5.2 Hepatitis C

Summary

Number of cases, 2013: 786
Crude notification rate, 2013: 17.1/100,000 population
Number of cases in 2012: 894

Hepatitis C is a major cause of liver disease worldwide. The hepatitis C virus is primarily transmitted through sharing contaminated equipment when injecting drugs or through receipt of unscreened blood or blood products (this is no longer a risk in Ireland). Sexual, occupational and vertical transmission can also occur but are less common.

Infection is initially asymptomatic in most cases, but approximately 75% of those infected fail to clear the virus and develop chronic infection. Between 5 and 20% of chronically infected individuals develop cirrhosis of the liver after 20 years of infection. Of those with cirrhosis, 1.5 to 2.5% will go on to develop hepatocellular carcinoma (liver cancer) each year.[1] Treatment with a combination of pegylated interferon/ribavirin/telaprevir or pegylated interferon/ribavirin/boceprevir induces sustained virological response (SVR) rates of up to 75% in those with genotype 1 hepatitis C.[2] Approximately 80% of those with genotype 2 and 3 infections achieve SVR on pegylated interferon and ribavirin alone.[3] An SVR is regarded as a virological cure and is associated with improved morbidity and mortality. Several newer direct acting antiviral therapies have achieved high SVRs in clinical trials.[4] Some have been approved by the European Medicines Agency and reimbursement recommendations are currently under review by the National Centre for Pharmacoeconomics.

The overall prevalence of chronic hepatitis C in Ireland is comparable to other Northern European countries, and is estimated to be between 0.5 and 1.2%. Most cases fall into defined risk groups such as injecting drug users, people who received unscreened blood or blood products in the past and people who were born in hepatitis C endemic countries.[5]

Hepatitis C notifications decreased by 12% in 2013 (n=786, 17.1/100,000 population) compared to 2012 (n=894, 19.5/100,000 population) (figure 1). This was a continuation of a general downward trend since peak levels in 2007 (n=1539). There was a strong predominance of males: 68% (n=537) of cases were male, 31% (n=245) were female and sex was not reported for four cases. The highest notification rates were in young to middle aged adults. Eighty six percent (n=676) of cases were aged between 25 and 54 years (figure 2). The median age at notification for females was younger (36 years) than that for males (38 years).

