



Hepatitis C

Summary

Number of cases, 2014: 710

Crude notification rate, 2014: 15.4/100,000 population

Number of cases in 2013: 761

Introduction

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). 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 with the arrival of all-oral interferon-free regimens. Sustained virological response (SVR) rates of 90% to 100% have been reported.² SVR is regarded as a virological cure and is associated with improved morbidity and mortality.²

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.³

Annual Figures

Hepatitis C notifications decreased by 7% in 2014 (n=710, 15.4/100,000 population) compared to 2013 (n=761, 16.5/100,000 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: 70% (n=497) of cases were male, 29.7% (n=211) were female and sex was not reported for two cases. The highest notification rates were in young to middle aged adults. Eighty four percent (n=593) of cases were aged between 25 and 54 years (figure 2). The median age at notification has continued to rise. The median age for females was younger (36 years) than that for males (39 years).

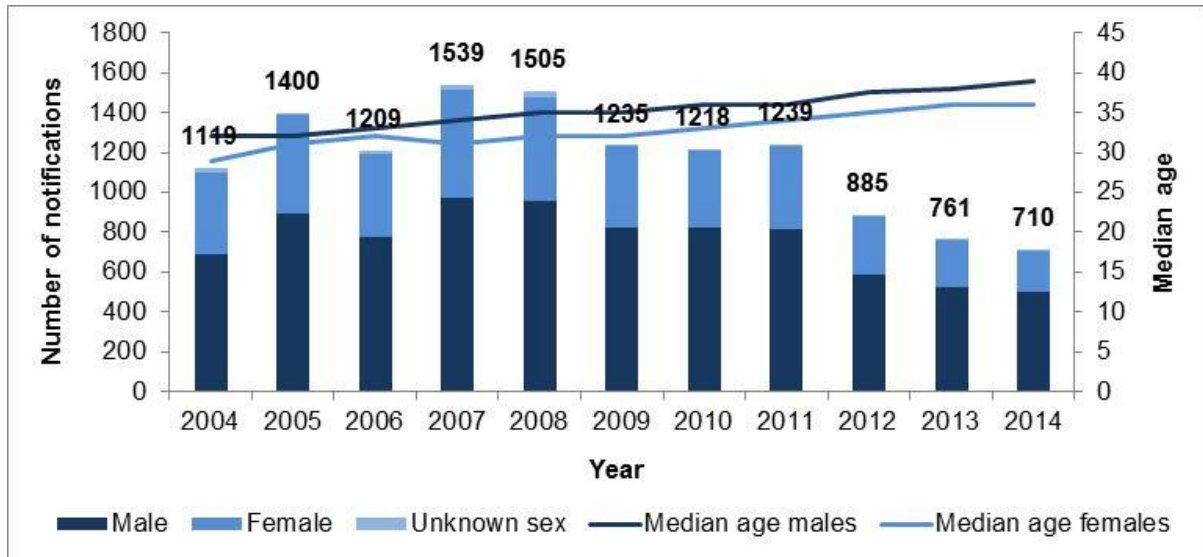


Figure 1: Number of notifications of hepatitis C and median age at notification, by sex, 2004-2014

