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Dossier of Evidence

EUROPEANTIS HIV-HEPATITIS HIV-HENG TESTING

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Why is it necessary to scale up hepatitis B and hepatitis C testing in **Europe**?



Content

- Hepatitis B virus and hepatitis C virus: <u>The Basics</u>
- Know Your Epidemics: The Situation of HBV and HCV in Europe
- Late presentation for viral hepatitis
- <u>The Importance of Timely Diagnosis of</u> <u>HBV and HCV</u>
- Barriers to HBV and HCV Testing
- Creating More Testing Opportunities
- <u>Conclusions</u>

Hepatitis B virus and hepatitis C virus: The Basics

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What are HBV and HCV?

- Hepatitis B virus (HBV) and hepatitis C virus (HCV) are both viruses that attack the liver
- HBV and HCV cause: •
 - Scarring of the liver tissue (*cirrhosis*)
 - Liver cancer
 - Liver failure
 - Death •
- HBV and HCV disease can progress **unnoticed** over many years
 - Increasingly worse liver damage without any outward signs
 - People might not feel ill until they have advanced disease

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Hepatitis B Virus - HBV

- May cause short-term (acute) illness followed by full recovery
- www.testingweek.eu May cause incurable chronic disease
 - Correlation between age of infection and likelihood of chronic disease:
 - Infected early in life = high risk of chronic disease
 - Infected in adulthood = low risk of chronic disease
 - Chronic HBV <u>cannot be cured</u> but there are treatments that slow disease progression and improve health outcomes

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HBV

EUROPEANTIS HIV-HEPATITIS HIV-HENG TESTING An effective HBV vaccine exists!

- Many Member States of the World Health Organization European Region have universal infant HBV vaccination
 - Some do not, including in high-income countries of the European Union

Countries without universal infant HBV vaccination:



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How is HBV spread?

- HBV is spread through exposure to infected blood and other body fluids
 - Children born to HBV-infected mothers are at high risk if they do not receive timely vaccination
 - Other modes of transmission:
 - Sexual contact
 - Re-use of needles and syringes
 - Contaminated objects such as razors and tattooing equipment

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Hepatitis C Virus - HCV

- May cause short-term (acute) illness followed by full recovery
 - May cause long-term chronic disease
 - Chronic HCV:
 - Occurs in 55% 85% of cases of infection
 - Is much more likely to occur in adults than in children
 - Persists for life unless treated successfully with anti-viral drugs
 - There is <u>no vaccine</u> against HCV

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HCV Treatment

- Has greatly improved in recent years
- Newest drugs are all-oral and have very high cure rates (>90%)



EUROPEAN HIV-HEPATITIS HIV-HENG TESTING Global Impact of HBV and HCV

- **Cirrhosis**:
 - 26% of cirrhosis deaths in 2013 from HBV
 - 29% of cirrhosis deaths in 2013 from HCV
- Liver cancer: •
 - 37% of liver cancer deaths in 2013 from HBV
 - 42% of liver cancer deaths in 2013 from HCV



GBD 2013 Mortality and Causes of Death Collaborators. 2015. "Global, Regional, and National Age-Sex Specific All-Cause and Cause-Specific Mortality for 240 Causes of Death, 1990-2013: A Systematic Analysis for the Global Burden of Disease Study 2013." Lancet 385 (9963): 117-71. doi:10.1016/S0140-6736(14)61682-2.

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Know Your Epidemics: The Situation of HBV and HCV in Europe

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HBV in Europe

- In the WHO European Region, it is estimated that **1.8%** of adults are HBsAg positive (usually indicates chronic infection)
- Two-thirds of cases are in non-EU/EFTA countries
- HBsAg prevalence varies greatly across the Region



Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270–86.

Albania Belgium Cyprus

HBV in Europe

HBsAg prevalence in countries with data representing the general population

Country	HBsAg prevalence (%)		
Albania	9.0		
Belgium	0.7		
Cyprus	0.9		
Czech Republic	0.6		
Finland	0.2		
Germany	0.6		
Greece	2.1		
Ireland	0.1		
Italy	1.4		
Kazakhstan	3.8		

Country	HBsAg prevalence (%)	
Netherlands	0.1	
Romania	5.6	
Russian Federation	1.5	
Serbia	2.4	
Slovakia	0.6	
Spain	1.0	
Sweden	0.2	
Turkey	3.4	
Ukraine	1.3	
Uzbekistan	13.3	

www.testingweek.eu www.hiveurope.eu Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270–86.

