

SURVEILLANCE of INFECTIOUS INTESTINAL (IID), ZOO NOTIC AND VECTORBORNE DISEASE, and OUTBREAKS of INFECTIOUS DISEASE



A quarterly report by the Health Protection Surveillance Centre in collaboration with the Departments of Public Health

Quarter 3 –2010

November 2010

This is the third quarterly report for 2010 produced by the Gastroenteric Unit of the Health Protection Surveillance Centre.

The production of this quarterly report would not be possible without the valuable input and commitment from the Directors of Public Health, Specialists in Public Health Medicine, Surveillance Scientists, Clinical Microbiologists, General Practitioners, Hospital Clinicians, Infection Control, Environmental Health and laboratory personnel, and other professionals who provide the data for the HPSC's surveillance systems.

Note: Data are collected and analysed using the Computerised Infectious Disease Reporting (CIDR) system. The data in this report are provisional and will not be regarded as final until all returns are received and data have been validated.

OUTBREAK SURVEILLANCE

Table 1. General Outbreaks of Infectious Intestinal Disease (IID) in Quarter 3, 2010

Month	HSE area	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jul	NW	Comm. Hosp/Long-stay unit	18	13	23/06/2010	P-P	Norovirus
Jul	W	Hospital	10	10	09/07/2010	P-P	Norovirus
Jul	W	Hospital	5	5	-	P-P	AIG
Jul	S	Childminders	4	1	02/07/2010	NK	EHEC
Jul	E	Creche	5	-	08/07/2010	NK	AIG
Jul	S	Comm. Hosp/Long-stay unit	3	0	13/07/2010	NK	AIG
Aug	E	Comm. Hosp/Long-stay unit	21	19	28/07/2010	NK	AIG
Aug	E	Creche		0	23/07/2010	NK	EHEC
Aug	S	Comm. Hosp/Long-stay unit	15	-	-	P-P	Norovirus
Aug	E	Comm. Hosp/Long-stay unit	9	-	27/08/2010	NK	AIG
Aug	E	Residential institution	22	0	27/08/2010	NK	Norovirus
Sep	S	Coach tour	11	1	20/09/2010	Not Specified	AIG
Sep	W	Hotel	21	0	-	P-P	AIG
Sep	NW	Residential institution	3	1	20/09/2010	P-P	AIG

P-P denotes Person-to-Person transmission, FB denotes foodborne, WB denotes waterborne; AB denotes airborne; AIG denotes Acute Infectious Gastroenteritis; EHEC denotes infection with Enterohaemorrhagic *E. coli*; NK=unknown

* Total numbers ill does not include asymptomatic cases

Table 2. Family Outbreaks of Infectious Intestinal Disease (IID) in Quarter 3, 2010

Month	HSE region	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jul	W	Private house	6	0	05/06/2010	Not Specified	EHEC
Jul	W	Not Specified	3	2	13/06/2010	Not Specified	EHEC
Jul	MW	Private house	2	1	10/05/2010	NK	EHEC
Jul	E	Private house	-	-	13/07/2010	P-P	EHEC
Jul	MW	Private house	1	-	23/06/2010	P-P	EHEC
Jul	MW	Private house	2	-	26/04/2010	P-P	EHEC
Jul	MW	Private house	1	-	24/04/2010	P-P	EHEC
Aug	MW	Private house	3	1	20/07/2010	WB	Shigellosis
Aug	NW	Private house	2	0	16/07/2010	NK	EHEC
Aug	NW	Private house	1	0	07/07/2010	NK	EHEC
Aug	MW	Private house	3	-	21/06/2010	P-P	EHEC
Aug	MW	Private house	4	-	19/07/2010	P-P	EHEC
Aug	W	Extended family	1	0	07/07/2010	Not Specified	EHEC
Aug	NW	Private house	2	0	03/08/2010	P-P	EHEC
Sep	S	Private house	2	2	31/08/2010	FB	Salmonellosis
Sep	SE	Private house	4	2	10/08/2010	P-P	EHEC
Sep	MW	Private house	2	-	04/08/2010	NK	EHEC
Sep	S	Extended family	2	1	15/08/2010	P-P	EHEC
Sep	S	Private house	3	0	30/08/2010	NK	Shigellosis
Sep	W	Private house	2	1	14/09/2010	NK	EHEC
Sep	W	Private house	1	0	13/09/2010	P-P	EHEC

