April 11, 2016

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act [Our File #: HCS/034/2016]

On March 10, 2016, the Department of Health and Community Services (the Department) received your request for access to the following records:

“Pursuant to the Access to Information and Protection of Privacy (ATIPP) Act, 2015, We are writing to request access to all records relating to a 2015-2016 outbreak of listeriosis linked to packaged salads produced by the Dole Processing Facility in Springfield, Ohio, including, without limitation, investigation materials, laboratory and other testing data and results (including genetic testing of product or patients samples), e-mail and other correspondence, internal memoranda and communications”

The Department has reviewed your request in the context of the Access to Information and Protection of Privacy Act (the Act) and Beverley Clarke, Deputy Minister, made a decision and is pleased to inform you that access to these records has been granted, in part. In accordance with your request for a copy of the records, the appropriate copies have been enclosed. Some information has been refused in accordance with the following exceptions to disclosure, as specified in the Act:

- Section 34- Disclosure harmful to intergovernmental relations or negotiations
- Section 35- Disclosure harmful to the financial or economic interests of a public body
- Section 40- Disclosure harmful to personal privacy

As required by 8(2) of the Act, we have severed information that is unable to be disclosed and have provided you with as much information as possible.
Please be advised that you may appeal this decision and ask the Information and Privacy Commissioner to review the decision to provide partial access to the requested information, as set out in section 42 of the Act (a copy of this section of the Act has been enclosed for your reference). A request to the Commissioner must be made in writing within 15 business days of the date of this letter or within a longer period that may be allowed by the Commissioner. Your appeal should identify your concerns with the request and why you are submitting the appeal.

The appeal may be addressed to the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
2 Canada Drive
P. O. Box 13004, Stn. A
St. John's, NL. A1B 3V8

Telephone: (709) 729-6309
Toll-Free: 1-877-729-6309
Facsimile: (709) 729-6500

You may also appeal directly to the Supreme Court Trial Division within 15 business days after you receive the decision of the public body, pursuant to section 52 of the Act (a copy of this section of the Act has been enclosed for your reference).

Please be advised that responsive records will be published following a 72 hour period after the response is sent electronically to you or five business days in the case where records are mailed to you. It is the goal to have the responsive records posted to the Office of Public Engagement's website within one business day following the applicable period of time. Please note that requests for personal information will not be posted online.

If you have any further questions, please contact the undersigned by telephone at 709-729-7007 or by email at angelapower@gov.nl.ca.

Sincerely,

Angela Power
ATIPP Coordinator
Here is the enhanced listeriosis questionnaire for the EHO, I had almost forgotten about it.

Cathy

---

From: Elizabeth Hillyer [mailto:elizabeth_hillyer@phac-aspc.gc.ca] On Behalf Of NESP
Sent: Friday, August 22, 2014 10:23 AM
To: O’Keefe, Cathy
Subject: RE: Invasive Listeriosis Questionnaire

Hi Cathy,

Thanks for your quick reply. We are currently using version 8.0 of the invasive listeriosis questionnaire which was finalized in June 2012. Please see attached:

Thanks for your cooperation, and please let me know if you have any additional questions.

Have a nice weekend.
Elizabeth.

---

RE: Invasive Listeriosis Questionnaire

O'Keefe, Cathy

To: NESP

2014-08-22 06:57 AM

---

I was on holiday when this occurred I will check, and have them complete if not done already. Has the questionnaire been updated since 2010, that is the last copy that I have.

My best,

Cathy O'Keefe
RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John's, NL
A1B 4J6
Telephone 709-729-5019
The EHO could consider visiting the home of the case to see what food products are currently in the refrigerator/freezer.

DJ

From: Allison, David
Sent: Thursday, November 12, 2015 10:55 AM
To: Johnson, Darryl
Cc: O'Keefe, Cathy (HCS)
Subject: Listeriosis case

Please see the attached questionnaire from Central. At this point the EHO has not been able to question the case directly, so the response possibilities are rather wide. Other than re-interviewing the case upon recovery, I don’t think there is much to be done, but perhaps you have additional insight on this.

