



Public Health
England

Protecting and improving the nation's health

Hepatitis C in the UK 2016 report

Working towards its elimination as a major public health threat



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Foreword



Duncan Selbie
Chief Executive

Despite a global death toll exceeding that of HIV, of malaria and of tuberculosis, viral hepatitis has failed to be recognised as a priority for the health and development sectors in previous years.

In the UK, more than 200,000 people have chronic (long-term) infection with hepatitis C (HCV), the majority of whom are from marginalised and under-served groups in society, such as people who inject drugs (PWID).

In tackling HCV, we share the World Health Organization's (WHO) Global Vision of "a world where viral hepatitis transmission is halted and everyone living with viral hepatitis has access to safe, affordable and effective care and treatment".

Yet, if we are to eliminate hepatitis C as a major public health threat in the UK by 2030, a radical change is required.

The roll-out of new direct acting anti-viral (DAA) drugs across the country is an important milestone, and provides the opportunity to make a step-change in reducing the morbidity and premature mortality caused by the hepatitis C. However, the costs of treatment are significant and represent a challenge as we endeavour to drive forward improvements in the prevention and control of HCV at a time when resources are scarce, and in some areas diminishing.

Modelling studies have suggested that the use of new HCV therapies for 'treatment as prevention' in people who inject drugs have the potential to reduce the number of new HCV infections in the UK. Further testing is now required in order to guide future public health policy and clinical practice, and make the case for investment.

This is the eighth Hepatitis C in the UK report and follows the WHO Global Health Sector Strategy (GHSS) on Viral Hepatitis 2016-2021. Our report has been restructured to support UK monitoring of the recently agreed GHSS goals and will be the first of

many summarising the impact of UK action plans to drive down mortality from HCV and reduce the number of new infections.

Working together, we must do more to increase diagnoses, ensure easier access to testing and treatment and further develop care pathways and support for people with HCV. There are challenges, but we continue to work with our partners to identify practical solutions.

A handwritten signature in black ink, appearing to read "Jim Sackie". The signature is written in a cursive style with a large, looped initial "J".

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Executive summary

On 28 May 2016, the World Health Assembly adopted a Global Health Sector Strategy (GHSS) on viral hepatitis for the period 2016-2021.⁽¹⁾ This strategy introduced the first-ever global targets for viral hepatitis control.⁽¹⁾ This report summarises the scale of the UK hepatitis C (HCV) problem in 2015, as a baseline, to help support focused action to eliminate hepatitis C as a major public health threat by 2030.

Early estimates suggest that numbers of new cases of HCV-related end-stage liver disease (ESLD) and hepatocellular carcinoma (HCC) in the UK have remained relatively stable, at an average of 1,836 new cases per year over the last five years. However, preliminary data suggest a fall in deaths from these indications of 11% in 2015. While 2015 data are preliminary, it seems likely that this fall may be the result of the increased treatment with new direct acting antiviral (DAA) drugs that has been observed over the last year (around a 40% increase), particularly in those with more advanced disease. As such, the World Health Organization (WHO) GHSS target of a reduction in HCV-related mortality of 10% by 2020⁽¹⁾ looks likely, and a reduction of 65% by 2030⁽¹⁾ seems achievable and could possibly be exceeded. Despite this, only around one half of people who inject drugs (PWID) sampled in UK surveys^{(2),(3)} were aware of their HCV antibody positive status, and this figure has remained relatively stable at this level over the last five years. As such, the WHO GHSS target of 30% of infected people knowing their status by 2020⁽¹⁾ may have already been met in the UK, but more work is needed if we are to meet the target of 90% diagnosed by 2030⁽¹⁾.

Data from UK surveys of PWID^{(2),(3)} suggest that numbers of new HCV infections have remained relatively stable over recent years; both estimated rates of infection and prevalence of infection in recent initiates to drug use, were similar in 2015 (8/100 person years and 26% respectively) to those observed in 2011 (7/100 person years) and 2008 (24%). Moreover, the proportion of PWID reporting adequate needle/syringe provision was found to be suboptimal, with only around one half of those surveyed reporting adequate provision for their needs. These findings suggest that the WHO GHSS call to reduce new cases of chronic HCV by 30% by 2020 and 90% by 2030⁽¹⁾, represents a significant challenge for UK health services.

Overall, with the increasing availability of new DAA drugs, the UK is well-placed to meet WHO GHSS goals to reduce HCV-related morbidity and mortality. Yet, we need to do more to reduce the persistently high proportion who remain undiagnosed if levels of avoidable premature mortality are to be reduced. It will also be important to monitor equity of access to treatment and care services. At the other end of the spectrum, there is little evidence to support a fall in the number of new HCV infections; if GHSS goals to reduce these levels are to be reached, then a radical change in our response to HCV among PWID is required.

Background

The global burden of viral hepatitis has been increasing since 1990, reaching 1.46 million deaths in 2013. Viral hepatitis is a leading cause of death globally with a toll exceeding that of HIV (1.3 million deaths), tuberculosis (1.2 million deaths) and malaria (0.5 million deaths).⁽⁴⁾ Despite the significant burden it places on communities across all global regions, hepatitis has largely been ignored as a health and development priority. However, in 2010 and 2014, two World Health Assembly resolutions (WHA63.18⁽⁵⁾ and WHA67.6⁽⁶⁾) focused on viral hepatitis, and a specific action to ‘*combat viral hepatitis*’ was included within the resolution on the 2030 Agenda for Sustainable Development.⁽⁷⁾

Following on from these, on 28 May 2016, the World Health Assembly adopted a Global Health Sector Strategy (GHSS) on viral hepatitis for the period 2016-2021,⁽¹⁾ with its targets aligned with the 2030 Agenda for Sustainable Development and the relevant World Health Assembly resolutions. This strategy introduced the first-ever global targets for viral hepatitis, including a 30% reduction in new cases of hepatitis B (HBV) and C (HCV) by 2020 and a 10% reduction in mortality.⁽¹⁾ For HCV, the vision is that by implementing the GHSS for Viral Hepatitis, preventative efforts leading to fewer infections and deaths, as well as treatment efforts resulting in longer survival, together have the potential to prevent 2.1 million HCV-associated deaths worldwide by 2030.⁽⁴⁾

Closer to home in the World Health Organization (WHO) European Region, it is estimated that more than 15 million people are living with chronic HCV infection,⁽⁸⁾ and an action plan for the health sector response to viral hepatitis in this region is anticipated. In the UK, it is estimated that around 214,000 people are living with chronic HCV.⁽⁹⁾ Injecting drug use continues to be the most important risk factor for infection with around half of people who inject drugs (PWID) thought to have been infected in England and Wales, with levels being lower in Northern Ireland (23%) but higher in Scotland (57%).⁽⁹⁾ Prevalence of infection varies around the UK, being concentrated in areas with high levels of current/past injecting drug use and high numbers of black and minority ethnic populations who have close links to countries with a high prevalence of HCV infection. HCV disproportionately affects populations who are marginalised and underserved and have poorer access to healthcare and health outcomes.

