

Highlights
Statistics for reportable diseases (MADO) and
other infectious diseases under surveillance
Period 13, Year 2012
(weeks 49 to 52, 2 to 29 December 2012)

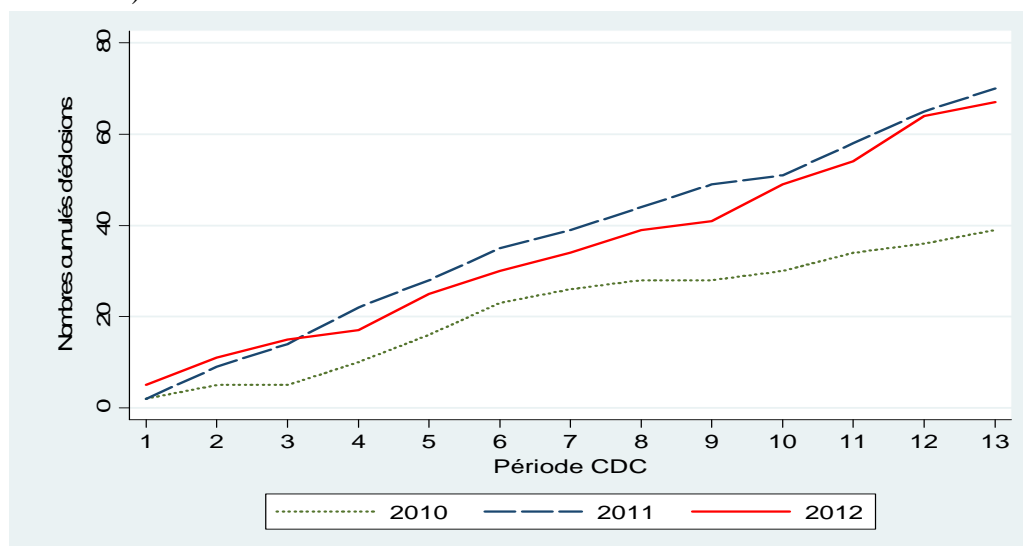
Influenza: Still spreading

The 2012-2013 influenza season began several weeks earlier than last year's did. Among cases confirmed in sentinel hospitals during the first week of January, 98% (1709/1737) were due to influenza A. Since September 2012, all cases for which the strain was identified were due to vaccine strains or closely related ones: 89% (48/54) to "A/Victoria/361/2011-like" and 11% (6/54) to "B/Wisconsin/01/2010-like"; all tested strains were resistant to amantadine, but sensitive to oseltamivir and zanamivir. In Montréal, as of 8 January, there had been 12 outbreaks of influenza-like illness (ILI) in 9 acute care hospitals, and 41 in 34 long-term care facilities. Still in Montréal, the peak in daily ILI-related visits to emergency rooms was observed on 26 December 2012 (423 visits); since then, the number of visits has been declining. However, although ER visits for ILI are abating, no surveillance data indicates that influenza transmission is decreasing. Vaccination is still indicated and will be as long as transmission levels are high.

Sources: Laboratoire de santé publique du Québec and National Microbiology Laboratory

VRE outbreaks: Numbers for 2012

After rising from 2010 to 2011, the number of reported outbreaks for 2011 to 2012 (by period or cumulative) has remained about the same:



The essential document entitled *Mesures de prévention et contrôle de l'entérocoque résistant à la vancomycine dans les milieux de soins aigus du Québec* is now available on the following Website:
http://www.inspq.qc.ca/pdf/publications/1555_MesuresPrevContEnteroResisVancomMilieuxSoinsQc.pdf

We wish to thank Nashira Khalil for her assistance.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

Highlights
Statistics for reportable diseases (MADO) and
other infectious diseases under surveillance
Period 12, Year 2012
(weeks 45 to 48, 4 November 2012 to 1 December 2012)