David

David J. Allison MD, FRCPC
Chief Medical Officer of Health
Department of Health and Community Services
Main Floor, West Block
Confederation Building
St. John’s, NL
A1B 4J6
O: (709) 729-3433
Confidential Fax: 729-4647
Hi Dr. Allison,

I have sent the request to the EHO assigned to the case and copied the manager and director.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V IP7
PH: (709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

From: Allison, David [mailto:DavidAllison@gov.nl.ca]
Sent: Thursday, November 12, 2015 11:11 AM
To: Cooze, Hayley
Subject: Listeriosis case

Thanks for forwarding the questionnaire.

There are a couple of things I'd like to ask you to pass along to the EHO:

1. Repeat the questionnaire with the case as soon as possible, to see if we can get better definition.
2. Ask the EHO to get permission to go into the case's home to see what is in the refrigerator, and to sample anything that might be suspicious in nature.

Thanks

David J. Allison MD, FRCPC
Chief Medical Officer of Health
Department of Health and Community Services
Main Floor, West Block
Confederation Building
St. John's, NL
A1B 4J6
O: (709) 729-3433
Confidential Fax: 729-4647

“This email and any attached files are intended for the sole use of the primary and copied
addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender.”
Good Afternoon,

The report is back on this case, there are a few interesting details which may or may not have been significant. Listeria can reproduce at normal fridge temperatures and would thrive in slightly warmer conditions.

This would have to be taken with a grain of salt considering listeria’s 3 week mean incubation time and the current situation. It does show that conditions were present that would have encouraged bacterial growth on food stored in the home.

The EHO advised that a fridge thermometer should be put in place to ensure the fridge is set just above 0°C.

Please let me know if you have any specific questions,

Thanks
Chris

---

From: Allison, David [mailto:DavidAllison@gov.nl.ca]
Sent: Monday, November 30, 2015 4:48 PM
To: Chris Nolan <Chris.Nolan@easternhealth.ca>
Cc: CDCprogram <CDCprogram@easternhealth.ca>
Subject: Listeria

Received a call from ER regarding a patient who was seen last week, positive for listeria, You should have the info tomorrow if not today. Sounds like you should have a food history. Etc done.
I have a name and MCP

David Allison
Sent from my BlackBerry

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."
Hi Cathy,

I just spoke with the EHO, Stella Gilbert and there was no further follow up completed after the second interview. However if indicated Stella can contact the client again at your request. Please advise.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division - Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH:(709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

Hayley, Did we ever hear back on the case of listeriosis who was hospitalized in November, were there any long term outcomes? I have had an inquiry from PHAC. I am also de-identifying the questionnaire and sending to PHAC at their request.
My best,

*Cathy O'Keefe* RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John's, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4547

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."
Great, thanks Cathy.

"O'Keefe, Cathy (HCS)" — 2016-01-08 07:43:37 AM — Hi, Yes we did have a case in November. I am gathering the information, awaiting a second food hist

Hi,

Yes we did have a case in November. I am gathering the information, awaiting a second food history. No source food was identified. I will de-identify the food hist and send along once available.

My best,

Cathy O'Keefe RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John's, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647

Hi Cathy and a happy new year to you.

I noticed on CLSN that NML has included a recent NL case to a listeria cluster 1610LM331MP. Please
note that this match has not yet been confirmed by the prov lab.

However, given that this is a multi-jurisdictional cluster I just wanted to quickly check in with you to see if you did in fact have a case of listeriosis back in Nov-Dec 2015?

I haven't seen anything come through NESP, but it would be great if you could confirm whether or not you had a case and if you anticipate a follow-up questionnaire to be completed.

If you have any questions or would like to discuss please don't hesitate to contact me.

Thanks for your continued cooperation and please keep in touch,

Elizabeth

Elizbeth Hillyer, MSc
Epidemiologist, Centre for Foodborne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada | Government of Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2985 | Fax 519.826.2984

Épidémiologiste, Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique
Agence de la santé publique du Canada | Gouvernement du Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2985 | Télé. 519.826.2984

“This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender.”
Happy New year to you also, I hope it's a good one!

