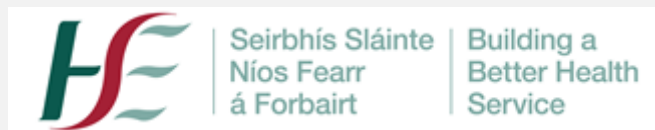


SURVEILLANCE OF INFECTIOUS INTESTINAL (IID), ZONOTIC AND VECTORBORNE DISEASE, AND OUTBREAKS of INFECTIOUS DISEASE IN IRELAND



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

Quarter 1–2018

September 2018

This is the first quarterly report for 2018 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 Q1, 2018

Month	HSE area	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jan	SE	Nursing home	34		30/12/2017	Unknown	Noroviral infection
Jan	SE	Nursing home	68	3	02/01/2018	P-P	Noroviral infection
Jan	E	Nursing home	8		25/12/2017	P-P	Noroviral infection
Jan	NW	Nursing home	14		31/12/2017	P-P	AIG
Jan	MW	Childcare facility		2	23/02/2017	P-P	Cryptosporidiosis
Jan	S	Nursing home	14	0	27/12/2017	P-P	AIG
Jan	S	Nursing home				P-P	Noroviral infection
Jan	W	Comm. Hosp/Long-stay unit	7	1	07/01/2018	P-P	AIG
Jan	SE	Nursing home	12	0	05/01/2018	Not Specified	AIG
Jan	SE	Nursing home	27	0	04/01/2018	P-P	Noroviral infection
Jan	S	Not Specified	9	0	08/01/2018	P-P	Noroviral infection
Jan	M	Hospital	2			Unknown	Noroviral infection
Jan	SE	Comm. Hosp/Long-stay unit	24		11/01/2018	Unknown	AIG
Jan	SE	Comm. Hosp/Long-stay unit	22		12/01/2018	Unknown	Noroviral infection
Jan	SE	Nursing home	4		14/01/2018	Unknown	AIG
Jan	SE	Residential institution	6	0	13/01/2018	Unknown	Noroviral infection
Jan	E	Nursing home	9	0	14/01/2018	P-P & AB	AIG
Jan	M	Nursing home	9	0	10/01/2018	Unknown	AIG
Jan	SE	Nursing home	5		16/01/2018	Unknown	AIG
Jan	E	Comm. Hosp/Long-stay unit	5		13/01/2018	P-P & AB	AIG
Jan	E	Nursing home	12		21/01/2018	P-P & AB	AIG
Jan	SE	Residential institution	29		22/01/2018	Unknown	AIG
Jan	SE	Nursing home	21		23/01/2018	Unknown	AIG
Jan	E	School	19	0	05/12/2017	P-P & AB	AIG
Jan	E	Nursing home	10		10/12/2017	P-P & AB	Noroviral infection
Jan	E	Nursing home	42		21/11/2017	P-P & AB	AIG
Jan	E	Childcare facility	6			P-P & AB	Noroviral infection
Jan	SE	Nursing home	16		22/01/2018	Unknown	AIG
Jan	SE	Residential institution	4		29/01/2018	Unknown	AIG
Jan	S	Nursing home	14		27/01/2018	P-P	Noroviral infection
Feb	S	Comm. Hosp/Long-stay unit	4	0	08/01/2018	P-P	AIG
Feb	S	Travel related	3		11/01/2018	Unknown	Campylobacter infection
Feb	W	Childcare facility	2	0		P-P	Clostridium difficile infection
Feb	E	Nursing home	16		03/02/2018	P-P & AB	AIG
Feb	E	Hospital	9		29/01/2018	P-P	AIG
Feb	S	Not Specified	5			AB	Noroviral infection
Feb	S	Residential institution	8	0	05/02/2018	P-P	AIG
Feb	NW	Residential institution	4		08/02/2018	Not Specified	AIG
Feb	NW	Nursing home	12		08/02/2018	Not Specified	AIG
Feb	E	Hospital	4		10/01/2018	P-P	Clostridium difficile infection
Feb	SE	Nursing home	4		09/02/2018	Unknown	AIG

Month	HSE area	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Feb	E	Childcare facility	25		13/02/2018	P-P & AB	Noroviral infection
Feb	E	Hospital	19		12/02/2018	P-P & AB	Noroviral infection
Feb	W	Restaurant / Cafe	2	0	11/02/2018	Unknown	Noroviral infection
Feb	E	Residential institution	7		14/02/2018	P-P & AB	AIG
Feb	NW	Residential institution	8	0	14/02/2018	Not Specified	AIG
Feb	NW	Residential institution	3		23/02/2018	Not Specified	AIG
Feb	S	Hospital	6			P-P	Noroviral infection
Mar	W	Hospital	31	31		P-P	Noroviral infection
Mar	E	Nursing home	20		01/03/2017	P-P & AB	Noroviral infection
Mar	NE	Nursing home	24	0	07/03/2018	P-P	Noroviral infection
Mar	E	Hospital	3		07/01/2018	P-P	Clostridium difficile infection
Mar	S	Nursing home	9		05/03/2018	P-P	Noroviral infection
Mar	E	Nursing home	28		01/03/2018	P-P & AB	Noroviral infection
Mar	S	Nursing home	5	0	09/01/2018	Not Specified	Clostridium difficile infection
Mar	M	Hospital	3			Unknown	Clostridium difficile infection
Mar	S	Nursing home	19	0	10/03/2018	P-P	Noroviral infection
Mar	S	Nursing home	48	1	05/03/2018	P-P	Noroviral infection
Mar	E	Comm. Hosp/Long-stay unit	2		20/03/2018	P-P	Noroviral infection
Mar	NW	Nursing home	18	0	22/03/2018	P-P	AIG
Mar	W	Hospital	12	12		P-P	Noroviral infection
Mar	SE	Nursing home	11		23/03/2018	P-P	AIG
Mar	W	Nursing home	7		23/03/2018	P-P	AIG
Mar	S	Childcare facility	27		21/03/2018	P-P	AIG

P-P denotes Person-to-Person transmission, FB denotes foodborne, WB denotes waterborne; AB denotes airborne; AIG denotes Acute Infectious Gastroenteritis (unspecified); VTEC denotes infection with Verotoxigenic *E. coli*; NK=unknown

