


Hamilton

# INFORMATION REPORT

<b>TO:</b>	Mayor and Members Board of Health
<b>COMMITTEE DATE:</b>	March 17, 2014
<b>SUBJECT/REPORT NO:</b>	Infectious Disease and Health Hazard Semi-Annual Report (Q3 and Q4) (July 1, 2013 to December 31, 2013) - BOH14003 (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	Michelle Baird (905) 546-2424 Ext. 3529
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<b>SIGNATURE:</b>	

## Council Direction:

This report fulfils 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 July 1, 2013 to December 31, 2013. The Ontario Public Health Standards (OPHS) are the guidelines for the provision of mandatory health programs and services for Boards of Health in Ontario. Investigations by programs for Infectious Diseases and Environmental Health are the focus of this report. These programs are:

### Infectious Diseases

Includes Reportable Diseases under the *Health Protection and Promotion Act*:

- Infectious Diseases Prevention and Control
- Rabies Prevention and Control
- Sexual Health, Sexually Transmitted Infections and Blood-borne Infections (including HIV)
- Tuberculosis Prevention and Control
- Vaccine Preventable Diseases

### **Environmental Health**

- Food Safety
- Safe Water
- Health Hazard Prevention and Management
- Vector borne Diseases Control

Reportable Disease cases are reported among individuals who reside within the City of Hamilton at the time of their diagnosis. The information in Appendix A has been extracted from the Ontario Ministry of Health and Long-term Care integrated Public Health Information System (iPHIS) database and are subject to change due to case follow-up procedures and/or delayed diagnosis.

### **Q3 & Q4 (2013) Program Highlights**

#### **Infectious Diseases:**

##### ***Tuberculosis***

In 2013, Public Health Services (PHS) successfully collaborated with St. Joseph's Healthcare in negotiating a payment policy for tuberculosis care for uninsured clients. Paying out-of-pocket is prohibitive for uninsured clients, creating a barrier for tuberculosis care. This collaboration resulted in continued access to affordable tuberculosis care for uninsured clients in Hamilton. A Public Health Nurse works in the St. Joseph's Hospital Tuberculosis clinic one day per week providing services, such as patient assessment, counselling and medication dispensing, to Tuberculosis patients. This allows PHS staff to directly access Tuberculosis patients while collaborating with the attending physicians in the clinic.

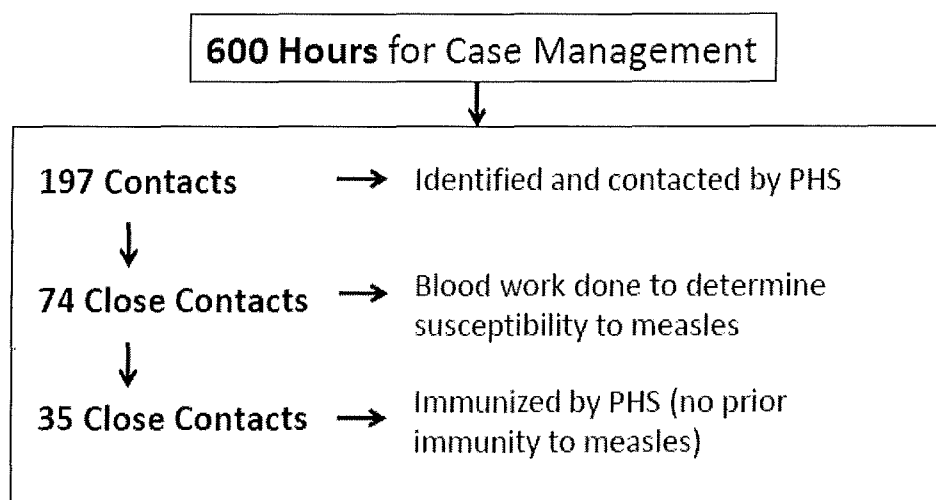
Hamilton's long-term care homes (LTCH) and retirement homes rely on PHS for guidance on tuberculosis screening of residents, staff and volunteers. In December 2013, PHS revised their guidelines and included new recommendations for LTCH. Tuberculin skin tests (TST) are no longer recommended in residents greater than 65 years of age residing in a LTCH; instead a chest x-ray is recommended.