Enteric diseases: Cases associated with Eid al-Adha

Six cases of enteric diseases in children aged 1 to 12 years (2 caused by verotoxigenic *E. coli*, by *Campylobacter*, and 2 by *Salmonella*) were reported during Period 12. The cases were linked to Eid al-Adha, the Muslim Feast of Sacrifice, which was celebrated from 26 to 28 October. In all cases, there had been contact with sheep carcasses during the sacrificial ritual. In four cases, the animals were slaughtered in farms located outside Montréal; in the two other cases, the slaughter took place in the cases' homes. In the past, reportable diseases associated with this event were mostly *Campylobacter* infections; this is the first time that *E. coli* and *Salmonella* are documented in this context. Investigations have shown that the cases can be explained by inappropriate hygiene and preventive measures related to the handling of the meat and carcasses. These observations have been transmitted to the Ministère de l'agriculture (MAPAQ). *We wish to thank Jérôme Latreille and Jean-Loup Sylvestre for the information provided.*

Influenza: Cases are on the rise and the season is early

In Québec, as of 15 December, influenza activity was high. This is an early start to the season compared with 2011-2012, which had begun at the end of January 2012. About 97% of the strains identified are type A (H3N2) and 3% are type B. No resistance to oseltamivir or zanamivir has been detected in Québec for the strains currently circulating. In Montréal, to date, there have been nine confirmed influenza outbreaks in long-term care facilities, one of which was type B. The early flu season and outbreaks in long-term care facilities highlight the importance of protecting the most vulnerable individuals rapidly against complications of influenza. There is still time to get vaccinated. For information about vaccination, go to <http://www.dsp.santemontreal.qc.ca/vaccinationmontreal>

Sources: Flash Grippe, MSSS and LSPQ

***Shigella flexneri* infections resistant to azithromycin**

Cases of *Shigella flexneri* serotype 3a infections resistant to ampicillin and azithromycin, but sensitive to trimethoprim-sulfamethoxazole and ciprofloxacin, were recently documented in men who have sex with men. The LSPQ is currently performing additional analyses; to date, it has confirmed either a single pulsovar, resistance to azithromycin, or both, in six of the nine cases. These infections emphasize that attention must be paid to the sensitivity test results of the strain to prevent treatment failure. Routine sensitivity testing of *Shigella sp.* to azithromycin is not recommended. However, the sensitivity of the bacterium to this antibiotic cannot always be taken for granted.

We wish to thank Drs. Cat Tuong Nguyen, Pierre Pilon and Christiane Gaudreau for helping with this text

Thank you for contributing to disease surveillance.
(We are always ready to receive your reports, even during holidays.)
We wish you

Happy Holidays and a Happy New Year!

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 11, Year 2012
(weeks 41 to 44, 7 October to 3 November 2012)**



Cases of food poisoning: New source of reports

The 16 cases reported represent a significant excess compared with previous years. However, all cases are linked to several independent events and not to a single outbreak. The excess for Period 11, as for the rest of the year, is mostly attributable to the fact that MAPAQ (Ministère de l'agriculture, des pêcheries et de l'alimentation du Québec) now reports cases it detects during investigations directly to public health departments. Therefore, we can expect reported case numbers to remain higher than in the past.

We wish to thank Jérôme Latreille for the information provided.

Other diseases discussed for Period 11 have been in the Explanatory Notes for several periods now:

Whooping cough: Decrease in reported incidence

The number of cases per period has been declining since a peak was reached in Period 9; however, there are still more cases than in previous years, with 15 cases in Period 11 in 2012 versus 3 in the same period last year. The same trend has been observed throughout the province. Among the 8 cases for whom we know the status, 4 had completed vaccination (for their age group), 1 had not completed it and 3 had not been vaccinated at all.

Sources for data from outside Montréal: MSSS.

West Nile Virus: Significant decrease in incidence

Only three cases were reported during Period 10; however, all presented neurological manifestations severe enough to require hospitalization (meningitis, encephalitis, quadraparesis). All were men aged over 55, one of whom is immunosuppressed. Two cases were acquired in Montréal and the third is of unknown origin. As expected, the situation has improved with cooler weather, with the peak being reached in Period 10 in Montréal and in the province as a whole.

Sources for data from outside Montréal: MSSS.

Vancomycin-resistant enterococcus (VRE)

The number of VRE outbreaks reported in 2012 (including five new ones during Period 11) remains high compared with the historical average, but is slightly lower than the secular peak reached in 2011. Please note: since the beginning of 2012, two thirds (67% = 111/166) of the outbreaks in Québec have been in Montréal.

