

Chapter 6: WHO European Region

The 53 Member States of the World Health Organization (WHO) European Region together have a population of 899 million, with the Russian Federation accounting for approximately one sixth of this total.¹ The European Region, which includes 45 high-income and upper-middle-income countries,² is characterized by increasing life expectancy and a health profile shaped more by noncommunicable than by communicable diseases. At the same time, the widely varying social, political and economic circumstances of different countries translate into markedly different health needs and health outcomes at the national and subnational levels.

While the European Region's under-five mortality rate of 7.9 per 1000 live births is the lowest in the world, some countries in the Region have considerably higher and lower rates.³ Average life expectancy for the Region reached 76 years in 2010, with a 13-year difference between the lowest and highest national averages (69 and 82 years, respectively).³ By 2050, more than one fourth of the Region's population will be aged 65 years or older.³ This trend is one factor driving the increase in noncommunicable disease rates in the European Region, but lifestyle factors are also thought to play a major role in shaping the health of the population. The European Region has the highest prevalence of tobacco use among all WHO regions, as well as the highest alcohol consumption.³

Noncommunicable diseases account for some 80% of deaths in the European Region, with circulatory diseases causing almost half of all mortality.³ In 28 countries of the European Region, cancer is the leading cause of premature death. Among men, the forms of cancer resulting in the highest mortality are lung, colon, stomach and prostate cancer; among women, they are breast, lung, stomach, colon, cervical and ovarian cancer.³

Communicable diseases that contribute notably to the disease burden include viral hepatitis, tuberculosis, HIV infection and sexually transmitted infections.³ Tuberculosis causes more than 40% of all deaths from communicable diseases,³ and some countries in central and eastern Europe have an especially high burden of multidrug-resistant tuberculosis.⁴ Although new HIV infections are decreasing globally, the eastern part of the European Region has the fastest-growing HIV epidemic in the world,⁴ a trend driven largely by injecting drug use.⁵

Viral hepatitis in the WHO European Region

The seroprevalence and incidence of hepatitis A vary geographically, increasing from west (<50% exposed by the age of 30 years) to east (≥50% exposed by the age of 30 years).^a Although the total number of cases is decreasing, hepatitis A infection is still an important public health threat in the Region, with a potential for outbreaks.^b

Hepatitis E is responsible for fewer than 5% of cases of acute hepatitis in western Europe and, in most studies, antibodies against hepatitis E have been found in a small proportion (0%–10%) of healthy persons; for other parts of Europe, the prevalence is higher, reaching up to 27.8%.^c

In the WHO European Region, over 13 million adults are living with hepatitis B and 15 million with hepatitis C.^d This data suggest that almost one in fifty adults is infected with hepatitis B and a similar proportion of people have chronic hepatitis C. Most of those infected in the WHO European Region live in eastern European and central Asian countries: 66% of those with hepatitis B and 64% of those with hepatitis C.^d

People who inject drugs are the most affected (15% for hepatitis B and 44% for hepatitis C), but infection is also common in other vulnerable population groups such as men who have sex with men (8.7% and 4.2%, respectively), and sex workers (3.3% and 11%, respectively).^d By comparison, rates in the general population of countries in the European Region outside the European Union and European Free Trade Association are 3.8% for hepatitis B and 2.3 % for hepatitis C.^d

¹ *World population prospects: the 2010 revision*. New York, United Nations, Department of Economic and Social Affairs, Population Division, 2011.

² The World Bank. *Country and lending groups* [web site]. Available at: http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Europe_and_Central_Asia (accessed on 11 May 2013).

³ *The European health report 2012: charting the way to well-being*. Geneva, World Health Organization Regional Office for Europe, 2013.

⁴ *Global tuberculosis report 2012*. Geneva, World Health Organization, 2012. Available at: http://www.who.int/tb/publications/global_report/gtbr12_main.pdf (accessed on 11 May 2013).

⁵ UNAIDS. *Regional fact sheet 2012: eastern Europe and central Asia*. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/2012_FS_regional_ecca_en.pdf (accessed on 11 May 2013).

