# The role of international organizations in the elimination of viral hepatitis in Europe Achievements, challenges and the way forward

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The Viral Hepatitis Prevention Board (VHPB) organised a two-day hybrid meeting with the following objectives:

- to provide an overview of the current viral hepatitis situation in Europe, in relation to the renewed global health-sector strategies of the World Health Organization (WHO) for 2022– 2030
- to discuss initiatives, achievements, best practices of and challenges to international organizations in the prevention and control of viral hepatitis
- to assess the needs for achieving elimination of viral hepatitis as a major public health threat by 2030 as set out in the health-sector strategies 2022–2030
- to investigate potential collaborations
- to discuss successes, good practices, issues and barriers to overcome and the way forward

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## Global and European efforts to control viral hepatitis

#### Global steps

Smallpox laid the ground for programmes to eliminate viral hepatitis. WHO's eradication of smallpox in 1980 demonstrated that a global infectious disease could be conquered through a combination of vaccination, surveillance and preventive measures. In 1974 WHO initiated the Expanded Programme on Immunization with the backing of numerous coalitions and groups and in 1984 established a standardised routine vaccination schedule. Hepatitis B vaccines were introduced into the universal immunization schedules in some countries in the 1990s, with support from groups such as the Viral Hepatitis Prevention Board (VHPB) (1991) and the recommendation of universal immunization of children by the Advisory Committee on Immunization Practices in the USA in the same year. A year later the World Health Assembly urged countries to integrate hepatitis B into national immunization programmes, and hepatitis B vaccination was introduced into the Expanded Programme on Immunization in 1994. Then, the Global Alliance for Vaccines and Immunization (GAVI), created in 1999 to improve child health in the poorest countries by extending the reach of the Expanded Programme on Immunization, kick-started the massive introduction of hepatitis B vaccine in the 2000s.

WHO introduced the first global health sector strategy for viral hepatitis in 2016, with a subsequent update to this strategy for the period 2022–2030.¹ The updated strategy set goals for 2030 to eliminate viral hepatitis as a public health threat; the strategies included triple elimination goals, targeting also sexually transmitted infections and tuberculosis. By 2021, progress² had included price reductions for hepatitis treatment, learning about the feasibility of measures from "champion" countries and identification of good practices in national responses, including the fact that national hepatitis programmes were a powerful tool for mobilizing resources and action. The number of such programmes leapt globally from only 16 in 2016 to more than 100 in 2021. Interim guidance for country validation of control of hepatitis B and C as a public health problem provides a framework with absolute rather than relative targets, thereby enabling direct comparison across countries and avoiding the need to establish baseline incidence or mortality.³

WHO has produced several major documents and recommendations on many aspects of prevention and control of viral hepatitis,<sup>4</sup> including recently guidance on simplification of care pathways and decentralization, integration and task-shifting for hepatitis C,<sup>5</sup> with emphasis on moving treatment and care out of specialized clinics and delivering services through trained non-specialist doctors and nurses at peripheral health or community-based facilities and ideally integrated with existing care services.

#### Situation in Europe

Based on available data published in 2021, it was estimated that in the 53 countries of the WHO's European Region there were some 19 000 new infections of hepatitis B a year with 43 000 deaths; for hepatitis C the numbers were 300 000 new infections with 64 000 deaths.<sup>6</sup> In 2021, 30 countries of the European Union and the European Economic Area (EU/EEA) reported 16 187 cases of newly diagnosed hepatitis B virus infection, while 14 560 cases of newly diagnosed hepatitis C were reported from 29 EU/EEA countries.<sup>7</sup> It was projected that of all the people in the Region believed to have chronic hepatitis B 19% had been diagnosed and 2% treated, with figures for chronic hepatitis C of 24% and 8%, respectively.<sup>8</sup> Many countries lack robust data for monitoring the cascade of care.

To close the gap to elimination in 2030, WHO has introduced five new strategic directions in the global health sector strategies in order to achieve greater impact globally by promoting people-centred care and integrated service delivery; these apply equally to Europe. Key shifts demand greater public awareness, greater engagement by communities and civil society, scale up of universal access to hepatitis B vaccine birth dose, broader access to testing and treatment, service delivery that is simplified, decentralized and integrated, and allocation of more resources.

