



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

# Report on Hepatitis B Notifications in Q4 2006 & provisional annual summary for 2006



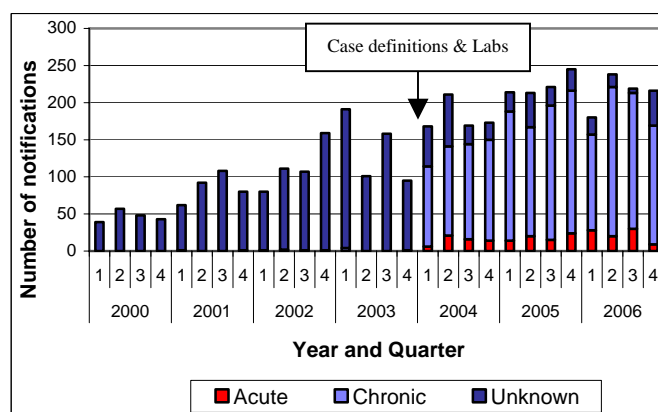
## Health Protection Surveillance Centre

### 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 information is also available for a minority of chronic cases.

### Results

There were 216 notifications of hepatitis B in Q4 2006. This was similar to the updated number of cases for the previous quarter (n=219) and a decrease compared to the number of notifications for Q4 2005 (n=245) (figure 1).



**Figure 1.** Number of notifications of hepatitis B per quarter, 2000-2006

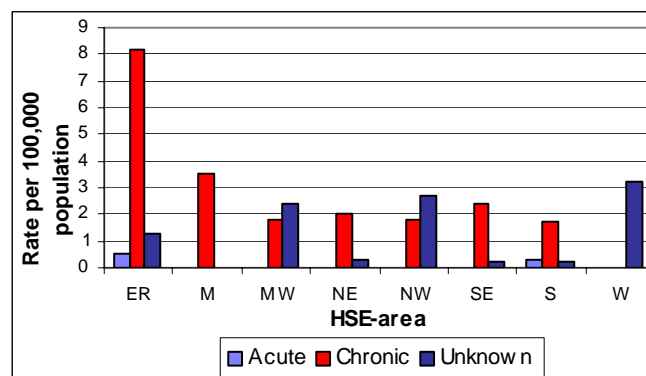
### Acute/chronic status

Seventy-eight percent (n=169) of notifications of hepatitis B in Q4 contained information on the acute/chronic status of the case. Seventy-four percent (n=160) of cases were reported as chronic, 4% (n=9) as acute and the status was unknown for 22% (n=47). The number and proportion of acute cases decreased substantially compared to Q3 (n=30, 13.7%). However, the proportion of cases with unknown status has increased (from 2.7% to 22%) so this may be a reporting artefact.

### Geographic distribution

The rates per 100,000 population for Q4, by HSE area and acute/chronic status, are shown in figure 2. Sixty-five percent (n=140) of cases in Q4 were

notified by the HSE-E (10 per 100,000 population).



**Figure 2.** Rate per 100,000 population of hepatitis B cases notified in Q4 2006 by acute/chronic status and HSE area

### Age and sex

The age and sex specific rates for acute and chronic notifications of hepatitis B in Q4 are shown in figures 3a and 3b, respectively. Eighty-nine percent (n=8) of acute cases were male. All acute cases were aged between 20 and 44 years.

The sex distribution of the chronic cases was more even. Forty-nine percent of cases were male (n=79), 46% were female (n=74) and sex was not specified for 7 cases. The age distribution for males was slightly older than that for females. Eighty-five percent (n=136) of all chronic cases notified in Q4 were aged between 20 and 44 years.

