

6.2 Viral Meningitis

Summary

Number of cases 2012: 235
 Number of cases 2011: 220
 Number of cases 2010: 168
 Crude incidence rate, 2012: 5.1/100,000

Meningitis due to viruses not otherwise specified (NOS) in the Irish Infectious Disease (Amendment) (No. 3) Regulations 2011 (SI No. 452 of 2011) are notifiable under the disease viral meningitis. Since 1st January

2012, a revised version of the case definition of viral meningitis, NOS has come into effect and is detailed in the HPSC Case Definitions for Notifiable Diseases booklet on the HSPC website (www.hpsc.ie). (Details of viral meningitis cases caused by other notifiable diseases (such as mumps and influenza viruses, if any) are presented in other separate chapters in this report). Clinicians and laboratories (the latter since 2004) are legally obliged to notify all cases of viral meningitis. In 2012, 235 cases of viral meningitis (NOS) were notified in Ireland, the highest number recorded since 1997 (figure 1). One death as a direct cause by viral

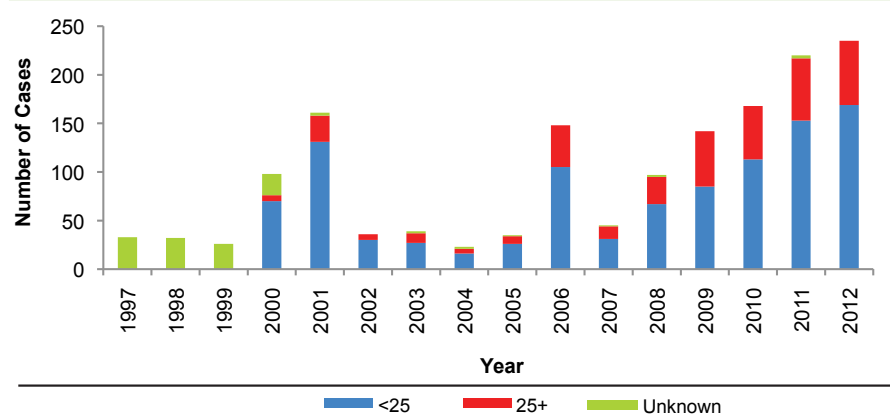


Figure 1. Number of viral meningitis (NOS) cases by age group (<25, >25 years of age) and year, 1997-2012

Table 1. Number, age-specific incidence rates and proportion of viral meningitis (NOS) notifications by age group and causative pathogen, 2012

Age Group	Causative pathogen									Total	ASIR	% Proportion
	enterovirus	human herpes virus	varicella virus	herpes simplex virus	echovirus	adenovirus	coxsackievirus	parechovirus	unk			
<1	87	17	0	1	1	0	1	1	3	111	153.3	47.2
1-4	14	3	0	0	0	1	0	0	2	20	7.0	8.5
5-14	11	1	1	0	0	0	0	0	1	14	2.2	6.0
15-24	18	0	2	0	0	0	0	0	4	24	4.1	10.2
25-34	34	0	1	1	0	0	0	0	1	37	4.9	15.7
35-44	17	0	0	1	1	0	0	0	2	21	3.0	8.9
45-54	2	0	1	0	1	0	0	0	1	5	0.9	2.1
55-64	1	0	0	0	0	0	0	0	0	1	0.2	0.4
65+	1	0	1	0	0	0	0	0	0	2	0.4	0.9
All ages	185	21	6	3	3	1	1	1	14	235	5.1	100
% total cases	78.7	8.9	2.6	1.3	1.3	0.4	0.4	0.4	6.0	100.0		

ASIR, age specific incidence rate per 100,000 population; unk, unknown/organism not reported

meningitis (NOS) was reported in an infant <2 years of age in 2012. Another death in 2012 was also reported in a case that had viral meningitis, but it is unknown if the infection was the cause of death. Since 1997 only seven deaths have been reported in cases of viral meningitis, only one of which was attributable to the infection.