Sources for data from outside Montréal: MSSS.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 10, Year 2012
(weeks 37 to 40, 9 September to 6 October 2012)**

Whooping Cough: The epidemic is ongoing

There were 22 reported cases during this period; this is a statistically significant excess (see Graph) even though there has been a slight decrease since the last period (38 cases). However, the number of cases is 4.4 times higher than for the same period last year (5 cases). For the province, there have been 10 times more cases during this year's period 10 compared with last year's (161 cases versus 16). Among Montréal cases for whom the investigation is complete, 7 had been fully vaccinated for their age, 1 had been incompletely vaccinated and 5 had not been vaccinated at all. Children under 15 years old remain the age group most affected and one whose vaccination status should be easy to verify. An updated version of the call for vigilance issued in August was released on 10 October to highlight the importance of verifying and updating young people's vaccination status and of promoting the pertussis vaccine, as recommended in Québec's immunization protocol. Although the vaccine only effectively prevents 85% of cases, it helps reduce the severity of the disease and the risks of complications in immunized individuals who develop the disease.

For more details about incidence, go to <http://emis.santemontreal.qc.ca/sante-des-montrealais/maladies-a-declaration-obligatoire/coqueluche/>. For the update, go to http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appendix_vigilance/2012/A_V_coqueluche_MAJ_oct2012.pdf

Sources for data from outside Montréal: MSSS, CDC.

West Nile Virus: Incidence has not yet gone down

Sixteen new cases were confirmed during period 10, which is higher not only than the number for period 9 (6 cases) but also compared with period 10 a year ago (9 cases). Of the 16 cases, 15 are over 40 years old, 9 of whom are over 60; 9 cases required hospitalization, 2 of them in intensive care. Nine cases presented neurological forms of the disease but to date, no deaths have been reported. This rise in number of cases is comparable to those for the rest of the province (65 cases during period 10 versus 25 in 2011) and for Ontario, which has seen the most significant increase in cases since 2002 (244 in 2012, to date). The situation is expected to improve as cooler temperatures set in.

Sources for data from outside Montréal: MSSS, ASPC.

Vancomycin-resistant enterococcus (VRE): Provincial protocol to be updated soon

During period 10, eight outbreaks of VRE in hospitals were reported, an increase compared with the same period last year (two outbreaks). However, the total for this year (49 outbreaks) is similar to that for 2011 (51 outbreaks). The *Comité sur les Infections Nosocomiales du Québec* will soon publish an update of Québec's VRE prevention and control protocol.

Sources for data from outside Montréal: MSSS.

Epidemic of *E. coli* O157:H7 infections linked to products from XL Foods

As of 10 October, there had been 3 confirmed cases in Québec, 1 probable case and 1 case under investigation. There had been no cases among residents of Montréal.

Sources for data from outside Montréal: MSSS. We wish to thank Julie Dwyer for the information provided.

We wish to thank Dr. Cat Tuong Nguyen for helping with this text.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 9, Year 2012
(weeks 33 to 36, 12 August to 8 September 2012)**

Pertussis: Nine times more cases than last year

The total number of reported cases of pertussis keeps increasing. As of 8 September, there had been 98 cases, 38 of which were reported during period 9. This is nine times more than at the same time last year. Most cases (35) are under 15 years old; 17 had been fully vaccinated for their age, one had been partially vaccinated and one not at all. The rest are still being investigated. We expect transmission to continue over the next few months, which is why it is important to diagnose the cases, report them to the DSP and offer prophylaxis to contacts to interrupt transmission. A call for vigilance concerning pertussis has been produced for front-line workers and is available at

http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2012/Appel_a_la_vigilance_coqueluche_aout_2012.pdf

It is important to promote pertussis vaccination, to check the vaccination status of newborns and adolescents, and to offer missing doses.

