

### Definition/Description:

Enteric, food and waterborne illnesses include communicable diseases that result in gastrointestinal illness through consumption of or exposure to contaminated food or water. Laboratories and health care professionals report cases of notifiable enteric, food and waterborne illnesses to the Director of Communicable Disease Control at Manitoba Health. Case definitions for these illnesses are outlined in the provincial *Communicable Disease Management Protocol Manual*.<sup>1</sup>

### Source:

- *Case Event (Numerator) Data*: Communicable Disease Control Unit, Public Health Branch, Manitoba Health
- *Population (Denominator) Data*: Decision Support Services, Health Information Management Branch, Manitoba Health
- *Tabulations*: Population Health and Health Systems Analysis Unit, Quality and Decision Support, Winnipeg Regional Health Authority

### Findings:

In total, 2,489 cases of enteric, food and waterborne illnesses were reported in the WHR between January 1, 1996 and December 31, 2002; with a 5-year (1998-2002) crude rate of infection of 0.55 per 1000 population (Table ENT1). The most common illnesses reported included Campylobacteriosis (0.14 per 1000), Salmonellosis (0.12 per 1000), Giardiasis (0.11 per 1000) and verotoxigenic *E. coli* (0.05 per 1000), accounting for roughly three-quarters of all cases. Annual incidence rates for these illnesses are presented in Figure ENT1. In addition, age-specific information and the frequency of reported cases by Community Area are presented in Table ENT2 and Table ENT3 respectively.

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<sup>1</sup> Communicable Disease Management Protocol Manual. Communicable Disease Control Unit, Manitoba Health, 2001.

**Table ENT1**  
**Enteric, Food and Waterborne Illnesses: Number of Cases and Crude Rate per 1000, WHR, 1996-2002**

Illness Category/Pathogen	1996	1997	1998	1999	2000	2001	2002	1996-2002	5-Year Crude Rate*
Campylobacteriosis	85	92	109	71	112	80	71	620	0.14
Salmonellosis	120	79	69	88	81	80	79	596	0.12
Giardiasis*	0	16	71	66	82	73	53	361	0.11
Verotoxigenic <i>E. coli</i>	53	14	37	38	32	22	32	228	0.05
Amebiasis	20	15	23	24	26	30	18	156	0.04
<i>Clostridium perfringens</i>	43	19	12	13	27	11	13	138	0.02
Hepatitis A	59	43	17	6	4	2	5	136	0.01
Shigellosis	19	16	20	12	6	7	8	88	0.02
Cryptosporidiosis**	0	0	0	6	10	15	3	34	0.01
<i>Bacillus cereus</i>	12	2	1	3	7	3	3	31	0.01
Yersiniosis	2	1	4	8	3	5	2	25	0.01
Listeriosis	3	0	0	4	10	4	3	24	0.01
Food poisoning, other	0	0	1	0	3	5	9	18	0.01
Typhoid	2	2	2	2	3	3	0	14	0.00
Paratyphoid	0	2	1	0	1	2	1	7	0.00
<i>Staphylococcus aureus</i> (stool)	1	1	0	2	1	1	0	6	0.00
Botulism	0	0	0	0	1	1	1	3	0.00
Hemolytic Uremic Syndrome**	0	0	0	0	1	1	1	3	0.00
<i>Vibrio Parahaemolyticus</i>	0	0	0	1	0	0	0	1	0.00
<b>Total</b>	<b>419</b>	<b>302</b>	<b>367</b>	<b>344</b>	<b>410</b>	<b>345</b>	<b>302</b>	<b>2489</b>	<b>0.55</b>

\*Provincial surveillance initiated in September 1997. \*\*Provincially notifiable beginning January 1999.

