

**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
***Period 8 – 2014 (13 July to 9 August)***

**Cyclosporiasis: Investigation results**

In light of the current excess of cases in Montréal, those reported since the beginning of July have been investigated. The 8 cases—6 women and 2 men—are middle-aged. A food questionnaire revealed no common exposure to a food item such as, for instance, fresh fruit bought at the same place, but 3 cases had acquired the infection outside Canada. Some individuals around 3 of the cases presented undiagnosed gastrointestinal symptoms, but these were generally less severe than symptoms presented by the cases.

**Verotoxigenic *E. coli* infection: Modes of acquisition**

After two months during which there were no reported cases, since 1 April, 9 cases have been reported among Montrealers: 3 are linked to exposures during journeys to the Caribbean; 1 to a trip to Virginia; and 1 to the local consumption of raw milk. None is attributable to local consumption of undercooked ground beef. However, the indication to cook this meat thoroughly still stands.

**Chikungunya virus infection**

Cases are not included in the statistics since this is not a reportable disease. However, investigations into the 20 reported cases are ongoing. Of the 12 cases contacted, 9 were imported from Haiti, and one each from the Philippines, Guadeloupe and St. Lucia. To date no cases have been imported from Florida, which is the only American state where there has been local transmission of the infection.

**Ebola virus disease (EVD): Situation in Montréal**

The 7 reported suspected cases in Montréal have all tested negative. For 5 of these individuals, confirmed or probable diagnoses are available: malaria, tuberculosis, acute leukaemia, gastroenteritis and ischio-rectal abscess.

Québec's nosocomial infections committee has just published a guide for the management of patients with confirmed or suspected EVD. In particular, so as to avoid unnecessary tests, the guide includes the epidemiological and clinical characteristics to assess in a patient before requesting an Ebola virus test. See [\[http://www.inspq.qc.ca/pdf/publications/1875-SurveillanceSouchesNeisseria.pdf\]](http://www.inspq.qc.ca/pdf/publications/1875-SurveillanceSouchesNeisseria.pdf)

The DSP de l'Agence de la santé et des services sociaux de Montréal has issued a call for vigilance regarding EVD:

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2014/AV - Ebola et documents 2014-08-21 .pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2014/AV_-_Ebola_et_documents_2014-08-21_.pdf)

**Pertussis: Unimmunized cases**

There is no excess of cases of pertussis at this time in Montréal. However, one notes that of the 7 cases reported between 22 June and 9 August and for whom investigations have been completed, 6 involved young people (between the ages of 1 and 15) who had not received *any* doses of pertussis vaccine. There have been a number of outbreaks both in Canada and the United States in 2014. In the U.S., incidence (9964 cases reported as of 16 June) is 24% higher than in 2013. Clearly, non-vaccination cannot be justified under the pretext that the disease is under control.