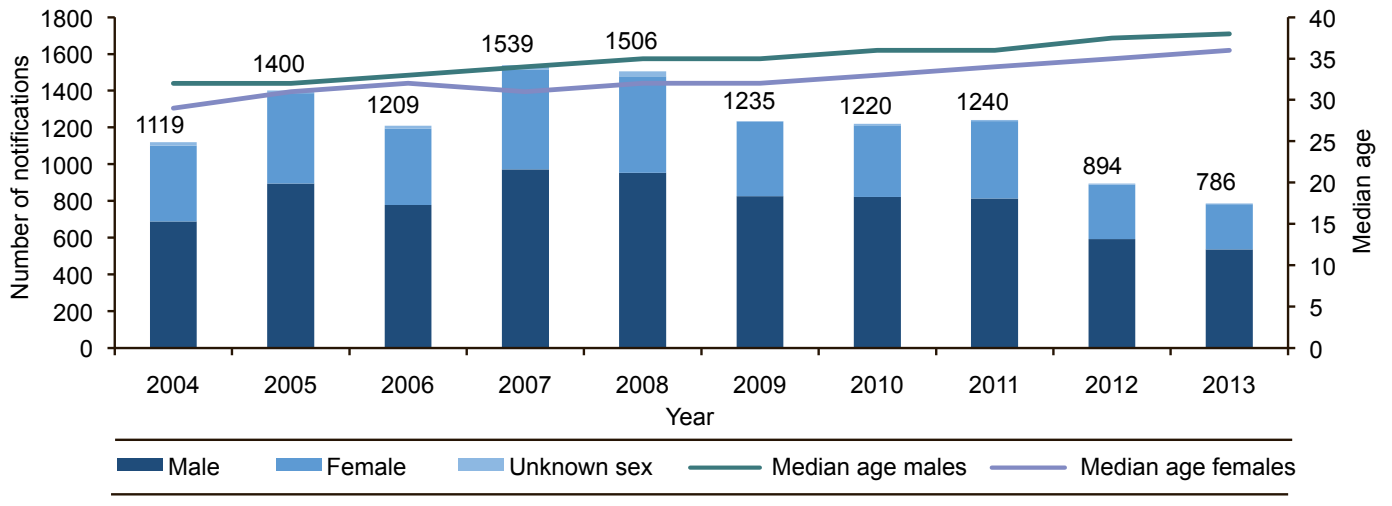

Figure 1. Number of notifications of hepatitis C and median age at notification, by sex, 2004-2013

The geographical distribution of cases was skewed, with the HSE-East reporting 71% of the cases notified in 2013 (n=556, 34/100,000 population) (figure 3).

Data on most likely risk factor were available for 57% of cases (n=445) in 2013. The most common risk factors reported were injecting drug use (79%, n=351), sexual exposure (7%, n=30), receipt of blood or blood products (3%, n=14), tattooing or body piercing (2%, n=10) and vertical transmission (2%, n=8) (figure 4). The vertically acquired infections do not all represent recent births in Ireland. Five were born in Ireland, two were born in other countries and country of birth was not available for the remaining case. Of those who were infected through contaminated blood or blood products, seven were infected in Ireland, six were infected in other countries and no country of infection was available for the remaining case. The Irish infections occurred many years in the past, but were notified for the first time in 2013. Figure 4 shows recent risk factor trends for hepatitis C in Ireland.

Data on country of birth were available for 28% of cases (n=223) in 2013. Where information was available, 46% of cases were born in Ireland and 54% were born outside of Ireland. For the non-Irish nationals, the most common regions of birth were Central and Eastern Europe (34%, n=75), Asia (8%, n=18) and Western Europe (excluding Ireland) (6%, n=13).

Hepatitis C genotype data were collected retrospectively from the NVRL and the Molecular Diagnostic & Research Laboratory in University College Cork and were available for 43% of notifications in 2013. Of these, 64% (n=213) were genotype 1, 28% (n=92) were genotype 3, 5% (n=16) were genotype 2, 3% (n=11) were genotype 4 and 1% (n=2) were genotype 6. Subtype was available for 93% (n=197) of genotype 1 cases. Seventy three percent were genotype 1a and 27% were 1b.

Co-infections with HIV or hepatitis B can lead to more severe liver disease and an increased risk of liver cancer in those with hepatitis C infection. Twenty two of the hepatitis C cases notified in 2013 were known to be co-