WHO's Regional Office for Europe has its own regional action plan. <sup>10</sup> It recognizes the need for: behavioural and cultural insights into work towards elimination; teamwork within the United Nations system, for example with the International Organization for Migration; expanding links with prison authorities and ministries of justice; and stepping up micro-elimination initiatives. It works towards elimination goals through WHO Collaborating Centres such as the Robert Koch Institute in Berlin, the National Centre for Disease Control and Public Health in Georgia and the Centre for Evaluation of Vaccination at the University of Antwerp.

The European Technical Advisory Group (ETAGE) provides WHO with independent review and advice on operational aspects of hepatitis B control. Its Working Group on hepatitis B validates attainment of control targets at country level and provides recommendations on strengthening and sustaining control measures. ETAGE approves the Working Group's conclusions and notifies the national health ministry concerned.

#### Progress in Europe

Several countries in Western Europe have done well in preventing viral hepatitis, with some eastern countries lagging behind. By 2021, 31 countries in the WHO European Region had reached 90% coverage with three doses of hepatitis B vaccine (19 reporting 95% coverage) and 19 reported 90% coverage with birth dose vaccine. Progress has been made in preventing perinatal transmission of hepatitis B virus. To date, nine countries have been validated as reaching hepatitis B vaccination control targets<sup>a</sup> and one provisionally validated. In some countries, targets may have already been reached but a lack of available data limits validation.

Much work remains to be done to attain the 2030 goals, including diagnostic innovations and major improvements in data on all aspects of viral hepatitis, including data along the cascade of care. In the 30 EU/EEA countries the hepatitis monitoring survey of the European Centre for Disease Prevention and Control (ECDC)<sup>11</sup> to collect data to assess progress towards the hepatitis elimination targets has conducted two rounds of data collection for hepatitis B and C: in 2017–2018 and 2021. Besides looking at policy, prevention, continuum of care and people who inject drugs, the 2021 survey investigated people in prisons and the impact of COVID-19 and added sub-national data. Despite good engagement (high response rate) and collaboration, there was a dismaying lack of available data across all areas and what data there were suggested that the targets for the continuum of care were not being met and that policies and programmes were needed for testing key populations, linkage to care, treatment (including eligibility) and costs. Indicators needed reviewing. Nineteen countries reported the existence of a national plan or strategy but only 11 funded it from the national budget. COVID-19 was documented to have had widespread impacts on diverse hepatitis services, from clinic visits for routine care, testing and reassignment of human resources to the introduction of innovative new interventions. The data collection process for 2023 has begun, with further refinements including the addition of migrants to the categories being studied with questions about hepatitis D prevalence and pricing of tests and antiviral agents. Efforts also need to focus on increasing coverage of three doses

<sup>&</sup>lt;sup>a</sup> Belarus, Georgia, Italy, Kyrgyzstan, Netherlands, Republic of Moldova, Turkmenistan, United Kingdom of Great Britain and Northern Ireland, Uzbekistan.

of vaccination, improving monitoring of coverage of interventions to prevent perinatal transmission of hepatitis B virus and measuring the impact.

Progress in a range of policy areas has been monitored by a Lancet Gastroenterology & Hepatology Commission, <sup>12</sup> using an index of policy preparedness containing several different criteria. Focusing on hepatitis B and C, it identified 20 heavily-burdened countries, mostly low- or lower-middle-income countries in Asia, that accounted for more than 75% of the global burden of viral hepatitis. Subsequently in 2018 the patient-led Hep-Core study group surveyed national policy responses for hepatitis C in 25 European countries and found a lack of strategies in many as well as gaps in policy implementation. <sup>13</sup> An update by the Commission in 2023 found that globally the scores for HCV policies had improved in most of the heavily-burdened countries, including the Russian Federation.

#### Cooperation

WHO does not work alone. Other actors contribute funds and expertise: the Global Fund to Fight AIDS, Tuberculosis and Malaria, the European Commission and its several supported programmes and agents (see below), the US Centers for Disease Prevention and Control (CDC) and National Institutes of Health, as well as individual national governments and WHO Collaborating Centres. Within their mandates, the ECDC and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) cover activities in EU/EEA countries in close collaboration with WHO's Regional Office for Europe.

