

## Highlights

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

#### Period 13 – 2015 (6 December 2015 to 2 January 2016)

#### **Ebola Virus Disease (EVD): End of human-to-human transmission reported in West Africa**

The World Health Organization has declared that human-to-human transmission of Ebola virus had ended in Sierra Leone (7 November 2015), Guinea (29 December 2015) and Liberia (14 January 2016). Nonetheless, since then two new cases of EVD have been confirmed in Sierra Leone. Small, sporadic outbreaks are expected, since it has been demonstrated that some individuals who have recovered could still carry the virus (up to a year, in sperm especially). In Montréal, 78 travellers were monitored during Period 13. Regional procedures for monitoring travellers coming from that part of the world were changed on 22 January 2016. From now on, only travellers from Guinea at high risk of developing symptoms are required to report immediately to public health authorities, who then actively monitor their temperature. Asymptomatic travellers do not need to be monitored; however, they are asked to report any signs of fever or symptoms of EVD that may develop during the 21-day monitoring period. Symptomatic travellers receive immediate care upon arrival at a port of entry. To date, obviously, no cases of EVD have been reported in Canada. For the most recent developments on the epidemiological situation of EVD, see WHO's situation reports: <http://www.who.int/csr/disease/ebola/situation-reports/en/>

#### **Legionnaires' disease: Numbers for 2015**

Three cases of Legionnaires' disease were reported during period 13, which is higher than expected for this time of year. The numbers of reported and confirmed cases for all of 2015—34 and 32 respectively—also exceed the upper limit of number of cases observed in previous years. Among confirmed cases in 2015, there were 22 men and 10 women, and their average age was 66.1 (range: 26–92). Almost all cases had risk factors such as chronic heart or pulmonary disease, diabetes, cancer or immune suppression, smoking or alcohol abuse. Most cases (26/32) were acquired in the community. Three time clusters and one space-time cluster were observed during the year; epidemiological investigations did not identify any links with shared environmental sources. Given that cultures were unavailable for almost all cases, microbiological investigations of clustered cases could not be carried out. In addition to using the *Legionella* urine antigen test, it is important that clinicians explicitly ask for cultures from all cases and forward them to the LSPQ, or send respiratory samples (endotracheal secretions or sputum) directly to the LSPQ for PCR analysis. Genotyping of environmental and human strains helps confirm possible links between suspected sources and cases.

#### **Salmonella: Number of cases back to normal**

While the number of salmonellosis cases during period 12 of this year was almost double that for the same period in 2014, the number for period 13 was closer to normal, with 16 reported cases. Canada-wide, however, 7 cases of *Salmonella infantis* were added to the figures related to a country-wide outbreak that began in March 2015, bringing the total to 98 (latest update: 24 December 2015). The investigation conducted by the Public Health Agency of Canada (PHAC) indicates that raw chicken may be the source of the outbreak. PHAC has issued country-wide recommendations for basic precautions to take when handling and cooking food, especially poultry products. These recommendations are still in force. For more information about the recommendations and to see the latest updates on the outbreak, go to <http://www.phac-aspc.gc.ca/phn-asp/2015/salmonella-infantis-eng.php>

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 12 – 2015 (08 November to 05 December)**

**Salmonella: Increase in number of cases during Period 12**

During period 12, 30 cases of salmonella were reported, almost double the number for the same period in 2014. Seemingly, most cases (27) were sporadic since serotypes were diverse and there was no clustering in space or in time. There was no intervention by public health. However, three cases were the subject of epidemiological investigations, due to national outbreaks. In particular, a pan-Canadian *Salmonella infantis* outbreak began on 15 March 2015. According to the Public Health Agency of Canada, as of 18 December, there had been 91 cases in 9 provinces, including 13 in Québec (2 of whom were in Montreal). Most (60%) cases were in women, and the average age was 40. Sixteen cases (18%) were hospitalized but there were no deaths. The cause of the outbreak has not yet been determined. In view of this outbreak, the increase in salmonella cases and the upcoming holiday season, it is important to remind the population to wash their hands, and to be mindful of food safety when preparing food for same-day consumption or to be served in the following days.

**Gonorrhoea: Male cases on the rise**

During period 12, the number of reported cases of gonorrhoea (203) was higher than in periods 11 in 2015 (163) and 12 in 2014 (134). Most cases were in men (173, 85.2%), more specifically in men aged 15 to 24 (49 cases), 25 to 29 (40 cases) and 40 to 49 (46 cases). In the latter two age groups, the figures represent an increase when compared with earlier periods in 2015. These data are in line with the trend observed in INSPQ's most recent profile of STBBI published on 1 December: [https://www.inspq.qc.ca/pdf/publications/2067\\_portrait\\_infections\\_sexuellement\\_sang.pdf](https://www.inspq.qc.ca/pdf/publications/2067_portrait_infections_sexuellement_sang.pdf)

**Zika virus: A new epidemic in the Americas**

Zika fever is an arthropod-borne disease caused by Zika virus. It is transmitted through the bites of infected *Aedes* mosquitoes. Symptoms are usually moderate and resemble those caused by dengue (fever, rash, arthralgia, myalgia and conjunctivitis). Treatment is purely symptomatic. The first autochthonous case of Zika fever in the Americas was reported in Chile in February 2014. Since then, nine other countries in the Americas region, including Mexico, have reported locally acquired cases. Six of those countries detected their first cases during November 2015. Brazil is the country most affected.

