

# SURVEILLANCE of INFECTIOUS INTESTINAL (IID), ZONOTIC 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 1–2006

July 2006

This is the first quarterly report for 2006 produced by the Gastroenteric Unit of the Health Protection Surveillance Centre.

### News

#### Malaria Alert

The Health Protection Agency (HPA) in the UK issued a warning at the beginning of the year about the importance of taking anti-malarial medication when travelling to areas where malaria is endemic. This followed two deaths and four other cases of falciparum malaria in travellers returning from The Gambia, West Africa, who did not take the appropriate anti-malarial medication. In the first quarter of 2006, there were 25 cases of malaria notified in Ireland. Given the numbers of Irish citizens travelling overseas and of non-nationals working and living in Ireland but returning home to areas where malaria is endemic, prevention relies on: **Awareness**: knowing about the risk of malaria; **Bites** by mosquitoes: preventing or avoiding; **Compliance** with appropriate chemoprophylaxis. And **Diagnosing** breakthrough malaria swiftly and obtaining treatment promptly.

#### Norovirus Activity

There has been a considerable increase in norovirus activity in the first quarter of this year in comparison to other years. In the first quarter of 2006 there were 85 outbreaks of suspected or confirmed noroviral illness as compared with 53 in 2005 and 30 in 2004. These 85 outbreaks resulted in at least 1704 cases of illness.

#### Chikungunya fever

An outbreak of Chikungunya fever, a viral infection carried by mosquitoes, *Aedes aegypti* affected many countries of the Indian Ocean Basin from Spring 2005 onwards. The most profoundly affected area was the French island of Réunion; French Authorities estimated that in excess of a quarter of a million of the islands 750,000 inhabitants had been affected within 12 months of the onset of the outbreak. In addition, more than 300 cases had been imported to Metropolitan France and as many as 100,000 people were affected in India.

Chikungunya fever is commonly found in the Indian Ocean Basin and is characterised by a febrile illness developing 4-7 days after the bite of an infected mosquito. It presents with sudden onset of fever with joint and (occasionally severe) muscle pain with headache and conjunctivitis. It tends to be a mild illness with most patients recovering fully, although there have been as many as 300 deaths reported in all affected countries, many in elderly patients with co-existing medical conditions.

Additionally, there has been a laboratory confirmed case of Chikungunya fever in a nurse in France who became infected after taking a blood sample from an acutely ill patient. Despite this, the European Centre for Disease Prevention and Control (ECDC) considers the likelihood of introduction of the virus to Europe through the importation of infected vectors, or contamination through breach of universal precautions when handling blood samples or through blood transfusions, to be relatively low, although more research is needed in this area.

\*\*\*\*\*

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

*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. Outbreaks of Infectious Intestinal Disease (IID) in Quarter 1, 2006**