Partnerships and collaboration are also vital: for example, with and between United Nations' entities such as the International Organization for Migration and the International Centre for Migration, Health and Development, and with regional and national organizations such as CDC, EMCDDA, and ECDC, to name but a few: several are described in the main section below. This report does not attempt to describe all the entities that are active in the fight to prevent and control viral hepatitis but focuses on those that participated in the meeting. The existence of other groups, reflect the widespread interest in achieving the elimination and control goals by 2030 but also raises issues about competition for scarce funds.

The results of more than 40 years' work show that it is possible to reach most population groups through vaccination programmes and such programmes can successfully lower incidence rates. The results also demonstrate that interventions can efficiently target mother-to-child transmission of hepatitis B virus at the same time highlighting what can be done: control and elimination of mother-to-child transmission even in countries with historically-high endemicity; introduction of screening; increasing uptake through scale up of testing programmes; and, moreover, provision of services and people-centred care to underserved populations - given the existence of political will and the availability of resources.

## International organizations - global

Centers for Disease Control and Prevention (CDC) — Its mission is to protect the USA from health, safety and security threats, both foreign and national; its Division of Viral Hepatitis consists of three branches — epidemiology and surveillance, prevention, and laboratory — and has a Global Health Office; <sup>14</sup> it has regional and country offices and responds to requests from countries for support (for example, Georgia and Republic of Moldova); it has vigorously supported the HCV elimination programme in Georgia (where nearly 80 000 people infected with hepatitis C virus have been treated, putting the country on track to reach the 2030 goal) and is supporting the development of the strategic plan of HBV and HCV elimination in the latter. One of the lessons from the Georgian programme was the value of implementing high-quality nationwide serosurveys to estimate the burden of hepatitis B and C. Together with the Robert Koch Institute in Berlin, CDC provides technical (and financial) support in planning and conducting seroprevalence surveys to other countries in the European region. Other

lessons are the creation of centres of laboratory and clinical excellence, the value of telemedicine and the ECHO model of health care provider training to expand access to care, <sup>15</sup> integration of different registries and databases, decentralization of diagnosis and treatment and integration of diagnosis and treatment into harm-reduction services. CDC is similarly collaborating in Kyrgyzstan.

The Center for Disease Analysis (CDA) Foundation, <sup>16</sup> a not-for-profit organization, aims to provide countries and territories with data and information to create and implement successful strategies to eliminate diseases as well as innovative financing mechanisms. Its Polaris Observatory provides epidemiological data, modelling tools, training and decision analytics to support the elimination goals for hepatitis B and C globally. Its Global Procurement Fund supports expanded access to treatment. Its consistent process for collecting epidemiological data and modelling viral hepatitis has gained consensus and acceptance, even though the quality of available data varies. The Foundation has worked with more than 130 countries and regions globally and published its findings and results extensively, having supplied WHO and the Pan American Health Organization with data for their reports, and completed analyses of the economic impact of hepatitis B and transmission of hepatitis C virus in several countries in Europe. Its work demonstrates that simplified test and treat programmes can convince countries that elimination is feasible, that demonstration projects are illuminating, showing countries how to implement an elimination programme, and that elimination of hepatitis C is highly cost-effective. However, without additional interventions, such as focusing vaccination on foreign-born immigrants, hepatitis B-related morbidity and mortality are expected to increase by 2030.

The Coalition for Global Hepatitis Elimination<sup>17</sup>/International Viral Hepatitis Elimination Meeting (IVHEM)<sup>18</sup> aims to fast track the discovery of safe, effective, affordable and accessible cures to benefit all people with chronic hepatitis B and to compensate for the underfunding of HBV research compared with that for other diseases. It focuses on digital media communications and runs international working groups on virology, immunology, innovation and clinical studies to identify gaps in research and other meetings. It makes available an HCV elimination tool for national-based budget-based planning for testing and treatment.<sup>19</sup> It is developing national hepatitis profiles for 30 countries, most recently Italy.<sup>20</sup> It is also working on expanding access to HCV testing for people in prisons and on taking advantage of the lessons learned from COVID-19. On the side of a recent United Nations General Assembly session, it established the UN group of Friends to Eliminate Hepatitis.

The International Centre for Migration, Health and Development<sup>21</sup> is a Geneva-based non-profit organization applying the principle that the right to health applies to all people, including migrants, refugees, and asylum seekers, and that in protecting the health of people on the move, the health and welfare of the larger society is also promoted and protected. It works on research, training and policy advocacy, supporting governments, international and non-governmental organizations and the private sector. It addresses emerging issues around hepatitis B and C, and the barriers to vaccination.