If we are to tackle HCV infection in the UK, and work towards elimination of the virus as a major public health threat by 2030, it is critical that we continue to work with our partners to improve prevention, raise awareness, increase testing and get more diagnosed individuals into treatment and care.

Introduction

HCV is a bloodborne virus that is often asymptomatic, and symptoms may not appear until the liver is severely damaged. As a consequence, many individuals with chronic HCV infection remain undiagnosed and fail to access treatment. These individuals can then present late with complications of HCV-related end-stage liver disease (ESLD) and cancer, which have poor survival rates.

Hepatitis C is a curable infection, and it is our aspiration to support the WHO in its goal to eliminate hepatitis C as a major public health threat by 2030. This can be achieved via the collective action of all partner organisations involved in the prevention, diagnosis, treatment and care of those living with, or at risk of acquiring, HCV infection. National action plans to tackle hepatitis C are already in place, and being developed across the UK⁽¹⁰⁻¹³⁾, including the *Liver Disease Delivery Plan for NHS Wales and its Partners to 2020*⁽¹⁰⁾ and the *Sexual Health and Blood Borne Virus Framework, 2015-2020 Update* in Scotland.⁽¹¹⁾ In England, NHS England is producing an operational framework setting out its commitment to improve outcomes in hepatitis C, and PHE plans to capture the wider public health activities in an England report later this year.

Informed by Global Health Sector Strategy (GHSS) goals and targets (see Appendix 1), countries are called upon to develop, as soon as practicable, ambitious national goals and targets for 2020 and beyond. These are intended to take into consideration the country context, including the country-specific nature and dynamics of viral hepatitis, the populations affected, the structure and capacity of the health care and community systems, as well as the resources that can be mobilised.⁽¹⁾ Targets also need to be feasible and developed based on country realities, the best possible data, trends and responses, and should be monitored through a set of standard, measurable indicators.⁽¹⁾

This report summarises the scale of the UK problem in 2015, as a baseline, to help support focused action in UK countries via their national action plans, to eliminate hepatitis C as a major public health threat by 2030. To track our progress, it is important to monitor the impact of key interventions in the following two **impact** areas:

- reducing transmission of HCV
- reducing morbidity and mortality due to HCV and its complications

To support this, it is also important to monitor the coverage of those interventions that are critical in driving down the levels of HCV infection and HCV-related mortality in the UK, namely:

- the adequacy of harm reduction in PWID
- the proportion of infected people who are diagnosed
- the numbers, and ultimately the proportion, of infected people accessing treatment

The preliminary UK indicators (see Appendix 2), reported in the sections that follow, describe our progress so far and set out the scale of the challenge ahead so that meaningful goals can be developed and progress towards achieving them can be monitored in the years ahead.

Monitoring service coverage

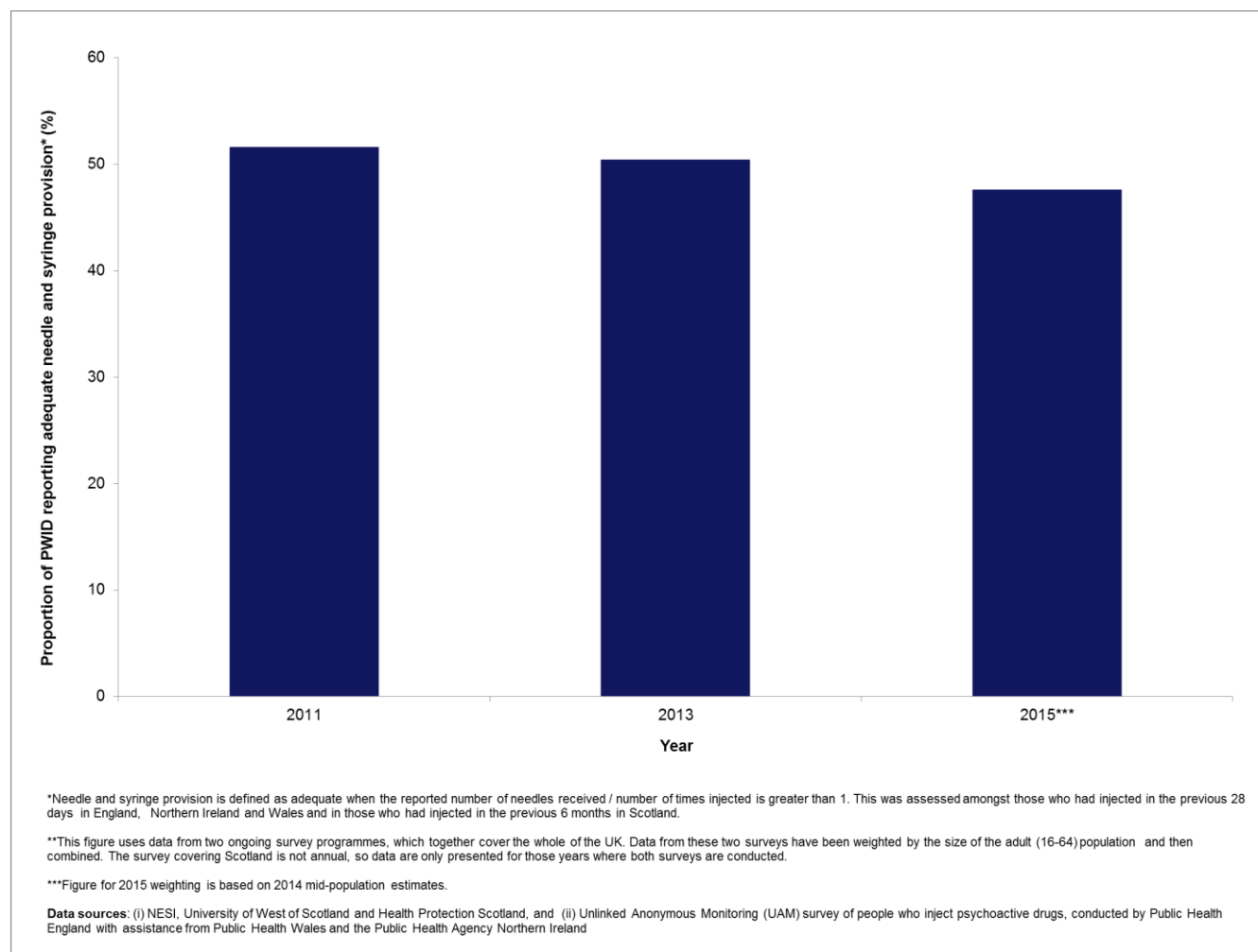
Eliminating hepatitis C as a major public health threat by driving down HCV-related mortality and preventing new infections from occurring is potentially feasible with the tools and approaches currently available to us in the UK. Investment in three core intervention areas is needed: (i) ensuring adequate harm reduction for PWID, (ii) increasing the proportion of infected individuals who are diagnosed, and (iii) increasing the proportion of infected individuals who access and complete treatment, achieving a sustained viral response (SVR).

