Hepatitis C in England
2017 report

Working to eliminate hepatitis C as a major public health threat.
Eliminating hepatitis C as a major public health threat in England

2020 impact targets

Reducing HCV mortality (target 10% reduction by 2020)
Figures suggest an 8% fall in deaths from Hep C-related end-stage liver disease and cancer in 2015

Reducing new chronic HCV infections (target 30% reduction by 2020)
Surveys of people who inject drugs (PWID) suggest numbers of new HCV infections have remained stable over recent years; both estimated rates of infection and prevalence of infection in recent initiates to drug use were similar in 2015 and 2014/15 (7/100 person years and 23% respectively) to those observed in 2011 and 2006/7

Coverage of key services

Number treated
Provisional data suggest around a 40% increase in people receiving Hep C treatment in 2015/16, up from an average of 5,100 in previous years

Proportion of people diagnosed
Only around ½ of PWID sampled in surveys were aware of their HCV antibody positive status, and this figure has remained relatively stable over the last decade

Number of sterile needles / syringes provided
Needle/syringe provision was found to be suboptimal, with just less than one half of those surveyed reporting adequate provision for their needs

160,000 people estimated to be living with chronic Hep C in England
Figure 1. Trend in anti-HCV prevalence* among people injecting psychoactive drugs in England: 2005 to 2015

During 2009 to 2011 there was a phased change in the sample collected in the survey from an oral fluid to dried blood spot (DBS). The sensitivity of the anti-HCV tests on these two sample types is different. The sensitivity of the oral fluid test for anti-HCV is approximately 92%,\(^{(20)}\) that on DBS samples is close to 100%. Data presented here have been adjusted for the sensitivity of the oral fluid test.


Figure 2. Preliminary estimates of incidence* of HCV-related ESLD**/HCC in England: 2010-2015

* An episode of ESLD/HCC is defined as the FIRST if there have been no previous episodes of ESLD or HCC for that individual in the previous 5 years (0.4% are estimated to have had a previous episode more than 5 years earlier)

** Defined by codes or text entries for ascites, bleeding oesophageal varices, hepato-renal syndrome, hepatic encephalopathy or hepatic failure.

Note: Approximately 1.5% of individuals admitted had identifiers missing in HES (2010-2014) and so were allocated new HES IDs, therefore any previous episodes of ESLD for these individuals would not be linked.

Data source: Hospital Episode Statistics (HES) NHS Digital.
Figure 3. Number of first registrations and liver transplants undertaken in England where post-hepatitis C cirrhosis was given as either the primary, secondary or tertiary indication for transplant: 2008 to 2015

These figures are based on registry data as at 23 June 2016 and include both elective and super urgent registrations and transplants. Data source: NHS Blood and Transplant UK Transplant Registry
Figure 4. Deaths from ESLD* or HCC in those with HCV mentioned on their death certificate in England: 2005 to 2015

* Defined by codes or text entries for ascites, bleeding oesophageal varices, hepato-renal syndrome, hepatic encephalopathy or hepatic failure.

Data source: Office for National Statistics
Figure 5. Estimated incidence of HCV among people injecting psychoactive drugs in England who reported injecting in the previous year: 2011-2015* (95% CI)

*Those with HIV are excluded because they can have sub-optimal antibody responses as a result of their HIV infection. (39)

Data source: Unlinked Anonymous Monitoring Survey of people who inject drugs: people injecting psychoactive drugs. (7)


During 2009 to 2011 there was a phased change in the sample collected in the survey from an oral fluid to dried blood spot (DBS). The sensitivity of the anti-HCV tests on these two sample types is different. The sensitivity of the oral fluid test for anti-HCV is approximately 92%, that on DBS samples is close to 100%. Data presented here have been adjusted for the sensitivity of the oral fluid test.


Figure 7. Number of anti-HCV tests performed in young adults and proportion positive by year in 23 sentinel laboratories: 2011 to 2015

Notes: Excludes dried blood spot, oral fluid, reference testing, and testing from hospitals referring all samples. Some duplication of individual patients may occur due to receipt of incomplete data. Excludes individuals aged less than one year, in whom positive tests may reflect the presence of passively-acquired maternal antibody rather than true infection. All data are provisional.