Of the 235 cases notified in 2012, 220 were classified as confirmed (93.6%), 11 as probable (4.7%) and four as possible (1.7%). There were more cases among males (n=130) than in females (n=103), giving a male to female ratio of 1.3:1.0. Two cases were reported with unknown gender details.

Children and young adults were most commonly affected with a median age of 1.7 years (range one week to 86 years). Nearly 72% of cases (n=169) occurred in those under 25 years of age (figure 1, table 1).

The highest age specific incidence rate (ASIR) was in infants <1 year of age (153.3/100,000; n=111). The

next highest ASIR was in the 1-4 years age group (7.0/100,000; n=20). Lowest rates were reported in the older age groups 55-64 and 65+ with rates of 0.2/100,000 (n=1) and 0.4/100,000 (n=2), respectively (table 1).

The national crude incidence rate in 2012 was 5.1 (95% CI 4.5 – 5.8) cases per 100,000 population, a 6.8% increase compared with 2011 when 220 cases were notified (4.8/100,000). The incidence rate in 2012 was highest in HSE-E at 8.0/100,000 (95%CI 6.7–9.4) and lowest in HSE-S at 2.1/100,000 (95%CI 1.0-3.2), both of these rates were significantly different from the national rate (figure 2).

In 2012, enterovirus was the most common pathogen associated with viral meningitis, accounting for nearly 78.9% (n=185/235) of all notifications (figure 3, table 1). Human herpes virus (type 6) (HHV) was the causative pathogen for 8.9% (n=21) notifications; varicella

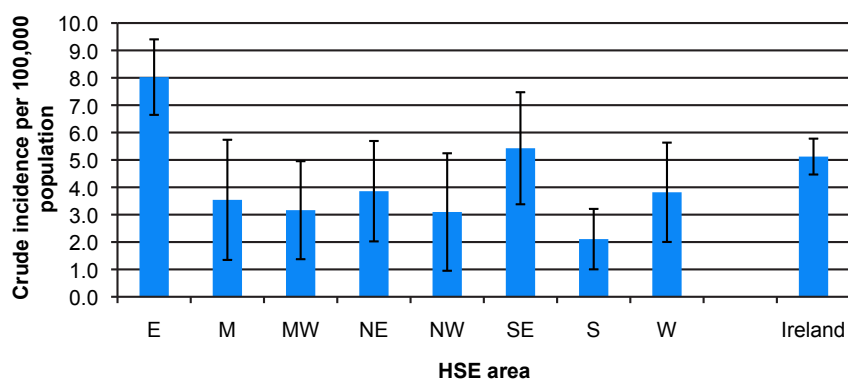


Figure 2. Crude incidence rates per 100,000 population with 95% confidence intervals for viral meningitis (NOS) cases by HSE area, 2012

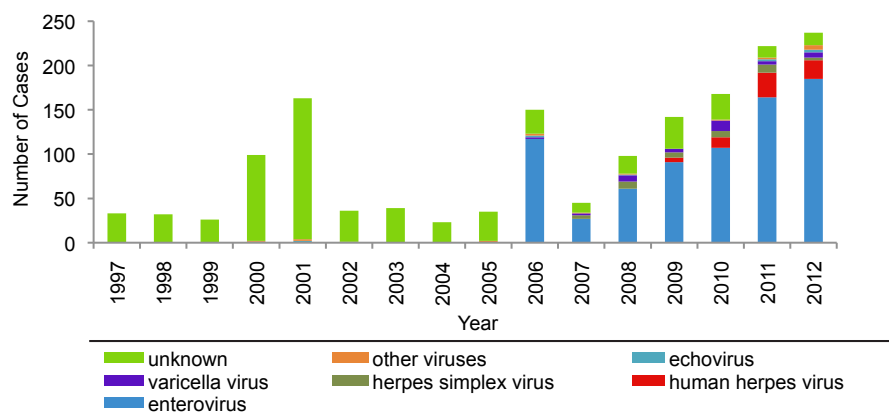


Figure 3. Number of viral meningitis (NOS) cases by organism type and year, 1997-2012

for 2.6% (n=6) and herpes simplex virus (HSV) and echovirus each accounted for 1.3% (n=3 each) (figure 3, table 1).