EUROPEAN HIV-HEPATITIS HIV-HENG TESTING TEST.TREAT.PREVENT. WWW.testingweek.eu 22,442 cases of hepatitis B virus infection were

reported in 30 EU/EEA Member States in 2014. 11.9% were acute infections and 64% were chronic infections.

Rate of acute hepatitis B per 100 000 population in EU/EEA countries, 2014



EUROPEANITIS HIV-HEPATITIS HIV-HENG TESTING Populations disproportionately affected:

- People who inject drugs
- Sex workers
- Men who have sex with men
- Migrant and refugee populations
 - Some European countries receive high numbers of migrants from regions with higher HBV prevalence
 - Data from 18 European countries showed chronic HBV prevalence levels among migrants ranging from 4% - 7%(Rossi et al 2012)

Rossi, Carmine, Ian Shrier, Lee Marshall, Sonya Cnossen, Kevin Schwartzman, Marina B. Klein, Guido Schwarzer, and Chris Greenaway. 2012. "Seroprevalence of Chronic Hepatitis B Virus Infection and Prior Immunity in Immigrants and Refugees: A Systematic Review and Meta-Analysis." Edited by Yury E. Khudyakov. PLoS ONE 7 (9): e44611.

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- In the WHO European Region, it is estimated that **2.0% of adults are HCV RNA-positive** (usually indicates chronic infection)
- Two-thirds of cases are in non-EU/EFTA countries
- In 2004, 23% of liver transplants in 25 European countries were attributable to HCV
- HCV RNA

prevalence varies greatly across the Region



Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270–86.
Mühlberger, Nikolai, Ruth Schwarzer, Beate Lettmeier, Gaby Sroczynski, Stefan Zeuzem, and Uwe Siebert. 2009. "HCV-Related Burden of Disease in Europe: A Systematic Assessment of Incidence, Prevalence, Morbidity, and Mortality." BMC Public Health 9: 34. doi:10.1186/1471-2458-9-34.



HCV RNA prevalence in countries with data representing the general population

Country	HCV RNA prevalence (%)	Country	HCV RNA prevalence (%)	Country	HCV RNA prevalence (%)
Albania	3.0	Kazakhstan	1.0	Spain	2.0
Belgium	0.6	Kyrgyzstan	1.6	Sweden	0.4
Bulgaria	1.3	Netherlands	0.4	Tajikistan	0.5
France	1.3	Poland	1.9	Turkey	0.7
Georgia	6.7	Romania	3.5	Ukraine	12.0
Germany	0.4	Russian Federation	3.6	United Kingdom	0.7
Greece	1.0	Serbia	0.5	Uzbekistan	13.1
Italy	5.2				

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Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270-86.

EUROPEANTIS HIV-HEPATITIS HIV-HENG TESTING TEST.TREAT.PREVENT. www.testingweek.eu 35,321 cases of hepatitis C virus infection were reported in 28 EU/EEA Member States in 2014. 1.3% were acute infections and 13.3% were chronic infections (74.7% were 'unknown and 10.7% were not classified).

Rate of reported acute hepatitis C cases per 100,000 population, 2014





EUROPEAN EUROPEAN HIV-HEPATITIS HIV-HEPATING TESTING **Injecting drug use:** a major driver of European HCV epidemics

- In several European countries, more than 80% of people who • inject drugs are estimated to be HCV antibody-positive (indicating current or past HCV infection)
- Across 13 European countries, people who inject drugs found to have on average 47 times higher HCV antibody prevalence levels than the general population
- 44% of people who inject drugs (PWIDs) in WHO European Region estimated to be HCV RNA-positive

Nelson, Paul, Bradley Mathers, Benjamin Cowie, Holly Hagan, Don Des Jarlais, Danielle Horyniak, and Louisa Degenhardt. 2011. "The Epidemiology of Viral Hepatitis among People Who Inject Drugs: Results of Global Systematic Reviews." Lancet 378 (9791): 571-83. doi:10.1016/S0140-6736(11)61097-0. Hahné, Susan JM, Irene K. Veldhuijzen, Lucas Wiessing, Tek-Ang Lim, Mika Salminen, and Marita van de Laar. 2013. "Infection with Hepatitis B and C Virus in Europe: A Systematic Review of Prevalence and Cost-Effectiveness of Screening." BMC Infectious Diseases 13 (1): 181. Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270-86.