Concurrent with the Zika outbreak and over the past few weeks, Brazil has reported 20 times more cases of microcephaly than in preceding years (over 1700 cases) in the regions most affected by Zika virus, which was detected in two mothers and a newborn. Neurological disorders have also been reported in adults infected with Zika virus. Based on these data and while it awaits more thorough studies, the Pan American Health Organization (PAHO) issued an alert on 1 December 2015 asking its members to establish or strengthen surveillance to detect initial cases or increases in cases of Zika fever, as well as neurological disorders and congenital malformations possibly linked to Zika virus. On 16 December 2015, PHAC issued a travel health notice recommending that travellers, especially pregnant women, discuss this issue with their health care providers and take measures to protect themselves against mosquito bites. Cases of Zika fever imported from Latin America have been reported in Europe. Therefore, it is especially important to be attentive to possible cases imported to Montreal, especially among pregnant women who have travelled to Latin America. The National Microbiology Laboratory's diagnostic test is available through the *Laboratoire de santé publique du Québec*: [https://www.inspq.qc.ca/sites/default/files/lspq/annonce\\_virus\\_zika.pdf](https://www.inspq.qc.ca/sites/default/files/lspq/annonce_virus_zika.pdf). For more information from PAHO, go to [http://www.paho.org/Hq/index.php?option=com\\_topics&view=article&id=427&lang=en](http://www.paho.org/Hq/index.php?option=com_topics&view=article&id=427&lang=en)

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## Highlights

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

#### Period 11 – 2015 (11 October to 7 November)

#### **Measles: Confirmed case in an 11-month-old child returning from an overseas trip**

A case of measles was reported on 30 October 2015: an 11-month-old child infected in Tunisia. The patient went to an emergency department three times before being admitted to a hospital and appropriate precautions being taken. We have identified 99 potential close contacts, 79 of whom live in Montréal and 20 outside the region. Telephone or mail contacts have been initiated, based on the age of the exposed children. It was also recommended to watch for symptoms among siblings and pregnant women in contact with them. The outbreak ended on 24 November 2014, the date up to which contacts could have shown signs and symptoms of measles. This is the second confirmed measles case in Montreal in 2015. The previous one was in May 2015, also in a person returning from a trip (Ethiopia). These cases highlight the importance of asking patients with symptoms of measles about their travel history and looking into the epidemiological profile of the disease in the countries visited.

For more information about measles prevention, see the call for vigilance issued on 30 October 2015: [http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1 Espace du directeur/0 Voix du directeur/Appels vigilance/2015/A-V Rougeole 3010205.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/A-V_Rougeole_3010205.pdf)

#### **Whooping Cough: Province-wide outbreak**

A whooping cough outbreak is currently affecting the province. As of 26 November, there had been 641 cases reported in 2015, about three times more than at the same date last year. At this time, there have been 40 reported cases of whooping cough compiled for Montreal in 2015, including 4 confirmed cases in Period 11 and 1 in Period 12. Although the numbers of cases per period in Montreal are within the norm, increased vigilance is recommended so that symptoms consistent with measles can be quickly identified, especially among patients who have recently been to other regions in the province.

General information: <http://sante.gouv.qc.ca/problemes-de-sante/coqueluche/>

Protocole d'immunisation du Québec: <http://publications.msss.gouv.qc.ca/msss/document-000105/>

#### **Tetanus: Report in the presence of clinical suspicion**

During Period 12, a case of tetanus was reported in a 58-year-old patient admitted to intensive care for significant oxygen desaturation episodes accompanying intermittent spasms. However, this diagnosis was ruled out in the light of the patient's clinical course. Any clinical presentation suggesting a possible tetanus diagnosis should be rapidly reported, even if the diagnosis might be ruled out later. Tetanus is a rare but severe disease. Therefore it is important to remember to include it in a differential diagnosis, when pertinent (as is also the case for measles). Furthermore, an epidemiological investigation of adult tetanus cases that occurred in Quebec from 1990 to 2008 reveals significant underreporting for this disease: of the 23 cases found in Med-Echo for this period and confirmed by a review of hospital files, only 14 had been reported.

Source: Boulianne, N., Rouleau, I. and Defay, F. (2011) *Enquête épidémiologique sur les cas de tétanos adultes survenus au Québec entre 1990 et 2008*, Québec, Institut national de santé publique du Québec, 57 p.