Enterovirus was also the most common pathogen in infants under one year of age with viral meningitis (NOS) in 2012 with 87 of the 111 cases (78.3%) in this age group (figure 4). Between 2008 and 2012 enteroviruses accounted for 70.5% (n=608/862) of all viral meningitis (NOS) cases, with a distinct seasonal peak observed in the period June to August (figure 5).

The figures presented in this report are based on data extracted from the Computerised Infectious Disease Reporting (CIDR) system on 29th July, 2013. These figures may differ from those published previously due to ongoing updating of notification data in CIDR.

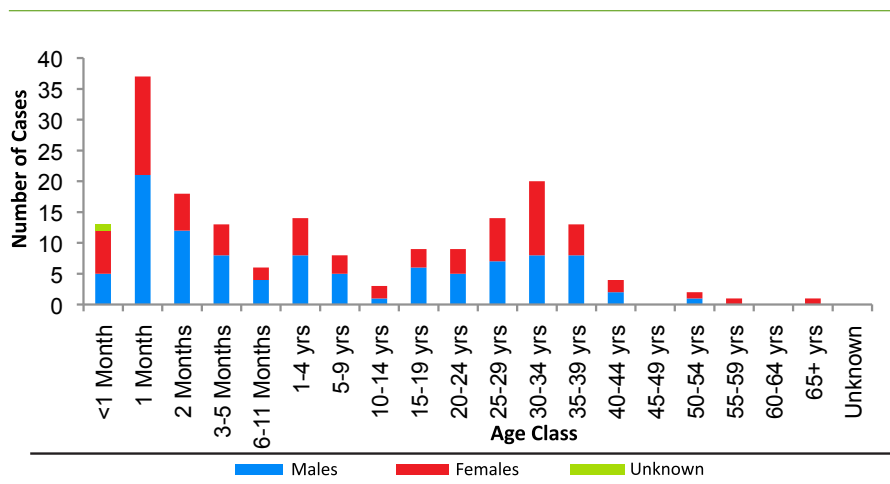


Figure 4. Number of enterovirus cases notified by age group and gender, 2012

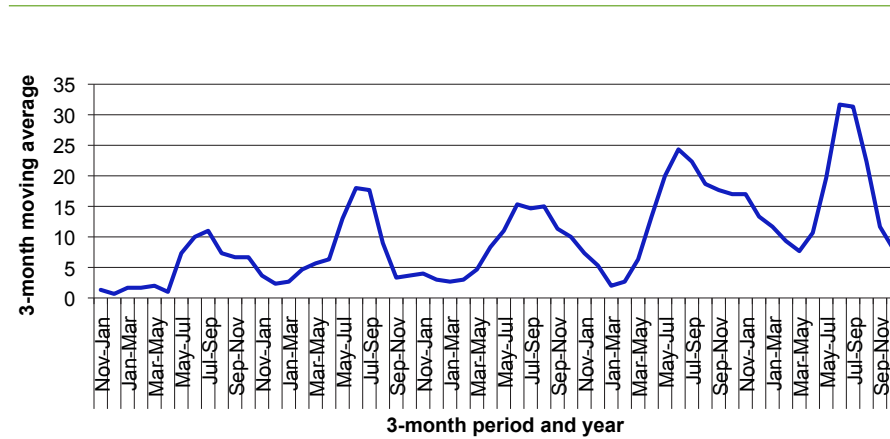


Figure 5. Three-month moving average of the annual number of enterovirus notifications, 2008-2012