Submission to the
All Party Parliamentary Group on
Hepatology Inquiry into improving
outcomes from liver disease

Prepared by the Knowledge and Intelligence Team (KIT) South West, lead KIT for
liver disease, on behalf of Public Health England. September 2013.

Authors: Rachel Clark¹, Julia Verne¹, Liz Rolfe¹, James Ferguson².
With input from Obaghe Edeghere³ and Helen Harris⁴

¹ Public Health England Knowledge and Intelligence Team (South West)
² University Hospital Birmingham NHS Foundation Trust
³ Public Health England Field Epidemiology Service
⁴ Public Health England Immunisation, Hepatitis & Blood Safety Department

1. Background information on liver disease

1.1 Deaths from liver disease

Between 2001 and 2012, the number of people who died with an underlying cause of
liver disease in England rose from 7,841 to 10,948. This represents a 40% increase
in liver deaths during this period and is in contrast to other major causes of disease
which have been declining (1). The increase in deaths from liver disease is also in
contrast to most EU countries where deaths fell during this period (2). A further 4,000
people per year die with liver disease mentioned on their death certificate (1).

Although numbers of deaths due to cancer, vascular or respiratory disease are still
much greater, liver disease kills people at a much younger age – 90% of people who
die from alcoholic liver disease are under 70 years old, over 60% of people who die
from any liver disease are under 70. More than 1 in 10 deaths of people in their 40s
are from liver disease (1).

The most common underlying causes of death from liver disease are alcoholic liver
disease and liver cancer (0.8% and 0.5% of all deaths). Deaths from liver disease
are more common in males. People in the most deprived quintile of the population
are 2.3 times more likely to die from liver disease (1).
People with liver disease are more likely to die in hospital. In 2011, 67% of people who died of liver disease died in hospital compared with 51% of all deaths. Liver patients rarely died in hospices unless they died from liver cancer (1).

1.2 Admissions to hospital

The number of hospital admissions for liver disease rose from 35,581 in 2001/02 to 57,682 in 2011/12, an increase of 62% (Figure 1).

**Figure 1: Hospital admissions for liver disease, England, 2001/02–2011/12**

![Hospital admissions for liver disease](image)

Source: Hospital Episode Statistics

1.3 Liver transplants

The number of liver transplants in England between 2001/02 and 2012/13 is shown in Figure 2. A report on liver disease found that alcohol-related cirrhosis was the leading cause of registrations for liver transplants in the North West (4).

**Figure 2: Liver transplants, England, 2001/02–2012/13**

![Liver transplants](image)
1.4 The main causes of liver disease

The three main causes of liver disease are alcohol, obesity and viral hepatitis (hepatitis B and C), all of which are preventable.

1.4.1 Alcohol

The UK is one of the few European countries where alcohol consumption has risen in the last 50 years and alcohol-related harms are increasing (5). Between 2001/02 and 2011/12 the number of hospital admissions for alcoholic liver disease increased by 56% from 10,818 to 16,865 (Figure 3).

Figure 3: Hospital admissions for alcoholic liver disease, England, 2001/02–2011/12

1.4.2 Obesity

Obesity is a major risk factor for non-alcoholic fatty liver disease (NAFLD). As levels of obesity have risen, so has the prevalence of NAFLD.

Figure 4 shows hospital admissions for NAFLD between 2001/02 and 2011/12.

In England there are potentially 1.4 million adults with fatty liver disease which may lead to cirrhosis over the long term (6). There is concern that the rising prevalence of obesity among children may lead to more child cases of NAFLD in the future. It is estimated that up to half a million children aged 5–15 years may already be at risk of developing an underlying liver disease that could lead to cirrhosis (6).
1.4.3 Hepatitis B

Hepatitis B is a blood-borne virus that can cause an acute illness. Hepatitis B can also cause a chronic liver infection that can later develop into cirrhosis of the liver or liver cancer. It is estimated that the prevalence of chronic hepatitis B infection in the UK is 0.3%, equivalent to around 180,000 people (7). People with hepatitis B can often be asymptomatic and may be unaware of their infection. In the UK, hepatitis B vaccine is recommended for groups at risk of infection. Figure 5 shows that hospital admissions from hepatitis B-related end-stage liver disease and hepatocellular carcinoma in England have risen from 246 in 1998 to 797 in 2012.