* Total numbers ill does not include asymptomatic cases

Table 2. Family outbreaks of infectious intestinal disease (IID) in Q1, 2018

Month	HSE area	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Disease
Jan	E	Private house	7	2	27/12/2017	FB	Salmonellosis
Jan	M	Private house	1	0	25/12/2017	P-P & Animal	VTEC
Jan	SE	Private house	2		22/12/2017	Unknown	VTEC
Jan	NE	Private house	2		01/01/2018	P-P & WB	VTEC
Feb	SE	Private house	4	1	04/01/2018	P-P	VTEC
Feb	W	Private house	1	0	14/01/2018	P-P & WB	VTEC
Feb	E	Travel related	2			Unknown	Giardiasis
Feb	E	Private house	1	0	29/11/2017	P-P & Animal	Giardiasis
Feb	SE	Private house	2	0	08/02/2018	Unknown	Cryptosporidiosis
Feb	SE	Private house	2	2	17/02/2018	Unknown	Cryptosporidiosis
Feb	NE	Private house	2		24/01/2018	WB	Cryptosporidiosis
Mar	MW	Private house	2	1	28/02/2018	Not Specified	Shigellosis
Mar	M	Private house	2	0	20/03/2018	Unknown	VTEC
Mar	M	Private house	3	1	22/03/2018	Unknown	VTEC
Mar	M	Private house	1	0	23/03/2018	Unknown	VTEC

Mar	SE	Private house	2	2	17/03/2018	Unknown	VTEC
Mar	S	Private house	3		06/03/2018	P-P	Giardiasis

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

* Total numbers ill does not include asymptomatic cases

Table 3. Non-ILD outbreaks in Q1, 2018

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jan	NE	General	Nursing home	26	3	31/12/2017	AB	Influenza
Jan	M	General	Comm. Hosp/Long-stay unit	5	1		Unknown	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	28	0	24/12/2017	Not Specified	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	8		25/12/2017	Not Specified	Influenza
Jan	NW	General	Nursing home	20	3	27/12/2017	Not Specified	Influenza
Jan	E	General	Nursing home	14	0	26/12/2017	P-P & AB	Influenza
Jan	E	General	Hospital	4		26/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	16	0	27/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	11		27/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	6		26/12/2017	P-P & AB	Influenza
Jan	E	General	Residential institution	11		28/12/2017	P-P & AB	Influenza
Jan	E	General	Hospital	14	0	25/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	3		26/12/2017	P-P & AB	Influenza
Jan	E	General	Hospital	4		29/12/2017	P-P & AB	Influenza
Jan	E	General	Residential institution	3	1	28/12/2017	P-P & AB	Influenza
Jan	E	General	Residential institution	3		24/11/2017	P-P	Varicella
Jan	E	General	Residential institution	4	0	03/01/2018	P-P & AB	Influenza
Jan	E	General	Hospital	7	7	26/01/2017	P-P & AB	Influenza
Jan	E	General	Hospital			27/12/2017	P-P & AB	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	16		02/01/2018	Not Specified	Influenza
Jan	S	General	Comm. Hosp/Long-stay unit	11	0	25/12/2017	P-P & AB	Acute respiratory infection
Jan	W	General	Comm. Hosp/Long-stay unit	15	2	01/01/2018	P-P	Acute respiratory infection
Jan	W	General	Nursing home	20	4	28/12/2017	P-P	Influenza
Jan	E	General	Nursing home	20	1	29/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	20		01/01/2018	P-P & AB	RSV
Jan	S	General	Comm. Hosp/Long-stay unit			17/12/2017	P-P	RSV
Jan	S	General	Nursing home	10	0	01/01/2018	P-P & AB	Influenza
Jan	S	General	Nursing home			28/12/2017	P-P & AB	Influenza
Jan	S	General	Comm. Hosp/Long-stay unit			01/01/2018	P-P & AB	Influenza
Jan	S	General	Nursing home	7		27/12/2017	P-P & AB	Acute respiratory infection
Jan	M	General	Comm. Hosp/Long-stay unit	23	1		P-P & AB	Influenza
Jan	NW	General	Nursing home	12	1	30/12/2017	Unknown	Influenza
Jan	W	General	Nursing home	14	3	01/12/2017	P-P	Influenza

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jan	E	General	Nursing home	11	0	20/12/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	17		03/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	3		04/01/2018	P-P & AB	Influenza
Jan	NE	General	Hospital	9		31/12/2017	P-P	Influenza
Jan	SE	General	Residential institution	32	0	03/01/2018	Not Specified	Influenza
Jan	S	General	Comm. Hosp/Long-stay unit	4	1	01/01/2018	P-P	Influenza
Jan	S	General	Comm. Hosp/Long-stay unit	11			P-P	Acute respiratory infection
Jan	S	General	Comm. Hosp/Long-stay unit	14	1	05/01/2018	P-P	Influenza
Jan	S	General	Hospital	3	3	08/01/2018	P-P	CRE (invasive)
Jan	E	General	Hospital	13 pts colonised			P-P	CRE (colonisation)
Jan	MW	General	Hospital	9	0	05/01/2018	P-P & AB	Influenza
Jan	SE	General	Nursing home	2	1	01/01/2018	AB	Influenza
Jan	NW	General	Nursing home	10	1	03/01/2018	Not Specified	Influenza
Jan	W	General	Nursing home	28	4	06/01/2018	P-P	Influenza
Jan	E	General	Nursing home	21			P-P & AB	Influenza
Jan	E	General	Hospital	14	14	01/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	9			P-P & AB	Acute respiratory infection
Jan	E	General	Comm. Hosp/Long-stay unit	6		01/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	7		01/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	6		07/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	5		08/01/2018	P-P & AB	Influenza
Jan	NE	Family	Private house	3	3		P-P	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	14			Not Specified	Influenza
Jan	S	General	Nursing home	5	2	08/01/2018	P-P & AB	Influenza
Jan	S	General	Nursing home			10/01/2018	P-P	Influenza
Jan	S	General	Nursing home	23		31/12/2017	P-P & AB	Influenza
Jan	W	General	Nursing home	17	0	08/01/2018	P-P	Influenza
Jan	W	General	Hospital	5	5	09/01/2018	P-P	Influenza
Jan	NE	General	Nursing home	20	2	10/01/2018	P-P	Influenza
Jan	SE	General	Nursing home	12	0	06/01/2018	P-P	Influenza
Jan	SE	General	Nursing home	10	2		P-P	Influenza
Jan	SE	General	Comm. Hosp/Long-stay unit	4		04/01/2018	P-P	Influenza
Jan	E	General	Nursing home	9			P-P & AB	Influenza
Jan	E	General	Nursing home	8		09/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	14		07/01/2018	P-P & AB	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	18	1	01/01/2018	Not Specified	Influenza
Jan	S	General	Childcare facility	15		11/01/2018	AB	Influenza
Jan	M	General	Nursing home	8	0		P-P & AB	Influenza
Jan	SE	General	Comm. Hosp/Long-stay unit	11	1	09/01/2018	P-P	Influenza
Jan	NE	General	Nursing home	28	1	12/01/2018	P-P	Influenza