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Other European populations thought to be at elevated risk include: (limited data)

- Migrants
- Prisoners
- Homeless people
- Sex workers
- People living with HIV
- Men who have sex with men

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Know your HBV epidemic Template slide for your national data

EUROPEAN HIV-HEPATITIS HIV-HENG TESTING Populate this slide with the below:

- Number of new acute and chronic diagnoses per year
- Total number of people living with chronic HBV •
- Key populations at higher risk of HBV •
- Geographical spread
- Time trends •
- National HBV testing guidelines (if available)
- Useful resources: •
 - ECDC technical report: Hepatitis B and C in the EU neighbourhood: prevalence, burden of disease and screening policies (2010)
 - ECDC technical report: Assessing the burden of key infectious diseases affecting migrant populations in the EU/EEA (2014)
 - Hahné, Susan JM, Irene K. Veldhuijzen, Lucas Wiessing, Tek-Ang Lim, Mika Salminen, and Marita van de Laar. 2013. "Infection with Hepatitis B and C Virus in Europe: A Systematic Review of Prevalence and Cost-Effectiveness of Screening." BMC Infectious Diseases 13 (1): 181.
 - Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270-86.
 - ECDC, Annual Epidemiological Report Hepatitis B (2016)
 - ECDC, Annual Epidemiological Report Hepatitis C (2016)
 - Epidemiological assessment of hepatitis B and C among migrants in the *EU/EEA (2016)*

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Know your HCV epidemic Template slide for your national data

EUROPEAN HIV-HEPATITIS HIV-HENG TESTING Populate this slide with the below:

- Number of new acute and chronic diagnoses per year
- Total number of people living with chronic HCV •
- Key populations at higher risk of HCV
- Geographical spread
- Time trends
- National HCV testing guidelines (if available)
- Useful resources: •
 - ECDC technical report: Hepatitis B and C in the EU neighbourhood: prevalence. burden of disease and screening policies (2010)
 - ECDC technical report: Hepatitis B and C Surveillance in Europe (2012) _
 - ECDC technical report: Assessing the burden of key infectious diseases affecting migrant populations in the EU/EEA (2014)
 - Bruggmann, P., T. Berg, A. L. H. Øvrehus, C. Moreno, C. E. Brandão Mello, F. Roudot-Thoraval, R. T. Marinho, et al. 2014. "Historical Epidemiology of Hepatitis C Virus (HCV) in Selected Countries." Journal of Viral Hepatitis 21 Suppl 1 (May): 5-33. doi:10.1111/jvh.12247.
 - Hahné, Susan JM, Irene K. Veldhuijzen, Lucas Wiessing, Tek-Ang Lim, Mika Salminen, and Marita van de Laar. 2013. "Infection with Hepatitis B and C Virus in Europe: A Systematic Review of Prevalence and Cost-Effectiveness of Screening." BMC Infectious Diseases 13 (1): 181.
 - Hope, V. D., I. Eramova, D. Capurro, and M. C. Donoghoe. 2014. "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 142 (02): 270–86.

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Late presentation for viral hepatitis

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Late Presentation for Viral **Hepatitis**

EUROPEAN HIV-HEPATITIS HIV-HENG TESTING A better understanding of the testing policies and strategies is needed. In October 2015, a consensus definition of late presentation for viral hepatitis was reached:

Definition 1:

Advanced HBV, HCV or HDV associated liver disease is clinically defined by presence of hepatocellular carcinoma or decompensated cirrhosis (jaundice, hepatic encephalopathy, clinically detectable ascites, variceal bleeding).

Definition 2:

Late presentation of HBV or HCV associated liver disease is defined as a patient with chronic hepatitis B or C and significant fibrosis (\geq F3 assessed by APRI score >1.5, FIB-4 >3.25, Fibrotest > 0.59 or alternatively a FibroScan >9.5 kPa) with no previous antiviral treatment.

This definition, if implemented by policy makers, health authorities and researchers, will contribute to understanding the magnitude of the proportion of late presenters for viral hepatitis.

