

# Report on Hepatitis B Notifications in Q2 2008

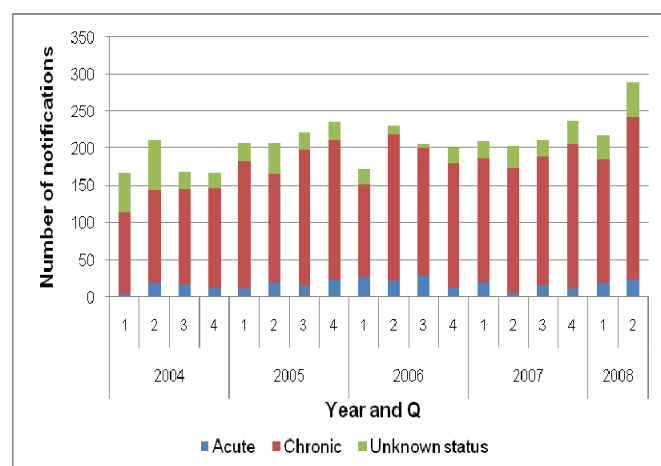
## Health Protection Surveillance Centre

### 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 289 notifications of hepatitis B in Q2 2008 (6.8 per 100,000 population). This was a 33% increase on the number of cases for the previous quarter (n=218) and is the highest number of cases notified in a single quarter to date (figure 1).



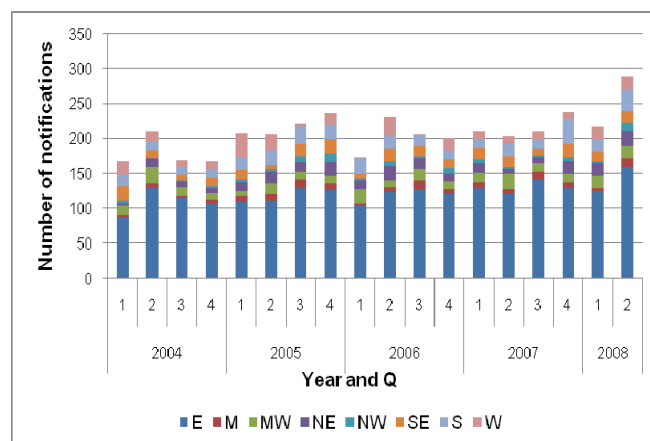
**Figure 1.** Number of cases of hepatitis B notified by acute/chronic status, Q1 2004- Q2 2008

#### Acute/chronic status

Eighty four percent (n=242) of hepatitis B notifications in Q2 contained information on the acute/chronic status of the case. Of these, 90.5% (n=219) were chronic and 9.5% (n=23) were acute.

#### Geographic distribution

The highest notification rate was in the HSE-E, who reported 56% of Q2 notifications (10.7 per 100,000 population, n=161). The largest contributors to the increase in cases between Q1 and Q2 were the HSE-E and HSE-S (figure 2).