P-P denotes Person-to-Person transmission, FB denotes foodborne, WB denotes waterborne; AB denotes airborne; AIG denotes Acute Infectious Gastroenteritis; EHEC denotes infection with Enterohaemorrhagic *E. coli* NK denotes unknown

* Total numbers ill does not include asymptomatic cases

Table 3. Non-IID Outbreaks in Quarter 3, 2010

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jul	E	Family	Private house	3	0	18/05/2010	P-P & AB	Measles
Jul	E	Family	Private house	2	0	25/06/2010	P-P & AB	<i>Bordetella pertussis</i>
Aug	S	Family	Private house	2	1	15/05/2010	P-P	<i>Bordetella pertussis</i>
Aug	NW	Family	Private house	2	0	-	P-P	Suspected Rubella
Aug	W	General	Hospital	3	3	-	P-P	MRSA
Sep	E	Family	Private house	3	0	17/08/2010	P-P & AB	Measles
Sep	E	Family	Private house	3	1	24/07/2010	P-P	<i>Bordetella pertussis</i>
Sep	S	General	School	7	3	-	P-P	<i>Mycobacterium</i> species
Sep	E	Family	Travel related	3	3	20/08/2010	Vectorborne	Malaria
Sep	E	General	Community outbreak	5	1	20/08/2010	P-P	Respiratory Illness
Sep	S	Family	Extended family	8	5	-	P-P	<i>Mycobacterium tuberculosis</i>
Sep	E	Family	Private house	3	0	10/09/2010	P-P	Mumps

P-P denotes Person-to-Person transmission, WB denotes waterborne; AB denotes airborne; IDU denotes Injecting Drug Use; NK denotes unknown

* Total numbers ill does not include asymptomatic cases

Since July 2001, outbreaks have been reported to HPSC. Initial information is provided by a public health professional using a preliminary notification form (by fax or email). A full report is then forwarded by the lead investigator once more complete data are available. The data requested includes information on the source of reporting of the outbreak, the extent of the outbreak, mode of transmission, location, pathogen involved, laboratory investigation, morbidity and mortality data, suspect vehicle and factors contributing to the outbreak. The data provided on final reports is crucial in providing information on the reasons why the outbreak occurred, the factors that lead to the spread of disease and the lessons that can be learnt to prevent further such outbreaks.

Since the 1st January 2004, with the amendment to the Infectious Diseases Regulations (2003), there is a statutory requirement for medical practitioners and clinical directors of a diagnostic laboratory to notify to the medical officer of health 'any unusual clusters or changing patterns of any illness, and individual cases thereof, that may be of public health concern'.

Tables 1 and 2 present a line listing of all general and family outbreaks of IID reported to HPSC in the third quarter of 2010. There were 14 general and 21 family IID outbreaks reported during this period, resulting in at least 194 people being ill.

Acute infectious gastroenteritis (AIG) (n = 8) and Norovirus (n = 4) were responsible for the majority of

general outbreaks of IID (86% of all general outbreaks).

The most common cause of family outbreaks of IID was EHEC, with 18 outbreaks (86% of all family outbreaks) caused by this pathogen. The other diseases responsible for family outbreaks were salmonellosis and shigellosis (Table 2).

Many general IID outbreaks were transmitted person-to-person (43%). Nine general outbreaks (64%) were reported to have occurred in healthcare settings, i.e. hospitals or residential institutions, during this period.

There were twelve non-IID outbreaks reported during Quarter 3 - see Table 3.

Table 4 outlines the outbreak rate per HSE-area for outbreaks notified during Q3 2010.

Table 4. No. of infectious disease outbreaks per HSE region, Q3 2010

HSE Area	No. of outbreaks	Rate per 100,000 population
E	13	0.9
M	0	0.0
MW	8	2.2
NE	0	0.0
NW	6	2.5
SE	1	0.2
S	10	1.6
W	9	2.2
Total	47	1.1

NOTIFICATIONS OF INFECTIOUS INTESTINAL, ZOOBOTIC AND VECTORBORNE DISEASE

The number of notifications of infectious intestinal, zoonotic and vectorborne disease by HSE-Area for the third quarter of 2010 is shown in Table 5.