### Risk factors

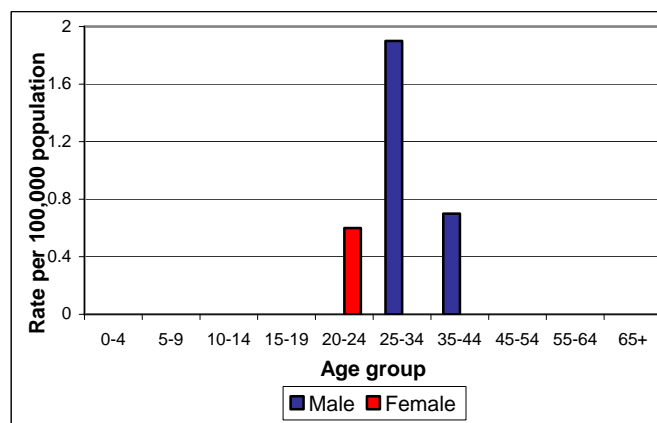
HPSC received enhanced surveillance data for 56% of acute cases (n=5) and 16% of chronic cases (n=26) in Q4. All of the risk factors identified for acute cases of hepatitis B related to sexual exposure. One case was due to heterosexual contact with a known case of hepatitis B, one case was reported in a man who had sex with men, and three further cases were possibly associated with sexual exposure.

Where country of birth was specified (n=4), all acute cases were born in countries in Western Europe. The reason for testing was known for five cases, four of whom were identified because they experienced symptoms and one case was identified through STI screening.

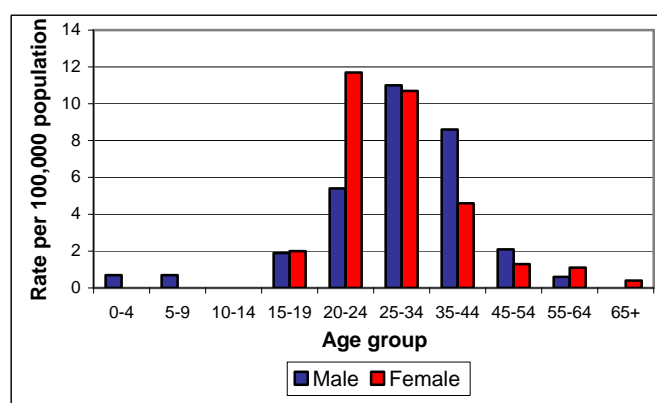
The number of chronic cases for whom risk information was available was very limited. Where information was available (n=26/156), 92% (n=24) of chronic cases were born in a country with high ( $\geq 8\%$ )

or intermediate (2-7%) hepatitis B endemicity. Where country of birth was specified, 38.5% (n=10) of cases were born in Central or Eastern Europe, 27% (n=7) were born in Sub-Saharan Africa and 19% (n=5) were born in East Asia/The Pacific.

The reason for testing was identified for 25 chronic cases. Twenty-four percent (n=6) of these were asymptomatic contacts of a diagnosed case, 20% (n=5) were identified through antenatal screening and 16% (n=4) were identified through asylum seeker screening.



**Figure 3a.** Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q4 2006



**Figure 3b.** Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q4 2006

## Discussion

Where acute/chronic status was known, 95% of hepatitis B notifications in Q4 were chronic. The

limited data that were available indicate that most chronic cases were asylum seekers or economic migrants from countries of intermediate or high hepatitis B endemicity.

The number of notified acute cases of hepatitis B was very low in Q4. This is likely to increase as further laboratory results are received and data are updated on CIDR. Sexual acquisition remains the predominant mode of transmission for acute cases in Ireland.

Fields for entry of enhanced hepatitis B data, for both acute and chronic cases, are now available on CIDR. This should result in further improvements in the surveillance data.

## Provision annual summary for 2006

Hepatitis B data for 2006 have not yet been validated. However, provisional data show a slight decrease in the annual number of hepatitis B notifications, with 853 cases notified compared to 893 cases in 2005. Overall in 2006, 10% of cases were acute (n=87), 79% were chronic (n=673) and 11% were of unknown status (n=93). Sixty-two percent of all 2006 cases were notified by the HSE-E (n=525, rate=37.5 per 100,000 population).

Seventy-six percent of acute cases were male (n=66), 21% were female (n=18) and sex was not known for 3 cases. Most were young adults, with 66% aged between 25 and 44 years. Forty-nine percent of chronic cases were male (n=329), 44% were female (n=296) and sex was not known for 48 cases. Eighty-four percent of chronic cases were aged between 20 and 44 years (n=564).

Where risk factor was known, 72% of acute cases were thought to have been sexually acquired (n=34). For chronic cases whose country of birth was known, over 90% were born in an country of intermediate or high hepatitis B endemicity.

## 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, 14/02/2007

## 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.