A practice survey of activities and interventions that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection

Final report

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Executive summary

Methods

One of a series of four evidence reviews, the aim of this review was to identify and describe relevant services and interventions in the UK that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection. In addition to seeking information about intervention, activities and strategies that have been used to increase uptake of testing, we sought information on the wider provision of testing services in order to inform the development of subsequent evidence reviews and guidance on effective and cost-effective ways of offering testing to those at a high risk of hepatitis B and C infection.

The practice survey proceeded in two phases. In Phase 1, telephone interviews were undertaken with key organisations and individuals representative of national and regional stakeholders for hepatitis B and C. In Phase 2, healthcare professionals, practitioners, and representatives of voluntary and community sector organisations that were involved in, or delivered services and activities targeted towards those at higher risk of hepatitis B and C infection were asked to complete a self-administered online questionnaire.

Summary of findings

Despite the publication of the *Hepatitis C Action Plan for England* in 2004, there is evidence of considerable variation in hepatitis C testing, treatment, care and support services available in England. In addition, little is known about the provision and reach of case finding and testing for hepatitis B. Consequently, whilst there are an increasing number of examples of efforts to increase the awareness of hepatitis B and C among the public and health professionals, and interventions and strategies targeting uptake of testing, there is a lack of national policy and guidance that sets out clear objectives for case finding and testing for hepatitis B and C in England. In that respect the development of NICE public health guidance on the most cost-effective ways of offering tests to those at risk of infection is clearly needed.

Key prevention and commissioning priorities for hepatitis B and C

What are local priorities for preventing new hepatitis B and C infections?

Increasing the number of people receiving testing for both hepatitis B and C, and to increase the number of vaccinations for hepatitis B were the most commonly identified local priorities. In selected regions of England, other priorities included: raising awareness of hepatitis among healthcare professionals and hard to reach groups; improving pathways of care; and ensuring drug users had access to treatment.

What actions are being undertaken locally and regionally to increase awareness and understanding of hepatitis infection among the public and healthcare professionals?

Local and regional actions for increasing awareness and understanding of hepatitis infection varied. Although respondents reported that common methods of increasing the awareness of health professionals included professional development or training, few respondents indicated that this was a priority in their area. Improving communication and communication pathways between

different services offering testing, treatment and aftercare was commonly identified as an important action being undertaken at a regional and local level.

What are key local and regional priorities for increasing diagnosis?

The main priority across all regions was to increase the amount of testing carried out for both hepatitis B and C. The prison population and people accessing drug services were identified as particular priorities for increased testing. Across a number of regions, increasing the availability of dry blood spot testing was being used as a method to increase the uptake of testing.

What are key local and regional priorities for getting diagnosed individuals into treatment and care?

Improving pathways from diagnosis into treatment was the most common priority for getting diagnosed individuals into treatment and care. Other priorities varied by region and included a small number of regions working to improve the quantity and quality of treatment and associated aftercare, to reduce rates of non-attendance, and on the development of peer-led support for diagnosed individuals.

On a regional basis, which groups have been identified as a priority for future prevention efforts?

Injecting drug users and the prison population were identified by participants from all regions as a priority for future prevention efforts. Participants from most regions also stated that immigrant populations were an important group. Other specific groups identified, but that were targeted in some regions only, included sex workers, ethnic minority groups and homeless people.

Interventions, services and activities being used to increase uptake of testing for hepatitis B and C

What types of interventions are being used to encourage people from high-risk groups to use services that offer hepatitis B or C testing?

Providing advice and information (for example, leaflets and posters) were the most frequently reported components of interventions designed to raise awareness among people from high risk groups. Less frequently reported components were educational programmes, media campaigns, social marketing and incentives for participating in screening tests. Telephone interview participants provided additional information about the types of interventions being used to raise awareness among people from high risk groups and their 'close contacts'. For example, in the two regions, outreach work (awareness raising and testing) in mosques had targeted the Pakistani and Bangladeshi community, and in one region and nationally, South Asian melas were being used as a venue for awareness raising activities and in some cases, 'on the spot' testing. Intervention components aimed at health professionals only appeared to be a feature of services in some regions. Where indicated, intervention components most frequently used were educational sessions and/or meetings, and continual medical/nursing education.

What types of interventions are being used to improve the accessibility of existing services for people from high-risk groups?

Questionnaire respondents commonly reported that offering acceptable or alternative methods of testing, such as dry blood spot testing, and increasing the number and/or type of services that

offered testing were intervention approaches used to improve accessibility. Availability of dry blood spot testing was common within drugs services for both hepatitis B and C testing, however, a number of participants from both phases of the survey indicated that funding for dry blood spot testing had been withdrawn in their area.

Testing protocols and pathways varied across services, and just over half of respondents reported that they followed a protocol, guideline or policy for hepatitis B and/or C testing. Hepatitis testing services have traditionally required two blood samples to be taken on separate occasions to determine whether an individual is currently infected. Around half of questionnaire respondents indicated that testing procedures had been modified in their service and that further tests were conducted without a second sample being required. However, the extent to which modified testing protocols and pathways have been planned and implemented nationally is not clear from the information collected for this practice survey.

Both telephone interview and questionnaire participants reported that to improve the accessibility of services, testing was being provided through outreach services largely through the provision of Blood-borne viruses (BBV) nurses across a range of settings, commonly drugs services, and in one region there was on-going training to enable non-clinical staff to carry out testing. Intervention components less commonly reported were increasing the number of hours/days that facilities opened, and the transfer of responsibilities to other professional groups.

How are new services being designed to improve the accessibility of services that offer hepatitis B or C testing for people from high-risk groups?

A large number of questionnaire respondents were based in drugs services, suggesting that the provision of outreach nurses and the introduction of alternative methods of testing (most commonly, dry blood spot testing) across regions has extended the scope of services offering testing. However, it is not clear from the information collected for this practice survey how consistently such approaches are being implemented nationally. In addition, the Hepatitis C Trust has been coordinating a pharmacy testing pilot and a number of telephone interview and questionnaire participants reported that pharmacies within their region or service were involved. The pilot is focused in high risk areas, either within needle and syringe programmes or areas with a high population of people born in high prevalence countries. Participants from other regions reported that other pilot testing projects in pharmacies were being undertaken separately from The Hepatitis C Trust pilot.

What types of services and activities are being used to encourage people from high-risk groups who have tested positive to continue to seek support?

Services commonly provided support to encourage individuals who have tested positive to seek treatment and care, for example, services provided people attending drug services with support to attend appointments or liaised closely with treatment/referral services. A range of services were also provided on-site or by referral. Telephone interview participants reported that hepatitis support groups existed within their region or that individuals were signposted to the Hepatitis C Trust. Activities were also on-going to increase awareness among professionals, for example on the need for clear pathways for referral into treatment, or around the provision of pre- and post-test discussions.

Linking to the findings of the systematic review of qualitative research

The aim of the review of qualitative research was to provide a narrative perspective on how groups identified to be at a high risk of hepatitis B and C infection and practitioners view case finding and testing approaches, their experiences of the communication of test results and subsequent treatment, and what they perceive as the barriers and facilitators to participation in these strategies. The evidence identified suggested that there are modifiable factors among groups at a high risk of acquiring hepatitis B and/or C that could be addressed through interventions that aim to encourage uptake of testing. Based on the findings of the practice survey it appears that interventions and strategies have largely focused on addressing structural factors that discourage uptake of testing, for example, by providing dry blood spot testing as an alternative means of testing and as a method of providing testing in a broader range of settings. The provision of dry blood spot testing within drugs services also appears to be facilitating the uptake of testing among injecting drug users (IDUs) by providing a means of convenient and opportunistic testing within these services. Although, case finding and testing in primary care has been identified as playing an important role in the management of hepatitis B and C, efforts to improve knowledge and awareness among primary care professionals, primarily GPs, do not appear to have been extensively implemented in England. In addition, little information was collected in either phase of the survey about intervention approaches and strategies that have been used to address barriers to the uptake of testing in primary care.

Conclusions

This practice survey provides a rapid overview of services and interventions in England that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection. We have identified that a range of service models and configurations for testing have been implemented nationally and that while some intervention approaches and strategies appear to have been broadly adopted or implemented to address the risk of hepatitis B and C infection among high risk groups across regions in England, a coordinated national response is lacking.

In common with other surveys of practice, we are limited in the conclusions that can be drawn; in particular, a large number of respondents represented NHS-led services and therefore data is lacking on other types of services and interventions delivered, for example, within the voluntary sector. In addition, there appears to have been little formal or rigorous evaluation of relevant services and interventions in England, which therefore currently limits the development of an evidence base for interventions aimed at raising awareness and engaging with groups who are at an increased risk of HBV and HCV infection based on practice in England.

1 Introduction

1.1 Aims and objectives

This review was undertaken to support the development of guidance by the National Institute for Health and Clinical Excellence (NICE) on the most cost-effective ways of offering tests to those at risk of infection from hepatitis B and C.

One of a series of four evidence reviews, the aim of this review was to identify and describe relevant services and interventions in the UK that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection. In addition to seeking information about intervention, activities and strategies that have been used to increase uptake of testing, we sought information on the wider provision of testing services in order to inform the development of subsequent evidence reviews and guidance on effective and cost-effective ways of offering testing to those at a high risk of hepatitis B and C infection.

1.2 Research questions

The primary research questions for this review were:

1: What types of interventions are being used to encourage people from high-risk groups to use services that offer hepatitis B or C testing?
2: What types of interventions are being used to improve the accessibility of existing services for people from high-risk groups?
3: How are new services being designed to improve the accessibility of services that offer hepatitis B or C testing for people from high-risk groups?
4: What types of services and activities are being used to encourage people from high-risk groups who have tested positive to continue to seek support?

Additionally, secondary research questions for this review included:

1: What are local priorities for preventing new hepatitis B and C infections?
2: What actions are being undertaken locally and regionally to increase awareness and understanding of hepatitis infection among the public and healthcare professionals?
3: What are key local and regional priorities for increasing diagnosis?
4: What are key local and regional priorities for getting diagnosed individuals into treatment and care?
5: On a regional basis, which groups have been identified as a priority for future prevention efforts?

1.3 Background

1.3.1 Hepatitis C

Hepatitis C Action Plan for England

The *Hepatitis C Action Plan for England* (Department of Health, 2004), which was launched by the previous government in 2004, called for action to increase awareness of hepatitis C and the promotion of testing. Four actions were set out in the plan, which are summarised in Box 1.

Box 1. Hepatitis C Action Plan for England: the actions

Action 1: Surveillance and research

- Strengthen epidemiological surveillance of hepatitis C
- Carry out molecular studies to detect any change in the circulating genotypes of hepatitis C and to investigate development of antiviral drug resistance
- Develop a system for monitoring the offer and uptake of hepatitis C testing to all those attending specialist drug treatment and support services
- Production an annual report on hepatitis C including progress on the national outcome indicators (total number of laboratory-confirmed hepatitis C infection reports; proportion of those attending specialist drug treatment and support services for injecting drug users who are aware of their hepatitis C infection; and prevalence of hepatitis C in injecting drug users who started to inject in the last 3 years)
- Develop modelling techniques to assist in projecting the future numbers of patients needing specialist treatment and care for hepatitis C
- Investigate the prevalence of cosmetic body piercing and the associated risks of infection

Action 2: Increasing awareness and reducing undiagnosed infections

- Continue to develop professional awareness of hepatitis C in collaboration with other stakeholders
- Work with other stakeholders, including the voluntary sector, to produce and launch a sustained public awareness-raising campaign on hepatitis C
- Provide hepatitis C testing facilities in a range of clinical and community settings, in a way that will overcome barriers to access
- Work with the Royal Colleges, professional regulatory bodies and others to promote inclusion of up-to-date information about hepatitis C in undergraduate, postgraduate and continuing education for health professionals
- Produce guidance on hepatitis C testing for health professionals
- Assess the need for, and feasibility of, self-collection of samples by patients in the community (home sample collection testing) as a way of broadening access to hepatitis C testing

Action 3: High-quality health and social care services

- Chief executives of PCTs and NHS Hospital Trusts to be able to demonstrate that there are adequate services and partnerships at local level to enable models of best clinical practice

Action 4: Prevention

- Drug Action Teams to develop local multi-agency arrangements for hepatitis C prevention, which link into other related areas such as sexual health and drug misuse
- Review and strengthen harm reduction services for the prevention of hepatitis C transmission associated with injecting drug use
- Minimise the risk of hepatitis C transmission within health care settings
- Promotion and auditing of good infection control practice in cosmetic skin piercing businesses
- Development of health promotion information explaining the risks of injecting drugs and how to avoid hepatitis C and other blood-borne viruses to give to all young people entering juvenile and young offenders' establishments and to other offenders
- Provision of information about avoiding hepatitis C infection abroad, including information for people from minority ethnic groups visiting their countries of origin
- Development of proposals to carry out a national audit of needle exchange schemes

Following the launch of the Action Plan, there were a number of national and local initiatives in England aimed at raising the public awareness of hepatitis C. At a national level, examples include, under the previous government, the Department of Health *Get Tested, Get Treated* campaign targeted at former injecting drug users (IDUs) and a specialist campaign designed to target young South Asian adults, and community and faith leaders (*Hepatitis C. The more you know, the better*). In addition, interventions and activities to promote testing have focused on increasing access to, and opportunities to offer, testing. However, critics of the Action Plan suggest that it did not clearly set out what was required of local clinic services (Morris, 2011). At a national level, surveys undertaken

by The Hepatitis C Trust and the All-Party Parliamentary Hepatology Group of hepatitis care in England suggest that service delivery for hepatitis C is patchy and failing to meet the objectives set out in the Action Plan. For example, in 2006, a survey of PCTs found that just 8% were implementing the action plan in what was considered to be an effective manner and local responses to hepatitis C were judged to be poor (All-Party Parliamentary Hepatology Group, 2006). A national audit of hospital services also found that there was a large amount of variation in hepatitis C services available in England, that around a third of patients were not being offered treatment, and that there was a shortage of basic monitoring of services (All-Party Parliamentary Hepatology Group, 2010). An audit of hepatitis C care pathways undertaken by the HPA in October/November 2010 (HPA, 2011a), found that 71% of PCTs had a care pathway in place and that improvements had been made in the involvement of the HPA in the planning and implementation of prevention and control measures for hepatitis C.

Following on from the Action Plan, a National Clinical Director for Liver Disease was appointed in 2010 and a *National Liver Strategy for England* is expected to be launched in 2012. The purpose of the strategy is to improve prevention and treatment along the care pathway for liver disease and reducing undiagnosed chronic hepatitis C infections, and increasing access to testing, advice, and onward clinical pathways for groups at risk of infection are major issues to be addressed as part of the strategy.

Scotland Hepatitis C Action Plan

In comparison to the *Hepatitis C Action Plan for England*, the *Scotland Hepatitis C Action Plan* been widely regarded as a model of good practice (Morris, 2011). The first phase of the Action Plan was launched in 2006, and although progress was made in the development of services, key findings from the first phase of the plan highlighted a number of issues, including: widespread variations in the approach to the clinical management and social care of people infected with hepatitis C; ad hoc and substandard training of the hepatitis C workforce; insufficient links between community and specialist services; and widespread variations in testing practice in the community setting (Scottish Government, 2008). A second phase of the Action Plan followed in 2008; in relation to testing, treatment, care and support for hepatitis C, 12 actions have been set out, which are summarised in Box 2.

Box 2: Scottish Hepatitis C Action Plan: Actions for Testing, Treatment, Care and Support

1. Each NHS board will have, or be affiliated to, a Managed Clinical Network (MCN) for hepatitis C comprising representatives of relevant specialists in healthcare and other stakeholder groups;
2. Development of quality standards for hepatitis C testing and the treatment, care and social support of persons with hepatitis C infection;
3. Development of a national hepatitis C learning and workforce development framework;
4. Identification of hepatitis C workforce development leads in each NHS board.
5. Development and implementation of awareness-raising campaigns and communications initiatives to meet the information and education needs of a range of professional audiences;
6. To increase the number of persons undergoing therapy by developing testing, treatment, care and support services within each NHS Board;
7. Development of service level agreements between NHS boards and the Scottish Prison Service to promote the treatment of hepatitis C infected inmates in prisons;
8. Development and implementation of a formal plan for each NHS board, indicating how it has integrated or

will integrate appropriate elements of hepatitis C specialist treatment services into those for social care, mental health and addiction in local authority, voluntary sector, primary care and secondary care settings;

9. Identification of a strategic and operational lead for hepatitis C infection in each local authority;
10. Development and implementation of a plan by NHS Boards and Community Health Partnerships, incorporating innovative approaches, to improve hepatitis C testing and referral activities by GPs and other community setting practitioners;
11. Implementation of an awareness-raising campaign, to promote hepatitis C testing among those at risk of being infected;
12. To undertake a programme of work to evaluate different approaches to hepatitis C testing/body fluid sampling (e.g. near patient testing/use of saliva and dried blood spots).

Guidance on case finding and testing

The Royal College of General Practitioners (RCGP) published *Guidance for the prevention, testing, treatment and management of hepatitis C in primary care* in 2007 (RCGP, 2007). The purpose of the guidance was to provide clinical information about the management of hepatitis C infection in primary care with the aim of increasing prevention of hepatitis C transmission along with improved testing, diagnosis and treatment for patients who are already infected. With regard to testing, the guidance emphasises the importance of testing in general practice and the need to assess all patients for risk factors. In addition, the guidance is clear that health professionals should ensure that patients understand the condition and the nature of the test before testing is carried out.