## Highlights

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

Period 10 – 2015 (13 September to 10 October)

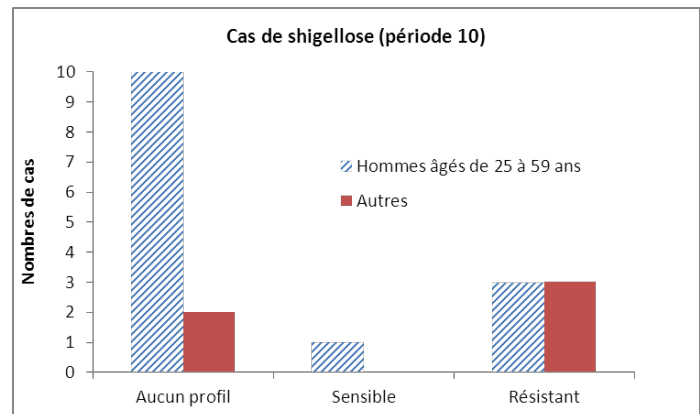
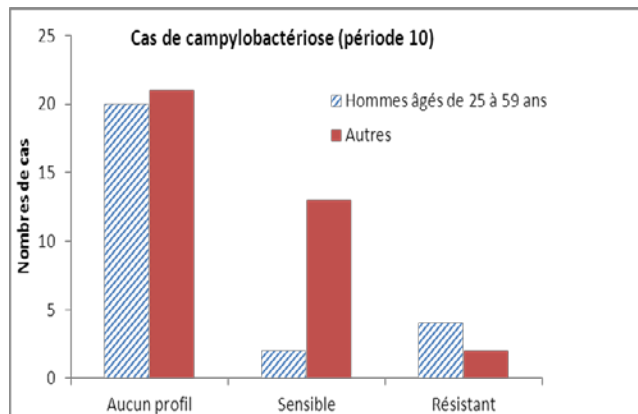
#### Cryptosporidiosis: Outbreak linked to a common risk factor

During Period 10, ten confirmed cases of cryptosporidiosis were reported, including a cluster of eight cases aged 3 to 66. Six of the eight cases were contacted and investigated. All had consulted for diarrhoea. Five of six patients had attended various public swimming pools or other outdoor recreational water facilities during the common exposure period, which coincided with a period of hot weather. However, without a control group, we cannot conclude that transmission occurred at these sites. No other common exposure was identified.

#### Bacterial Enteric Diseases: Resistance more frequent in some sub-populations

Since the beginning of Period 10, 62 cases of campylobacteriosis have been reported, 41 are in men and 21 in women. We have received resistance profiles for 21 of those cases. Resistant strains were reported for 6 cases: 3 to ciprofloxacin, 1 to tetracycline, and 2 to both ciprofloxacin and erythromycin. Resistant cases were mostly (5 out of 6) in men aged 25 to 59. We have no information about risk factors for these resistant cases except that there have been no reports of other notifiable diseases for any of them.

During this period, 19 confirmed cases of shigellosis (17 men and 2 women) were reported. Resistance data were available for 7 cases, 6 of whom presented resistance: 4 to TMP-SMX and 2 to both ampicillin and TMP-SMX. Among the resistant cases, 4 were in men aged 25 to 59. Unlike for campylobacteriosis, reported cases of shigellosis are systematically investigated. Two of the four male cases were contacted; they were in men who have sex with men (MSM). There have been several previous reports of STBBI for the other two cases, which could fit the MSM profile.



During Period 9, a case of an MSM with an infection caused by a strain of *Shigella flexneri* resistant to 4 classes of antibiotics (ampicillin, TMP/SMX, ciprofloxacin, nalidixic acid and azithromycin) was reported.

Although very preliminary, these data show that susceptibility testing of isolated strains of *Campylobacter* and of *Shigella* are either rarely requested or rarely reported. In addition, the data suggest that resistance is more common in MSM. Therefore, increased monitoring of resistance could help to track how incidence of these infections is evolving and to rapidly detect outbreaks in a group that is particularly affected. Interventions targeting this community have been offered in the past and could be again in the future.

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## Highlights Statistics for reportable diseases (MADO) and other infectious diseases under surveillance *Period 9 – 2015 (16 August to 12 September)*

### Lyme Disease : Preliminary report for the 2015 season

As of 30 September, 43 cases of Lyme disease have been reported this year: 5 confirmed cases, 4 probable ones, 7 negative and 27 as yet unconfirmed. The latter two categories are not included in the periodic statistics. All confirmed cases showed signs of the disease, had positive test results and had travelled to an endemic area. Probable cases also had clinical signs, but one had been to a non-endemic area and two tested negative; no samples were taken from one patient. Among the cases awaiting confirmation, 14 are waiting for lab test results (confirmation by Western blot) and 13 are being investigated or additional information is required before the epidemiological investigation can begin.

Only 12 of these cases were reported by physicians even though Lyme disease is reportable by both physician and laboratory. The case definition is complex and physician reporting is essential. Clinicians are asked to report suspected cases without waiting for lab results, which are not always required to validate cases. The report must be filled out completely and include information about the clinical signs and the exposure location. The more the reported cases are validated in real time, the more the periodic statistics reflect variations in incidence.

In most cases, no tick bite had been noted. Most patients presented with erythematous cutaneous lesions. All cases for whom information is available were exposed outside of Montréal. List of municipalities where there is a risk of acquiring Lyme disease:

<https://www.inspq.qc.ca/zooses/maladie-de-lyme>

### Hepatitis A: Multiple exposures to an index case in another region

Fifty-two possible exposures to hepatitis A have been reported, fifty of which were traced to a common potentially contaminated food item. The infectious but undiagnosed index case, who lives in another region of the province, had prepared a dish for a community meal. Among contacts, 37 had to be referred for PEP. Only a minority of contacts had already been vaccinated.

