

Health Protection Surveillance Centre

Introduction

Hepatitis C became a notifiable disease under an amendment to the Infectious Diseases Regulations 1981, implemented on 1st January 2004 (S.I 707 of 2003). Prior to this, cases of hepatitis C could be notified as “viral hepatitis type unspecified”.

Results

In Q3 and Q4 2014 there were 191 (4.2/100,000 population) and 219 (4.8/100,000 population) notifications of hepatitis C, respectively. This is a 32% increase compared to the previous 6 months (n=311) and deviates from the recent downward trend in hepatitis C notifications since quarter 3, 2013. This downward trend still stands for annual figures however, with a decrease of 6% in notifications between 2013 and 2014 (-14% in 2013 compared to 2012, and -19% in 2012 compared to 2011) (figure 1). Hepatitis C has declined by 53% between peak levels in 2007 (n=1,539) and 2014 (n=721).

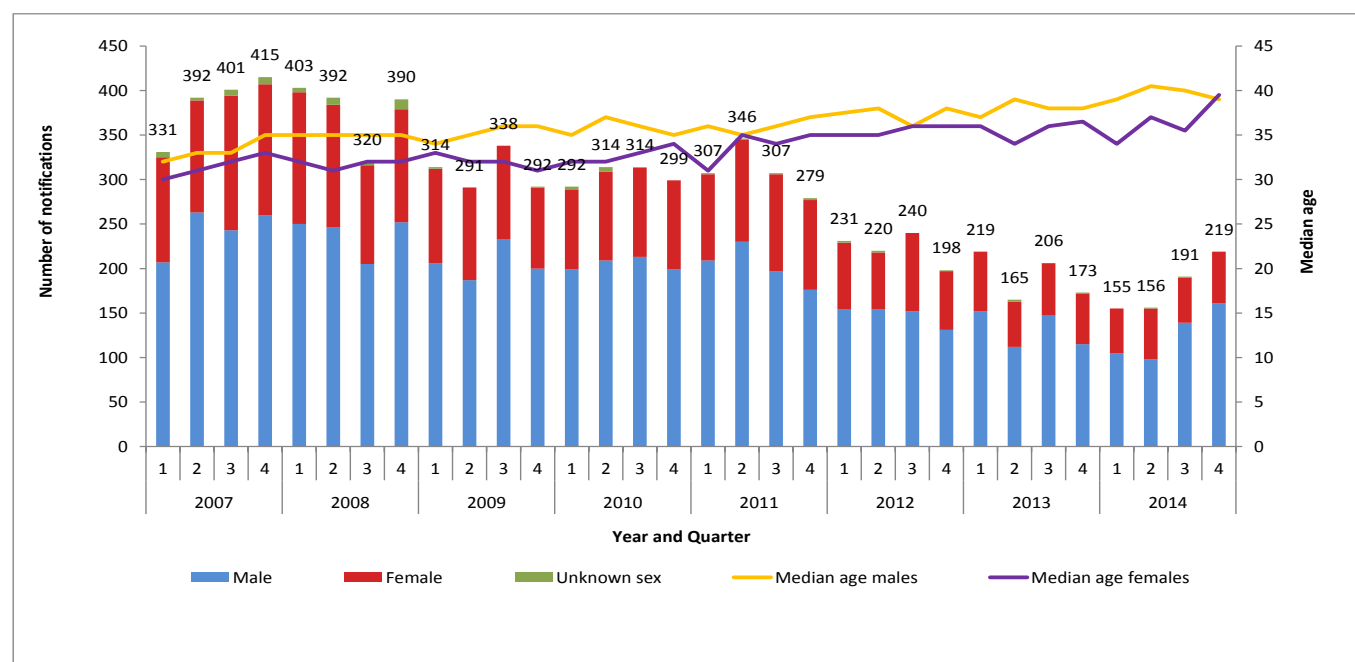


Figure 1. Number of notifications of hepatitis C and median age at notification, by sex, Q1 2007 to Q4 2014

Geographic distribution

Notification rates for each HSE area for the past four quarters are shown in figure 2. The notification rate was significantly higher in HSE-E compared to the rest of Ireland. Sixty-four percent (n=123, 7.6/100,000 population) of Q3 2014 cases, and 71% (n=156, 9.6/100,000 population) of Q4 2014 cases were reported by HSE-East (figure 2).

