

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 1–2008

June 2008

This is the first quarterly report for 2008 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 1, 2008

Month	HSE region	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jan	SE	Other	3	0	6-Dec-07	P-P	Cryptosporidiosis
Jan	S	Comm. Hosp/Long-stay unit	5	0	-	P-P & AB	Noroviral infection
Jan	S	Residential institution	5	0	7-Dec-07	P-P & AB	AIG
Jan	S	Comm. Hosp/Long-stay unit	15	-	31-Dec-07	P-P & AB	Noroviral infection
Jan	E	Residential institution	30	-	-	Not Specified	Noroviral infection
Jan	E	Residential institution	54	-	-	Not Specified	Noroviral infection
Jan	E	Comm. Hosp/Long-stay unit	5	5	3-Jan-07	P-P	Noroviral infection
Jan	NW	Hospital	40	40	30-Dec-07	P-P	Noroviral infection
Jan	NW	Hospital	11	11	5-Jan-07	P-P	Noroviral infection
Jan	NW	Comm. Hosp/Long-stay unit	20	14	2-Jan-07	P-P	Noroviral infection
Jan	NW	Comm. Hosp/Long-stay unit	18	13	5-Jan-08	P-P	Noroviral infection
Jan	NW	Comm. Hosp/Long-stay unit	8	2	9-Jan-08	P-P	Noroviral infection
Jan	SE	Residential institution	4	-	-	P-P	Noroviral infection
Jan	NW	Comm. Hosp/Long-stay unit	36	1	5-Jan-08	P-P & AB	Noroviral infection
Jan	NW	Comm. Hosp/Long-stay unit	27	27	31-Dec-07	P-P & AB	Noroviral infection
Jan	S	Hospital	11	11	27-Oct-07	P-P & AB	Noroviral infection
Jan	W	Residential institution	10	-	11-Jan-08	P-P	AIG
Jan	NW	Hospital	28	23	2-Jan-08	P-P & AB	Noroviral infection
Jan	NW	Residential institution	10	-	-	P-P & AB	Noroviral infection
Jan	E	Residential institution	7	-	-	Not Specified	AIG
Jan	S	Hospital	43	43	-	P-P & AB	Noroviral infection
Jan	S	Hospital	2	2	-	P-P & AB	Noroviral infection
Jan	E	Creche	5	-	-	Not Specified	Noroviral infection
Jan	S	Nursing Home	15	0	10-Jan-08	Not Specified	AIG
Jan	NW	Comm. Hosp/Long-stay unit	21	-	11-Jan-08	P-P & AB	AIG
Jan	E	Hospital	32	-	-	P-P	Noroviral infection
Jan	W	Hospital	9	9	31-Dec-07	P-P	Noroviral infection
Jan	NE	Hospital	21	15	14-Jan-08	P-P & AB	Noroviral infection
Jan	W	Comm. Hosp/Long-stay unit	5	-	4-Jan-08	Unknown	AIG
Jan	W	Residential institution	22	-	2-Jan-08	P-P	AIG
Jan	W	Hospital	12	-	-	Unknown	AIG
Jan	NE	Hospital	9	9	-	P-P & AB	Noroviral infection
Jan	S	Comm. Hosp/Long-stay unit	9	0	-	P-P & AB	Noroviral infection
Jan	SE	Comm. Hosp/Long-stay unit	5	0	25-Jan-08	Not Specified	AIG
Jan	M	Creche	9	1	1-Jan-08	P-P	EHEC
Jan	E	Comm. Hosp/Long-stay unit	10	7	25-Jan-08	P-P	Noroviral infection
Feb	NW	Hospital	2	2	-	P-P & AB	Noroviral infection
Feb	S	Comm. Hosp/Long-stay unit	9	0	28-Jan-08	P-P & AB	AIG
Feb	NE	Comm. Hosp/Long-stay unit	18	-	6-Feb-08	P-P	Noroviral infection
Feb	S	Hospital	7	6	4-Feb-08	P-P & AB	Noroviral infection