The index case had returned from a trip to his country of origin, endemic for hepatitis A, a reminder that special attention must be paid to VFR travellers—immigrants who return to their home countries to visit friends or relatives. This intervention highlights the importance of vaccinating any person deemed to be at risk, without keeping to the recommendations made in the PIQ. In Québec, vaccination against hepatitis A of anyone over age one wishing to decrease their risk of contracting the disease is “allowed” (however, the vaccine is not free, unless certain conditions are met).

Documents on hepatitis A in VFR travellers

<http://www.ncbi.nlm.nih.gov/pubmed/19674261>

<http://wwwnc.cdc.gov/travel/yellowbook/2016/advising-travelers-with-specific-needs/immigrants-returning-home-to-visit-friends-relatives-vfrs>

PIQ : <http://publications.msss.gouv.qc.ca/msss/document-000105/>

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**Highlights**  
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**Period 8 – 2015 (19 July to 15 August)**

**Lyme Disease: Season Well Underway**

In Québec, as of week 33, there had been 51 cases reported this year. In Montréal, 26 reports were received during the same period, but only 5 are included in the statistics (4 probable and 1 confirmed). The other cases are either undetermined or have been identified as non cases, because the strict surveillance case definition requires the presence of signs or symptoms consistent with the illness. Like the ones reported previously, these 5 cases were exposed to the disease outside of Montréal: Trois-Rivières, Eastern Townships, United States, Ontario or Québec, and Sweden or Eastern Townships. The case definition is on page 64 of the following document:

<http://publications.msss.gouv.qc.ca/msss/document-000480/>

An information sheet and other documents are available at

[http://www.dsp.santemontreal.qc.ca/dossiers\\_thematiques/infections\\_et\\_intoxications/thematiques/maladie\\_de\\_lyme/documentation.html?L=jcfxjsspdiiib](http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/infections_et_intoxications/thematiques/maladie_de_lyme/documentation.html?L=jcfxjsspdiiib)

**Rabies: What kind of exposure leads to prophylaxis in Montréal?**

A new incident has occurred in the West Island that reinforces what was written in the most recent Highlights. A bat was found in the morning, in the bedroom of an adult who was sound asleep after having taken sleeping medication. The bat was captured and shown to be rabid. The person exposed had already started receiving post-exposure prophylaxis (PEP) thanks to the emergency physician's sound assessment.

Since January 2011, among all reports of potential rabies exposure, 500 have been electronically documented in detail. There is no significant time trend up or down in the annual number of cases. Delays between exposure and reporting vary from under 24 hours to 93 days, with an average of 5.5 days, being 7 days or less for 74%. Exposed individuals are divided almost equally between the sexes, and their ages vary from under 1 year to 90 years old, with an average of 37 years.

The animals involved are as follows: dogs, 47%; cats, 20%; bats, 18%; and raccoons, 8%. The other 7% involved a rabbit, groundhog, skunk, porcupine, fox and small rodents. Exposure to raccoons presents the highest probability of PEP (78%), followed by exposure to bats (40%), cats (23%) and dogs (19%). These differences are easy to explain: bats and raccoons are wild animals in which rabies has been well documented. They are not always captured after causing exposures, especially raccoons. Conversely, dogs and cats only very rarely present with rabies in Québec and are often easy to observe for 10 days to eliminate the possibility of rabies, so that the person exposed avoids PEP.

Compared to younger people, individuals with known exposures and aged 65 or over were most often exposed to a bat (19% vs 13%) or a raccoon (17% vs 5%), and less often to a dog (19% vs 3%). This explains, at least in part, why PEP is recommended more often to older than younger people (31% vs 23%).

Bat exposures can often be prevented by keeping bats out of buildings, especially bedrooms in care facilities and residences for seniors. Raccoon exposures can be prevented by avoiding going near the animal, however adorable it may be.

Information on how to keep bats out of buildings is available at

[http://www.cdc.gov/rabies/bats/management/index.html?s\\_cid=cs\\_654](http://www.cdc.gov/rabies/bats/management/index.html?s_cid=cs_654)



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**Period 7 – 2015 (21 June to 18 July)**

**Hantavirus pulmonary syndrome: First case in Montréal**

The first case ever reported in Montréal occurred in a soldier exposed to mouse droppings in northern Alberta during a military exercise involving over 7000 soldiers from several countries. Another Québec soldier attending the exercise was also infected. Both were hospitalized in intensive care and placed on mechanical ventilation, but both have now recovered. The maximum incubation period of 60 days has elapsed and no other cases have been reported. A *Call for vigilance* was issued:

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1 Espace du directeur/0 Voix du directeur/Appels vigilance/2015/Appel vigilance hantavirus 2015-07-17 .pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/Appel_vigilance_hantavirus_2015-07-17_.pdf)

**Legionnaire's disease: Case surveillance and environmental sources**

Although cases of legionellosis are being notified more frequently than in past years, no spatial clustering has been identified and no cases can be attributed to a specific environmental source, in particular to a cooling tower.