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jan	NE	General	Nursing home	17	4	12/01/2018	P-P	Influenza
Jan	S	General	Comm. Hosp/Long-stay unit	12	0	11/01/2018	P-P & AB	RSV
Jan	E	General	Nursing home	7	0	01/01/2018	P-P & AB	Influenza
Jan	SE	General	Nursing home	16	2	17/01/2018	P-P & AB	Influenza
Jan	SE	General	Nursing home	7	0	12/01/2018	P-P & AB	Influenza
Jan	SE	General	Nursing home	11	1	11/01/2018	P-P & AB	Influenza
Jan	SE	General	Hospital	3	3		P-P & AB	Influenza
Jan	NE	General	Nursing home	3	0	10/01/2018	P-P	Influenza
Jan	NE	General	Nursing home	11	1	08/01/2018	P-P	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	12		05/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	10		13/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	3	0	13/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	11		03/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	6		14/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	10		14/01/2017	P-P & AB	Influenza
Jan	E	General	Nursing home	6		12/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	10		14/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	13	0	16/01/2018	P-P & AB	Influenza
Jan	E	General	Other	13		15/01/2018	P-P & AB	Influenza
Jan	NW	General	Comm. Hosp/Long-stay unit	4	1	04/01/2018	Not Specified	Influenza
Jan	NE	General	Nursing home	8	0	16/01/2018	P-P	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	5		02/01/2018	P-P & AB	RSV
Jan	E	General	Nursing home	5		06/01/2018	P-P & AB	RSV
Jan	MW	General	Comm. Hosp/Long-stay unit			11/01/2018	AB	Influenza
Jan	NW	General	Nursing home	6	1	21/01/2018	Not Specified	Influenza
Jan	S	General	Residential institution	3	0	22/01/2018	P-P	Influenza
Jan	W	General	Nursing home	6	2	19/01/2018	P-P	Influenza
Jan	E	General	Nursing home	6		20/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit			16/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	11		20/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	15		20/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	5		17/01/2018	P-P & AB	Influenza
Jan	E	General	Hospital	3	3	23/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	8	2	16/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	6	1	21/01/2018	P-P & AB	Influenza
Jan	SE	General	Nursing home	3	2	12/01/2018	AB	Influenza
Jan	SE	General	Nursing home	23		08/01/2018	AB	Influenza
Jan	E	General	Nursing home	7		22/01/2018	P-P & AB	Influenza
Jan	M	General	Comm. Hosp/Long-stay unit	2	0		P-P & AB	Influenza

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Jan	MW	General	Residential institution	8		19/01/2018	AB	Influenza
Jan	MW	General	Hospital			14/01/2018	AB	Influenza
Jan	NW	General	Residential institution	3	0		Not Specified	Acute respiratory infection
Jan	E	General	Nursing home	13	2	18/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	2		24/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	5	1	24/01/2018	P-P & AB	Influenza
Jan	E	General	Hospital	23		24/01/2018	P-P & AB	Influenza
Jan	W	General	Nursing home	7	1	15/01/2018	P-P & AB	Acute respiratory infection
Jan	W	General	Nursing home	4	1	19/01/2018	P-P & AB	Influenza
Jan	E	General	Hospital	2			P-P	MRSA
Jan	E	General	Hospital	13 pts colonised			P-P	CRE (colonisation)
Jan	E	General	Hospital	5 pts colonised	5		P-P	CRE (colonisation)
Jan	E	General	Nursing home	8	1	26/01/2018	P-P & AB	Influenza
Jan	NE	General	Nursing home	17	1	27/01/2018	P-P	Influenza
Jan	S	General	Residential institution	6	0	28/01/2018	P-P	Influenza
Jan	E	General	Nursing home	12	0	27/01/2018	P-P & AB	Influenza
Jan	E	General	Nursing home	5		27/01/2018	P-P & AB	Influenza
Jan	E	General	Comm. Hosp/Long-stay unit	6		28/01/2018	P-P & AB	Influenza
Jan	W	General	Residential institution	2	0		P-P	Scabies
Feb	E	General	Comm. Hosp/Long-stay unit	6		02/01/2018	P-P & AB	Human metapneumovirus
Feb	SE	General	Hospital	5		24/01/2018	AB	Influenza
Feb	MW	General	Community outbreak	42		03/01/2018	AB	Measles
Feb	NW	Family	Private house	2	2	01/01/2018	P-P	Influenza
Feb	NW	General	Hospital	4 pts colonised		17/11/2017	P-P	CRE (colonisation)
Feb	M	General	Nursing home	15		01/01/2018	Unknown	Acute respiratory infection
Feb	SE	General	Hospital	7		27/01/2018	P-P	Influenza
Feb	S	General	Comm. Hosp/Long-stay unit				P-P	Influenza
Feb	SE	General	Residential institution	37	0	01/02/2018	P-P	Influenza
Feb	W	General	Comm. Hosp/Long-stay unit	12	4	01/02/2018	P-P & AB	Influenza
Feb	E	General	Comm. Hosp/Long-stay unit	12		02/02/2018	P-P & AB	Influenza
Feb	E	General	Nursing home	9		02/02/2018	P-P & AB	Influenza
Feb	M	General	Residential institution	3	1	05/02/2018	P-P & AB	Influenza
Feb	SE	General	Residential institution	8	2	29/01/2018	P-P	Influenza
Feb	W	General	Hospital	2	2	05/02/2018	P-P	Influenza
Feb	E	General	Hospital	8 pts colonised			P-P	VRE (colonisation)
Feb	S	General	Nursing home	5			P-P	Influenza
Feb	E	General	Comm. Hosp/Long-	4	1	10/01/2018	P-P & AB	Influenza

