

INFORMATION REPORT

TO: Mayor and Members Board of Health	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: April 16, 2012	
SUBJECT/REPORT NO: Communicable Disease and Health Hazard Investigations Quarterly Report (Q4) (October 1, 2011 to December 31, 2011) BOH11019(c) (City Wide)	
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SIGNATURE:	

Council Direction:

This report is provided in keeping with the Board of Health policy on communication between the Medical Officer of Health and the Board of Health, as outlined in Report PH06038.

Information:

This is a summary report covering the period from October 1, 2011 to December 31, 2011 summarizing investigations for the fourth quarter of 2011 (3 months).

Public Health Services (PHS) has been providing this report in this form since 2006. In order to improve this report to ensure that it continues to align with Board members' needs, PHS solicited feedback from Board members over the summer and recommendations will be brought forward for consideration in May 2012.

Reportable Communicable Diseases Summary:

- During the fourth quarter of 2011, 800 confirmed or probable reports of communicable disease were received by the PHS. These are summarized in Appendix A.
- 423 reports of Chlamydia were received in this quarter. Chlamydia, a sexually transmitted infection, is again highlighted in this report as it has been steadily increasing over time in Hamilton and reports were above expected again during this quarter.

- 27 outbreaks were investigated between October 1, 2011 and December 31, 2011.
- 56 % (15) of the outbreaks occurred in Long Term Care Homes and Residential Care Facilities; and 22 % (6) occurred in Hospitals. One outbreak was caused by *Clostridium difficile* during this quarter and it occurred in a Long-Term Care Home. The institutional outbreak results are summarized in Tables 1 and 2.
- 22% (6) of the outbreaks occurred in community settings and are listed in Table 3.

Under the *Health Protection and Promotion Act*, laboratories and physicians are required to report the occurrence of specified communicable diseases to the local public health unit. Due to the presence of a provincial public health laboratory and tertiary care hospitals in Hamilton, PHS receives many reports for persons tested or hospitalized in Hamilton who reside in other health unit jurisdictions. These reports are forwarded to the health unit where the tested person resides for investigation and follow-up by the relevant health unit and are not included with the numbers presented here.

Table 1:
Institutional Outbreaks Declared Between October 1, 2011 and December 31, 2011

Outbreak Type	Outbreak Count
Enteric/Foodborne/Waterborne	15
Influenza	0
Other Respiratory/Direct Contact	5
Other	0
Clostridium difficile (Details in Table 2)	1
Total	21

Table 2:
***Clostridium difficile* outbreaks declared between October 1, 2011 and December 31, 2011**

Institution	Description
ST. JOSEPH'S VILLA	An outbreak of <i>Clostridium difficile</i> infection occurred among 4 residents in one affected area.

**Table 3:
Community Outbreaks declared between October 1, 2011 and December 31, 2011**

Event	Description
CHILD CARE CENTRE OUTBREAKS	Three enteric outbreaks occurred in childcare centres. No causative agent was identified in any of these outbreaks but based on symptoms; they were all classified as being caused by viral gastroenteritis.
ELEMENTARY SCHOOL	An outbreak of enteric illness occurred affecting approximately 25% of children attending an elementary school. No causative agent was identified but based on symptoms; it was classified as being caused by viral gastroenteritis.
PERTUSSIS INVESTIGATION	An investigation was conducted when above expected cases of Pertussis (Whooping Cough) were reported. A total of 2 confirmed and 10 probable cases were reported as part of this investigation.
SHELTER	An enteric outbreak occurred affecting 12/19 residents and 4 staff in a shelter. The causative agent was confirmed by laboratory testing to be Norovirus.

Health Hazard Investigations:

The Health Protection and Promotion Act defines a health hazard as;

- (a) a condition of a premises,
- (b) a substance, thing, plant or animal other than man, or
- (c) a solid, liquid, gas or combination of any of them,

that has or that is likely to have an adverse effect on the health of any person.

PHS initiates investigations based on information received from the public, other Provincial Agencies or City Departments that relate to existing properties or facilities that, through the nature of the business or the site conditions, could fall under the definition of a health hazard.