Feb	S	Nursing Home	2	-	5-Feb-08	Not Specified	Noroviral infection
Feb	M	Comm. Hosp/Long-stay unit	4	4	24-Jan-08	Not Specified	Noroviral infection
Feb	M	Hospital	12	4	11-Feb-08	Not Specified	Noroviral infection
Feb	SE	Residential institution	10	-	18-Jan-08	P-P	Noroviral infection
Feb	SE	Hospital	11	-	27-Jan-08	P-P	AIG
Feb	NW	Hospital	4	4	-	P-P & AB	Noroviral infection
Feb	S	Residential institution	8	0	11-Jan-08	FB & AB	AIG
Feb	SE	Residential institution	4	1	11-Feb-08	P-P	Noroviral infection
Feb	E	Hospital	24	-	-	Not Specified	Noroviral infection
Feb	M	Hospital	4	-	-	Not Specified	Noroviral infection
Feb	MW	Community outbreak	8	1	3-Dec-08	P-P	Shigellosis
Feb	S	Residential institution	12	0	28-Jan-08	P-P & AB	Noroviral infection
Feb	NE	Creche	5	0	23-Jan-08	P-P	Cryptosporidiosis
Feb	S	Nursing Home	22	1	11-Feb-08	P-P & AB	Noroviral infection
Feb	S	Hospital	4	4	-	P-P & AB	Noroviral infection
Feb	E	Hospital	26	-	13-Feb-08	Not Specified	Noroviral infection
Feb	E	Creche	5	0	19-Feb-08	Not Specified	AIG
Feb	NDSC	Other	18	-	11-Feb-08	P-P	Noroviral infection
Feb	NW	Comm. Hosp/Long-stay unit	26	0	11-Feb-08	P-P & AB	Noroviral infection
Feb	E	Comm. Hosp/Long-stay unit	19	13	14-Feb-08	Unknown	Noroviral infection
Feb	NE	Hospital	3	3	22-Feb-08	P-P & AB	Noroviral infection
Mar	MW	Community outbreak	3	1	-	Not Specified	Cryptosporidiosis
Feb	NE	Creche	4	1	22-Feb-08	Airborne	Rotavirus
Mar	SE	Residential institution	11	-	25-Feb-08	P-P	AIG
Mar	E	Hospital	7	-	-	Not Specified	Noroviral infection
Mar	W	Hospital	10	-	24-Feb-08	Not Specified	AIG
Mar	MW	Hotel	5	-	9-Mar-08	Not Specified	AIG
Mar	NW	Comm. Hosp/Long-stay unit	23	-	14-Mar-08	P-P & AB	Noroviral infection
Mar	M	Comm. Hosp/Long-stay unit	12	4	-	Not Specified	Noroviral infection
Mar	M	Hospital	2	1	4-Mar-08	P-P	Salmonellosis
Mar	SE	Hospital	67	-	16-Feb-08	P-P	Noroviral infection
Mar	MW	Hospital	6	-	-	P-P	Noroviral infection
Mar	MW	Hospital	5	-	-	P-P	Noroviral infection
Mar	MW	Creche	4	-	11-Mar-08	Unknown	EHEC

P-P denotes Person-to-Person transmission, FB denotes foodborne, WB denotes waterborne; AIG denotes Acute Infectious Gastroenteritis; EHEC denotes Enterohaemorrhagic *E. coli*

* Total numbers ill does not include asymptomatic cases

Table 2. Family Outbreaks of Infectious Intestinal Disease (IID) in Quarter 1, 2008

Month	HSE region	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jan	W	Private house	3	-	18-Dec-07	WB	Cryptosporidiosis
Jan	NE	Private house	2	0	10-Jan-08	P-P	Campylobacter infection
Jan	S	Private house	2	1	25-Dec-07	P-P	Salmonellosis
Jan	NE	Private house	2	1	1-Jan-08	P-P	Salmonellosis
Feb	M	Private house	3	-	2-Feb-08	Not Specified	Salmonellosis
Feb	W	Private house	3	-	3-Feb-08	P-P	Adenovirus
Feb	M	Private house	1	0	4-Feb-08	Not Specified	EHEC
Feb	NE	Private house	1	0	19-Feb-08	P-P	EHEC
Mar	M	Private house	2	0	-	Unknown	EHEC
Mar	M	Private house	2	2	-	Not Specified	EHEC
Mar	NW	Private house	2	0	19-Feb-08	P-P	EHEC
Mar	W	Private house	2	-	19-Feb-08	Not Specified	EHEC
Mar	S	Private house	2	2	28-Feb-08	P-P and WB	Cryptosporidiosis
Mar	M	Private house	1	0	3-Mar-08	Not Specified	EHEC
Mar	SE	Private house	2	0	3-Feb-08	Unknown	Salmonellosis