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
			stay unit					
Feb	E	General	Hospital	4	4	09/01/2018	P-P & AB	Influenza
Feb	E	General	Hospital	5			P-P & AB	Influenza
Feb	S	General	Comm. Hosp/Long-stay unit			09/02/2018	AB	Influenza
Feb	E	General	Other	3		12/02/2018	P-P & AB	Influenza
Feb	M	General	Comm. Hosp/Long-stay unit	9		09/02/2018	P-P & AB	Influenza
Feb	SE	General	Nursing home	5	1	09/02/2018	AB	Influenza
Feb	NE	General	Hospital	5		26/01/2018	P-P	Influenza
Feb	E	General	Other	5		13/02/2018	P-P & AB	Acute respiratory infection
Feb	E	General	Comm. Hosp/Long-stay unit	2		14/02/2018	P-P & AB	Influenza
Feb	NE	General	Nursing home	7	2	13/02/2018	P-P	Influenza
Feb	NW	General	Comm. Hosp/Long-stay unit	4		10/02/2018	Not Specified	Influenza
Feb	SE	General	Hospital	17		14/02/2018	AB	Influenza
Feb	NE	General	Nursing home	18	1	12/02/2018	P-P	Influenza
Feb	MW	General	Residential institution	5	4	16/02/2018	AB	Influenza
Feb	S	General	Nursing home	7	1	06/02/2018	P-P	Influenza
Feb	E	General	Nursing home	5	1	18/02/2018	P-P & AB	Influenza
Feb	NW	General	Nursing home	12		17/02/2018	Not Specified	Influenza
Feb	S	General	Residential institution			08/02/2018	P-P	Influenza
Feb	E	General	Hospital	3	3	05/02/2018	P-P	MRSA
Feb	SE	General	Nursing home	9	1	16/02/2018	P-P	Influenza
Feb	NW	General	Hospital	4	4	16/02/2018	Not Specified	Influenza
Feb	E	General	Nursing home	6		23/02/2018	P-P & AB	Influenza
Feb	E	General	Hospital	3		22/02/2018	P-P & AB	Influenza
Feb	M	General	Hospital	8			Unknown	Influenza
Feb	S	General	Nursing home			24/02/2018	P-P	Influenza
Feb	SE	General	Nursing home	21	0	18/02/2018	P-P & AB	Influenza
Feb	SE	General	Nursing home	6	1	20/02/2018	P-P & AB	Influenza
Feb	SE	General	Nursing home	12	2	11/02/2018	P-P & AB	Influenza
Mar	NE	General	Hospital	3		26/02/2018	P-P	Influenza
Mar	SE	General	Nursing home	12	2	10/02/2018	P-P & AB	Influenza
Mar	S	General	Comm. Hosp/Long-stay unit	5	0		P-P	Influenza
Mar	E	General	Hospital	13	13		P-P & AB	Influenza
Mar	NW	General	Nursing home	8		02/03/2018	Not Specified	Influenza
Mar	E	Family	Private house	3		26/02/2018	Unknown	Measles
Mar	MW	General	Nursing home	14	1	01/03/2018	P-P & AB	Influenza
Mar	S	General	Hospital	2		01/08/2017	P-P	Tuberculosis
Mar	NE	General	Nursing home	5	0	07/02/2018	P-P	RSV
Mar	E	General	Other	3		07/02/2018	P-P	Influenza
Mar	NW	General	Hospital	3	3	12/02/2018	Not Specified	Influenza
Mar	NE	General	Hospital	14		03/03/2018	P-P	RSV
Mar	M	General	Comm. Hosp/Long-stay unit	3	1		P-P & AB	Influenza

Month	HSE area	Type of outbreak	Location	No. ill *	No. Hosp.	Date Onset	Suspect mode of transmission	Organism
Mar	E	General	Hospital	4 pts colonised			P-P	CRE (colonisation)
Mar	E	General	Hospital	3 pts colonised			P-P	CRE (colonisation)
Mar	E	General	Hospital	3 pts colonised			P-P	CRE (colonisation)
Mar	E	General	Hospital				P-P	CRE (colonisation)
Mar	E	General	Nursing home	11		09/03/2018	P-P & AB	Influenza
Mar	W	General	Hospital	6	6		P-P & AB	Influenza
Mar	E	General	Hospital	35 pts colonised			P-P	CRE (colonisation)
Mar	NE	Family	Private house	3		05/03/2018	P-P	Influenza
Mar	NW	General	Comm. Hosp/Long-stay unit	6		08/03/2018	Not Specified	Acute respiratory infection
Mar	W	General	Comm. Hosp/Long-stay unit	14	4	07/03/2018	P-P & AB	Influenza
Mar	W	General	Nursing home	25	3	04/03/2018	P-P & AB	Acute respiratory infection
Mar	NW	Family	Private house	2	2	27/02/2018	Not Specified	Influenza
Mar	S	General	Comm. Hosp/Long-stay unit	6		09/03/2018	P-P	Influenza
Mar	W	General	Hospital	5	5		P-P	Influenza
Mar	E	General	Nursing home	8	0	28/02/2018	AB	Influenza
Mar	E	General	Nursing home	37	1	07/03/2018	P-P & AB	Influenza
Mar	W	General	Nursing home	3	1		P-P	Influenza
Mar	S	General	University/College	2		08/02/2018	P-P	Hepatitis A
Mar	E	General	Hospital	19		28/01/2018	P-P & AB	Influenza
Mar	E	General	Hospital	4		13/03/2018	P-P	MRSA
Mar	E	General	Comm. Hosp/Long-stay unit	10		21/03/2018	P-P & AB	Influenza
Mar	E	General	Residential institution	2	1	26/03/2018	AB	Influenza
Mar	MW	General	Nursing home	5		19/03/2018	P-P & AB	Influenza
Mar	E	General	Nursing home	5	1	20/03/2018	P-P & AB	Influenza
Mar	E	General	Nursing home	12	0	25/03/2018	P-P & AB	Influenza
Mar	NE	Family	Private house	2	2	07/03/2018	P-P	Meningococcal disease
Mar	S	General	Nursing home	11	1	25/03/2018	P-P	Influenza
Mar	S	Family	Private house			01/03/2018	P-P	Pertussis
Mar	S	Family	Private house			01/01/2018	P-P	Pertussis

P-P denotes Person-to-Person transmission, WB denotes waterborne; AB denotes airborne; NK denotes unknown; CRE denotes Carbapenemresistant Enterobacteriaceae; Pts denotes patients; RSV denotes Respiratory syncytial virus.

