

# 7. Outbreaks

## Summary

Number of outbreaks: 508  
 Number of IID outbreaks: 315  
 Number of non-IID outbreaks: 193

During 2015, 508 outbreaks of infectious diseases were reported with 5,578 associated cases of illness, including 242 (4.3%) cases hospitalised and 44 deaths.\* Regional variation in outbreaks was observed between HSE areas with the highest rates<sup>†</sup> observed in HSE-NW (20.9/100,000 population) while the lowest rate was observed in HSE-E at (8.3) and – MW (8.2). Table 1 details the regional distribution of all outbreaks by HSE area and disease.

The number of outbreaks peaked between January and March. The January peak observed was mainly due to high numbers of norovirus and acute infectious gastroenteritis (AIG) outbreaks, February was mainly due to influenza and norovirus, while the March peak was mostly due to influenza and norovirus outbreaks. Figure 1 illustrates the number of IID and non-IID outbreaks by month of notification during 2015.

Similar to previous years, airborne/person-to-person spread was reported as the mode of transmission for the majority of outbreaks (76.4%, n=388). Table 2 details all outbreaks by infectious disease and probable mode of transmission.

The most frequently reported outbreak locations were private houses (n=131, 25.8%), nursing homes (n=112, 22.0%) and community hospital/long-stay units (n=80, 15.7%). The highest numbers ill were reported from outbreaks in nursing homes (n=1,773), community hospital/long-stay units (n=1,165) and hospitals (n=735).

General outbreaks accounted for 72.2% (n= 367) of all outbreaks notified during 2015. The remaining outbreaks (27.8%, n= 141) were reported as family/household outbreaks.

\* Outbreak data extracted from CIDR on 16/08/2016.