Figure 5: Hospital admissions for end-stage liver disease* or hepatocellular carcinoma in individuals with hepatitis B in England 1998-2012

Data source: Health and Social Care Information Centre.  
*Defined by codes for ascites, bleeding oesophageal varices; hepato-renal syndrome; hepatic encephalopathy or hepatic failure.
1.4.4 Hepatitis C

Hepatitis C is a blood-borne virus which is transmitted via infected blood or less commonly via body fluid. People who inject drugs are at greatest risk of hepatitis C infection. Estimates suggest that there are approximately 215,000 people chronically infected with hepatitis C in the UK (8). In most cases hepatitis C infection has no symptoms and therefore many people can be unaware they are infected. Figure 6 shows that hospital admissions from hepatitis C-related end-stage liver disease and hepatocellular carcinoma in England have risen from 574 in 1998 to 2,266 in 2012 (8).

Figure 6: Hospital admissions for end-stage liver disease* or hepatocellular carcinoma in individuals with hepatitis C in England 1998-2012

![Graph showing hospital admissions for end-stage liver disease or hepatocellular carcinoma in individuals with hepatitis C in England 1998-2012.](data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAAgAAAAAIAQMAAABX8H3gAAAABGdBTUEAALGPC/xhBQAAAAAElFTkSuQmCC)
2. Responses to key questions

1. What is your assessment of progress in tackling liver disease since 2010?

There has been too little progress in tackling liver disease since 2010. There is no national liver disease strategy and no National Clinical Director solely for liver disease. The proposal to introduce minimum unit pricing for alcohol which may have helped reduce alcohol consumption has still not been taken up.

In relation to hepatitis, the burden of chronic infection continues to rise although there has been progress on some fronts in prevention of risky behaviour amongst persons who inject drugs and awareness raising and increased testing in certain subgroups.

Across all the major risk factors for liver disease, we reiterate the conclusions in the Chief Medical Officer's 2011 annual report (2) that there is a need for preventative measures involving a combination of public health policy initiatives, such as action on obesity and harmful alcohol use, and increased awareness of liver health among the public. There also needs to be a coordinated approach to ensuring that people are aware of their hepatitis status early in the course of the disease and have timely access to specialist treatment services.

2. Looking at the reforms to health and social care:

a. What are the biggest opportunities for tackling liver disease?

Health and Wellbeing Boards and Clinical Commissioning Groups have responsibility for assessing the burden of liver disease in their populations, commissioning appropriate services and raising public awareness. Actions they could take include local licensing policies, promotion of physical activity, provision of alcohol detox services and testing for groups most at risk of viral hepatitis. Despite the availability of NICE recommended therapies that will clear the hepatitis C virus in most of those treated, only around 3% of those chronically infected are treated each year (8). Good evidence exists to suggest that the combination of effective drug treatments, support for safe injecting, and treatment of HCV infection in people who inject drugs, can impact on the incidence and prevalence of HCV infection (9). As such, commissioners should consider expanding provision of hepatitis C treatment in non-traditional settings, including primary care, drug treatment settings and prisons, to make treatment more accessible.

b. What are the biggest threats to tackling liver disease?

The biggest threat is failure to prioritise prevention and treatment of liver disease at a local level. This is exacerbated by a lack of: a national strategy, a National Clinical Director solely for liver disease, guidance on the prevention of liver disease from the National Institute for Health and Care Excellence and
national policies to reduce alcohol consumption (e.g. minimum unit pricing). Recent changes to the health care system have led to the fragmentation of multi-professional partnerships/networks which previously coordinated the response to issues such as hepatitis. There is also a dearth of information on the number of chronic hepatitis B and C cases that have accessed treatment and treatment outcomes.

3. What support do different organisations need in improving liver disease outcomes?

Organisations need a comprehensive suite of good quality information about the prevalence of liver disease and its risk factors and evidence based guidance on practical solutions.

4. What opportunities do you see for early diagnosis and/or prevention of liver disease?

The key message is that most liver disease is preventable and early stage disease is reversible. Actions should include:

- tackling obesity and alcohol misuse
- sustaining the current broad range of prevention services for people who inject drugs to minimise ongoing transmission of hepatitis B and C
- identifying and treating cases of hepatitis B and C
- identifying people with early stage liver disease and advising on lifestyle changes

5. How can we avoid unwarranted variation in liver disease and/or prevention of liver disease?

To avoid unwarranted variation in liver disease outcomes across England, we need to concentrate resources in those areas with the highest prevalence and ensure that these areas have good quality information and practical solutions. We also need to develop, implement and monitor quality standards for commissioning prevention and treatment services across England, underpinned by a comprehensive liver disease strategy.

6. Can you give examples of where a part of the pathway is working well in an area or where it is not?

The NHS Atlas of Variation in Healthcare for People with Liver Disease provides some examples of pathways that are working well (6).
References

(1) The National End of Life Care Intelligence Network, Public Health England