West Nile Virus (WNV): Three times more cases than last year

Nine cases of WNV were reported during period 9, six of which have been confirmed. This number is three times higher than at the same time last year. Most of the time, the infection is benign and often goes unnoticed, but less frequently in older people. Indeed, six of the cases are over 50 years old; five of them have been hospitalized, four of whom developed neurological forms (meningitis, encephalitis, or meningo-encephalitis). However, the cases' clinical course has improved. No risk factor other than age was identified. Last summer was particularly hot, which fostered mosquito reproduction. The DSP has produced a call for vigilance:

http://www.dsp.santemontreal.qc.ca/fileadmin/documents/1_Espace_du_directeur/0_Voix_du_directeur/Appels_vigilance/2012/A-v_VNO12092012.pdf

Lyme Disease: Two more cases

Two cases of Lyme disease were reported to the DSP during period 9; one is a probable case and the other has been confirmed. One case acquired the disease while in Massachusetts; the person was bitten by a tick while sleeping (the tick was found in the bed). The other probably acquired it in the woods around Granby, which reminds us that the disease can be contracted in Québec. The DSP de la Montérégie has produced a publication on preventive measures and course of action when Lyme disease is suspected. It is available on the following Website:

<http://extranet.santemontregie.qc.ca/depot/document/3315/Sentinelle-vol118-no7.pdf>

We wish to thank Fatima Louali and Paul Rivest for helping with this text.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 8, Year 2012
(weeks 29 to 32, 15 July to 11 August 2012)**

Pertussis: Transmission is ongoing

The number of reported cases has increased significantly (see Figure 1) compared with the previous period, from 9 to 16. Of the 16 new cases, 14 were in individuals under 20 years old, including 4 babies under 12 months of age, which is the population we most seek to protect from exposure to *B. pertussis*. At least one of the babies was hospitalized.

Of the 8 cases investigated to date, 5 had not been vaccinated against whooping cough, 1 had been partially vaccinated, and only 2 had received all the vaccines recommended for their age group. Moreover, 2 cases had each exposed a pregnant woman to the disease and 1 had also exposed a baby under a year old.

These results point to two things: 1) The role in the outbreak of cases who haven't completed immunization, and 2) the challenge of reaching patients or their parents in time to offer chemoprophylaxis to family and friends. Prophylaxis is indicated for all household members living with a case if these include a baby under 12 months old or a pregnant woman who will be giving birth within three weeks, and if the case's symptoms appeared within 21 days.

It is difficult to reduce wait times for medical visits, but a clinician who sees a patient presenting with a cough compatible with a diagnosis of pertussis can immediately ask for a confirmation test (PCR). If the result is positive, the clinician should prescribe prophylaxis for household members if indicated, and immediately report the case to the DSP if the patient has attended daycare, where prophylaxis may also be indicated. See the call for vigilance at

http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/infections_et_intoxications/appels_alertes.html?x_ttnews%5Byear%5D=2012&cHash=285926a1937a547e87d9eabc255c68a6.

The provincial pertussis intervention guide can be downloaded from

<http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2009/09-271-02.pdf>

Source: MSSS.

Listeriosis: Two cases in very different patients

The two cases in this period both have *L. monocytogenes* meningitis. One is a baby with no known risk factors; the other is an adult in his fifties who is diabetic and immunosuppressed following a kidney transplant, but for whom no foodborne exposure has been identified. Both patients were hospitalized and have recovered.

Syphilis: A change in the epidemiology

Since July there has been an excess number of cases in downtown Montréal, in area to the west of and much larger than the "gay village", where excess cases are usually confined. Of the 38 cases, 7 (18%) are women, all 30 years old and over; excess cases among women in the province usually affect a younger age group. In light of these changes in the epidemiology of the infection, the DSP has broadened the categories of cases investigated to include individuals who are EIA+ and TPPA+ but RPR-, that is, those possibly tested very soon after acquiring the infection. We especially welcome your comments on this situation.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 7, Year 2012
(weeks 25 to 28, 17 June to 14 July 2012)**

Pertussis: The number of reported cases is still growing

Nine confirmed cases were reported during Period 7, the same as for the previous period. However, during the first half of Period 8 (15 to 31 July), nine other cases were reported, which suggests that transmission is escalating. Most cases were in children aged 0 to 19 years, three of whom were a year old or younger. According to the information on hand, none was hospitalized.