**Liver Patients International**, <sup>22</sup> a patient-led umbrella organization, represents and advocates on behalf of people with liver disease to ensure that their voices influence the decision-making process. It organizes information and awareness campaigns and supports national organizations of patients. It focuses on access to diagnosis, linkage to care and quality of life for patients. It calls for, inter alia, greater understanding of the consequences and impact of hepatitis B, more information about local activities, better policies and prevention and removal of stigmatization. It works with several European partners in its network, such as ACHIEVE, Correlation and EASL (see below).

**UNITE**<sup>23</sup> is a non-profit network of parliamentarians working on the promotion of efficient and sustainable policies for improved global health systems across the world in line with the United Nations' Sustainable Development Goals. It focuses on human rights and equitable access to health services, supporting parliamentarians' work on preventing and controlling infectious diseases and, through champion parliamentarians, providing support to civil society organizations advocating policy reform. For viral hepatitis it collaborates with scientific and civil society organizations, helping to raise the subject up the health agenda, trying to ensure the mobilization of resources, and arranging for its members to participate in events focusing on the disease. It promotes "Let's end Hep C", a digital tool with a policy calculator that enables the impact of policies on health outcomes to be gamed.

**Viral Hepatitis Prevention Board** (VHPB)<sup>24</sup> of international experts in viral hepatitis provides a platform for the exchange and dissemination of information primarily through regular meetings to discuss technical and country-specific issues relating to the prevention and control of viral hepatitis, issuing guidance, encouraging actions and catalysing the development of recommendations. Members of the Board and observers are experts in the field of viral hepatitis, many of them also representing international organizations such as WHO, ECDC, CDC, ELPA and EASL. Although mainly focused on the European region, its mandate is not restricted to Europe and has held scientific meetings in Brazil and Viet Nam.

**World Health Organisation (WHO) Headquarters** – the Organization's work in the context of viral hepatitis centres on the triple global health sector strategies 2022–2030 and elimination goals<sup>25</sup> accompanied by the expansion of universal health coverage. Both headquarters and the Regional Office for Europe (see below) publish numerous guidance documents, manuals, recommendations, policy briefs and position papers.<sup>b</sup>

The **World Hepatitis Alliance**<sup>26</sup> comprises a global network of civil society and community organizations. It harnesses the power of people living with viral hepatitis to achieve elimination of the disease through advocacy, capacity-building and awareness raising. Its strategy for 2021–2025 includes accountability, community empowerment, strengthening systems for elimination and fostering research. It organizes global awareness days and global summit meetings (this year's theme is "I'm not waiting"). In Europe its priorities address hepatitis B, C and D. For hepatitis B the main issues are undiagnosed infections in diaspora and migrant communities as well as combating stigmatization. For hepatitis C, it targets key populations and self-testing to level up the response, pushes for implementation of peer-led services and combats stigmatization. It promotes better data, awareness, screening and access to treatment for hepatitis D.

## Organizations in the European region

ACHIEVE - Associations Collaborating on Hepatitis to Immunise and Eliminate the Viruses in Europe<sup>27</sup> is a coalition of bodies representing patients and the community, clinicians and researchers to fight against hepatitis B and C in WHO's European Region, focusing on surveillance, prevention, testing, treatment and care. Recently, it launched the second edition of its *Stories to Inspire* - a compendium

<sup>&</sup>lt;sup>b</sup> With regard to refugees and migrants, it is worth noting that in January 2023 WHO's Executive Board decided to recommend that the Seventy-sixth World Health Assembly in May 2023 extend the time frame of the WHO global action plan on promoting the health of refugees and migrants, 2019–2023 from 2023 to 2030. The proposed draft resolution urges Member States to continue to address the health needs of such people on the move and to strengthen the integration of refugee and migrant health into global, regional and national initiatives.

of good practices to fight viral hepatitis B and C from Europe and beyond - and prepared a paper on hepatitis-related cancer inequalities for the European Commission, which wants to include liver cancer prevention in a European Union registry on such inequalities. It also organizes meetings and conferences. Key messages are to bring organizations together to speak with one voice and to "break out of the viral hepatitis niche", to broaden the focus to cancer prevention, inequalities and support for vulnerable populations.