^a Jacobsen K. *The global prevalence of hepatitis A virus infection and susceptibility: a systematic review*. Geneva, Department of Immunization, Vaccines and Biologicals, World Health Organization, 2010 [WHO/IVB 10.01].

^b Payne L. Hepatitis A in the European Union: responding to challenges related to new epidemiological patterns. *Eurosurveillance*, 2009, 14:3.

^c Aggarwal R. *The global prevalence of hepatitis E virus infection and susceptibility: a systematic review*. Geneva, World Health Organization, 2010.

^d Hope VD, Eramova I, Capurro D, Donoghoe MC. Prevalence and estimation of hepatitis B and C infections in the WHO European Region: a review of data focusing on the countries outside the European Union and the European Free Trade Association. *Epidemiology and Infection*, 2013, 29:1–17.

Responses to the WHO/Alliance survey were received from 44 of the 53 Member States in the European Region (83.0%).

Box 1. Responses to the 2012 Global Hepatitis Survey: WHO European Region

Member States that submitted surveys:

- Albania
- Andorra
- Armenia
- Austria
- Azerbaijan
- Belarus
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Georgia
- Germany
- Hungary
- Ireland
- Israel
- Italy
- Kyrgyzstan
- Latvia
- Lithuania
- Luxembourg
- Malta
- Montenegro
- Netherlands
- Poland
- Republic of Moldova
- Russian Federation
- San Marino
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Tajikistan
- The former Yugoslav Republic of Macedonia
- Turkey
- Ukraine
- United Kingdom of Great Britain and Northern Ireland
- Uzbekistan

Member States that did not submit surveys:

- Bosnia and Herzegovina
- Greece
- Iceland
- Kazakhstan
- Monaco
- Norway
- Portugal
- Romania
- Turkmenistan

National coordination

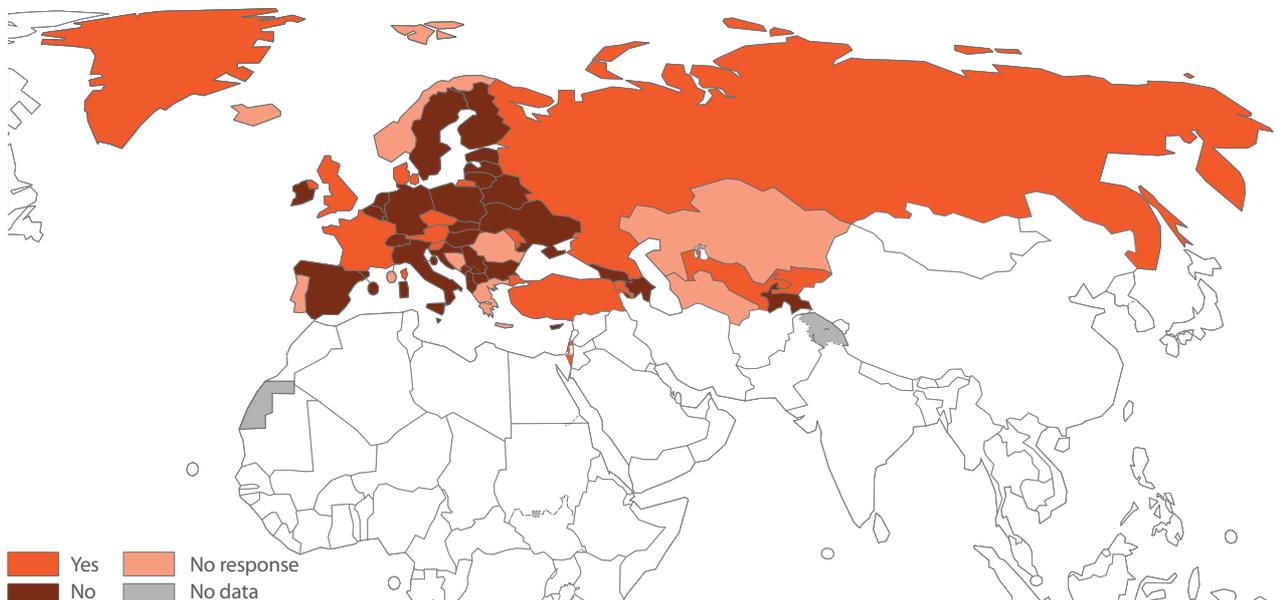
Thirteen responding Member States (29.5%) reported the existence of a written national strategy or plan that focuses exclusively or primarily on the prevention and control of viral hepatitis (Figure 1). Four of the 13 Member States with a strategy or plan (the Czech Republic, France, Kyrgyzstan and the Republic of Moldova) reported that it focuses exclusively on viral hepatitis, and seven (Armenia, Austria, Denmark, Israel, Russian Federation, Slovenia and Uzbekistan) reported that it addresses other diseases as well. One country (Turkey) reported that the strategy or plan addresses only hepatitis B, and one (the United Kingdom of Great Britain and Northern Ireland) reported that it addresses only hepatitis C.