**Lymphogranuloma venereum: Resurgence since 2013**

The epidemic mentioned in *Highlights* for Period 4 is ongoing. Information on the situation in Québec between 2005 and 2014 is available on the website noted below. Of particular interest: 1) 99% of cases were in men who have sex with men, and 84% in Montrealers 2) Average annual incidence was 34 cases in 2004–2005; it then declined to 9 cases between 2007 and 2012, before climbing to 44 in 2013–2014.

[http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2006/06-271-02W-vol10\\_no6.pdf](http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2006/06-271-02W-vol10_no6.pdf)

**Bat exposure: Rabies risk**

During investigations of possible exposures to rabies, it has come to our attention that some primary care workers had informed people that there is no animal rabies on the Island of Montréal. Although it is true that there is no rabies in **land mammals** in Montréal, **bats** can be infected with rabies; this has been demonstrated on more than one occasion over the past few years. Recommendations on what to do after exposure to a bat are the same no matter where the exposure occurred.

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/dossiers\\_thematiques/Infections\\_et\\_intoxications/Morsures et prevention de la rage/Fiche information MAJ - morsure animale rage 2015-04-16 .pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/dossiers_thematiques/Infections_et_intoxications/Morsures_et_prevention_de_la_rage/Fiche_information_MAJ_-_morsure_animale_rage_2015-04-16_.pdf)

**Highlights**  
**Statistics for reportable diseases (MADO) and**  
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**Period 6, 2015 (24 May to 20 June)**

**Ebola Virus Disease (EVD): New cases in Liberia**

Last May 9, WHO announced that the EVD epidemic in Liberia was over. However a new case was confirmed on June 29, and the young man has died of the disease. More than 200 contacts were tested; two were positive for Ebola virus and both were symptomatic. As of now, two other cases have been discovered, for a total of 5. Montrealers returning home from one of the three countries affected are identified by *Citizenship and Immigration Canada* at the airport. Public Health then contacts these individuals within 24 hours to determine their level of risk and to instruct them on what to do should they develop symptoms consistent with EBV.

Source: WHO <http://www.who.int/mediacentre/news/ebola/03-july-2015-liberia/en/#>

**Fentanyl: Available in a new form**

Counterfeit tablets containing fentanyl are circulating in Québec City. They feature the imprint A-215 and are nicknamed "little blue". The pills might also be available in Montréal. Fentanyl is 40 times more potent than heroin and 50 to 100 times more potent than morphine. It can be sold as heroin, cocaine or oxycodone, or be added to these substances. It is associated with a high risk of overdose, causing signs and symptoms that are similar to overdoses due to other opioids. As is also the case when it is injected or ingested, fentanyl can cause respiratory depression and death when absorbed through the skin. A new Call for vigilance on the risk of overdose was issued on July 3.

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2015/Appel\\_vigilance\\_Surdose\\_2015-07-03\\_01.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/Appel_vigilance_Surdose_2015-07-03_01.pdf)

**Legionnaire's disease: Surveillance of cases and environmental sources**

Periodic statistics show that the 2015 season has started earlier than in the past. All reported cases are investigated, particularly to try and identify environmental sources. Since May 2014, cooling towers must be tested for *L. pneumophila* every month and positive results reported to the regional public health department. If a contaminated tower were located less than 2 km from a case's residence or a place frequented by them, strains from the tower and the case could be compared by genotyping to establish or exclude a link between the two.

**Lyme disease**

Incidence of this disease has been rising in Québec over the past few years. Although there has been no documented transmission (through ticks) in Montréal, each year Montrealers contract the infection elsewhere. A Call for vigilance was issued on July 9.

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2015/Appel\\_vigilance\\_Maladie\\_de\\_Lyme\\_2015-07-08.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/Appel_vigilance_Maladie_de_Lyme_2015-07-08.pdf)

An information sheet and other documents are available on the following Website:

[http://www.dsp.santemontreal.qc.ca/dossiers\\_thematiques/infections\\_et\\_intoxications/thematiques/maladie\\_de\\_lyme/documentation.html?L=jcfxjsspdiiib](http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/infections_et_intoxications/thematiques/maladie_de_lyme/documentation.html?L=jcfxjsspdiiib)



**Highlights**  
**Statistics for reportable diseases (MADO) and**  
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**Period 5, 2015 (26 April to 23 May)**

**Ebola Virus Disease (EVD): One fewer country affected by the epidemic**

On May 9, WHO announced that the EVD epidemic in Liberia was over, as 42 days had passed since the last case. However, close monitoring is ongoing. Sierra Leone and Guinea are still affected and WHO is calling on resources to remain mobilized until the end of the epidemic

(<http://www.un.org/apps/news/story.asp?NewsID=51030&Kw1=Ebola&Kw2=Liberia&Kw3=#.VXtAkflVhBc>). The public health department continues to receive about three reports a day concerning travellers who may have been exposed to EVD. All but seven were determined to be at low-risk following investigations; the seven were considered to be at moderate risk.