P-P denotes Person-to-Person transmission, FB denotes foodborne; AIG denotes Acute Infectious Gastroenteritis

* Total numbers ill does not include asymptomatic cases

Table 3. Non-IID Outbreaks in Quarter 1, 2008

Month	HSE region	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Feb	E	Family	Not Specified	15	-	19-Jan-08	Not Specified	Varicella
Feb	SE	General	Creche	3	-	4-Feb-08	P-P	Suspected Varicella
Feb	NW	Family	Private house	2	0	29-Dec-07	P-P	Mumps
Feb	SE	Family	Private house	1	-	15-Jul-06	P-P	Mycobacterium tuberculosis
Mar	S	General	School	6	0	19-Feb-08	P-P	Mumps
Mar	NW	Family	Private house	3	0	3-Mar-08	P-P	Mumps
Mar	E	General	Hospital	37	8	13-Mar-08	P-P	Influenza

P-P denotes Person-to-Person transmission, FB denotes foodborne

* 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 first quarter of 2008. There were 74 general and 15 family IID outbreaks reported during this period, resulting in at least 1032 people being ill.

Norovirus was responsible for the majority of general outbreaks of IID with 50 outbreaks alone confirmed to be caused by this organism (67% of all general outbreaks).

The most common cause of family outbreaks of IID was EHEC, with seven outbreaks (46% of all family outbreaks) caused by this pathogen. The other pathogens responsible for family outbreaks were Adenovirus, campylobacter infection, cryptosporidiosis and salmonellosis. (Table 2).

Most general outbreaks were transmitted person-to-person (69%). Sixty-three general outbreaks (85%) were reported to have occurred in healthcare settings, i.e. hospitals or residential institutions, during this period.

There were 7 non-IID outbreaks reported during Quarter 1 - see Table 3.

Table 4 outlines the outbreak rate per HSE-area for outbreaks notified during Q1 2008.

Table 4. No. of infectious disease outbreaks per HSE region

HSE Area	No. of outbreaks	Rate per 100,000 population
E	14	0.93
M	11	4.37
MW	6	1.66
NE	9	2.28
NW	17	7.17
SE	11	2.39
S	18	2.90
W	9	2.17
Total	95	-

NOTIFICATIONS OF INFECTIOUS INTESTINAL, ZONOTIC AND VECTORBORNE DISEASE

The number of notifications of infectious intestinal, zoonotic and vectorborne disease by HSE-Area for the first quarter of 2008 is shown in Table 5.

Table 5. Intestinal Infectious, Zoonotic and Vectorborne Disease Notifications Quarter 1, 2008 by HSE-Area

Infectious Intestinal Disease	E	M	MW	NE	NW	SE	S	W	Total
Acute infectious gastroenteritis (incl. rotavirus)	160	66	20	27	42	78	118	75	586
<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	77	28	25	20	18	28	43	34	273
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	1	5	17	14	9	10	15	17	88
Enterohaemorrhagic <i>Escherichia coli</i>	0	21	4	4	3	0	0	3	35
Giardiasis	12	1	1	0	0	2	2	2	20
Listeriosis	0	0	2	0	0	0	1	0	3
Noroviral infection	294	71	38	113	120	39	144	67	886
Paratyphoid	~	~	~	~	~	~	~	~	0
Salmonellosis	17	13	9	13	3	8	6	7	76
Shigellosis	4	0	6	1	0	1	1	0	13
Staphylococcal food poisoning	1	0	0	0	0	0	0	0	1
Typhoid	~	~	~	~	~	~	~	~	1
Yersiniosis	0	0	0	0	0	0	0	0	0
Zoonotic Disease	E	M	MW	NE	NW	SE	S	W	Total
Anthrax	0	0	0	0	0	0	0	0	0
Brucellosis	0	1	2	0	0	0	0	0	3
Echinococcosis	0	0	0	0	0	0	0	1	1
Leptospirosis	2	0	1	0	0	1	2	0	6
Plague	0	0	0	0	0	0	0	0	0
Q Fever	0	0	0	0	0	0	4	0	4
Rabies	0	0	0	0	0	0	0	0	0
Toxoplasmosis	4	1	1	0	1	1	12	2	22
Trichinosis	0	0	0	0	0	0	0	0	0
Typhus	0	0	0	0	0	0	0	0	0
Vectorborne Disease									
Malaria	8	0	2	1	1	1	1	1	15