To determine if a health hazard exists, PHS responds to complaints and enquiries from the public, by conducting on site inspections or providing advice through phone contact, email or letters.

Most of the investigations arise from complaints received from individual members of the public. In addition, PHS staffs are often involved in investigations led by other agencies (e.g. Ministry of Environment) or the Infectious Disease team within PHS.

The following table is a summary of the number and types of complaints and enquiries investigated in the fourth quarter of 2011 and grouped together based on the Mandatory Program area each would fall into.

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(City Wide)**

HEALTH HAZARD ABATEMENT	2010 (Q4)		2011 (Q4)	
	Complaints/ Investigations requiring a site visit	Telephone/ e-mail Inquiries not requiring a site visit	Complaints/ Investigations requiring a site visit	Telephone/ e-mail Inquiries not requiring a site visit
Asbestos	4	1	5	2
Bed bugs	115	46	149	43
Cockroaches	60	4	37	2
Other Insects	1	4	7	1
Diogenes (recluse response)	2	1	2	0
General sanitation	2	1	4	1
Housing	10	2	9	2
Marijuana Grow Operations	2	1	5	0
Mice	33	1	18	1
Mould	39	8	22	6
Odour	8	3	16	2
Other	13	9	11	11
Rats	7	0	5	0
Sewage	2	0	2	1
Sharps	11	0	34	1
Total	309	81	326	73
FOOD SAFETY				
Adulteration	24	4	15	0
Education	1	1	0	2
Emergency Fire/Flood	2	1	2	0
Garbage	2	6	3	0
General Food Inquiry	2	14	1	9
Other	18	8	21	20
Request For Inspection	11	0	8	18
Sanitation	15	0	16	0
Suspect Illness	2	0	5	0
Total	77	34	71	49
WNV				
Standing Water Complaints	4	0	2	0
Total	4	0	2	0
TOBACCO CONTROL under Smoke Free Ontario Act				
Sales Related	2	0	4	1
Smoking Related	14	11	43	33
Total	16	11	47	34
WATER QUALITY				
General Inquiries	6	65	7	69
Adverse Water Quality Events ¹	17	0	20	1
Boil/Drinking Water Advisories	4	0	0	0
Recreational Water Postings	0	0	Bayfront & Pier 4 Beaches posted for Blue Green	

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	Complaints/ Investigations requiring a site visit	Telephone/ e-mail Inquiries not requiring a site visit	Complaints/ Investigations requiring a site visit	Telephone/ e-mail Inquiries not requiring a site visit
			Algae Aug 31 to November 2011	
Total	27	65	27	70
INFECTION CONTROL/INJURY PREVENTION				
Potential Human Exposure To Rabies	191	35	216 (includes phone calls)	0
Rabies Vaccine Deliveries	12	0	8	0
Compliance With Childcare, Public Pool, Personal Service Setting Regulation/Guidelines	1	1	2	1
Total	104	36	226	1

¹The adverse drinking water incidents pertain to lab reports that indicate the drinking quality did not meet the prescribed drinking water standards for the Province of Ontario for samples collected from regulated drinking water systems and did not warrant a B/DWA. These adverse events did not warrant a B/DWA because subsequent Corrective Action and confirmation samples met the Ontario drinking water standards; and the initial risk assessment and public health protocols did not indicate a need to issue a BWA without first taking Corrective Action and follow-up samples to confirm the adverse drinking water condition. All affected users are notified directly in writing about the existence of a Boil Water Advisory and about precautions they need to take and/or keep in place until the BWA is lifted. BWA Notices are also posted in public locations at the affected locations.

REPORTABLE DISEASE CASES REPORTED TO THE CITY OF HAMILTON, PUBLIC HEALTH SERVICES IN THE FOURTH QUARTER OF 2011

Cases are reported among individuals who resided within the City of Hamilton at the time of their diagnosis. These figures are preliminary. Figures are subject to change due to case follow-up procedures and/or delayed diagnosis. Source: Ontario Ministry of Health and Long-Term Care integrated Public Health Information System (iPHIS) database, extracted 13/3/2011.