Correlation – European Harm Reduction Network, <sup>28</sup> a civil society initiative, brings together a broad range of actors in the field of drug use and harm reduction, working closely with community-led organizations, including people living with viral hepatitis, to improve access to and the quality of harm reduction and other low-threshold service for people who use drugs, other vulnerable populations and marginalized people. It works through expert groups and a Focal Points Network of 43 organizations in 34 countries in Europe. Its reports include monitoring data relating to harm reduction and fostering community knowledge. It calls for decriminalization of drug use, destigmatization, better access to health and social services, lessons to be learned from COVID-19, and for harm reduction to be seen as an essential service. The organization has noticed an increase in the number of people who inject stimulants, for whom there are limited services.

**European Association for the Study of the Liver (EASL)**, <sup>29</sup> a non-profit clinical organization, aims to promote communication between professionals in Europe, promote research concerning the liver and its disorders, improve the education of physicians and scientists about the subject, and raise public awareness of liver diseases and their management. It advises health authorities on liver diseases including viral hepatitis, provision of clinical services and the need for research funding. It issues guidelines on clinical practice (for instance, on hepatitis E virus infections) and recommendations on treatment (hepatitis B and C); a guide to hepatitis D is about to be launched. It has identified priorities for the elimination of viral hepatitis.

It convened the EASL-Lancet Liver Commission, which made 10 recommendations on health policy and for health-care providers. Inter alia, these emphasized harm reduction and community involvement as well as widespread testing for both hepatitis B and C virus infections; the creation of an observatory to ensure transparent pricing of antiviral medicines; monitoring systems for access to treatment (covering inequalities and access for special groups); simplified treatment pathways; guidelines for unrestricted access to antiviral therapy (including generics) in Europe for hepatitis C irrespective of fibrosis stage; the establishment of mechanisms for prescription of hepatitis C treatments in primary care and community services with appropriate reimbursement; and a paradigm shift to focus on the disease in its early stages. It also called for investment to scale up case-finding and screening in selected settings (such as primary care centres for people on the move and prisons) and broader community settings.

European Centre for Disease Prevention and Control (ECDC), <sup>31</sup> a European Union agency, works to collect, analyse and disseminate surveillance data, generate epidemic intelligence, provide scientific advice, conduct public health training, health communication and improve preparedness. It provides data in the form of dashboards, databases, downloadable data sets and maps. It works closely with major organizations related to communicable disease control in Europe. For viral hepatitis, it created a hepatitis B and C network with an initial focus on the roll-out of a regional surveillance system; the programme of work now includes support to countries of the EU/EEA to generate epidemiological information for action, to provide technical guidance and to monitor progress towards the viral hepatitis elimination targets. It issues annual epidemiological reports for hepatitis A, B and C as well as documents related to the monitoring data focused on prevention, linkage to care and treatment.<sup>32</sup>

**European Liver Patients' Association (ELPA)**<sup>33</sup> promotes the interests of people with liver disease; its activities range from awareness raising, promoting prevention and sharing experience of successful initiatives to cooperation with professional and political bodies in order to ensure harmonization of treatment and care to the highest standards. Through its working groups ELPA aims to create "expert patients" in specific fields of liver disease. Among the topic areas of its eight such groups are national strategies for testing and treatment, prevention, harm reduction, elimination of hepatitis B, and clinical trials. Challenges remain adult vaccination, hepatitis D, lack of data, stigmatization, decentralization and hepatocellular carcinoma, with the association having recently published a White Paper on liver cancer.<sup>34</sup> Activities include awareness raising and infection prevention.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)<sup>35</sup> provides independent scientific evidence and analysis, and contributes to EU and national policies but it does not itself formulate policy. It operates networks such as DRID which conducts seroprevalence studies, routine diagnostic tests in drug treatment services and ad hoc surveys of experts, and others working on statistical methods for population denominators and programmatic data. Its outputs include dissemination of best practices especially in prisons and in particular it launched an initiative to increase access to testing for and treatment of hepatitis C through drugs services. From focal points it has collected data on progress towards elimination among people who inject drugs, using 10 indicators; the findings indicate that generally progress was below that needed to reach goals for preventive interventions. Models of care for hepatitis C were studied in five prisons. Key issues included reinfection and the need to focus on prevalence over time.