That case was actually a [redacted] resident. Like many of the other such cases we have had, [redacted]

That's the quick and dirty, if you have any specific questions please send them on. We haven't had any other reported cases.

Thanks
Chris

Hi Chris, Happy New Year!

There was a case of Listeriosis in [redacted] Could you refresh my memory regarding a food Hx, thanks so much.

Cathy
From: Elizabeth Hillyer [mailto:elizabeth_hillyer@phac-aspc.gc.ca]
Sent: Monday, January 05, 2015 5:19 PM
To: Marsha Taylor; catherine.elliott@bccdc.ca; Victor Mah; bijay.adhikari@health.gov.sk.ca; Nancy.Yu@gov.mb.ca;
Wilkinson, Krista (HHLS); Stephen Moore; Dean Middleton; Yvonne Whitfield; Jackson Chung;
colette.gaulin@msss.gouv.gc.ca; Marie-Andree.Leblanc@msss.gouv.gc.ca; Raafat Gad, Rita (DH/MS); Billard, Bev A; Dr.
Carolyn Sanford; O'Keefe, Cathy (HCS); Chris.Cash@gov.yk.ca; duane_fleming@gov.nt.ca; Mullen, Angie
Cc: Stephen Parker
Subject: Enhanced National Listeriosis Surveillance Program, 2013 Annual Report / Programme amélioré de surveillance
nationale de la listériose – Rapport annuel de 2013

Le français suit.

Please see attached the Public Health Agency of Canada (PHAC) Enhanced National Listeriosis Surveillance Program
2013 Annual Report. This report is developed for federal, provincial and territorial stakeholders and is not for public
communication/distribution. It can be shared within your organization and local health authorities as needed at your own
discretion.

The current national standardized listeriosis questionnaire (attached) has been in use since June 2012. At this time the
PHAC program area would like to assess the interest of provincial and territorial partners in considering a review of the
questionnaire. Please consider whether you feel the current questionnaire should be revisited and reply to me with your
response by Wednesday January 28th, 2015. We will gather all the responses and will bring forward the issue as an
agenda item at the upcoming F/P/T food-borne epi teleconference.

Please let me know if you have any questions or feedback regarding the 2013 annual report.

Veuillez consulter le rapport annuel 2013 du Programme amélioré de surveillance nationale de la listériose de l'Agence de
la santé publique du Canada (ASPC) ci-joint. Ce rapport est élaboré à l'intention des intervenants fédéraux, provinciaux et
territoriaux et ne doit pas être communiqué/distribué au public. Il peut cependant être transmis au sein de votre
organisation ainsi qu'aux autorités sanitaires locales, au besoin et à votre discrétion.

Le questionnaire national normalisé sur la listériose invasive actuel (ci-joint) est utilisé depuis juin 2012. Le secteur de
programme de l’ASPC aimerait maintenant évaluer l’intérêt des partenaires provinciaux et territoriaux en ce qui concerne
la révision éventuelle de ce questionnaire. Veuillez m’indiquer si vous jugez qu’une révision du questionnaire actuel est
nécessaire avant le mercredi 28 janvier, 2015. Nous compléterons toutes les réponses pour ensuite présenter cette
question sous forme de point à l’ordre du jour d’une téléconférence épidémiologique fédérale-provinciale-territoriale sur
les maladies d’origine alimentaire.

N’hésitez pas à communiquer avec moi si vous avez des questions ou des commentaires concernant le rapport annuel
2013.

Elizabeth Hillyer, MSc
Surveillance Data Officer, Centre for Foodborne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada | Government of Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2490 | Fax 519.826.2244

Agent des données de surveillance, Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique
Agence de la santé publique du Canada | Gouvernement du Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2490 | Téléc. 519.826.2244
Hi Laura, happy Monday.

We had 2 Listeriosis cases in the fall one Nov and one Dec. Could you let me know which one matches the cluster. Thanks,
Cathy

---

Hi Cathy,

At this point we are only aware of the one NL match to this cluster. The NML linelist has a received date of December 10 and an upload date of December 12 submitted #EH:B01089.