SALMONELLA ENTERICA

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 first quarter of 2008. Comparison of trends with previous years is shown in Figure 1 below.

Table 6. Salmonellosis Notifications by HSE-Area and Month, Q1 2008

Salmonellosis	E	M	MW	NE	NW	SE	S	W	Total
Jan	4	2	3	7	1	0	3	2	22
Feb	8	5	5	4	2	6	0	2	32
Mar	5	6	1	2	0	2	3	3	22
Total	17	13	9	13	3	8	6	7	76

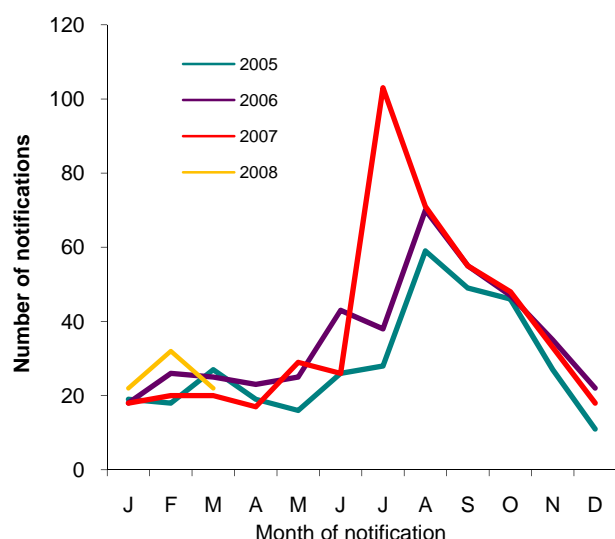


Figure 1. Seasonal Distribution of Human Salmonellosis Notifications, 2005 to end quarter 1 2008

Table 7 shows the *S. enterica* isolates typed by the NSRL in the first quarter of 2008 (n=82). The commonest human serotypes isolated were *S.*

Typhimurium (n=31 [38%]) and *S. Enteritidis* (n= 14 [17%]).

Ten (12%) *S. enterica* isolates were reported to be associated with travel outside of Ireland during this quarter.

S. Typhi and *S. Paratyphi*

There was one case of *S. typhi* (associated with travel to Nigeria) notified during Quarter 1, 2008.

Outbreaks of salmonellosis

There were five outbreaks of salmonellosis reported in Q1 2008, one general and 4 family outbreaks (see Table 1 and Table 2).

Table 7. Serotypes of *S. enterica* referred to NSRL in Quarter 1, 2008 (Data are provided courtesy of Prof. Martin Cormican and Dr Geraldine Corbett-Feeney, NSRL).