Table 5. Intestinal Infectious, Zoonotic and Vectorborne Disease Notifications Quarter 3, 2010 by HSE-Area

Infectious Intestinal Disease	E	M	MW	NE	NW	SE	S	W	Total
Acute infectious gastroenteritis* (incl. rotavirus & <i>C. difficile</i>)	225	29	34	28	27	103	74	70	590
<i>Bacillus cereus</i> foodborne infection/intoxication	0	0	0	0	0	0	0	0	0
Botulism	0	0	0	0	0	0	0	0	0
Campylobacter infection	163	35	29	24	27	56	87	48	469
Cholera	0	0	0	0	0	0	0	0	0
<i>Clostridium perfringens</i> (type A) food-borne disease	0	0	0	0	0	0	0	0	0
Cryptosporidiosis	6	3	2	1	4	9	7	11	43
Enterohaemorrhagic <i>Escherichia coli</i>	18	4	21	3	16	13	12	23	110
Giardiasis	6	0	1	0	0	1	3	4	15
Listeriosis	0	1	0	0	0	2	1	1	5
Noroviral infection	34	2	3	4	4	5	1	8	61
Paratyphoid	~	~	~	~	~	~	~	~	1
Salmonellosis	43	11	8	11	6	14	15	18	126
Shigellosis	2	0	5	3	0	2	8	1	21
Staphylococcal food poisoning	0	0	0	0	0	0	0	0	0
Typhoid	~	~	~	~	~	~	~	~	1
Yersiniosis	0	0	0	1	0	0	0	0	1
Zoonotic Disease									
Anthrax	0	0	0	0	0	0	0	0	0
Brucellosis	0	0	1	0	0	0	0	1	2
Echinococcosis	0	0	0	0	0	0	0	0	0
Leptospirosis	2	0	0	0	0	2	1	0	5
Plague	0	0	0	0	0	0	0	0	0
Q Fever	0	0	0	0	0	0	1	0	1
Rabies	0	0	0	0	0	0	0	0	0
Toxoplasmosis	1	1	0	1	0	0	1	0	4
Trichinosis	0	0	0	0	0	0	0	0	0
Typhus	0	0	0	0	0	0	0	0	0
Vectorborne Disease									
Malaria	13	1	0	5	2	1	2	1	25

*Since May 4th 2008, the category Acute Infectious Gastroenteritis (AIG) has included *C. difficile*. Note that data for AIG since this time is not directly comparable with data collected previous to this

Human salmonellosis (*S. enterica*) is a notifiable disease. The National Reference Laboratory for Salmonella (NSRL) in Ireland was established in 2000 in the Dept. of Medical Microbiology, University College Hospital, Galway. This laboratory accepts *S. enterica* isolates from all clinical and food laboratories in Ireland for serotyping, phage typing and antimicrobial sensitivity testing. Table 6 shows the number of salmonellosis notifications by HSE-Area and month for the third quarter of 2010. Comparison of trends with previous years is shown in Figure 1.

Table 6. Salmonellosis Notifications by HSE-Area and Month, Q3 2010

Month	E	M	MW	NE	NW	SE	S	W	Total
Jul	11	2	3	3	0	5	8	3	35
Aug	13	1	2	5	1	5	2	10	39
Sep	19	8	3	3	5	4	5	5	52
Total	43	11	8	11	6	14	15	18	126

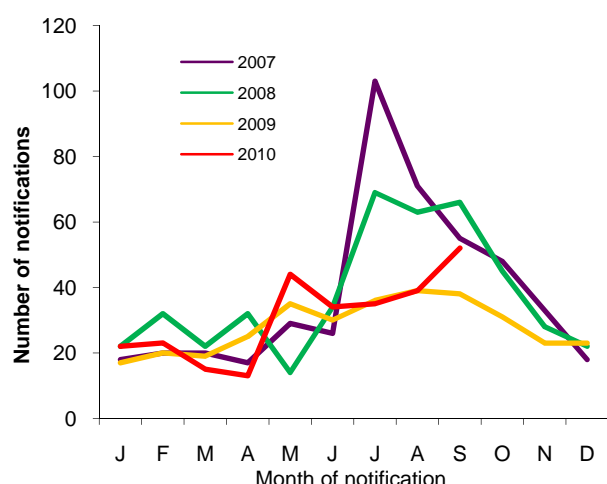


Figure 1. Seasonal Distribution of Human Salmonellosis Notifications, 2007 to end quarter 3 2010

