Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

# Quarterly Report
# Hepatitis B Notifications
# Q3, 2006

hpsc

## Health Protection Surveillance Centre

## Introduction

Hepatitis B is a notifiable disease under the Infectious Diseases Regulations 1981. Both acute and chronic cases are notifiable. An amendment to the regulations implemented on 1st January 2004 (S.I. 707 of 2003) introduced case definitions, and differentiated between notifications of acute hepatitis B and chronic hepatitis B for the first time. In addition, this amendment required laboratory directors to report cases of notifiable diseases identified by their laboratory. These changes have had a positive impact on the quality of information available on hepatitis B in Ireland.

Departments of Public Health, in conjunction with the HPSC, introduced enhanced surveillance of acute cases of hepatitis B from January 2005. This has resulted in improved data, particularly in relation to risk factor information. Some risk factor information is also available for a minority of chronic cases. This is a summary of notifications of hepatitis B to HPSC by the HSE areas in the third quarter of 2006.

## Results

There were 219 notifications of hepatitis B in Q3 2006. This was a decrease compared to the updated number of cases for the previous quarter (n=239) and compared to the number of notifications for Q3 2005 (n=228) (figure 1).

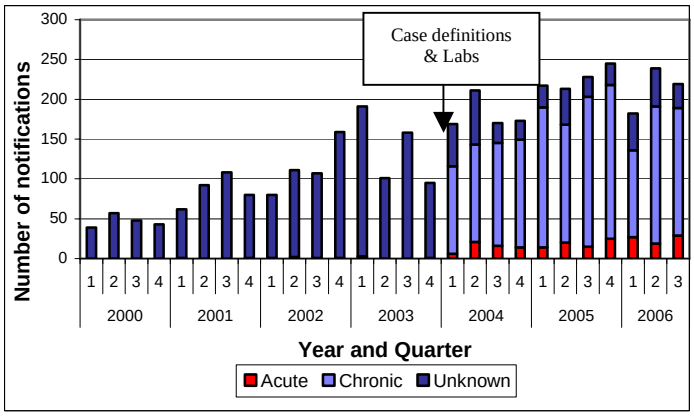


**Figure 1.** Number of notifications of hepatitis B per quarter, Q1 2000 – Q3 2006

### Acute/chronic status

Eighty-six percent (n=189) of notifications of hepatitis B in Q3 contained information on the acute/chronic status of the case. Seventy-three percent (n=160) of cases were reported as chronic, 13% (n=29) as acute and the status was unknown for 14% (n=30).

### Geographic distribution

The rate per 100,000 population for Q3, by HSE area and acute/chronic status, is shown in figure 2. Sixty-five percent (n=142) of cases in Q3 were notified by the HSE-E (10.1 per 100,000 population), 5.5% (n=12) were notified by the HSE-M (5.3 per 100,000 population) and 8% (n=17) were notified by the HSE-NE (4.9 per 100,000 population).

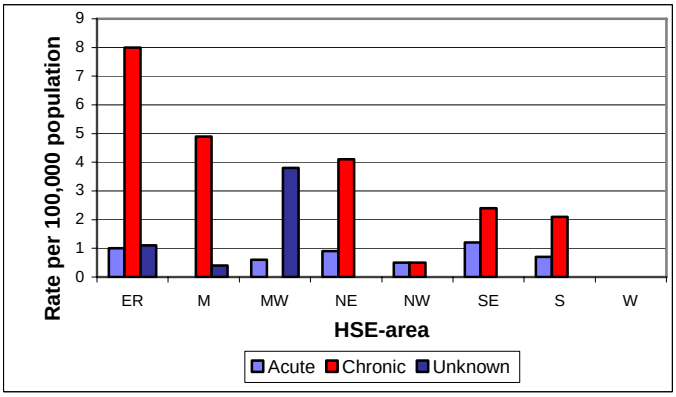


**Figure 2**. Rate per 100,000 population of hepatitis B cases notified in Q3 2006 by acute/chronic status and HSE area

### Age and sex

The age and sex specific rates for acute and chronic notifications of hepatitis B in Q3 are shown in figures 3a and 3b, respectively. Sixty-nine percent (n=20) of acute cases were male. Young adults were mostly affected, with 86% (n=25) of cases aged between 20 and 44 years.