Source: <http://www.cdc.gov/pertussis/outbreaks/trends.html>

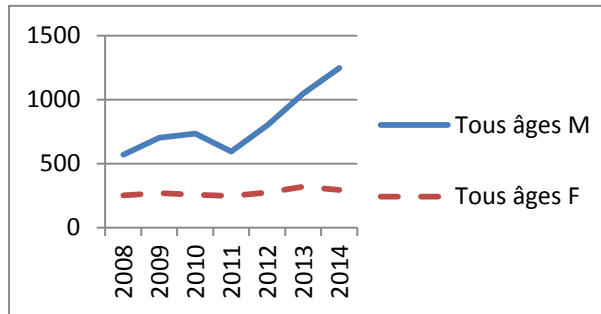
## Highlights

### Statistics for reportable diseases (MADO) and other infectious diseases under surveillance

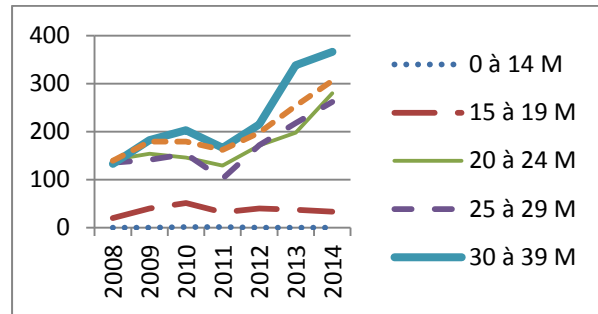
*Period 7 – 2014 (15 June to 12 July)*

#### Gonococcal infection: On the increase over the past few years

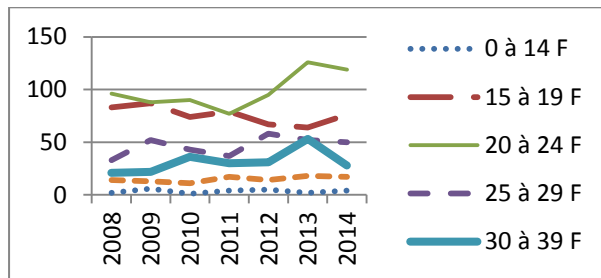
Gonorrhoea rates have been rising in Montréal since 2012. The following figures show the **numbers of reported cases**, by age, sex and year. Numbers for 2014 have been annualized.



Numbers of cases reported per year



Numbers of male cases reported per year



Numbers of cases female cases reported per year

The number of cases is much higher among men for the entire period 2008-2014, except in the 0 to 14-year-old age group, where there have been more cases among girls (23 cases; boys: 1 case). Since 2012, the numbers have been rising continuously among men, and about equally in all age groups except 30 to 39-year-olds, where the increase seems to be more pronounced. Among women, the number of cases has risen only among those aged 20 to 24, and lightly among these.

Greater use of nucleic acid amplification tests may have improved the capacity to detect the infection but this would not explain why the increase is so much higher among men than women. We do not know the cases' sexual orientation, but the marked increase among men with no corresponding rise among women suggests that male-to-male transmission may be playing a significant role. Higher gonorrhoea incidence in MSM has been observed in England since 2009. It is attributed to ongoing risky behaviours and to more extra-genital testing. Data analyses by type of test, site of sample collection and resistance profile (because of the significant growth in resistance) will be carried out.

#### Chikungunya virus infections: first reports

The LSPQ reports 10 cases among Montrealers. The virus causes dengue-like symptoms: fever, skin rash and joint pain. It spreads through the bite of infected *Aedes aegypti* and *Aedes albopictus* mosquitos, which are not found in Canada but are common in the Caribbean and other regions. Of the three cases investigated to date, two had been to Haiti and one to St. Lucia. There is no specific treatment for this infection but the best prevention is avoidance of mosquito bites when travelling to infested areas. For more information, see the Call for vigilance on the Director of Public Health's Website

[http://www.dsp.santemontreal.qc.ca/dossiers\\_thematiques/infections\\_et\\_intoxications/appels\\_alertes.html](http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/infections_et_intoxications/appels_alertes.html)

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 6, Year 2014**  
**(weeks 21 to 24, 18 May to 14 June)**

**Very little influenza circulation**

Influenza activity is now at inter-seasonal levels. Moreover, there are no outbreaks in hospitals or long-term care centres.

Source: LSPQ

**Overdoses among street-drug users: Preliminary results of investigations**

As of 7 July, 140 overdoses had been reported to the DSP de l'Agence de Montréal, most of them by Urgences-Santé (68) and first responders (42). Of the 58 severe overdoses linked to a drug other than alcohol, 14 were reported in May, 39 in June and 3 in July. The overdoses involved 44 men and 12 women aged 20 to 61, with a median age of 39 years. There were 21 confirmed deaths: 14 in May, 6 in June and 1 in July.

At least 33 patients were admitted to emergency and 12 were hospitalized, 9 in intensive care. Among patients for whom at least partial lab test results are available, cocaine was identified in 18 cases, benzodiazepine in 8, cannabinoid in 6 and heroin in 5. Results of other substances—including fentanyl—are still too preliminary to report. Documented consumption methods include 28 by injection, 8 by inhalation, 6 by ingestion and 4 by intranasal use. Loss of consciousness was reported for 43 subjects, respiratory distress for 24 individuals and cardiopulmonary arrest for 20.

