision needs to be secured and consistent. And, of course, the overarching direction is to address root causes of migration, recognized as a big challenge.

Policies and strategies are insufficient by themselves if funding is neither planned nor secured. During the meeting the lack of funding was bemoaned, yet hardly any reports referenced the cost of illness and exclusion, cost-benefits, cost savings or cost-efficiency analyses that could be used to persuade policy-makers. Yet it was claimed the cost-effectiveness can be demonstrated. More analyses would be useful and, in a politically hostile environment, evidence of cost-effectiveness would be persuasive to both politicians and the general population. A holistic approach would bring benefits to all.

Testing

Challenges included the natural history of viral hepatitis – often silent with symptoms only manifesting later in life and needing active searching. Screening and diagnosis have limitations, from the technology and methods (HCV infection), timing and current guidelines (HBV infection) to linkage to care, timely follow-up, and the implementation of reflex testing (for HCV or HDV infection). Other issues besides policies were programmatic structures, governance, the approach to broad health care, inconsistent rules, regulations and legislation between countries, costs and resources, and the heterogeneity and diversity of migrants and refugees. The **way forward** needs strategic information such as adequate documentation of migrants and refugees and identification of the risk factors and other determinants of their health, with action to remove stigmatization and discrimination. Progress will be made with the realization that tackling viral hepatitis is a gateway to improving health.

Prevention

Keys to prevention include vaccination and harm reduction. **Barriers** to progress exist in the form of a deficit of coordination and lack of collaboration between interested parties, particularly in order to make the political case for further support and investment. Other barriers can be located at the level of entitlement (rights to vaccination, includes political and economic barriers), reachability (the ability of healthcare services to reach migrants, including issues such as language and identification), adherence/hesitancy (cultural barriers and/or issues in trust), achievement (executing and completion of vaccination, relating to the organization and flexibility of health services).

* Two weeks after the meeting, on 10 April 2024, the European Parliament adopted the Migration and Asylum Pact, which includes provisions for the transfer of information in a common health certificate [Article 50].

GCF Hub/concept	Description	Question Groups
<p>ENTITLEMENT to vaccination</p> <p>WHAT rights for vaccination to WHOM?</p>	<p>This hub concerns the regulatory planning of the vaccination offer.</p> <p>If there is NO entitlement the process CANNOT start.</p>	<p>Legal barriers/solutions</p> <ul style="list-style-type: none"> ● Is there a national vaccination plan? <ul style="list-style-type: none"> - If so, does this plan consider NAMs? - If so, which categories of NAMs are covered? - If not, are there other documents considering NAM vaccination? ● Are NAMs entitled to vaccinations? <ul style="list-style-type: none"> - What are the differences between the different categories of NAMs regarding vaccination entitlement? - Are there any differences with respect to the local population when it comes to entitlement to vaccination? <p>Economic barriers / solutions</p> <ul style="list-style-type: none"> ● Does the Health System require the full payment of vaccinations by NAMs? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs regarding payment of vaccination? ● Does the Health System require a co-payment fee for NAMs vaccinations? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs regarding vaccination co-payment fees?
<p>REACHABILITY of people to be vaccinated</p> <p>HOW (the health service gets in contact with) to WHOM (NAMs)?</p>	<p>This concept regards all strategies, including the 'proximity approach', and abilities of the health service to get in contact with NAMs</p>	<p>Organizational barriers / solutions</p> <ul style="list-style-type: none"> ● Where are NAMs staying (centres, camps, community)? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs? ● Are there any lists of NAMs who arrived in the country in the previous 12 months? Where is it possible to get this information? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs? ● Through which channels are NAMs contacted? Are NAMs contacted at an individual / collective level (e.g. reception centres)? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs? ● Is there a possibility for NAMs or NGOs working with NAMs to actively request vaccinations? <ul style="list-style-type: none"> - Are there any differences between the different categories of NAMs? ● Are health, social and police workers adequately trained regarding NAMs vaccination rights?
<p>ADHERENCE (vs. Hesitancy)</p>	<p>This concept includes strategies to ensure that NAMs respond positively to</p>	<p>Legal barriers/solutions</p> <ul style="list-style-type: none"> ● Is there a reporting obligation / risk to non-sanitary bodies (and in particular to the Police) for undocumented NAMs?

		<p>vaccination service?</p> <ul style="list-style-type: none"> ● Is adequate and culturally competent information provided about the importance and safety of vaccination to improve adherence? ● Which communication channels are used (health professionals, community leaders, law enforcement agencies, etc.)? ● Are interventions being implemented to combat fake news on vaccines? ● Are health, social and police workers adequately trained to address the cultural barriers so as to ensure an adherence to vaccination?
<p>ACHIEVEMENT Execution + completion of vaccination</p> <p>WHAT (vaccines) and WHEN for WHOM and HOW for WHAT?</p>	<p>This concept concerns the execution and the completion of vaccination and should focus on organization and flexibility of health services.</p>	<p>Organizational barriers/solutions</p> <ul style="list-style-type: none"> ● Is there an assessment of the previous vaccination status of individual NAM? How is this assessment done? ● Are vaccination services flexible in terms of organization / time? ● Do NAMs have easy physical access to vaccination services? ● Is a vaccination certificate issued? ● How are the vaccinations carried out recorded? ● Are there any differences between the different categories of NAMs in the organization of the vaccine process? <p>Cultural-linguistic barriers/solutions</p> <ul style="list-style-type: none"> ● Is informed consent understandable (simple and translated into a language known by the NAMs)? ● Are health professionals properly trained to address linguistic and cultural barriers? Is there any specific training available for professionals? ● Are cultural mediators available for the needs of the service?
<p>EVALUATION of vaccination intervention</p> <p>HOW many and WHO (vaccinated) among ALL (NAMs).</p>	<p>This concept stresses the importance of the vaccination evaluation through every step of the vaccination process. It is linked to every other hub as the dashed arrows shown in figure 4. The vaccination Evaluation needs to involve the strategies and actions of every other previous hub.</p>	<p>Organisational barriers/solutions</p> <ul style="list-style-type: none"> ● Does the Health System have an information flow dedicated to vaccinations at national level? ● Does the flow allow the extraction of data for NAMs? ● Is it possible to calculate the vaccination coverage for NAMs? <ul style="list-style-type: none"> - Is vaccination data available as a numerator of vaccination coverage? <ul style="list-style-type: none"> ● Is there a local/national database? ● How long has the data been collected? - Is the data of NAMs that entered the country in the previous 12 months available as a denominator of vaccination coverage? <ul style="list-style-type: none"> ● Is there a local/national database? ● How long has the data been collected? - Are there any differences between the different categories of NAMs