Serotype	E	M	MW	NE	NW	SE	S	W	Total
Agama	0	2	0	0	0	0	0	0	2
Brandenburg	1	0	0	0	0	0	0	0	1
Bredeney	0	3	0	0	0	0	0	0	3
Corvallis	1	0	0	0	0	0	0	0	1
Durban	1	0	0	0	0	0	0	0	1
Enteritidis	5	1	0	2	2	0	4	0	14
Give	0	0	0	0	0	0	0	1	1
Hadar	1	1	0	0	0	0	0	0	2
Heidelberg	0	1	1	0	0	0	0	0	2
Hvittingfoss	1	0	0	0	0	0	0	0	1
Infantis	0	0	0	0	0	1	0	0	1
Itami	1	1	0	0	0	0	0	0	2
Java	0	0	0	0	0	1	1	0	2
Kentucky	1	0	0	0	0	0	0	0	1
Muenchen	1	0	0	0	0	0	0	0	1
Panama	0	0	0	0	0	0	1	0	1
Paratyphi B	~	~	~	~	~	~	~	~	1
Richmond	1	0	0	0	0	0	0	0	1
Sandiego	2	0	0	0	0	0	0	0	2
Saphra	0	0	0	0	0	0	0	1	1
Tennessee	0	0	0	0	0	0	0	1	1
Thompson	0	0	0	0	0	1	0	0	1
Typhi	~	~	~	~	~	~	~	~	1
Typhimurium	3	5	4	11	1	5	1	1	31
Unnamed	2	0	1	1	0	0	0	1	5
Worthington	0	0	0	0	0	0	0	2	2
Total	22	14	6	15	3	8	7	7	82

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 Q1 2008 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.

Thirty-five EHEC were notified in this quarter, 33 of which were VTEC (all confirmed -Table 8). This compares with ten VTEC cases notified in Q1 2007 and six in Q1 2006 (Figure 2). Table 8 shows the number of VTEC cases reported by serogroup and month, Q1 2008.

Table 8. Confirmed and Probable VTEC Notified by Serogroup and Month, Q1 2008

Month	O157	O26	Other	Total
Jan	8	0	0	8
Feb	11	1	0	12
Mar	12	1	0	13
Total	31	2	0	33

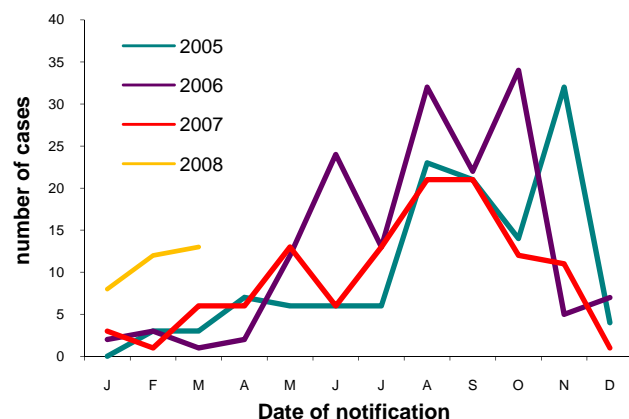


Figure 2. Seasonal distribution of confirmed and probable VTEC cases notified 2005 to end quarter 1 2008

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. Tables 9 and 10 show the phage types and VT types of VTEC isolates referred to the laboratory in Q1 2008.

Table 9. Phage Types of VTEC O157 isolates referred to the HSE DML Public Health Laboratory, Cherry Orchard Hospital in Q1 2008. (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Phage type	Number of isolates
21/28	11
32	6
8	4
14	2
38	1
RDNC	1
Not yet available	6
Total	31

Table 10. Verotoxin typing results of VTEC isolates referred to the HSE DML Public Health Laboratory, Cherry Orchard Hospital in Q1 2008. (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Serogroup	vt1	vt2	vt1+vt2	Total
O157	0	23	8	31
O26	2	0	0	2
Total	2	23	8	33

Outbreaks of VTEC infection

During this quarter, seven family outbreaks and two general outbreaks of VTEC infection were reported; Eight were due to *E. coli* O157, and one was due to *E. coli* O26 (see Table 1 and Table 2).

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 first quarter of 2008 are shown in Table 11. The number of cases notified this quarter is slightly lower than quarter 1 in previous years (Figure 3).

Table 11. Campylobacter Notifications by HSE-Area and Month, Q1 2008

Campylobacter Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	23	8	10	10	8	10	22	16	107
Feb	24	13	8	6	3	5	8	8	75
Mar	30	7	7	4	7	13	13	10	91
Total	77	28	25	20	18	28	43	34	273

Outbreaks of Campylobacter infection

There was one family outbreak of campylobacteriosis reported in Q1 2008 (Table 2).