##### ***Confirmed Measles Case***

In August 2013, PHS was notified of one confirmed measles case that was imported (i.e. infected abroad). This case was a student enrolled at a local school. As a result of this measles case, PHS' workload was very high for two weeks with investigation and case management. The workload was especially high because of the exposure setting and large number of contacts.

PHS collaborated with the school, local physicians, laboratories and businesses to successfully manage the case. Due to successful management, no secondary cases were reported to PHS.

**PHS Workload for Measles Case, August 2013**



Although measles is no longer common in Canada, imported measles still pose a major threat to the public health system and the residents of Hamilton. Measles can be imported into Canada from international travel and outbreaks in other countries.

***Hepatitis C***

In 2011, Hamilton's rate of hepatitis C was 32.21 cases per 100,000 population; this was higher than Ontario's rate of 30.98 cases per 100,000 population<sup>1</sup>. In December 2013, PHS began a hepatitis C initiative to increase awareness among Hamiltonians. The purpose of the awareness campaign was to increase the public's knowledge about the risk factors for contracting Hepatitis C and encouraging the public to get tested. Understanding the disease and how its spread is an integral part to the prevention of infections. This initiative included developing and displaying street level posters on Hamilton streets.

***Legionellosis Cluster***

In July 2013, PHS identified a legionellosis cluster in Hamilton, where six confirmed cases of the disease were reported to PHS. Five of the six cases reported possible exposures outside the City of Hamilton and within south western Ontario. Three of the cases worked in close proximity to one another in a neighbouring health unit. Between June 1, 2013 and August 16, 2013, Public Health Ontario detected a provincial increase with 108 confirmed cases.

In response to the identified legionellosis cluster in July 2013, PHS conducted an investigation. As cooling towers are a common source of *Legionella*, an alert was issued to registered cooling tower owners/operators. This alert reinforced the importance of properly maintaining cooling tower equipment to prevent the growth of *Legionella*. Additionally, Public Health Inspectors (PHIs) visited downtown cooling towers to verify the status of risk management plans and compliance with the City of Hamilton Cooling Tower By-law. The ability to quickly identify cooling towers in Hamilton demonstrates the effectiveness and importance of the Cooling Tower By-law.

After a thorough investigation, PHS determined that no local common exposures were identified in Hamilton or in the neighbouring health unit. A second Legionellosis cluster was investigated later in 2013; however, after a thorough investigation no common exposure sources were identified.

### ***Sexual Health***

Chlamydia was the most common sexually transmitted infection (STI) in Hamilton for Q3 & Q4, 2013. However, in Hamilton the incidence of chlamydia has decreased by 12.8% from 1,622 cases in 2012 to 1,414 cases in 2013. Despite the decrease noted in 2013 it is too soon to identify this as a trend.

In 2013, infectious syphilis is at the highest incidence to date in Hamilton. Men who have sex with men continue to have the highest incidence rate.

### **Environmental Health:**

#### ***Tobacco Enforcement***

In 2013, Tobacco Enforcement conducted a total of 1,851 provincially mandated Smoke-Free Ontario Act inspection/enforcement checks for tobacco vendors, schools, public places and work places. Additionally, a total of 153 Provincial Offences Act charges were issued for non-compliance, with a conviction rate of 96%. PHS continues to meet, and in many areas exceed, the Smoke-Free Ontario Act Enforcement Directives. Most notably, Tobacco Enforcement realized a conviction rate of 98% in 2013, validating current enforcement practices.

In 2013, Tobacco Enforcement also conducted 38 proactive investigations/enforcement checks for City-owned parks and recreation properties. Twenty-six Provincial Offences Act tickets were issued, with a conviction rate of 100%. PHS continues to field complaints against the City of Hamilton By-law #11-080 and follow-up with enforcement investigations. Complaints received are highly seasonal in nature. Outdoor Parks and

Recreation Properties By-law statistics are comparable to other jurisdictions with regulations of the same magnitude, such as the City of Ottawa.