Adequate harm reduction

Harm reduction interventions for PWID, including access to sterile injecting equipment and effective drug dependence treatment, can prevent and control HCV among PWID.^{(14),(15),(16),(17),(18),(19)} Optimal access to clean injecting equipment and opioid substitution treatment (OST) is crucial in curbing the spread of HCV, particularly given that it also has the potential to prevent reinfection after treatment. The GHSS on viral hepatitis calls for a major global increase in provision of sterile needles and syringes to PWID, from an estimated baseline of 20 needles and syringes per PWID per year to 200 by 2020 and 300 by 2030.⁽¹⁾ (see Appendix 1) However, these inevitably somewhat arbitrary figures, do not make any allowance for individual differences in need. In order to better reflect the adequacy of needle/syringe provision, data from UK surveys of PWID (Unlinked Anonymous Monitoring (UAM) Survey⁽²⁾ & Needle Exchange Surveillance Initiative (NESI) Survey⁽³⁾) are presented here on self-reported adequacy of needle/syringe provision (Figure 1). In this metric, needle/syringe provision is considered 'adequate' when the reported number of needles received, met or exceeded the number of times the individual injected.

Figure 1 shows that the proportion of PWID in the UK reporting adequate needle/syringe provision is sub-optimal, with only around one half of those surveyed reporting adequate provision for their needs. These findings indicate that, while the majority of PWID may be accessing needle and syringe programmes (NSP),⁽⁹⁾ the amount of equipment provided needs to be increased and provision better targeted. NSPs can also be an important setting for delivering prevention information to PWID.

Figure 1. Estimated UK-wide proportion of PWID reporting adequate* needle and syringe provision, 2011-2015**

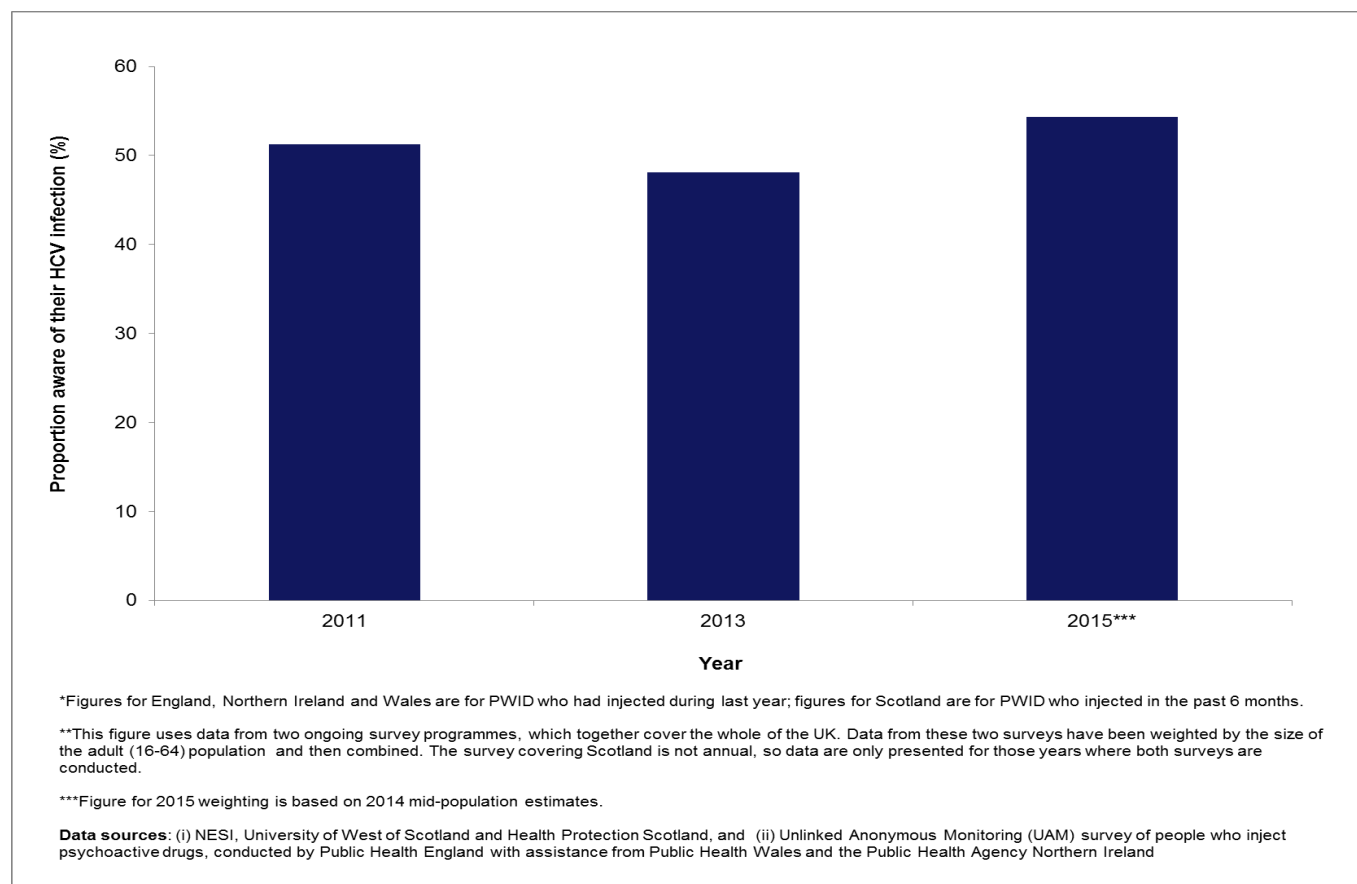


Increasing the proportion diagnosed

Early diagnosis of HCV infection is important for the most effective treatment and care, yet globally less than 5% of people with chronic viral hepatitis are aware of their status.⁽¹⁾ In the UK, levels of awareness of infection are well above the 5% global average, but are still suboptimal with positive results often failing to successfully link individuals into treatment and care services.⁽⁹⁾

While we work towards developing UK estimates of the proportion of individuals with chronic HCV infection who remain undiagnosed (currently these are unavailable for most UK countries), our best diagnosis monitoring data currently comes from national UK surveys of PWID (UAM & NESI^(2,3)). After weighting the findings by the sizes of the adult (16-64) populations for the countries they cover, these surveys suggest that, in the UK, only around one half of PWID sampled are aware of their HCV antibody positive status; this figure has remained relatively stable at this level over the last five years (Figure 2).

