5.1 Hepatitis B

Summary

Number of cases, 2009: 820
Crude notification rate, 2009: 19.5/100,000 population
Number of cases, 2008: 949

Hepatitis B is a vaccine preventable disease which is transmitted through percutaneous or mucocutaneous contact with the blood or body fluids of an infected person. The main routes of transmission are through sexual contact, or vertical transmission from mother to baby, or through injecting drug use.

Over 90% of people infected as adults clear the virus within a year of infection, but there is a high probability of developing chronic infection if hepatitis B is acquired in infancy (90%) or early childhood (25-50%). A proportion of people with chronic infection develop progressive fibrosis which can lead to cirrhosis, liver failure and hepatocellular carcinoma (liver cancer).

The prevalence of hepatitis B in the general population in Ireland is low (less than 1%) and most cases are in well defined risk groups such as people with multiple sexual partners, household or sexual partners of known cases, babies of positive mothers, injecting drug users and people who were born in hepatitis B endemic countries.

The number of hepatitis B cases reported in Ireland decreased by 14% in 2009, with 820 cases (19.5/100,000 population) notified compared to 949 in 2008 (figure 1). Fifty eight percent (n=472) of notifications were from the HSE-E, corresponding to a notification rate of 31.5/100,000 population.
All cases were laboratory confirmed. Ninety three percent contained information on acute/chronic status. Where status was known, 89% of cases were chronic (n=683) and 11% were acute (n=83).

Acute cases (recent infections)
Of the 83 acute cases notified in 2009, 86% (n=71) were male and 14% (n=12) were female. The highest notification rates were in young to middle aged adults. Eighty six percent (n=71) of acute cases were aged between 20 and 54 years when notified (figure 2). Female cases were younger than males overall, with a median age of 30.5 years compared to 35 years for males.

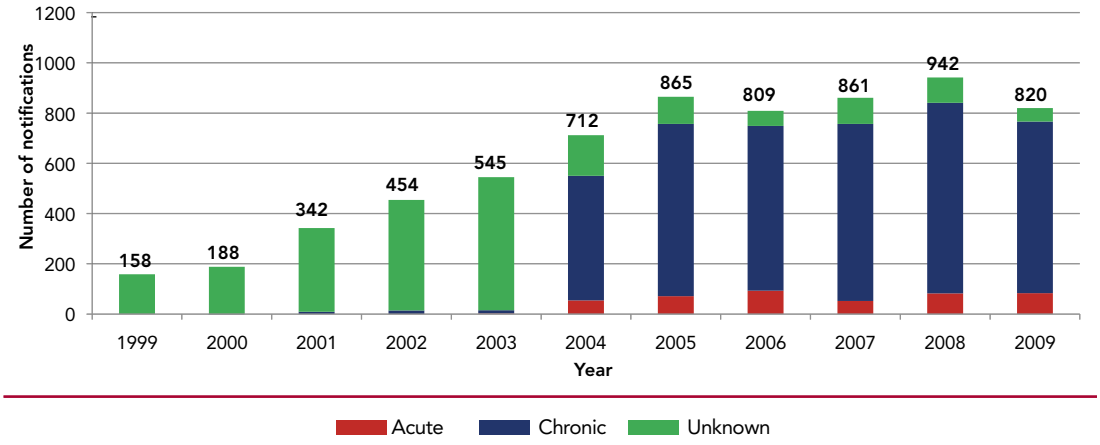

Figure 1. Number of hepatitis B notifications by acute/chronic status, 1999-2009

Information on risk factor was available for 69% (n=57) of acute cases. Of these, 74% (n=42) were likely to have been sexually acquired. Twenty two were men who have sex with men, nineteen were heterosexual and sexual orientation was not known for one case. A further eight cases (14%) were born in a hepatitis B endemic country (hepatitis B surface antigen prevalence ≥ 2%). No risk factors were identified for twenty six cases (31%).

Country of birth was known for 72% of acute cases (n=60). Seventy two percent (n=43) were born in Ireland and 8% were born in Eastern or Central European countries. Where country of infection was known, 75% (n=33) of acute cases were infected in Ireland, 9% (n=4) were infected in Thailand and 7% (n=3) were infected in Poland. Information on reason for testing was available for 69 acute cases. Most were identified because they were symptomatic (64%, n=44) or through STI services (14%, n=10).