The 13 Member States that reported the existence of a strategy or plan were asked about its specific components. All 13 reported the inclusion of a component for prevention of transmission in health-care settings. Twelve reported the inclusion of components for surveillance, vaccination and prevention of transmission via injecting drug use. Eleven reported the inclusion of components for general prevention, and treatment and care. Eight reported the inclusion of components for raising awareness and coinfection with HIV.

Seven responding Member States (15.9%) reported that they have a governmental unit or department responsible solely for viral hepatitis-related activities.^a Member States that did so were

^a One Member State responded that there is no governmental unit but a special national multidisciplinary expert team responsible for hepatitis-related activities.

Figure 1. Responses to the question, "Is there a written national strategy or plan that focuses exclusively or primarily on the prevention and control of viral hepatitis?"



asked to indicate the number of staff members in the unit or department. Responses (N=5) ranged from 2 to 7 (median, 3), with the Republic of Moldova reporting the largest number.

Member States were asked to report the number of people working full-time on hepatitis-related activities in all government agencies or bodies. Among the 13 Member States that provided data for this question, the number ranged from 0 to 213 (median, 1.5), with Armenia reporting the largest number.

Thirty-four responding Member States (77.3%) reported that they have a viral hepatitis prevention and control programme that includes activities targeting specific populations. The populations most commonly targeted are people who inject drugs (91.2% of responding Member States within this subset) and health-care workers, including health-care waste handlers (94.1% of responding Member States within this subset). Twenty-one responding Member States reported the inclusion of activities targeting people living with HIV, and 17 reported the inclusion of activities targeting prisoners. Groups identified less frequently included migrants, indigenous populations, low-income populations, those who are uninsured and those who are homeless.

Table 1. Topics of public awareness campaigns on viral hepatitis held in Member States since January 2011 (N=10)

	Armenia	Belarus	Croatia	Netherlands	Republic of Moldova	Slovenia	Sweden	Turkey	United Kingdom of Great Britain and Northern Ireland	Russian Federation
General information about hepatitis and its transmission	X	X	X	X	X	X	X	X	X	X
Vaccination for hepatitis A and hepatitis B	X	X	X		X	X	X			X
Importance of knowing one's hepatitis B and hepatitis C status	X		X	X	X	X	X	X		X
Safe water and good sanitation	X				X					X
Safer sex practices	X	X	X	X	X	X	X	X		X
Harm reduction for people who inject drugs	X	X	X	X	X	X	X	X	X	X
Safe workplace practices	X	X	X	X	X			X		X

Awareness-raising and partnerships

Seventeen responding Member States (38.6%) reported that they had held events for World Hepatitis Day 2012 (28 July). Since January 2011, ten responding Member States (22.7%) had funded some type of viral hepatitis public awareness campaign other than World Hepatitis Day (Table 1).