Source: WHO <http://apps.who.int/ebola/current-situation/ebola-situation-report-27-may-2015>

**Overdoses : The Importance of Acting Quickly**

Since May 17, we have received reports of 5 cases of intoxication (including 3 deaths) linked to drug use. Most of these individuals injected the drugs, which included heroin. A *Call for Vigilance* was issued, stressing the importance of acting quickly to identify cases of accidental overdose and administer naloxone (Narcan). To this end, *Méta d'Âme* and CRAN have initiated the project *Profan* (Prevent and reduce overdoses – Training and access to naloxone) and will offer training to drug users and their families and friends on administering naloxone. Those who have taken the training will be able to obtain naloxone kits in partner pharmacies, allowing them to intervene more quickly should they witness an opioid overdose.

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1 Espace du directeur/0 Voix du directeur/Appels vigilance/2015/Appel v  
igilance Surdose 2015-05-29 .pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/Appel_vigilance_Surdose_2015-05-29.pdf)

**FIFA Women's World Cup: Monitoring for Unusual Health Events**

Montréal is hosting World Cup matches between June 6 and July 5. Teams from 25 different countries are taking part, 15 of which are outside North America. A physician who sees a player, participant or spectator from a foreign country should be on the lookout for any unusual health problems, notify public health of all suspected or confirmed cases reportable diseases, and report any health problem that could pose a threat to public health.

**Shigellosis : Transmission Is Ongoing**

Cases of shigellosis reported during Period 5 are part of the outbreak described in the *Highlights for Period 4*. Patients with the infection or their parents are being informed of preventive measures indicated. However, maintaining adherence is difficult, especially in the Jewish Orthodox community, due to their practices and living conditions.

**Summer holidays : Risk of underreporting**

During the summer, staff members often have to be replaced. To avoid reporting omissions and delays, we would appreciate your making sure that all individuals concerned are familiar with reporting procedures. The DSP will investigate without delay all reports it receives that require rapid follow-up.

**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 4 – 2015 (29 March to 25 April)**

**Shigella: High incidence in certain risk groups**

Eighteen cases were reported during period 4. Eight were in children or young adults from the Orthodox Jewish community, for some of whom daycare and household transmission was documented. Of the other ten cases, only two were linked to travel (Cambodia, Nicaragua). Three were in men who have sex with men (MDM); all of these had histories of STBBI and two find sex partners through the Internet. The mode of acquisition for the other cases is not clear. Personalized educational interventions with cases or their parents are ongoing.

**Hepatitis A: Excess cases related to travel**

The three cases reported represent a significant excess. All were in unvaccinated adults and are linked to trips (Mexico, Venezuela, India), during which two patients report having eaten foods that present a risk. One patient was hospitalized. Hepatitis A in travellers to endemic countries continues to be problematic. Pre-travel advice on recommended precautions, especially vaccination, could go a long way toward controlling it.

**Lymphogranuloma venereum: Rising again**

Six cases were reported during period 4 (only one or two were expected), all in middle-aged men with histories of STIs (syphilis, gonorrhoea, HIV), many of whom were given the diagnosis in clinics serving MSM. Only one investigation has been completed to date: an MSM who does not visit saunas but who contacts partners over the Internet. For information about this STI, go to

[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)

**Influenza: Slowly decreasing**

The proportion of positive influenza A tests has been stable and very low for 5 weeks, at 1%–2%; for influenza B, the proportion is declining but remains high, at about 10%. Overall, the proportion of positive tests remains higher than last year at this time. Outbreaks continue to occur in residential and long-term care centres (CHSLD).

Source: LSPQ

**Measles: Imported case**

The first reported case of measles in a Montrealer since 2012 has just been confirmed. It involves an adult whose vaccination status is unknown and who was in Ethiopia during the entire exposure period; the person went to a Montréal emergency department less than 12 hours after arriving here. The MSSS has been notified regarding contacts in the aircraft. The case had a few other close contacts: three taxi drivers, patients in the emergency department waiting room, two children and two acquaintances. When prophylaxis can be offered to the contacts of someone with a reportable disease, it is very useful to report the case as soon as the diagnosis is *suspected*, which was not done here. Fortunately, the infectivity period has passed and no secondary cases have been notified to date. A call for vigilance has been issued:

[http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2015/A-V\\_Rougeole\\_08052015.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/A-V_Rougeole_08052015.pdf)

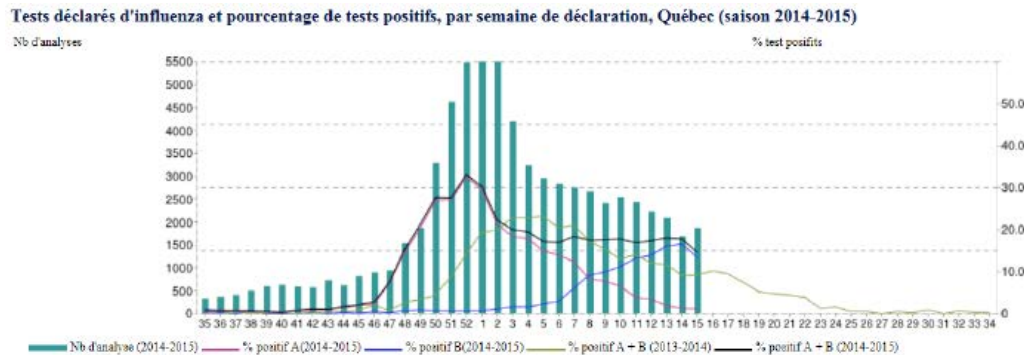
**Statistics for reportable diseases (MADO) and other infectious diseases under surveillance**  
**Period 3 – 2015 (1 to 28 March)**