Figure 2. Estimated UK-wide proportion of PWID testing positive for HCV antibodies*, who are aware of their infection, 2011-2015**



The GHSS on viral hepatitis calls for a major global increase in the diagnosis of chronic HCV infection, with 30% of people infected knowing their status by 2020 and 90% by 2030⁽¹⁾ (see Appendix 1). While the first target has likely already been reached in the UK, more needs to be done if we are to reach the 90% target by 2030.

To reduce the levels of undiagnosed infection, it is necessary to roll out testing to more individuals at risk of infection, including priority populations like PWID, those in detained/secure settings, and to populations with close links to countries with a high prevalence of HCV infection.⁽²⁰⁾ There are also those who may no longer be in contact with services because they acquired their infections many years earlier, for example following a period of injecting drug use or via blood transfusion before the introduction of screening of the blood supply in 1991. For the most part, HCV disproportionately affects populations who are marginalised and underserved and have poorer access to healthcare, so testing in alternative/community settings, using alternative technologies like dried blood spot (DBS) testing,^{(21),(9)} will be key in reducing the levels of undiagnosed infection. If gains in testing are to be translated into cures, it is also important to ensure that we continue to work together to improve key linkages between testing and treatment services so that diagnosed individuals can access treatment and care.

Increasing the numbers accessing hepatitis C treatment

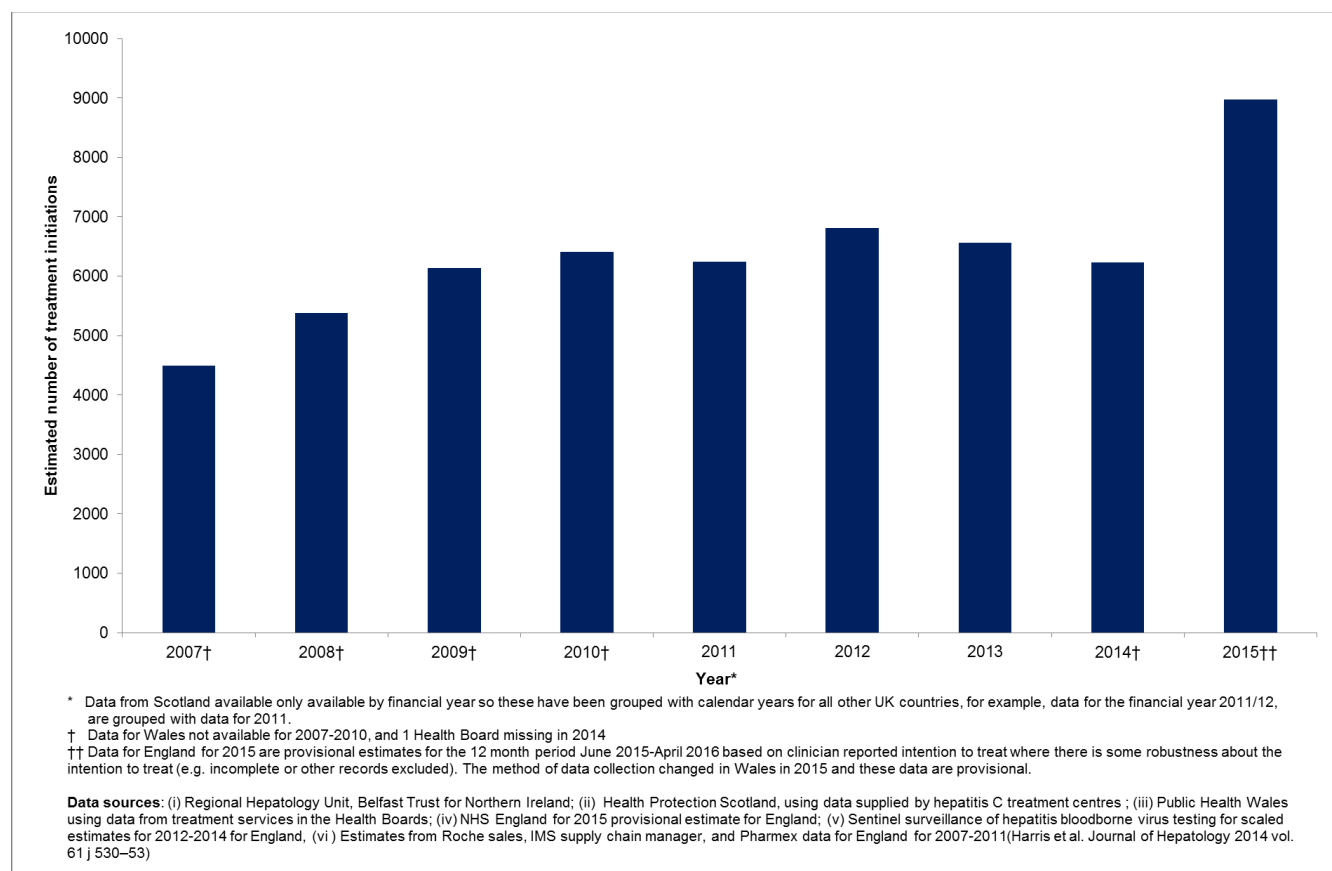
Globally, less than 1% of people with chronic hepatitis infection are receiving treatment. The GHSS on viral hepatitis calls for three million people with chronic HCV to have been treated by 2020, and by 2030 treatment coverage to reach 80% of the eligible population.⁽¹⁾ (see Appendix 1).