The **European Society for Clinical Virology**, <sup>36</sup> a non-profit organization, focuses on the diagnosis and management of viral diseases, their pathogenesis, natural history and prevention and improving diagnostic methods; it seeks to promote high standards in laboratory diagnosis of viral infections through quality assurance and education. It aims to implement projects on viral hepatitis diagnostics in Africa.

**WHO Regional Office for Europe** – in 2022, the Regional Committee for Europe adopted a regional action plan for the health sector strategy for viral hepatitis 2022–2030.<sup>37</sup> There are also three WHO Collaborating Centres concerned with viral hepatitis in the Region:

- the WHO Collaborating Centre for Viral Hepatitis and HIV at the Robert Koch Institute in Germany;
- the WHO Collaborating Centre for Viral Hepatitis Elimination in the National Center for Disease Control and Public Health in Georgia, and
- the Centre for Evaluation of Vaccination at the University of Antwerp, Belgium.

#### EU programmes and actions: opportunities

There was no formal presentation from the European Union or the European Commission but several programmes or projects related to viral hepatitis were described, several with specific reference to the EU4Health programme. The number of staff working on viral hepatitis in DG Santé was reported to be limited.

The EU4Health Programme<sup>38</sup> itself represents a seven-fold increase in funding for communicable diseases, intended to send a clear message that the EU prioritises public health. It emerged as a response to the fragility of national health systems that was highlighted by the COVID-19 pandemic. Among its four general objectives are ensuring that medicinal products are accessible, affordable and available and strengthening health systems. Specific objectives include reinforcing health data and the digital transformation of health care, enhanced access to such care, and integration among national health systems. Improved national surveillance systems through the programme will improve systems

that could cover viral hepatitis. It behoves Member States to ensure that they consider viral hepatitis within the Programme.

The BOOST Project,<sup>39</sup> a consortium of community-based networks and partners and funded by the EU4Health programme, supports the elimination of hepatitis C, ending the AIDS epidemic and other communicable diseases using people-centred and integrated harm-reduction best practices. Its four main areas are: Inform (practice and quality of services); Improve (raising knowledge and expertise as well as enhancing use of digital tools); Support (developing action plans); and Connect (strengthening and consolidating networks).

Project CORE (Community Response to End Inequalities)<sup>40</sup> is a three-year project in 16 countries that is co-funded by the EU4Health programme and led by AIDS Action Europe. It aims to promote, strengthen and integrate community responses, working with those 'left behind' in national responses, and to provide prevention, testing, counselling and linkage to and retention in care with respect to HIV/AIDS, tuberculosis and viral hepatitis. It provides support to community-based organizations implementing new services or expanding existing ones. The project has two branches: prevention and quality of life. It works with several work-package leaders who are responsible for the coordination and implementation of programmes by their partners. It will strengthen capacity-building and linkage to care, improve communication between service providers and communities, and focus on removing policy, legal and structural barriers in the participating countries.

RISE-Vac, <sup>41</sup> a consortium of nine diverse partners in six countries from England to Republic of Moldova, aims to improve the health of prison populations in Europe by promoting vaccine literacy, enhancing the vaccine offer and increasing vaccine uptake, and creating models of care. It takes a lifecourse vaccination approach, including offering hepatitis B and COVID-19 vaccines (the latter to all prisoners), and will monitor implementation. It comprises seven work packages, including the creation and implementation of a communication, dissemination and outreach strategy, promoting evidence-based policies for prison health systems, and developing and piloting models of delivery of vaccination services in prison settings. The approach represents a shift from emergency response to routine practice.

VH-COMSAVAC (Viral Hepatitis COMmunity Screening, Vaccination and Care), <sup>42</sup> a multi-country programme, funded by the European Commission through the EU4Health programme, forms part of the research activities of the Barcelona Institute for Global Health (ISGlobal). Its objective is to scale up and adapt community-based testing and vaccination models of prevention and care for immigrant and refugee populations with documented high prevalence and incidence rates of hepatitis B and C. It will use simplified diagnostic tools and person-centred referral processes to reduce mortality associated with liver cancer. It uses Research Electronic Data Capture (REDCap) software for data management and is developing a value-based assessment tool, assessing cost-effectiveness and value of community-based care for patients with hepatitis B. The two-year project will be carried out in Greece, Italy and Spain.