* Total numbers ill does not include asymptomatic cases.

Since July 2001, outbreaks have been reported to HPSC. Preliminary information is provided by a public health professional when the outbreak is first notified. Further information is provided 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 are 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 2018. There were 64 general and 17 family IID outbreaks reported during this period, resulting in at least 899 people being ill.

Acute infectious gastroenteritis (n=31) and norovirus (n=26) were responsible for the most general outbreaks of IID (70%).

The most common cause of family outbreaks of IID was VTEC (n=9) [53%]. Other pathogens responsible for family outbreaks in Q1 2018 were AIG, cryptosporidiosis, giardiasis, salmonellosis and shigellosis (Table 2).

Forty-one general IID outbreaks were transmitted person-to-person/person-to-person & airborne (51%). Fifty-four general IID outbreaks (67%) were reported to have occurred in healthcare settings, i.e. hospitals or residential institutions, during this period.

There were two hundred and nineteen non-IID outbreaks reported during Q1 2018 (Table 3). The most common cause of non IID outbreaks was during this period was influenza (n=177) [81%]. The majority (95%) of influenza outbreaks reported in Q1 2018 occurred in healthcare settings.

Table 4 outlines the outbreak rate per HSE-area for outbreaks notified during Q1 2018.

Table 4. Number of infectious disease outbreaks by HSE Area, Q1 2018

HSE Area	No. of outbreaks	Rate per 100,000 population
E	115	7.0
M	16	5.4
MW	10	3.0
NE	21	4.5
NW	26	10.0
SE	43	8.4
S	45	7.0
W	24	5.3
Total	300	6.3

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 2018 is shown in Table 5.

Table 5. Infectious intestinal, zoonotic and vectorborne disease notifications Q1, 2018 by HSE-Area

Infectious Intestinal Disease	E	M	MW	NE	NW	SE	S	W	Total
<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
<i>Campylobacter</i> infection ¹	242	37	38	36	12	76	96	53	589
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	21	24	9	5	26	16	17	124
Giardiasis	31	0	0	1	0	9	18	6	65
Listeriosis	3	0	0	0	0	1	0	0	4
Noroviral infection ²	167	16	22	30	1	22	87	21	366
Paratyphoid	~	~	~	~	~	~	~	~	2
Rotavirus infection ³	50	12	1	15	0	10	5	3	96
Salmonellosis	23	1	2	5	0	3	7	2	43
Shigellosis	10	1	3	2	0	2	4	1	23
Staphylococcal food poisoning	0	0	0	0	0	0	0	0	0
Typhoid	~	~	~	~	~	~	~	~	2
Verotoxigenic <i>Escherichia coli</i> infection	26	6	18	14	1	32	14	14	124
Yersiniosis	0	0	0	0	0	0	0	0	0
Zoonotic Disease									
Anthrax	0	0	0	0	0	0	0	0	0
Brucellosis	0	0	0	0	0	0	0	0	0
Echinococcosis	0	0	0	0	0	0	0	0	0
Leptospirosis	2	1	0	1	0	1	0	0	5
Plague	0	0	0	0	0	0	0	0	0
Q Fever	0	0	0	0	0	0	0	0	0
Rabies	0	0	0	0	0	0	0	0	0
Toxoplasmosis	1	1	1	0	1	0	0	0	4
Trichinosis	0	0	0	0	0	0	0	0	0
Vectorborne Disease									
Chikungunya disease	0	0	0	0	0	0	0	0	0
Dengue	1	0	0	0	0	0	0	0	1
Lyme disease (neuroborreliosis)	0	0	0	0	0	1	0	0	1
Malaria	14	3	0	1	1	0	1	1	21
Typhus	0	0	0	0	0	0	0	0	0
West Nile fever	0	0	0	0	0	0	0	0	0
Zika Virus Infection	0	0	0	0	0	0	0	0	0

¹ From August 2017, campylobacter notifications from HSE-East re based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

² Between March 2013 and July 2017, norovirus notifications from HSE-East were based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

³ Between March 2013 and July 2017, rotavirus notifications from HSE-East were based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

SALMONELLA ENTERICA

Human salmonellosis (*S. enterica*) is a notifiable disease. The National *Salmonella*, *Shigella* and *Listeria* Reference Laboratory (NSSLRL) 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 2018. Comparison of trends with previous years is shown in Figure 1.

Table 6. Salmonellosis notifications by HSE-Area and month, Q1 2018

Month	E	M	MW	NE	NW	SE	S	W	Total
Jan	10	0	1	0	0	1	2	0	14
Feb	4	1	0	4	0	0	1	1	11
Mar	9	0	1	1	0	2	4	1	18
Total	23	1	2	5	0	3	7	2	43

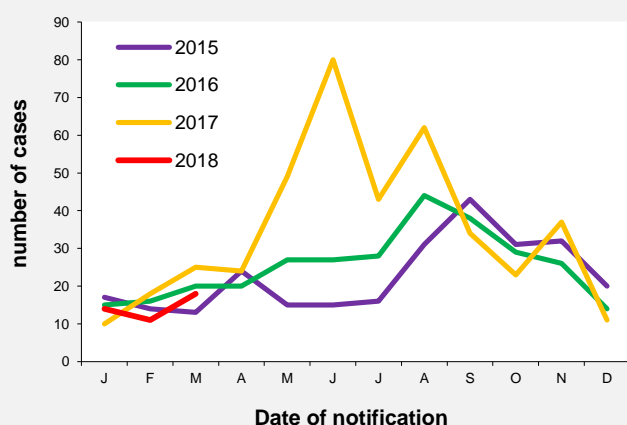


Figure 1. Seasonal distribution of human salmonellosis notifications, 2015 to end Q1 2018

Table 7 shows the serotypes for the *Salmonella* isolates typed by the NSSLRL in the first quarter of 2018 by HSE area (n=44). The commonest human serotypes reported this quarter were *S. Typhimurium** (n=12, 27%) and *S. Enteritidis* (n=11).

Table 8 shows the serotype distribution of confirmed *Salmonella* cases by travel status this quarter among salmonellosis notifications on CIDR. 19% (n=8) were travel-associated, 44% (n=19) were indigenous and for 16 cases,

* includes 3 cases of monophasic *S. Typhimurium* 4,5,12:i:-

the country of infection was unknown/not specified.

