5.2 Hepatitis C

Summary

Number of cases, 2015: 675
Crude notification rate, 2015: 14.7/100,000 population
Number of cases in 2014: 698

Hepatitis C is a major cause of liver disease worldwide. The hepatitis C virus (HCV) 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).[1,2] 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] There have been major advances in the treatment of hepatitis C in recent years. The latest generation of direct-acting antivirals (DAAs) can cure more than 90% of patients using all-oral drug regimes, which have fewer side effects than previous treatments.[3]

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 people who inject drugs, people who received unscreened blood or blood products in the past and people who were born in hepatitis C endemic countries.[4]

There were 675 notifications of hepatitis C in 2015 (14.7/100,000 population). This is a small decrease compared to 2014 (n=698, 15.2/100,000 population) (figure 1). Notifications have declined by 56% since peak levels in 2007 (n=1,538). However recent trends indicate that levels are stabilizing rather than continuing to decrease.

Notification rates for each HSE area for the past four years are shown in figure 2. Sixty eight percent of notifications in 2015 were from HSE E (n=462, 28.5/100,000 population).

More than two thirds of the cases reported in 2015 were male (68%, n=457), 32% (n=215) were female and sex was not reported for three cases. The highest notification rates were in young to middle aged adults, with 81% (n=546) of cases aged between 25 and 54 years. The median age at notification has gradually increased from 31 years in 2004 to a high of 38.5 years in 2015 (figures 1&3).

Information on most likely risk factor was available for 38% (n=255) of the cases reported in 2015. More than three quarters reported injecting drug use as their most likely mode of infection (76%, n=194). Seven percent (n=17) were likely to have been infected through contaminated blood or blood

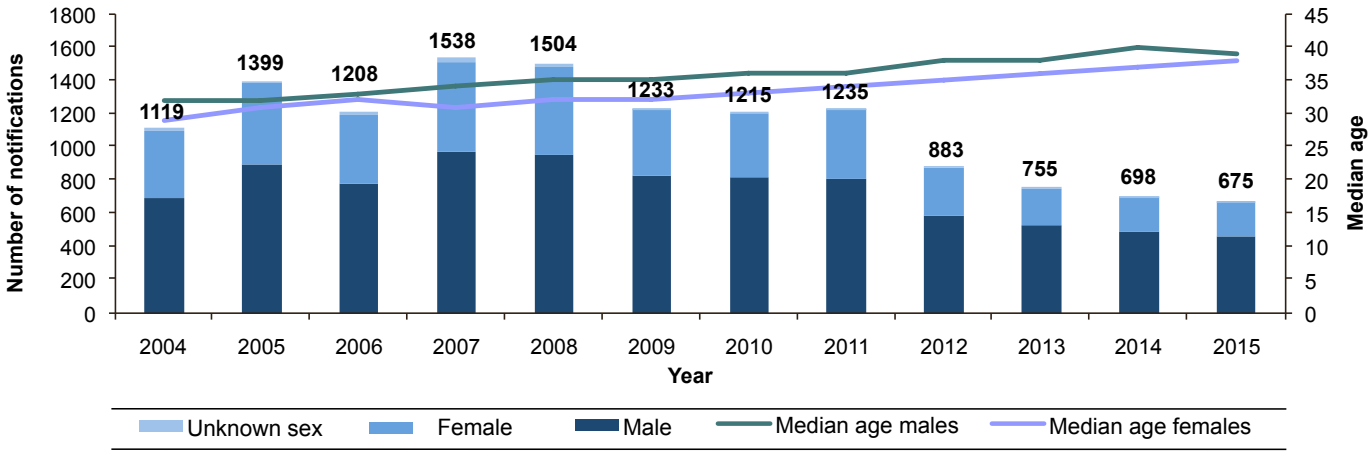

Figure 1. Number of notifications of hepatitis C and median age at notification, by sex, 2004-2015

products, six of whom were infected in Ireland. These Irish infections occurred many years in the past, but were notified for the first time in 2015. A further 5% (n=12) reported sexual exposure (six heterosexual, three men who have sex with men and three unknown sexual orientation) and 4% (n=11) reported tattooing/body piercing as their most likely risk factor. Other risk factors were reported for nine cases and no risk factor was identified for twelve cases despite Public Health follow up. Figure 4 shows recent risk factor trends for hepatitis C in Ireland.