Data source: Sentinel surveillance of blood borne virus testing.
Statutory notification by diagnostic laboratories was introduced in October 2010\(^{(40)}\)

Figure 9. Estimated proportion of people injecting psychoactive drugs reporting adequate* needle and syringe provision in England, 2011-2015

Data source: Unlinked Anonymous Monitoring Survey of people who inject drugs: people injecting psychoactive drugs.\(^{(7)}\)

*Needle/syringe provision is considered ‘adequate’ when the reported number of needles received, met or exceeded the number of times the individual injected

Figure 10. Trends in the sharing of needles and syringes in the preceding four weeks among people injecting psychoactive drugs in England 2005 to 2015

*Sharing of needles and syringes in preceding four weeks.
Data source: Unlinked Anonymous Monitoring Survey of people who inject drugs: people injecting psychoactive drugs\(^7\)

Figure 11. Estimated proportion of people injecting psychoactive drugs testing positive for HCV antibodies in England, who are aware of their infection, 2005-2015

Data source: Unlinked Anonymous Monitoring Survey of people who inject drugs: people injecting psychoactive drugs. (7)

Figure 12. Number of laboratory reports* of hepatitis C from England: 1996 to 2015

Statutory notification by diagnostic laboratories was introduced in October 2010(40)

Figure 13. Age and sex distribution of laboratory reports* of hepatitis C from England: 1996 to 2015

Statutory notification by diagnostic laboratories was introduced in October 2010\(^{[40]}\)

Map 1. Geographic distribution of centres who have participated in the Sentinel Surveillance of Hepatitis Testing Study by Public Health England Centre.
Figure 14. Number of people tested for anti-HCV by year, and proportion positive, in 23 sentinel laboratories: 2011 to 2015

Note: Excludes dried blood spot testing; samples collected outside routine testing, such as look backs and studies; reference testing; and children aged <1 year.
Data source: Sentinel surveillance of blood borne virus testing.
Figure 15. Number of people tested for anti-HCV by year, and proportion positive, through GP surgeries in 23 sentinel laboratories: 2011 to 2015

Note: Excludes dried blood spot testing, and children aged <1 year. Data source: Sentinel surveillance of blood borne virus testing.
Figure 16. Trends in reported uptake of voluntary confidential testing (VCT) for HCV infection among people injecting psychoactive drugs in England: 2005 to 2015

Data source: Unlinked Anonymous Monitoring Survey of people who inject drugs: people injecting psychoactive drugs.\(^7\)

Figure 17. Proportion of new receptions to English prisons tested for hepatitis C: financial years 2010/11 to 2015/16

Figures above bars = number of prisons providing data / total number of prisons (numbers change due to closures)
*Robust data currently not available for the first year following introduction of HJIPs
** Provisional HJIP data
Data source: Prison Health Performance Quality Indicators (PHPQIs, NHS Trust Development Agency) and Health and Justice Indicators of performance (HJIPs).
Figure 18. Health and Justice Indicators of performance relating to hepatitis C testing

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hepatitis C testing</strong></td>
<td>Percentage of patients offered hepatitis C testing, within 72hrs of reception</td>
</tr>
<tr>
<td><strong>Hepatitis C antibody testing</strong></td>
<td>Percentage of eligible patients who have undertaken an HCV antibody test</td>
</tr>
<tr>
<td><strong>Hepatitis C PCR testing</strong></td>
<td>Percentage of HCV antibody positive patients who underwent HCV PCR testing</td>
</tr>
</tbody>
</table>
Figure 19. Number of Asian or Asian British people tested, and proportion positive, in 23 sentinel laboratories: 2011 to 2015

Note: Excludes dried blood spot testing; samples collected outside routine testing, such as look backs and studies; reference testing; and children aged <1 year.
Data source: Sentinel surveillance of blood borne virus testing.
Figure 20. Number of Eastern European people tested, and proportion positive, in 23 sentinel laboratories: 2011 to 2015

Note: Excludes dried blood spot testing; samples collected outside routine testing, such as look backs and studies; reference testing; and children aged <1 year.
Data source: Sentinel surveillance of blood borne virus testing.
Figure 21. Rate of hepatitis C among donations from new and repeat blood donors in England (and North Wales): 1991* to 2015

Data source: NHSBT/PHE Epidemiology Unit.
*From September 1991
Note: 1991 to 1995 includes Wales, onwards includes North Wales
Figure 22. Provisional estimates of numbers initiating HCV treatment in England, 2007-2015

*Data for England for June 2015-April 2016 are provisional and based on clinician reported intention to treat where there is some robustness about the intention to treat (e.g. incomplete or other records excluded).

Figure 23. Predicted number of people living with HCV-related cirrhosis or decompensated cirrhosis/HCC in England under new DAAs compared to previous IFN-based therapy (95% credible intervals are given in parentheses)(31)

Appendix 1.* WHO GHSS targets\textsuperscript{(1)} for viral hepatitis, relevant to HCV in the UK context, with 2020 targets updated to reflect the draft action plan for the health sector response to viral hepatitis in the WHO European Region.\textsuperscript{(3)}