The **Joint action on cancer and other NCDs prevention – action on health determinants**<sup>43</sup> aims to implement the general objective of the EU4Health Programme to improve and foster health. It explicitly includes viral hepatitis, but no proposals had been made. EU Member States can adapt the programme and therefore should be encouraged to advance viral hepatitis.

In May 2022, EASL, the WHO Regional Office for Europe and ECDC issued a joint statement on ensuring high-quality care for viral hepatitis in refugees from Ukraine.<sup>44</sup> An EU **work programme** sees funds

committed to refugees from Ukraine for preventing communicable diseases. Participants in the meeting were urged to consider using the opportunity to ensure that viral hepatitis is not forgotten.

A new **European Commission Expert Group on Public Health**<sup>45</sup> for EU/EEA countries has been established to advise on major public health challenges such as viral hepatitis as well as HIV and tuberculosis. It will also advise on challenges to vaccination. It is at the beginning of its agenda-setting process – so there remains an opportunity for health ministries to stress inclusion of viral hepatitis.

The European Council's recommendation for vaccine-preventable cancers – Europe's Beating Cancer Plan<sup>46</sup> – aims to tackle the entire disease pathway: from prevention and early detection to diagnosis and treatment and improving quality of life for cancer patients and survivors. It constitutes another plan that opens possibilities and opportunities from promoting the inclusion of work on viral hepatitis.

### Main barriers to achieving elimination goals identified

In its extensive report the EASL-*Lancet* Liver Commission detailed key barriers to implementation and suggested recommendations for implementing solutions.<sup>47</sup> Participants and presenters at the present meeting also identified numerous barriers, and they met in breakout groups to discuss the six most commonly identified ones in the discussions, each group considering two topics.

#### Prioritization by policy-makers of other diseases

With regard to policy-makers' process of assigning priorities, discussants made the following observations and recommendations:

- broaden the branding of viral hepatitis to include liver cancer and other conditions consequent on infection with hepatitis viruses, in order to try to create stronger political commitment
- every diagnosis of viral hepatitis could become an opportunity to prevent cancer
- simplify: emphasize self-testing with rapid tests, combined with political messaging. Also, simplify guidelines so that every general practitioner and nurse should be able to treat early stages of hepatitis, and refer difficult cases to specialist centres.

#### Stigmatization and awareness

- these two features form a cyclical process. Hepatitis C has been stigmatized to such an extent
  that former patients prefer to keep silent or are unwilling to speak out. There is a need for
  well-known patients (especially recipients of liver transplants) to become champions as well
  as for raising awareness, otherwise there would be no self-testing;
- change messaging about screening and the disease, to resemble warnings against smoking.

#### Data availability/underfunding and understaffing

Discussants considered what were the needs, who can contribute and further outstanding issues:

#### What are the needs?

- Many data exist, but high quality data is often missing the questions are which are most important and where to invest most efforts (a decision for countries): risk groups, burden of disease, mortality or prevalence data by age and sex? The goal is to outline the health needs for policy-makers.
- Other needs include: standardization, linking of databases and interoperability, registries (EU countries calling for support), good empirical data for modelling, simple models and continued technical support.

Who can contribute?

- The following sectors and bodies were suggested: industry (for example, for registries); UNITE
  (for promoting better data collection and highlighting gaps); clinical sources (for instance,
  through collaboration with EASL); and communities (which have a critical role for involvement
  in sharing data and views).
- community organizations, which have a role to play in helping to validate data (as in HIV) and in reaching the communities where the data lie.

#### Further outstanding issues:

- Are there too many global players? Is that an issue? The discussion group concluded that much work goes on behind the scenes in and between international organizations to avoid duplication (especially WHO's Regional Office for Europe/ECDC/Correlation).
- Is the lack of screening guidelines a barrier? Several already exist. A key issue is that many may need to be tailored to local situations and that depends on local data being available.

#### Regional and national commitment

The discussion group made the following observations and recommendations:

- without political will nothing will happen
- cure of hepatitis C might imply that prevention is no longer so important
- funding and human resources are vital
- resources for treatment exist, but less so for prevention and case finding; prevention needs to be given more attention
- national governments show no real commitment to public health
- elimination goals are currently seen as recommendations and not a "must".