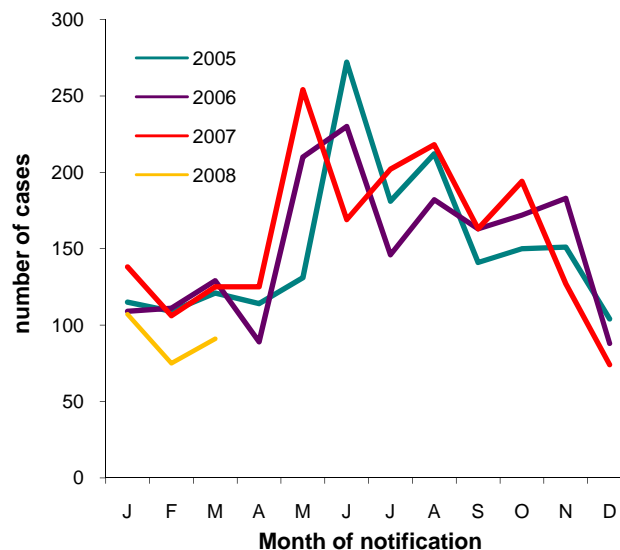


Figure 3. Seasonal distribution of Campylobacter notifications 2005 to end quarter 1 2008

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 Q1 2008, 88 cases of cryptosporidiosis were notified (Table 12), compared to 213 in the same period last year and 71 in Q1 2006 (Figure 4).

Table 12. Cryptosporidiosis Notifications by HSE-Area and Month, Q1 2008

Cryptosporidiosis	E	M	MW	NE	NW	SE	S	W	Total
Jan	0	0	0	3	1	2	5	5	16
Feb	0	2	6	6	2	2	5	5	28
Mar	1	3	11	5	6	6	5	7	44
Total	1	5	17	14	9	10	15	17	88

Outbreaks of cryptosporidiosis

In quarter 1, there were three general and two family outbreaks of cryptosporidiosis reported (Table 1 and Table 2).

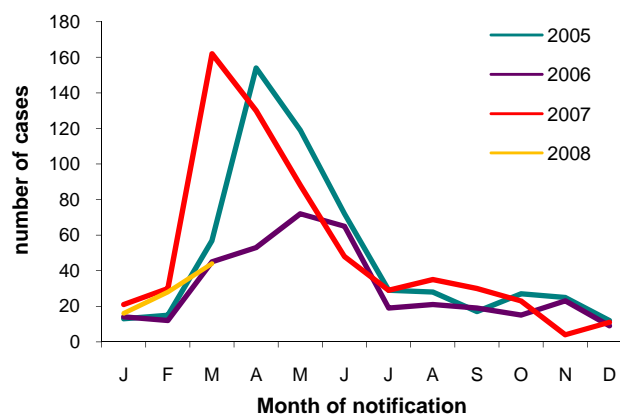


Figure 4. Seasonal distribution of cryptosporidiosis notifications 2005 to end quarter 1 2008

NOROVIRUS

Human noroviral infection became a notifiable disease on January 1st 2004. There were 886 cases reported in the first quarter of 2008, 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, Q1 2008

Noroviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	163	26	8	65	87	20	71	24	464
Feb	72	24	8	38	26	11	61	31	271
Mar	59	21	22	10	7	8	12	12	151
Total	294	71	38	113	120	39	144	67	886

Norovirus outbreaks

Norovirus or suspect viral aetiology is the commonest cause of outbreaks of acute gastroenteritis in Ireland. In the first quarter of 2008 there were 50 outbreaks confirmed as being caused by this virus, involving at

least 803 people becoming ill, as outlined in Table 1. The seasonal trend is outlined in Figure 5.

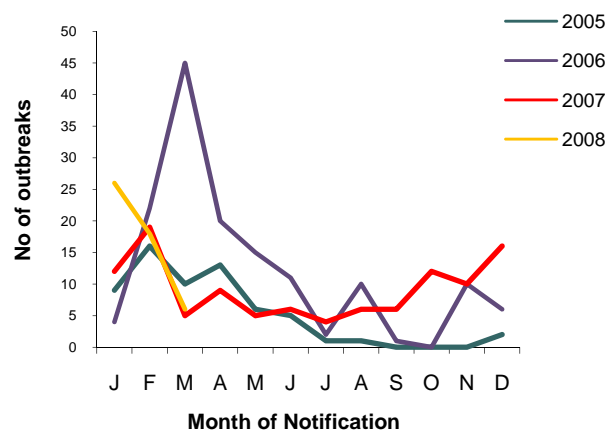


Figure 5. Seasonal distribution of confirmed norovirus outbreaks, 2005 to end quarter 1 2008.