Table 7 shows the serotypes for the *Salmonella* isolates typed by the NSRL in the third quarter of 2010 by HSE area (n=128). The commonest human serotypes isolated were *S. Typhimurium* (n= 49 [38%] –includes 5 cases of monophasic *S. Typhimurium*, 4,5,12:i:-) and *S. Enteritidis* (n=19 [15%]).

Fifty-six (44%) *S. enterica* isolates were reported to NSRL as being associated with travel outside of Ireland during this quarter.

Table 8 shows the serotype distribution of confirmed *Salmonella* notifications by travel status this quarter among salmonellosis notifications on CIDR.

Table 7. Serotypes of *S. enterica* referred to NSRL in Quarter 3, 2010 (Data are provided courtesy of Prof. Martin Cormican and staff, NSRL).

Serotype	E	M	MW	NE	NW	SE	S	W	Total
4,5,12:i:-	3	0	0	0	0	0	0	2	5
Abony	1	0	0	0	0	0	0	0	1
Agona	0	0	0	0	0	0	0	1	1
Anatum	2	1	0	0	0	0	0	0	3
Bareilly	0	0	0	0	0	0	0	1	1
Braenderup	1	0	0	0	0	1	0	0	2
Brandenburg	0	0	0	0	0	0	0	1	1
Colindale	1	0	0	0	0	0	0	0	1
Concord	3	0	0	0	0	0	0	1	4
Corvallis	1	0	0	0	0	0	0	1	2
Djakarata	0	0	0	1	0	0	0	0	1
Dublin	0	0	0	0	0	0	0	1	1
Durham	0	0	0	0	0	1	0	0	1
Enteritidis	5	3	1	2	0	0	4	4	19
Give	0	0	1	0	0	0	0	0	1
Goldcoast	0	0	0	0	0	1	0	0	1
Haifa	2	0	0	0	0	0	0	0	2
II 42:r:-	0	0	0	0	0	0	0	1	1
Infantis	2	0	0	0	1	0	0	0	3
Ituri	0	0	0	1	0	0	0	0	1
IV 48:g,z51	0	0	0	0	0	0	1	0	1
Java	1	0	0	1	0	0	0	1	3
Javiana	0	0	0	0	0	1	0	0	1
Jukestown	1	0	0	0	0	0	0	0	1
Kentucky	1	1	0	0	0	0	0	0	2
Kottbus	0	0	1	1	0	0	0	0	2
Larochelle	0	0	0	0	0	1	0	0	1
London	0	0	0	0	0	1	0	0	1
Muenchen	0	0	0	0	0	0	1	0	1
Newport	1	1	1	0	0	0	1	0	4
Panama	0	1	0	0	0	0	0	0	1
Paratyphi A	~	~	~	~	~	~	~	~	1
Saintpaul	0	0	1	0	0	0	0	0	1
Schwarzengrund	1	0	0	0	0	0	0	0	1
Senftenberg	1	0	0	0	0	0	0	0	1
Stanley	3	0	0	0	0	0	0	0	3
Typhi	~	~	~	~	~	~	~	~	1
Typhimurium	11	4	4	3	4	7	7	4	44
Unnamed	1	1	1	0	0	0	0	0	3
Virchow	0	0	0	0	0	1	2	0	3
Total	43	12	11	9	5	14	16	18	128

Table 8. Confirmed *Salmonella* notifications by serotype and travel status, Q3 2010 [n(%)]

Serotype	Indigenous	Travel-associated	Unk/not specified	Total
S. Enteritidis	2 (4%)	11 (20%)	6 (23%)	19 (15%)
S. Typhimurium	30 (67%)	10 (18%)	10 (38%)	50 (40%)
Other	11 (24%)	33 (60%)	10 (38%)	54 (43%)
Not specified	2 (4%)	1 (2%)	0 (0%)	3 (2%)
Total	45 (100%)	54 (100%)	26 (100%)	126

Note: Data source CIDR. Travel status is inferred from *Country of Infection* variable on CIDR. Note excludes probable notifications

S. Typhi and *S. Paratyphi*

There was one notification of *S. Typhi* reported during Q3 2010, which was associated with travel to Nepal. There was one notification of *S. Paratyphi* reported during Q3 2010, associated with travel to Asia.