I'm not sure which one of your two cases is the one that matches this cluster: LMCI.0331/LMAI.0815.

In any case, we would be happy to received surveillance questionnaires for both of these cases when available.

Please let me know if there is anything I can do to help you sort out which case is the match.

I hope you have a nice weekend, let's connect next week.

Elizabeth

---

"O'Keefe, Cathy (HCS)" —2016-01-08 01:44:49 PM—Hi, We had a second case Dec 12 (the first was Nov 8), do you know if this was also part of the cluster.
Hi,
We had a second case Dec (the first was Nov), do you know if this was also part of the cluster? I have requested the food Hx.

Cathy

From: Elizabeth Hillyer [mailto:elizabeth_hillyer@phac-aspc.gc.ca] On Behalf Of NESP
Sent: Thursday, January 07, 2016 2:02 PM
To: O'Keefe, Cathy (HCS)
Cc: entericoutbreak
Subject: 1610LM331MP - Case of invasive listeriosis in NL

Hi Cathy and a happy new year to you.

I noticed on CLSN that NML has included a recent NL case to a listeria cluster 1610LM331MP. Please note that this match has not yet been confirmed by the prov lab.

However, given that this is a multi-jurisdictional cluster I just wanted to quickly check in with you to see if you did in fact have a case of listeriosis back in Nov-Dec 2015?

I haven’t seen anything come through NESP, but it would be great if you could confirm whether or not you had a case and if you anticipate a follow-up questionnaire to be completed.

If you have any questions or would like to discuss please don’t hesitate to contact me.

Thanks for your continued cooperation and please keep in touch,

Elizabeth

Elizabeth Hillyer, MSc
Epidemiologist, Centre for Foodborne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada | Government of Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2985 | Fax 519.826.2984

Epidemiologiste, Centre des maladies infectieuses d’origine alimentaire, environnementale et zoonotique
Agence de la santé publique du Canada | Gouvernement du Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2985 | Téléc. 519.826.2984

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."
The PHA-Enteric Posting noted above contains sensitive information. To retrieve this Posting, please log on to the PHA-Enteric web site using the following link: https://www.cnphi-rcrsp.ca/164273

Information contained in this posting is not to be distributed without the consent of the author.
To keep you informed, I am working with PHAC on the investigation/reporting of the case from NL.

Dear colleagues,

As the Foodborne Illness Outbreak Response Protocol (FIORP) Duty Officer for your province/territory, we are writing to inform you that a national Outbreak Investigation Coordinating Committee (OICC) has been established to facilitate collaborative investigation of a cluster of *Listeria monocytogenes* cases.

To date, there are 6 cases under investigation in ON (n=3), QC (n=1), PE (n=1), NL (n=1). Additional details about this investigation will be posted on the Outbreak Central event board on CNPHI. A Public Health Alert will also be posted on CNPHI for this investigation.

As per the FIORP, please inform your senior officials that an OICC has been established. As the investigation continues, we will provide you with summaries of OICC activities and actions.

Thank you for your cooperation,

Mihaela Gheorghe

Outbreak Management Division
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. W, Unit 120
Guelph, ON. Canada N1H 8J1
Tel: (519) 546-8463
Fax: (519) 826-2984
Thanks Chris

In fact we have a Masters Public Health Student, Cheryl Pollock, working on a review of the Provincial Disease Control Manual so any recommendations are kindly welcome. Cheryl will be connecting with the CDCNs soon as well as any EHMs.