In early 2012, the RCGP released an educational package*, Certificate in the Detection, Diagnosis and Management of Hepatitis B and C in Primary Care* aimed at GPs and other primary care health professionals to improve the management of patients with hepatitis B and C. The course aims to support practitioners in detecting and diagnosing hepatitis B and C, and advising people about reducing risk of infection.

1.3.2 Hepatitis B

Whilst there are national policies for hepatitis B in England in relation to immunisation (e.g. immediate post-exposure vaccination for infants born to infected mothers) and prevention (e.g. screening of all pregnant women antenatally for infection), clear national policies on case finding and testing are lacking. Recommendations by the Advisory Group on Hepatitis (currently out for consultation) suggest case finding for chronic hepatitis B in individuals from countries with a prevalence of hepatitis B infection $\geq$2% and ensuring that there are care pathways in place for those who are found to be infected (HPA, 2011b).

2 Methodology

2.1 Scope of the study

2.1.1 Population groups considered

The practice survey focused on services provided to those populations most at risk of becoming chronically infected with hepatitis B or C in England. Populations of interest included people living in England who were born in countries with intermediate (2–8%) and high (greater than 8%) endemicity for hepatitis B and/C, IDUs (including former users and those receiving opiate substitution therapy), those who have been imprisoned, men who have sex with men, people with multiple sexual partners, those who received blood products before 1990 and those who have received medical treatment outside the UK. Services aimed at populations at a low risk of chronic hepatitis B or C infection were not considered in this review.

2.2 Methods

The practice survey proceeded in two phases. In Phase 1, telephone interviews were undertaken with key organisations and individuals representative of national and regional stakeholders for hepatitis B and C. In Phase 2, healthcare professionals, practitioners, and representatives of voluntary and community sector organisations that were involved in, or delivered services and activities targeted towards those at higher risk of hepatitis B and C infection were asked to complete a self-administered online questionnaire.

2.2.1 Phase 1: Telephone interviews

Exploratory semi-structured interviews were undertaken with key organisations and individuals representative of national and regional stakeholders for hepatitis B and C. National stakeholders were selected from organisations with a primary focus on hepatitis B or C, immigrant health or injecting drug use, including national charities (e.g. African Health Policy Network), professional networks (e.g. British Viral Hepatitis Group), and a government advisory body (Advisory Group on Hepatitis). At a regional level, email invitations were sent to Regional Directors of Public Health, managers within each of the regional National Treatment Agency for Substance Misuse (NTA) offices, and to either the hepatitis lead or Director at each of the regional Health Protection Agency (HPA) offices. For local stakeholders, primary care trusts and care trusts (PCTs) and Drug (and Alcohol) Action Team (DAAT) areas were grouped into three geographical subsets by region and a contact selected to represent this grouping. Groupings reflected, where possible, local coverage of HPA Health Protection Units (HPUs). Consideration has also given to PCT cluster arrangements and Public Health Networks (where details were available). Within each grouping we contacted the Director of Public Health and the Joint Commissioning Manager within the DAAT. All Directors of Health Protection in each of the local HPUs were also contacted. Around 100 contacts were identified through the wider collaborative team, NICE and the Programme Development Group (PDG) and invited by email to participate in a brief telephone interview.

Interview participants were asked about regional prevention and commissioning priorities for hepatitis B and C, local priorities for groups at an increased risk of hepatitis B and C infection and services and activities targeted towards these groups. An interview schedule was prepared to guide the interviews and adapted to role of the interviewee, for example, national stakeholders were not

asked questions about regional and local priorities (see Appendix 1). Through the interviews, relevant organisations, services and local stakeholders were identified for participation in the questionnaire survey. 'Local champions' were also identified within each of the ten geographical regions in England. Local champions worked closely with the review team assisting with the identification of healthcare professionals, practitioners and voluntary and community sector organisations that are involved in, or deliver services and activities targeted towards those at higher risk of hepatitis B and C infection.

2.2.2 Phase 2: Questionnaire survey

An email invitation was sent to health services, voluntary and community sector organisations and other stakeholders identified through the interviews conducted in Phase 1 asking them to complete an online questionnaire (see Appendix 2). The questionnaire was developed in collaboration with NICE and the PDG, and piloted with a small number of contacts prior to distribution. Around 260 people were contacted initially, representing all regions in England, and asked to disseminate the email linking to the questionnaire to relevant contacts. The questionnaire was developed as a means to identify and describe relevant services and interventions targeted towards those at higher risk of hepatitis B and C infection.

The questionnaire was divided into two sections. Questions in Section A were aimed at the collection of data from services that promoted and/or offered testing for hepatitis B and C and focused on: (i) the process for case finding and testing (including at risk groups targeted and how they are identified); (ii) whether testing was on-site or by referral; (iii) how test results were communicated; (iv) details of pre- and post-test counselling; and (v) activities or measures in place to ensure people who test positive seek further help from the appropriate services. Section B of the questionnaire focused on the collection of data on types of interventions, activities and strategies that have aimed to improve uptake of hepatitis B and/or C testing.

2.2.3 Analyses

The telephone interviews were conducted using an interview schedule and the data entered onto a standardised form in Microsoft Access by the researcher who conducted the interview. Data from the questionnaire survey was exported into SPSS in a coded format directly from the online survey software by one researcher and the coding checked and recoded as required by a second researcher. A summary of the data collected for each question on the questionnaire was tabulated and are presented in Appendices 3 and 4. Participants providing missing or incomplete responses on the questionnaire survey were followed up for further information where contact details were provided. Where this was not possible, removal of incomplete responses from the data set were considered on a case by case basis.

The analysis of the data was primarily descriptive. Simple frequency counts were used to describe the composition of the sample participating in the interviews and responding to the questionnaire survey in terms of their roles and responsibilities, type of organisation, and region(s) covered by the services and activities described. Where possible, simple frequency counts were also used to summarise data on the types of interventions, activities and strategies described. A narrative overview of the main areas of development of practice in England is presented, including descriptions of local variations in practice and illustrative examples of interventions and service

models that have demonstrated 'good practice' in engaging with, or raising awareness among, groups at an increased risk of hepatitis B and C infection.

2.2.4 Selection of case studies

A selection of respondents who represented a range of settings, intervention approaches and localities were identified from the questionnaires and contacted to ask for further information about their services and/or intervention, approach or strategy. A total of 11 respondents were contacted and case studies developed. Case studies of services promoting and/or offering testing for hepatitis B and/or hepatitis C are presented in Section 4.2.8 and case studies of interventions, activities or strategies that aim to improve uptake of hepatitis B and/or C testing are presented throughout Section 4.3.

3 Phase 1: Telephone interviews

3.1 Summary of respondent characteristics

Telephone interviews were carried out with 48 participants (Table 1). Participants included national stakeholders, Directors of Public Health (or other representatives from the PCT/Strategic Health Authority [SHA]), regional NTA representatives, DAAT joint commissioning managers and hepatitis leads at HPA and HPUs. Each of the ten geographical regions of England was represented by at least two participants with the greatest number represented by Yorkshire and the Humber and the South East Coast (both n=7), followed by the North West (n=6). National stakeholders included representatives from the South Asian Health Foundation, the Hepatitis C Trust, the British Liver Trust and the British Association for the Study of the Liver.

Table 1. Summary of stakeholders by region

Region	Regional			Local			Total
	SHA	NTA	HPA	PCT	DAAT	HPA	
East Midlands	0	0	1	1	0	0	2
East of England	1	0	0	0	0	1	2
London	0	0	1	0	1	1	3
North East	0	0	1	1	0	0	2
North West	0	1	0	4	0	1	6
South Central	0	0	0	3	0	1	4
South East Coast	0	1	2	2	1	1	7
South West	0	1	1	2	1	0	5
West Midlands	0	1	0	0	1	1	3
Yorkshire and the Humber	1	1	1	1	1	2	7
Subtotal	2	5	7	14	5	8	41
Not applicable (i.e. National stakeholder)							7
Total							48

DAAT = Drug and Alcohol Action Team; HPA = Health Protection Agency; NTA = National Agency for Substance Misuse; PCT = Primary Care Trust; SHA = Strategic Health Authority

3.2 Key prevention and commissioning priorities for hepatitis B and C

Directors of Public Health (or a representative), regional NTA managers (or a representative) and DAAT joint commissioning managers were asked about key prevention and commissioning priorities for hepatitis B and C within their region or local area. Twenty-six participants answered these questions.

3.2.1 Local priorities for preventing new hepatitis B and C infections

The most commonly cited priority by participants was to increase the number of people receiving testing for hepatitis B and/or hepatitis C, and to increase the number of hepatitis B vaccinations (Box 3; Table 2 in Appendix 3). This was identified by participants in every geographical region except in London where a representative of a London DAAT stated that the priority was to improve testing provision in pharmacy-based needle exchanges. Other commonly cited priorities included raising awareness of hepatitis amongst professionals (four regions), particularly GPs, and amongst high risk groups (six regions). Improving pathways of care, particularly following a positive test, was a priority

for participants in six regions and similarly ensuring that IDUs received treatment following positive tests was identified as a priority in five regions.

3.2.2 Actions being undertaken to increase awareness and understanding of hepatitis infection among the public and healthcare professionals

Participants were asked to identify actions being undertaken to increase awareness and understanding of hepatitis infection among the public and healthcare professionals. Actions varied between regions, but the most common methods cited were improving staff awareness particularly through professional development for GPs, or training to improve knowledge about hepatitis and testing for nurses, and through public events such as harm reduction or blood borne virus awareness campaigns (Box 4; Table 3 in Appendix 3). Improving communication and communication pathways between different services offering testing, treatment and aftercare was also commonly identified as an important action being undertaken. Methods identified included regular newsletters and guidelines aimed at multiple services.

3.2.3 Key priorities for increasing diagnosis

The main priority for increasing diagnosis, which was identified by participants who answered this question from all but one region, was to increase the amount of testing carried out for hepatitis B or C and to increase the number of vaccinations for hepatitis B (Table 4 in Appendix 3). Particular populations were identified as priorities for increased testing including the prison population and people accessing drug services. Increasing the availability of dry blood spot testing was believed to be an important method through which to increase the amount of testing in six regions, as it was believed this was a more acceptable testing method for patients. Improving pathways to ensure patients progress from testing to treatment and aftercare was also commonly identified by participants from seven regions as a priority.

3.2.4 Key priorities for getting diagnosed individuals into treatment and care

Participants were asked about the key priorities for getting diagnosed individuals into treatment and care in their region. The most commonly cited priority by participants was to improve the pathways from diagnosis into treatment, which was identified by participants from six regions (Table 5 in Appendix 3). The purpose of these pathways is to improve access into treatment and prevent clients from dropping out of the process by ensuring that the correct systems are in place to manage their care and to increase the amount of treatment available. Other priorities varied according to region and included a small number of regions each improving the quantity and quality of treatment and associated aftercare, to reduce rates of non-attendance and to develop peer-led support for clients after diagnosis.

3.3 Local priorities for hepatitis B and C

Directors of Public Health (or a representative), regional NTA managers (or a representative), DAAT joint commissioning managers and regional and local HPA representative were asked about local priorities for groups who are at an increased risk of hepatitis B and C infection. Forty participants answered these questions.

3.3.1 Specific groups identified as a priority for future prevention efforts

Participants were asked to identify specific groups that had been identified in their region or local area as a priority for future prevention efforts. Injecting drug users and the prison population were identified by participants in all regions while immigrant populations were identified in all regions except the South West (Table 6 in Appendix 3). Other specific groups were identified, but were targeted in some regions only, these groups included sex workers (8 regions), ethnic minority groups (5 regions) and the homeless (6 regions). The most common 'other' groups being targeted were babies of mothers infected with hepatitis B and men who have sex with men.

3.3.2 Methods used to identify high-risk groups

Participants were asked about the methods used in their region to identify groups at a high-risk of hepatitis B and C infection. The most common method used to identify high risk groups was through needs assessments, either through Joint Strategic Needs Assessments or through those taken in relation to substance misuse service needs (Table 7 in Appendix 3). Participants across six regions used feedback or discussions between partnerships and service providers as a means of determining need. A range of epidemiological data sources were drawn on including data collected via the HPA, drug services, regional/local mapping exercises, prisons, GUM clinics, and needle and syringe programmes. The HPA prevalence toolkit was also mentioned as a means of determining need by some participants.

3.4 Details of services and activities for hepatitis B and C

All stakeholders were asked about services and activities targeted towards those at higher risk of hepatitis B and C infection in their local area, region, or nationally. Box 2 summaries the main types of interventions and activities described by participants.

Box 2: Types of interventions and activities implemented

To raise awareness among, or to encourage, people from high risk groups and their 'close contacts' to use testing services

- Using Asian media to communicate local screening initiatives (North West)
- Provision of on spot testing and awareness raising at South Asian melas (North West)
- Health promotion campaigns in primary care and drug treatment services (South Central)
- Events held on World Hepatitis Day to advertise testing services (Yorkshire and the Humber)

To enhance access to testing services

- Testing and health promotion in mosques (East Midlands, North West, Yorkshire and the Humber)
- Targeted testing services within the community and primary care for immigrant populations and Black and Minority Ethnic groups (North West, North East, East Midlands)
- Offering alternative methods of testing e.g. dry blood spot, salvia (North East, North West, South East Coast, South West, West Midlands, Yorkshire and the Humber)
- Outreach services providing screening and testing within a range of settings such as drug services, primary care, prisons, and other community services (East Midlands, London, North East, North West, South Central, South East Coast, South West, West Midlands, Yorkshire and the Humber)
- Screening and testing in pharmacies (London, South Central, South East Coast, West Midlands, Yorkshire and the Humber)

Aimed at professionals

- GP education and training (East Midlands, South Central)

3.4.1 Interventions that encourage people from high-risk groups to use services that offer hepatitis B or C testing

In terms of raising awareness among, or encouraging, people from high risk groups and their 'close contacts' to use hepatitis B and C testing services, participants from four regions (East Midlands, the North West, London and Yorkshire and the Humber) and one national stakeholder cited interventions aimed at groups born in countries with a high prevalence of hepatitis. In the East Midlands and London, outreach work (awareness raising and testing) in mosques had targeted the Pakistani and Bangladeshi community, and according to two participants (one from the North West and one national stakeholder), South Asian melas have been used as a venue for awareness raising activities and in some cases, 'on the spot' testing. Work is also ongoing in other settings including GPs, pharmacy-based needle and syringe programmes, and drug services (two regions), and in prisons and hepatology units (one region) to increase awareness. Two participants from the South Central region referred to the development of peer education projects.

A few intervention approaches were described that were aimed at professionals. In the East Midlands, GP training had been provided by one PCT area and in three PCT areas in the East of England, clinical care pathways have been agreed and commissioned. In the South Central region, GP education/training events had been implemented. Two participants indicated that PCT areas in the South East Coast and West Midlands were developing or piloting approaches for use in GP practices to identify people at risk of hepatitis B and C infection (e.g. using a records scanning tool to identify key words).

3.4.2 Interventions that have improved the accessibility of existing services for those at higher risk

Participants were asked about their awareness of interventions that aimed to increase accessibility of testing services in their region. A number of interventions have been aimed at increasing access to services. To enhance access to testing services, participants from six regions reported that testing is being provided by outreach nurses or substance misuse workers within drug services and in the North West, there is ongoing training to enable non-clinical staff to carry out testing and dry blood spot testing within different service settings. Outreach services were also provided for other high risk groups such as prisoners, homeless people and sex workers in six regions. Participants from four regions reported intervention approaches specifically targeted towards immigrant populations. These included proactive case finding in GP clinics in the East and West Midlands, and a programme of dry blood spot testing within the Chinese community in the North East. The Hepatitis C Trust has rolled out a pharmacy testing pilot with pharmacies that offer needle and syringe programmes, and a number of participants reported that pharmacies within their region were involved. The pilot is focused in high risk areas (within needle and syringe programmes or areas with a high population of people born in high prevalence countries). As part of the pilot, pharmacies are offering salvia or dry blood spot testing. Participants from other areas, such as the West Midlands, reported that other pilot testing projects in pharmacies were being undertaken.

Interventions targeted at specific groups included a social marketing project aimed at users of sex workers (South West) and the provision of transport for high risk groups/drugs service users to support attendance for hepatitis treatment (South Central region).

3.4.3 New services designed to improve accessibility of services that offer hepatitis B or C testing for those at higher risk

Participants were asked about their awareness of new services that had been implemented that offered hepatitis B and/or C testing. Provision of outreach services, either through offering testing in alternative settings or the use of outreach BBV nurses, was commonly mentioned by respondents. In common with the responses to previous questions, respondents also mentioned testing in mosques, pharmacy testing and dry blood spot testing. Other services also previously described included peer education/support and the use of records scanning tool in GP surgeries to identify at-risk patients.

3.4.4 Activities and/or measures used to encourage people who have tested positive to continue to seek support

Participants were asked about activities and measures that they were aware of in their region that had been used to encourage people who have tested positive to continue to seek support. A number of respondents reported that hepatitis support groups existed within their region, or that individuals were signposted to the Hepatitis C Trust. Activities were also ongoing to increase awareness among professionals, for example on the need for clear pathways for referral into treatment, or around the provision of pre and post test discussions.