The evidence shows that no one size fits all and that in many cases it is difficult if not impossible to scale up to a national level or plan. National guidelines would be welcome. Some of the different initiatives presented have been well evaluated. Experiences need to be collated and made available through a best practices portal, and different projects should be designed to synthesize and communicate best practices.

For **the future**, policies and entitlements need to be simplified, stigmatization needs to be reduced, awareness about value of vaccination must be raised. Partnership with civil society is vital to increase trust. Approaches and services need to be coordinated and adapted to local communities, languages and culture. The use of interpreters and automated translation were just two ways to improve communication and understanding.

Treatment

Barriers exist at both the systemic and patient levels. The former concern: diagnosis (including unnecessary measures such as liver biopsy); the cost of treatment (including therapy for undocumented migrants) and inequalities in terms of entitlement, reimbursement and level of care; adherence; centralization rather than delivery of treatment at primary health care centres, as in some countries; follow-up of moving populations; low awareness of medical professionals, whether specialists or general practitioners, about the complexities of treating hepatitis B and C; the dispersion of management across different ministries; and price policy.

For many individuals, chronic hepatitis B or C is not a priority when they have low awareness of both the condition and its consequences as well as the existence of services; again, they face linguistic and cultural barriers. Other concerns focused on resources, both funding and staffing.

Guidelines for treatment and clinical management are often based on clinical trials organized in high-income countries and lack sub-Saharan input, raising questions about relevance for migrants from continental Africa.

Opportunities include the better and innovative use of data (although the General Data Protection Regulation raises issues); adoption of new price policies; the development of national guidelines or inclusion of migrants in general treatment guidelines; new thinking about how follow-up is practiced; establishing migrant-friendly doctors and community centres; creating multicultural and multilingual teams; and using community members or peers, with legal clarity about how they can operate in a medical context.

The **way forward** should include:

- more cost–benefit analyses;
- better awareness (at the political and medical levels);
- governmental recognition or acknowledgement of the entitlements owed to migrants and refugees, with clear strategies and dedicated budgets;
- possible ring-fencing of budgets with a view to ensuring sustainability of financing and programmes;
- tailored approaches to meet the needs of individual communities;
- involvement of migrants when they arrive in the recipient country (for instance, through peers);
- revision of data protection rules for different groups.

Viral hepatitis stakeholders have a role to play in convincing policy-makers that prevention and control of viral hepatitis and their treatment promote not just migrant health but all our health.

Needs and recommendations

The consequence of the broad diversity of migrant populations means that the design and delivery of services are concentrated locally, leading to fragmentation and lack of coordination. Such programmes need community engagement, but finding “champions”, health mediators and peer educators takes time to train and invest in such people. Nongovernmental organizations do valuable work partnering with local communities, such as sex workers in Catalonia. Access to health services is more challenging for undocumented migrants than for others. Poor health literacy is often seen at community level but awareness about viral hepatitis specifically is low at community, political and health professional levels.

In host countries, challenges for migrants and refugees diagnosed with chronic hepatitis B include engagement with and subsequent navigation through the health system, stigmatization following a diagnosis, and linguistic and cultural barriers. The receiving countries need: to prepare national investment cases, looking at cost-effectiveness and modelling the impact of disease; to catalyse political engagement of public health services; to improve education and public familiarity with the disease; to raise demand for testing and treatment; to reduce discrimination; and to seek and treat HCC.

Comprehensive and sustainable support is vital for dealing with viral hepatitis, which does not have a high priority among migrants and refugees who face other often-more-pressing difficulties. Several further needs and recommendations were articulated:

- build trust in people and communities
- compile evidence bases
- ensure transfer back of data and knowledge to countries of origin of migrants, accompanied by more research into the role of ethnicity
- respect cultural sensitivities and provide linguistic services
- overcome stigmatization, discrimination and vaccine hesitancy
- encourage interdepartmental cooperation at government level and link up services (from those for prisoners and sex workers to street care)
- persuade a leading intergovernmental body to coordinate projects that are in effect micro-elimination activities or create a mechanism for the dissemination of information about the numerous initiatives undertaken or in progress – such an initiative could lead to avoidance of duplication
- identify policy-makers for engagement, for instance health ministers who are member of bodies such as WHO’s Executive Board who set health agendas or member of the European Commission’s Expert Group on Public Health (currently setting the agenda on vaccination as well as cancer).



Pandora about to open her box: its opening releases all the evils of the world, but it also holds hope.

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