**Figure ENT1**  
**Common Enteric, Food and Waterborne Illnesses: Annual Incidence of Infection, Winnipeg Health Region, 1996-2002 (Both Genders, All Ages Combined)**

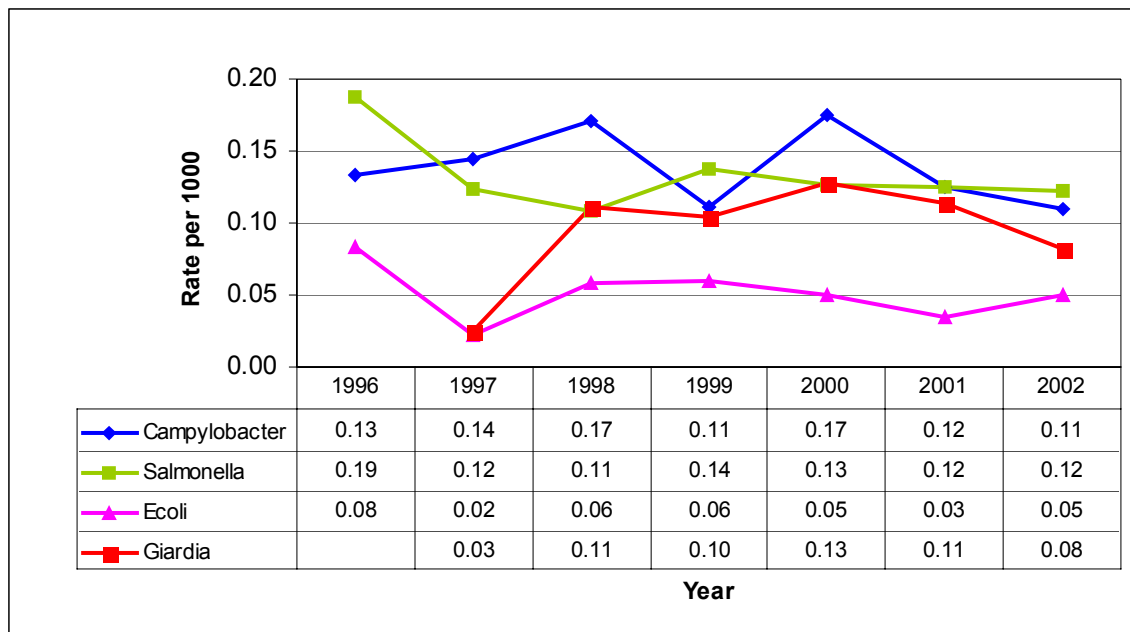


Table ENT2

## Common Enteric, Food and Waterborne Illness: Number of Cases by Age Group and Gender, Winnipeg Health Region, 1996-2002

Disease Category	Age Group	Gender	1996-2002	1996	1997	1998	1999	2000	2001	2002
<b>Campylobacteriosis</b>	00-09	F	18	2	3	2	2	5	3	1
		M	37	2	3	7	5	8	6	6
	10-19	F	20	2	7	4	2	1	4	
		M	32	6	5	4	5	5	1	6
	20-29	F	70	14	11	15	6	10	8	6
		M	76	10	14	14	8	16	9	5
	30-39	F	39	8	5	5	5	6	6	4
		M	74	16	10	18	7	11	5	7
	40-49	F	51	6	7	10	4	9	7	8
		M	46	4	11	7	3	8	9	4
	50-59	F	37	6		2	10	10	7	2
		M	32	1	4	6	5	7	6	3
	60-69	F	19	1	4	5	1	4	1	3
		M	16		4	3	1	2	1	5
	70-79	F	24	2	2	3	3	4	4	6
		M	14	1	2	1	1	3	3	3
	80+	F	11	3		2	2	3		1
		M	4	1		1	1			1
		<b>TOTAL</b>	<b>620</b>	<b>85</b>	<b>92</b>	<b>109</b>	<b>71</b>	<b>112</b>	<b>80</b>	<b>71</b>
<b>Giardiasis</b>	00-09	F	36			11	5	4	13	3
		M	56		1	9	14	19	7	6
	10-19	F	14		1	2	2	1	3	5
		M	13		1	3	1	4	3	1
	20-29	F	25		2	3	9	3	6	2
		M	34		4	6	6	6	6	6
	30-39	F	32		1	10	6	6	5	4
		M	42			5	5	12	13	7
	40-49	F	22		2	8	2	4	2	4
		M	26		1	2	1	14	3	5
	50-59	F	19			4	7		4	4
		M	15			2	3	4	2	4
	60-69	F	9		1	2	1	2	2	1
		M	7		1	1	1	2	1	1
	70-79	F	4		1		1		2	
		M	5			1	2	1	1	
	80+	F	2			2				
		M	0							
		<b>TOTAL</b>	<b>361</b>	<b>0</b>	<b>16</b>	<b>71</b>	<b>66</b>	<b>82</b>	<b>73</b>	<b>53</b>