4 Phase 2: Questionnaire survey

4.1 Summary of respondent characteristics

The questionnaire was completed by a total of 67 participants: 58 participants completed Section A providing details of services promoting and/or offering testing for hepatitis B and/or hepatitis C; and 55 participants were involved in delivering an intervention, activity or strategy to improve uptake of hepatitis B and/or C testing and completed section B. Respondents to the questionnaire represented all regions in England. The largest number of respondents were from Yorkshire and the Humber (n=18) followed by the North West (n=14). Seven respondents each were from the South West and the West Midlands, and five respondents were from the East Midlands and London, respectively. Three respondents each were from the South Central and South East Coast regions, two were from the North East and one was from the East of England. Two respondents did not provide details of their locality.

The setting of the organisations in which respondents were employed was most commonly a drugs service (including needle and syringe programmes, n=24; Table 8 in Appendix 4). Eleven respondents were based in hospitals, six were based in community services (including an alcohol service, a charity and a service user group), four were based in pharmacies, three were based in prisons and two were based in sexual health/GUM clinics. One respondent was based in an outreach service. Fourteen further participants were based in DAATs or had NHS commissioning roles. Respondents had a range of job roles (Table 9 in Appendix 4). Twenty-four respondents were nurses based in drug services, hospitals and prisons; 14 were service managers in drugs services, community services, and pharmacies; 14 had a role at the DAAT or in NHS commissioning; five were drugs service workers, one of whom was based in a pharmacy; five were hospital consultants; and two were sexual health practitioners based in drugs services and sexual health/GUM clinics. Three respondents did not provide their job titles.

4.2 Services promoting and/or offering testing for hepatitis B and/or hepatitis C

Fifty-five participants were involved in delivering an intervention, activity or strategy that aimed to improve uptake of hepatitis B and/or C testing and completed section B of the questionnaire.

4.2.1 Focus and setting of service

Participants were asked to provide details on whether their service promoted and/or offered testing for hepatitis B or C, or both. The majority of participants (n=55; 95%) reported that their service promoted and/or offered testing for both hepatitis B and C (Table 10 in Appendix 4). Only three respondents indicated that their services focused on hepatitis B or C only (hepatitis B, n=1; hepatitis C, n=2). Participants were also asked about the setting of their service (Table 11 in Appendix 4). The most common setting for services was within drug services providing opiate substitution therapy (OST; n=30). Other common settings were needle and syringe programmes (n=23), other types of drugs services (n=17), via outreach (n=17) and in a hospital (n=12). The next most common settings reported by participants were primary care (n=8), sexual health/GUM clinics (n=7), pharmacies (n=6), prisons (n=5), other types of specialist clinics (n=3), and community pharmacies providing OST (n=2). Other settings in which promotion or offers of testing took place included a drugs service user led support group, a charity that offered support to drug and alcohol users and their close contacts, a viral hepatitis clinic and a drug and alcohol detoxification service.

4.2.2 Specific groups targeted for case finding and testing

Participants were asked to indicate which specific groups were targeted for testing or encouraged to seek testing by their service (Figure 1; Tables 12 and 13 in Appendix 4). The most commonly targeted group for both hepatitis B and hepatitis C testing were current and former IDUs, followed by sex workers, homeless people and men who have sex with men. However, it should be noted that the frequency with which these groups were selected most likely reflects the setting of a large number of testing services within drug services in our sample.

Eleven respondents reported that their service targeted immigrant or ethnic minority populations for hepatitis B testing (n=2), or both hepatitis B and C testing (n=9). Particular groups noted by respondents included people from: countries with a high prevalence of hepatitis B; South Asia; Sub-Saharan Africa; China; and Eastern Europe. The settings of these services were indicated as hospital/nurse-led outreach (n=3), sexual health/GUM clinics (n=2), drug services (n=2), primary care (n=1), prison (n=1); and the setting was not clear from one participant's responses.

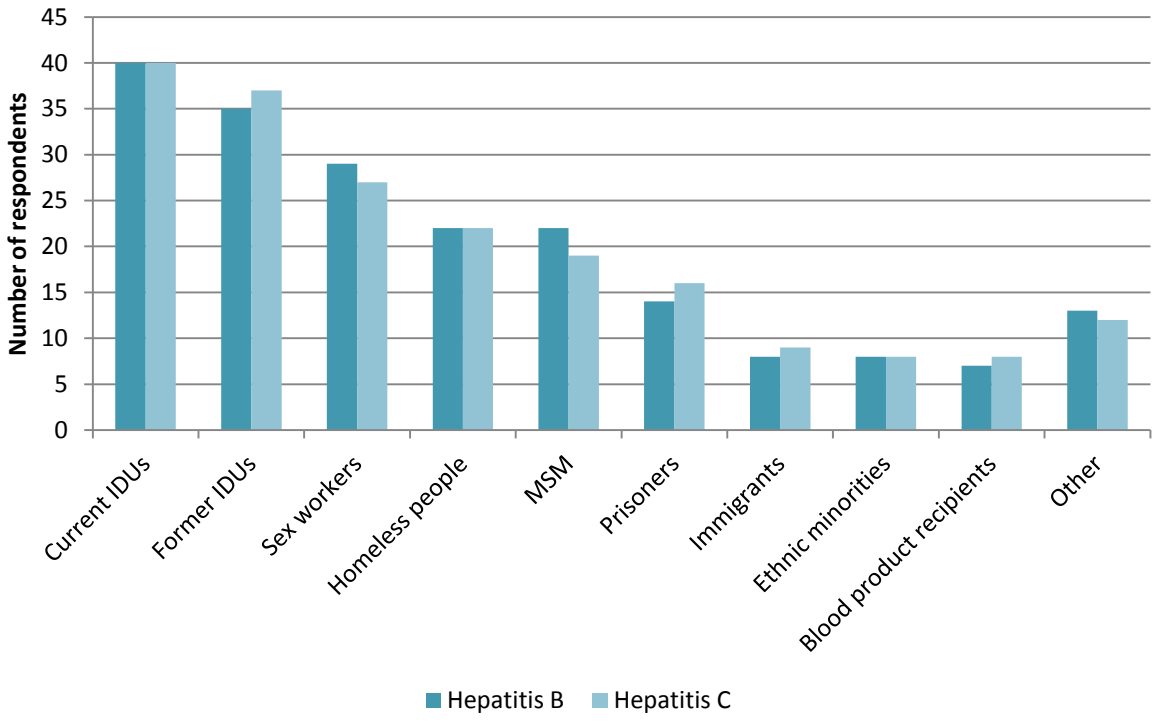

Figure 1. Specific groups targeted for case finding and testing

The majority of respondents noted that although their service did target specific groups, testing or a referral for testing was offered to all individuals. Current and former IDUs were targeted across a wide range of community-based services, including drugs services, needle and syringe programmes, hospitals, pharmacies, sexual health/GUM clinics and outreach clinics; in addition, one participant reported having links with a hepatitis C support group. Homeless people were targeted in hostels via outreach workers, and in primary care; in addition, one participant reported targeting individuals through a specific homeless GP surgery and through substance use services. Sex workers were identified and targeted through sexual health/GUM clinics, outreach clinics, and drugs services; in addition one respondent noted that sex workers were targeted through a women's only drug service.

Fourteen respondents indicated that they targeted groups other than those listed on the questionnaire, these groups included: pregnant women (n=3); close contacts (n=3); all service users regardless of risk grouping (n=3); anabolic steroid users (n=1); alcoholics (n=1); anyone following an 'exposure incident' (n=1); patients with HIV (n=1); people with a dual diagnosis of substance use and a mental health condition (n=1); people referred with abnormal liver function tests (n=1); recreational drug users (n=1); and drugs service users with 'home-made' tattoos (n=1).

Participants were asked to indicate what methods were used to identify specific groups for testing. The most common source used was the referral of individuals from drugs services (n=39, 67%), followed by opportunistic screening (n=35, 60%). Other sources of referral included primary health care (n=24), pharmacies (n=16), and other services and agencies (n=20; including prisons, probation services, homeless/housing services and secondary care). The use of GP registers was not common (n=4). A number of participants reported that other methods were used to identify at-risk individuals, including: that all participants with particular risk factors (e.g. substance use, sexual risk behaviour, prisoners) were targeted (n=15); outreach (n=3); public events/advertising (n=1); contact tracing (n=1); use of shared care drug clinic lists (n=1).

4.2.3 Provision of testing within services

The majority of respondents indicated that both hepatitis B and C testing were provided on site at their service (n=48, 82%); two respondents reported that only hepatitis B testing was provided by their service and three respondents reported that only hepatitis C testing was provided. Nine participants (16%) reported that individuals were referred to another service for both hepatitis B and C testing (Table 15 in Appendix 4). One participant indicated that initial testing was undertaken at their service but that individuals receiving a positive diagnosis were referred to other services for further tests. Over half of participants (n=37) reported that they followed a protocol, guideline or policy for both hepatitis B and C testing, and a further eight respondents (14%) followed a protocol, guideline or policy for either hepatitis B or C testing. Thirteen respondents (19%) stated that they did not follow a protocol, guideline or policy.

Respondents indicated that types of testing offered most frequently by services were dry blood spot testing and venous blood testing to screen for hepatitis B and C (Figure 2; Table 17 and 18 in Appendix 4). Respondents employed in drugs services most commonly reported the use of dry blood spot testing for both hepatitis B and C, whereas hospital-based respondents reported greater use of whole or venous blood for testing. Six respondents (10%), based in drugs services, pharmacies and hospitals, reported that their service offered oral fluid testing for hepatitis B and/or C. Respondents were asked about who collected the samples for testing in their services. In over half of services, specialist nurses collected samples for testing (n=34; Table 19 in Appendix 4). Drugs workers and practice nurses were also reported by around a quarter of respondents as the person in the service who collects samples for testing (n=15 and n=12, respectively). Other healthcare professionals used included phlebotomists (n=3), healthcare support workers (n=2), midwives (n=1), the lead nurse for sexual health (n=1), harm reduction nurses (n=1), and GP consultants (n=1). The use of health promotion/education practitioners or peers was not reported by any of the participants.

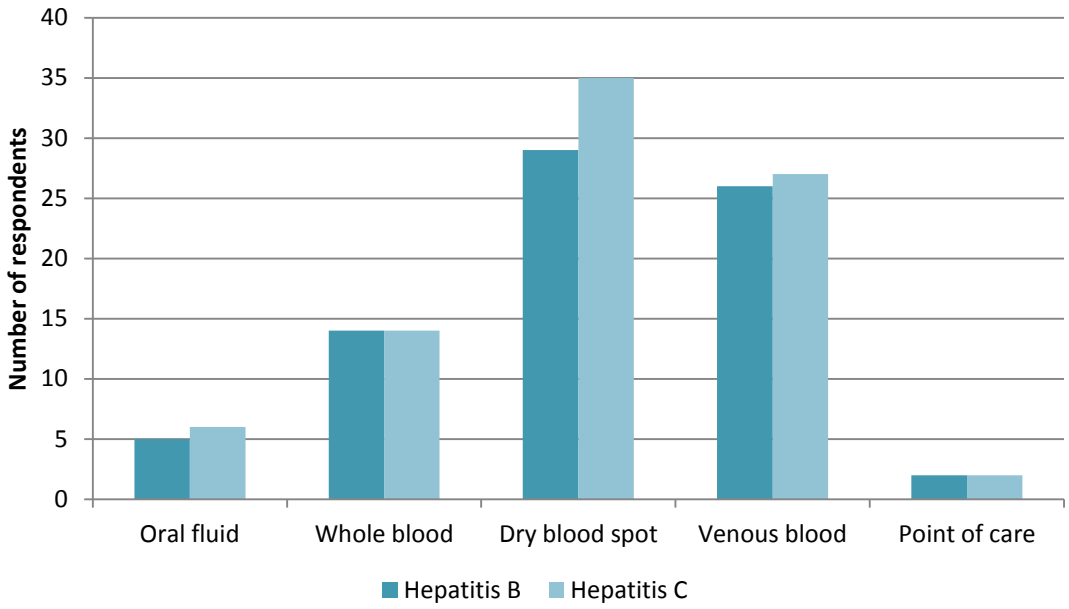

Figure 2. Types of testing offered by services

4.2.4 Testing protocols and pathways

The most common tests performed on initial samples were for hepatitis B, the hepatitis B surface antigen (HBsAg) test and for hepatitis C, the hepatitis C antibody test (Table 20 in Appendix 4). Around two-thirds of respondents, respectively, reported that these types of tests were undertaken (both n=38). Other hepatitis B tests undertaken included the antibody to hepatitis B surface antigen (anti-HBs) test and the antibody to hepatitis B core antigen (anti-HBcAg) test, both reported by a third of respondents (both n=21). Use of the hepatitis C antibody and antigen combination test was reported by 31% of respondents (n=18). Participants reported that other tests were undertaken in addition to those listed on the questionnaire including tests for HIV antibody (n=6) and syphilis (n=2).

Following a positive initial test result, just over half of respondents (n=30) reported that further tests were automatically performed on the initial sample (Table 21 in Appendix 4). Four of the 30 respondents noted that although further tests were undertaken on the initial sample, a second sample was generally required for confirmation. Following a positive test on the initial sample (Table 22 in Appendix 4), further tests performed for hepatitis B included the hepatitis B e-antigen (HBeAg or anti-HBe) test (n=20) and the hepatitis B-DNA test (n=5; one respondent indicated this was on request only but that they were aiming to change this). Further tests to confirm a diagnosis of hepatitis C included tests for hepatitis C RNA/PCR (n=29), hepatitis C genotyping (n=20), and hepatitis C viral load (n=13). Respondents noted that the type of test depended on the nature of the sample collected (e.g. "genotype only on dry blood spot samples"), that certain tests could not be requested in a primary care setting, and that further tests were conducted on samples but that the nature of these tests was unknown. Ten respondents reported that further tests were performed but only if requested (Table 21 in Appendix 4) and four respondents reported that a second sample was required before further tests were performed. One participant noted that the laboratory asked for a repeat sample for 'good practice' and that requests for hepatitis C RNA tests had to be requested separately to hepatitis C antibody tests. A second participant noted that a second sample was requested where the initial sample was oral fluid. Where a second sample was required, all four

participants reported that whole blood or venous blood was collected. Participants were also asked about what further tests were performed on the second sample (see Table 24 in Appendix 4).

Eight unique respondents reported that they were either: (i) unsure of or did not know whether further tests were undertaken within their service, (ii) did not offer testing in their service, (iii) that some patients preferred to be referred to their GP for further tests, and (iv) that patients were assessed for treatment if positive.

4.2.5 Pre- and post-test discussions

Pre-test discussions

The majority of participants (n=56; 97%) reported that their service offered a pre-test discussion to people accepting a test (Table 25 in Appendix 4). One participant noted that whether a pre-test discussion was offered varied in different parts of the service they were describing, but that generally these discussions were not offered. Three further respondents indicated that pre-test discussions were generally undertaken, particularly with 'high-risk' patients. In the majority of cases, the pre-test discussion was undertaken by a specialist nurse (n=32) or a drugs worker (n=21) (Figure 3; Table 26 in Appendix 4). Other health professionals also undertook this role including practice nurses (n=11), hospital consultants (n=8), pharmacists (n=6), GPs (n=6), harm reduction/BBV/sexual health nurses (n=3), and health advisers (n=1). A small number of participants indicated that non-healthcare staff undertook this role, including peers (n=3), community workers (n=2) and health promotion practitioners (n=1). Additional roles reported by participants included needle exchange workers, pharmacy technicians, midwives, sexual health counsellors, and peer mentors.

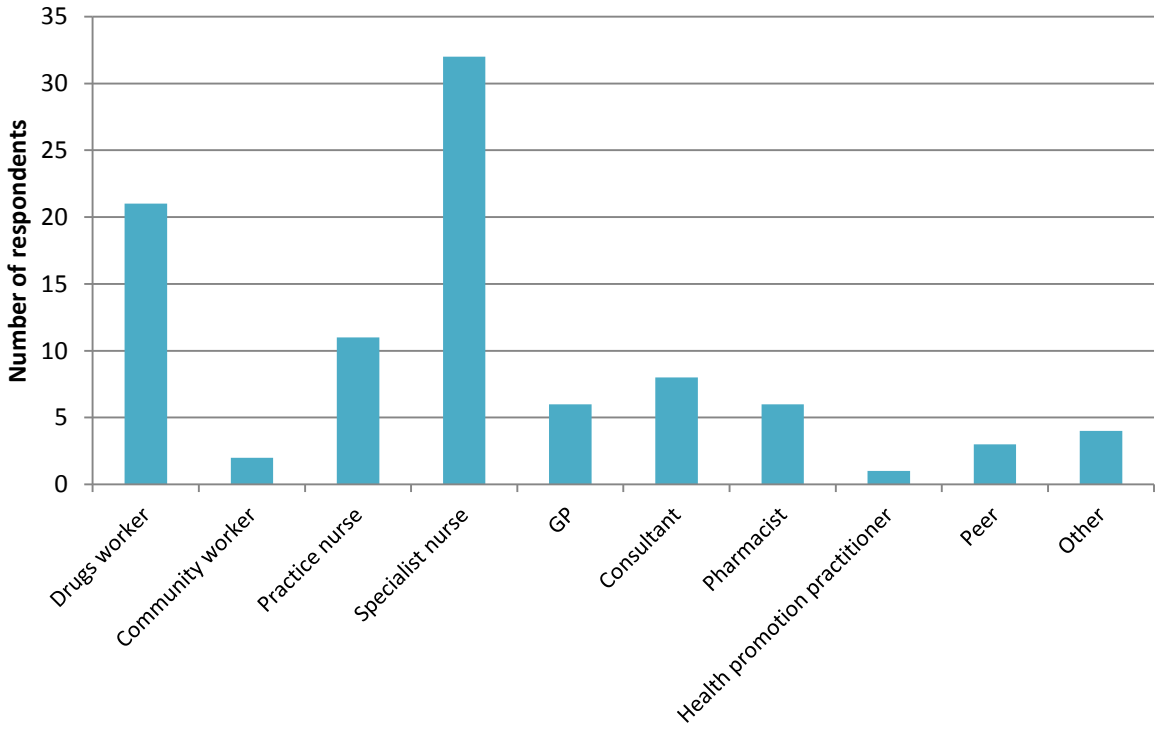

Figure 3. Role of person providing pre-test discussion

Participants were asked about the types of information and advice given in the pre-test discussion (Table 27 in Appendix 4). For each of the topic options provided on the questionnaire, over three-quarters of those who reported that their service provided pre-test discussions reported that these topics were discussed. Additional topics of discussion indicated by respondents included the implications of testing for health insurance/mortgage purposes (n=2), additional sources of support (n=2), general information about testing procedures and the nature of hepatitis B or C (n=2).