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2006 - 2010
Amebiasis <i>The case definition for reportable Amebiasis changed in Ontario effective April 28, 2009. Accrual of the 5-year history commenced January 1, 2010.</i>	3	0	Unavailable
Anthrax	0	0	0 – 0
Botulism	0	0	0 – 0
Brucellosis	0	0	0 – 0
Campylobacter Enteritis	32	0	17 – 38
Chancroid	0	0	0 – 0
Chickenpox (Varicella), Laboratory-confirmed or cases hospitalized due to complications	4	0	1 – 13
Chlamydial Infections	423	0	261 – 403
Cholera	0	0	0 – 0
Creutzfeldt-Jakob Disease	0	0	0 – 0
Cryptosporidiosis	1	0	0 – 3
Cyclosporiasis	0	0	0 – 1
Cytomegalovirus Infection, Congenital	0	1	0 – 2
Diphtheria	0	0	0 – 0
Encephalitis/Meningitis	1	0	0 – 12
Giardiasis	9	0	4 – 14
Gonorrhoea	57	0	34 – 66
Group A Streptococcal Disease, Invasive	3	0	5 – 7
Group B Streptococcal Disease, Neonatal	0	0	0 – 1
Haemophilus Influenzae B Disease, Invasive	0	0	0 – 0
Hantavirus Pulmonary Syndrome	0	0	0 – 0
Hemorrhagic Fevers	0	0	0 – 0

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2006 - 2010
Hepatitis A	2	0	0 – 1
Hepatitis B, Acute	2	0	1 – 4
Hepatitis C	51	0	44 – 63
Hepatitis D	0	0	0 – 0
Herpes, Neonatal	0	0	0 – 0
HIV/AIDS Infection <i>These numbers include newly recognized laboratory-confirmed HIV infections and include persons diagnosed with AIDS without previous HIV infection.</i>	7	0	4 – 11
Influenza, Institutional Outbreak Cases	0	0	0 – 2653
Influenza, Laboratory Confirmed Community Cases	3	0	2 – 346
Lassa Fever	0	0	0 – 0
Legionellosis	8	0	0 – 4
Leprosy	0	0	0 – 0
Listeriosis	0	0	0 – 0
Lyme Disease	1	0	0 – 1
Malaria	6	0	0 – 3
Measles	0	0	0 – 0
Meningococcal Disease, Invasive	1	0	0 – 1
Mumps	1	0	0 – 0
Ophthalmia Neonatorum	0	0	0 – 0
Paratyphoid Fever	0	0	0 – 1
Pertussis (Whooping Cough)	5	0	1 – 19
Plague	0	0	0 – 0
Poliomyelitis, Acute	0	0	0 – 0
Psittacosis/Ornithosis	0	0	0 – 0
Q Fever	0	0	0 – 1
Rabies	0	0	0 – 0
Rubella	0	0	0 – 0
Rubella, Congenital	0	0	0 – 0
Salmonellosis	20	0	10 – 22

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2006 - 2010
SARS	0	0	0 – 0
Shigellosis	1	0	0 – 3
Smallpox	0	0	0 – 0
Streptococcus Pneumoniae, Invasive	20	0	8 - 20
Syphilis, Early Congenital	0	0	Unavailable
Syphilis, Late Latent, Neurosyphilis	3	0	
Syphilis, Primary, Secondary, Early Latent	4	0	
Syphilis, Under Investigation/Unstaged	0	4	
Syphilis, Total <i>Due to delays in determining the staging of infectious versus non-infectious syphilis, the 5-year history is unavailable.</i>	7	4	Unavailable
Tetanus	0	0	0 – 0
Transmissible Spongiform Encephalopathy	0	0	0 – 0
Trichinosis	0	0	0 – 0
Tuberculosis, Active <i>These numbers include only active cases of Tuberculosis. Through TB screening activities, 145 inactive TB cases were reported and include positive skin test results and individuals referred to Public Health for medical surveillance.</i>	4	0	2 – 8
Tularemia	0	0	0 – 0
Typhoid Fever	0	0	0 – 1
Verotoxin Producing E. Coli Including HUS	0	0	0 – 5
West Nile Virus Illness	0	0	0 – 0
Yellow Fever	0	0	0 – 0
Yersiniosis	2	0	0 – 4