Please email any edits needed to both Cheryl and me. Cheryl.pollock@gov.nl.ca

Thanks

Susan

Susan Earles RN,BN,CCHN (C)
Disease Control Nurse Specialist
Population Health Branch
P.O. Box 8700
St. John's NL
A1B 4J6

709 729-0115
709 729-4647 fax
susanearles@gov.nl.ca

From: Chris Nolan [mailto:Chris.Nolan@easternhealth.ca]
Sent: Monday, January 18, 2016 10:03 AM
To: O'Keefe, Cathy (HCS); (cora.foster@lghealth.ca); Andrea Doyle; Cooze, Hayley
(hayley.cooze@centralhealth.nl.ca); Galliott, Carol; Holly LeDrew; Janine Byrne-Budgell; Karen Milley; Keith Harding; Lesley Ranson; Miranda Joyce; Mosher, Christa; Pamela Dawe; Rick Ash; Shelley Button; Shianne Combden; Stacey Ramey (Stacey.Ramey@lghealth.ca); Suzette Spurrell; Sylvia Doody
Cc: brianmoore@westernhealth.nl.ca; Allison, David; Johnson, Darryl; White, Bev; Sylvia Doody
Subject: RE: Enhanced Listeriosis Surveillance Questionnaire

Good Morning,

I'll request the federal form be used instead of the provincial "form C" for Listeria in the future. Would that also apply to Verotoxic E. coli?

I'd recommend an update to the Enteric, single case section of the DCM to reflect the change.
To ensure that information is collected consistently throughout the province, the Food/Water/Enteric Illness Questionnaire (Appendix A) has been developed for use by investigators of single cases of enteric illness. The questionnaire has been adapted from forms C1 and C2 of the Procedures to Investigate Foodborne Illness, IAFP, 5th Edition, 2007. However, *Listeria monocytogenes* and *Verotoxigenic E. coli* have dedicated federal investigation forms that should be used when a single case is reported. Please see appendix XXXXXX.

Thanks

Chris

---

**From:** O'Keefe, Cathy (HCS)  
**Sent:** Monday, January 18, 2016 8:17 AM  
**To:** (cora.foster@lghealth.ca) <cora.foster@lghealth.ca>; Andrea Doyle <Andrea.Doyle@easternhealth.ca>; Cooze, Hayley (hayley.cooze@centralhealth.nl.ca) <hayley.cooze@centralhealth.nl.ca>; Galliott, Carol <carolgalliott@westernhealth.nl.ca>; Holly LeDrew <Holly.Ledrew@easternhealth.ca>; Janine Byrne-Budgell <janine.byrne-budgell@centralhealth.nl.ca>; Karen Milley <Karen.Milley@easternhealth.ca>; Keith Harding <Keith.Harding@easternhealth.ca>; Lesley Ranson <Lesley.Ranson@easternhealth.ca>; Miranda Joyce <Miranda.Joyce@easternhealth.ca>; Mosher, Christa <christapennell@westernhealth.nl.ca>; Pamela Dawe <Pamela.Dawe@easternhealth.ca>; Rick Ash <rickash@westernhealth.nl.ca>; Shelley Button <Shelley.Button@easternhealth.ca>; Shianne Combden <Shianne.Combden@easternhealth.ca>; Stacey Ramey (Stacey.Ramey@lghealth.ca) <Stacey.Ramey@lghealth.ca>; Earles, Susan A <SusanAEarles@gov.nl.ca>; Suzette Spurrell <Suzette.Spurrell@easternhealth.ca>; Sylvia Doody <sylvia.doody@lghealth.ca>

**Cc:** brianmoores@westernhealth.nl.ca; Chris Nolan <Chris.Nolan@easternhealth.ca>; Allison, David <DavidAllison@gov.nl.ca>; Johnson, Darryl <djohnson@gov.nl.ca>; White, Bev <Bew.White@centralhealth.nl.ca>; Sylvia Doody <sylvia.doody@lghealth.ca>

**Subject:** FW: Enhanced Listeriosis Surveillance Questionnaire

Hi all,

There have been a few (3 in 2015) cases of invasive listeriosis in NL last year and a small cluster in Canada starting late in 2015. The attached and e-mail below are a reminder that when a case is identified in your RHA that you should ensure that the EHO use the attached questionnaire and send to the province as these are then de-identified and sent to PHAC.

My best,

*Cathy O'Keefe* RN BN MSc  
Director, Communicable Disease Control  
Population Health Branch  
PO Box 8700  
St. John's, NL
Hi Cathy,

Just a quick note to remind you that we encourage our P/Ts to promote the use of the PHAC standard questionnaire for routine follow up of all cases of invasive listeriosis.