Month	HSE region	Type of outbreak	Location	No.ill	No. Hos p.	Date Onset	Suspect mode of transmission	Organism
Jan	ER	General	Residential institution	8	-	11/01/2006	P-P	Norovirus
Jan	SE	General	Hospital	4	0	23/12/2005	P-P	Suspected Norovirus
Jan	W	General	Residential institution	13	11	12/01/2006	P-P	Norovirus
Jan	W	General	Hospital	30	18	06/01/2006	P-P	Norovirus
Jan	ER	General	Other	48	-	06/01/2006	P-P	Suspected Norovirus
Jan	S	Family	Private house	2	2	11/12/2005	Unknown	Campylobacter
Jan	S	General	Hospital	95	0	09/01/2006	P-P and Airborne	Norovirus
Jan	M	Family	Private house	3	1	31/12/2005	Not Specified	Shigella sp.
Feb	M	Family	Private house	3	0	17/01/2006	Not Specified	Campylobacter
Feb	ER	General	Hospital	15	9	26/01/2006	P-P	Norovirus
Feb	NW	General	Hospital	38	-	15/01/2006	P-P	Norovirus
Feb	MW	General	Hospital	9	9	24/01/2006	P-P	Norovirus
Feb	MW	General	School	40	-	31/01/2006	P-P	Suspected Norovirus
Feb	MW	General	Hospital	7	7	27/01/2006	P-P	Norovirus
Feb	MW	General	Hospital	18	18	31/01/2006	P-P	Norovirus
Feb	ER	Family	Residential institution	5	-	27/01/2006	P-P	Norovirus
Feb	ER	General	Hospital	7	-	03/02/2006	P-P	Norovirus
Feb	ER	General	Hospital	6	-	04/02/2006	P-P	Norovirus
Feb	ER	General	Residential institution	18	-	27/01/2006	FB and WB	Norovirus
Feb	W	General	Hospital	18	12	28/01/2006	P-P	Suspected Norovirus
Feb	MW	Family	Private house	4	3	01/01/2006	P-P	Shigella flexneri
Feb	MW	General	Residential institution	7	-	28/01/2006	P-P	Suspected Norovirus
Feb	MW	General	Residential institution	18	-	25/01/2006	P-P	Suspected Norovirus
Feb	SE	General	Residential institution	10	0	30/01/2006	P-P	Norovirus
Feb	SE	General	Hospital	10	0	03/02/2006	P-P	Suspected Norovirus
Feb	S	General	Residential institution	41	0	07/02/2006	P-P and Airborne	Norovirus
Feb	M	General	Residential institution		-	26/01/2006	Not Specified	Norovirus
Feb	S	General	Hospital	20	20	21/02/2006	P-P, FB and Airborne	Norovirus
Feb	ER	General	Residential institution	19	-	18/02/2006	P-P	Norovirus
Feb	ER	General	Creche	26	-	17/01/2006	P-P	Not identified
Feb	ER	General	Hospital	26	17	10/02/2006	P-P	Norovirus
Feb	ER	General	Hospital	4	-	15/02/2006	Not Specified	Norovirus
Feb	ER	General	Hospital	58	-	16/02/2006	P-P	Norovirus
Feb	NE	General	Residential institution	22	2	-	P-P	Norovirus
Feb	M	General	Hospital	4	0	13/02/2006	Not Specified	Norovirus
Feb	M	General	Hospital	15	8	12/02/2006	Not Specified	Norovirus
Feb	M	General	School	70	0	27/01/2006	Not Specified	Suspected Norovirus
Feb	SE	General	Hospital	20	-	19/02/2006	P-P	Norovirus

Feb	M	General	Hospital	10	0	17/02/2006	Not Specified	Norovirus
Feb	ER	General	Creche	11	-	19/01/2006	P-P	Norovirus
Feb	ER	General	Residential institution	13	2	18/02/2006	P-P	Norovirus
Feb	M	General	Hospital		-	21/02/2006	Not Specified	Norovirus
Mar	NW	General	Residential institution		-	-	P-P	Norovirus
Mar	M	General	Hospital	4	-	16/01/2006	Not Specified	Suspected Norovirus
Mar	NW	General	Residential institution		-	-	P-P	Norovirus
Mar	ER	General	Hospital	4	4	20/02/2006	P-P	Norovirus
Mar	ER	General	Hospital	8	6	25/02/2006	P-P	Norovirus
Mar	ER	General	Hospital	28	10	21/02/2006	Other	Norovirus
Mar	S	General	Hospital	14	0	02/03/2006	Not Specified	Norovirus
Mar	S	General	Residential institution	14	0	02/03/2006	P-P and Airborne	Norovirus
Mar	M	General	Residential institution	7	0	19/02/2006	Not Specified	Suspected Norovirus
Mar	M	General	Hospital	7	0	28/02/2006	Not Specified	Norovirus
Mar	M	General	Residential institution		-	01/03/2006	Not Specified	Norovirus
Mar	S	General	Residential institution	25	0	-	P-P and Airborne	Norovirus
Mar	M	General	Residential institution	7	0	05/03/2006	Not Specified	Norovirus
Mar	SE	General	Residential institution	20	0	23/02/2006	P-P	Norovirus
Mar	SE	General	Hotel	60	-	04/03/2006	P-P and FB	Norovirus
Mar	M	General	Residential institution	16	0	08/03/2006	Not Specified	Norovirus
Mar	M	General	Hotel		0	26/02/2006	P-P and Airborne	Norovirus
Mar	MW	General	Hospital	9	-	23/02/2006	P-P	Suspected Norovirus
Mar	MW	General	Hospital	10	9	27/01/2006	P-P	Norovirus
Mar	MW	General	Residential institution	7	-	07/03/2006	P-P	Norovirus
Mar	MW	General	Residential institution	7	-	07/03/2006	P-P	Novovirus
Mar	SE	General	Hospital	30	0	01/03/2006	P-P	Norovirus
Mar	SE	General	Residential institution	16	0	08/03/2006	P-P	Norovirus
Mar	S	General	Hospital	13	-	09/03/2006	P-P	Norovirus
Mar	S	General	Residential institution	17	0	11/02/2006	P-P	Norovirus
Mar	M	General	Hotel		0	03/03/2006	Not Specified	Aeromonas
Mar	ER	General	Hospital	150	-	-	P-P	Norovirus
Mar	ER	General	Hospital	15	14	06/03/2006	P-P	Norovirus
Mar	S	General	Hospital	8	-	09/03/2006	P-P, FB and Airborne	Norovirus
Mar	M	General	Hospital	19	0	11/03/2006	Not Specified	Norovirus
Mar	NE	General	Hospital	21	21	05/02/2006	P-P	Norovirus
Mar	S	General	Residential institution	29	0	06/03/2006	P-P and Airborne	Norovirus
Mar	M	General	Hospital	12	11	20/03/2006	P-P and Airborne	Norovirus
Mar	S	General	Residential institution	24	0	13/03/2006	P-P and Airborne	Norovirus
Mar	S	General	Residential institution	20	0	-	P-P and Airborne	Norovirus
Mar	S	General	Residential institution	24	0	-	P-P and Airborne	Norovirus
Mar	SE	General	Hospital	39	0	09/03/2006	P-P	Norovirus
Mar	S	General	Hospital	30	-	-	P-P	Norovirus
Mar	S	General	Other	5	1	14/03/2006	P-P	Norovirus
Mar	ER	General	Residential institution	43	-	13/03/2006	P-P	Norovirus

