

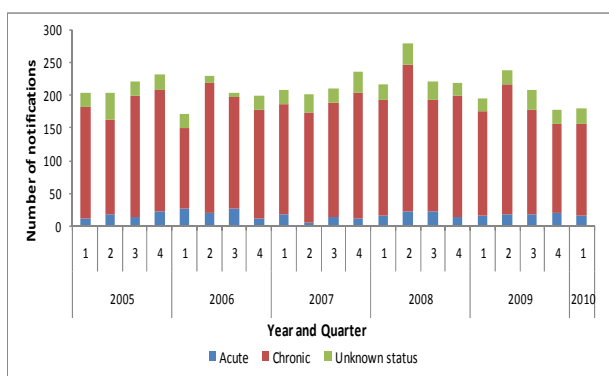
## Health Protection Surveillance Centre

### Introduction

Acute and chronic cases of hepatitis B are notifiable under the Infectious Diseases Regulations 1981. Departments of Public Health, in conjunction with the HPSC, introduced enhanced surveillance of acute cases of hepatitis B from January 2005. Some enhanced data are also available for a smaller proportion of chronic cases.

### Results

There were 181 notifications of hepatitis B in Q1 2010. This corresponds to a crude notification rate of 4.3 per 100,000 population. Quarterly trends since Q1 2005 are shown in figure 1.



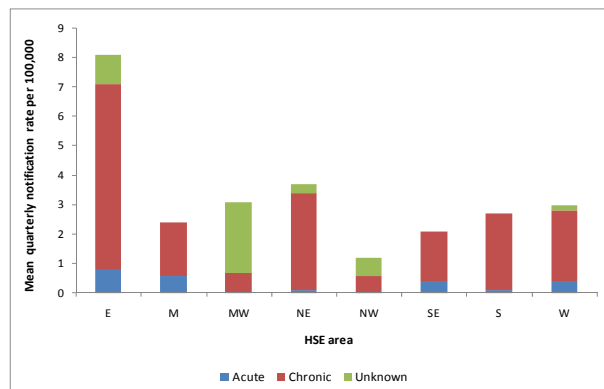
**Figure 1.** Number of cases of hepatitis B notified, by acute/chronic status, Q1 2005 to Q1 2010

### Geographic distribution

The highest notification rates were in the HSE-East, which reported 66% of Q1 notifications (n=119, 7.9 per 100,000 population) (figure 2).

### Acute/chronic status

Ninety percent (n=163) of hepatitis B notifications in Q1 contained information on the acute/chronic status of the case. Of these, 89% (n=145) of cases were chronically infected (long-term infection) and 11% (n=18) were acutely infected (recent infection) (figure 2).

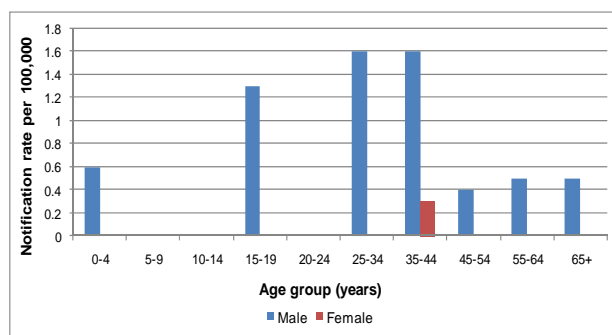


**Figure 2.** Number of hepatitis B notifications, by HSE area and acute/chronic status, Q1 2010

### Acute cases

#### Age and sex

The age and sex specific notification rates for acute cases of hepatitis B in Q1 2010 are shown in figure 3. Of the 18 acute cases, 17 (94%) were male, and only one (6%) was female. Seventy two percent (n=13) of acute cases were aged between 25 and 54 years and the median age at notification was 34.5 years.



**Figure 3.** Age and sex specific rates per 100,000 population for acute cases of hepatitis B, Q1 2010

### Risk factor and other enhanced data

Risk factor data was available for 67% of acute cases in Q1 2010 (n=12). Of these, 75% (n=9) reported that their most likely risk factor was sexual exposure. Three were heterosexual and six were men who have sex with men (MSM).