Informing people about test results

Respondents indicated that the vast majority of people were informed of a positive or a negative test result in person at their service (Tables 28 and 29 in Appendix 4). Participants recorded additional contextual information on the questionnaire; a few services indicated that both negative (and in one case positive) results were given via automated telephone results systems, whereas other respondents indicated that results would not be given over the phone or that patients were asked about their preference for receiving results.

Post-test discussion

A total of 46 respondents reported that post-test counselling was offered by their service (Table 30 in Appendix 4), and a further 11 respondents reported that patients were referred to another service. Only one respondent indicated that counselling did not occur in their service. Post-test counselling was most commonly undertaken by specialist or practice nurses (n=32 and n=10, respectively), by drug workers or needle exchange workers (n=16) or by a hospital consultant (n=11) (Figure 4; Table 31 in Appendix 4). Other health professionals reported to undertake post-test counselling included GPs (n=5), pharmacists (n=3), harm reduction/BBV nurses (n=2), midwives (n=1), and health advisers (n=1).

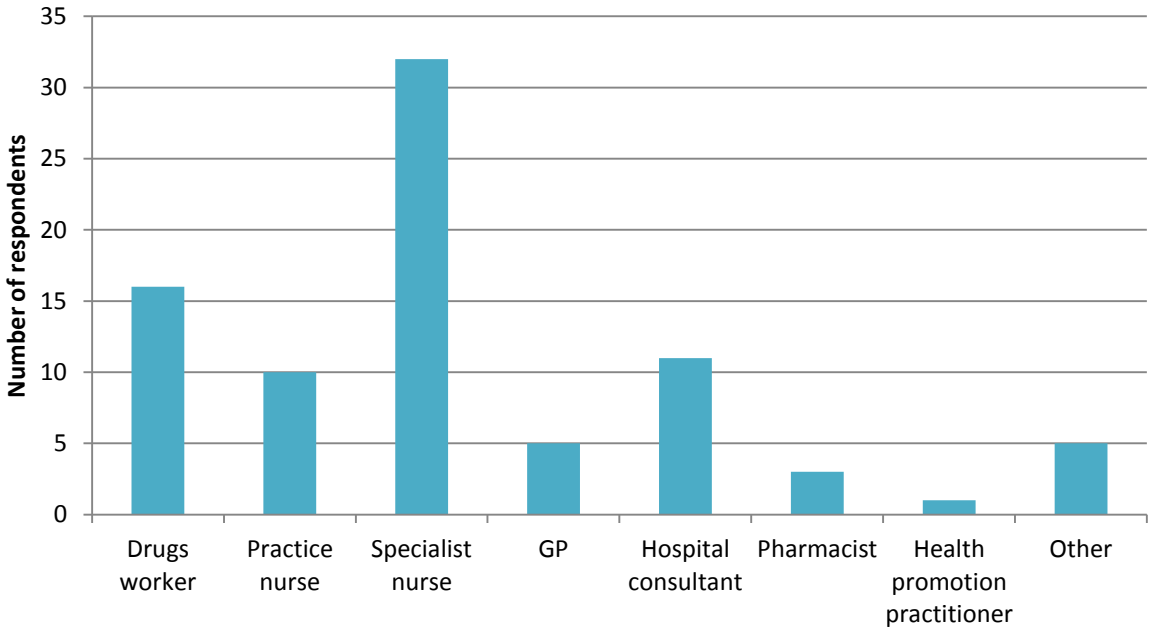

Figure 4. Role of person providing post-test counselling

Participants were asked about the types of information and advice given during post-test counselling (table 32 in Appendix 4). Across the topics available for selection on the questionnaire, the vast

majority of the respondents reported that these topics were covered during post-test counselling. Thirteen participants provided contextual information alongside their choices. Respondents noted that counselling varied according to the patient and/or the result of the test (n=4); that post-test counselling may be repeated (n=1); or that it was used to discuss referral (n=4). One respondent noted that it was an opportunity to undertake screening for other blood borne viruses and sexually transmitted infections.

4.2.6 Provision of treatment and/or follow-up services

Respondents were asked to indicate whether a range of treatment and/or follow-up services were provided by their service (Table 33 in Appendix 4). Hepatitis B vaccination, pre-treatment assessment and liver function tests were the services most frequently reported to be available on-site, and hepatitis B and C treatment, psychiatric consultation and liver biopsy were most frequently reported as the services that were available by referral. Other types of support provided by services included HIV treatment and hepatitis monitoring. Ten participants reported that treatment and/or follow-up services were not available on-site, and nine participants reported that they were not available by referral.

For those services that provided treatment and/or follow-up services via referral, 41 participants reported that specific information and support were available to help ensure that people who tested positive accessed these services (Table 34 in Appendix 4). Of the 35 respondents that provided contextual information with their responses to this question, respondents noted that their services: provided assistance and support with accessing services (n=17; for example by providing transport or by attending appointments with patients); liaised closely with follow-up services (n=5); provided patients with information and/or a referral letter (n=10); or followed patients up through outreach clinics (n=3).

4.2.7 Patient support following testing

Participants were asked whether their service provided any other kinds of support, on site or by referral (Table 35 in Appendix 4). Drug and alcohol services were commonly available on-site, reflecting the setting of a number of services (n=41). In approximately half of services, smoking cessation services and support groups were available on-site or by referral (n=24 and n=26, respectively). Three participants reported that other kinds of support were not provided either on-site or by referral within their service. The vast majority of participants (n=56) reported that advice on lifestyle changes was routinely given following testing; however, eight of these respondents indicated that this advice was only provided to those who tested positive (Table 36 in Appendix 4).

Over 80% of respondents (n=49) stated that strategies were in place in their service to ensure that people who tested positive but who were not receiving treatment and/or had declined referral to treatment continued to seek and/or receive help and support (Table 37 in Appendix 4). Respondents frequently noted that patients would be monitored and followed-up over time (n=24), or stated that patients would receive ongoing support from within the services (n=7). Six respondents reported that patients were directed to support groups, outreach as means of patient support was reported by four respondents, and five respondents stated that other services would be informed about the patient's status with their consent.

4.2.8 Selected case studies of services promoting and/or offering testing for hepatitis B and/or hepatitis C

Hepatitis B

Case study 1. Hepatitis B testing and vaccination at The Cambridge Centre, North Yorkshire

Aims: To increase awareness of HBV to high risk groups, promote harm reduction methods and encourage uptake of testing and vaccination.

Target population: Those at high risk of hepatitis B: substance users, men who have sex with men, prison population, sex workers, homeless people, current and former IDUs. Clients are identified through referrals from primary care and drug services, and opportunistically at promotional events and sessions.

Intervention/strategy: Promotion of services and information about hepatitis B through a needle exchange service (at the Cambridge Centre), including a weekly sexual health drop in session, and at community events such as fresher's fairs and Gay Pride. Advice is based on programmes and information sources including Community Health Advice Support Education, magazines, the internet and in-house programmes. The service offers on site testing for hepatitis B through oral fluid testing methods and if there is a positive test then the client will be referred to another service for further testing.

Testing procedures: Before their test clients are educated about safe sex and injecting practices, how to understand their test results, how hepatitis might affect their health, and protecting their family and friends and are advised on available treatment. Clients who test positive are informed of positive or negative test results in person at the service where they are offered post-test counselling. In addition to the information provided in the pre-test discussion they may receive advice on further screening for other BBVs or STIs and Hepatitis vaccinations. Clients are encouraged to seek support if they have a positive test result and can receive long-term counselling and support through the service. Referrals can be made for vaccinations or treatment following a positive test and the service liaises with other services working with the client to improve engagement. Additionally, referrals are made into drug and alcohol services, smoking cessation services and support groups.

Hepatitis C

Case study 2. Nottingham University Hospitals Trust

Aims: To increase the numbers diagnosed and treated for hepatitis C.

Target population: Homeless people, current and former injecting IDUs. Clients are referred from drug treatment agencies and other drugs services and identified through examining shared care drug clinic lists and opportunistic screening. GPs are being targeted for awareness raising.

Intervention/strategy: An advanced virology nurse works two days in hospital as a hepatitis nurse and one day in a GP surgery offering testing for BBVs and treatment for hepatitis C. The service is launching a certificate with the RCGP in hepatitis B and C detection and management in primary care. The service delivers training to GPs to increase awareness about hepatitis and to increase the numbers of clients tested.

Testing procedures: The service provides onsite testing for hepatitis B and C carried out by the nurse in hospital and a GP surgery. A second sample from a blood test is required for further testing. Prior to the test the client receives information on protecting their family and friends, maintaining a healthy lifestyle, about how hepatitis may affect their health and given advice on available treatments. When possible clients are informed of positive or negative test results in person, but when this isn't possible the nurse contacts the client by telephone or letter. The clients are offered post-test counselling by the nurse around safer injecting and sex practices, how to understand their test result and again on how being diagnosed with Hepatitis can affect their health and what treatment is available. Vaccinations for Hepatitis B and treatment for hepatitis C are offered on site and referrals can be made for treatment following a positive test for hepatitis B or for psychiatric consultation. Services for drug and alcohol or smoking cessation are offered on site.

Hepatitis B and C

Case study 3. ESCAPE family support, Northumberland

Charity offering confidential support to anyone affected by drug and alcohol including users or their family and friends.

Key Aims: To improve take up of testing for hepatitis B and C.

Target population: Drug and alcohol users who access the service.

Intervention/strategy: All clients are encouraged to attend testing, which is carried out by a partner service. Clients are asked if they would like to be tested as part of their assessment and referrals for testing are made if the client wishes.

Testing procedures: All clients accessing the service are encouraged to attend testing offered by a partner service and if they accept then referrals are made. Clients for whom a referral to another service is made will receive information prior to their test by a drugs worker about safer injection and sex practice, protecting their family and friends, maintaining a healthy lifestyle and about how Hepatitis may affect their health. Clients are referred to another service for the test and for post-test counselling, further tests, treatment and vaccinations. Access to drug and alcohol services, smoking cessation and support groups is available on site.

Evaluation/outcomes: Feedback indicates that the offer to be tested is often declined by the client. The main barrier to increasing testing has been identified as the tests being done via referral to another service rather than the client being immediately tested on site.

Case study 4. Harbour Drug & Alcohol Service, Plymouth

Aims: The service aims to reduce transmission risks and promote safer injecting techniques

Target population: Based at a drug service offering needle exchange and targets currents and former injecting drug users, the homeless, sex workers and men who have sex with men. Individuals are targeted through outreach work with sex workers on the street and in premises, through referrals from drug services and opportunistic screening.

Intervention/strategy: Work is carried out to promote testing via outreach workers attending other drop in sessions to advertise the service. Leaflets are also provided for the service, which are

ordered through the British Liver Trust. Leaflets are also produced by the Eddystone Trust; the local HIV service for the area who originally began offering hepatitis advice following a number of cases of co-infection. The service prefers to use the locally produced leaflets as they promote local services that individuals can attend. The service is also supported by the Hepatology department at the hospital and a satellite clinic is run there.

Testing Procedures: Testing for hepatitis B and C is carried out on site by the specialist nurse and is carried out in accordance with testing protocols. Venous blood tests are utilised for both hepatitis B and C and are offered by the specialist nurse. The nurse attends the drug service 2-3 times per week and attends 7-8 drop in sessions across the city per week. A pre-test discussion is conducted on site by the specialist nurse covering prevention, testing procedures, and hepatitis treatment options. Individuals are informed of negative tests by telephone and of positive tests in person at the service. The service offers hepatitis B vaccinations and treatment onsite and makes referrals to other services for hepatitis C treatment, psychiatric consultations, pre-treatment assessment, liver biopsy and post test counselling. The service provides additional support through drug and alcohol services and support groups on site and through referrals to other services for smoking cessation, dietician and support groups. Advice is routinely given following tests regardless of the result and those testing positive are encouraged to seek further support and treatment.

Case study 5. The Jarman Centre, Lancashire Care Foundation Trust, Blackburn

Aims: To prevent the transmission of HIV and other blood-borne viral infections that may be spread across the injecting population through the sharing of injecting equipment. The service further aims to reduce and minimise the potential for sexual transmission of HIV and other BBVs and STIs between injecting drug users as well as to the non-injecting population.

Target population: The service targets current and former IDUs, the prison population, the homeless population, sex workers and men who have sex with men. Although these are priority groups the service offers advice and screening to anyone at risk. Those at risk are indentified through contact tracing, referrals from prisons, hospitals, pharmacies, drug services, primary health care and from other agencies and through opportunistic screening.

Intervention/strategy: Dry blood spot testing was initiated by the specialist nurse after identifying that it was more patient friendly and cheaper to use. The service is promoted through educational programmes and through distributing leaflets from the British Liver Trust and the Hepatitis C Trust to local services. The service uses an educational programme set up in house using guidance from the British HIV Association and the RCGP. Training on BBVs and testing for hepatitis is offered to staff.

Testing procedures: The service provides onsite testing for both hepatitis B and C through dry blood spot and venous blood tests, carried out by the harm reduction nurses and specialist nurse. If the initial tests results are positive further tests are preformed. A pre-test discussion is provided on site by the harm reduction or specialist nurses and includes advice on BBV prevention, healthy lifestyles, and hepatitis treatment options. Individuals are informed of negative and positive test results in person at the service and the harm reduction nurses and specialist nurse also provide onsite post test counselling. Advice on lifestyle changes is routinely given following testing regardless of the test and strategies are in place to encourage those with a positive test results to seek further advice and treatment, through the specialist nurse. The service provides hepatitis B vaccinations, pre-treatment assessments and liver function tests on site, and refers to other services for other support including hepatitis B and C treatment (GP) and for psychiatric consultations. The service offers additional support onsite in the form of a support group and provides referrals to other services for drug and alcohol advice, smoking cessation and dietary advice. Following referrals to other services all

individuals with a positive test result are followed up and managed through primary care if they do not attend or decline a referral.

Evaluation/outcomes: It has been noted that most clients with a positive diagnosis do accept a referral to the GP but often did not attend for follow-up.

4.3 Details of interventions, activities or strategies that aim to improve uptake of hepatitis B and/or C testing

A total of 55 respondents stated that they were involved in delivering an intervention, activity or strategy that aimed to improve uptake of hepatitis B and/or C testing and completed Section B of the questionnaire.

For respondents completing Section B of the questionnaire, the setting of the organisations in which they were employed was most commonly a drugs service (n=19). Seven respondents were based in hospitals, five were based in community services, three each were based in pharmacies and in prisons, and two were based in sexual health/GUM clinics. One respondent was based in an outreach service. Fourteen further participants were based in DAATs or had NHS commissioning roles. Nineteen respondents were nurses, 14 had a DAAT or commissioning role, 10 were service managers, five were drugs service workers, and 3 respondents each were hospital consultants and sexual health practitioners. One respondent did not provide details of their job title.

4.3.1 Objectives

Thirty-two respondents reported that the objectives of the intervention, activity or strategy was to increase the uptake of testing and seven respondents reported that the objectives of the intervention, activity or strategy was to raise awareness of hepatitis B and/or C. Twenty respondents reported more generic aims for their intervention, strategy or activity, including raising awareness (amongst staff and clients), reducing the spread of infection, increasing uptake of testing and treatment and to reduce the long term health related harms to individuals and the wider community.

4.3.2 Groups targeted

Participants were asked whether specific groups were targeted by the intervention aimed at increasing the uptake of testing (Table 38 in Appendix 4). The most commonly targeted group for interventions were current IDUs (n=54) followed closely by former IDUs (n=52). However, it should be noted that the frequency with which these groups were selected most likely reflects the setting of a large number of testing services within drug services in our sample. Other groups targeted included homeless people (n=28), sex workers (n=28), men who have sex with men (n=19), recipients of unscreened blood products (n=12) and healthcare professionals (n=7). Sixteen participants noted that their service targeted either an ethnic minority or immigrant population for testing (see *Case study 6*), including where noted, individuals from China, India, Africa, South America and Russia. Fourteen respondents reported that their intervention targeted other at risk groups including steroid and performance enhancing drug users and babies born to mothers who are hepatitis B positive. One respondent noted that high risk groups were targeted through the use of non-English language literature, outreach workers advertising within services and through liaison with other services such as hostels and shelters.

Case study 6. Increasing screening for hepatitis B among immigrant populations, Sheffield Teaching Hospitals, Sheffield

Aims: To increase screening for hepatitis B amongst Chinese and Somali immigrants and to raise awareness about hepatitis B.

Target population: Chinese and Somali immigrants in Sheffield for whom access to health care has been impaired by cultural and language barriers.