Mar	ER	General	Hospital	75	50	09/03/2006	P-P	Norovirus
Mar	ER	General	Residential institution	27	1	17/03/2006	P-P	Suspected Norovirus
Mar	W	General	Hospital	6	-	11/03/2006	P-P	Norovirus
Mar	W	General	Residential institution	20	2	10/03/2006	P-P	Suspected Norovirus
Mar	ER	General	Residential institution	19	0	28/03/2006	P-P	Norovirus
Mar	S	General	Residential institution	18	0	22/03/2006	P-P and Airborne	Norovirus
Mar	NW	General	Residential institution		-	-	P-P	Norovirus
Mar	NE	General	Hospital	15	12	06/03/2006	P-P and Airborne	Norovirus
Mar	S	General	Residential institution	5	0	28/03/2006	P-P and Airborne	Suspected Norovirus
Mar	S	General	Community outbreak	10	-	02/02/2006	Not Specified	Cryptosporidium

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

**Table 2. Non-IID Outbreaks in Quarter 1, 2006**

Month	HSE region	Type of outbreak	Location	No. ill	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jan	M	Family	Private house	2	0	02/01/2006	Not Specified	Mumps
Feb	NW	General	Community outbreak	15	-	12/01/2006	P-P	Mumps
Feb	NW	Family	Private house	2	0		P-P	Mumps
Feb	NE	General	School	9	0	04/02/2006	Airborne	Mumps
Feb	S	General	Not Specified	2	1	16/12/2005	P-P	Hepatitis B
Feb	MW	General	Community outbreak	7	7	-	P-P	Suspected echo virus or coxsackie virus
Mar	M	General	School	9	0	06/03/2006	Not Specified	Influenza
Mar	S	General	Other	-	-	16/02/2006	Not Specified	Mumps

P-P denotes Person-to-Person transmission

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 1<sup>st</sup> 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'.

Table 1 shows a line listing of all general and family IID outbreaks reported to the HPSC in the first quarter of 2006. There were 92 IID outbreaks reported during this period, resulting in at least 1752 people being ill. The most common cause of IID outbreaks was Norovirus with 85 outbreaks (92% of all outbreaks). Most of these outbreaks were transmitted person-to-person (61%) or via the airborne route (15%). Three outbreaks were associated with foodborne transmission and one was suspected waterborne transmission. 78 outbreaks (85%) were reported to have occurred in healthcare settings, i.e. hospitals or residential institutions, during this period. There were 3 hotel outbreaks during this quarter. Norovirus was the causative agent in 2 of the outbreaks, resulting in over 60 people being ill. 4 outbreaks occurred in private houses – 2 of campylobacteriosis and 2 of shigellosis affecting 5 and 7 people respectively.