Significant pertussis epidemics are currently affecting several regions of the world. Overall in Québec, as of 31 July, 453 cases have been reported in 2012; at the same date in 2011, there had been 7 reported cases and 8 the preceding year. In 2012, 13% (57) were in babies under a year old, and 70% (316) were in children aged 1 to 14 years. Incidence rates in some Québec regions are higher than in Montréal, especially in some regions bordering on the city: Laurentides, Lanaudière and Montérégie. Four other Canadian provinces have also been affected: British Columbia, Alberta, Ontario and New Brunswick. In the United States, the number of reported cases could reach a level not seen since 1959, with epidemics being reported in 6 states. To date this year in that country, there have been 10 deaths among newborns too young to have been vaccinated. For adolescents and adults, cases have been attributed to low vaccine coverage and to immunity decreasing over time among people who have been vaccinated. This year in the United Kingdom, an excess of cases has affected all regions, including London.

Pertussis vaccine coverage is the same in Montréal as elsewhere in the province: in 2004-2006, it was estimated that 90% of two-year-old children had received 4 doses of vaccine. Moreover, incidence of the disease usually rises beginning in September, or even earlier some years. Therefore, we can expect transmission to persist or even intensify over the next few months. *Reporting all cases (confirmed, probable or suspected) as quickly as possible enables timely implementation of interventions designed to protect close contacts who are at risk* (such as excluding the case from daycare, if pertinent, and chemoprophylaxis for immediate family members, if the household includes an infant under 12 months of age). Montréal clinicians most likely to come across cases will soon receive a reminder to be vigilant, which will also be available at

http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/infections_et_intoxications/appels_alertes.html?tx_ttnews%5Byear%5D=2012&cHash=285926a1937a547e87d9eabc255c68a6.

The provincial pertussis intervention guide can be downloaded from

<http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2009/09-271-02.pdf>

Sources: MSSS and INSPQ (Québec), ProMED (Canada), CDC (United States), HPA (United Kingdom).

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 6, Year 2012
(weeks 21 to 24, 20 May to 16 June 2012)**

Whooping cough: The number of reported cases is still rising

The 9 confirmed cases reported during Period 6 represent an increase in relation to the preceding period (6 cases). Their ages range from 6 months to 19 years, and the vaccination status is known for only 3 cases: 2 had been vaccinated and 1 had not. There were 54 cases in the rest of the province during this period; there had been 48 in Period 5. Thus, despite the arrival of summer, there is still no indication that transmission is slowing. We would like to point out that two patients spent long periods of time in private clinic or hospital waiting rooms without isolation precautions, or other measures to prevent transmission, being taken.

Verocytotoxigenic *E. coli* infections: Three cases unrelated to the recent outbreak

The PFGE type is known for one of the three cases reported during Period 6; it is not that of the strain that caused the recent outbreak in New Brunswick. Moreover, none of the cases had travelled outside Québec during the acquisition period.

Hepatitis D: Lesson to learn

The six reported cases were all known chronic carriers of hepatitis B, four men and two women, all middle-aged. Since cases of hepatitis D are not investigated, we do not have any additional information. Blood and tissue donations are tested to exclude those that come from people with hepatitis B, which then also excludes hepatitis D. The modes of transmission for hepatitis D are essentially the same as for hepatitis B; therefore, the occurrence of hepatitis D cases represents a failure in prevention of behaviours linked to hepatitis B transmission among chronic hepatitis B carriers.

Source: <http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2011/11-933-01F.pdf>

Q fever: Unexplained acquisition

This is a probable case, acute or chronic, in a middle-aged man who travelled outside the country recently but reported having had no contact with animals, either at home or elsewhere. The investigation is not over, but some signs and symptoms suggest endocarditis, a known manifestation of this infection.

MADO non-reporting

With summer fast approaching, a time when the non-reporting problem is exacerbated by replacements, we would appreciate your verifying that all individuals concerned are familiar with reporting procedures.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 5, Year 2012
(weeks 17 to 20, 22 April to 19 May 2012)**

Pertussis: The number of reported cases is still rising

In Montréal, seven confirmed cases of pertussis were reported during Period 5, all aged under 15 years; six of them were in boys. Of these cases, 25% had not been vaccinated, and the vaccination status was unknown for 42%. None of the cases was hospitalized. Although the rate is low compared with the provincial one, there have nonetheless been a total of 28 cases in Montréal, and this number continues to rise. The same increase has been observed in New Brunswick (548 cases in 2012), British Columbia and in some American states, particularly Minnesota (700 cases) and Washington State (1738 cases). Aside from the cyclical increase expected for this illness, the rise seen in Montréal could be explained by sub-optimal vaccine coverage. A survey of vaccine coverage in two-year-old children is currently underway in Québec, and will enable us to obtain more specific data for our region.