Age and sex

Seventy three percent (n=300) of hepatitis C cases in Q3 & 4 2014 were male and 27% (n=109) were female. The sex of one case was not known. The median age at notification has continued to rise for females at 37.5 years and 39.5 years for males. Eighty three percent (n=340) of cases were aged between 25 and 54 years (figures 1&3).

Risk factor data

Some information on most likely risk factor was available for 50% (n=96) of cases in Q3 and 39% (n=86) of cases in Q4 2014. Sixty nine percent (n=125) of these were injecting drug users, 16% (n=30) were born in hepatitis C endemic countries or were asylum seekers, 5% (n=10) were likely to have been infected sexually, 5% (n=9) were infected through contaminated blood/blood products and 2% (n=3) were children aged <2 years who were infected vertically

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Tel: +353 1 8765300, Fax: +353 1 8561299, www.hpsc.ie

(all born in Ireland). Other exposures were reported for 5 cases. Four of the cases infected through contaminated blood or blood products were infected outside of Ireland, two were infected in Ireland many years ago and notified for the first time in 2014. Country of infection is unknown for a further two cases. Figure 4 shows recent trends in most likely risk factor for hepatitis C in Ireland.

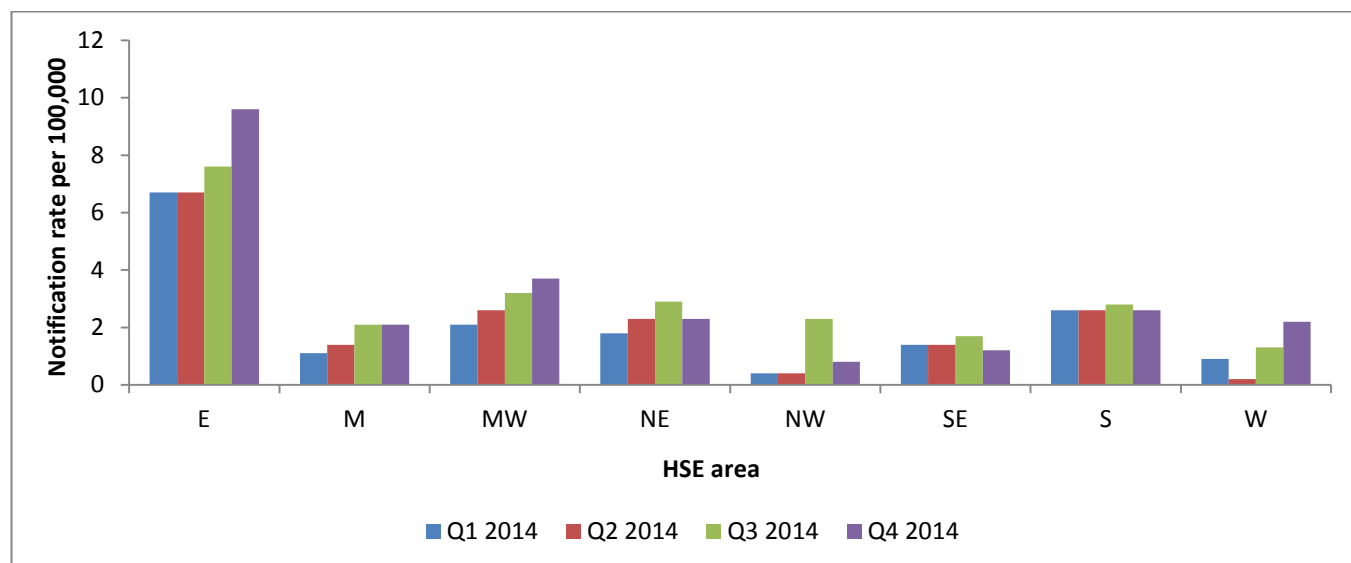


Figure 2. Hepatitis C notification rates per 100,000 population, by HSE area, from Q1 2014 to Q4 2014