Outbreaks of salmonellosis

There was one family outbreak of salmonellosis notified in Q1 2018. (Tables 1 & 2).

Table 7. Serotypes of human *Salmonella* isolates referred to NSSLRL Q1 2018

Serotype	E	M	MW	NE	NW	SE	S	W	Total
4,[5],12:i:-	2	0	0	1	0	0	0	0	3
Agona	0	0	0	1	0	0	0	0	1
Altona	0	0	0	0	0	0	0	1	1
Brandenburg	2	0	0	0	0	0	0	0	2
Coeln	1	1	0	0	0	0	0	0	2
Enteritidis	6	0	1	0	0	2	1	1	11
Give	1	0	0	0	0	0	0	0	1
Idikan	1	0	0	0	0	0	0	0	1
Illa 41:z4,z23	0	0	0	0	0	0	1	0	1
Infantis	1	0	0	0	0	0	0	0	1
IV 44:z4,z23	0	0	0	1	0	0	0	0	1
IV 50:g,z51	0	1	0	0	0	0	0	0	1
Kentucky	0	0	0	0	0	1	0	0	1
Kisangani	1	0	0	0	0	0	0	0	1
Litchfield	0	0	0	0	0	0	2	0	2
Newport	2	0	0	0	0	0	0	0	2
Paratyphi A	1	0	1	0	0	0	0	0	2
Rissen	1	0	0	0	0	0	0	0	1
Typhi	0	0	1	0	0	0	1	0	2
Typhimurium	2	0	1	0	0	1	0	1	5
Unnamed	0	0	0	0	0	0	1	0	1
Total	21	2	4	3	0	4	6	3	43

Data Source: NSSLRL

Table 8. Confirmed *Salmonella* notifications by serotype and travel status, Q1 2018 [n(%)]

Serotype	Indigenous	Travel-associated	Unk/not specified	Total
<i>S. Enteritidis</i>	3 (11%)	2 (25%)	4 (31%)	9 (21%)
<i>S. Typhimurium</i> *	7 (36%)	0 (0%)	4 (25%)	11 (26%)
Other	8 (42%)	5 (63%)	5 (31%)	18 (42%)
<i>Salmonella</i> spp	2 (11%)	1 (12%)	2 (13%)	5 (11%)
Total	20 (100%)	8 (100%)	15 (100%)	43 (100%)

Note: Data source CIDR. Travel status is inferred from *Country of Infection* variable on CIDR. Note excludes probable notifications
* Includes monophasic *S. Typhimurium* 4,5,12:i:-

S. Typhi and *S. Paratyphi*

There were two cases of typhoid reported to CIDR in Q1 2018, both of which were associated with travel to the Indian Sub-Continent.

There were two cases of paratyphoid reported this quarter. One case was associated with travel to the Indian Sub-Continent while the country of infection was unknown for the second case.

Outbreaks of *S. Typhi* and *S. Paratyphi*

There were no outbreaks of typhoid or paratyphoid notified in Q1 2018.

VEROTOXIGENIC *E. COLI* (VTEC)

Verotoxigenic *E. coli* (VTEC) became a notifiable disease on January 1st 2012. Previously, VTEC were notified under the category of Enterohaemorrhagic *E. coli* between 2004 and 2011.

One hundred and twenty-five cases of VTEC were notified this quarter, the regional distribution of which is shown in Table 9. This compares with 124 VTEC cases notified in Q1 2017 and 104 in Q1 2016 (figure 2).

Table 9 shows the number of VTEC cases reported by case classification and HSE-area and Table 10 shows the number of VTEC cases by serogroup and month, Q1 2018.

Table 9. Number VTEC notified by case classification and HSE-area, Q1 2018

Case classification	E	M	MW	NE	NW	SE	S	W	Total
Confirmed	26	4	17	11	1	32	13	12	116
Probable	0	2	1	3	0	0	0	2	8
Possible	0	0	0	0	0	0	0	0	0
Total	26	6	18	14	1	32	13	14	124

Table 10. VTEC notified by serogroup and month, Q1 2018

Month	O157	O26	Other	Total
Jan	10	6	27	43
Feb	2	3	24	29
Mar	7	15	30	52
Total	19	24	81	124

Four VTEC cases notified this quarter were reported as having developed HUS – one O157, one O55, one O183 and one reported on the basis of clinical criteria.

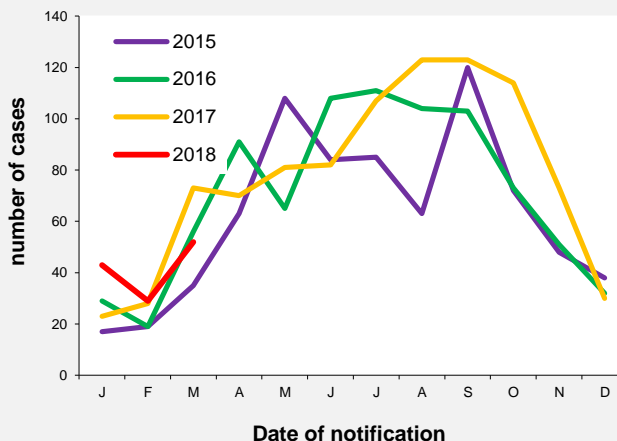


Figure 2. Seasonal distribution of VTEC cases notified 2015 to end Q1 2018

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 11 shows the vt types of VTEC cases notified in Q1 2018.

Table 11. Verotoxin typing profiles of *E. coli* referred to the HSE DML Public Health Laboratory, Cherry Orchard Hospital in Q1 2018

Serogroup	vt1	vt2	vt1+vt2	Not spec.	Total
O157	0	11	5	3	19
O26	6	3	14	1	24
Other	26	29	12	12	79
Total	32	43	31	16	122*

Data Source: PHL Cherry Orchard

*excludes one probable epi linked case and one possible infection

Outbreaks of VTEC infection

Nine family outbreaks of VTEC infection were reported during this quarter (Tables 1 & 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 2018 are shown in Table 12. There were 589 cases of campylobacteriosis notified in Q1 2018 compared to 498 in the same period in 2017 and 558 in Q1 2016 (Figure 3).