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The Importance of Timely Diagnosis of HBV and HCV

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Underdiagnosis of HBV and HCV in the WHO European Region

In spite of data limitations, there is widespread recognition that **underdiagnosis of HBV and HCV is a major problem**

- Czech Republic, 2012:
 - 42,000 people estimated to be HCV RNA-positive
 - 13,000 diagnosed cases
- Germany, 2012:
 - 275,000 people estimated to be HCV RNA-positive
 - 160,000 diagnosed cases
- Study comparing reported and estimated HCV cases in seven EU countries concluded that more than half of people with HCV may be unaware of their infection

Bruggmann, P., T. Berg, A. L. H. Øvrehus, C. Moreno, C. E. Brandão Mello, F. Roudot-Thoraval, R. T. Marinho, et al. 2014. "Historical Epidemiology of Hepatitis C Virus (HCV) in Selected Countries." Journal of Viral Hepatitis 21 Suppl 1 (May): 5–33. doi:10.1111/jvh.12247. Merkinaite, Simon, Jeffrey V. Lazarus, and Charles Gore. 2008. "Addressing HCV Infection in Europe: Reported, Estimated and Undiagnosed Cases." Central European Journal of Public Health 16 (3): 106.

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EUROPEATIVE Why should more people be encouraged to learn their HBV and HCV status?

The public health rationale:

1. Effective treatments exist!

- HBV treatments slow the development of cirrhosis, reduce liver cancer and improve long-term survival
- Newest HCV treatments can cure the vast majority of cases of chronic HCV



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> World Health Organization. 2015. "Guidelines for the Prevention, Care and Treatment of Persons with Chronic Hepatitis B Infection." Geneva. <u>http://apps.who.int/iris/bitstream/10665/154590/1/9789241549059_eng.pdf?ua=1&ua=1</u>.
> Feeney, Eoin R., and Raymond T. Chung. 2014. "Antiviral Treatment of Hepatitis C." BMJ (Clinical Research Ed.) 348: a3308.

V-HEPATITIS Why should more people be encouraged to learn their HBV and HCV status?

The public health rationale:

- 2. People with chronic HBV and HCV will not access treatment if they do not know it is needed
 - HBV and HCV both can remain asymptomatic while causing progressively worse liver damage over many vears
 - Learning about chronic infection early may enable people to initiate treatment in time to interrupt this process

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EUROPEANTIS Why should more people be encouraged to learn their HBV and HCV status?

The public health rationale:

3. Prevention benefit

 People who are aware that they have chronic HBV and HCV may be more likely to take measures to prevent onward transmission of the infection

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UR HENG IV-HENG IV-HENG ESTING FOREVENT. Considerations

- HBV treatment is cost-effective even though it needs to be taken indefinitely
 - This conclusion is supported by studies from numerous countries:
 - Belgium
 - Brazil
 - China
 - Italy
 - Poland
 - Spain
 - United Kingdom
 - United States
 - Others ...

Buti, María, Itziar Oyagüez, Virginia Lozano, and Miguel A. Casado. 2013. "Cost Effectiveness of First-Line Oral Antiviral Therapies for Chronic Hepatitis B : A Systematic Review." PharmacoEconomics 31 (1): 63–75. doi:10.1007/s40273-012-0009-2.

EUROPEATITIS Timely diagnosis of HCV: economic considerations

- The newest HCV drugs are expensive but this does not mean they are entirely inaccessible to people who need them
 - The newest HCV drugs are highly effective and curing HCV means reducing costly health problems such as liver cancer and liver transplant
 - Many people are advocating for prices to be lowered
 - Meanwhile, even at current prices, analyses from several countries demonstrate cost-effectiveness
 - **France** (Leleu, H., M. Blachier, and I. Rosa. 2015. "Cost-Effectiveness of Sofosbuvir in the Treatment of Patients with Hepatitis C." Journal of Viral Hepatitis 22 (4): 376–83. doi:10.1111/jvh.12311.)
 - **Germany** (Gissel, Christian, Georg Götz, Jörg Mahlich, and Holger Repp. 2015. "Cost-Effectiveness of Interferon-Free Therapy for Hepatitis C in Germany--an Application of the Efficiency Frontier Approach." BMC Infectious Diseases 15: 297. doi:10.1186/s12879-015-1048-z.)
 - Switzerland (Pfeil, Alena M., Oliver Reich, Ines M. Guerra, Sandrine Cure, Francesco Negro, Beat Müllhaupt, Daniel Lavanchy, and Matthias Schwenkglenks. 2015. "Cost-Effectiveness Analysis of Sofosbuvir Compared to Current Standard Treatment in Swiss Patients with Chronic Hepatitis C." PloS One 10 (5): e0126984. doi:10.1371/journal.pone.0126984.)
 - **United Kingdom** (Cure, S., I. Guerra, and G. Dusheiko. 2015. "Cost-Effectiveness of Sofosbuvir for the Treatment of Chronic Hepatitis C-Infected Patients." Journal of Viral Hepatitis, April. doi:10.1111/jvh.12409.)