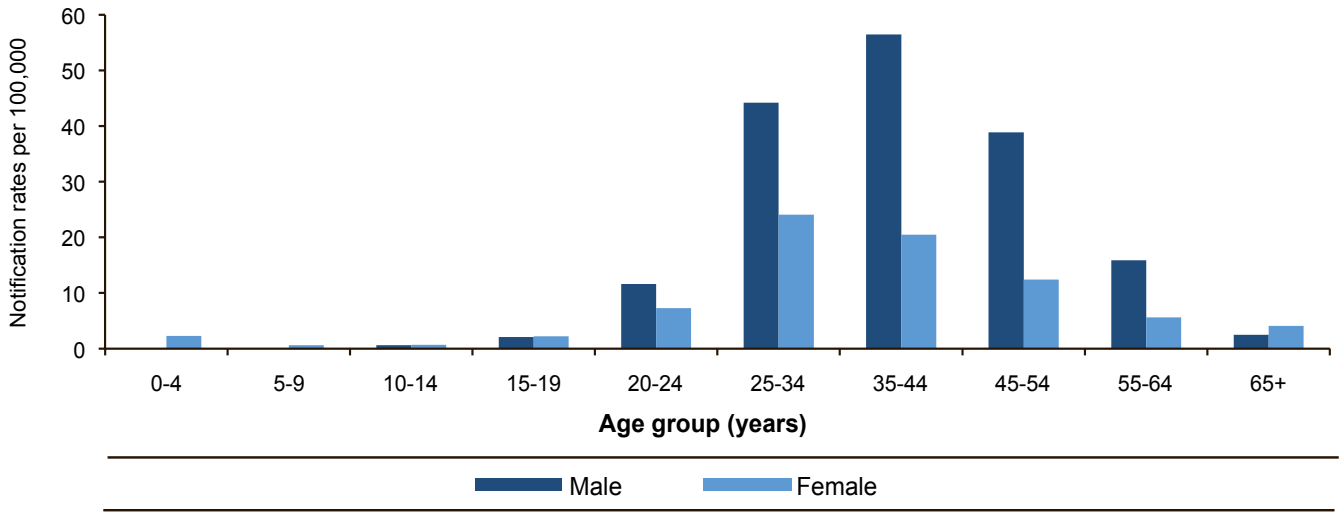

Figure 2. Age and sex-specific notification rates/100,000 population for hepatitis C, 2013

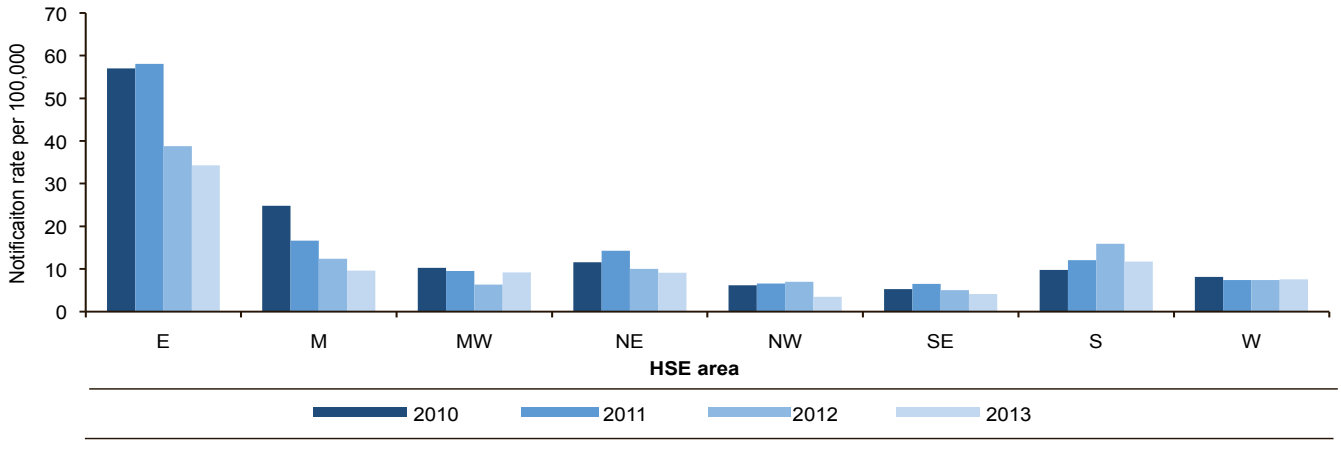

Figure 3. Notification rates/100,000 population for hepatitis C by HSE area, 2010-2013

infected with HIV and four with hepatitis B. One of these was infected with hepatitis B, hepatitis C and HIV.

Hepatitis C notifications have been decreasing in recent years. Some of this decline may be explained by the introduction of new case definitions, explicitly excluding the notification of resolved cases, in 2012. Data completeness has also improved in recent years and this has facilitated better deduplication of notifications. However, overall indications are that the incidence of hepatitis C in Ireland is decreasing. Where risk factor information was available, 79% of cases were drug users who were likely to have been infected through unsafe injecting practices. Anecdotally, the proportion of drug users who are injecting is decreasing and the incidence of hepatitis C appears to be decreasing in this population.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) System on 30th September 2014. These figures differ from those published previously and those reported in the appendices of this report due to ongoing updating of notification data on CIDR.