### ***Food Safety Disclosure Program***

PHS' Food Safety Disclosure Program is updated and the changes are now in operation. Since January 2, 2014, PHIs have been inspecting food service establishments where owners/operators are receiving one of three Hamilton Food Safety Certificates of Inspection (BOH13011):

- Pass (green coloured certificate)
- Conditional Pass (yellow coloured certificate)
- Closed (red coloured certificate)

These certificates are posted at the main public entrance of the establishment and are clearly visible. These certificates invite patrons to view inspection results online at the Food Safety Zone website ([www.foodsafetyzone.ca](http://www.foodsafetyzone.ca)) should they want to know more information. PHS is running an awareness campaign to promote this disclosure program. The campaign is using social and traditional media platforms. In addition, PHS distributing an Operator Information Guide to food establishments.

### ***Freelton Boil Water Advisory***

On August 22, 2013, PHS promptly issued a boil water advisory for the Freelton Municipal Drinking Water System after receiving laboratory test results that showed bacterial contamination from a water sample collected on August 21, 2013. This advisory was issued to inform users of the Freelton Municipal Drinking Water System and to take precautionary measures until the advisory was lifted.

### ***Radon***

Accumulation of radon gas in homes may pose a health risk to its inhabitants<sup>2</sup>. Prolonged exposure to high levels of radon is associated with an increased risk of developing lung cancer, especially for those who smoke<sup>2</sup>. Federal and provincial health agencies are researching this topic; PHS is complementing this research with work being done at the local level. Radon is a complex issue and an information report on radon in Hamilton will be coming forward this year. Hamilton has average levels of radon as compared to other municipalities. In 2014, PHS plans on running a campaign to raise awareness of radon gas in homes.

## **Appendices**

Appendix A to Report BOH14003 – Infectious Disease and Environmental Health  
Report: Q3 & Q4 2013

## **References**

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Reportable disease trends in Ontario, 2011. Toronto, ON: Queen's Printer for Ontario; 2014.
2. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Lung cancer risk from radon in Ontario: burden of illness results by health unit. Toronto, ON: Queen's Printer for Ontario; 2013.

## Infectious Disease and Environmental Health Report: Q3 & Q4 2013

### Number of reportable diseases investigations\* conducted by report quarter, City of Hamilton, 2012 and 2013.

Program	Type	Reported 2012*					Reported 2013*				
		Q1	Q2	Q3	Q4	Annual Total	Q1	Q2	Q3	Q4	Annual Total
Infectious Diseases (ID)	Cases	537	280	251	502	1570	572	274	290	265	1401
Tuberculosis (TB)	Active TB	11	13	7	5	36	8	8	4	14	34
	Latent TB	143	141	133	121	538	124	116	102	128	470
Sexually Transmitted Infections	Cases	479	507	428	460	1874	441	407	435	409	1692
Column Total		1170	941	819	1088	4018	1145	805	831	816	3597

The most frequently reported infectious diseases in Q3 & Q4, 2013 were:

1. Hepatitis C
2. Campylobacter enteritis
3. Giardiasis

The most frequently reported sexually transmitted infections in Q3 & Q4, 2013 were:

1. Chlamydia
2. Gonorrhea
3. Syphilis

The most significant infectious disease in Q3 & Q4, 2013 was the measles case

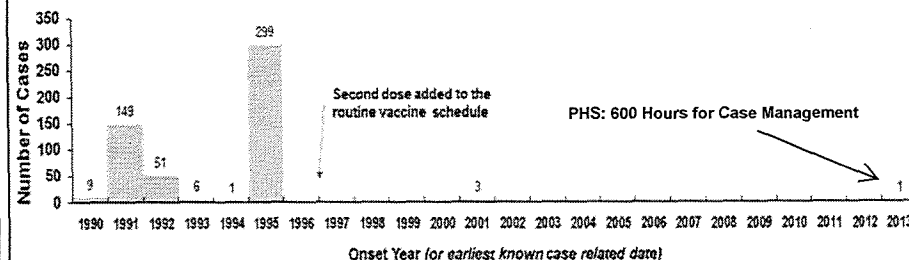
		Reported 2012*					Reported 2013*				
		Q1	Q2	Q3	Q4	Annual Total	Q1	Q2	Q3	Q4	Annual Total
Outbreak Activity	Community Outbreaks	9	2	0	6	17	0	0	3	1	4
	Institutional Outbreaks <sup>†</sup>	42	10	10	39	101	76	18	15	22	131
Column Total		51	12	10	45	118	76	18	18	23	135

In 2013, the most frequently reported causative agents identified in community and institutional outbreaks were:

1. Norovirus
2. Influenza A
3. Rhinovirus

\* Note: These figures are subject to change due to case follow-up procedures. Data Source: Ontario Ministry of Health and Long-Term Care Integrated Public Health Information System database. Prepared by: City of Hamilton Public Health Services. Data Extracted: 2014-01-28. <sup>†</sup> Institutional: hospitals, long term care homes, residential care facilities, detention centre.

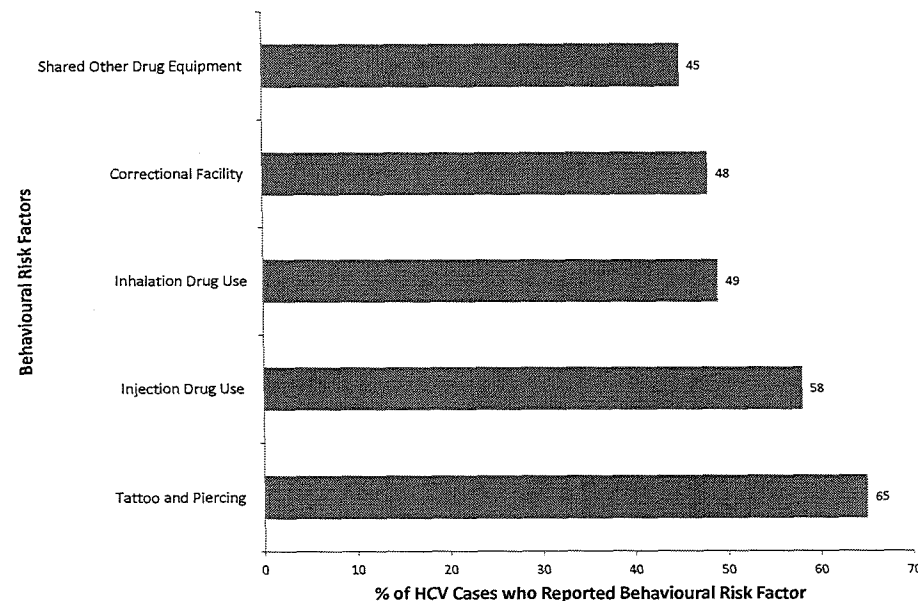
Annually reported cases of red measles, City of Hamilton, 1990 - 2013



This figure is subject to change due to case follow-up procedures. Source: Ontario Ministry of Health and Long-Term Care integrated Public Health Information System database. Prepared by: City of Hamilton Public Health Services. Data Extracted: 2014-01-28

Since adding the second dose of the MMR vaccine to the publicly funded immunization schedule in 1996/1997, Hamilton has observed a large decrease in the number of measles cases. In comparison to 299 measles cases in 1995, there were only 4 measles cases between 1996 and 2013. In 2013, there was 1 case of measles in Hamilton, however, the staff hours used to successfully manage this case was very high. This demonstrates the high demand managing measles cases has on our public health system.

Behavioural Risk Factors among HCV Cases, City of Hamilton, Jan 1, 2012 to June 30, 2013



The top 3 most common behavioural risk factors reported by HCV cases (1) were:

1. Tattoo and piercing (65%)
2. Injection drug use (58%)
3. Inhalation drug use (49%)

Data Source: MOHTLC iPHIS database. Prepared by: City of Hamilton Public Health Services. Data extracted: 2013-11-26.