Naloxone was administered to 18 patients, 4 of whom received it in emergency prehospital care and 13 in hospital;\* 6 of these patients were given one dose, 6 were given two, 3 were given three, and 2 were given four.\* Naloxone administration is associated with survival: 14 of the 24 patients who did not receive naloxone died; of the 16 who did get it, only 1 died.\* This statistically significant association ( $p < 0.01$ ) is compatible with the hypothesis that access to naloxone improves chances of survival; but it is also compatible with other hypotheses, which will be studied once investigations have been completed. The results are all preliminary and should be interpreted with caution.

We wish to thank everyone who has been sending us information. The situation continues to be monitored, and reporting of street-drug overdoses that *stand out either because of their number or their effects* continues to be relevant. Call 514-528-2400 and ask for the STBBI nurse on call or, if it is after 4:30 p.m., ask for the physician on-call for environmental health.

*\*Because of missing information and to shorten the text, the sum of the detailed numbers may be smaller than the grand total.*

**MADO non-reporting**

During the summer, staff members often have to be replaced. To avoid reporting omissions and delays, we would appreciate your checking that all individuals concerned are familiar with reporting procedures.

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 5, Year 2014**  
**(weeks 17 to 20, 20 April to 17 May)**

**Influenza B continues to circulate**

Based on the percentage of positive flu tests, influenza type B infections have been declining over the past three weeks (19 to 21), but only very slowly. However, there are currently no outbreaks of influenza or influenza-like illness in hospitals or residential and long-term care centres in Montréal.

Source: LSPQ

**Campylobacteriosis: Unexplained excess**

There has been an excess number of reported cases of campylobacteriosis since Period 3 (see Figure 1). Their distribution by age, sex or area of residence does not differ from what it was before this situation arose. Although we do not routinely investigate reported cases of campylobacteriosis, at the end of April we looked at three cases of *C. jejuni* because their proximity in space and time suggested a possible common source. Investigations showed the three cases were in men of varying ages, with very different medical histories and for whom no common exposure could be identified. Two were hospitalized—one for *delirium tremens* and diarrhoea, the other for dehydration.

**Overdoses among street-drug users: Recent reports**

A call for vigilance and a media release were issued on 24 May and 26 May, respectively. This was in response to reports of 14 overdoses, either severe (including 9 deaths) or with unusual clinical presentations : allergic reaction, anoxia, sudden respiratory arrest, rhabdomyolysis or coma. Laboratory analyses and public health investigations are not yet completed, but different types of drugs and consumption methods appear to be involved. It is estimated that in Montréal, between 2000 and 2009, there were 643 unintentional deaths linked to use of illicit drugs, attributed about evenly to heroin, cocaine and other opioids; a quarter of the drugs had been injected.

Posters have been prepared for distribution in at-risk milieux. Health workers can obtain more information at

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2014/AV\\_surdose\\_drogues\\_rue\\_20140524.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2014/AV_surdose_drogues_rue_20140524.pdf)

It would be appreciated and helpful to receive reports of street-drug overdoses *that are unusual either because of their number or their manifestations*. Call 514-528-2400 and ask for the physician on-call for infectious diseases.

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 4, Year 2014**  
**(weeks 13 to 16, 23 March to 19 April)**

**Influenza : type B still circulating**

Based on the percentage of positive flu tests, influenza A activity is now minimal; however, influenza B has been slower to decrease since reaching its peak 7 weeks ago. Currently, there is only one outbreak, in a residential and long-term care centre.

Source: LSPQ

**Risk of importation of serious infections: Rising, but varies by disease**

Internationally and in Canada, particular attention must be paid to the risk of importation of four infections. At this time, there is no local transmission of any of these infections in Montréal.

Human cases of **influenza** H5N1 and H7N9 have occurred in 6 countries, all in Asia.

**Middle East Respiratory Syndrome (MERS)** has caused over 100 cases in Asia, which has led to more than 10 cases being imported into five European countries. Two cases in health care workers were recently imported from Saudi Arabia into the United States: one in Indiana and the other in Florida. There are no known secondary cases linked to these two individuals.

Currently, there are many outbreaks of **measles** around the world. In Canada, cases, mostly imported from Asia and sometimes leading to local transmission, have been reported in five provinces, including Ontario (and the city of Ottawa). Recently, 70 Québec children, 40 of whom live in Montréal, were exposed to a case in Ontario during a sports event, but none was infected.