Intervention/strategy: The Chinese population in Sheffield were targeted through outreach clinics that provided education and testing in community settings, including the Chinese Community Project, places of worship and other settings that allowed access to this population. An information leaflet was developed in Chinese that provided information about hepatitis B and advice about transmission, prevention and treatment. Education was provided in the clinics and dry blood spot testing was offered. Education and dry blood spot testing was offered to the Somali population at a local community centre as part of a general health awareness day. An educational package concerning hepatitis B is being devised to educate these immigrant populations in Sheffield and to raise awareness amongst health professionals on how to successfully engage with and increase screening amongst these communities.

Evaluation/outcomes: Feedback from Chinese patients indicated that the sessions were well-received. Patients found the sessions useful and were satisfied that all their questions were answered. The use of dry blood spot testing as a screening tool was found to be acceptable to this community.

4.3.3 Components covered

Participants were asked what components their intervention involved (Table 39 in Appendix 4). A high proportion stated that advice and information including leaflets and posters (n=52) were used to promote their service. Other common components were encouraging individuals who had tested positive to continue to seek support (n=37), offering acceptable or alternative methods of testing (n=27) and increasing the number and/or types of services that offer testing (n=26) (see *Case studies 7 and 8*). Other components used included educational programmes, media campaigns and social marketing, incentives for participating in screening tests, increasing hours or days that facilities are open to offer testing, referrals to other services, behaviour changing components for staff and enhanced methods for case finding. Seven respondents stated other components including sexual health promotion programmes, harm reduction strategies, joint strategic needs assessments and through the Counselling, Assessment, Referral, Advice, and Throughcare (CARAT) programme for prisoners.

Case study 7. Pathfinder Project, NHS Nottingham City

Aims: To increase detection of hepatitis B and C in Nottinghamshire and to improve access to screening and treatment.

Target population: Clients accessing drug services, prison populations

Intervention/strategy: The Pathfinder Project: Dry blood spot testing was piloted with 100 samples in primary care and Nottingham prison. This was then taken up by the regional combating hepatitis

group, which funded the Pathfinder Project. Dry blood spot testing is now available in some drug services. Clients attending drug services are offered testing by trained drugs workers. Funded by the Crime and Drug Partnership, a training session for GPs in an area of high drug use was run in spring 2009 to promote awareness of testing for BBVs, HIV and tuberculosis. Refresher sessions are planned.

Evaluation/outcomes: The Pathfinder Project is currently being evaluated and it is hoped it will be completed by November. Following the training session for GPs, awareness and offers of screening did increase but this was not sustained over time.

Case study 8. Dry blood spot testing, Haringey DAAT

The DAAT co-ordinate dry blood spot testing in the borough of Haringey in a number of local drug and alcohol treatment services.

Aims: To increase the number of tests for hepatitis B and C. In 2009 the DAAT identified that they were underperforming with regard to BBVs and identified two areas to work on to improve results: 1) the testing methods they were using and 2) the number of staff carrying out testing.

Target population: Current and former IDUs, prison population, sex workers. Clients are offered testing opportunistically at drug and alcohol services and pharmacies.

Intervention/strategy: Tackling the spread of BBVs was a key point in the DAAT's 2010-2012 Harm Reduction Strategy. The DAAT piloted the use of dry blood spot testing in services to increase uptake of screening.

Evaluation/outcomes: A study piloting the dry blood spot testing in services did not identify a change in performance in terms of numbers of tests carried out. However, improvements in client satisfaction with testing methods were reported. As a result of this pilot study, the DAAT recommended that services: a) adopt dry blood spot testing; and b) train staff other than nurses to offer the tests to clients to tackle the problems of limited qualified staff. There have been indications that the number of tests is increasing as a result of these strategy changes.

4.3.4 Delivery of the main components

Respondents were asked about who delivered the intervention within their service (Table 40 in Appendix 4). The most common form of delivery was through drug workers (n=31) followed by specialist nurses (n=32). Most delivery was conducted through individuals, specifically working in drug services and healthcare, including general practitioners (n=11), pharmacists (n=8; see *Case study 9*), lay health workers (n=3) and hospital consultants (n=11). Use of peers and voluntary sector workers and were also reported (n=3 and n=1, respectively). Other roles noted as delivering interventions included sexual health nurses, a sexual health counsellor, health advisers and a midwife.

Case study 9. Pharmacy-based testing, NHS Kingston

Aims: In a pharmacy setting to increase the number of IDUs to be tested for hepatitis and encourage treatment.

Target population: Current and former IDUs targeted through drug service referrals and opportunistic screening.

Intervention/strategy: The service provides onsite testing carried out by pharmacists for hepatitis B and C. Eight pharmacies offering needle exchange now offer screening for hepatitis. Positive and negative test results are given in person at the pharmacy. Clients testing positive are referred to their GP for further tests and treatment. The pharmacist provides post test advice covering prevention and information about living with hepatitis and treatment options. Advice on lifestyle changes is routinely given regardless of test results. The service provides additional services onsite including smoking cessation and referrals are made to drug and alcohol services and dieticians. Formal strategies are not yet in place to ensure those testing positive are encouraged to seek further support, however the pharmacist does encourage individuals to continue to seek support and treatment.
To promote the service, leaflets have been produced in house so people can see where the needles exchanges are and what is on offer. The service is also advertised in treatment services and GP surgeries and sources of information such as the Hepatitis C trust pharmacy newsletter. The service had a launch event and trained staff in testing and provided them with a training folder including information on testing and needle exchange. Further staff training will be conducted by the project officer who will attend pharmacies for follow up sessions and to provide ongoing support.

Testing procedures: Before the test, patients are educated about protecting their partner, family and friends. Following the test, advice is given on safer injection practices, safer sex practices, maintaining a healthy lifestyle, how hepatitis might affect overall health and advice, and information on available treatments is also provided.

Evaluation/outcomes: Currently, collection of advice and information is in process to inform the set up of interventions at the service.

4.3.5 Setting

Participants were asked about the setting of their intervention (Table 41 in Appendix 4). The most common setting reported was drug services (n=40) followed by community services (n=26). Needle and syringe programmes and outreach services were also frequently reported settings (n=24 and n=21, respectively). Other healthcare services reported for intervention settings included primary care services (n=15), pharmacies (n=13), sexual health/GUM clinics (n=10) and hospitals (n=9). A smaller number of respondents indicated that their intervention or was set within a prison (n=4; see *Case study 10*), at or at home (n=7). Other types of settings indicated by respondents included mobile buses (see *Case study 11*), hostels, arrest referral schemes, through promotions at events such as Gay Pride and through a specific project called the Chinese Screening Project.

Case study 10. HMP Shrewsbury, Shropshire Community Health NHS Trust

Aims: To encourage all prisoners to receive hepatitis screening; a protocol policy produced by the service is followed that covers BBV and sexual health.

Target population: The service is carried out in prison therefore the main target population is the prison population. Other individuals targeted for hepatitis C screening include current and former IDUs, migrant populations, the homeless and individuals who have received unscreened blood products. Sex workers and men who have sex with men are also targeted. Target groups are identified through self referral, referral from drug services and from primary health care and through opportunistic screening.

Intervention/strategy: Joint monthly Integrated Drug Treatment System (IDTS) prisoner's forums are held between different members of staff and prisoners to discuss treatment and advice and information is provided at these. The specialist nurse provides talks and advice on staff open days and has recently carried out promotion linked to World Hepatitis Day. To promote the service an advertisement was placed in a local PCT publication as it was noted that often services within prisons can be missed. Leaflets used are adapted from ones produced by the British Liver Trust to be suitable for the prison population. Information on tattooing is included and images and information about services unavailable in prison are removed.

Testing procedures: The service offers onsite testing for both hepatitis B and C which is collected by the specialist nurse and guidelines for testing are adhered to. Venous blood screening is used to test for hepatitis B and C, and in the wake of a positive test further tests are automatically performed. The service provides an onsite pre-test discussion from the specialist nurse including advice on prevention, and hepatitis treatment options. Individuals are informed about a negative or positive test result in person at service and the service offers post test counselling conducted on site by the specialist nurse. Advice on lifestyle changes is routinely given following testing regardless of the test result. The service provides follow up services on site including hepatitis B vaccinations and treatment, hepatitis C treatment and psychiatric consultations. Individuals requiring a liver biopsy are referred to another service. The service provides additional support onsite for drug and alcohol use, smoking cessation and also runs support groups. Strategies are in place to ensure that people who test positive are encouraged to seek or receive further help and support by maintaining contact with individuals through three and six month follow-up appointments.

Evaluation/outcomes: Awareness amongst staff is high, with staff being able to successfully provide advice and information on the side effects of treatment. Although treatment is confidential, it has been noted that prisoners receiving treatment had identified each other and set up an informal support network.

Case study 11. Bristol Drug Project Mobile Bus

Aims: To provide a mobile service offering needle exchange, harm reduction advice and screening for hepatitis B and C in Bristol.

Target population: The service primarily targets drug users, sex workers and the homeless.

Intervention/strategy: Volunteers, nurses and harm reduction workers offer needle exchange, harm reduction and screening for hepatitis B and C through venous blood tests in two large mobile trucks. The nature of the mobile service allows the service to cover a wide geographical area right across Bristol including areas where the buses can access high risk populations such as in the red light district. The buses are run 94 hours a week over five days and four evenings and can access populations such as sex workers and the homeless in the evenings.

Testing procedures: Barriers have been identified in testing procedures. Due to the drop-in nature of the service, clients are not regularly seen following positive test results, and so informing of a positive test in person can be difficult. However, if agreed, the client can be informed of their test results through their GP. Previously dry blood spot testing was offered, but funding for this is no longer available and results took longer to come back as samples had to be examined in London (samples from venous tests are examined in a local laboratory).

Evaluation/outcomes: Advantages of dry blood spot testing were that it was the preferred testing method of choice for users and could be carried out by more staff, whereas venous tests have to be carried out by nurses.

4.3.6 Information and advice used in planning

Participants were asked whether they had sought advice and information during the planning and implementation of their intervention or strategy (Table 42 in Appendix 4). More than half reported that they did seek advice (n=32; 58%), however, a quarter reported that they had not sought information or advice (n=14).

4.3.7 Monitoring and evaluation

Respondents were asked if they had carried out any monitoring or whether evaluation data had been collected regarding the intervention or strategy (Table 43 in Appendix 4). Items most commonly monitored according the selection of respondents included: changes in the number of individuals accepting a test (n=21); changes in the number of individuals referred to treatment (n=19) and awareness of hepatitis B and C among healthcare professionals (n=19). These items were followed by changes in the number of people tested and changes in the number of positive tests (both n=18). Knowledge and attitudes and awareness of testing amongst specific groups were also reported. One respondent based in a needle and syringe programme noted that dry blood spot testing had been monitored and was found to be more patient friendly and more less costly than other types of testing. Other monitoring included meeting NTA targets and adhering to guideline produced by organisations such as the British Association for Sexual Health and HIV, British HIV Association and the Society of Sexual Health Advisers.

4.3.8 Barriers and facilitators

For services providing interventions to promote testing, research conducted to identify barriers in implementing such interventions were reported by just over half of the respondents (n=29) (Table

44 in Appendix 4). Barriers included stigma, perceived lack of support throughout screening/treatment, poor venous access, non-attendance by clients, time restraints and communication barriers between organisations. Other barriers noted included costs of offering alternative methods of testing, poor venous access among drug using individuals and staff training.

5 Discussion and conclusions

This practice survey was undertaken to identify and describe relevant services and interventions in England that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection. This report is one of a series of reviews on case finding and testing for hepatitis B and C currently being undertaken to inform the development of NICE public health guidance on the most cost-effective ways of offering tests to those at risk of infection. The map of services, interventions and other activities described here is being undertaken alongside a systematic review of qualitative research on the views and experiences of groups at a high risk of hepatitis B and C infection (Jones et al., 2011a), and a systematic review of the effectiveness and cost-effectiveness of interventions aimed at raising awareness and engaging with groups who are at an increased risk of HBV and HCV infection (Jones et al., 2011b).

Despite the publication of the *Hepatitis C Action Plan for England* in 2004, there is evidence of considerable variation in hepatitis C testing, treatment, care and support services available in England. In addition, little is known about the provision and reach of case finding and testing for hepatitis B. Consequently, whilst there are an increasing number of examples of efforts to increase the awareness of hepatitis B and C among the public and health professionals, and interventions and strategies targeting uptake of testing, there is a lack of national policy and guidance that sets out clear objectives for case finding and testing for hepatitis B and C testing in England. In that respect the development of NICE public health guidance on the most cost-effective ways of offering tests to those at risk of infection is clearly needed.

In common with other mapping exercises we were unable to provide a fully comprehensive overview of all service configurations and intervention approaches currently on-going in England. Although we conducted telephone interviews with a range of stakeholders, the reconfiguration of NHS services following the NHS White Paper *Equity and excellence: Liberating the NHS* (2011) meant that the most relevant contacts in some regions and services were difficult to identify and access. Another limitation of our approach is that relevant services and interventions may involve a range of partners, including voluntary organisations and community pharmacies. Although efforts were made to contact a range of stakeholders, the majority of our sample represented NHS-led services and interventions. Although response rates for the online questionnaire were lower than expected, the data yielded was of good quality and informative. However, a large number of respondents represented NHS-led drug services and therefore data is lacking on other types of services and interventions delivered, for example, within the voluntary sector.

5.1 Summary of findings

5.1.1 Key prevention and commissioning priorities for hepatitis B and C

What are local priorities for preventing new hepatitis B and C infections?

Increasing the number of people receiving testing for both hepatitis B and C, and to increase the number of vaccinations for hepatitis B were the most commonly identified local priorities. In selected regions of England, other priorities included: raising awareness of hepatitis among healthcare professionals and hard to reach groups; improving pathways of care; and ensuring drug users had access to treatment.

What actions are being undertaken locally and regionally to increase awareness and understanding of hepatitis infection among the public and healthcare professionals?

Local and regional actions for increasing awareness and understanding of hepatitis infection varied. Although respondents reported that common methods of increasing the awareness of health professionals included professional development or training, few respondents indicated that this was a priority in their area. Improving communication and communication pathways between different services offering testing, treatment and aftercare was commonly identified as an important action being undertaken at a regional and local level.

What are key local and regional priorities for increasing diagnosis?

The main priority across all regions was to increase the amount of testing carried out for both hepatitis B and C. The prison population and people accessing drug services were identified as particular priorities for increased testing. Across a number of regions, increasing the availability of dry blood spot testing was being used as a method to increase the uptake of testing.

What are key local and regional priorities for getting diagnosed individuals into treatment and care?

Improving pathways from diagnosis into treatment was the most common priority for getting diagnosed individuals into treatment and care. Other priorities varied by region and included a small number of regions working to improve the quantity and quality of treatment and associated aftercare, to reduce rates of non-attendance, and on the development of peer-led support for diagnosed individuals.

On a regional basis, which groups have been identified as a priority for future prevention efforts?

Injecting drug users and the prison population were identified by participants from all regions as a priority for future prevention efforts. Participants from most regions also stated that immigrant populations were an important group. Other specific groups identified, but that were targeted in some regions only, included sex workers, ethnic minority groups and homeless people.

5.1.2 Interventions, services and activities being used to increase uptake of testing for hepatitis B and C

What types of interventions are being used to encourage people from high-risk groups to use services that offer hepatitis B or C testing?

Providing advice and information (for example, leaflets and posters) were the most frequently reported components of interventions designed to raise awareness among people from high risk groups. Less frequently reported components were educational programmes, media campaigns, social marketing and incentives for participating in screening tests. Telephone interview participants provided additional information about the types of interventions being used to raise awareness among people from high risk groups and their 'close contacts'. For example, in the two regions, outreach work (awareness raising and testing) in mosques had targeted the Pakistani and Bangladeshi community, and in one region and nationally, South Asian melas were being used as a venue for awareness raising activities and in some cases, 'on the spot' testing. Intervention components aimed at health professionals only appeared to be a feature of services in some regions.

Where indicated, intervention components most frequently used were educational sessions and/or meetings, and continual medical/nursing education.

What types of interventions are being used to improve the accessibility of existing services for people from high-risk groups?

Questionnaire respondents commonly reported that offering acceptable or alternative methods of testing, such as dry blood spot testing, and increasing the number and/or type of services that offered were intervention approaches used to improve accessibility. Availability of dry blood spot testing was common within drugs services for both hepatitis B and C testing, however, a number of participants from both phases of the survey indicated that funding for dry blood spot testing had been withdrawn in their area.

Testing protocols and pathways varied across services, and just over half of respondents reported that they followed a protocol, guideline or policy for hepatitis B and/or C testing. Hepatitis testing services have traditionally required two blood samples to be taken on separate occasions to determine whether an individual is currently infected. Around half of questionnaire respondents indicated that testing procedures had been modified in their service and that further tests were conducted without a second sample being required. However, the extent to which modified testing protocols and pathways have been planned and implemented nationally is not clear from the information collected for this practice survey.

Both telephone interview and questionnaire participants reported that to improve the accessibility of services, testing was being provided through outreach services largely through the provision of BBV nurse across a range of settings, commonly drugs services, and in one region there was on-going training to enable non-clinical staff to carry out testing. Intervention components less commonly reported were increasing the number of hours/days that facilities opened, and the transfer of responsibilities to other professional groups.

How are new services being designed to improve the accessibility of services that offer hepatitis B or C testing for people from high-risk groups?