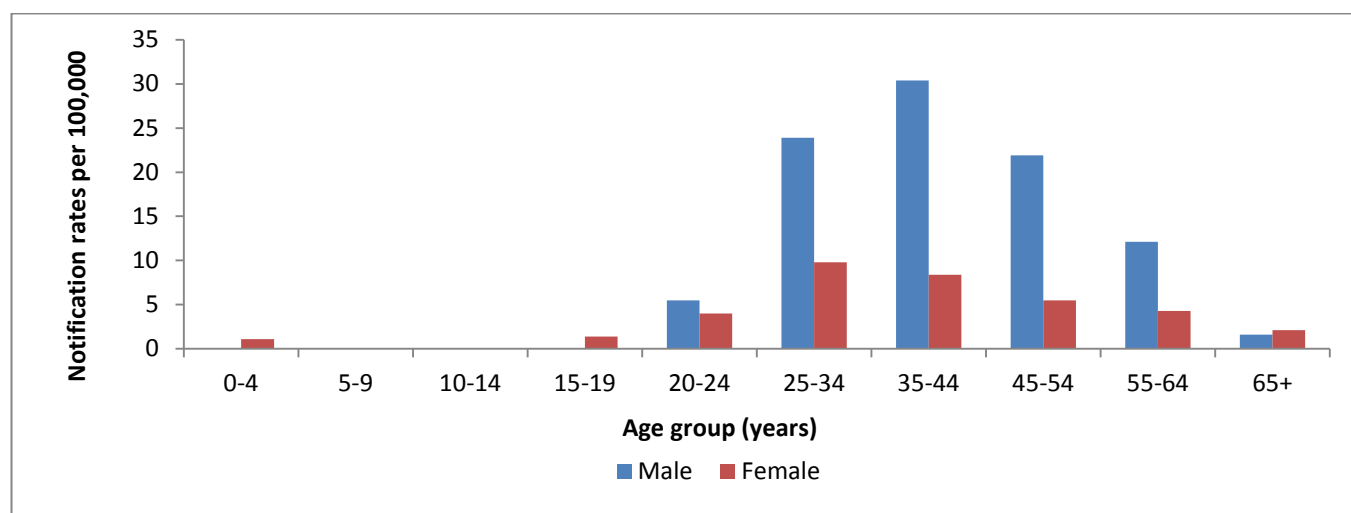


Figure 3. Age and sex specific rates per 100,000 population for hepatitis C notifications, Q3 & 4 2014