**Shigella: Investigation results**

The excess reported in Period 2 continued into this period. Probable sources were identified for 13 of the 15 cases in Period 3: travel to a country where incidence is high, for 6 cases (due to *S. flexneri* or *sonnei*); sexual transmission between men, for 4 (all due to *S. flexneri*); and transmission among Jewish Orthodox children, for 3 (all due to *S. sonnei*). Over the past few years in Montréal, such a distribution of risk factors has been observed over several periods of excess. With the help of community organizations, steps have been taken in the Jewish Orthodox community among the children’s families and in places they frequent.

**Influenza: Activity indicators decreasing**

The trends reported over the past few periods seem to be reversing. According to the most recent data available, the proportion of positive results has started to decline, although it remains much higher than it was at this time last year. For the past 7 weeks, most positive results have been due to influenza B.



Source: LSPQ

**Tuberculosis: Sustained local transmission among persons at high risk**

Over the past 6 months, 5 cases have been reported in this group instead of the usual 1 or 2 a year. A cluster of pulmonary tuberculosis cases has been quietly progressing in the Montréal area since April 2003. In all, 22 cases (18 from Montréal, 3 from Montérégie and 1 from Laval) have been reported, and all are linked to the same strain, identified by genotyping. The cases have one or several risk factors in common: alcoholism, drug addiction, frequenting crack houses, prostitution, homelessness, criminalization, history of incarceration, HIV and/or HCV infection. The strain was introduced in 2002 by a person of Aboriginal background living in Montréal who was markedly symptomatic for several months before being diagnosed with pulmonary tuberculosis.

Case management, as well as identification and TB screening of exposed individuals, present significant challenges in this marginalized population that frequents certain crack houses in Montréal. To avoid treatment delays and try to break the chain of TB transmission, community groups have intensified the monitoring of symptomatic persons at risk and hastened their medical evaluation.

Since January 2012, all strains of *Mycobacterium tuberculosis* isolated in Québec are genotyped at the National Microbiology Laboratory in Winnipeg. The method used (*Mycobacterial interspersed repetitive unit* [MIRU]) looks at variations in numbers of repetitive genetic sequences. With PCR amplification of a set of 24 locations of the mycobacterial genome and measurement of the size of these amplicons, one can assign to any strain a series of numbers that correspond to the number of repeat copies for each locus. Universal strain typing makes it easier to identify all clusters.

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
***Period 2 – 2015 (1 to 28 February)***

**Measles: Montrealers at risk**

In Lanaudière, as of March 13, 2015, there had been over 119 confirmed cases of measles in a community that is against vaccination (Mission de l'Esprit Saint). Lanaudière public health officials have adopted the policy of removing unvaccinated children from the school attended by one of the infected children. Some members of the Mission live in Montréal. Although there have been no cases among these, there is a need to be vigilant for clinical signs consistent with measles and for histories of contact with a known case. Vaccine coverage in Montréal is 69.2% in elementary schools and 74.1% in high schools. To enhance prevention and bolster Montréal's capacity to respond to an outbreak, please take every opportunity to promote vaccination and to maintain your patients' vaccine status up to date, in line with Québec's immunization protocol.<sup>1</sup> For more information about measles and measures to track suspected cases, see the *Call for vigilance* issued on February 6.<sup>2</sup>

**A first case of cefixime-resistant gonococcal infection in Québec**

An isolated case of cefixime-resistant genital gonorrhoea was detected in a Montréal MSM. An epidemiological investigation has determined that the infection was acquired in Québec. Current recommendations<sup>3</sup>, particularly those on diagnostic tests, treatment and tests of cure remain applicable. When dealing with a resistant case, it is especially important to carry out a search to identify and manage sex partners. Public health can provide help with the latter.

**Shigellosis: Excess cases for 2015 under investigation**

More cases of shigellosis were reported than for the corresponding periods in 2013 and 2014. Of the 20 cases, there were 15 due to *S. flexneri* and 3 due to *S. sonnei*. Almost all cases were in adults, including 13 men. Investigations are underway to determine if the cases are linked.

**Influenza: A declining but B rising**

The 2014–2015 influenza season has been the most severe in 5 years and has lasted longer than usual. For the past 11 weeks, the number of samples testing positive for influenza A has continually declined, the peak having been reached during the last week of December. Nonetheless, an equivalent increase in the proportion of samples that have tested positive for influenza B means that the overall numbers have remained stable and higher than in preceding years. Influenza B activity does not seem to have peaked yet, even though we know that the 2014 vaccine is a much better match with the circulating B virus than with the A one. It is important to remain alert for signs and symptoms of influenza and to use proper hygiene practices.