Outbreaks of salmonellosis

There was one family outbreak of salmonellosis reported in Q3 2010 (Table 2).

VEROTOXIGENIC *E. COLI* (VTEC)

Illness caused by enterohaemorrhagic *E. coli* (EHEC) became a notifiable disease on January 1st 2004. Under EHEC, all verotoxin positive *E. coli*, and *E. coli* of serogroups O157, O26, O111, O103, O145 regardless of whether verotoxin producers, are reported. Previously, VTEC were notified under the category of 'Food Poisoning (bacterial other than *Salmonella*)'.

The number of EHEC notified in Q3 2010 is shown in Table 5. Under the legislation, it is required that information on EHEC be gathered and reported. However, because of their clinical and public health significance, it is important to distinguish between those isolates that are verotoxin-producers and those that are not.

A hundred and ten EHEC were notified in this quarter, 95 of which were confirmed or probable VTEC (Table 9). This compares with 95 VTEC cases notified in Q3 2009 and 98 in Q3 2008 (Figure 2). Table 9 shows the number of VTEC cases reported by serogroup and month, Q3 2010.

Table 9. Confirmed and Probable VTEC Notified by Serogroup and Month, Q3 2010

Month	O157	O26	Other	Total
Jul	15	12	0	27
Aug	16	10	5 ^a	31
Sep	27	6	4	37
Total	58	28	9	95

^a includes one case reported as a probable case on the basis of being epidemiologically linked to a confirmed case

Ten cases notified during this quarter was reported as having developed HUS –six infected with *E. coli* O157, 3 with *E. coli* O26, and there was one probable *E. coli* O121 case.

Outbreaks of VTEC infection

During this quarter, two general and 18 family outbreaks of EHEC infection were reported (see Tables 1 & 2).

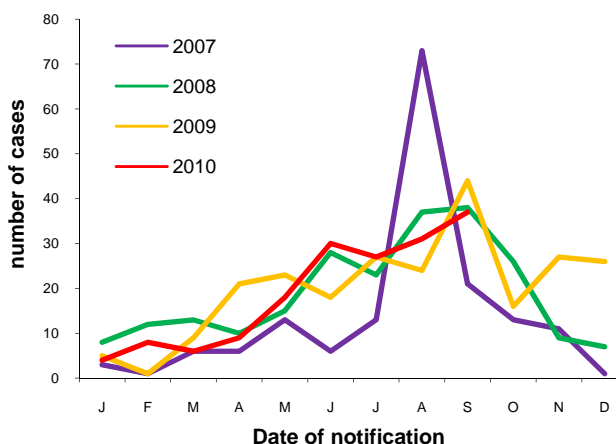


Figure 2. Seasonal distribution of confirmed and probable VTEC cases notified 2007 to end quarter 3 2010

The HSE DML Public Health Laboratory at Cherry Orchard Hospital, Dublin provides a national *E. coli* O157 and non-O157 diagnostic service for clinical samples, including *E. coli* serotyping, verotoxin detection and VTEC molecular typing. Table 10 shows the *vt* types of VTEC isolates referred to the laboratory in Q3 2010.

Table 10. Verotoxin typing results of VTEC isolates referred to the HSE DML Public Health Laboratory, Cherry Orchard Hospital in Q3 2010. (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Serogroup	vt1	vt2	vt1+vt2	Pending	Total
O157	0	49	9	0	58
O26	14	3	11	0	28
Other	6	0	1	1	8
Total	20	52	21	1	94

^aexcludes one notified probable case as no isolate available for typing

CAMPYLOBACTER

Human campylobacteriosis became a notifiable disease on January 1st 2004. Prior to this, human campylobacter infection was notified under the category of 'Food Poisoning (bacterial other than Salmonella)'. The notifications for the third quarter of 2010 are shown in Table 11. The number of cases notified this quarter is similar to quarter 3 in previous years (Figure 3).