**Ebola virus disease (EVD)** has caused about 250 cases, but these have been limited to Liberia and Guinea (Conakry). To date, no cases have been exported outside West Africa. Three suspected cases were reported in Montréal, but none was confirmed.

For now, it is measles that has been linked to cases imported to North America, followed far behind by MERS. However, for any given case, the probability that it is imported depends on 1) clinical presentation, and 2) history of either travel to an affected country or contact with a confirmed case acquired abroad. It is recommended to report cases immediately to the *DSP de l'Agence de Montréal*, once the measures outlined in the following document have been applied:

[http://www.inspq.qc.ca/pdf/publications/1742\\_MesPrevContrInfectUrgence.pdf](http://www.inspq.qc.ca/pdf/publications/1742_MesPrevContrInfectUrgence.pdf)

Other information about MERS and influenza:

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2014/Appel\\_vigilance\\_-\\_MERS\\_CoV\\_MRSI\\_2014-05-08.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2014/Appel_vigilance_-_MERS_CoV_MRSI_2014-05-08.pdf) and

[http://www.who.int/csr/disease/coronavirus\\_infections/MERS\\_CoV\\_Update\\_27\\_March\\_2014.pdf?ua=1](http://www.who.int/csr/disease/coronavirus_infections/MERS_CoV_Update_27_March_2014.pdf?ua=1)

Measles:

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2014/Appel\\_vigilance\\_rougeole\\_2014-04-04\\_.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2014/Appel_vigilance_rougeole_2014-04-04_.pdf) and

[http://www.who.int/immunization/monitoring\\_surveillance/burden/vpd/surveillance\\_type/active/big\\_measlesreportedcases6months\\_PDF.pdf](http://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/active/big_measlesreportedcases6months_PDF.pdf)

Ebola virus disease: <http://www.cdc.gov/vhf/ebola/outbreaks/guinea/>

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 3, Year 2014**  
**(weeks 9 to 12, 23 February to 22 March)**

**Influenza: Situation stable**

Overall, as of April 1 and based on the percentage of positive influenza tests, influenza transmission in Québec is stable (weeks 12 and 13); a slight decrease in transmission of influenza A is counterbalanced by a slight increase in influenza B transmission. The number of ongoing outbreaks in Montréal health care facilities is also stable: there are currently 3 outbreaks of influenza-like illness and 1 of influenza B.

*Source: LSPQ*

**Creutzfeldt-Jakob Disease (CJD)**

The reported case is in a 60-year old individual, who died of the disease. The case was confirmed by histology and immunohistochemistry, suggesting furthermore that it is neither a case of variant CJD, which causes bovine spongiform encephalopathy (BSE or mad cow disease), nor of familial CJD. It remains possible, however, that this is iatrogenic CJD or a sporadic form of the disease, which is much more common but whose causes are not well known.

The Public Health Agency of Canada's (PHAC) Creutzfeldt-Jakob Disease Surveillance System investigates all cases of CJD occurring in Canada. Since 1998, PHAC has recorded 676 cases of CJD, including 162 in Québec. Of these, 90% were sporadic and 7% familial. Only 4 cases, which all occurred before 2003, were iatrogenic (due, for example to cornea transplants or dura-mater grafts, or to human grown hormone injections), and 2 were BSE cases.

*Source: PHAC*

*Contributor: Jérôme Latreille*

***Lymphogranuloma venereum: Usual and unusual cases***

One of the three cases reported during the period was mentioned in the Highlights for Period 2; the case is in a young woman who acquired the disease through heterosexual transmission, the first instance documented in Montréal. The two other cases fit the usual model: middle-aged men who had had sexual relations with men, one of them in a bathhouse. Both are drug users and have histories of multiple STBBI that include chlamydia, gonorrhoea, syphilis, hepatitis B and HIV infection.