Data on country of birth were available for 33% of cases (n=222) in 2015. Where information was available, 45% (n=99) of cases were born in Ireland, 34% (n=76) were Central or Eastern European, 9% (n=19) were Asian and 5% (n=12) were born in other Western European countries. Just over a third of cases with information on country of birth or asylum seeker status were born in a hepatitis C endemic country (≥2% anti-HCV prevalence) or were asylum seekers. As data on country of birth were not very complete, this may not be representative of all cases. Figure 5 shows most likely risk factor by region of birth for the 222 cases where country of birth was known.

Hepatitis C genotype data were collected retrospectively from NVRL and were available for 50% of notifications in 2015. Of these, 57% (n=192) were genotype 1, 36% (n=120) were genotype 3, 4% (n=12) were genotype 2 and 3% (n=11) were genotype 4. Subtype was available for 94% (n=180) of genotype 1 cases, 71% of which were genotype 1a.

Co-infections can lead to more severe liver disease and an increased risk of liver cancer in those with hepatitis C infection. Nineteen of the hepatitis C cases notified in 2015 were known to be co-infected with HIV. Where risk factor data were available, nine were people who inject drugs and two were men who have sex with men. Four additional cases were coinfected with hepatitis B.

Hepatitis C notifications decreased in recent years. The decline was fairly dramatic in 2012, but this may have been partially attributable to the introduction of new case definitions, specifically excluding cases known to have resolved infection. While notifications continued to decline slightly in 2015, hepatitis C levels now appear to be stabilizing rather than further declining. Trends in hepatitis C notifications are difficult to interpret as infections are often

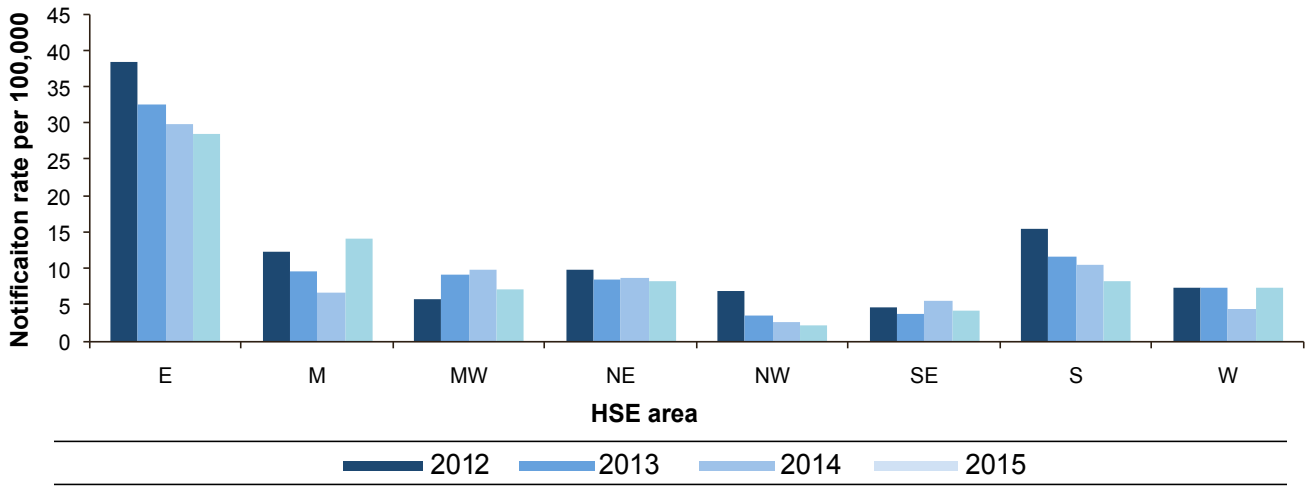

Figure 2. Notification rates/100,000 population for hepatitis C by HSE area, 2012-2015