Source: <http://www.promedmail.org/>

Verocytotoxicigenic *E. coli* infections: 2 cases caused by a strain related to the one in New Brunswick (NB)

Of the five cases for Period 5, two are due to *E. coli* O157:H7 (PFGE type 826) that caused an outbreak in NB. These cases occurred in two men, aged 22 and 84 years; the latter was hospitalized for 8 days but he has recovered. However, neither had been to NB recently or been in contact with people from that province, and no epidemiological link has been established between them. NB public health is conducting a case-control study in collaboration with the Public Health Agency of Canada to better identify the foods that could be involved in this outbreak. The three other cases reported were due to type 1 Shiga toxin-producing strains. They are 1, 2 and 15 years old, respectively. Two of them had travelled during the exposure period, one to Armenia and the other to the Dominican Republic.

We wish to thank Julie Dwyer for the information provided.

Another case of hepatitis E

A case of hepatitis E has been reported in a 64-year-old man. Although the case is clearly acute, he had not travelled recently or been in contact with anyone who was sick during the exposure period. This raises the possibility of contact with a local case (probably asymptomatic and unreported), which is unusual for this disease in Montréal. The infection often affects children, in whom it is often anicteric. The other case in 2012 was in a 54-year-old who had travelled to Bangladesh during the exposure period.

Source: World Health Organisation 2001: Hepatitis E.

http://www.who.int/csr/disease/hepatitis/HepatitisE_who.cdscs.recd.2001_12.pdf

For the three reportable diseases discussed in these *Explanatory notes*, some cases were acquired locally and others while travelling. This is a reminder that, in public health as in clinic settings, it is always important to inquire about the patient's travel history.

We wish to thank Fatima Louali for helping with this text.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance and monitoring
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 4, Year 2012
(weeks 13 to 16, 25 March to 21 April 2012)**

Whooping cough: Increase in reported cases

The eight probable or confirmed cases reported during the period indicate that the outbreak observed since the beginning of the year is ongoing in Montréal, as it is in the rest of the province. Of these cases, five are children from one family, and one has an epidemiological link with a case reported in Period 3. Six cases had written proof of complete immunization (for their age group) and one had been vaccinated but without proof; the vaccination status of one case was unknown. When there is an outbreak in an immunized population, it is normal that a high proportion of cases occur in individuals who have been vaccinated, especially when vaccine effectiveness is relatively low—in this case, about 85%. When it does not prevent the disease, the vaccine nonetheless reduces its severity and the risk of complications; indeed, in this period, none of the cases had to be hospitalized. Detailed data on whooping cough in Montréal are available at <http://emis.santemontreal.qc.ca/sante-des-montrealais/maladies-a-declaration-obligatoire/coqueluche/>

Sources: MSSS and Protocole d'immunisation du Québec.

Syphilis: New trends

A case of primary syphilis in a homeless adolescent has been reported. During the exposure period (three months prior to diagnosis), he had had 30 to 50 sex partners of both sexes, none of whom can be reached. An intervention was conducted with the community workers concerned, to help them address the topic of syphilis with street youth. A *Call to vigilance* will be sent out to them soon.

We wish to thank Geneviève Boily for the information provided.

Food poisonings: Marked excess of cases

A historically excessive number of cases of food poisoning were reported during Period 4. Notifications were sent in, in about equal numbers, by Info-Santé and the city of Montréal's Direction d'inspection des aliments (DIA). The latter cases had been investigated by the DIA and therefore we did not proceed with our own investigation. The other cases were attributed to various sources, including two Montréal restaurants, one sugar house, and one prepared meal purchased in a store. The risk of poisoning associated with shortcomings in food preparation and conservation practices might have been higher due to abnormally high seasonal temperatures during the period, which could have accelerated the multiplication of contaminating bacteria.