*Contributors: Geneviève Boily, Anna Urbanek and Christine Leblanc.*

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
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**Period 2, Year 2014**  
**(weeks 5 to 8, 26 January to 22 February 2014)**

**Influenza: Transmission declining but outbreaks in health care facilities continue.**

Based on the percentage of positive influenza tests, transmission of influenza is now declining in Québec: influenza A transmission has dropped markedly, while influenza B has risen moderately. Nonetheless, three outbreaks of influenza-like illness are ongoing in general and specialized hospital centres and rehabilitation hospitals, and five in long-term care facilities. Four of the outbreaks are due to influenza B, one to influenza A and one to respiratory syncytial virus, which continues to circulate widely. Seasonal flu vaccination is still recommended for unimmunized new patients in long-term care facilities.

Source: LSPQ and MSSS.

Contributors: Guy Lapierre and Pierre Pilon.

**Lymphogranuloma venereum (LGV): First documented occurrence of heterosexual transmission in Montréal since the beginning of the outbreak.**

A case meeting the definition of probable case has been reported in a man in his twenties who had had sexual relations with women only. The case was diagnosed through serologic testing for LGV because of a penile lesion and swollen inguinal lymph node, the most common presentation in heterosexuals.

The patient (index case) reported having had sexual relations with four women over the three-month period before his symptoms appeared. The source is most probably an anonymous casual partner he met in Missouri, where LGV cases are not investigated and incidence of the disease is unknown. Contact with this person occurred about a month before onset of symptoms, which is consistent with the usual incubation period. Two of the other partners were assessed and tested negative. The infection seems to have been transmitted to the fourth person, his stable partner, who developed signs consistent with chlamydial infection at the same time as the index case's signs appeared. Results of serologic testing showed that she had LGV antibodies, which means she is also a probable case. She cannot be the source case, because the index case was her only partner ever.

An important point is that both cases are "probable", based on serological test results, rather than "confirmed", which would require DNA sequencing because cross-reactivity may cause difficulties when interpreting LGV serology. Therefore, it is recommended that *LGV be mentioned and DNA sequencing requested*, along with a *C. trachomatis* culture or PCR, when LGV is suspected. Male and female partners of persons with LGV should be informed, assessed, tested and treated, as recommended:

<http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-9-eng.php>.

Recently in Europe, there have been cases of LGV reported in women whose partners were bisexual or of unknown sexual orientation. For more information about the LGV outbreak in Montréal, see the Call for vigilance issued on 12 August 2013 by *Direction de santé publique de l'Agence de la santé et des services sociaux de Montréal*.  
[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1 Espace du directeur/0 Voix du directeur/Appels\\_vigilance/2013/AV\\_LGV\\_2013-08-12.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2013/AV_LGV_2013-08-12.pdf)

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 1, 2014**  
**(weeks 1 to 4, 29 December 2013 to 25 January 2014)**

**Influenza**

Based on the percentage of positive influenza tests, transmission of influenza A is now declining in Québec, while influenza B transmission continues to rise. Among other respiratory viruses, respiratory syncytial virus is clearly predominant.

*Source: LSPQ*

**Leprosy: An instructive case**

The case included in the statistics is the first in Montréal since November 2011, and presents a few possibly unexpected characteristics that can serve as useful reminders. The patient is around 20 years old and from an endemic country, but has had no known contact with someone with the disease. The first signs and symptoms appeared in early January, about two years after arrival in Canada. A vancomycin-resistant cellulitis of the hand was followed by ulnar neuritis and then by cutaneous lesions on several parts of the body. A skin biopsy confirmed the diagnosis made by an astute microbiologist.

*We wish to thank Andrew Gray and Michèle Bier for the information provided.*

**Recent calls for vigilance: *Acinetobacter baumannii* nosocomial infections and imported measles**

Last 19 December, a call for vigilance and an information sheet were issued following a nosocomial outbreak of extremely drug resistant *Acinetobacter baumannii* infections:  
[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2013/A\\_v\\_Acinetobacter\\_baumannii\\_XDR\\_19122013.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2013/A_v_Acinetobacter_baumannii_XDR_19122013.pdf)

In response to a few cases of measles imported into Canada from the Philippines, a call for vigilance was issued last 31 January.

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2014/A\\_v\\_Rougeole\\_31012014.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2014/A_v_Rougeole_31012014.pdf)

*We wish to thank Chloé Healy and Jérôme Latreille for the information provided.*

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