#### Solutions:

- organizations such as WHO's Regional Office for Europe and ECDC who have a mandate to work with governments should try to persuade governments to make greater commitments
- governments should dedicate staff and funds for viral hepatitis in health ministries, be held accountable and made responsible (for example, a single point of contact for viral hepatitis)
- messages to governments should be made with a single voice on a single theme, with better bottom-up examples, in order to convey powerfully the arguments and persuade politicians of the interest in acting even in low prevalence countries
- greater push for routine screening of patients on entry into hospital
- a representative working group could be formed to draft a policy on commitment.

#### Awareness of the health of society

The discussion group strongly agreed that society needs an educated community with good health literacy:

• health education should start at an early age in schools as a means of addressing stigmatization, discrimination and support for long-term commitment.

#### How?

- change curricula in schools and for medical and health care students (also in continuous education), with more attention devoted to prevention and public health
- demonstrate what positive impacts well-designed interventions and actions can have
- provide better access to knowledge and information for lay people (for instance through the European Education Area portal, 48 which aims to remove barriers to learning and improve access to high-quality education for all).

Who?

• governments, teachers' associations and other relevant bodies, churches and other religious institutions, universities, and professional organizations.

#### People on the move

Considering migrants, displaced people, refugees, more generally people on the move, they offered the following proposals:

#### Possible solutions

- many people on the move are hosted in countries with limited resources; this situation can be challenging
- non-discriminatory policies for screening and treatment (a subgroup approach often does not work) need to be developed
- greater provision of human resources and funding
- people on the move often tend not to settle, providing challenges to follow-up.

#### Who?

National/international bodies and governments.

#### Cross-cutting messages

In conclusion, the main themes to emerge were as follows:

- greater efforts are needed to reach the 2030 goals and interim targets, with simplification of approaches
- continued advocacy with emphasis on one voice and one message aiming to sustain political will, raise awareness in the general populations and health professionals, and overcome inequalities
- broadening the perception of viral hepatitis to not only a cancer but a vaccine-preventable cancer as well as highlighting the essential role of harm reduction, the need to focus on inequalities, marginalized populations such as people in the prison system and the potential of innovative approaches (micro-elimination and telemedicine, for instance)
- the shift from relative to absolute targets consideration needs to be given to communications strategies about the need to meet all goals and targets
- the continuing need for good-quality data collection systems and better data on denominator needs include robust interconnected digital systems in particular; at the same time there needs to be a framework of monitoring, surveillance, national policies and plans
- the demands for data need to be simplified
- concerns that not all means for prevention of mother-to-child transmission of hepatitis B virus
  are promoted, as with the birth dose of hepatitis B vaccine in countries where the policy is to
  screen first and give a birth dose to exposed newborns; international funding agencies should
  be urged to align external funding policies with birth-dose vaccination in order to boost uptake
- give more attention to addressing the impact of migration ("people on the move") on the burden of viral hepatitis services, which are recovering from the impact of COVID-19 (from vaccination to access to testing and community engagement)
- the pressing need to find funding, with many organizations operating on shoestring budgets and economic crises across countries (all of which can limit staff numbers) and competing priorities for funding – even though guidance, technical and in some cases financial support are available
- purchasing vaccines and medicines together could be an economic lesson learnt
- for more sustainable work at national level stronger involvement of national institutions is crucial
- retention of patients in care and adherence to treatment.

The meeting shone a light on the extent and variety of international organizations working towards the elimination of viral hepatitis in Europe. In addition to progress being made towards the agreed milestones towards that goal, most of these bodies have shown flexibility and resilience in responding to the impact of the COVID-19 pandemic. Challenges remain, not least the economic constraints that most countries are facing. The commitment to meeting elimination and other related Sustainable Development Goals depends on resources, but their availability is driven by political will, which needs to be maintained. Underlying that is the desire for healthy societies, realization of which aim depends in turn on education, health literacy and awareness, especially that prevention of viral hepatitis is part of the fight against cancer. National governments need also to focus more attention on migrants and refugees, people on the move, among the vulnerable populations being targeted for prevention, control and treatment. The way forward lies with commitment as well as resources, building on the dedication, skills and imaginative responses illustrated by the cross-section of organizations and their staff represented at the meeting.

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<sup>&</sup>lt;sup>3</sup> WHO. Interim guidance for country validation of viral hepatitis elimination. Geneva: World Health Organization; 2021 (www.who.int/publications/i/item/9789240028395, accessed 8 April 2023).

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