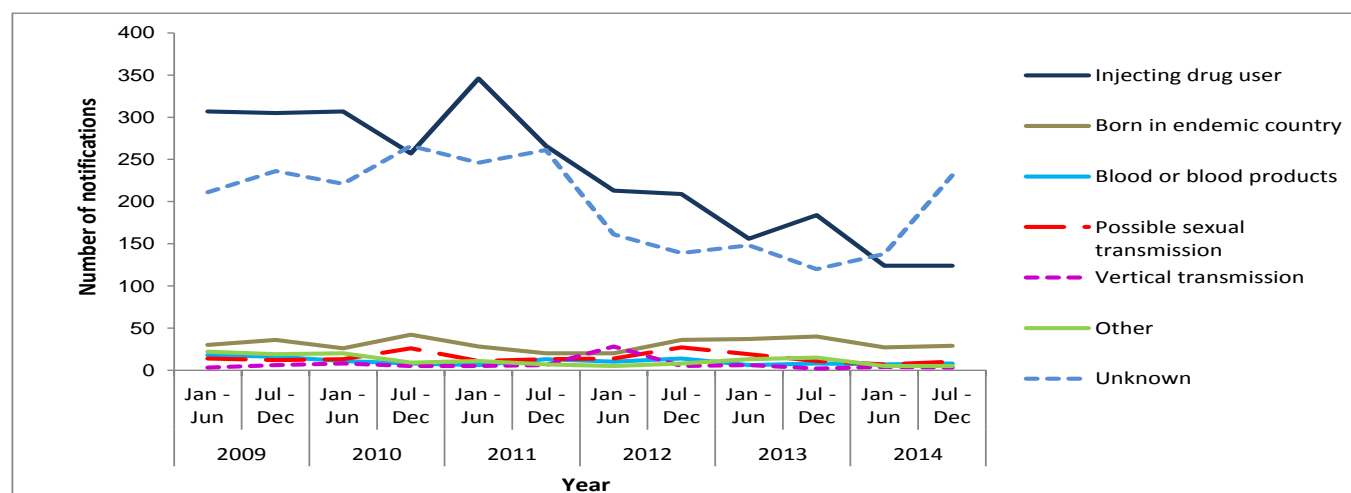


Figure 4. Number of hepatitis C notifications by risk factors, by six monthly time periods, Jan 2009 - Dec 2014

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Country and region of birth

Data on country of birth were available for 22% (n=90) of cases of hepatitis C in Q3 and Q4 2014. Where information was available, the most common regions of birth were Western Europe (46%, n=41), Central or Eastern Europe (42%, n=38) and Asia (9%, n=8). The most common countries of birth were Ireland (40%, n=36), Poland (9%, n=89), Latvia, Lithuania and Pakistan (all 8%, n=7). Figure 5 shows most likely risk factor or proxy for risk factor (i.e. born in an endemic country or asylum seeker) by region of birth for the 90 cases where country of birth was known.