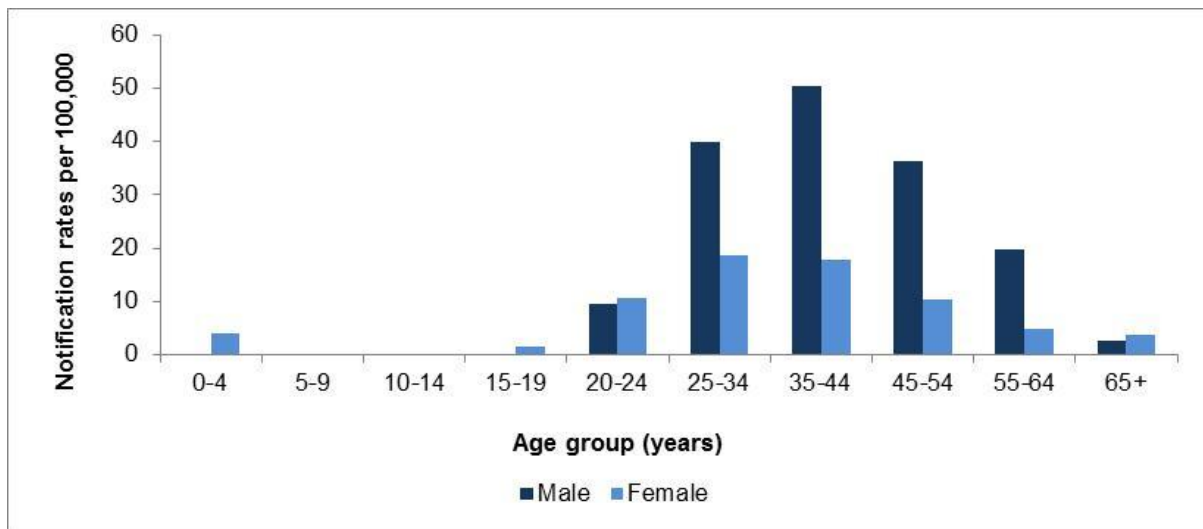


Figure 2: Age and sex-specific notification rates/100,000 population for hepatitis C, 2014

The geographical distribution of cases was skewed, with the HSE-East reporting 69% of the cases notified in 2014 ($n=493$, 30.4/100,000 population) (figure 3).

Data on most likely risk factor were available for 49% of cases ($n=348$) in 2014. The most common risk factors reported were injecting drug use (80%, $n=278$), sexual exposure (5%, $n=18$), receipt of blood or blood products (4.5%, $n=16$) and vertical transmission (2%, $n=7$) (figure 4). Of those infected through vertical transmission, six were born in Ireland and one was born in a hepatitis C endemic country. Of those who were infected through contaminated blood or blood products, three were infected in Ireland, eight were infected in other countries and country of infection was unknown for the remaining five cases. The Irish infections occurred many years in the past, but were notified for the first time in 2014. Figure 4 shows recent risk factor trends for hepatitis C in Ireland.

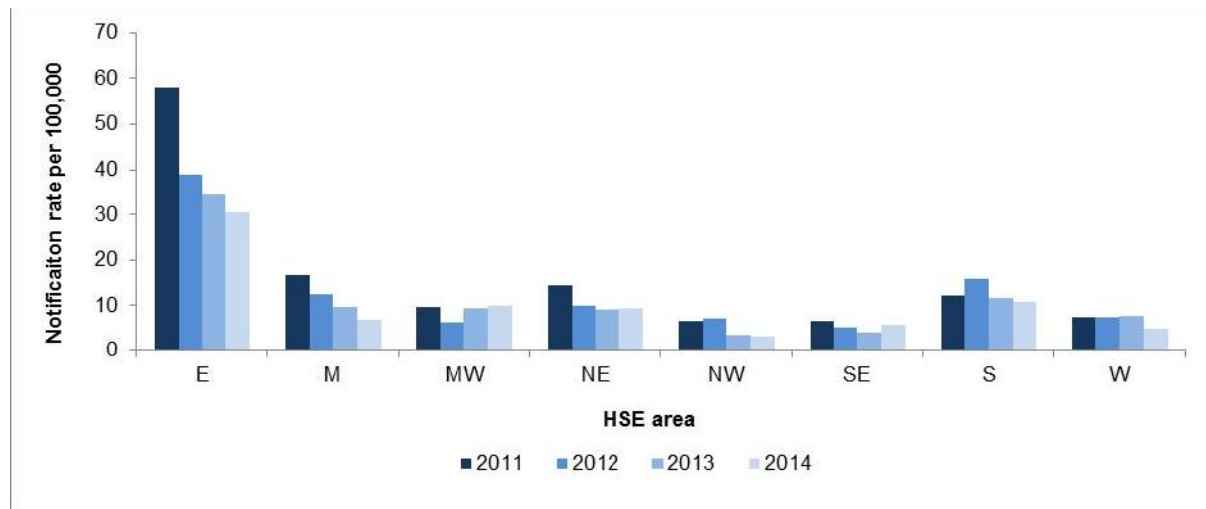


Figure 3: Notification rates/100,000 population for hepatitis C by HSE area, 2010-2014