A large number of questionnaire respondents were based in drugs services, suggesting that the provision of outreach nurses and the introduction of alternative methods of testing (most commonly, dry blood spot testing) across regions has extended the scope of services offering testing. However, it is not clear from the information collected for this practice survey how consistently such approaches are being implemented nationally. In addition, the Hepatitis C Trust has been coordinating a pharmacy testing pilot and a number of telephone interview and questionnaire participants reported that pharmacies within their region or service were involved. The pilot is focused in high risk areas, either within needle and syringe programmes or areas with a high population of people born in high prevalence countries. Participants from other regions reported that other pilot testing projects in pharmacies were being undertaken separately from The Hepatitis C Trust pilot.

What types of services and activities are being used to encourage people from high-risk groups who have tested positive to continue to seek support?

Services commonly provided support to encourage individuals who have tested positive to seek treatment and care, for example, services provided people attending drug services with support to

attend appointments or liaised closely with treatment/referral services. A range of services were also provided on-site or by referral. Telephone interview participants reported that hepatitis support groups existed within their region or that individuals were signposted to the Hepatitis C Trust. Activities were also on-going to increase awareness among professionals, for example on the need for clear pathways for referral into treatment, or around the provision of pre- and post-test discussions.

5.1.3 Linking to the findings of the systematic review of qualitative research

The aim of the review of qualitative research was to provide a narrative perspective on how groups identified to be at a high risk of hepatitis B and C infection and practitioners view case finding and testing approaches, their experiences of the communication of test results and subsequent treatment, and what they perceive as the barriers and facilitators to participation in these strategies. The evidence identified suggested that there are modifiable factors among groups at a high risk of acquiring hepatitis B and/or C that could be addressed through interventions that aim to encourage uptake of testing. The review concluded that:

- Appropriate interventions are required to improve knowledge and awareness of hepatitis B and C infection among high risk groups. In particular, it appeared that much could be done to improve the quality and level of information available to high risk groups before and after testing.
- Development of intervention materials should take into consideration how biomedical information can be tailored to incorporate meaning relevant to the socio-cultural context of high risk groups, but without contributing to stigma or increasing fear and confusion.
- Efforts should also be extended to address knowledge and information gaps among healthcare professionals and other providers of healthcare that may be accessed by people from high risk groups (e.g. practitioners of complementary and alternative medicine).
- Due to the stigma associated with hepatitis B and C infection, interventions that aim to increase uptake of testing need to consider how the positive outcomes of testing can be exploited, for example, by promoting the benefits of taking responsibility for not only individual health, but also the health of family and friends, and the wider community.
- Structural factors that discourage uptake of testing and subsequent care and treatment should be addressed by increasing opportunities for people from high risk groups to access testing and other services. In particular, convenient and opportunistic testing appears to be an important facilitator of hepatitis C testing among IDUs.
- Interventions should also focus on building trust and rapport between people from high risk groups and health professionals, for example by addressing cultural and linguistic barriers to care or by targeting stigmatised attitudes to particular high risk groups.

Based on the findings of this practice survey it appears that interventions and strategies have largely focused on addressing structural factors that discourage uptake of testing, for example, by providing dry blood spot testing as an alternative means of testing and as a method of providing testing in a broader range of settings. The provision of dry blood spot testing within drugs services also appears to be facilitating the uptake of testing among IDUs (HPA, 2011a) by providing a means of convenient and opportunistic testing within these services. Although, case finding and testing in primary care has been identified as playing an important role in the management of hepatitis B and C, efforts to

improve knowledge and awareness among primary care professionals, primarily GPs, do not appear to have been extensively implemented in England. In addition, little information was collected about intervention approaches and strategies that have been used to address barriers to the uptake of testing in primary care.

5.2 Conclusions

This practice survey provides a rapid overview of services and interventions in England that aim to raise awareness among, and/or engage with, groups who are at an increased risk of hepatitis B and C infection. We have identified that a range of service models and configurations for testing have been implemented nationally and that while some intervention approaches and strategies appear to have been broadly adopted or implemented to address the risk of hepatitis B and C infection among high risk groups across regions in England, a coordinated national response is lacking.

In common with other surveys of practice, we are limited in the conclusions that can be drawn; in particular, a large number of respondents represented NHS-led services and therefore data is lacking on other types of services and interventions delivered, for example, within the voluntary sector. In addition, there appears to have been little formal or rigorous evaluation of relevant services and interventions in England, which therefore currently limits the development of an evidence base for interventions aimed at raising awareness and engaging with groups who are at an increased risk of HBV and HCV infection based on practice in England.

6 References

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Appendix 1. Interview schedule for telephone interviews

Interview questions

1) First of all, I would like to ask you some questions about key prevention and commissioning priorities for hepatitis B and C within your region. a) Are any documents available that give a regional overview of prevention and commissioning priorities for hepatitis B and C? b) What are the local priorities for preventing new hepatitis B and C infections? c) What actions are being undertaken to increase awareness and understanding of hepatitis infection among the public and healthcare professionals? d) What are the key priorities for increasing diagnosis? e) What are the key priorities for getting diagnosed individuals into treatment and care? f) Do any of the PCTs in your region have a hepatitis C lead? <If yes> Would you mind providing their contact details? g) Have any of the PCTs in your region set up a hepatitis C clinical network?	Regional DPH PCT DPH Regional NTA managers DAAT JCM
2) We would now like to ask you some questions about local priorities for groups who are at an increased risk of hepatitis B and C infection. a) In your region, have any specific groups been identified as a priority for future prevention efforts? Prompts (if required) • Injecting drug users • Migrant population • Ethnic minority population • Prison population • Homeless people • Sex workers • Recipients of blood/blood products • Others? b) What methods are used to identify high-risk groups within your region?	Regional DPH PCT DPH Regional NTA managers DAAT JCM Directors of Health Protection
3) The next set of question we would like to ask you concerns services and activities targeted towards those at higher risk of hepatitis B and C infection. a) Are you aware of any interventions in your region that encourage people from high-risk groups to use services that offer hepatitis B or C testing? b) Are you aware of any interventions that have improved the accessibility of existing services for those at higher risk? c) Have any new services been designed to improve accessibility of services that offer hepatitis B or C testing for those at higher risk? d) Are there any particular services or activities in relation to the targeting of high risk groups that you would recommend we follow up?	All stakeholders
4) The last question concerns services and activities for people from high-risk groups who have tested positive. a) What activities and/or measures are used to encourage people who have tested positive to continue to seek support?	All stakeholders

Local champions

As part of this work we would like to appoint a local champion in each region to act as a key point of contact for the research team for the duration of the mapping exercise. The champions should have

expertise on local action on hepatitis B and C infection and able to work with the research team to assist with the identification of contacts and local networks.

Is this a role you would be happy to undertake?

<If no, prompt the interviewee to recommend someone else who they consider to be a suitable local champion>

Online questionnaire

Finally, as part of this mapping exercise we will be hosting an online questionnaire to capture information about services, activities, programmes and interventions for groups at higher risk of hepatitis B and C infection. We would be grateful if you could provide us with details of other contacts and networks for this work.

Appendix 2. Questionnaire

Mapping exercise on ways of promoting and offering tests to those at risk of infection from hepatitis B and C

Participant information

This questionnaire survey is being carried out by a team from the Centre for Public Health at Liverpool John Moores University on behalf of the National Institute for Health and Clinical Excellence (NICE) as part of the development of public health guidance on the most cost-effective ways of offering tests to those at risk of infection from hepatitis B and C.

The purpose of the survey is to gather information about services and activities targeted towards groups at an increased risk of hepatitis B and C infection, and about interventions, activities and strategies that have been used to increase uptake of hepatitis B and C testing among these groups.

Your service/organisation has been brought to our attention by local and regional hepatitis leads and we would appreciate 20 minutes (approximately) of your time to tell us more about your service, intervention or strategy. The results of this survey will form part of a national mapping exercise of hepatitis B and C testing services.

Please note that completion of the questionnaire will be viewed as a sign of your consent to be included in the mapping exercise. Data collected will only be utilised in order to gather specifics about the intervention, activities and services that you deliver and the questionnaire does not ask for specific information about the users of your service. Your details will not be identified in report findings. All data will be held according to Liverpool John Moores data protection policy and destroyed 12 months after the study is completed (please see www.ljmu.ac.uk/administration/administration_docs/Data_Protection_Policy.pdf for further information).

If you should require any further information about this project then please contact the project lead, Ms Lisa Jones by email (l.jones1@ljmu.ac.uk) or telephone (0151 2314452).

Your details

Your name	
Job title	
Organisation	
Address	
Email	
Telephone	
May we contact you for further information about the details provided in this questionnaire?	Yes
	No

1. Does your service promote and/or offer testing for hepatitis B or hepatitis C?	1.a. Hepatitis B
	1.b. Hepatitis C
	1.c. Hepatitis B and C
	1.d. No
2. Are you involved in delivering an intervention, activity or strategy that aims to improve uptake of hepatitis B or C testing?	2.a. Yes, uptake of hepatitis B testing
	2.b. Yes, uptake of hepatitis C testing

	2.c. No

Section A. Please complete this section if your service promotes and/or offers testing for hepatitis B and/or hepatitis C

A.1. Does your service promote and/or offer testing for hepatitis B or C, or both?	Hepatitis B	
	Hepatitis C	
	Hepatitis B and C	
A.2. What is the setting of your service? (Please select all that apply)	Community (please specify)	
	Drugs service providing opioid substitution therapy (OST)	
	Drugs service: other	
	Hospital	
	Needle and syringe programme	
	Outreach	
	Pharmacy	
	Community pharmacy providing OST	
	Primary care	
	Prison	
	Sexual Health clinic / GUM clinic	
	Other specialist clinic (please specify)	
	Other (please specify)	
A.3. Are specific groups targeted for testing or encouraged to seek testing by your service? (Please select all that apply)	***Hepatitis B***	***Hepatitis C***
	No specific groups are targeted	No specific groups are targeted
	Current injecting drug users	Current injecting drug users
	Former injecting drug users	Former injecting drug users
	Migrant population(s) (please specify)	Migrant population(s) (please specify)
	Ethnic minority population(s) (please specify)	Ethnic minority population(s) (please specify)
	Prison population	Prison population
	Homeless people	Homeless people
	Sex workers	Sex workers
	Recipients of unscreened blood/blood products	Recipients of unscreened blood/blood products
	Men who have sex with men	Men who have sex with men
	Other (please specify)	Other (please specify)
A.4. What methods are used to identify specific groups? (Please select all that apply)	Opportunistic screening	
	Use of GP population registers/other registers	
	Other proactive case finding approach (please specify under Other)	
	Referral from primary health care	
	Referral from drug services	
	Referral from pharmacies	
	Referral from other services/agencies (please specify)	
	Other (please specify)	
A.5. Does your service provide testing on site or by referral? (Please select all that apply)	On site hepatitis B testing	
	On site hepatitis C testing	
	Referral to another service for hepatitis B testing	
	Referral to another service for hepatitis C testing	
	Other (please specify)	

A.6. Does your service follow a protocol, guideline or policy for hepatitis B and/or hepatitis C testing?	Yes, for hepatitis B testing	
	Yes, for hepatitis C testing	
	Yes, for hepatitis B and C testing	
	No	
	Other (please specify)	
A.7. If yes, is a copy of the protocol, guideline or policy available for the research team to view?	Yes	
	No	
A.8. Which screening methods are offered by your service? (Please select all that apply)	***Hepatitis B***	***Hepatitis C***
	Not applicable	Not applicable
	Oral fluid	Oral fluid
	Whole blood	Whole blood
	Capillary / Dry blood spot	Capillary / Dry blood spot
	Venous blood	Venous blood
	Point of Care / Near Patient	Point of Care / Near Patient
	Other (please specify)	Other (please specify)
A.9. Who collects the sample for testing within your service? (Please select all that apply)	Drug worker	
	Community worker/ Lay health worker	
	Health professional: practice nurse	
	Health professional: specialist nurse	
	Health professional: general practitioner	
	Health professional: consultant	
	Health professional: pharmacist	
	Health professional: other (please specify)	
	Health promotion/education practitioner	
	Peer (please specify)	
	Other (please specify)	
A.10. What test(s) are performed on the initial sample to screen for and/or detect infection? (Please select all that apply)	Hepatitis B surface antigen (HBsAg) test	
	Antibody to hepatitis B surface antigen (anti-HBs) test	
	Antibody to hepatitis B core antigen (anti-HBcAg) test	
	HCV antibody test	
	HCV antibody and antigen combination test	
	Other hepatitis B test (please specify)	
	Other hepatitis C test (please specify)	
A.11. If the initial test results are positive for infection, are further tests performed on the sample provided at the initial screening?	Yes, further tests are automatically performed	
	Yes, further tests are performed but only if requested	
	No, a second sample is required for further tests	
	No, individuals are referred to another service for further testing (please provide brief details)	
	Other (please specify)	
A.12. If yes, what further tests are performed on the sample provided at the initial screening?	Not applicable	
	Hepatitis B e-antigen (HBeAg or anti-HBe) test	
	HBV-DNA test	
	HCV RNA/PCR test	
	HCV viral load	
	HCV genotyping	
	Other hepatitis B test (please specify)	
	Other hepatitis C test (please specify)	

A.13. If a second sample is required before further tests are performed, what methods of sample collection are used?	Oral fluid
	Whole blood
	Capillary / Dry blood spot
	Venous blood
	Other (please specify)
	Not applicable – *please go to question X.x.*
A.14. What further tests are performed on the second sample?	Not applicable
	Hepatitis B e-antigen (HBeAg or anti-HBe) test
	HBV-DNA test
	HCV RNA/PCR test
	HCV viral load
	HCV genotyping
	Other hepatitis B test (please specify)
	Other hepatitis C test (please specify)
A.15. If applicable, please provide further comments about the testing protocols or pathways followed at your service	Free text
A.16. Does your service offer a pre-test discussion to people accepting a test?	Yes
	No Please go to question x
	Other (please specify)
A.17. Who undertakes the pre-test discussion?	Drug worker
	Community worker/ Lay health worker
	Health professional: practice nurse
	Health professional: specialist nurse
	Health professional: general practitioner
	Health professional: consultant
	Health professional: pharmacist
	Health professional: other (please specify)
	Health promotion/education practitioner
	Peer (please specify)
	Referred to another organisation (please specify)
	Other (please specify)
A.18 What information and advice is given in the pre-test discussion?	Advice/information on available treatments
	How hepatitis might affect overall health
	How to understand the test results
	Maintaining a healthy lifestyle
	Protecting their partner, family and friends
	Safer sex practices
	Safer injection practices
	Other (please specify)
A.19. How are people informed about a *negative* test result? (Please select all that apply)	In person at your service
	Via their GP
	By letter
	By telephone
	Other (please specify)
A.20. How are people informed about a *positive* test result? (Please select all that apply)	In person at your service
	Via their GP
	By letter
	By telephone
	Other (please specify)

A.21. Does your service offer post-test counselling?	Yes, offered by my service	
	Yes, by referral to another service	
	No	
A.22. If yes, who provides post-test counselling?	Drug worker	
	Community worker/ Lay health worker	
	Health professional: practice nurse	
	Health professional: specialist nurse	
	Health professional: general practitioner	
	Health professional: consultant	
	Health professional: pharmacist	
	Health professional: other (please specify)	
	Health promotion/education practitioner	
	Peer (please specify)	
	Referred to another organisation (please specify)	
	Other (please specify)	
A.23. What information and advice is provided during post-counselling? (Please select all that apply)	Advice/information on available treatments	
	How hepatitis might affect overall health	
	How to understand the test results	
	Maintaining a healthy lifestyle	
	Protecting their partner, family and friends	
	Safer sex practices	
	Safer injection practices	
	Other (please specify)	
A.24. Does your service provide treatment and/or follow-up services on site or by referral? (Please select all that apply)	***On site***	***By referral to another service***
	Hepatitis B vaccination	Hepatitis B vaccination
	Hepatitis B treatment	Hepatitis B treatment
	Hepatitis C treatment	Hepatitis C treatment
	Psychiatric consultation	Psychiatric consultation
	Pre-treatment assessment	Pre-treatment assessment
	Liver function tests	Liver function tests
	Liver biopsy	Liver biopsy
	Other (please specify)	Other (please specify)
	Treatment and/or follow-up services are not provided	
A.25. If your service provides treatment and/or follow-up services by referral, is specific information and support available to help ensure people who test positive access these services?	Yes (please provide details)	
	No	
	Not applicable	
A.26. Does your service provide any other kinds of support on site or by referral? (Please select all that apply)	***On site***	***By referral to another service***
	Drug and alcohol services	Drug and alcohol services
	Dietician	Dietician
	Smoking cessation services	Smoking cessation services
	Support group(s)	Support group(s)
	Other (please specify)	Other (please specify)
	Other kinds of support are not provided	
A.27. Is advice on lifestyle changes routinely given following testing?	Yes, for people who test positive (please specify)	
	Yes, regardless of the test result (please specify)	
	No	

A.28. Are strategies in place to ensure that people who test positive, but who are not receiving treatment or who decline referral, continue to seek or receive further help and support?	Yes (please provide details)
	No

If you are also involved in delivering an intervention, activity or strategy that aims to improve uptake of **hepatitis B and/or C testing** then please go to section B.