We wish to thank Jérôme Latreille, Paul Le Guerrier and Michèle Tremblay for the information provided.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance bureau
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 3, Year 2012
(weeks 9 to 12, 26 February to 24 March 2011)**

Whooping cough: Provincial increase in reported cases

The 4 cases reported in Montréal during Period 3 were all under 15 years of age. There were 12 cases in our region in 2012, an increase compared to last year when, on the same date, there had been only 2. Provincial data indicate an even more significant increase in reports of whooping cough, with 158 cases since January 1, compared with 20 last year at the same time. This upsurge in whooping cough is real but was overestimated in an article published in *La Presse* on 14 March: <http://www.cyberpresse.ca/actualites/quebec-canada/sante/201203/13/01-4505284-retour-en-force-de-la-coqueluche.php>. Whooping cough outbreaks are cyclical, occurring every 3 to 5 years; since the most recent one dates back to 2009, the increase was predictable. This is another reason not to neglect whooping cough vaccination.

Syphilis: Epidemiologic trends

Of the 12 syphilis cases reported during the period, 11 were in the contagious phase. Five cases were youth aged 20 to 24 years, including a young woman with primary syphilis; she was not pregnant at the time but is the mother of a young baby. She was probably infected after the baby was born. Among the four cases in young men, one had primary syphilis, two had secondary syphilis, and one had early latent syphilis. The other cases were men between the ages of 25 and 60; among them, one was of primary syphilis, three of secondary syphilis and two of late latent syphilis. The disease is evolving in Québec and is increasingly affecting young people, including women of childbearing age. To speed up the public health intervention and to obtain support for contact tracing and management, clinicians can report cases by fax (514-528-2461) or telephone (dial 514-528-2400 and ask for the physician on call for infectious diseases) at any time.

We wish to thank Geneviève Boily for the information provided.

Shigella: Outbreaks are ongoing and work is proceeding

We are still receiving an excess number of reports of shigella in our territory. Our efforts aim at creating a responsive system capable, with the collaboration of clinicians and other community partners, of detecting excess cases more quickly. Since there have been outbreaks every 2 to 3 years in Montréal, we hope to obtain some leeway to manoeuvre and intervene early in settings at highest risk.

Influenza: Activity is high but has peaked

As of March 16, flu activity in Québec was high and was trending upward; however, it peaked in the week ending 26 March, more clearly for influenza A than B, whose seasonal peak usually occurs later than for type A. The four strains currently circulating in Québec and Canada are sensitive to oseltamivir and zanamivir, and three of them were included in the 2011-2012 vaccine. However, it is no longer necessary to systematically offer the vaccine.

We wish to thank Stephanie R. Susser for helping with this text.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance bureau
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 2, Year 2012
(weeks 5 to 8, 29 January to 25 February 2012)**

Syphilis: Changing epidemic

During period 2, 92% (24/26) of reported cases were in men and 88% (23/26) were in persons 25 years and over. Cases less than 25 years old were all in men, at least two-thirds of whom are MSM. Female cases were in immigrants who quite probably acquired the infection outside the country. One very elderly woman was diagnosed with late latent syphilis during a clinical investigation of dementia. The other woman was diagnosed with early latent syphilis during her pregnancy, which reminds us of the importance of screening all pregnant women for syphilis. These cases were probably not acquired locally, but for more information on the increasing incidence of infectious syphilis among women in Québec since 2009, go to <http://msssa4.msss.gouv.qc.ca/fr/document/publication.nsf/fb143c75e0c27b69852566aa0064b01c/30bc6f2f39299a32852572720070cc98?OpenDocument>

Moreover, we would like to reiterate the request to report all positive syphilis results we made to hospital laboratories in previous Explanatory Notes. In the past six months, over 60 positive TP-PA results were reported by the LSPQ and about a dozen cases of infectious syphilis were reported by clinicians, but we did not receive corresponding reports from hospital laboratories. We are concerned that some cases will go completely unreported if the LSPQ or clinicians happen to not report them. **It is especially important that we maintain or even improve the quality of surveillance while the epidemiology of syphilis is changing in Québec.** *We wish to thank Geneviève Boily and Céline Boucher for the information provided.*

Shigellosis: Ongoing outbreaks

Cases are still disproportionately but not exclusively affecting the Jewish community, especially the Orthodox community. Efforts are ongoing to implement preventive measures in settings at highest risk.