There were 8 non-IID outbreaks (5 Mumps, 1 Hepatitis B, 1 Suspected Echovirus/Coxsackie virus, and 1 Influenza) reported during Quarter 1 - see Table 2.

**Table 3. No of IID outbreaks per HSE region**

HSE Area	No of IID outbreaks	Rate per 100,000 population
E	23	1.6
M	18	8.0
MW	12	3.5
NE	3	0.9
NW	3	1.4
SE	9	2.1
S	19	3.3
W	5	1.3

## NOTIFICATIONS OF INFECTIOUS INTESTINAL, ZOOBOTIC AND VECTORBORNE DISEASE

The number of notifications of infectious intestinal, zoonotic and vectorborne disease by HSE-Area for the first quarter of 2006 is shown in Table 4.

**Table 4. Intestinal Infectious, Zoonotic and Vectorborne Disease Notifications Quarter 1 2006 by HSE-Area**

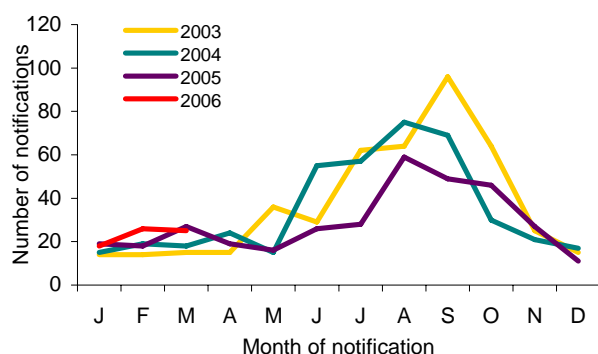
<b>Infectious Intestinal Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Acute infectious gastroenteritis (incl. rotavirus)	306	100	25	53	111	104	108	24	<b>831</b>
<i>Bacillus cereus</i> foodborne infection/intoxication	0	0	0	0	0	0	0	0	<b>0</b>
Botulism	0	0	0	0	0	0	0	0	<b>0</b>
Campylobacter infection	121	23	34	28	24	37	53	31	<b>351</b>
Cholera	0	0	0	0	0	0	0	0	<b>0</b>
<i>Clostridium perfringens</i> (type A) food-borne disease	0	0	0	0	0	0	0	0	<b>0</b>
Cryptosporidiosis	3	4	13	4	2	11	18	15	<b>70</b>
Enterohaemorrhagic <i>Escherichia coli</i>	2	1	0	0	4	1	0	3	<b>11</b>
Giardiasis	5	0	4	0	0	0	6	2	<b>17</b>
Listeriosis	3	0	0	0	1	0	0	1	<b>5</b>
Noroviral infection	190	141	69	26	25	143	144	47	<b>785</b>
Paratyphoid	0	0	0	0	0	0	0	0	<b>0</b>
Salmonellosis	18	4	9	2	13	3	12	8	<b>69</b>
Shigellosis	5	3	6	0	0	0	1	0	<b>15</b>
Staphylococcal food poisoning	0	0	0	0	0	0	0	0	<b>0</b>
Typhoid	1	0	0	0	0	1	0	0	<b>2</b>
Yersiniosis	0	0	0	0	0	0	0	0	<b>0</b>
<b>Zoonotic Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Anthrax	0	0	0	0	0	0	0	0	<b>0</b>
Brucellosis	0	0	7	0	0	1	0	1	<b>9</b>
Echinococcosis	0	0	0	0	0	0	0	0	<b>0</b>
Leptospirosis	1	0	1	1	1	1	0	1	<b>6</b>
Plague	0	0	0	0	0	0	0	0	<b>0</b>
Q Fever	0	0	0	0	0	0	2	0	<b>2</b>
Toxoplasmosis	5	1	3	0	2	0	1	0	<b>12</b>
Trichinosis	0	0	0	0	0	0	0	0	<b>0</b>
Typhus	0	0	0	0	0	0	0	0	<b>0</b>
Rabies	0	0	0	0	0	0	0	0	<b>0</b>
<b>Vectorborne Disease</b>	<b>E</b>	<b>M</b>	<b>MW</b>	<b>NE</b>	<b>NW</b>	<b>SE</b>	<b>S</b>	<b>W</b>	<b>Total</b>
Malaria	13	2	0	8	0	1	1	0	<b>25</b>

## 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 5 shows the number of salmonellosis notifications by HSE-Area and month for the first quarter of 2006. Comparison of trends with previous years is shown in Figure 1 below.