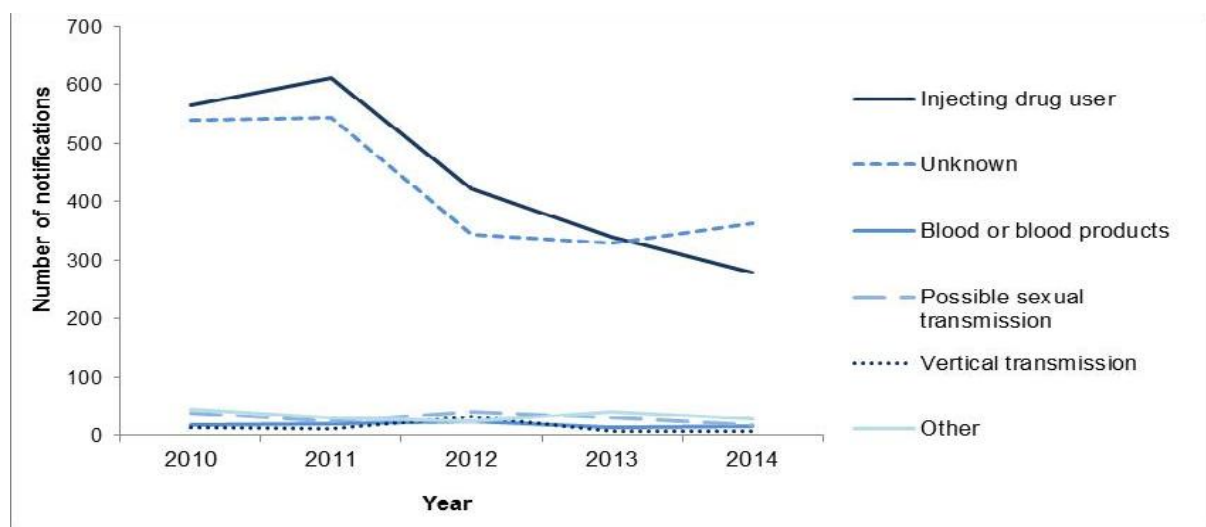


Figure 4: Most likely risk factor for hepatitis C, 2010-2014

Data on country of birth were available for 33% of cases (n=232) in 2014. Where information was available, 47.5% of cases were born in Ireland and 52.5% were born outside of Ireland. For the non-Irish nationals, the most common regions of birth were Central and Eastern Europe (65%, n=79), Western Europe (excluding Ireland) (12%, n=15) and Asia (11%, n=14). Sub-Saharan Africa (n=5), North Africa (n=3), Latin America (n=3), North America (n=2) and Oceania (n=1) were also reported as countries of birth of hepatitis C cases.

Hepatitis C genotype data were collected retrospectively from NVRL and the Molecular Diagnostic & Research Laboratory in University College Cork and were available for 24.5% of notifications in 2014. Of these, 59% (n=103) were genotype 1, 37% (n=64) were genotype 3, 2.3% (n=4) were genotype 2 and 1.7% (n=3) were genotype 4. Subtype was available for 91% (n=94) of genotype 1 cases. Of these, 70 cases were reported as genotype 1a and 24 cases as genotype 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. Eighteen of the hepatitis C cases notified in 2014 were known to be co-infected with HIV and six with hepatitis B. Two of these were 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, 80% 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 14th August 2015. 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.

References

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. Conjeevaram H. Continued progress against hepatitis C infection. *JAMA* 2015;313(17):1716-17.
3. 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