If no, then thank you for completing the questionnaire

Section B. Please complete this section if you are involved in delivering an intervention, activity or strategy that aims to improve uptake of **hepatitis B and/or C** testing

B.1. What are the objectives of the intervention, activity or strategy?	Please provide details
B.2. Does the intervention, activity or strategy target a specific group or groups? (select all that apply)	Ethnic minority population(s) (please specify)
	Injecting drug users – current
	Injecting drug users – former
	Healthcare professionals
	Homeless people
	Migrant population(s) (please specify)
	Prison population
	Sex workers
	Recipients of unscreened blood/blood products
	Other (please specify)
B.3. Which of the following components does the intervention, activity or strategy cover? (select all that apply)	Advice/information (leaflets, posters etc)
	Educational programme(s)
	Programme addressing stigma, cultural or language barriers
	Media/information campaign(s)
	Social marketing
	Incentives for people to participate in testing
	Increasing the number and/or type of services that offer testing
	Increasing the number of hours or days that facilities open
	Transfer of responsibilities to other professional groups
	Transfer of responsibilities to lay health workers or peers
	Offering acceptable or alternative methods of testing
	Behaviour change targeting professionals
	Educational sessions and/or meetings for health professionals
	Continuing medical/nursing education
	Enhanced methods for case finding
	Encouraging people who have tested positive to continue to seek support
	Other (Please provide details)
B.4. Who delivers the main components of the intervention, activity or strategy? (select all that apply)	Drug worker
	Community worker/ Lay health worker
	Health professional: practice nurse
	Health professional: specialist nurse
	Health professional: general practitioner
	Health professional: consultant
	Health professional: pharmacist
	Health professional: other (please specify)
	Health promotion/education practitioner

	Peer (please specify)
	Prison worker
	Voluntary sector worker (please specify)
	Media-based (e.g. a helpline, leaflets/brochures, posters, DVDs)
	Other (please specify)
B.5. What is the setting for the intervention, activity or strategy? (select all apply)	Community (please specify)
	Alcohol service
	Drugs service
	Home
	Hospital
	Needle and syringe programme
	Outreach
	Pharmacy
	Primary care
	Prison
	Sexual Health clinic / GUM clinic
	Specialist clinic
	Workplace (please specify)
	Other (please specify)
B.6. Was information and/or advice used in the planning or set up of the intervention, activity or strategy?	Yes
	No
B.7. If yes, what was this advice/information? (please select all that apply)	Analysis of local need
	Experience of other interventions, activities or strategies
	Expert advice
	Research evidence
	Other (please specify)
B.8. Has monitoring or evaluation data been collected about the intervention, activity or strategy?	Yes
	No
	Collection in process
B.9. If yes, what data has been collected? (Please select all that apply)	Changes in the number of people requesting or accepting a test
	Changes in the number of people tested
	Changes in the number of positive tests
	Changes in the number of people referred to treatment
	Knowledge and attitudes among specific groups
	Awareness of testing facilities among specific groups
	Knowledge and attitudes among healthcare professionals
	Awareness of hepatitis B and/or C among healthcare professionals
	Costs
	Other (please specify)
B.10. Is a copy of the monitoring or evaluation data, or associated reports available for the research team to view? *NB: All information provided will be kept confidential*	Yes
	No
B.11. Have barriers and facilitators to implementing the intervention, activity or strategy been examined?	Yes
	No
B.12. If yes, what are the main barriers and facilitators identified?	Please provide details
B.13. May we contact for further	Yes

information about the intervention, activity or strategy described here?	No

Thank you for completing the questionnaire

Section C. Please complete this section if your organisation does not currently offer testing for hepatitis B or hepatitis C

D.1. Has your organisation, service or department considered offering testing?	Yes – for hepatitis B
	Yes – for hepatitis C
	Yes – for both hepatitis B and C
	No
D.2. If yes, are there plans to offer testing within the next financial year?	Yes
	No - *please answer question D.3.*
D.3. Why was the decision taken not to offer testing?	No local need
	Training not available
	Funding not available
	Other (please provide brief details)

Thank for completing the questionnaire

Appendix 3. Additional tables: telephone interviews

Table 2. Local priorities for preventing new hepatitis B and C infections by region

Priority	Number of respondents by region										
	EM	EoE	LDN	NE	NW	SC	SEC	WM	Y&H	SW	Total
Increase numbers into testing and vaccination	1	1	0	1	4	2	2	1	1	1	14
Raise awareness of hepatitis	1	0	0	0	0	1	1	1	1	2	7
Develop/improve care pathways	0	0	0	1	1	1	0	1	1	0	6
Increase number of IDUs receiving treatment	1	0	0	0	1	1	0	0	1	1	5
Improve professional awareness of hepatitis	0	0	0	0	3	1	1	0	1	0	6
Hard to reach groups	0	1	0	0	2	2	0	0	0	0	5
Improve testing provision in services	1	0	1	0	0	0	0	0	0	1	3
Develop accurate data/data sets	0	0	0	0	0	0	0	1	1	0	2
IDU = injecting drug user; EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Table 3. Actions being undertaken to increase awareness and understanding of hepatitis infection by region

Priority	Number of respondents by region										
	EM	EoE	LDN	NE	NW	SC	SEC	WM	Y&H	SW	Total
Provide BBV training for staff/ professional development	1	1	0	0	4	1	1	1	2	4	15
Public events	0	0	0	1	2	2	2	0	3	1	11
Improved communication between services	1	0	0	0	3	0	1	1	2	1	9
Strategy development specifically for high risk groups	1	0	0	0	2	1	1	0	0	1	6
Increased or improved information exchange with client groups	0	0	0	1	2	0	1	0	0	0	4
Increased awareness raising	0	0	0	1	0	0	0	1	1	0	3
Care pathways developed	0	0	0	0	1	0	0	0	2	0	3
BBV= blood borne virus; EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Table 4. Key priorities for increasing diagnosis by region

Priority	Number of respondents by region										
	EM	EoE	LDN	NE	NW	SC	SEC	WM	Y&H	SW	Total
Increase testing/ vaccinations	1	1	0	1	3	0	2	2	3	1	14
Introducing dry blood spot testing	1	0	0	0	2	1	1	0	1	1	7
Improving pathways/ systems	1	0	0	1	1	1	2	0	1	1	8
Testing/vaccination of close contacts/health care workers	0	0	0	0	1	1	0	0	0	0	2
Improve data systems	0	0	0	0	0	0	0	0	1	1	2
Improve follow up of clients	0	0	0	0	0	0	0	0	1	1	2
Education and awareness	0	1	0	1	0	0	0	0	0	0	2
Improve accuracy of diagnosis	1	0	0	0	0	0	0	0	0	0	1
Increase testing for hard to reach groups	0	0	0	0	1	1	0	0	1	0	3
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Table 5. Key priorities for getting diagnosed individuals into treatment and care

Priority	Number of respondents by region										
	EM	EoE	L	NE	NW	SC	SEC	WM	Y&H	SW	Total
Increase outreach/access to treatment or BBV nurse	1	0	0	1	2	2	0	0	0	1	7
In-reach in prisons	1	0	0	0	0	0	0	0	0	0	1
Improve referral practice and pathways into treatment	0	1	0	0	3	0	1	2	3	2	12
Reduce 'did not attend' rates	0	0	1	0	1	0	0	0	0	0	2
Improve IT/data systems	0	0	0	0	0	0	0	0	1	0	1
Develop peer support	0	0	0	0	1	0	0	0	1	0	2
Improve ongoing support and treatment	0	0	0	0	1	1	0	0	1	1	4
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Table 6. Groups identified as a priority for future prevention efforts

Specific group	Number of respondents by region										
	EM	EoE	L	NE	NW	SC	SEC	SW	WM	Y&H	Total
Injecting drug users	2	2	3	1	7	3	5	4	3	5	35
Prisoners	2	2	1	1	3	2	4	2	1	4	22
Immigrant populations	2	1	1	1	2	4	1	0	1	3	16
Sex workers	1	1	0	0	3	1	2	2	1	3	14
Ethnic minority populations	0	0	1	2	5	0	0	0	1	1	10
Homeless	1	1	0	0	2	2	0	1	1	0	8
Other	2	1	1	1	1	4	3	2	1	1	17

Specific group	Number of respondents by region										
	EM	EoE	L	NE	NW	SC	SEC	SW	WM	Y&H	Total
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Table 7. Methods used to identify high-risk groups by region

Method	Number of respondents by region										
	EM	EoE	LDN	NE	NW	SC	SEC	WM	Y&H	SW	Total
Joint Strategic Needs Assessments	0	1	1	1	1	1	1	1	1	1	9
Feedback from partnerships /service providers	0	0	0	0	1	1	1	1	1	1	6
Surveillance data (local)	0	0	1	0	1	1	1	1	0	1	6
Drug service data (NDTMS)	1	0	0	0	0	0	0	0	1	1	3
Epidemiological data	0	0	0	0	0	1	1	0	0	1	3
Referral data	0	0	0	0	1	1	1	0	0	0	3
Prevalence tool kit (HPA)	1	1	0	1	0	0	0	0	0	0	3
GP registration & follow-up data	1	0	0	0	0	1	0	0	0	0	2
Antenatal screening data	0	0	1	0	0	0	1	0	0	0	2
Prison Assessment data	0	0	0	0	0	0	1	0	1	0	2
Regional/local mapping exercise	0	1	0	0	0	0	0	0	1	0	2
GUM clinic data	0	0	0	0	0	0	0	0	1	0	1
Needle exchange data	0	0	0	0	0	0	0	0	0	1	1
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West											

Appendix 4. Additional tables: questionnaire

SECTION A: Details of services promoting and/or offering testing for hepatitis B and/or hepatitis C

Table 8. Main setting of organisation

Setting	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Community	0	0	1	0	1	1	1	0	1	0	1	6
Drugs service providing OST	0	1	0	2	0	6	1	0	2	1	8	21
Drugs service: other	0	1	0	0	0	0	0	0	0	0	0	1
Hospital	0	3	0	0	0	0	0	1	2	0	5	11
Needle and syringe programme	0	0	0	0	0	2	0	0	0	0	0	2
Outreach	0	0	0	0	0	0	0	0	0	1	0	1
Pharmacy	0	0	0	1	0	0	0	2	0	0	1	4
Prison	0	0	0	0	0	0	0	0	0	2	1	3
Sexual Health clinic/ GUM clinic	0	0	0	0	0	2	0	0	0	0	0	2
DAAT/NHS commissioning	0	0	0	2	1	3	1	0	2	3	2	14
Not provided	2	0	0	0	0	0	0	0	0	0	0	2
Total	2	5	1	5	2	14	3	3	7	7	18	67
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber; OST = opiate substitution therapy												

Table 9. Job role

Setting	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Nurse	0	1	0	2	0	5	1	0	4	3	8	24
Service manager	0	2	1	0	1	3	1	2	0	1	3	14
DAAT / NHS commissioning	0	0	0	2	1	3	1	0	2	3	2	14
Hospital consultant	0	2	0	0	0	0	0	1	0	0	2	5
Drugs service worker	0	0	0	1	0	1	0	0	1	0	2	5
Sexual health practitioner	2	0	0	0	0	0	0	0	0	0	0	2
Not stated	0	0	0	0	0	2	0	0	0	0	1	3
Total	2	5	1	5	2	14	3	3	7	7	18	67
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber;												

Table 10. Does your service promote and/or offer testing for hepatitis B or C, or both?

Setting	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Hepatitis B	0	0	0	0	0	0	0	0	0	0	1	1
Hepatitis C	0	0	0	0	0	0	0	0	0	0	2	2
Hepatitis B and C	2	5	1	5	2	11	3	3	5	4	14	55
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber;												

Table 11. What is the setting of your service?

Setting	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Community	1	2	1	1	2	5	2	0	2	1	5	22
Drug Service (OST)	1	1	0	4	2	6	2	0	3	1	10	30
Drug Service (other)	1	2	0	2	2	1	0	0	1	2	5	17
Hospital	0	3	0	0	0	1	0	1	2	0	5	12
NSP	1	1	1	2	1	7	2	0	1	2	5	23
Outreach	1	1	1	2	1	2	0	0	2	2	5	17
Pharmacy	0	0	1	2	0	0	0	2	0	0	1	6
Community pharmacy	0	0	0	1	0	1	0	0	0	0	0	2
Primary Care	0	2	0	1	0	1	1	0	0	1	2	8
Prison	0	1	0	0	0	1	0	0	0	2	1	5
Sexual health/GUM clinic	0	0	1	1	0	3	0	0	0	0	2	7
Other specialist clinic	0	0	0	0	0	1	1	0	0	0	1	3
Other	0	0	0	1	0	0	0	0	0	0	3	4
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber; GUM = genitourinary medicine; OST = opiate substitution therapy												

Table 12. Are specific groups targeted for testing or encouraged to seek hepatitis B testing by your service?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Current IDU	1	4	1	3	1	9	2	3	3	2	11	40
Former IDU	1	3	1	3	1	7	2	2	3	2	10	35
Immigrant	1	1	1	0	0	2	0	0	0	0	3	8
Ethnic minority	1	1	1	0	0	2	0	0	0	0	3	8
Prison	1	2	0	1	0	5	1	1	1	1	1	14
Homeless people	1	3	1	1	0	6	2	1	2	0	5	22
Sex workers	1	3	1	2	1	8	2	1	3	2	5	29
Recipients of blood products	1	0	0	0	0	2	1	1	1	1	0	7
MSM	1	3	1	0	1	5	1	1	2	2	5	22
Other	0	1	1	0	1	3	1	0	1	1	4	13
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South												

Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber; IDU = injecting drug user; MSM = men who have sex with men

Table 13. Are specific groups targeted for testing or encouraged to seek hepatitis C testing by your service?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Current IDU	1	5	1	3	1	9	2	3	3	3	10	41
Former IDU	0	5	1	3	1	8	2	2	3	3	9	37
Immigrant	1	2	1	0	0	1	0	0	0	1	3	9
Ethnic minority	1	1	1	0	0	1	0	0	0	1	3	8
Prison	1	3	0	1	0	5	1	1	1	2	1	16
Homeless people	1	3	1	1	0	6	2	1	2	1	4	22
Sex workers	1	3	1	2	1	7	2	1	3	2	4	27
Recipients of blood products	0	1	0	0	0	2	1	1	1	2	0	8
MSM	1	2	1	0	1	4	1	1	2	2	4	19
Other	0	1	1	0	1	3	1	0	1	1	3	12

EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber; IDU = injecting drug user; MSM = men who have sex with men

Table 14. What methods are used to identify specific groups?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Opportunistic screening	1	3	1	4	1	8	1	1	4	3	8	35
Proactive case finding approach	1	1	1	0	1	2	0	1	2	1	3	13
Use of GP/other registers	0	0	0	0	0	0	1	0	1	0	2	4
Referral from primary health care	0	4	1	0	0	5	2	1	2	1	8	24
Referral from drugs service	0	5	1	3	0	8	2	1	5	3	11	39
Referral from pharmacies	0	1	1	1	1	5	1	1	1	0	4	16
Referral from other agencies	1	2	1	1	0	5	2	1	2	1	4	20
Other	1	2	0	2	2	8	1	2	4	4	9	35

EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber

Table 15. Does your service provide testing on site or by referral?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
On site testing: hepatitis B	1	4	1	5	1	10	2	3	5	4	14	50
On site testing: hepatitis C	1	5	1	5	1	10	2	3	5	4	14	51
Referral to another service: hepatitis B	1	1	0	1	1	1	2	0	0	0	2	9
Referral to another service: hepatitis C	1	1	0	1	1	1	2	0	0	0	2	9
Other	0	0	0	1	0	0	0	0	0	0	0	1
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 16. Does your service follow a protocol, guideline or policy for hepatitis B and/or hepatitis C testing?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes, for hepatitis B testing	0	0	0	0	0	0	0	0	0	0	1	1
Yes, for hepatitis C testing	0	1	0	1	0	2	0	0	0	1	2	7
Yes, for hepatitis B & C testing	2	3	1	3	1	6	2	2	5	3	9	37
No	0	1	0	1	1	3	1	1	0	0	5	13
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 17. Which screening methods for hepatitis B are offered by your service?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Oral fluid	0	1	1	0	0	0	0	0	0	1	2	5
Whole blood	1	0	0	2	0	2	2	1	2	1	3	14
Dry blood spot	1	1	1	2	1	8	1	2	2	1	9	29
Venous blood	0	4	0	3	1	7	1	1	2	2	5	26
Point of care	0	0	0	0	0	1	0	0	0	0	1	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 18. Which screening methods for hepatitis C are offered by your service?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Oral fluid	1	1	1	1	0	0	0	0	0	1	1	6
Whole blood	1	0	0	2	0	2	2	1	2	1	3	14
Dry blood spot	1	4	1	2	1	10	1	2	2	1	10	35
Venous blood	0	4	0	3	1	7	1	1	2	2	6	27
Point of care	0	0	0	1	0	1	0	0	0	0	0	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 19. Who collects the sample for testing within your service?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Drug worker	1	3	1	1	1	4	0	0	1	0	3	15
Community worker/ Lay health worker	0	0	0	0	0	1	0	0	0	0	0	1
Health professional: practice nurse	0	1	0	1	0	1	2	0	0	2	5	12
Health professional: specialist nurse	2	4	0	3	0	8	1	1	5	3	7	34
Health professional: general practitioner	0	2	0	0	0	0	1	0	0	0	2	5
Health professional: consultant	0	1	0	0	0	2	1	0	1	0	2	7
Health professional: pharmacist	0	0	0	2	0	0	0	2	0	0	1	5
Health professional: other	0	1	0	0	0	2	0	1	0	1	6	11
Health promotion/ education practitioner	0	0	0	0	0	0	0	0	0	0	0	0
Peer	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	1	0	0	0	0	2	3
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 20. What test(s) are performed on the initial sample to screen for and/or detect infection?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Hepatitis B surface antigen (HBsAg) test	1	4	0	4	1	6	2	3	2	4	11	38
Antibody to hepatitis B surface antigen (anti-HBs) test	0	1	1	1	1	5	2	1	2	3	4	21
Antibody to hepatitis B core antigen (anti-HBcAg) test	1	3	0	3	1	4	2	1	1	2	3	21