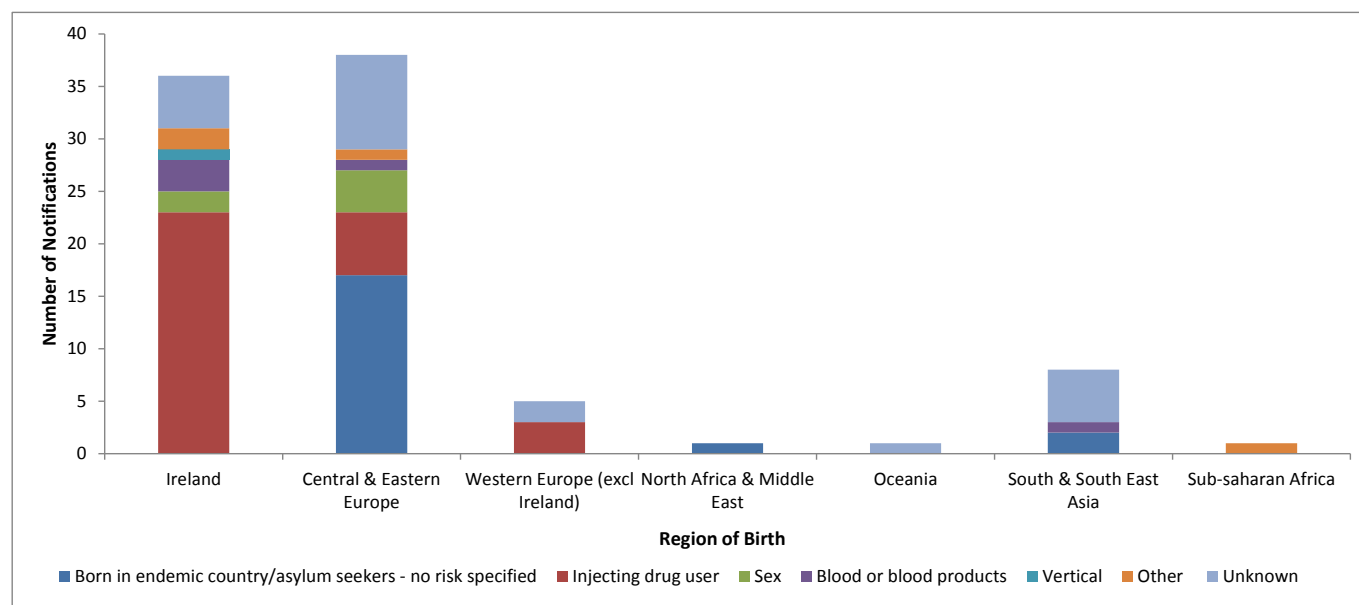


Figure 5. Number of hepatitis C notifications by risk factor and country/region of birth (where region of birth known, 30%, n=90), Q3 & Q4 2014

Genotype

Hepatitis C genotype data were collected retrospectively from the NVRL and the Molecular Diagnostic & Research Laboratory in University College Cork and were available for 23% of notifications between Q1 2014 and Q4 2014. Of these, 59% (n=99) were genotype 1, 38% (n=63) were genotype 3, 2% (n=3) were genotype 2 and 2% (n=3) were genotype 4. Subtype was available for 93% (n=92) of genotype 1 cases and 73% were genotype 1a.

HIV and hepatitis B co-infections

Sixteen of the hepatitis C cases notified in Q3 & 4 2014 were co-infected with HIV and two were co-infected with hepatitis B.

Discussion

Hepatitis C notifications have been decreasing in recent years; however, a marked increase was seen for Q3 & Q4 2014. Trends in notifications of hepatitis C are difficult to interpret as acute and chronic infections are frequently asymptomatic and most cases diagnosed and notified are identified as a result of screening in key risk groups. Therefore, notification is highly influenced by testing practices which may vary over time.

Risk factor data were available for only 43% of cases of hepatitis C in Q3 and Q4 2014. The distribution of risk factors for these cases may differ from cases where data were not available. Where information on risk factor was available, 70% 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 seems to be decreasing in this population.

Country of birth information was available for only 22% of cases and no risk factor was specified for most of these cases born in an endemic country or who were asylum seekers. Injecting drug use may be a significant risk factor for cases from Eastern and Central Europe, in particular. Contaminated blood/blood products or other nosocomial exposures may play a larger role in cases born in African and Asian countries.

Acknowledgements

HPSC would like to thank all those who provided data for this report - Departments of Public Health, laboratories and clinicians. Report by Sarah Hennessy and Dr Lelia Thornton, 13th March 2015.

Case definition for hepatitis C

Clinical criteria Not relevant for surveillance purposes. *Epidemiological criteria* Not relevant for surveillance purposes.

Laboratory criteria for diagnosis

Hepatitis C (acute)

At least one of the following two:

- Recent HCV seroconversion (prior negative test for hepatitis C in last 12 months)
 - Detection of hepatitis C virus nucleic acid (HCV RNA) or hepatitis C virus core antigen (HCV-core) in serum/plasma AND no detection of hepatitis C virus antibody (negative result)
- Detection of hepatitis C virus nucleic acid (HCV RNA)
 - Detection of hepatitis C virus core antigen (HCV-core)
 - Hepatitis C virus specific antibody (anti-HCV) response confirmed by a confirmatory (e.g. immunoblot) antibody test in persons older than 18 months without evidence of resolved infection*

Hepatitis C (chronic)

- Detection of hepatitis C virus nucleic acid (HCV RNA) or hepatitis C core antigen (HCV-core) in serum/plasma in two samples taken at least 12 months apart

Case classification

Possible: N/A
Probable: N/A
Confirmed: Any person meeting the laboratory criteria

Hepatitis C (unknown status)

Any case which cannot be classified according to the above description of acute or chronic infection and having at least one of the following three:

Note: Resolved infection should not be notified

*Resolved infection: Detection of hepatitis C virus antibody and no detection of hepatitis C virus nucleic acid (HCV RNA negative result) or hepatitis C virus core antigen (HCV-core negative result) in serum/plasma

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