

A changing epidemiological pattern was seen in Ireland in the latter half of 2004, and continued into 2005, when an increase in invasive Hib disease was noted in children who had been vaccinated. This led to the introduction of a Hib booster catch-up campaign for those children aged between one and four years. In 2006 a Hib booster was added to the National Immunisation Schedule for those children aged 12 months.

4.2.3 Hepatitis B

Epidemiology of disease and impact of vaccination

Hepatitis B is a viral infection of the liver caused by the hepatitis B virus. It is a major cause of liver disease worldwide and can cause hepatitis, cirrhosis and liver cancer. In Ireland, notifications of hepatitis B disease have increased every year to 2005. This trend changed in 2006 when hepatitis B notifications decreased by 8% (Figure 4.3).

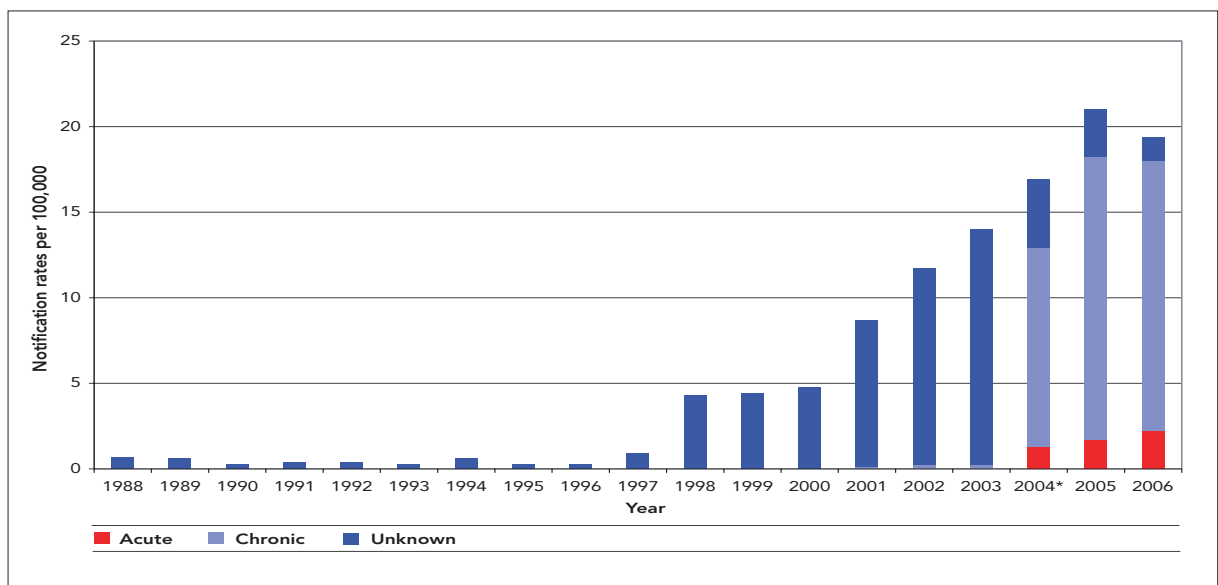


Figure 4.3: Hepatitis B cases reported in Ireland 1988-2006.

Source: Health Protection Surveillance Centre

Transmission

Hepatitis B is spread when blood or body fluids from an infected person enter the body of a person who is not immune. This occurs in a variety of ways including sexual contact with an infected person, sharing of needles and other drug paraphernalia by injecting drug users, accidental needle stick injuries or from an infected mother to her baby around the time of birth.

Incubation Period

The average incubation period is 2-3 months (range 6 weeks to 6 months).

Period of infectivity

Patients may be infectious one week before the onset of symptoms and may remain infectious through the acute clinical course of disease. Chronic carriers may also pose an infection risk.

Clinical features

The initial infection can be asymptomatic. If symptoms occur they include loss of appetite, nausea, vomiting, abdominal discomfort, joint pain, and are often followed by jaundice. About 70-90% of people infected as infants and young children and 1-10% of people infected as adults develop chronic (long term) hepatitis B infection.

People who develop chronic infection are at increased risk of developing chronic hepatitis, cirrhosis and liver cancer. Premature death from chronic liver disease occurs in 15-25% of chronically infected people.

Vaccine schedule in Ireland

Prior to 2007, immunisation was recommended for high risk groups including healthcare workers, those with chronic hepatitis and spouses, sexual partners, family and household contacts of acute cases and carriers of hepatitis B virus.