Barriers to HBV and HCV Testing

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- Factors affecting *a person's willingness* to present for testing:
 - Absence of recognised symptoms of illness
 - Belief that personal risk of infection is low
 - Perceptions of stigma
 - Fear of having blood drawn
 - Cultural values and beliefs

Barocas, Joshua A., Meghan B. Brennan, Shawnika J. Hull, Scott Stokes, John J. Fangman, and Ryan P.
Westergaard. 2014. "Barriers and Facilitators of Hepatitis C Screening among People Who Inject Drugs: A Multi-City, Mixed-Methods Study." Harm Reduction Journal 11: 1. doi:10.1186/1477-7517-11-1.
Hu, Ke-Qin, Calvin Q. Pan, and Diane Goodwin. 2011. "Barriers to Screening for Hepatitis B Virus Infection in Asian Americans." Digestive Diseases and Sciences 56 (11): 3163–71. doi:10.1007/s10620-011-1840-6.
Sahajian, F., F. Bailly, P. Vanhems, B. Fantino, C. Vannier-Nitenberg, J. Fabry, C. Trepo, and Members of ADHEC. 2011. "A Randomized Trial of Viral Hepatitis Prevention among Underprivileged People in the Lyon Area of France." Journal of Public Health 33 (2): 182–92.
Zuure, Freke R., Titia Heijman, Anouk T. Urbanus, Maria Prins, Gerjo Kok, and Udi Davidovich. 2011. "Reasons

Zuure, Freke R., Titia Heijman, Anouk T. Urbanus, Maria Prins, Gerjo Kok, and Udi Davidovich. 2011. "Reasons for Compliance or Noncompliance with Advice to Test for Hepatitis C via an Internet-Mediated Blood Screening Service: A Qualitative Study." BMC Public Health 11: 293. doi:10.1186/1471-2458-11-293.

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- Factors affecting a *person's decision-making* around testing:
 - Lack of information about where to go for testing
 - Reluctance or inability to miss work for a medical appointment
 - Inability to communicate in the health care provider's language
 - Uncontrolled drug addiction
 - Legal barriers

Hu, Ke-Qin, Calvin Q. Pan, and Diane Goodwin. 2011. "Barriers to Screening for Hepatitis B Virus Infection in Asian Americans." Digestive Diseases and Sciences 56 (11): 3163–71. doi:10.1007/s10620-011-1840-6. Jordan, Ashly E., Carmen L. Masson, Pedro Mateu-Gelabert, Courtney McKnight, Nicole Pepper, Katie Bouche, Laura Guzman, et al. 2013. "Perceptions of Drug Users Regarding Hepatitis C Screening and Care: A Qualitative Study." Harm Reduction Journal 10: 10. doi:10.1186/1477-7517-10-10.

Swan, Davina, Jean Long, Olivia Carr, Jean Flanagan, Helena Irish, Shay Keating, Michelle Keaveney, et al. 2010. "Barriers to and Facilitators of Hepatitis C Testing, Management, and Treatment among Current and Former Injecting Drug Users: A Qualitative Exploration." AIDS Patient Care and STDs 24 (12): 753–62. doi:10.1089/apc.2010.0142. Zacharias, Tresa, Winnie Wang, Doan Dao, Helena Wojciechowski, William M. Lee, Son Do, and Amit G. Singal. 2015. "HBV Outreach Programs Significantly Increase Knowledge and Vaccination Rates Among Asian Pacific Islanders." Journal of Community Health 40 (4): 619–24. doi:10.1007/s10900-014-9975-y.

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- - Physicians may not test patients for hepatitis C because of time constraints or because they forget to offer the test
 - Testing costs
 - Distance to testing facilities

Anderson, E. M., R. P. Mandeville, S. J. Hutchinson, S. O. Cameron, P. R. Mills, R. Fox, S. Ahmed, A. Taylor, E. Spence, and D. J. Goldberg. 2009. "Evaluation of a General Practice Based Hepatitis C Virus Screening Intervention." Scottish Medical Journal 54 (3): 3–7.