Table 11. Campylobacter Notifications by HSE-Area and Month, Q3 2010

Month	E	M	MW	NE	NW	SE	S	W	Total
Jul	54	10	10	13	12	20	38	19	176
Aug	37	13	6	5	8	18	32	4	123
Sep	72	12	13	6	7	18	17	25	170
Total	163	35	29	24	27	56	87	48	469

Outbreaks of Campylobacter infection

There were no outbreaks of campylobacteriosis reported in Q3 2010 (Tables 1 & 2).

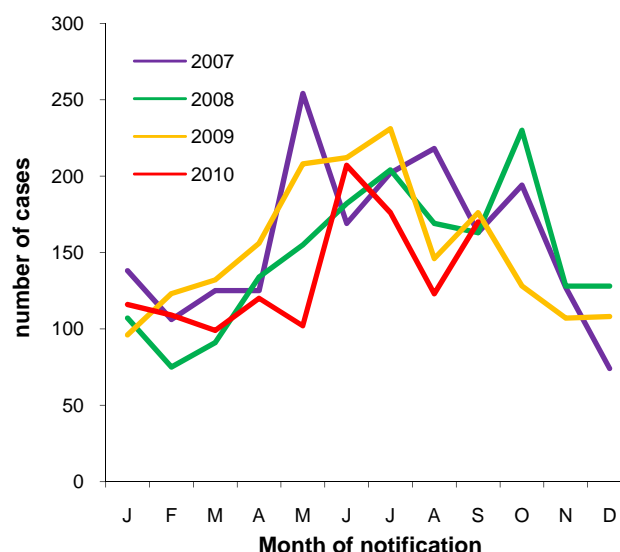


Figure 3. Seasonal distribution of Campylobacter notifications 2007 to end quarter 3 2010

CRYPTOSPORIDIUM

Human cryptosporidiosis became a notifiable disease on January 1st 2004. Prior to this, cryptosporidiosis was notifiable in Ireland only in young children under the category 'Gastroenteritis in Children Under 2'. In Q3 2010, 43 cases of cryptosporidiosis were notified (Table 12), compared to 87 in the same period last year and 78 in Q3 2008 (Figure 4).

Table 12. Cryptosporidiosis Notifications by HSE-Area and Month, Q3 2010

Month	E	M	MW	NE	NW	SE	S	W	Total
Jul	2	0	1	0	2	1	3	2	11
Aug	2	2	0	0	1	6	2	4	17
Sep	2	1	1	1	1	2	2	5	15
Total	6	3	2	1	4	9	7	11	43

Outbreaks of cryptosporidiosis

There were no outbreaks of cryptosporidiosis reported in quarter 3 (Tables 1 & 2).

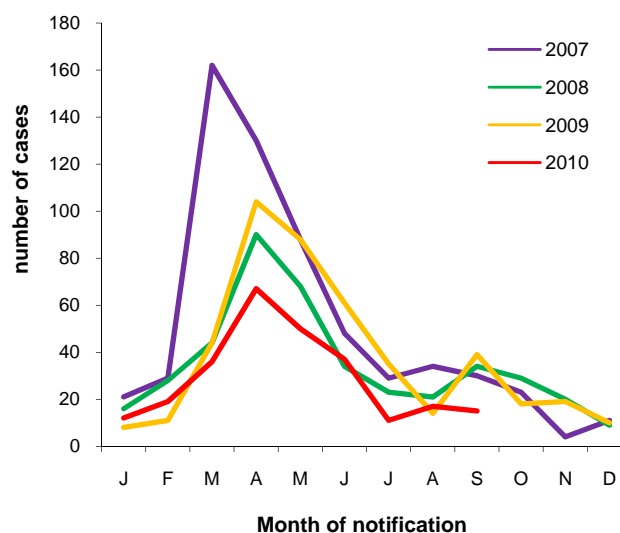


Figure 4. Seasonal distribution of cryptosporidiosis notifications 2007 to end quarter 3 2010

NOROVIRUS

Human noroviral infection became a notifiable disease on January 1st 2004. There were 61 cases notified in the third quarter of 2010, as shown in Table 13. These data are certainly an under-ascertainment of the true burden of disease due to this pathogen.