HCV antibody test	1	5	1	3	1	5	2	3	3	3	11	38
HCV antibody & antigen combination test	1	0	0	2	0	6	2	0	2	2	3	18
Other	0	0	0	0	0	2	0	0	0	1	3	6
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 21. If the initial test results are positive for infection, are further tests performed on the sample provided at the initial screening?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes, automatically performed	0	5	0	1	1	6	1	1	2	4	9	30
Yes, performed only if requested	2	0	0	2	0	3	0	0	2	0	1	10
No, second sample is requested	0	0	0	1	0	0	0	1	1	0	1	4
No, referred to another service for further testing	0	0	1	1	0	2	0	1	0	0	3	8
Other	0	0	0	0	0	1	1	0	0	0	1	3
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 22. If yes, what further tests are performed on the sample provided at the initial screening?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Not applicable	1	0	1	1	1	0	1	0	0	0	1	6
Hep B e-antigen (HBeAg or anti-HBe) test	0	1	0	1	1	6	1	0	2	4	4	20
HBV-DNA test	0	0	0	1	0	1	0	0	1	0	2	5
HCV RNA/PCR test	0	3	0	2	1	6	1	1	4	2	9	29
HCV viral load	0	0	0	2	0	4	0	0	1	3	3	13
HCV genotyping	0	0	0	2	1	5	0	0	2	3	7	20
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 23. If a second sample is required before further tests are performed, what methods of sample collection are used?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Not applicable	1	2	0	2	2	3	3	1	0	1	6	21
Oral fluid	0	0	0	0	0	0	0	0	0	0	0	0
Whole blood	0	0	1	0	0	1	0	1	3	1	3	10
Dry blood spot	0	0	0	0	0	1	0	0	2	0	0	3

Venous blood	0	3	0	2	0	4	0	1	2	3	4	19
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 24. What further tests are performed on the second sample?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Not applicable	1	1	0	0	0	0	1	0	0	0	0	3
Hepatitis B e-antigen (HBeAg or anti-HBe) test	0	3	0	1	0	3	0	1	2	3	2	15
HBV-DNA test	0	2	0	0	0	2	0	1	2	0	2	9
HCV RNA/PCR test	0	2	0	1	0	4	0	1	4	1	3	16
HCV viral load	0	2	0	1	0	4	0	1	1	3	3	15
HCV genotyping	0	3	0	1	0	3	0	1	2	3	4	17
Other hepatitis B test	0	0	1	0	0	0	0	1	1	0	2	5
Other hepatitis C test	0	0	1	0	0	0	0	0	0	0	0	1
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 25. Does your service offer a pre-test discussion to people accepting a test?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes	2	5	1	5	2	10	3	3	5	4	16	56
No	0	0	0	0	0	1	0	0	0	0	1	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 26. Who undertakes the pre-test discussion?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Drugs worker	1	3	1	2	2	3	1	0	1	1	6	21
Community Worker/Lay health worker	0	0	0	0	0	1	0	0	0	0	1	2
Health professional: practice nurse	0	1	0	2	0	1	0	0	0	3	4	11
Health professional: specialist nurse	1	4	0	3	0	6	2	1	5	2	8	32
Health professional: general practitioner	1	0	0	1	0	1	1	0	0	0	2	6
Health professional: consultant	0	1	0	0	0	1	1	1	2	0	2	8
Health professional: pharmacist	0	0	0	2	0	0	0	2	0	0	2	6
Health promotion/ education	0	0	0	0	0	0	0	0	0	0	1	1

practitioner												
Peer	1	0	0	0	0	0	0	0	1	0	1	3
Other	0	0	0	0	0	2	0	0	0	0	2	4
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 27. What information and advice is given in the pre-test discussion?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Advice/information on available treatments	1	4	1	3	1	9	3	2	5	4	13	46
How hepatitis might affect overall health	1	5	1	3	2	9	3	2	5	4	12	47
How to understand the test results	1	4	1	4	1	7	3	2	5	4	11	43
Maintaining a healthy lifestyle	1	3	1	4	2	9	3	2	5	4	12	46
Protecting their partner, family and friends	1	5	1	5	2	9	3	3	5	3	13	50
Safer sex practices	1	4	1	4	1	10	3	2	5	4	11	46
Safer injection practices	1	4	1	4	2	10	3	2	5	4	10	46
Other	0	1	0	0	0	2	0	0	0	1	1	5
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 28. How are people informed about a negative test result?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
In person at your service	2	5	1	5	1	10	2	3	4	4	16	53
Via their GP	1	0	0	1	0	0	1	0	1	1	1	6
By letter	0	2	0	0	0	3	0	0	1	0	4	10
By telephone	0	3	0	0	1	2	0	0	3	1	3	13
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 29. How are people informed about a positive test result?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
In person at your service	2	5	1	5	1	11	2	3	5	4	16	55
Via their GP	1	1	0	0	0	0	1	0	0	0	2	5
By letter	0	1	0	0	0	1	0	0	0	0	0	2

By telephone	0	2	0	0	1	2	0	0	2	0	1	8
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 30. Does your service offer post-test counselling?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes, offered by my service	0	4	1	5	1	10	2	2	4	4	13	46
Yes, by referral to another service	2	1	0	0	1	1	1	1	1	0	3	11
No	0	0	0	0	0	0	0	0	0	0	1	1
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 31. If yes, who provides post-test counselling?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Drug worker	0	1	1	1	1	5	1	0	0	1	5	16
Community worker/ Lay health worker	0	0	0	0	0	0	0	0	0	0	0	0
Health professional: practice nurse	0	0	0	1	0	1	1	0	0	2	5	10
Health professional: specialist nurse	0	4	0	3	0	6	2	2	4	1	10	32
Health professional: general practitioner	0	0	0	0	0	0	1	0	0	0	4	5
Health professional: consultant	0	2	0	0	0	2	1	1	2	0	3	11
Health professional: pharmacist	0	0	0	2	0	0	0	1	0	0	0	3
Health professional: other	0	0	0	0	0	3	0	0	0	1	1	5
Health promotion/ education practitioner	0	0	0	0	0	0	0	0	0	0	1	1
Peer	0	0	0	0	0	0	0	0	0	0	0	0
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 32. What information and advice is provided during post-counselling?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Advice/information on available treatments	2	5	1	5	1	9	3	3	5	4	16	54

How hepatitis might affect overall health	2	5	1	5	1	10	3	3	5	4	16	55
How to understand the test results	1	5	1	4	1	9	3	3	4	4	16	51
Maintaining a healthy lifestyle	2	4	1	5	2	10	3	3	4	4	15	53
Protecting their partner, family and friends	2	5	1	5	2	10	3	3	4	3	16	54
Safer sex practices	2	5	1	5	2	10	3	2	4	4	15	53
Safer injection practices	2	5	1	5	2	8	3	2	5	4	15	52
Other	0	1	0	0	0	2	0	0	0	0	1	4
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 33. For people who test positive, does your service provide treatment and/or follow-up services on site or by referral?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
On-site												
Hep B vaccination	0	2	0	4	1	8	3	0	3	4	9	34
Hep B treatment	0	1	0	2	0	0	0	1	3	1	3	11
Hep C Treatment	0	4	0	1	0	1	0	1	2	1	5	15
Psychiatric consultation	0	0	0	2	1	1	2	1	1	3	3	14
Pre-treatment assessment	1	4	0	2	1	5	1	1	3	3	8	29
Liver function test	0	4	0	4	0	8	1	1	5	2	7	32
Liver biopsy	0	1	0	0	0	0	0	1	2	0	3	7
Treatment/follow-up services not provided	0	1	0	0	0	1	1	1	0	1	5	10
Other	0	0	0	0	1	1	0	0	0	0	1	3
By referral												
Hep B vaccination	2	2	1	0	1	2	0	3	2	0	7	20
Hep B treatment	2	3	1	3	2	11	3	1	2	2	12	42
Hep C Treatment	2	1	1	4	2	11	3	2	3	3	11	43
Psychiatric consultation	0	3	1	0	1	9	1	1	5	1	10	32
Pre-treatment assessment	0	0	1	1	2	8	1	1	2	1	8	25
Liver function test	0	0	1	0	1	5	1	0	1	2	9	20
Liver biopsy	0	3	1	4	1	11	3	0	3	4	11	41
Treatment/follow-up services not provided	0	0	0	0	1	3	1	0	1	1	2	9
Other	0	0	0	0	0	1	0	0	0	0	1	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 34. If your service provides treatment and/or follow-up services by referral, is specific information and support available to help ensure people who test positive access these services?

Group	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
No	0	0	0	0	0	1	0	0	0	0	0	1
Yes	2	3	0	3	1	7	2	1	3	3	16	41
Not applicable	0	2	1	2	1	3	1	2	2	1	1	16
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 35. For people who test positive, does your service provide any other kinds of support on site or by referral?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
On-site												
Drug & alcohol services	1	5	1	3	2	6	2	1	4	4	12	41
Dietician	0	0	0	0	1	2	0	1	3	0	4	11
Smoking cessation services	0	1	0	4	2	2	0	1	2	3	9	24
Support group(s)	1	1	1	1	1	3	2	0	3	3	8	24
Other kinds of support are not provided	0	0	0	0	0	0	0	0	0	0	1	1
By referral												
Drug & alcohol services	0	0	0	2	0	5	1	2	1	0	6	17
Dietician	1	2	0	3	2	8	3	0	3	2	6	30
Smoking cessation services	1	2	0	1	1	8	3	1	4	0	5	26
Support group(s)	0	3	0	2	1	8	1	1	3	0	5	24
Other kinds of support are not provided	0	1	0	0	0	1	0	0	0	0	0	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 36. Is advice on lifestyle changes routinely given following testing?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes, for people who test positive	0	0	0	1	0	1	0	1	1	0	4	8
Yes, regardless of the test result	2	4	1	4	2	9	3	2	4	4	13	48
No	0	1	0	0	0	1	0	0	0	0	0	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

Table 37. Are strategies in place to ensure that people who test positive, but who are not receiving treatment or who decline referral, continue to seek or receive further help and support?

Response	Number of respondents by region											Total
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	
Yes	1	4	1	4	2	10	3	3	5	4	12	49
No	1	1	0	1	0	1	0	0	0	0	5	9
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; SW = South West; WM = West Midlands; Y&H = Yorkshire & the Humber												

SECTION B: Details of interventions, activities or strategies that aim to improve uptake of hepatitis B and/or C testing

Table 38. Does the intervention, activity or strategy target a specific group or groups?

	Number of respondents by region											
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	Total
Ethnic minority	1	0	1	1	1	3	0	0	0	2	5	14
Current IDUs	1	2	1	5	2	13	3	2	5	7	13	54
Former IDUs	1	2	1	5	2	12	3	1	5	7	13	52
Healthcare professionals	1	0	0	0	0	3	0	0	1	0	2	7
Homeless	1	1	1	1	2	6	2	0	4	5	5	28
Migrant	1	0	1	1	1	2	0	0	1	2	5	14
Prison	1	0	1	1	1	4	1	0	1	5	3	18
Sex Workers	1	0	1	2	2	8	3	0	3	5	3	28
Blood Products	1	0	0	1	1	2	0	0	1	3	3	12
MSM	1	0	1	1	2	4	1	0	2	3	4	19
Other	0	0	1	0	0	1	0	0	0	0	1	3
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 39. Which of the following components does the intervention, activity or strategy cover?

	Number of respondents by region											
	Not stated	EM	EoE	LDN	NE	NW	SC	SEC	SW	WM	Y&H	Total
Advice/information (leaflets, posters etc)	1	1	1	5	2	12	3	2	5	7	13	52
Educational programme(s)	0	0	0	1	0	6	0	0	3	4	4	18
Programme addressing stigma, cultural or language barriers	0	0	0	0	0	4	1	0	0	0	2	7
Media/information campaign(s)	0	0	1	0	1	3	1	0	2	4	4	16
Social marketing	0	0	1	0	0	1	0	0	1	0	1	4

	Number of respondents by region											
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Incentives for people to participate in testing	0	0	1	0	0	2	1	0	3	3	2	12
Increasing the number and/or type of services that offer testing	1	1	1	4	0	6	1	1	4	4	3	26
Increasing the number of hours or days that facilities open	1	0	1	0	0	4	1	1	2	1	2	13
Transfer of responsibilities to other professional groups	0	0	0	2	0	2	0	0	2	1	3	10
Transfer of responsibilities to lay health workers or peers	0	0	0	1	0	3	0	0	0	1	0	5
Offering acceptable or alternative methods of testing	1	1	1	1	1	6	1	2	2	4	7	27
Behaviour change targeting professionals	0	0	1	0	0	3	2	0	0	2	1	9
Educational sessions and/or meetings for health professionals	1	0	1	1	0	6	2	0	2	5	5	23
Continuing medical/nursing education	0	1	0	2	0	5	2	0	3	5	4	22
Enhanced methods for case finding	0	1	0	0	0	1	1	0	0	0	2	5
Encouraging people who have tested positive to continue to seek support	1	1	1	3	1	11	2	1	5	5	9	40
Other	0	0	0	0	0	0	0	0	0	1	1	2
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 40. Who delivers the main components of the intervention, activity or strategy?

	Number of respondents by region											
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Drug worker	1	2	1	3	2	7	1	0	4	4	6	31
Community worker/ Lay health worker	0	0	0	0	0	0	0	0	1	0	2	3
Health professional: practice nurse	0	0	1	1	0	1	1	0	1	2	4	11
Health professional: specialist nurse	1	1	0	3	1	8	2	1	5	4	6	32
Health professional: general practitioner	0	1	0	1	0	1	1	0	2	2	3	11
Health professional: consultant	0	0	0	1	0	3	1	0	1	1	4	11
Health professional: pharmacist	0	0	0	2	0	2	0	1	0	1	2	8
Health professional: other	0	0	0	0	0	3	0	0	0	1	1	5
Health promotion/education practitioner	0	0	0	0	0	1	0	0	0	0	0	1
Peer	0	0	0	0	0	2	0	0	0	1	0	3
Prison worker	0	0	0	0	0	1	0	0	1	1	1	4
Voluntary sector worker	0	0	0	0	0	0	0	0	0	1	0	1
Media-based	0	0	0	0	1	4	0	0	0	0	0	5
Other	0	0	0	0	0	2	0	0	0	0	2	4
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 41. What is the setting for the intervention, activity or strategy?

	Number of respondents by region											
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Community	0	1	0	2	1	7	3	0	4	3	5	26
Alcohol service	1	0	1	2	1	6	2	0	4	2	2	21
Drugs service	1	1	1	4	2	8	3	1	4	4	11	40
Home	0	0	0	0	0	3	1	0	0	0	3	7
Hospital	0	0	0	0	0	2	0	0	1	2	4	9
Needle and syringe programme	1	0	0	2	1	9	0	0	1	4	6	24
Outreach	1	0	0	1	1	5	0	0	3	4	6	21
Pharmacy	0	0	0	2	0	3	0	1	0	3	4	13
Primary care	0	1	0	1	0	3	2	0	1	3	4	15
Prison	0	0	0	0	0	1	0	0	0	2	1	4
Sexual Health/GUM clinic	0	0	0	0	0	4	0	0	0	2	4	10
Specialist clinic	1	0	0	1	0	1	1	0	2	4	3	13
Workplace	0	0	0	0	0	0	0	0	0	0	1	1

Other	0	0	0	0	0	0	0	0	0	0	1	1
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 42. Was information and/or advice used in the planning or set up of the intervention, activity or strategy?

	Number of respondents by region											
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Yes	1	0	1	2	1	10	0	1	4	5	7	32
No	0	1	0	2	1	3	1	0	1	1	4	14
Collection in process	0	1	0	1	0	0	2	1	0	1	3	9
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 43. Has monitoring or evaluation data been collected about the intervention, activity or strategy?

	Number of respondents by region											
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Changes in the number of people requesting or accepting a test	1	0	1	2	0	6	0	0	4	3	4	21
Changes in the number of people tested	1	0	1	0	0	6	0	0	4	3	3	18
Changes in the number of positive tests	1	0	1	2	0	5	0	0	3	2	4	18
Changes in the number of people referred to treatment	1	0	1	1	0	5	0	0	4	2	5	19
Knowledge and attitudes among specific groups	0	0	0	0	0	2	0	0	2	1	1	6
Awareness of testing facilities among specific groups	0	0	0	0	0	4	0	0	2	0	2	8
Knowledge and attitudes among healthcare professionals	0	0	0	0	0	1	0	0	2	0	4	7
Awareness of hepatitis B and/or C among healthcare professionals	0	0	0	0	0	8	0	1	4	2	4	19
Costs	0	0	0	0	0	3	0	0	1	2	3	9
Other	0	0	0	0	1	3	0	1	0	1	2	8
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												

Table 44. Have barriers and facilitators to implementing the intervention, activity or strategy been examined?

	Number of respondents by region										
	Not stated	**EM**	**EoE**	**LDN**	**NE**	**NW**	**SC**	**SEC**	**SW**	**WM**	**Y&H**	**Total**
Yes	0	1	1	2	2	7	2	1	3	3	7	29
No	1	1	0	3	0	6	1	1	2	4	7	26
EM = East Midlands; EoE = East of England; LDN = London; NE = North East; NW = North West; SC = South Central; SEC = South East Coast; WM = West Midlands; Y&H = Yorkshire & the Humber; SW = South West												