<table>
<thead>
<tr>
<th>TARGET AREA</th>
<th>2020 TARGETS\textsuperscript{(3)}</th>
<th>2030 TARGETS\textsuperscript{(1)}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence: New cases of chronic viral hepatitis C infection</td>
<td>30% reduction</td>
<td>80% reduction</td>
</tr>
<tr>
<td>Mortality: Viral hepatitis C deaths</td>
<td>10% reduction</td>
<td>65% reduction</td>
</tr>
<tr>
<td><strong>Service coverage targets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood safety:**Proportion of donations screened in a quality-assured manner</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Safe injections:** Percentage of injections administered with safety engineered devices in and out of health facilities</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>Harm reduction: A comprehensive package of harm reduction services to all PWID\textsuperscript{(61)} including:</td>
<td>At least 200 sterile needles and syringes provided per person who injects drugs per year</td>
<td>At least 300 sterile needles and syringes provided per person who injects drugs per year</td>
</tr>
<tr>
<td>Proportion of people with chronic HCV diagnosed and aware of their infection</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>Treatment coverage of people diagnosed with chronic HCV who are eligible for treatment</td>
<td>75% (&gt;90% cured) [90% of diagnosed patients with chronic HCV are linked to care and adequately monitored]</td>
<td>80%</td>
</tr>
</tbody>
</table>

- Abtracted from the WHO Global Health Sector Strategy for Viral Hepatitis\textsuperscript{(1)} and modified to reflect the draft action plan for the health sector response to viral hepatitis in the WHO European Region\textsuperscript{(3)}

** In England, 2020 and 2030 targets are already met.\textsuperscript{(62)}

***In England, 2020 and 2030 targets are already met in the health care setting as the UK follows the EU Directive for the prevention of sharps injuries in the health care setting,\textsuperscript{(63)} by using safety engineered devices.


## Appendix 2. Preliminary indicators to monitor the impact of key interventions to tackle hepatitis C virus in England

### Burden, Impact and Service Coverage Monitoring Areas

<table>
<thead>
<tr>
<th>Burden</th>
<th>Impact</th>
<th>Service coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing the burden of infection in England</td>
<td>1. Reducing HCV-related morbidity and mortality</td>
<td>1. Adequate harm reduction</td>
</tr>
<tr>
<td>• Placeholders: Estimated prevalence of HCV infection in England</td>
<td>• Estimated incidence of HCV-related ESLD/HCC</td>
<td>• Estimated proportion of PWID reporting adequate needle/syringe provision</td>
</tr>
<tr>
<td>• Placeholders: Estimated prevalence of HCV infection in England</td>
<td>• Registrations for liver transplants in patients with HCV</td>
<td>• Sharing of needles and syringes among PWID</td>
</tr>
<tr>
<td>• Risk factors for infection from laboratory reports</td>
<td>• First liver transplants undertaken in patients with HCV</td>
<td>• Number of current and past PWID in drug treatment</td>
</tr>
<tr>
<td>• Trend in anti-HCV prevalence among PWID</td>
<td>• First liver transplants undertaken in patients with HCV HCC (% of all liver transplants in patients with HCV)</td>
<td>• Proportion of opioid dependent PWID receiving OST</td>
</tr>
<tr>
<td></td>
<td>• Deaths from HCV-related ESLD/HCC</td>
<td>• Placeholders: Proportion of PWID receiving targeted HCV information</td>
</tr>
</tbody>
</table>

### Data source

- TBC
- CoSurv/SGSS
- UAM survey
- HES
- NHS BT
- ONS
- Sentinel surveillance
- PHPQI/HJIP
- NHS BT
- NDTMS
- NHS E

### 2. Increasing awareness and the numbers and proportion diagnosed

- Estimated proportion of PWID testing positive for anti-HCV, aware of their infection
- Placeholders: Proportion of chronic HCV infections in England diagnosed
- Placeholders: Proportion of population with late stage HCV-related liver disease (cirrhosis/HCC) diagnosed
- Numbers completing RCGP HCV e-learning
- Laboratory reports of HCV infection
- Number of HCV tests (and proportion testing positive) in sentinel laboratories
- Number of HCV tests via GP surgeries (and proportion testing positive) in sentinel laboratories
- Reported uptake in voluntary confidential HCV testing among PWID
- Offer and uptake of HCV testing in adults - both newly presenting to, and all in, drug treatment
- Offer and uptake of HCV testing in adults currently or previously injecting - both newly presenting to, and all in, drug treatment
- Placeholders (awaiting DBS data): Number of HCV tests via drug services (and proportion testing positive) in sentinel laboratories
- Proportion of new receptions to prisons tested for HCV
- Placeholders (awaiting DBS data): Number of HCV tests via prisons (and proportion testing positive) in sentinel laboratories
- Number of HCV tests in Asian or Asian British people (and proportion testing positive) in sentinel laboratories
- Number of HCV tests in Eastern European people (and proportion testing positive) in sentinel laboratories
- Rate of hepatitis C infection among new and repeat blood donors

### 3. Increasing numbers accessing treatment

- Placeholders: Proportion of diagnosed population linked into care and monitored
- Placeholders: Proportion of diagnosed population eligible for HCV treatment who have accessed treatment, and proportion cured
- Placeholders: Future additional metrics on treatment access

### Placeholders

- Placeholders are for indicators that are not currently available/in development or are absent because key data were not available at the time of publication.