Table 13. Norovirus Notifications by HSE-Area and Month, Q3 2010

Month	E	M	MW	NE	NW	SE	S	W	Total
Jul	11	1	2	3	3	1	0	4	25
Aug	7	1	1	0	0	1	1	1	12
Sep	16	0	0	1	1	3	0	3	24
Total	34	2	3	4	4	5	1	8	61

Norovirus outbreaks

Norovirus or suspect viral aetiology is the commonest cause of outbreaks of acute gastroenteritis in Ireland. In the third quarter of 2010 there were 4 outbreaks confirmed as being caused by this virus, involving at

least 65 people becoming ill, as outlined in Table 1. The seasonal trend is outlined in Figure 5.

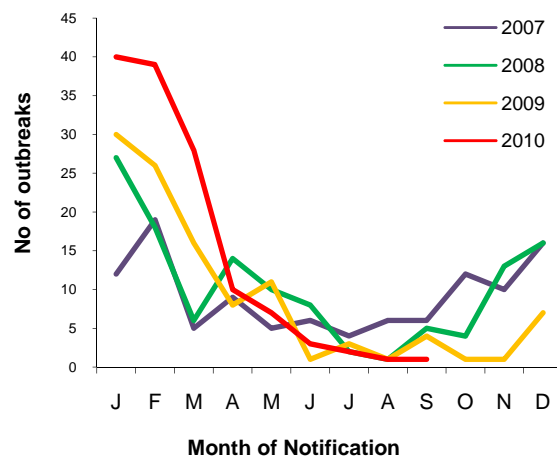


Figure 5. Seasonal distribution of confirmed norovirus outbreaks, 2007 to end quarter 3 2010.

LISTERIA

Human listeriosis became a notifiable disease on January 1st 2004. Prior to this, listeriosis was notified under the category of 'Food Poisoning (bacterial other than Salmonella)' or 'Bacterial Meningitis' as appropriate.

There were five cases of listeriosis notified in Q3 2010, compared to two in quarter 3 2009 and three in quarter 3 2008. There was one pregnancy related case

and four non-pregnancy related adult cases. Two human isolates were referred to the NSRL this quarter.

Table 14: Serotypes of Q3 2010 human *Listeria* isolates referred to the NSRL (Data are provided courtesy of Prof. Martin Cormican and staff at the NSRL).

Serotype	Number of isolates
4b	2

SHIGELLA

On January 1st 2004, infection with *Shigella* spp. became notifiable as 'Shigellosis'. Prior to this, it was notifiable as 'Bacillary Dysentery'.

During Q3 2010, twenty-one cases of shigellosis were notified (Table 5). This compares with 28 cases notified as shigellosis in Q3 2009 and 19 in Q3 2008. Nine cases were reported as *S. sonnei*, eight as *S. flexneri*, one as *S. boydii* and three as *Shigella* species.

Seven cases (33%) were reported to have acquired their illness abroad. Country of infection was reported as Ireland for five cases and 'not specified' or 'unknown' for the remaining nine cases.

Outbreaks of shigellosis

There were two family outbreaks of shigellosis reported in Q3 2010 (Table 2).

GIARDIA

Human giardiasis became a notifiable disease on January 1st 2004. Prior to this, giardiasis was notifiable in Ireland only in young children under the category 'gastroenteritis in children under 2 years'.

During Quarter 3 2010, 15 cases of giardiasis were notified (Table 5); this compares with 16 cases notified in Q3 2009 and 14 in Q3 2008.

Outbreaks of giardiasis

There were no outbreaks of giardiasis notified in Q3 2010 (Tables 1&2).

FOODBORNE INTOXICATIONS

Bacillus cereus foodborne infection/intoxication, botulism, *Clostridium perfringens* (type A) foodborne disease and staphylococcal food poisoning became notifiable diseases on January 1st 2004. Prior to this, these diseases were notified under the category of 'Food Poisoning (bacterial other than Salmonella)'.

There were no cases of foodborne infection/intoxication notified during this quarter.

Outbreaks of foodborne intoxications

There were no outbreaks of food-borne infection/intoxication notified this quarter (Tables 1 & 2).