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 three cases of listeriosis notified in Q1 2008, compared to two in quarter 1 2007 and five in quarter 1 2006. One case was pregnancy-related, one neonatal and one was a non-pregnancy related adult case.

SHIGELLA

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

During Q1 2008, thirteen cases of shigellosis were notified (Table 5). This compares with eight cases notified as shigellosis in Q1 in 2007 and 15 in Q1 2006. Eight cases were reported as *S. sonnei*, one as *S. flexneri*, one as *S. boydii* and three as *S. species*.

During this quarter, two cases (15%) were reported to have acquired their illness abroad, one each in Venezuela and India. Country of infection was reported as Ireland for one further case and as 'not specified' or 'unknown' for the remaining cases.

Outbreaks of shigellosis

There was one general outbreak of shigellosis reported in Q1 2008 (Table 1).

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 1 2008, 20 cases of giardiasis were notified (Table 5); this compares with 22 cases notified in Q1 2007 and 18 in Q1 2006.

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 was one case of staphylococcal food poisoning notified in Q1 2008 (Table 5).

ACUTE INFECTIOUS GASTROENTERITIS incl. ROTAVIRUS

Since 1st January 2004, there is a notifiable disease category termed 'Acute Infectious Gastroenteritis'. This includes all unspecified causes of gastroenteritis and also specifically, gastroenteritis due to rotavirus. It should be noted that acute infectious gastroenteritis is now notifiable in all age groups, unlike the former notifiable disease category of 'Gastroenteritis in children under 2 years'.

During Quarter 1 2008, there were 586 notifications of acute infectious gastroenteritis. 557 of these (95%) were reported as rotavirus (as shown in Table 14).

Table 14. Rotaviral Infections Notified under the Category of 'Acute Infectious Gastroenteritis' by HSE-Area and Month, Q1 2008

Rotaviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	31	12	3	6	3	12	14	8	89
Feb	40	16	5	8	8	13	31	15	136
Mar	72	38	12	13	31	45	73	48	332
Total	143	66	20	27	42	70	118	71	557

NON-IID ZONOTIC DISEASES

Non-IID zoonoses now notifiable include: anthrax, brucellosis, echinococcosis, leptospirosis, plague, Q Fever, toxoplasmosis, trichinosis, typhus and rabies. The Q1 2008 notifications of these zoonotic diseases are reported by HSE-Area in Table 5.

Twenty-two cases of toxoplasmosis were notified in this quarter. This compares with 8 cases notified in the same period in 2007 and 11 cases in Q1 2006.

There were three cases of brucellosis reported during this quarter compared with four in Q1 2007 and nine in Q1 2006.

Six cases of leptospirosis were notified in Q1 2008; this compares with four in Q1 2007 and four in Q1 2006. Four were reported as occupationally acquired and two as acquired through leisure activities.

There were also four cases of Q fever notified this quarter, compared to three in Q1 in 2007 and two in Q1 2006.

MALARIA

Malaria is a notifiable disease for many years. The Q1 2008 notifications are reported in Table 5 by HSE-Area.

Fifteen cases of malaria were notified in Q1 2008. This compares with eight cases reported in Q1 2007 and 25 in Q1 2006.

Nine cases were reported as *P. falciparum*, one as *P. ovale*, two as *P. malariae*, one as a mixed *P. falciparum/P. ovale* infection, and for two notifications, the species was not specified.

Eleven cases were exposed in Sub-Saharan Africa, while no data were provided on country of infection for the remaining four cases.

The reason for travel for seven cases was reported as visiting family in country of origin. There was one new entrant, two cases associated with holiday travel, with the reason for travel not specified for five cases.

Report prepared by:

Ms Fiona Cloak
Ms. Gillian Cullen
Dr Barbara Foley
Dr Patricia Garvey
Dr Paul McKeown