

# INFORMATION REPORT

<b>TO:</b> Mayor and Members Board of Health	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> March 29, 2010	
<b>SUBJECT/REPORT NO:</b> Communicable Disease and Health Hazard Investigations Quarterly Report (Q4 (October 1, 2009 – December 31, 2009) BOH08020(c) - (City Wide)	
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<b>SIGNATURE:</b>	

## 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 to December 31, 2009, summarizing investigations for the fourth quarter of 2009 (3 months).

## Reportable Communicable Diseases

### SUMMARY

- With the peak of the Pandemic H1N1 2009 Influenza A activity occurring in late October 2009, this fourth quarter saw significantly higher case and outbreak reporting well above expected.
- During the fourth quarter of 2009, 3,518 confirmed or probable reports of communicable disease were received by the City of Hamilton Public Health Services (PHS). These are summarized in Appendix A.
- 162 outbreaks declared between October 1 and December 31, 2009 were investigated.
- 13% (21) of outbreaks occurred in Long Term Care Homes and Residential Care Facilities; and 4% (6) occurred in Hospitals. There were no outbreaks caused by *Clostridium difficile* in a hospital during this quarter. The institutional outbreak

results are summarized in Table 1.

- 83% (135) of the outbreaks occurred in community settings and are listed in Table 2.

Under the *Health Protection and Promotion Act*, laboratories and physicians are required to report the occurrence of 55 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, City of Hamilton Public Health Services (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 and December 31, 2009.**

Outbreak Type	Outbreak Count
<b>Enteric/Foodborne/Waterborne</b>	4
<b>Influenza</b>	7
<b>Other Respiratory/Direct Contact</b>	15
<b>Other</b>	1
<b>Clostridium difficile</b>	0
<b>Total</b>	<b>27</b>

**Table 2:**  
**Community Outbreaks Declared between October 1 and December 31, 2009.**

Event	Description
CHILD CARE CENTRE OUTBREAKS	16 Respiratory Outbreaks occurred in child care settings and 5 of these outbreaks were laboratory confirmed to be caused by Influenza A. Given the significant pH1N1 Influenza A activity occurring, all of these outbreaks are presumed to have been caused by Influenza A.
SCHOOL OUTBREAKS	117 Respiratory outbreaks occurred with 38 being laboratory-confirmed as Influenza A. Given the significant pH1N1 Influenza A activity occurring, all of these outbreaks are presumed to have been caused by Influenza A.
SHELTER	1 Laboratory-confirmed Influenza A outbreak occurred in a shelter
EMPLOYEE LUNCHEON	An employee potluck luncheon resulted in a group of 14 people becoming ill with enteric symptoms in a common work setting. 5 people had stool sample testing done with one requiring hospital admission related to their illness. The causative agent was identified as Salmonella with the likely source being undercooked chicken.

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 staff are often involved in investigations led by other agencies (e.g. Ministry of Environment) or the Infectious Disease team within PHS.

The following is a summary of the number and types of complaints and enquiries investigated in the fourth quarter of 2009 and grouped together based on the Mandatory Program area each would fall into.

HEALTH HAZARD ABATEMENT	2008 (Q4)		2009 (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	3	1	3	6
Bed bugs	58	24	81	21
Cockroaches	55	3	32	5
Other Insects	3	3	8	4
Diogenes (recluse response)	4	0	1	0
General sanitation	4	3	3	0
Housing	15	3	6	3
Marijuana Grow Operations	0	2	1	0
Mice	27	2	38	3
Mould	93	16	86	9
Odour	18	4	13	0
Other	33	21	17	19
Rats	11	0	7	5
Sewage	6	0	5	2
Sharps	15	2	9	0
<b>Total</b>	<b>345</b>	<b>84</b>	<b>310</b>	<b>77</b>

FOOD SAFETY	2008 (Q4)	2008 (Q4)	2009 (Q4)	2009 (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
Adulteration <sup>1</sup>	39	1	23	1
Education	0	3	0	4
Emergency Fire/Flood	3	0	2	1
Garbage	1	0	0	0
General Food Inquiry	1	33	1	23
Other	21	23	23	13
Request For Inspection	20	23	7	14
Sanitation	23	1	11	1
Special Event	0	3	0	1
Suspect Illness	23	10	9	4
<b>Total</b>	<b>131</b>	<b>97</b>	<b>76</b>	<b>62</b>
<b>WNV</b>				
Standing Water Complaints	4	0	4	0
Dead Bird Complaints <sup>2</sup>	0	7	0	0
<b>Total</b>	<b>4</b>	<b>7</b>	<b>4</b>	<b>0</b>
<b>TOBACCO CONTROL under Smoke Free Ontario Act</b>				
Sales Related	10	11	3	3
Smoking Related	41	14	46	24
<b>Total</b>	<b>51</b>	<b>25</b>	<b>49</b>	<b>27</b>
<b>WATER QUALITY</b>				
General Inquiries	12	64	2	47
Adverse Water Quality Events <sup>3</sup>	23	0	7	0
Boil/Drinking Water Advisories	1	0	3	0
Recreational Water Postings	1	0	0	0
<b>Total</b>	<b>37</b>	<b>64</b>	<b>12</b>	<b>47</b>
<b>INFECTION CONTROL/INJURY PREVENTION</b>				
Potential Human Exposure To Rabies	152	53	190	40
Rabies Vaccine Deliveries	17	0	13	0
Compliance With Childcare, Public Pool, Personal Service Setting Regulation/Guidelines	11	3	5	3
<b>Total</b>	<b>180</b>	<b>56</b>	<b>208</b>	<b>43</b>