**Table 5. Salmonellosis Notifications by HSE-Area and Month, Q1 2006**

Salmonellosis	E	M	MW	NE	NW	SE	S	W	Total
Jan	4	1	4	0	4	0	3	2	18
Feb	9	2	2	1	4	1	4	3	26
Mar	5	1	3	1	5	2	5	3	25
Total	18	4	9	2	13	3	12	8	69



**Figure 1. Seasonal Distribution of Human Salmonellosis Notifications, 2003-2005 and to end Q1 2006**

Table 6 shows the *S. enterica* isolates typed by the NSRL in the first quarter of 2006 (n=73). The commonest human serotypes isolated were *S. Enteritidis* (n=17 [23%]) and *S. Typhimurium* (n=22 [30%]).

7 (10%) of *S. enterica* isolates were reported to be associated with travel outside of Ireland during this quarter.

### **S. Typhi and S. Paratyphi**

There were 2 cases of typhoid (1 associated with travel to Nepal and 1 with travel to Bangladesh) and no cases of paratyphoid reported during Quarter 1, 2006.

### **Outbreaks of salmonellosis**

There were no outbreaks of salmonellosis reported in Q1, 2006 (see Table 1).

**Table 6. Serotypes of *S. enterica* referred to NSRL in Quarter 1, 2006** (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	0	0	0	0	0	0	1	1
Bareilly	2	0	0	0	0	0	1	0	3
Bredeney	0	0	1	0	0	0	0	0	1
Corvallis	0	0	0	0	0	0	0	1	1
Derby	1	0	0	0	0	0	0	0	1
Dublin	1	0	1	0	1	0	0	0	3
Ealing	0	0	0	0	0	1	0	0	1
Enteritidis	5	0	1	2	3	0	5	1	17
Hadar	0	0	1	0	0	1	0	0	2
Havana	0	1	0	0	0	0	0	0	1
Infantis	0	0	0	0	1	0	0	0	1
Montevideo	1	0	0	0	0	0	0	0	1
Newport	2	0	0	1	1	0	0	0	4
Ohio	0	1	0	0	0	0	0	0	1
Reading	1	0	0	0	0	0	0	0	1
Saintpaul	3	0	0	0	0	0	0	1	4
Senftenberg	1	0	0	0	1	0	0	0	2
Stanley	0	0	0	0	0	1	0	0	1
Typhi	1	0	0	0	0	1	0	0	2
Typhimurium	1	1	5	1	7	0	6	1	22
Unnamed	0	0	0	0	0	0	1	1	2
Virchow	1	0	0	0	0	0	0	0	1
Total	20	3	9	4	14	4	13	6	73



## 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)'.

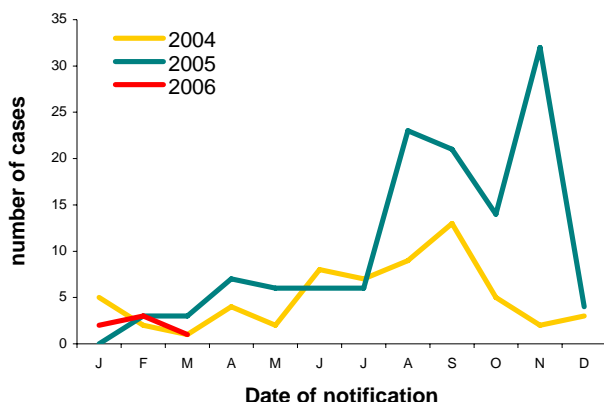
The number of EHEC notified in Q1 2006 is shown in Table 4. Under the legislation, it is required that information on EHEC be gathered and reported. However, because of their clinical and public health significance, it is important to distinguish between those isolates that are verotoxin-producers and those that are not.

11 EHEC were notified in this quarter, 6 of which were confirmed or probable VTEC (Table 7). This compares with 6 VTEC cases notified in Q1 2005 and 8 in Q1 2004 (Figure 2). Table 7 shows the number of VTEC cases reported by serogroup and month, Q1 2006.

**Table 7. Confirmed VTEC Notified by Serogroup and Month, Q1 2006**

VTEC	O157	O26	Total
Jan	2	0	2
Feb	2 <sup>a</sup>	1	3
Mar	1	0	1
Total	5	1	6

<sup>a</sup>One VTEC O157 case co-infected with VTEC O8 strain



**Figure 2. Seasonal distribution of confirmed VTEC cases notified 2004-2005, and to Q1 2006**

Enhanced information is provided by HSE-Area personnel on all VTEC cases. One VTEC case notified in this quarter developed HUS.