In 2007, following a review of the epidemiology of hepatitis B infection in Ireland by the National Immunisation Advisory Committee (NIAC) and supported by a pharmaco-economical evaluation, hepatitis B vaccination was recommended as part of the primary childhood immunisation programme. The vaccine is administered at 2, 4 and 6 months with diphtheria, tetanus, whooping cough (pertussis), Hib and IPV vaccines (referred to as the "6-in-1" vaccine).

Vaccination will also continue for those high-risk groups as outlined by NIAC.

4.2.4 Measles

Epidemiology of disease and impact of vaccination

Measles is an extremely infectious viral illness caused by the *Morbillivirus*. Measles occurs most commonly in the non-immunised 1-4 year old age group.

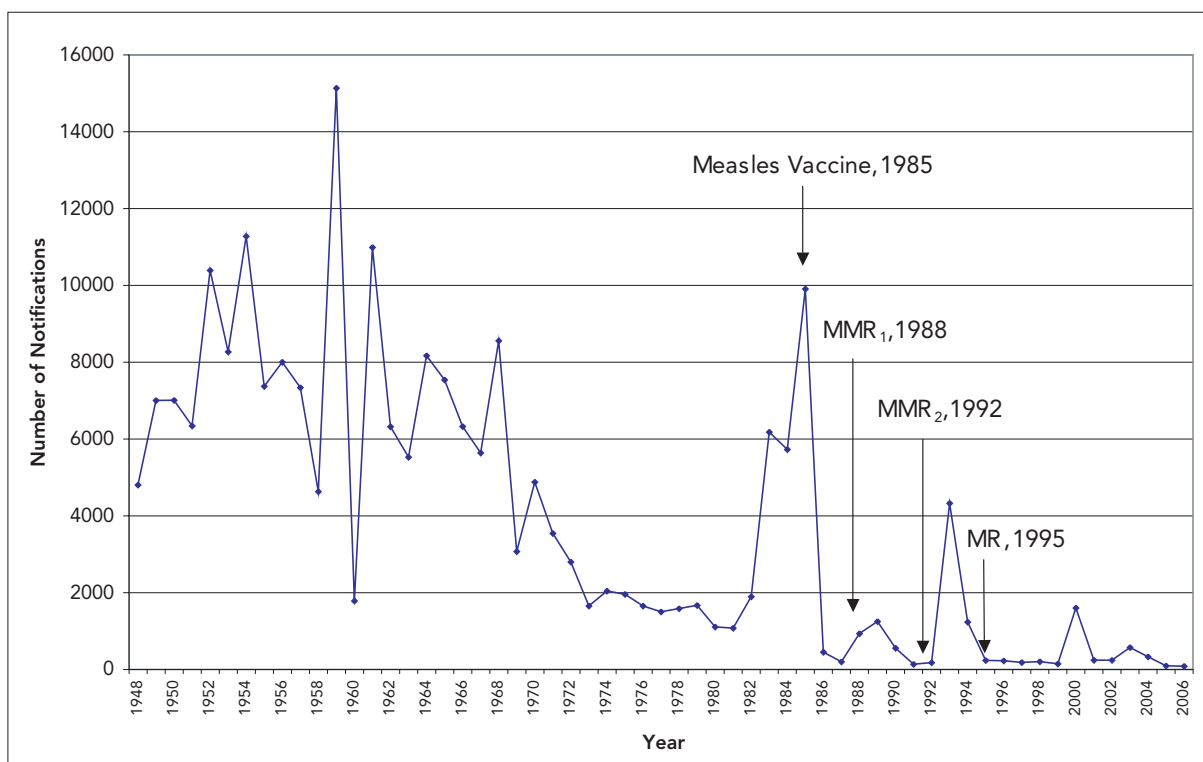


Figure 4.4: Measles cases reported in Ireland 1948-2006

Source: Health Protection Surveillance Centre

Measles has been notifiable in Ireland since 1948 (Figure 4.4). The highest number of cases was recorded in 1959 when 15,124 cases were notified. In 1985 the measles vaccine was introduced into the Irish immunisation schedule. The number of reported cases in the immediate subsequent years dropped significantly, so that by 1991 just 135 cases were reported. However, a number of major outbreaks have occurred despite the routine immunisation programme.