<sup>1</sup>Refers generally to complaints about nationally distributed food items. These complaints are referred to the Canadian Food Inspection Agency.

<sup>2</sup>These numbers can not be compared with last year because, in response to new MOHLTC directives, community promotion of dead bird sightings and bird testing were not carried out this year.

<sup>3</sup>The 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 2009**

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 9/2/2010.

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2004 - 2008
Amebiasis <i>The case definition for reportable Amebiasis changed in Ontario effective April 28, 2009. Accrual of the 5-year history will commence January 1, 2010.</i>	12	0	Unavailable
Anthrax	0	0	0 - 0
Botulism	0	0	0 - 0
Brucellosis	0	0	0 - 0
Campylobacter Enteritis	21	0	17 - 38
Chancroid	0	0	0 - 0
Chickenpox (Varicella), Laboratory-confirmed or cases hospitalized due to complications <i>The specific reporting of cases with severity began in May 2005. Accrual of the 5-year history commenced January 1, 2006.</i>	1	0	Unavailable
Chlamydial Infections	298	0	261 - 289
Cholera	0	0	0 - 0
Creutzfeldt-Jakob Disease	0	0	0 - 0
Cryptosporidiosis	1	0	1 - 4
Cyclosporiasis	0	0	0 - 1
Cytomegalovirus Infection, Congenital	2	0	0 - 0
Diphtheria	0	0	0 - 0
Encephalitis/Meningitis	0	0	0 - 7
Giardiasis	8	1	12 - 15
Gonorrhoea	35	0	34 - 66
Group A Streptococcal Disease, Invasive	5	0	3 - 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

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2004 - 2008
Hemorrhagic Fevers	0	0	0 - 0
Hepatitis A	1	0	0 - 3
Hepatitis B, Acute	3	0	1 - 3
Hepatitis C	56	1	50 - 74
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>	4	0	5 - 10
Influenza, Institutional Outbreak Cases	2,653	0	0 - 28
Influenza, Laboratory Confirmed Community Cases	346	0	2 - 63
Lassa Fever	0	0	0 - 0
Legionellosis <i>A change in testing occurred in September 2005 when the Ontario Public Health Laboratory began using the Binax NOW Legionella Urinary Antigen Test Kits. Accrual of the 5-year history commenced January 1, 2006.</i>	1	0	Unavailable
Leprosy	0	0	0 - 0
Listeriosis	0	0	0 - 0
Lyme Disease	1	0	0 - 1
Malaria	0	0	0 - 3
Measles	0	0	0 - 0
Meningococcal Disease, Invasive	1	0	0 - 1
Mumps	0	0	0 - 0
Ophthalmia Neonatorum	0	0	0 - 0
Paratyphoid Fever	1	0	0 - 0
Pertussis (Whooping Cough)	1	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

Disease	Confirmed/ probable case count	Suspect case count	Min - Max count per quarter 2004 - 2008
Rabies	0	0	0 - 0
Rubella	0	0	0 - 0
Rubella, Congenital	0	0	0 - 0
Salmonellosis	22	0	10 - 39
SARS	0	0	0 - 0
Shigellosis	0	0	0 - 3
Smallpox	0	0	0 - 0
Streptococcus Pneumoniae, Invasive	8	0	11 - 27
Syphilis, Early Congenital	0	0	Unavailable
Syphilis, Late Latent, Neurosyphilis	10	0	
Syphilis, Primary, Secondary, Early Latent	5	0	
Syphilis, Under Investigation/Unstaged	0	8	
<b>Syphilis, Total</b> <i>Testing changes in July 2006 and more recently in July 2008 for the detection of syphilis partly explain the increase in Syphilis, particularly in the non-infectious stage. Due to delays in determining the staging of infectious versus non-infectious syphilis, the 5-year history is unavailable.</i>	15	8	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, 121 inactive TB cases were reported and include positive skin test results and individuals referred to Public Health for medical surveillance.</i>	6	0	2 - 8
Tularemia	0	0	0 - 0
Typhoid Fever	1	0	0 - 0
Verotoxin Producing E. Coli Including Hus	0	0	3 - 8
West Nile Virus Illness	0	0	0 - 0
Yellow Fever	0	0	0 - 0
Yersiniosis	0	0	0 - 7