Twenty-nine responding Member States (65.9%) reported that they collaborated with civil society groups within their countries to develop and implement the governmental viral hepatitis prevention and control programme. For example, Armenia reported collaborating with the Armenian Hepatitis Forum and the Netherlands reported collaborating with the National Hepatitis Centrum. (Further examples can be found in the summaries of country findings later in this chapter.)

Evidence-based policy and data for action

Forty-three responding Member States (97.7%) reported that they have routine surveillance for viral hepatitis; details appear in Table 2.

Forty-two responding Member States (95.5%) indicated that their countries have standard case definitions for hepatitis infection and 42 (95.5%) indicated that their countries have a central registry for the reporting of deaths, including hepatitis deaths.

Table 2. Types of surveillance in Member States that reported the existence of routine surveillance for viral hepatitis (N=43)

	Yes (%)	No (%)	Do not know (%)	No response (%)
There is a national surveillance system for acute hepatitis infection for the following forms of hepatitis:				
hepatitis A	100	0	0	0
hepatitis B	100	0	0	0
hepatitis C	95.3	4.7	0	0
hepatitis D	46.5	41.9	0	11.6
hepatitis E	55.8	30.2	0	14.0
There is a national surveillance system for chronic hepatitis infection for the following forms of hepatitis:				
hepatitis B	65.1	32.6	0	2.3
hepatitis C	62.8	34.9	0	2.3
hepatitis D	30.2	62.8	0	7.0

Twenty-nine Member States reported on the proportion of hepatitis cases and deaths registered as “undifferentiated” or “unclassified” hepatitis. The reported proportions ranged from 0% to 21.0% (median, 1.0%).^a Additional survey findings about surveillance are presented in Table 3.

Table 3. Data registration and surveillance (N=44)

	Yes (%)	No (%)	Do not know (%)	No response (%)
Liver cancer cases are registered nationally	79.5	18.2	2.3	0
Cases with HIV/hepatitis coinfection are registered nationally	65.9	34.1	0	0
Hepatitis outbreaks are reported	95.5	4.5	0	0
If YES – Hepatitis outbreaks are further investigated (N=115)	100	0	0	0

Member States were asked how often hepatitis disease reports are published. Of the responding Member States, 47.7% reported that they publish hepatitis disease reports annually; 36.4%, monthly; and 13.6%, weekly. No hepatitis disease report is published by 11.4% of responding Member States.

Eight responding Member States (18.2%) reported the existence of a national public health research agenda for viral hepatitis.

Twenty responding Member States (45.5%) reported that besides routine surveillance of viral hepatitis, serosurveys are conducted regularly. The majority of the surveys targeted the general population, pregnant women, men who have sex with men, and people who inject drugs. Among this subset of responding Member States, 20.0% indicated that serosurveys take place at least once per year and, of the same subset, 40.0% reported that the most recent viral hepatitis serosurvey was carried out in either 2011 or 2012.

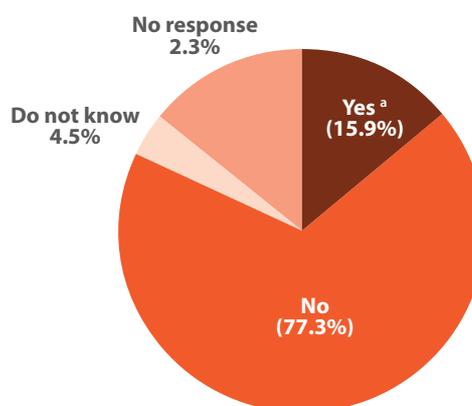
^a These figures represent data from 29 of the 30 Member States. Data from the Russian Federation are not included here because they were reported in a different way. See the Russian Federation country findings later in this chapter for information about undifferentiated/unclassified hepatitis in that Member State.

Prevention of transmission

Thirty responding Member States (68.2%) reported that they have a national policy on hepatitis A vaccination.

Seven responding Member States (15.9%) reported that they have established the goal of eliminating or reducing hepatitis B (Figure 2). Member States with this goal were asked to specify the timeframe in which they seek to eliminate or reduce hepatitis B. Among the three Member States that answered this question, Latvia reported a target of reducing the proportion of acute hepatitis B cases among children by 2011–2012, and the Republic of Moldova and Sweden reported targets of reducing hepatitis B by 2016.