From August 2017, campylobacter notifications from HSE-East are based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

Table 12. Campylobacter notifications by HSE-Area and month, Q1 2018

Month	E	M	MW	NE	NW	SE	S	W	Total
Jan	91	16	12	17	2	22	36	14	210
Feb	77	10	9	9	1	9	20	16	151
Mar	74	11	17	10	9	45	39	23	228
Total	242	37	38	36	12	76	95	53	589

Outbreaks of Campylobacter infection

There was one general outbreak of campylobacteriosis reported in Q1 2018, associated with foreign travel (Tables 1 and 2).

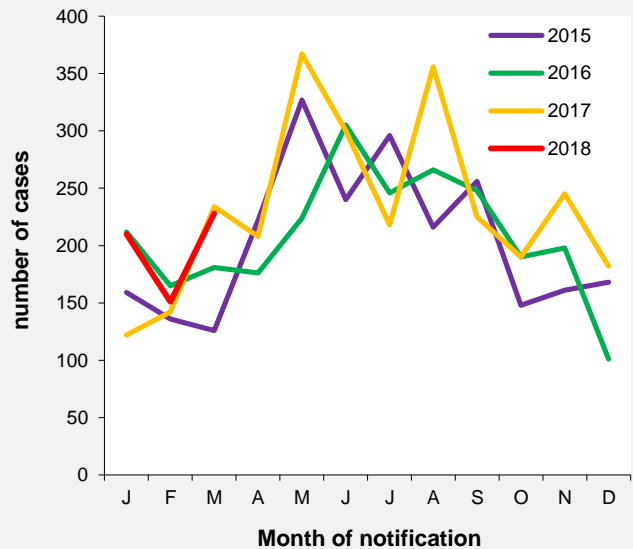


Figure 3. Seasonal distribution of Campylobacter notifications 2015 to end Q1 2018

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 2018, 124 cases of cryptosporidiosis were notified (Table 13), compared to 142 in the same period in 2017 and 144 in Q1 2016 (Figure 4).

Table 13. Cryptosporidiosis notifications by HSE-Area and month, Q1 2018

Month	E	M	MW	NE	NW	SE	S	W	Total
Jan	0	3	17	1	1	3	2	4	31
Feb	3	7	1	3	0	7	1	3	25
Mar	3	11	6	5	4	16	13	10	68
Total	6	21	24	9	5	26	16	17	124

Outbreaks of cryptosporidiosis

There was one general and three family outbreaks of cryptosporidiosis reported in quarter 1 2018 (Tables 1 and 2).

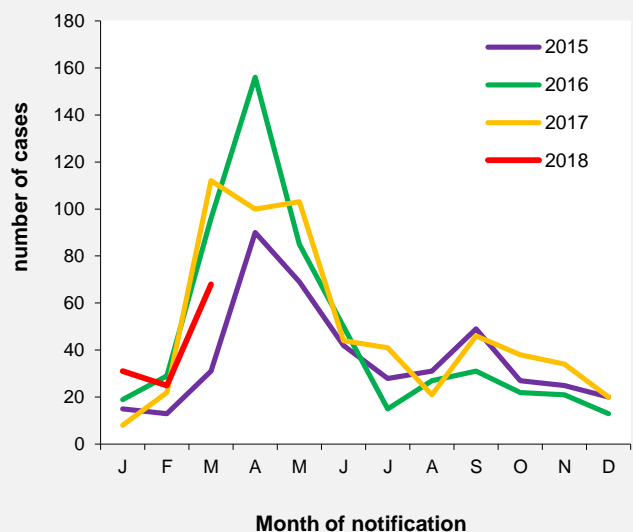


Figure 4. Seasonal distribution of cryptosporidiosis notifications 2015 to end Q1 2018

NOROVIRUS

Human noroviral infection became a notifiable disease on January 1st 2004. Since March 2013, norovirus notifications from HSE-East are based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

There were 366 cases notified in the first quarter of 2018 (Table 14). These data are certainly an under-ascertainment of the true burden of disease due to this pathogen.

Table 14. Norovirus notifications by HSE-Area and month, Q1 2018

Month	E	M	MW	NE	NW	SE	S	W	Total
Jan	57	8	7	13	1	19	41	2	148
Feb	51	4	7	6	0	0	17	5	90
Mar	59	4	8	11	0	3	29	14	128
Total	167	16	22	30	1	22	87	21	366

Norovirus outbreaks

Norovirus or suspect viral aetiology is the commonest cause of outbreaks of acute

gastroenteritis in Ireland. In the fifth quarter of 2017, there were twenty-six outbreaks confirmed as being caused by this virus, involving at least 456 people becoming ill, as outlined in tables 1 & 2. The seasonal trend is outlined in figure 5.

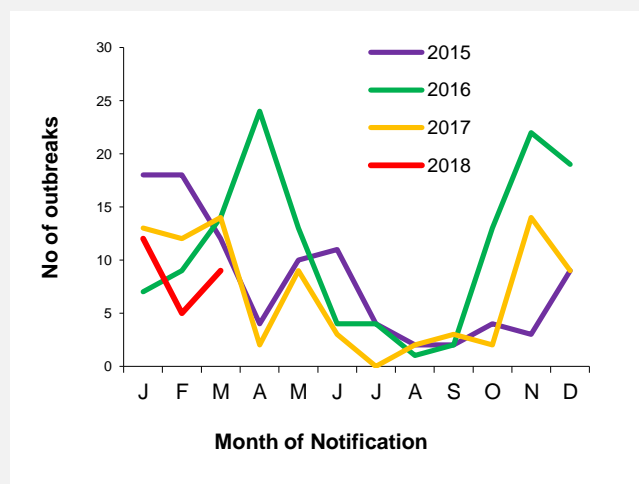


Figure 5. Seasonal distribution of confirmed norovirus outbreaks, 2015 to end Q1 2018

SHIGELLA

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

During Q1 2018, twenty-two cases of shigellosis were notified (Table 5). This compares with fifteen cases notified in Q1 2017 and nineteen in Q1 2016.

Eight cases were travel related and the country of infection was reported as Ireland for a further seven cases. The country of infection was reported as unknown/not specified for the remaining seven cases.

Table 15: Species and serotype distribution of human *Shigella* isolates referred to the NSSLRL in Q1 2018

Serotype	Number of isolates
<i>Shigella boydii</i>	1
<i>Shigella flexneri</i> 1b	2
<i>Shigella flexneri</i> 2a	2
<i>Shigella flexneri</i> 3a	2
<i>Shigella flexneri</i> 6	2
<i>Shigella sonnei</i>	8
Total	17

Data Source: NSSLRL

Outbreaks of shigellosis

There was one family outbreak of shigellosis notified in Q1 2018 (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 1, 2018, sixty-five cases of giardiasis were notified (Table 5); this compares with 67 cases notified in Q1 2017 and 55 in Q1 2016.