**Table ENT2 (continued)**  
**Common Enteric, Food and Waterborne Illness: Number of Cases by Age Group and Gender, Winnipeg Health Region, 1996-2002**

Disease Category	Age Group	Gender	1996-2002	1996	1997	1998	1999	2000	2001	2002	
<b>Salmonellosis</b>	00-09	F	74	12	12	12	11	10	6	11	
		M	87	22	11	8	18	13	6	9	
	10-19	F	15	4	4	1	1	2		3	
		M	21	3	6	2		5	2	3	
	20-29	F	64	11	6	10	6	12	7	12	
		M	46	8	8	5	7	2	10	6	
	30-39	F	35	5	3	5	5	1	9	7	
		M	45	10	4	7	4	5	5	10	
	40-49	F	44	7	2	5	8	9	6	7	
		M	26	10	2	2	3	6	2	1	
	50-59	F	28	5	3	3	6	4	4	3	
		M	23	8	2	1	2	3	5	2	
	60-69	F	22	3	2		7	2	5	3	
		M	13	1	4	4	2	1	1		
	70-79	F	20	4	5	3	1	4	3		
		M	14	5	3		2	1	2	1	
	80+	F	10		1	1	3	1	4		
		M	9	2	1		2		3	1	
			<b>TOTAL</b>	<b>596</b>	<b>120</b>	<b>79</b>	<b>69</b>	<b>88</b>	<b>81</b>	<b>80</b>	<b>79</b>
	<b>Verotoxigenic <i>E. coli</i></b>	00-09	F	29	7		5	4	7	3	3
M			43	11	2	10	6	5	2	7	
10-19		F	16	3		4	3	2	2	2	
		M	19	3	1	1	5	4	2	3	
20-29		F	15	5	1	3	2	1	2	1	
		M	7			2	2			3	
30-39		F	13	3	2	2	1	2	3		
		M	10	3		1	1	1	1	3	
40-49		F	13	3	1	1	4	3		1	
		M	5	3	1		1				
50-59		F	16	4	1	4	1	1	1	4	
		M	5	2			1	1		1	
60-69		F	8	1	1		2	1	2	1	
		M	5	1	2		2				
70-79		F	10	3	1	1	1	2	1	1	
		M	6	1	1		1		2	1	
80+		F	5			2	1	1		1	
		M	2					1	1		
Unknown Age		F	1			1					
		M									
		<b>TOTAL</b>	<b>228</b>	<b>53</b>	<b>14</b>	<b>37</b>	<b>38</b>	<b>32</b>	<b>22</b>	<b>32</b>	

**Table ENT3**  
**Common Enteric, Food and Waterborne Illnesses: Number of Cases by Community Area,**  
**Winnipeg Health Region, 1996-2002**