Figure 2. Responses to the question, “Has your government established the goal of eliminating hepatitis B?” (N=44)



^a Three Member States (Latvia, Republic of Moldova and Sweden) that answered “yes” to this question added comments indicating that their goals relate to reducing rather than eliminating hepatitis B.

Member States were asked to report, for a given recent year, the percentage of newborn infants who had received the first dose of hepatitis B vaccine within 24 hours of birth. Among the 28 Member States that provided this information, responses ranged from 0% to 100% (median, 93.5%). Member States were also asked to report, for a given recent year, the percentage of one-year-olds (ages 12–23 months) who had received three

Table 4. Activities called for in national policy targeting mother-to-child transmission of hepatitis B (N=41)

	All pregnant women are screened for hepatitis B	All pregnant women found to have hepatitis B are counselled	Health-care providers follow up with all pregnant women found to have hepatitis B during pregnancy for the purpose of encouraging them to give birth at health-care facilities	Upon delivery, all infants born to women with hepatitis B receive hepatitis B immunoglobulin	All infants receive the first dose of hepatitis B vaccine within 24 hours of birth
Albania		X	X	X	X
Andorra	X	X	X	X	X
Armenia	X	X	X	X	X
Austria	X	X	X		
Azerbaijan	X	X	X		X
Belarus	X	X	X	X	X
Belgium	X				
Belarus					X
Croatia	X	X	X	X	X
Cyprus	X	X	X	X	X
Czech Republic		X		X	X
Denmark	X	X	X	X	X
Estonia	X	X			X
Finland	X	X	X	X	X
France	X	X		X	X
Georgia	X			X	X
Germany	X	X	X	X	
Hungary	X	X	X	X	X
Ireland	X			X	X
Israel		X		X	X
Italy	X	X	X	X	
Kyrgyzstan					X
Latvia	X	X	X		X
Lithuania					X
Luxembourg	X	X	X	X	X
Malta		X			X
Montenegro	X		X	X	
Netherlands	X	X		X	X
Poland	X	X		X	X
Republic of Moldova	X	X	X		X
Russian Federation	X	X	X		X
San Marino	X	X	X	X	
Serbia	X	X	X		X
Slovakia	X	X	X	X	X
Slovenia	X	X	X	X	
Spain	X	X	X	X	
Sweden	X	X	X	X	X
The former Yugoslav Republic of Macedonia	X	X	X	X	X
Turkey	X	X	X	X	X
Ukraine	X	X	X	X	X
United Kingdom of Great Britain and Northern Ireland	X	X	X	X	X
TOTAL	32	32	26	26	33

doses of hepatitis B vaccine. Among the 38 Member States that provided this information, responses ranged from 30.0% to 99.3% (median, 95.0%).

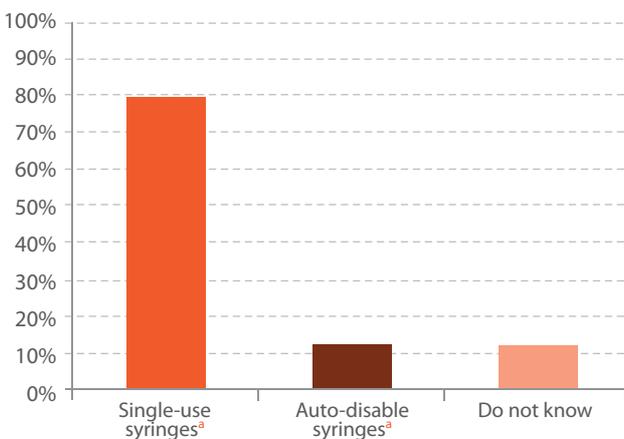
Forty-one responding Member States (93.2%) reported the existence of a national policy that specifically targets mother-to-child transmission of hepatitis B; details are presented in Table 4. Three fourths of Member States with such a policy indicated that one component of the policy calls for screening of all pregnant women for hepatitis B.