Nine cases were reported to have acquired their illness abroad. Country of infection was reported as Ireland for twelve cases and 'not specified' or 'unknown' for the remaining forty-four cases.

Outbreaks of giardiasis

There were three family outbreaks of giardiasis notified in Q1 2018 (Table 2).

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 four adult (including one pregnancy related) cases of listeriosis notified in Q1 2018, compared to six cases in quarter 1 2017 and six in quarter 1 2016.

Outbreaks of listeriosis

There were no outbreaks of listeriosis notified in Q1 2018 (Table 2).

Three isolates were referred for typing to NSSLRL this quarter (Table 16).

Table 16: Serotypes of human *Listeria* isolates referred to the NSSLRL in Q1 2018

Serotype	Number of isolates
1/2a	1
4b	2

Data Source: NSSLRL

ROTAVIRUS INFECTION

Prior to 2004, rotavirus cases were notified under the "Gastroenteritis in children under two years" disease category. From 2004 to 2010, rotavirus was notifiable in all age groups under the "Acute Infectious Gastroenteritis" (AIG) disease category, until it became notifiable as a disease in its own right under the Infectious Diseases (Amendment) Regulations 2011 (S.I. No. 452 of 2011). Between March 2013 and July 2017, rotavirus notifications from HSE-East were based on laboratory testing results rather than patient episodes. Notifications from HSE-E may also refer to area of laboratory testing rather than area of patient residence.

Rotavirus notifications for the first quarter of 2018 are shown in Table 17 and Figure 6.

Table 17. Rotavirus infection by HSE-Area and month, Q1 2018

Month	E	M	MW	NE	NW	SE	S	W	Total
Jan	17	8	0	4	0	0	3	3	35
Feb	17	1	0	6	0	3	1	0	28
Mar	16	3	1	5	0	7	1	0	33
Total	50	12	1	15	0	10	5	3	96

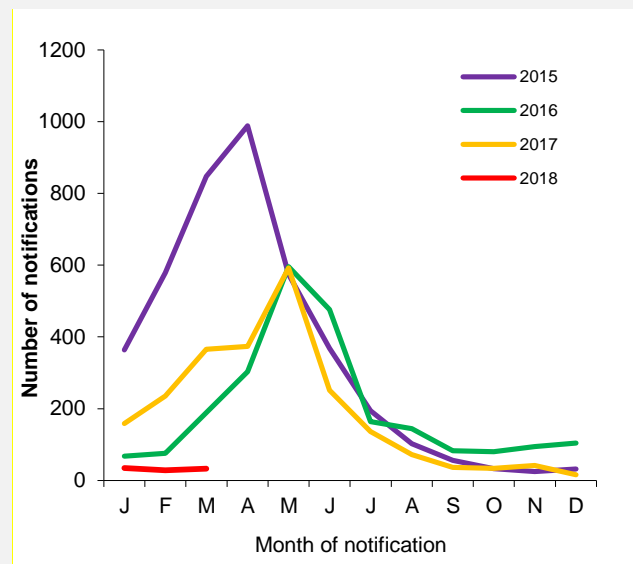


Figure 6. Seasonal distribution of rotavirus notifications, 2015 to end Q4 2018

Outbreaks of rotavirus

There were no outbreaks of rotavirus notified this quarter (Table 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 reported in Q1 2018.

NON-IID ZONOTIC DISEASES

Non-IID zoonoses now notifiable include: anthrax, brucellosis, echinococcosis, leptospirosis, plague, Q fever, toxoplasmosis, trichinosis and rabies. The Q1 2018 notifications of these zoonotic diseases are reported by HSE-Area in Table 5.

Two leptospirosis cases this quarter are believed to have acquired their infection occupationally, one is believed to have been exposed during recreational/leisure activity while source of infection for the remaining two cases is not known.

Four cases of toxoplasmosis were notified in this quarter. This compares with six cases notified in the same period in 2017 and eleven cases in Q1 2016.

There were no cases of brucellosis notified in Q1 2018. This compares with none in Q1 2017 and none in the same period in 2016.

There were five cases of leptospirosis notified in Q1 2018. This compares with three cases in Q1 2017 and two cases in Q1 2016.

There were no cases of echinococcosis, trichinosis or Q Fever notified this quarter.

MALARIA

Malaria has been a notifiable disease for many years. The Q1 2018 notifications are reported in Table 5 by HSE-Area.

Five cases were exposed in Sub-Saharan Africa. Country of infection is unknown/not specified for the remaining sixteen cases this quarter.

Twenty-one cases of malaria were notified in Q1 2018. This compares with nine cases reported in Q1 2017 and seven in Q1 2016.

Four cases cited 'visiting family in country of origin' as their reason for travel and one case was identified in a new entrant to Ireland. Travel information was not specified/unknown for the remaining sixteen cases this quarter.

Seventeen cases this quarter were reported as *P. falciparum*, one as *P. vivax* and two as *P. ovale*. There was no species identified for the remaining case.

OTHER NOTIFIABLE VECTORBORNE DISEASES

Under Infectious Diseases (Amendment) Regulations 2011 (S.I. No. 452 of 2011) (Sept 2011), Chikungunya disease, Dengue, Lyme disease (neuroborreliosis) and West Nile fever were made notifiable. Zika virus infection is a notifiable disease in Ireland under the Infectious Diseases (Amendment) Regulations 2016 (S.I. No. 276 of 2016).

There was one case of Lyme disease (neuroborreliosis) reported in Q1 2018.

There was one case of Dengue fever notified in Q1 2018, associated with travel to SE Asia.

The Q1 2018 notifications are reported in Table 5 by HSE-Area.

There were no notifications of Chikungunya disease, West Nile or Zika virus infection fever this quarter.

Health Protection Surveillance Centre
25-27 Middle Gardiner St, Dublin 1, Ireland
www.hpsc.ie
Tel: +353-1-8765300
Fax: +353-1-8561299

Report prepared by:
Ms Fiona Cloak
Dr Patricia Garvey
Ms. Sarah Jackson
Dr Paul McKeown