The sex distribution of the chronic cases was more even. Forty-eight percent of cases were male, 45% were female and sex was not specified for 7.5% of cases. The age distribution for males was slightly older than that for females. Eighty-five percent (n=136) of all chronic cases notified in Q3 were aged between 20 and 44 years.

**All data contained in this report are provisional (CIDR accessed 13th November 2006)**

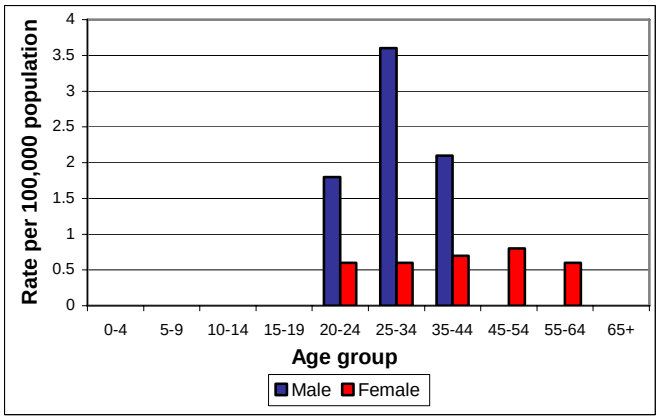


**Figure 3a.** Age and sex specific rates per 100,000 population for acute cases of hepatitis B notified in Q3, 2006

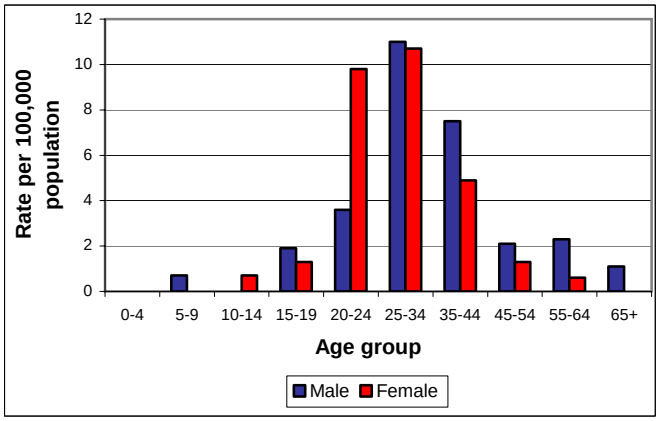


**Figure 3b.** Age and sex specific rates per 100,000 population for chronic cases of hepatitis B notified in Q3, 2006

## Risk factors

HPSC received enhanced surveillance forms for 72% of acute cases (n=21) and 14% of chronic cases (n=22) in Q3.

The main risk factors identified for acute cases of hepatitis B related to sexual exposure. Four cases were reported in men who have sex with men, two cases were due to heterosexual contact with a known case of hepatitis B and three further cases were possibly associated with sexual exposure (two heterosexual and one unknown orientation). No risk factor was identified for 24% (n=5) of acute cases for whom an enhanced form was completed.

Where country of birth was specified, most acute cases (76%, n=16) were born in Ireland. Two of the Irish-born cases indicated that their infection was acquired outside of Ireland. Where the reason for testing was known, 71% (n=15) of acute cases were identified because they experienced symptoms.

The number of chronic cases for whom risk information was available was very limited. Where information was available (n=20/160), 90% (n=18) of chronic cases were born in a country with high (≥8%) or intermediate (2-7%) hepatitis B endemicity. Where country of birth was specified, 45% (n=9) of cases were born in Sub-Saharan Africa and 20% (n=4) were born in Central or Eastern Europe. The reason for testing was identified for 20 chronic cases. Forty percent (n=8) of these were identified through asylum seeker health screening programmes, 30% (n=6) were identified through antenatal screening and 15% (n=3) were identified through STI screening.

## Discussion

Where acute/chronic status was known, 85% of hepatitis B notifications in Q3 were chronic. Although enhanced surveillance forms are not commonly received for chronic cases, the data that is available indicates that most are asylum seekers or economic migrants from countries of intermediate or high hepatitis B endemicity.

The number of acute cases of hepatitis B remained relatively low in Q3. Sexual exposure was the predominant mode of transmission and most cases were born in Ireland and acquired their infection in Ireland.

Fields for entry of enhanced data will be available on CIDR from January 2007 and this should result in further improvements in the surveillance data.


### 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 Paul McKeown, 27th Nov 2006.


### Case definition for hepatitis B (acute and chronic)[1]

*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.


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