Thirty-seven responding Member States (84.1%) reported the existence of a specific national strategy and/or policy/guidelines for preventing hepatitis B and hepatitis C infection in health-care settings.

Thirty-seven responding Member States (84.1%) reported that health-care workers are vaccinated against hepatitis B prior to starting work that might put them at risk of exposure to blood.

Thirty-nine responding Member States (88.6%) reported the existence of a national policy on injection safety in health-care settings. These Member States were asked which types of syringes the policy recommends for therapeutic injections. Single-use syringes are recommended in 79.5% of policies, and auto-disable syringes in 12.8% (Figure 3).

Figure 3. Proportion of responding Member States with national policies on injection safety in health-care settings which recommend single-use syringes and auto-disable syringes for therapeutic injections (N=39)



^a Respondents could select both "single-use syringes" and "auto-disable syringes".

Forty-one responding Member States (93.2%) reported that single-use or auto-disable syringes, needles and cannulas are always available in all health-care facilities.

Member States were asked for official estimates of the number and percentage of unnecessary injections administered annually in health-care settings (e.g. injections that are given when an equivalent oral medication is available). Forty-three Member States reported that the figures are not known and one (Denmark) reported that no unnecessary injection is administered annually in health-care settings.

Additional findings relating to the prevention of hepatitis transmission are presented in Table 5.

Table 5. Hepatitis prevention: policies, practices and guidelines (N=44)

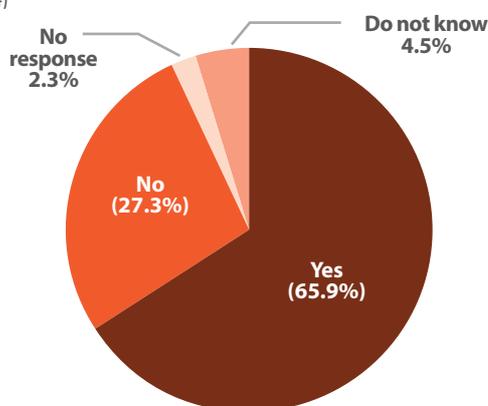
	Yes (%)	No (%)	Do not know (%)	No response (%)
There is a national infection control policy for blood banks	95.5	2.3	0	2.3
All donated blood units (including family donations) and blood products nationwide are screened for hepatitis B	95.5	2.3	0	2.3
All donated blood units (including family donations) and blood products nationwide are screened for hepatitis C	97.7	0	0	2.3
There is a national policy relating to the prevention of viral hepatitis among people who inject drugs	56.8	27.3	11.4	4.5
The government has guidelines that address how hepatitis A and hepatitis E can be prevented through food and water safety	56.8	31.8	9.1	2.3

Screening, care and treatment

Member States were asked how health professionals in their countries obtain the skills and competencies required to effectively care for people with viral hepatitis. Responding Member States most frequently indicated that these are obtained in schools for health professionals (pre-service education, 81.8%). Additionally, on-the-job training was identified in 79.5% of responses, and postgraduate training in 75.0%.

Twenty-nine responding Member States (65.9%) reported the existence of national clinical guidelines for the management of viral hepatitis (Figure 4). Sixteen of these 29 Member States indicated that the guidelines include recommendations for cases with HIV coinfection. Nineteen of 29 responding Member States (65.5%) indicated that there are national clinical guidelines for the management of HIV, which include recommendations for coinfection with viral hepatitis.

Figure 4. Responses to the question, “Are there national clinical guidelines for the management of viral hepatitis?” (N=44)



Twenty-two responding Member States (50.0%) indicated that they have a national policy relating to screening and referral to care for hepatitis B. Twenty-one (47.7%) reported that they have such a policy for hepatitis C.