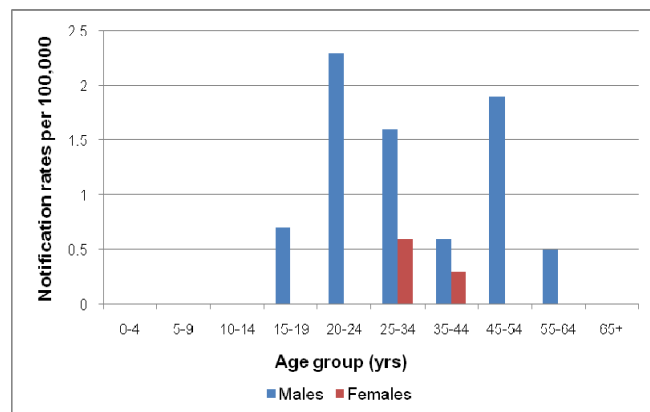


**Figure 2.** Number of cases of hepatitis B notified by HSE area, Q1 2004-Q2 2008

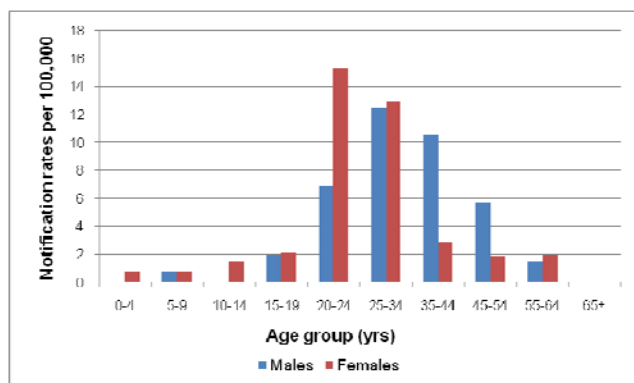
#### Age and sex

Age and sex specific notification rates for acute and chronic cases of hepatitis B are shown in figures 3 and 4, respectively. Of the twenty three acute cases, nineteen (83%) were male, three (13%) were female and sex was unknown for one. All were adults, with ages ranging from 19 to 61 years. The median age at notification was 30 years.

The sex distribution of the chronic cases was more even. Fifty two percent were male (n=113), 44% were female (n=97) and sex was not specified for 9 cases. The median age at notification for males (34) was higher than that for females (28). Eighty two percent (n=180) of chronic cases notified in Q2 were aged between 20 and 44 years.



**Figure 3.** Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q2 2008



**Figure 4.** Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q2 2008

### Risk factors

Some risk factor data were entered on CIDR for 78% of acute cases (n=18) and 43% of chronic cases (n=95) in Q2.

Where risk information was available, 50% (n=9) of acute cases were likely to have been sexually acquired. Seven of these were men who have sex with men (MSM) and two were heterosexual. A further 28% (n=5) were born in a hepatitis B endemic country ( $\geq 2\%$  HBsAg prevalence) or were asylum seekers. Overall, where country of birth was specified (n=18), 50% of acute cases were born outside of Ireland.

Where reason for testing was known (n=20), 55% (n=11) of acute cases were tested because they were symptomatic, 10% (n=2) were tested in STI settings and 10% (n=2) were asymptomatic contacts of known cases.

Enhanced data were more limited for chronic cases. Where data were available, 83% (n=79) were born in hepatitis B endemic countries or were asylum seekers. The most common regions of birth were Sub-Saharan Africa (n=22) and Eastern and Central Europe (n=20). Twelve chronic cases were born in Ireland. Seven of these were residents of intellectual disability institutions.

The reason for testing was known for 109 chronic cases. Thirty three percent (n=36) were identified through antenatal screening programmes, twenty seven percent (n=29) were identified through asylum seeker screening programmes and ten percent (n=11) were diagnosed in STI settings. Most of the chronic cases who were residents of intellectual disability institutions were tested as part of routine health screens.

## Discussion

Ninety percent of hepatitis B cases notified in Ireland since 2004 were chronically infected. Available data indicate that most chronic cases were born in hepatitis B endemic countries and infected outside of Ireland. The epidemiology of acute cases is generally different. Where data were available, 80% of acute cases notified since 2004 were born in Ireland and fifty eight percent of acute infections were sexually acquired.

Hepatitis B vaccine was added to the routine childhood immunisation schedule in September 2008 (<http://www.ndsc.ie/hpsc/A-Z/VaccinePreventable/Vaccination/Guidance/>).

This universal infant vaccination programme will be run in parallel with the pre-existing targeted immunisation programme, which recommends hepatitis B vaccination for individuals who are at increased risk of infection because of their lifestyle, occupation or other factors. This includes individuals who change sex partner frequently, injecting drug users, healthcare workers, haemophiliacs, renal dialysis patients and close contacts of cases.

## Acknowledgements

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

Report by Niamh Murphy & Dr Lelia Thornton, 10<sup>th</sup> September 2008

### 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.