<sup>†</sup> All rates are calculated per 100,000 population

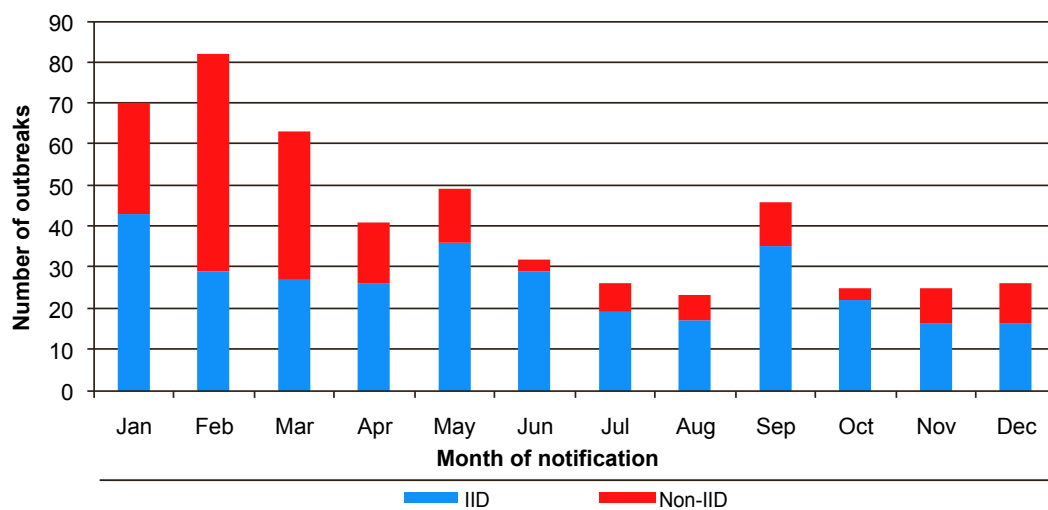


Figure 1: Number of IID and non-IID outbreaks by month of notification, 2015

Table 1 Number of IID and non-IID outbreaks by disease and HSE area, 2015

IID/ Non-IID	Disease	HSE E	HSE-M	HSE-MW	HPSC	HSE-NE	HSE-NW	HSE-SE	HSE-S	HSE-W	Total
IID	Noroviral infection	29	6	3		8	8	14	18	11	97
	Verotoxigenic <i>E. coli</i> infection	6	16	11	1	14	4	12	15	12	91
	Acute infectious gastroenteritis	21	4	2		2	7	10	12	6	64
	Cryptosporidiosis	1	3	1			1	4	3	5	18
	<i>C. difficile</i> infection	5		1		2				4	12
	Salmonellosis	2	1	1		2		1		2	9
	Rotavirus infection					2	3			1	6
	<i>Campylobacter</i> infection	1	1	1		1				2	6
	Giardiasis	1							2	1	4
	Hepatitis A (acute)	3	1								4
	Shigellosis	1	1							1	3
	Typhoid	1									1
Non-IID	Influenza	25	5	7		6	15	10	19	6	93
	Mumps	15	2	4		3	6	1	5	4	40
	Acute respiratory infection	6					6	5	9	2	28
	Respiratory syncytial virus infection	3				1	2			1	7
	Pertussis	4	1					1			6
	Tuberculosis						1		3	1	5
	<i>S. pyogenes</i> / suspected <i>S. pyogenes</i>	2				1					3
	MRSA	2									2
	Aspergillosis	1									1
	Hand foot & mouth disease	1									1
	Outbreak	1									1
	Measles						1				1
	Hepatitis B									1	1
	Impetigo							1			1
	Chickenpox	1									1
<i>Acinetobacter</i> MDR	1									1	
Invasive <i>E. coli</i>	1									1	
<b>Total number of outbreaks</b>		<b>134</b>	<b>41</b>	<b>31</b>	<b>1</b>	<b>42</b>	<b>54</b>	<b>59</b>	<b>86</b>	<b>60</b>	<b>508</b>
<b>Crude outbreak incidence rate</b>		<b>8.3</b>	<b>14.5</b>	<b>8.2</b>	<b>n/a</b>	<b>9.5</b>	<b>20.9</b>	<b>11.9</b>	<b>12.9</b>	<b>13.5</b>	<b>11.1</b>

Table 2: Number of IID and non-IID outbreaks by disease and probable route of transmission, 2015

IID /Non-IID	Disease	PP/ Air-borne	Animal contact	Food-borne	Water-borne	Unknown	Other	Total
IID	Noroviral infection	90				7		<b>97</b>
	Verotoxigenic <i>E. coli</i> infection	32	10	2	18	28	1	<b>91</b>
	Acute infectious gastroenteritis	50		2		12		<b>64</b>
	Cryptosporidiosis	7	5	1	3	2		<b>18</b>
	<i>C. difficile</i> infection	9				3		<b>12</b>
	Salmonellosis	4	1			4		<b>9</b>
	Rotavirus infection	6						<b>6</b>
	<i>Campylobacter</i> infection	2	2	1		1		<b>6</b>
	Giardiasis	1			3			<b>4</b>
	Hepatitis A (acute)	3				1		<b>4</b>
	Shigellosis	2				1		<b>3</b>
	Typhoid					1		<b>1</b>
Non-IID	Influenza	90				3		<b>93</b>
	Mumps	38				2		<b>40</b>
	Acute respiratory infection	26				1	1	<b>28</b>
	Respiratory syncytial virus infection	6				1		<b>7</b>
	Pertussis	6						<b>6</b>
	Tuberculosis	5						<b>5</b>
	<i>S. pyogenes/ suspected S. pyogenes</i>	3						<b>3</b>
	MRSA	2						<b>2</b>
	Aspergillosis	1						<b>1</b>
	Hand Foot and Mouth Disease	1						<b>1</b>
	Outbreak						1	<b>1</b>
	Measles	1						<b>1</b>
	Hepatitis B	1						<b>1</b>
	Impetigo	1						<b>1</b>
	Chickenpox - hospitalised cases	1						<b>1</b>
	<i>Acinetobacter</i> MDR						1	<b>1</b>
Invasive <i>E. coli</i>						1	<b>1</b>	
Total		<b>388</b>	<b>18</b>	<b>6</b>	<b>24</b>	<b>69</b>	<b>3</b>	<b>508</b>

**Infectious intestinal disease (IID) outbreaks:**

During 2015, 315 IID outbreaks were reported, accounting for 62.0% of all outbreaks. This was an increase of 7% compared to the number reported during 2014 (n=294). After norovirus, the next most commonly reported IID outbreaks were verotoxigenic *E. coli* infection (VTEC) and AIG. Table 3 details the total number ill by disease and the median number ill per outbreak.

**Non-infectious intestinal disease (Non-IID) outbreaks:**

During 2015, 193 non-IID outbreaks were reported, accounting for 38.0% of all outbreaks. This represents a decrease of 4.7% compared to the number reported during 2014 (n=141). After influenza, the next most commonly reported non-IID outbreaks were mumps and acute respiratory infection.

Table 3: Outbreak disease by total number ill and median<sup>†</sup> number ill, 2015

IID/Non-IID	Disease	Total number ill	Median number ill per outbreak
IID	Noroviral infection	1887	16
	Acute infectious gastroenteritis	779	8
	Verotoxigenic <i>E. coli</i> infection	227	2
	Cryptosporidiosis	53	2
	<i>C. difficile</i> infection	42	3
	Shigellosis	36	2
	Rotavirus infection	25	2
	Salmonellosis	22	2
	<i>Campylobacter</i> infection	15	2
Non-IID	Influenza	1569	10
	Mumps	372	4
	Acute respiratory infection	369	10
	Respiratory syncytial virus infection	72	10
	Tuberculosis	18	3
	Pertussis	14	2

<sup>†</sup> Median values shown for diseases with more than five outbreaks.