## Infectious Disease and Environmental Health Report: Q3 & Q4 2013

Environmental Health investigation responses by site visit, telephone call or email, 2012 and 2013.

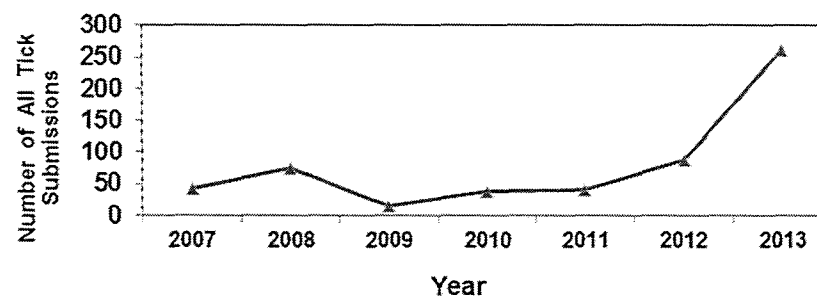
Program	Reported 2012					Reported 2013				
	Q1	Q2	Q3	Q4	Annual Total	Q1	Q2	Q3	Q4	Annual Total
Food Safety	172	191	162	150	675	159	154	212	189	714
Water Quality	114	120	194	95	523	93	111	189	111	504
Health Hazard Abatement	340	314	477	284	1415	227	278	512	357	1374
Tobacco Control under Smoke Free Ontario Act	94	74	64	53	285	69	94	47	32	242
By-law 11-080	-	-	79	54	133	6	23	71	11	111
West Nile Virus	0	52	83	3	138	1	51	41	2	95
Infection Control/Injury Prevention	278	223	206	178	885	164	137	137	128	566
Rabies Potential Exposure Investigations	224	379	621	225	1449	245	357	544	288	1434
Column Total	1222	1353	1886	1042	5503	964	1205	1753	1118	5040

The most common environmental health complaints in Q3 & Q4, 2013 were:

1. Bed bug complaints
2. Health Hazard complaints
3. Food Safety complaints

Data Source: PHS Environmental Health Complaints Database. Prepared by: City of Hamilton Public Health Services.  
Data extracted: 2014-01-28.

Number of all tick submissions, City of Hamilton, 2007-2013

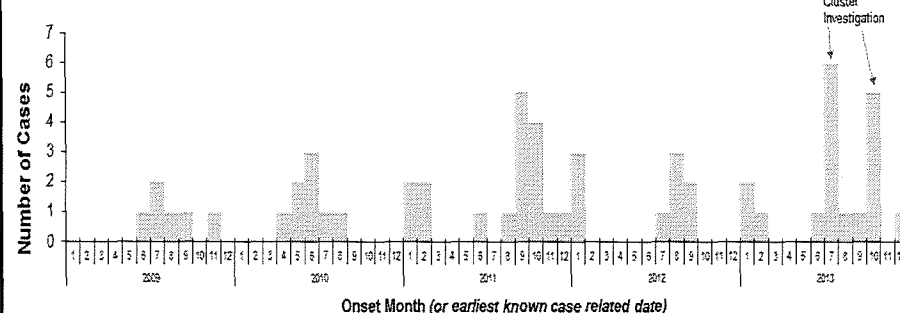


Source: Ticks Database, City of Hamilton. Data Extracted: 2014-02-04.

Since 2011, the number of tick submissions to PHS has increased 6 fold. This has resulted in a greater workload for PHS.

From 2011 to 2013, black-legged tick submissions has increased by 60%

Quarterly reported cases of Legionellosis, City of Hamilton, 2009 - 2013



This figure is subject to change due to case follow-up procedures. Source: Ontario Ministry of Health and Long-Term Care integrated Public Health Information System database. Prepared by: City of Hamilton Public Health Services. Data Extracted: 2014-01-28.

Two legionellosis cluster investigations were identified in Q3 and Q4, 2013. In both cluster investigations, no common sources of exposures were identified.