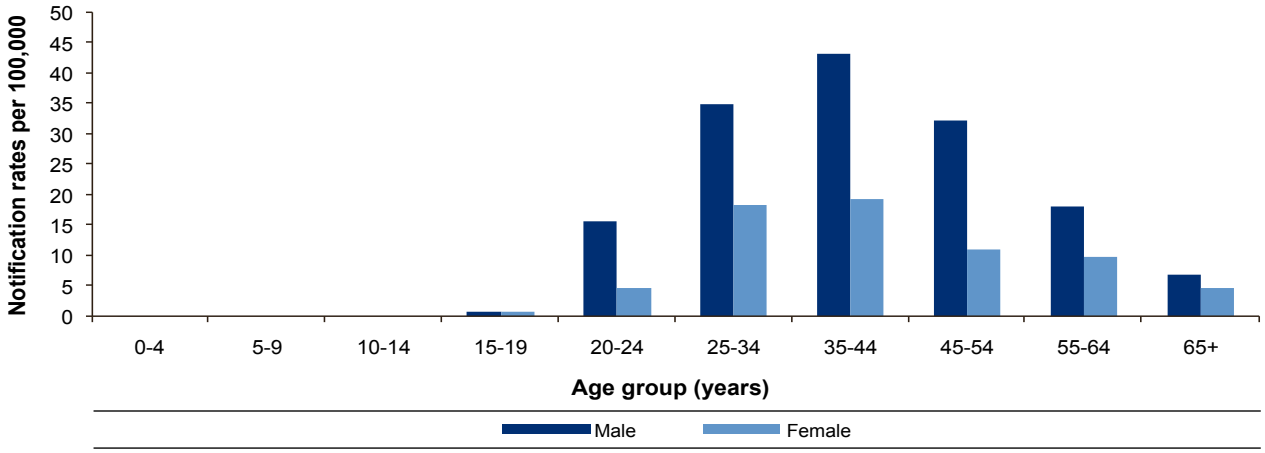

Figure 3. Age and sex-specific notification rates/100,000 population for hepatitis C, 2015

initially asymptomatic and most cases that are diagnosed and notified are identified as a result of screening in key risk groups. Therefore notification trends are highly influenced by testing practices, which may vary over time and may not reflect incidence well.

Risk factor data were available for less than 40% of cases of hepatitis C in 2015. The distribution of risk factors for these cases may differ from cases where data were not available. Where information on risk factor was available, over three quarters of cases were people who inject drugs who were likely to have been infected through unsafe injecting practices. The incompleteness of our risk factor and country of birth data represents a significant gap in our knowledge of the current epidemiology of hepatitis C in Ireland.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) System on 26th September 2016. These figures differ from those published previously 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. Health Protection Surveillance Centre. National Hepatitis C Database for infection acquired through blood and blood products, 2015 Report. Available from: http://www.hpsc.ie/A-Z/Hepatitis/HepatitisC/HepatitisCDatabase/BaselineandFollow-upReports/File,15238,en.pdf
3. World Health Organization. Guidelines for the screening, care and treatment of persons with chronic hepatitis C infection. Updated version April 2016. Available at: http://apps.who.int/iris/bitstream/10665/205035/1/9789241549615_eng.pdf
4. 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