Regarding hepatitis B testing, 40 responding Member States (90.9%) indicated that people register by name for testing. Thirty-six members of that subset (90.0%) indicated that the names are kept confidential. Nineteen responding Member States (43.2%) reported that the hepatitis B test is free of charge for all individuals. Among the 25 other Member States, 19 (76.0%) reported that the hepatitis B test is free of charge for members of specific groups. Groups identified included blood donors, health-care workers, prisoners, pregnant women, people who inject drugs and people living with HIV. Twenty-four responding Member States (54.5%) reported that the hepatitis B test is compulsory for members of specific groups. Groups identified included blood donors, health-care workers, pregnant women and patients on haemodialysis.

Regarding hepatitis C testing, 40 responding Member States (90.9%) indicated that people register by name for testing. Thirty-six members of that subset (90.0%) indicated that the names are kept confidential. Twenty responding Member States (45.5%) reported that the hepatitis C test is free of charge for all individuals. Among the 24 other Member States, 18 (75.0%) reported that the hepatitis C test is free of charge for members of specific groups. Groups identified included blood donors, health-care workers, prisoners, pregnant women, people who

inject drugs and people living with HIV. Twenty-two responding Member States (50.0%) reported that the hepatitis C test is compulsory for members of specific groups. Groups identified included blood donors, health-care workers, pregnant women and patients on haemodialysis.

Thirty-six responding Member States (81.8%) reported that publicly funded treatment is available for hepatitis B and 34 (77.3%) that it is available for hepatitis C. Eight responding Member States reported the amount spent on publicly funded treatment for hepatitis B and hepatitis C. Details can be found in the summaries of country findings later in this chapter (see Armenia, Croatia, Germany, Lithuania, Poland, San Marino, Spain and Turkey).

Thirty-eight responding Member States (86.4%) reported that at least one available drug for treating hepatitis B is on the national essential medicines list or subsidized by the government. The drugs most commonly reported were lamivudine, interferon alpha, tenofovir and pegylated interferon (Table 6).

Table 6. Proportion of Member States reporting drugs for treating hepatitis B and C on national essential medicines lists or subsidized by governments

Drugs for treating hepatitis B	% of Member States reporting its inclusion (N=12)
Lamivudine	84.1
Interferon alpha	77.3
Tenofovir	75.0
Pegylated interferon	61.4
Entecavir	54.5
Adefovir dipivoxil	50.0
Telbivudine	38.6

Drugs for treating hepatitis C	% of Member States reporting its inclusion (N=12)
Ribavirin	86.4
Pegylated interferon	79.5
Interferon alpha	68.2
Telaprevir	38.6
Boceprevir	38.6

Thirty-nine responding Member States (88.6%) reported that at least one available drug for treating hepatitis C is on the national essential medicines list or subsidized by the government. The drugs most commonly reported were interferon alpha, pegylated interferon and ribavirin.

World Health Organization assistance

Member States were asked to indicate areas in which they might want assistance from WHO for the prevention and control of viral hepatitis. Respondents most commonly selected the following: developing the national plan for viral hepatitis prevention and control (39.5%), and assessing the economic impact of viral hepatitis (39.5%) (Table 7). Responses from individual Member States appear in Annex C.

Table 7. Viral hepatitis control and prevention: areas in which governments indicated interest in receiving WHO assistance (N=44)

Awareness-raising, partnerships and resource mobilization (first WHO strategic axis)	
Developing the national plan for viral hepatitis prevention and control	38.6%
Integrating viral hepatitis programmes into other health services	29.5%
Awareness-raising	27.3%
Evidence-based policy and data for action (second WHO strategic axis)	
Viral hepatitis surveillance	22.7%
Estimating the national burden of viral hepatitis	34.1%
Developing tools to assess the effectiveness of interventions	22.7%
Assessing the economic impact of viral hepatitis	38.6%
Prevention of transmission (third WHO strategic axis)	
Increasing coverage of the birth dose of the hepatitis B vaccine	9.1%
Screening, care and treatment (fourth WHO strategic axis)	
Increasing access to treatment	25.0%
Increasing access to diagnostics	22.7%
Improving laboratory quality	20.9% ^a
Developing education/training programmes for health professionals	34.1%

^a N=43 (This response option was not included in the survey completed by Belarus.)