ACUTE INFECTIOUS GASTROENTERITIS incl. ROTAVIRUS

Since 1st January 2004, there is a notifiable disease category termed 'Acute Infectious Gastroenteritis'. Until May 3rd 2008, this included all unspecified causes of gastroenteritis and also specifically, gastroenteritis due to rotavirus. Since May 4th 2008, it has also specifically included *Clostridium difficile* associated disease (CDAD). AIG cases due to unspecified causes or to rotavirus are notifiable in all age groups, unlike the former notifiable disease category of 'Gastroenteritis in children under 2 years'. CDAD cases are only notifiable in patients two years or older that meet the case definition.

Table 15. Rotaviral Infections Notified under the Category of 'Acute Infectious Gastroenteritis' by HSE-Area and Month, Q3 2010

Month	E	M	MW	NE	NW	SE	S	W	Total
Jul	7	8	2	8	4	7	5	3	44
Aug	3	3	3	2	2	10	5	5	33
Sep	7	2	1	6	1	13	8	5	43
Total	17	13	6	16	7	30	18	13	120

During Quarter 3 2010, there were 590 notifications of acute infectious gastroenteritis. Of these, 120 (20%) were reported as rotavirus (Table 15 & Figure 6). 87

rotavirus notifications (73%) were for children less than two years of age.

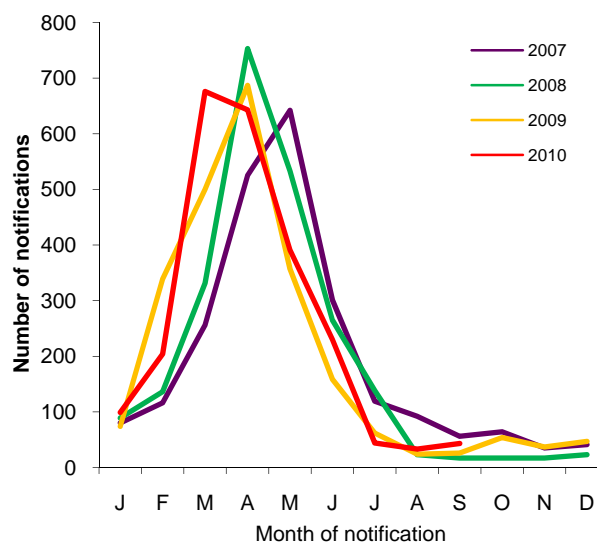


Figure 6. Seasonal distribution of rotavirus notifications 2007 to end quarter 3 2010

Outbreaks of Rotavirus

There were no outbreaks of rotavirus notified this quarter (Tables 1 & 2).

NON-IID ZONOTIC DISEASES

Non-IID zoonoses now notifiable include: anthrax, brucellosis, echinococcosis, leptospirosis, plague, Q fever, toxoplasmosis, trichinosis, typhus and rabies. The Q3 2010 notifications of these zoonotic diseases are reported by HSE-Area in Table 5.

Four cases of toxoplasmosis were notified in this quarter. This compares with ten cases notified in the same period in 2009 and 8 cases in Q3 2008.

There were two cases of brucellosis reported during this quarter compared with none in both Q3 2009 and Q3 2008.

Five cases of leptospirosis were notified in Q3 2010; this compares with 6 in Q3 2009 and eight in Q3 2008. One case was reported as having had occupational exposure, one had river water contact and one case had a history of travel to South America. The exposure history is unknown for the remaining two cases.

There was one case of Q fever notified this quarter, compared to four in Q3 in 2009 and three in Q3 2008.

MALARIA

Malaria is a notifiable disease for many years. The Q3 2010 notifications are reported in Table 5 by HSE-Area.

Twenty-five cases of malaria were notified in Q3 2010. This compares with 47 cases reported in Q3 2009 and 31 in Q3 2008.

Twenty-two cases were reported as *P. falciparum*, one as *P. ovale*, and two as *P. falciparum/vivax*.

Twenty-one cases were exposed in Sub-Saharan Africa and two in Asia. No data were provided on country of infection for the remaining two cases.

The reason for travel for eighteen cases was reported as visiting family in country of origin, four cases were Irish citizens living abroad and the reason for travel was not specified/unknown for three cases.

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