In the UK, new direct acting antiviral (DAA) drugs have the potential to transform the treatment landscape, offering a fast and effective cure to the vast majority who receive them, without many of the complications associated with previous treatments.^{(22),(23)} While prevention activity is absolutely key in reducing the rate of new infections, numbers already infected would remain high for many years without effective HCV treatment, which has the potential to dramatically reduce the number of deaths in the short and medium term.^{(22),(23)}

From the public health perspective, the new generation of DAA drugs offer a considerable advantage over previous HCV treatments because their all-oral, shorter treatment durations, and improved side-effect profiles make them easier to roll out in community/outreach settings where it is easiest to reach many of those infected. While the high price of these new drugs represents a major barrier to access in most countries worldwide, these medicines are now being rolled out, in accordance with national recommendations,^{(24-28),(29)} in all UK countries.

As we work towards producing UK estimates of the proportion of the chronically infected population who achieve a SVR following treatment, Figure 3 summarises provisional estimates of the numbers initiating HCV treatment in the UK over recent years. Between 2009 and 2014, provisional estimates suggest that numbers initiating HCV treatment in the UK remained relatively stable at around 6,400 initiations per year (Range: 6,130, 6,812). However in 2015, provisional estimates suggest that significantly more people (approximately 8,970 in total) accessed treatment that year, an increase of around 40% on the previous year. (Figure 3) This is likely to be the result of access to new DAA drugs that have been coming online since 2014/15.^{(27),(28),(26),(24),(25),(29)}

Figure 3. Provisional UK-wide estimates of numbers initiating HCV treatment, 2007-2015



Monitoring impact

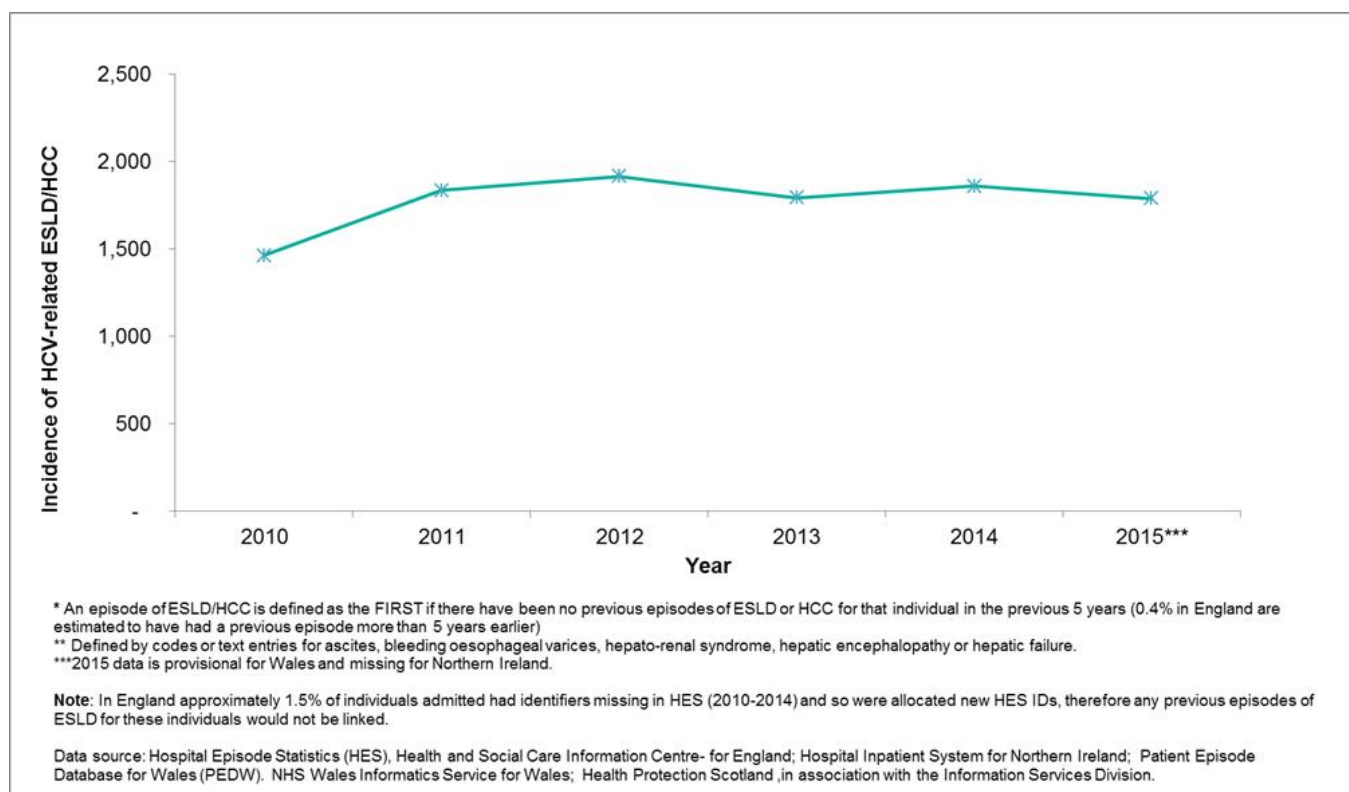
Reducing HCV-related morbidity and mortality

Over the last decade, morbidity and mortality from HCV have been on the increase in the UK as people who acquired their infections decades earlier progress to advanced liver disease and access to sub-optimal treatment has been inadequate.^{(9),(30)} However, the new DAA drugs that have recently come online^{(27),(28),(26),(24),(25),(29)} offer the potential to significantly reduce the number of individuals progressing to serious HCV-related ESLD/hepatocellular carcinoma (HCC) and to reduce the premature mortality that results.⁽²²⁾ As new treatments are rolled-out to those who need them, it should be possible to achieve a rapid reduction in the severe morbidity and mortality that is currently observed^{(22),(23)} and has been predicted to continue in the future.⁽⁹⁾

Morbidity – Reducing the incidence of HCV-related ESLD/HCC

New cases of HCV-related ESLD/HCC can be monitored using Hospital Episode Statistics (HES). New cases can be identified by first linking all episodes of ESLD/HCC for an individual using their unique HES patient identifier and then linking these to any diagnosis of HCV since 2004. Once these have been linked, a case of HCV-related ESLD/HCC can be classified as ‘new’ if no previous episodes of ESLD/HCC for that individual are found in the previous five years (In England, less than 1% of ESLD/HCC episodes are estimated to have had a previous episode more than five years earlier). In Scotland, data on new (ie first time) ESLD/HCC hospitalisations were obtained via record-linkage of Scotland’s National Hepatitis C Diagnoses Database to the national database on hospital admissions. Together these analyses have enabled us to produce the first UK-wide preliminary estimates of new cases (incidence) of HCV-related ESLD/HCC (Figure 4). However, it is important to recognise the limitations of these early estimates since different datasets were utilised in different UK countries, HCV may be unreported in HES, and patient episodes can only successfully be linked when identifiers exist in HES to allow this. For example, in England approximately 1.5% of individuals admitted had identifiers missing in HES (2010-2014) and so were allocated a new HES identifier. Therefore, any previous episodes of ESLD for these individuals would not be linked. As a result these early estimates of incidence remain preliminary but suggest that new cases of HCV-related ESLD/HCC have remained relatively stable over the last five years, averaging 1,836 new cases per year between 2011 and 2015 (Range: 1,786, 1,914; Figure 4).