Verotoxigenic E. coli: Importation and local transmission

All four cases were relatively benign and two of them are attributable to trips taken outside Québec (Toronto and Guatemala).

VRE outbreaks: The incidence remains high

The incidence remains at the same level as last year. If this situation persists, we will even have a few more outbreaks in 2012 (expected number: 72) than in 2011 (number reported: 70).

Late start to the flu season

As of 28 February, flu activity in Québec was moderate, with an upward trend. In addition, respiratory syncytial virus continues to circulate widely. At this point in the season, it is even more pertinent than in previous years to offer flu vaccination to people for whom the vaccine is indicated but who may not have received it yet.

Source: LSPQ and Flash Grippe du MSSS, 28 February 2012.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance bureau
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400

**Explanatory Notes on statistics
for reportable diseases (MADO and
other infectious diseases under surveillance)
Period 1, Year 2012
(weeks 1 to 4, 1 to 28 January 2012)**

Shigellosis: Ongoing outbreaks

There are ongoing outbreaks among men who have sex with men (MSM) and in Montréal's Jewish community (especially the orthodox part of it). During Period 1, two infections—one with *S. sonnei* and the other with *S. flexneri*—occurred in MSM; however, the *S. sonnei* infection was contracted during a trip to Sydney. Nine *S. sonnei* infections appear to be linked to the Jewish community, where an analysis of the available resistance profiles suggests there are at least two distinct strains circulating. Since mid-August 2011, of the 73 reported cases of shigellosis, 14 were hospitalized; 9 of these were in MSM and 5 were linked to the Jewish community. Calls for vigilance have been issued regarding MSM, and work is underway to identify the best prevention and promotion measures to implement in the affected part of the Jewish community.

We wish to thank Pierre A. Pilon, Christine Gardhouse, Sandra Palmieri, and Paul LeGuerrier for their contributions.

Syphilis: Changing epidemic

During Period 1, seven cases of syphilis were reported. One case involved a youth under 20 years of age and all others were in men between the ages of 25 and 59. However, over the past two years, the proportion of cases among youths aged 15 to 24 (including MSM) and women of childbearing age has increased. Moreover, in January 2011, a case of congenital syphilis in a 3-month-old baby was reported. Work is underway to develop novel ways of reaching young people so we can better document their risk factors and target our interventions to them. The Ministry of Health will soon be issuing a call for vigilance on this issue. It is essential that hospital laboratories report all positive qualitative and quantitative test results to facilitate interpretation of treponemal test results reported for the same patients.

We wish to thank Maria-Constanza Street, Jérôme Latreille, Sandra Palmieri and Joseph Cox for their contributions.

Adoption of rabid dogs from Northern Québec: A situation to monitor

Since January 20, 2012, the Surveillance bureau of the Ministry of Health has received reports of 3 puppies with fox rabies; two dogs were from Côte-Nord and one from Nunavik, regions where animal rabies exists. The first rabid puppy was adopted by a Laval family through a non-profit organization that takes in stray animals. The Canadian Food Inspection Agency put under observation for 10 days five other dogs that arrived on board the same flight and then quarantined them for 6 months. The second puppy, also from Côte-Nord, was euthanized. The third puppy, which came from Nunavik and was adopted by a resident of Lanaudière, was reported on 3 February 2012. The dog had a form of dumb rabies that made the animal seem tame and endearing. In all, at least 30 post-exposure prophylaxes had to be administered. In this context, when someone has been bitten by a dog, it is important to check the provenance of the animal before deciding on a course of action. Québec's Director of Public Health has asked that adoption of stray dogs be halted.

We wish to thank Doris Deshaies, Jérôme Latreille and the BSV of the MSSS for the information provided.

We wish to thank Stephanie R. Susser for her help with this text.

Robert Allard, MD, MSc, FRCPC
Lucie Bédard, MSc inf, MPH
Epidemiological surveillance bureau
Health Protection Sector, Direction de santé publique
Agence de la santé et des services sociaux de Montréal

rallard@santepub-mtl.qc.ca
lbedard@santepub-mtl.qc.ca
514-528-2400