The HSE SWA 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 8 and 9 show the phage types and VT types of VTEC isolates referred to this laboratory in Q1 2006.

**Table 8. Phage Types of VTEC O157 isolates referred to the HSE SWA Public Health Laboratory, Cherry Orchard Hospital in Q1 2006.** (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Phage type	Number of isolates
32	3
31	2
Total	5

**Table 9. Verotoxin typing results of VTEC isolates referred to the HSE SWA Public Health Laboratory, Cherry Orchard Hospital in Q1 2006.** (Data are provided courtesy of Dr. Eleanor McNamara and Dr. Anne Carroll).

Serogroup	Vt1	Vt2	Vt1+Vt2	Total
<i>E. coli</i> O157	0	5	0	5
<i>E. coli</i> O26	0	0	1	1
<i>E. coli</i> O8	1	0	0	1
Total	1	5	1	7

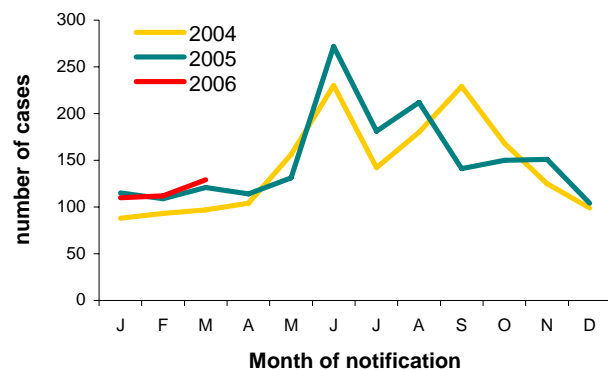


## CAMPYLOBACTER

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 2006 are shown in Table 10. The seasonal trend is broadly similar to the same period for the last year as depicted in Figure 3.

**Table 10. Campylobacter Notifications by HSE-Area and Month, Q1 2006**

Campylobacter Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	30	9	12	11	7	12	17	12	110
Feb	49	5	11	7	8	9	18	5	112
Mar	42	9	11	10	9	16	18	14	129
Total	121	23	34	28	24	37	53	31	351



**Figure 3. Seasonal distribution of Campylobacter notifications 2004, 2005 and to end Q1 2006**

### Outbreaks of Campylobacter infection

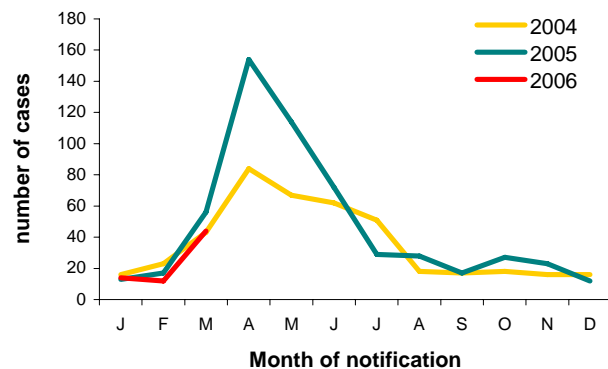
Two family outbreaks of Campylobacter infection were reported in Q1 2006 (Table 1).

## 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 2006, 70 cases of cryptosporidiosis were notified (Table 11), compared to 86 in same period last year and 82 in Q1 2004 (Figure 4).

**Table 11. Cryptosporidiosis Notifications by HSE-Area and Month, Q1 2006**

Cryptosporidiosis	E	M	MW	NE	NW	SE	S	W	Total
Jan	2	1	1	0	0	3	1	6	14
Feb	0	2	1	2	0	0	4	3	12
Mar	1	1	11	2	2	8	13	6	44
Total	3	4	13	4	2	11	18	15	70



**Figure 4. Seasonal distribution of cryptosporidiosis notifications 2004, 2005 and to end Q1 2006**

### Outbreaks of cryptosporidiosis

One general outbreak of cryptosporidiosis was reported by the HSE-S (Table 1).

## NOROVIRUS

Human noroviral infection became a notifiable disease on January 1<sup>st</sup> 2004. There were 785 cases reported in the first quarter of 2006, as shown in Table 12. These data are certainly an under-ascertainment of the true burden of disease due to this pathogen.