<b>Illness</b>	<b>Community Area</b>	<b>1996-2002</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Campylobacteriosis</b>	01 St. James Assiniboia	55	7	7	14	7	11	5	4
	02 Assiniboine South	48	5	8	8	8	6	10	3
	03 Fort Garry	95	13	19	22	13	11	6	11
	04 St. Vital	58	9	12	7	5	11	8	6
	05 St. Boniface	53	10	10	9	3	8	9	4
	06 Transcona	22	3	4	5	2	5	2	1
	07 River East	67	7	5	7	8	17	11	12
	08 Seven Oaks	44	4	4	9	4	9	4	10
	09 Inkster	26	3	2	6	5	2	4	4
	10 Point Douglas	23	1	6	4	2	3	5	2
	11 Downtown	43	5	4	6	6	9	4	9
	12 River Heights	86	18	11	12	8	20	12	5
		<b>WHR</b>	<b>620</b>	<b>85</b>	<b>92</b>	<b>109</b>	<b>71</b>	<b>112</b>	<b>80</b>
<b>Giardiasis</b>	01 St. James Assiniboia	37		3	10	8	10	4	2
	02 Assiniboine South	22		2	8	5	3	1	3
	03 Fort Garry	44		1	7	9	15	7	5
	04 St. Vital	39		3	10	10	8	4	4
	05 St. Boniface	25		1	6	2	8	4	4
	06 Transcona	9			3	2	1	2	1
	07 River East	34		1	3	5	10	10	5
	08 Seven Oaks	18		1	1	4	2	5	5
	09 Inkster	11			1	2	1	4	3
	10 Point Douglas	17		1	4	1	4	6	1
	11 Downtown	54		1	10	9	10	13	11
	12 River Heights	51		2	8	9	10	13	9
		<b>WHR</b>	<b>361</b>	<b>0</b>	<b>16</b>	<b>71</b>	<b>66</b>	<b>82</b>	<b>73</b>

**Table ENT3 (continued)**  
**Common Enteric, Food and Waterborne Illnesses: Number of Cases by Community Area,**  
**Winnipeg Health Region, 1996-2002**

<b>Illness</b>	<b>Community Area</b>	<b>1996-2002</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Salmonellosis</b>	01 St.James Assiniboia	56	10	5	7	7	10	7	10
	02 Assiniboine South	34	9	2	3	10	2	5	3
	03 Fort Garry	61	19	8	4	9	5	4	12
	04 St. Vital	69	15	6	8	10	10	12	8
	05 St. Boniface	45	6	12	7	6	3	5	6
	06 Transcona	24	4	3	2	1	7	3	4
	07 River East	92	23	10	11	19	13	10	6
	08 Seven Oaks	43	7	8	1	6	8	10	3
	09 Inkster	28	2	3	7	7	6	2	1
	10 Point Douglas	35	5	7	6	1	4	3	9
	11 Downtown	62	10	9	6	7	6	14	10
	12 River Heights	47	10	6	7	5	7	5	7
		<b>WHR</b>	<b>596</b>	<b>120</b>	<b>79</b>	<b>69</b>	<b>88</b>	<b>81</b>	<b>80</b>
<b>Verotoxigenic E. coli</b>	01 St.James Assiniboia	21	7	3	3	4	2	1	1
	02 Assiniboine South	11	4	1	2		2	1	1
	03 Fort Garry	20	4	2	4	1	1	4	4
	04 St. Vital	31	6	4	4	5	6	3	3
	05 St. Boniface	25	3		5	6	4	2	5
	06 Transcona	14	1	1	4	3	1	2	2
	07 River East	27	6	3	4	2	7	3	2
	08 Seven Oaks	18	3		2	6	1	2	4
	09 Inkster	6	1		1		2	1	1
	10 Point Douglas	12	6		1	2	1	1	1
	11 Downtown	22	4		3	7	4	1	3
	12 River Heights	21	8		4	2	1	1	5
		<b>WHR</b>	<b>228</b>	<b>53</b>	<b>14</b>	<b>37</b>	<b>38</b>	<b>32</b>	<b>22</b>

*Note: Further information describing the epidemiology of enteric, food and waterborne illnesses in the Winnipeg Health Region is available in **Report on Communicable Diseases and Immunization in the Winnipeg Health Region, 2004** [available fall 2004].*

**Highlights:**

- The overall incidence of enteric, food and waterborne illnesses in the Winnipeg Health Region is less than 1 case per 1000 population.
- The most common illnesses reported include Campylobacteriosis (0.14 per 1000), Salmonellosis (0.12 per 1000), Giardiasis (0.11 per 1000) and verotoxigenic *E. coli* (0.05 per 1000), accounting for roughly three-quarters of all cases.

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<sup>1</sup>Additional information describing communicable diseases (including sexually transmitted and blood-borne infections) and immunization in the Winnipeg Health Region is available in **Report on Communicable Diseases and Immunization in the Winnipeg Health Region, 2004** [available fall 2004].