Figure 4. Preliminary estimates of incidence* of HCV-related ESLD/HCC in the UK: 2010-2015**

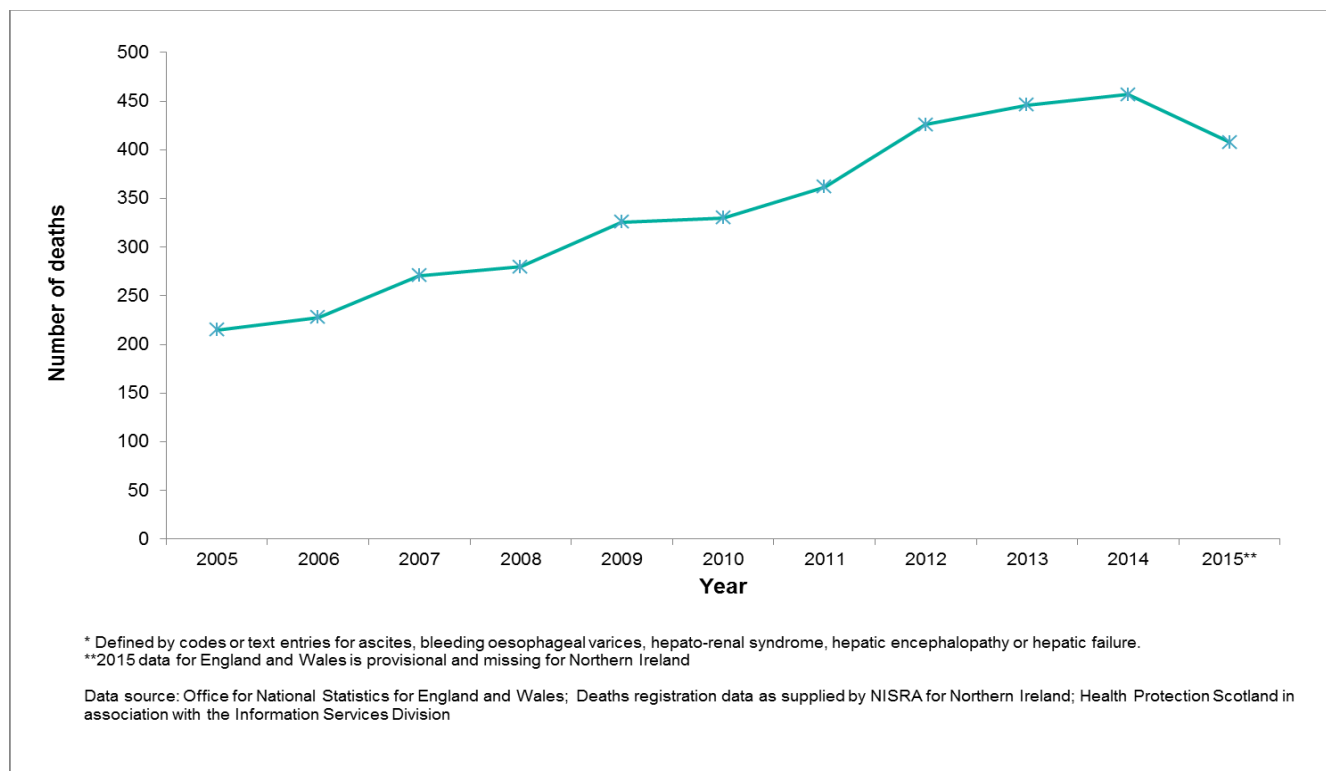


Mortality – Reducing deaths from HCV-related ESLD/HCC

Between 2005 and 2014, deaths from HCV-related ESLD and HCC in the UK more than doubled, rising from 215 in 2005 to 457 in 2014 (Figure 5). However, a fall of 11% was observed in 2015. Although 2015 data are preliminary and so need to be interpreted with caution, it is possible that this fall is the result of new DAA drugs that were introduced from 2014/2015 (Figure 3), particularly for those individuals with more advanced disease.^(31, 32) This suggests that new drugs may already be having an impact on mortality from HCV-related ESLD/HCC.

As more infected individuals access new therapies, the GHSS on viral hepatitis' call for a 10% reduction in HCV deaths by 2020 seems assured in the UK, and a reduction of 65% by 2030⁽¹⁾ (see Appendix 1) within our reach.

Figure 5. Deaths from ESLD* or HCC in those with hepatitis C mentioned on the death certificate in the UK: 2005 to 2015