Resources:

1. [http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1\\_Espace\\_du\\_directeur/0\\_Voix\\_du\\_directeur/Appels\\_vigilance/2015/Appel\\_a\\_la\\_vigilance\\_rougeole\\_2014-02-06\\_.pdf](http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2015/Appel_a_la_vigilance_rougeole_2014-02-06_.pdf)
2. <http://publications.msss.gouv.qc.ca/acrobat/f/documentation/piq/html/web/Piq.htm>
3. [http://www.inesss.qc.ca/fileadmin/doc/INESSS/Outils/Guides\\_ITSS/Guide\\_ITSS-Chlamydia\\_gonorrhoeae\\_majaout2013\\_.pdf](http://www.inesss.qc.ca/fileadmin/doc/INESSS/Outils/Guides_ITSS/Guide_ITSS-Chlamydia_gonorrhoeae_majaout2013_.pdf)

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**Highlights**  
**Statistics for reportable diseases (MADO) and**  
**other infectious diseases under surveillance**  
**Period 1 – 2015 (4 January to 31 January)**

**Measles: At least 19 cases in Québec**

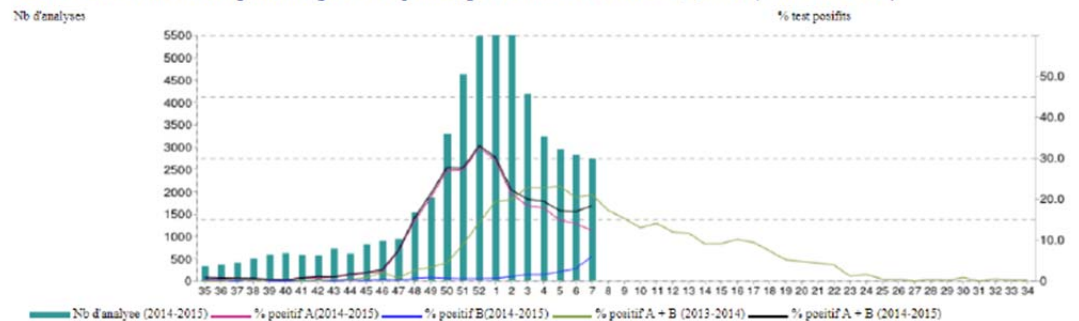
Nineteen confirmed measles cases were reported in the Lanaudière region, all of whom were unvaccinated. Eighteen of these cases were from six families and are linked to the outbreak in California. Although there have been some contacts between these cases and Montrealers, there have been no cases in the city so far. There have also been measles cases in Manitoba (1 case) and Ontario (17 cases). The Ontario cases are of concern since there is no travel history or known epidemiological link between them, which suggests there may be undiagnosed cases. The United States is also experiencing a multi-state measles outbreak. The CDC has reported 141 cases since the beginning of the year, 80% of whom were associated with the outbreak in Disneyland. Genotyping of the virus strain confirms that the genotyped Québec cases are associated with the American cases but not with the Ontario ones. The Pan American Health Organization has published an alert on the need to inform travellers of the risks of contracting measles while journeying. The measles catch-up vaccination campaign during the 2011 measles outbreak in Québec achieved a vaccine coverage rate of 90%. The recent importation of measles into Canada highlights the importance of maintaining a high vaccination coverage in our population, as well as the need for prompt diagnosis and reporting of measles cases. See the call for vigilance put out on 6 February 2015.

[http://www.dsp.santemontreal.qc.ca/espace\\_du\\_directeur/rubriques/nouveautes/article/appel\\_a\\_la\\_vigilance\\_influenza\\_debut\\_hatif\\_de\\_la\\_saison\\_2014\\_2015\\_copie\\_1-1.html](http://www.dsp.santemontreal.qc.ca/espace_du_directeur/rubriques/nouveautes/article/appel_a_la_vigilance_influenza_debut_hatif_de_la_saison_2014_2015_copie_1-1.html)

**Influenza: Ongoing activity**

Influenza activity has stabilized but remains higher than in the corresponding periods of 2010 to 2014. In Québec, the percentage of positive influenza A test results in sentinel laboratories has declined from 30% to 12% over the past seven weeks. During

Tests déclarés d'influenza et pourcentage de tests positifs, par semaine de déclaration, Québec (saison 2014-2015)



the same period, there has been a marked increase—from 0.7% to 6%—in the proportion of positive influenza B test results, indicating the beginning of peak transmission of influenza B. Therefore, vaccination continues to be recommended for persons at high risk.

Source: LSPQ

**Ebola Virus Disease (EVD): Case invalidated**

The monitoring of returning travellers with a possible exposure to EVD by the *DSP de l'Agence de Montréal* is ongoing. Since 30 October 2014, the *DSP* has received 222 reports of travellers possibly exposed to Ebola virus, that is, an average of 12 a week. One traveller at low risk was sent to a hospital because of symptoms consistent with EVD, but the diagnosis was invalidated. There have been no confirmed EVD cases in Canada to date.

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