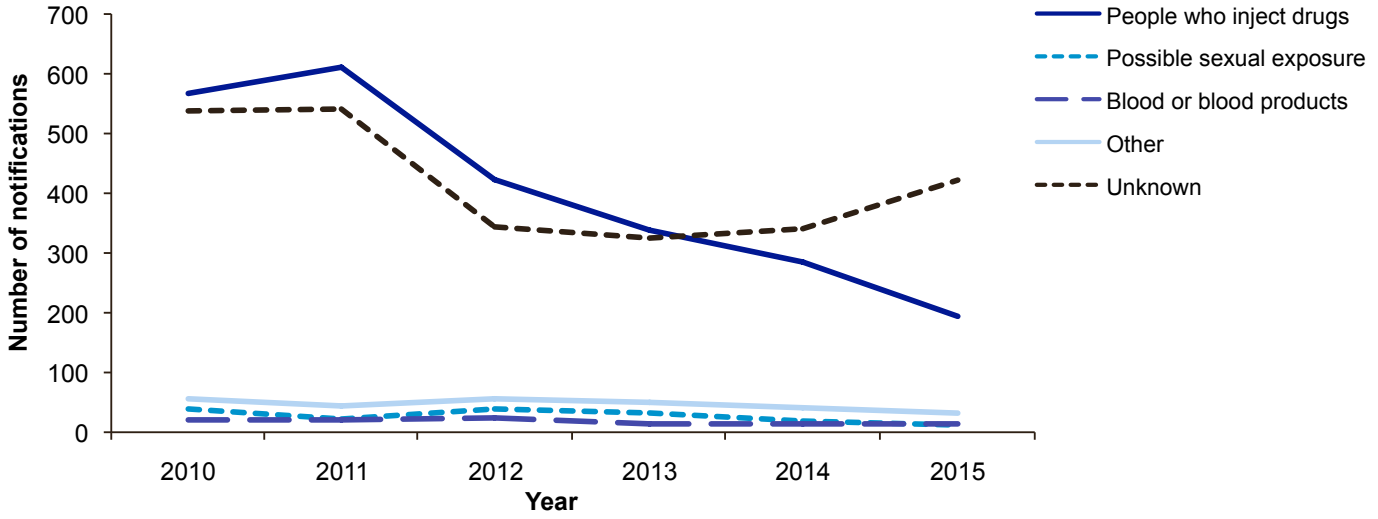

Figure 4. Number of hepatitis C notifications by most likely risk factor (where risk factor known, 54%, n=2956) 2010-2015

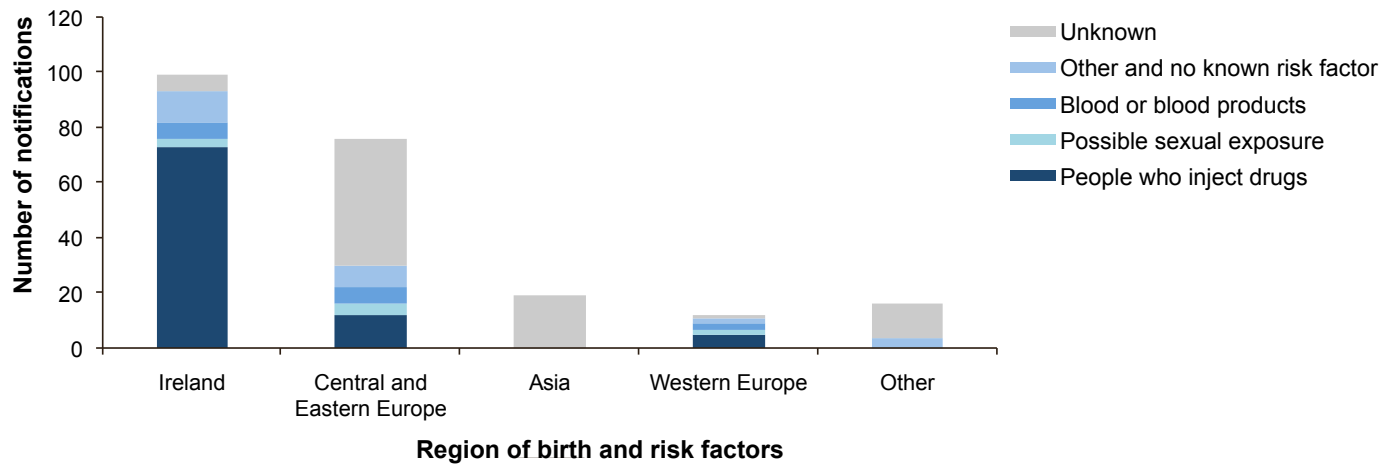

Figure 5. Number of hepatitis C notifications by most likely risk factor and country/region of birth (where country of birth known, 33%, n=222), 2015