1. Global Burden of Hepatitis C Working Group. Global burden of disease (GBD) for hepatitis C.J Clin Pharmacol. 2004 Jan;44(1):20-9.
2. Ramachandran P, Fraser A, Agarwal K, Austin A, Brown A, Foster GR et al. UK consensus guidelines for the use of the protease inhibitors boceprevir and telaprevir in genotype 1 chronic hepatitis C infected patients. Aliment Pharmacol Ther. 2012 Mar;35(6):647-62
3. Manns MP, McHutchison JG, Gordon SC, Rustgi VK, Shiffman M, Reindollar R et al. Peginterferon alfa-2b plus ribavirin compared with interferon alfa-2b plus ribavirin for initial treatment of chronic hepatitis C: a randomised trial. Lancet. 2001 Sep 22;358(9286):958-65.
4. American Association for the study of liver diseases (AASLD). Recommendations for testing, managing, and treating hepatitis C. Available at: http://www.hcvguidelines.org/full-report-view
5. Thornton L, Murphy N, Jones L, Connell J, Dooley S, Gavin S et al. Determination of the burden of hepatitis C virus infection in Ireland. Epidemiol Infect. 2011 Sep 19:1-8

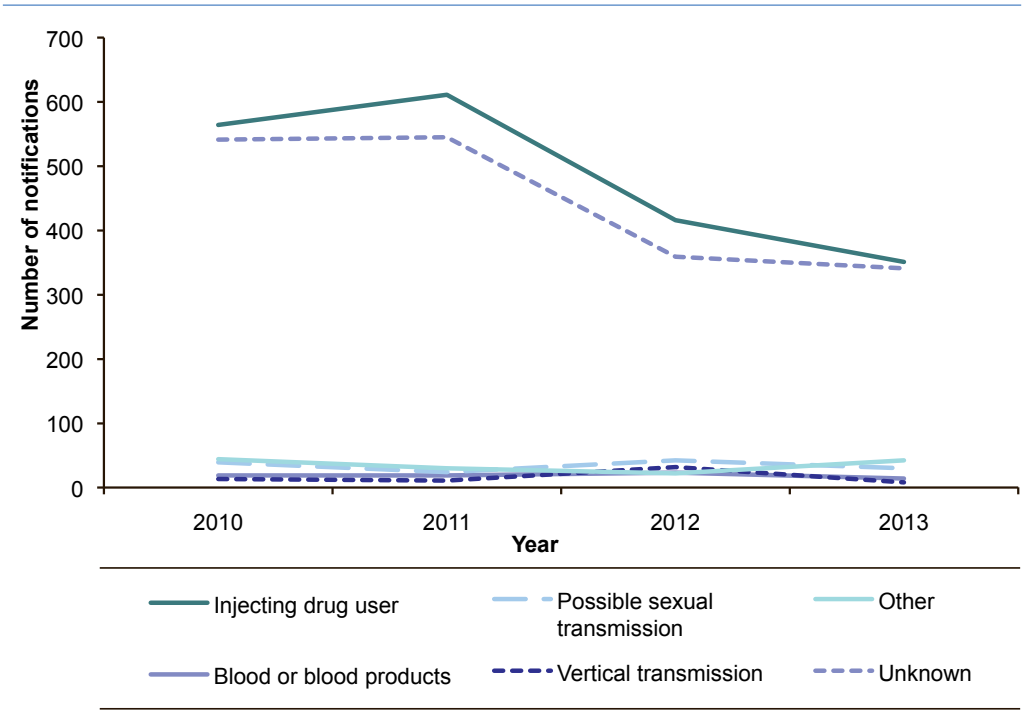

Figure 4. Most likely risk factor for hepatitis C, 2010-2013