Zacharias, Tresa, Winnie Wang, Doan Dao, Helena Wojciechowski, William M. Lee, Son Do, and Amit G. Singal. 2015. "HBV Outreach Programs Significantly Increase Knowledge and Vaccination Rates Among Asian Pacific Islanders." Journal of Community Health 40 (4): 619–24. doi:10.1007/s10900-014-9975-y. Zuure, Freke R., Udi Davidovich, Roel A. Coutinho, Gerjo Kok, Christian J.P.A. Hoebe, Anneke van den Hoek, Peter

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Zuure, Freke R., Udi Davidovich, Roel A. Coutinho, Gerjo Kok, Christian J.P.A. Hoebe, Anneke van den Hoek, Peter L.M. Jansen, et al. 2011. "Using Mass Media and the Internet As Tools to Diagnose Hepatitis C Infections in the General Population." American Journal of Preventive Medicine 40 (3): 345–52.

THEPATITIS **Barriers to HBV and HCV Testing Template slide on country situation**

testingweek.eu Populate this slide with the below, using any available evidence from the national or local level

- What are the barriers to patients asking for an HBV or HCV test?
- What are the barriers to healthcare providers offering an • HBV or HCV test?
- What are other barriers? •

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Creating More Testing Opportunities

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EUROPEANTIS HIV-HEPATITIS HIV-HENG TESTING **Creating More Testing Opportunities Emerging Evidence Regarding Effective Approaches**

Review of community-based HBV testing programmes

- Targeted community awareness and education
- Using community networks and grassroots work to promote programmes
- Ethnic and language-specific programme promotion
- Bilingual or culturally aware staff delivering interventions ____
- Making effective use of ethnic media to publicise events and resources
- Offering flexible and varied screening options at suitable times and places

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Robotin, Monica C., and George, Jacob. 2014. "Community-Based Hepatitis B Screening: What Works?" Hepatology International 8 (4): 478-92. doi:10.1007/s12072-014-9562-4.

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 Review of interventions to increase uptake of HCV testing among high-risk groups showed:
 - Promotion of HCV testing in primary care
 - Offering dried blood spot testing as an alternative to venipuncture
 - Integration of testing services within non-specialist community settings

www.testingweek.eu www.hiveurope.eu Jones, Lisa, Geoff Bates, Ellie McCoy, Caryl Beynon, James McVeigh, and Mark A. Bellis. 2014. "Effectiveness of Interventions to Increase Hepatitis C Testing Uptake among High-Risk Groups: A Systematic Review." European Journal of Public Health 24 (5): 781–88. doi:10.1093/eurpub/ckt156.

EUROFEATING Creating More Testing Opportunities Emerging Evidence Regarding Effective Approaches

- HCV testing reviews showed evidence that:
 - Pre-screening assessment of HCV risk factors may increase programme efficiency in low-prevalence populations
 - Targeted interventions have the potential to increase HCV diagnosis and treatment uptake

Zuure, Freke R., Anouk T. Urbanus, Miranda W. Langendam, Charles W. Helsper, Charlotte H. S. B. van den Berg, Udi Davidovich, and Maria Prins. 2014. "Outcomes of Hepatitis C Screening Programs Targeted at Risk Groups Hidden in the General Population: A Systematic Review." BMC Public Health 14: 66. doi:10.1186/1471-2458-14-66.

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EUROPEATING Creating More Testing Opportunities: HIV-HENG Creating More Testing Opportunities: Key Principles

Until best practices are developed to guide HBV and HCV testing programmes, the **World Health Organization best practices for HIV** testing may be beneficial to also apply to HBV/HCV. **Key principles**:

- Testing should be voluntary and with the informed consent of the person being tested
- Testing should **protect the confidentiality** of the person being tested
- Testing should include adequate pre-test and post-test counselling
- Testing should be **linked** to broader efforts to achieve **universal** access to prevention, treatment, care and support
- Testing should be tailored to different settings, populations and client needs
- Testing should meet the needs of vulnerable populations at higher risk
- Testing should expand beyond clinical settings to involve civil society and community-based organizations in providing testing services

Testing should be accompanied by efforts to **ensure supportive social, policy and legal environments**

World Health Organization Regional Office for Europe. 2010. "Scaling up HIV Testing and Counselling in the WHO European Region." .



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Conclusions

www.testingweek.eu **Rationale for HBV and HCV testing**

- HBV and HCV are **major health problems** in many European countries
- Effective treatment exists!
- People will not access treatment if they do not know they need it – they must learn their HBV and HCV status
- Knowing may also encourage people to avoid onward transmission

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Conclusions

www.testingweek.eu **Increasing HBV and HCV testing**

- Barriers to HBV and HCV testing must be overcome
- There are practical measures that governments, health care providers and communities can take to **make HBV** and HCV testing more accessible to a wider range of people

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