Chronic cases (long-term infections)

Of the 683 chronic cases notified in 2009, 54% (n=368) were male, 45% (n=308) were female and sex was not known for 1% (n=7). Eighty nine percent (n=610) of chronic cases were aged between 20 and 54 years when notified (figure 2). The median age for female cases was 27.5 years and the median age for males was 33 years.

Some enhanced data were available for 50% (n=339) of the chronic cases notified in 2009. Of these, 67% (n=227) were born in hepatitis B endemic countries or were identified as asylum seekers. A further 16% (n=45) were likely to have been sexually acquired and 4% (n=13) were children born to hepatitis B infected mothers. Data on country of birth was available for 39% (n=265) of chronic cases. The most common regions of birth were Eastern or Central Europe (32%, n=86), Sub-Saharan Africa (28%, n=75) and Asia (26%, n=69).

Reason for testing was known for 64% (n=436) of chronic cases. Thirty three percent (n=144) were identified through antenatal screening programmes, 19% (n=84) were identified through asylum seeker screening programmes, 14% (n=63) were tested in STI settings and 10% (n=44) were identified through routine health or hospital screens.

Twenty six chronic cases were known to have been born in Ireland. Eight of these were residents of intellectual disability institutions. Their ages ranged from 42 to

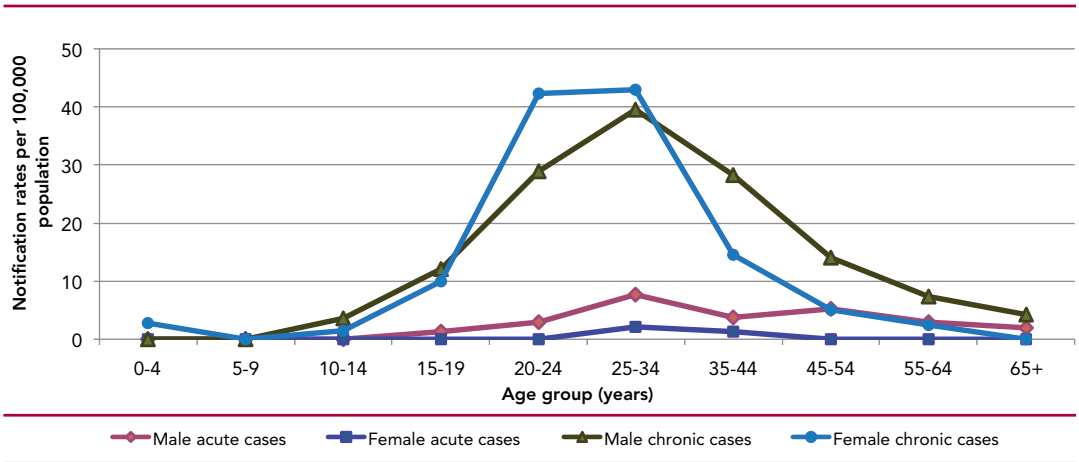

Figure 2. Age and sex-specific notification rates/100,000 population for hepatitis B by acute/chronic status, 2009

67 years. Most were diagnosed as a result of routine screening and may have been infected for some time. A further six Irish cases were acquired through sexual exposure.

Two outbreaks of hepatitis B were reported in 2009 both involving MSM sexual exposure among young adult males.

Discussion

Notification rates for hepatitis B in Ireland had increased considerably since the late 1990s, mostly due to increasing immigration from countries with intermediate or high hepatitis B endemicity and increases in sexually transmitted hepatitis B in Ireland. However, the number of new notifications for hepatitis B decreased in 2009. This may be partly explained by reduced immigration rates to Ireland.

Although most chronic cases were young adults at the time of notification, this reflects their age when tested. Most of those who acquired their infection in endemic countries are likely to have been infected as infants or in early childhood and have now been infected for several decades. This has implications for the likely future burden of disease due to hepatitis B in Ireland. The number of acute cases acquired sexually, both heterosexually and through MSM contact, is of concern and indicates a target area for prevention activities. The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) System on 26th June 2010. These figures may differ from those published previously due to ongoing updating of notification data on CIDR.