Reducing the number of new (incident) infections

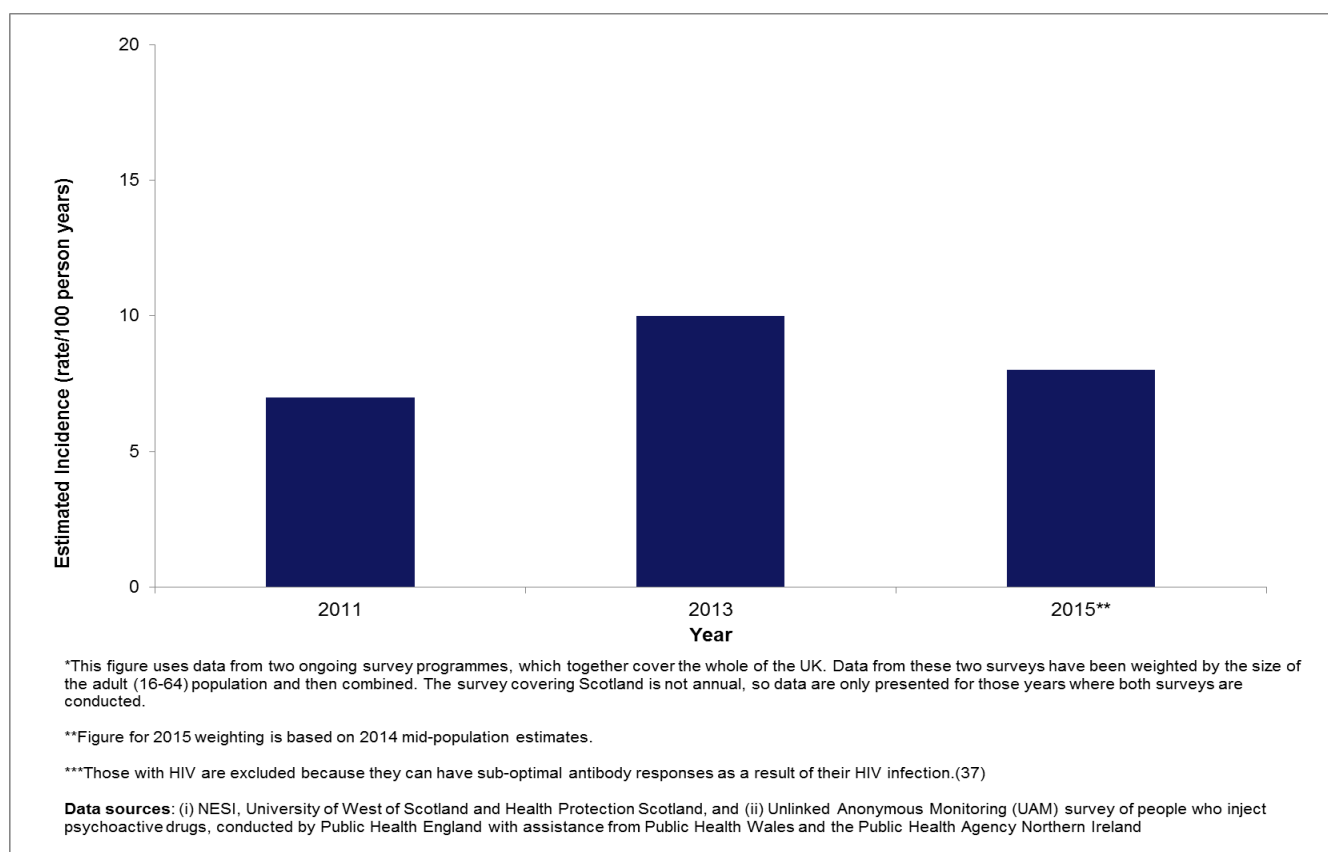
Monitoring the impact of prevention measures on the incidence of infection remains a challenge as incident infection is difficult to measure directly. Ideally we would monitor the actual or estimated number of new chronic HCV infections that arise annually in PWID as well as any that result from net migration, and monitor this over time. However, the former is difficult to estimate because much of the acute infection is asymptomatic and undiagnosed and there is considerable uncertainty around the number of people in the UK who are injecting drugs.⁽³³⁻³⁶⁾ Added to this, it is also difficult to select a sentinel population of PWID for monitoring that is representative of PWID as whole. As a result, a number of methods have been used to generate information to provide insight into likely trends in incidence over time.⁽⁹⁾

In England, Wales and Northern Ireland, recent transmission of HCV has been explored among the participants in the UAM Survey of PWID⁽²⁾ by looking for those who have recently developed antibodies to HCV. This has been undertaken by testing the HCV antibody positive DBS samples collected in the survey for antibody avidity. Samples from HCV-infected individuals (demonstrated by the detection of HCV RNA), with HCV antibodies whose overall avidity is weak are likely to be from individuals who have recently been infected with the virus. The length of time that samples from recently infected individuals will have antibodies with weak avidity is uncertain, but this state may

last from two to six months. Avidity testing has been used to explore recent transmission among those survey participants who had injected during the preceding year, after excluding those who were anti-HIV positive. In Scotland, recent transmission of HCV has been explored in a similar way among participants in the NESI Survey of PWID⁽³⁾ by looking for those who test positive for HCV RNA, but are negative for HCV antibody. Like those with weak avidity antibody, individuals in this viraemic pre-seroconversion window are likely to have acquired their infections recently. Incidence estimates from these two surveys can be combined after weighting them by the sizes of the adult (16 to 64) populations for the countries they cover (see Figure 6).

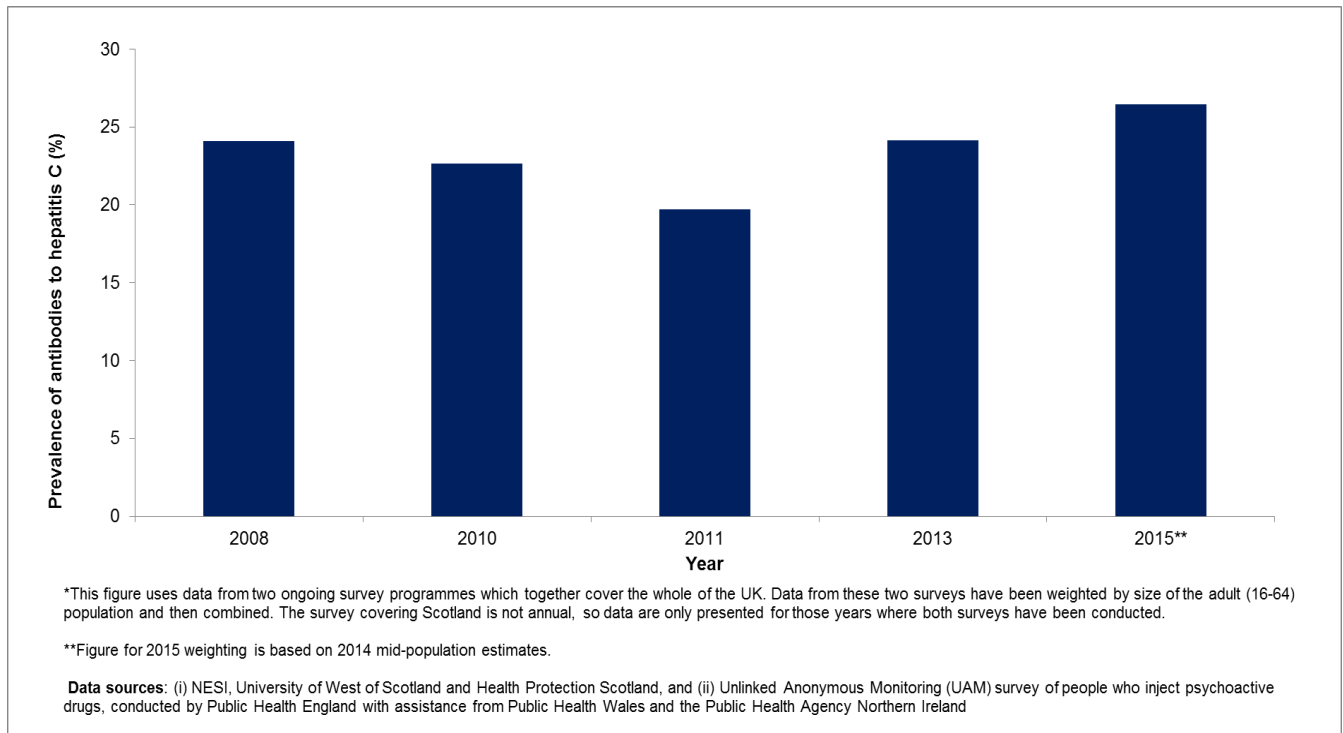
These data suggest that incidence of infection has remained relatively stable over recent years, with the rates observed in 2015 (8/100 person years) being similar to those observed in 2011 (7/100 person years; Figure 6).