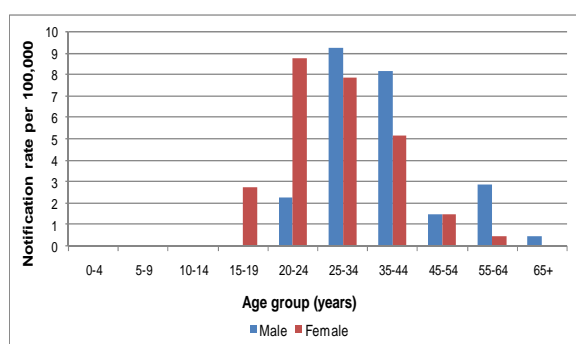
Country of infection was known for 13 acute cases. Of these, ten were infected in Ireland (77%), one in France, one in Germany and one in Estonia.

Country of birth was specified for 15 acute cases. Nine (60%) were born in Ireland. Other countries of birth included China, Brazil, Mexico and Estonia. Where reason for testing was known (n=17), 76% (n=13) of acute cases were tested because they were symptomatic and 18% (n=3) were tested as part of STI screening programmes.

## Chronic cases

### Age and sex

The age and sex specific notification rates for chronic cases of hepatitis B in Q1 2010 are shown in figure 4. Of the 145 chronic cases, 75 (52%) were male, 68 (47%) were female and the sex was not known for two cases. The median age at notification for males (34 years) was higher than that for females (28 years). Eighty five percent (n=123) of chronic cases notified in Q1 were aged between 20 and 44 years.



**Figure 4.** Age and sex specific rates per 100,000 population for chronic cases of hepatitis B, Q1 2010

### Risk factor and other enhanced data

Some risk factor and other enhanced data were available for 41% (n=60) of the chronic cases notified in Q1 2010. Of these, 70% (n=42) were

born in hepatitis B endemic countries (hepatitis B surface antigen prevalence  $\geq 2\%$ ) or were classified as asylum seekers. For a further 22% (n=13), risk factor for infection was recorded as possible sexual exposure. Region of birth was known for 53 chronic cases. The most common regions were Eastern and Central Europe (n=20), South and East Asia (n=17) and Sub-Saharan Africa (n=10). Five chronic cases were born in Ireland.

The reason for testing was known for 77 chronic cases. Thirty one percent (n=24) were identified through antenatal screening programmes, 19% (n=15) were identified through asylum seeker screening programmes and 17% (n=13) were diagnosed in STI settings.

## Discussion

The number of cases of hepatitis B notified in the first quarter of 2010 was similar to that for the last quarter in 2009 (n=180).

Where enhanced data were available, 95% (n=17) of acute cases were males. Sexual exposure was the most commonly reported risk factor, of which 66% were MSM. Enhanced data were more limited for chronic cases, but where data were available, the majority (70%) were born in hepatitis B endemic countries and were likely to have been infected outside of Ireland.

## Acknowledgements

HPSC would like to thank all those who provided data for this report - Departments of Public Health, laboratories and clinicians.

Report by Joanne Moran, Niamh Murphy & Dr Lelia Thornton, 11th June 2010

### Case definition for hepatitis B (acute and chronic)<sup>1</sup>

*Clinical description* In symptomatic cases, clinical picture compatible with hepatitis, i.e. discrete onset of symptoms and/or jaundice or elevated serum aminotransferase levels. Asymptomatic cases are common.

#### Hepatitis B (acute)

##### Laboratory criteria for diagnosis

One of the following:

- IgM antibody to hepatitis B core antigen (anti-HBc) positive
- Detection of hepatitis B virus (HBV) nucleic acid in serum

##### Case classification

Possible: N/A

Probable: A symptomatic case that is HBsAg positive and has a clinical picture compatible with an acute hepatitis

Confirmed: A case that is laboratory confirmed

#### Hepatitis B (chronic)

##### Laboratory criteria for diagnosis

One of the following:

- Hepatitis B surface antigen (HBsAg) positive **and** antibody to hepatitis B core antigen (anti-HBc) positive **and** IgM antibody to hepatitis B core antigen negative
- Persistence for more than 6 months of either HBsAg or HBV nucleic acid in serum.

##### Case classification

Possible: N/A

Probable: N/A

Confirmed: A case that is laboratory confirmed

1. Case definitions for notifiable diseases. Infectious Diseases (Amendment) (No. 3) Regulations 2003 (SI No. 707 of 2003). National Disease Surveillance Centre, February 2004.