### Norovirus outbreaks

Norovirus or suspect viral aetiology is the commonest cause of outbreaks of acute gastroenteritis in Ireland. In the first quarter of 2006 there were 85 outbreaks confirmed or suspected as being caused by this virus,

involving at least 1704 people becoming ill, as outlined in Table 1.

**Table 12. Norovirus Notifications by HSE-Area and Month, Q1 2006**

Noroviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	17	0	5	0	4	2	49	0	77
Feb	26	48	25	2	5	11	49	12	178
Mar	147	93	39	24	16	130	46	35	530
Total	190	141	69	26	25	143	144	47	785

## LISTERIA

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

Five cases of listeriosis were notified in Q1 2006 (Table 4), compared to one in the same period 2005 and 2 in Q1 2004. There was one pregnancy-related case, an associated neonatal case and two non pregnancy-associated adult cases. For the fifth case, the case type was not specified. There was one neonatal death.

## SHIGELLA

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

During Q1 2006, 15 cases of shigellosis were notified (Table 4). This compares with 4 cases notified as shigellosis in Q1 in 2005 and 6 in Q1 2004.

Four cases were reported as *S. sonnei*, seven as *S. flexneri* and four as *Shigella* sp.

### Outbreaks of shigellosis

Two family outbreaks of shigellosis were reported in Q1 2006, one in the HSE-M and one in the HSE-MW (Table 1)

## GIARDIA

Human giardiasis became a notifiable disease on January 1<sup>st</sup> 2004. Prior to this, giardiasis was notifiable in Ireland only in young children under the category 'Gastroenteritis in Children Under 2'.

During quarter 1 2006, 17 cases of giardiasis were notified (Table 4); this compares with 6 cases notified in Q1 2005 and 5 in Q1 2004.

## FOODBORNE INTOXICATIONS

*Bacillus cereus* foodborne infection/intoxication, botulism, *Clostridium perfringens* (type A) foodborne disease and staphylococcal food poisoning became notifiable diseases on January 1<sup>st</sup> 2004. Prior

to this, these diseases were notified under the category of 'Food Poisoning (bacterial other than Salmonella)'.

No cases of foodborne intoxication were notified in Q1 2006 (Table 4).

## ACUTE INFECTIOUS GASTROENTERITIS incl. ROTAVIRUS

Since 1<sup>st</sup> 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 2006, there were 831 notifications of acute infectious gastroenteritis. 764 were reported as rotavirus (Table 13) and 78% of these were in children under 2 years of age.

**Table 13. Rotaviral Infections Notified under the Category of 'Acute Infectious Gastroenteritis' by HSE-Area and Month, Q1 2006**

Rotaviral Infection	E	M	MW	NE	NW	SE	S	W	Total
Jan	21	12	0	9	17	5	4	1	69
Feb	89	40	3	14	34	25	22	0	227
Mar	174	37	21	30	60	51	73	22	468
Total	284	89	24	53	111	81	99	23	764

## NON-IID ZOONOTIC DISEASES

Non-IID zoonoses now notifiable include: anthrax, brucellosis, echinococcosis, leptospirosis, plague, Q Fever, toxoplasmosis, trichinosis, typhus and rabies. The Q1 2006 notifications of these zoonotic diseases are reported by HSE-Area in Table 4.

Twelve cases of toxoplasmosis were notified in this quarter. This compares with 10 cases notified in the same period in 2005 and 4 cases in Q1 2004.

There were 9 cases of brucellosis reported during this quarter compared with 15 in Q1 2005 and 11 in Q1 2004.

Six cases of leptospirosis were notified in Q1 2006; this compares with 1 in Q1 2005 and 5 in Q1 2004.

There were also 2 cases of Q fever notified this quarter, compared to 3 in Q1 in each year 2005 and 2004.

## MALARIA

Malaria is a notifiable disease for many years. The Q1 2006 notifications are reported by HSE-Area in Table 4.

Twenty-five cases of malaria were notified in Q1 2006. This compares with nine cases in Q1 2005 and nine in Q1 2004.

Twenty cases were reported as *P. falciparum*, one as *P. malariae* and two as *P. ovale*; for 2 notifications, the species was not specified.

### Report prepared by:

Ms Fiona Cloak  
Dr Barbara Foley  
Dr Patricia Garvey  
Dr Valerie Jackson  
Dr Paul McKeown