Figure 6. Estimated UK-wide incidence of HCV among PWID, 2011-2015*, ***



Because most new infections are acquired via injecting drug use, the prevalence of infection among recent initiates to injecting drug use can be used as a proxy measure of incidence. When taken together, data from UK surveys of PWID in contact with services (UAM⁽²⁾ & NESI⁽³⁾) suggest that incidence of infection has remained relatively stable over recent years, with levels of infection in 2015 (26%) being similar to those observed in 2008 (24%; Figure 7).

Figure 7. Estimated UK-wide prevalence of antibodies to hepatitis C among people who began injecting drugs in the previous three years, 2008-2015.*



UK estimates of HCV incidence suggest that the call to reduce new cases of chronic HCV by 30% by 2020, and 90% by 2030⁽¹⁾ (see Appendix 1), represent a significant challenge for UK health services. If these goals are to be achieved, a radical change in the response to HCV among PWID is required.

Data sources

- Office for National Statistics mortality data:
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths>
- Unlinked Anonymous Monitoring survey of PWID in contact with specialist drug services. <https://www.gov.uk/government/statistics/people-who-inject-drugs-hiv-and-viral-hepatitis-monitoring>
- Hospital Episode Statistics, The NHS Information Centre for Health and Social Care: www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=53
- NHS National Services Scotland (Health Protection Scotland and Information Services Division): www.nhsnss.org/index.php
- Needle Exchange Surveillance Initiative in Scotland (University of West of Scotland, Health Protection Scotland, and West of Scotland Specialist Virology Centre): <http://www.uws.ac.uk/research/research-institutes/social-sciences/health-behaviours-and-policy/needle-exchange-surveillance-initiative/>
- Patient Episode Database for Wales, NHS Wales Informatics Service: <http://www.wales.nhs.uk/nwis/page/52490>
- Public Health Agency: www.publichealth.hscni.net
- Northern Ireland Statistics and Research Agency: www.nisra.gov.uk
- Hospital Inpatient System, Northern Ireland: <https://www.health-ni.gov.uk/topics/dhssps-statistics-and-research/hospital-activity-statistics>
- Public Health Wales: www.publichealthwales.wales.nhs.uk/
- Health Protection Scotland: www.hps.scot.nhs.uk/
- Regional Hepatology Unit, Belfast Trust: <http://www.hepbandcni.net/>
- NHS England Specialised Commissioning: www.england.nhs.uk/commissioning/spec-services/

- PHE Sentinel Surveillance of Hepatitis C Testing: www.gov.uk/government/publications/sentinel-surveillance-of-blood-borne-virus-testing-in-england-2014
- Pharmex: <https://www.gov.uk/government/collections/commercial-medicines-unit-cmu>
- Roche: www.roche.co.uk/
- MSD: www.msd-uk.com

Glossary of abbreviations

DAA	Direct acting antiviral
DBS	Dried blood spot
ESLD	End-stage liver disease
GHSS	Global Health Sector Strategy
HCC	Hepatocellular carcinoma
HCV	Hepatitis C virus
HES	Hospital Episode Statistics
NSP	Needle and syringe programme
NESI	Needle Exchange Surveillance Initiative
NWIS	NHS Wales Informatics Service
OST	Opioid substitution treatment
PHE	Public Health England
PWID	People who inject drugs
RNA	Ribonucleic acid
SVR	Sustained viral response
UAM	Unlinked Anonymous Monitoring Survey
WHO	World Health Organization

Appendices

Appendix 1. WHO Global Health Sector Strategy targets for viral hepatitis, relevant to HCV in the UK context*

TARGET AREA	2020 TARGETS	2030 TARGETS
Impact targets		
Incidence: New cases of chronic viral hepatitis C infection	30% reduction	90% reduction
Mortality: Viral hepatitis C deaths	10% reduction	65% reduction
Service coverage targets		
Blood safety**	95% of donations screened in a quality-assured manner	100% of donations screened in a quality-assured manner
Safe injections:*** Percentage of injections administered with safety engineered devices in and out of health facilities	50%	90%
Harm reduction: Number of sterile needles and syringes provided per person who injects drugs per year	200	300
Viral hepatitis C diagnosis	30% diagnosed	90% diagnosed
Viral hepatitis C treatment	3 million people with chronic HCV to have been treated	80% of eligible persons with chronic HCV treated

* Abstracted from the WHO Global Health Sector Strategy for Viral Hepatitis.⁽¹⁾

** In the UK, 2020 and 2030 targets are already met.⁽³⁸⁾

***In the UK, 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,⁽³⁹⁾ by using safety engineered devices.

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

Impact and Service Coverage Monitoring Areas • Preliminary 2016 UK Indicator	
Impact	<p>1. Reducing HCV-related morbidity and mortality</p> <ul style="list-style-type: none"> • Estimated incidence of HCV-related ESLD/HCC • Deaths from HCV-related ESLD/HCC
	<p>2. Reducing the number of new (incident) infections</p> <ul style="list-style-type: none"> • Estimated incidence of HCV among PWID • Estimated prevalence of anti-HCV among recent initiates to drug use
Service coverage	<p>1. Adequate harm reduction</p> <ul style="list-style-type: none"> • Estimated proportion of PWID reporting adequate needle/syringe provision
	<p>2. Increasing the proportion diagnosed</p> <ul style="list-style-type: none"> • Estimated proportion of PWID testing positive for anti-HCV, who are aware of their infection
	<p>3. Increasing numbers accessing treatment</p> <ul style="list-style-type: none"> • Estimated number initiating HCV treatment

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