I'm sure this was just an oversight in this instance since we have received the standard questionnaire from you in the past.

Please see attached the English and French versions of the questionnaire for use by your regional health authorities.

(See attached file: Listeria Questionnaire 2012_PDF form.pdf) (See attached file: Listeria Questionnaire 2012_PDF form - FR.pdf)

If you have any questions or concerns please don't hesitate to contact me.

Many thanks and have a nice weekend,
Elizabeth

Elizabeth Hillyer, MSc
Epidemiologist, Centre for Foodborne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada | Government of Canada
elizabeth.hillyer@phac-aspc.gc.ca | Tel. 519.826.2985 | Fax 519.826.2984

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated.***
Chris makes a great suggestion. Is this OK with us (for Cheryl’s benefit in order to incorporate in the revised manual)

Thanks

Susan Earles RN, BN, CCHN (C)
Disease Control Nurse Specialist
Population Health Branch
P.O. Box 8700
St. John’s NL
A1B 4J6

709 729-0115
709 729-4647 fax
susanaearles@gov.nl.ca

---

Good Morning,

I’ll request the federal form be used instead of the provincial “form C” for Listeria in the future. Would that also apply to Verotoxic E. coli?

I’d recommend an update to the Enteric, single case section of the DCM to reflect the change.

To ensure that information is collected consistently throughout the province, the Food/Water/Enteric Illness Questionnaire (Appendix A) has been developed for use by investigators of single cases of enteric illness. The questionnaire has been adapted from forms C1 and C2 of the Procedures to Investigate Foodborne Illness, IAFP, 5th Edition, 2007. However, Listeria monocytogenes and Verotoxic E. coli have dedicated federal investigation forms that should be used when a single case is reported. Please see appendix XXXXXX.

Thanks
Hi Brenda,
as discussed earlier today, in your role as lead for the Disease Control Manual, please see the comments below. As Cheryl is looking at some revisions already, Susan has asked that she take this on. This e-mail is to keep you in the loop for this discussion and for later follow-up with Cheryl to see if she was able to get this done.

Cathy

Good Morning,

I'll request the federal form be used instead of the provincial "form C" for Listeria in the future. Would that also apply to Verotoxic E. coli?

I'd recommend an update to the Enteric, single case section of the DCM to reflect the change:

To ensure that information is collected consistently throughout the province, the Food/Water/Enteric Illness Questionnaire (Appendix A) has been developed for use by investigators of single cases of enteric illness. The questionnaire has been adapted from forms C1 and C2 of the Procedures to Investigate Foodborne Illness, IAFP, 5th Edition, 2007. However, Listeria monocytogenes and Verotoxic E. coli have dedicated federal investigation forms that should be used when a single case is reported. Please see appendix XXXXXX.

Thanks

Chris

1 Email is the same as pgs. 16 - 18.
Hi Tina, there may be a public notification coming your way on this topic (see e-mail at the bottom of the page). WRT this outbreak NL has one case related to the outbreak and we are cooperating with PHAC to aid in the investigation. Please let me know if you have any questions. A summary of the events below:

The Public Health Agency of Canada is collaborating with provincial health authorities, the Canadian Food Inspection Agency, and Health Canada to investigate a cluster of *Listeria monocytogenes* in Ontario, Quebec, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. No common source has been identified to date, however leafy greens exposures are of interest.

**SUMMARY:**

- A national Outbreak Investigation Coordinating Committee (OICC) was established on January 15, 2016 to facilitate coordination and information exchange amongst investigative partners.
- There are currently 7 cases (ON=3, QC=1, NB=1, PE=1, NL=1) with a matching PFGE pattern combination (see case definition below).
- The PFGE pattern combination associated with this cluster is uncommon in the PulseNet Canada database, and was last seen in December 2014.
- Ages range from 68 to 90 years with a median of 83 years. 71% (5/7) of cases are female and available onset dates range from September 23 to December 17, 2015.
- In collaboration with provincial and laboratory partners, epidemiological information for the cases is currently being reviewed.

---

Hi everyone.

As we prepare for the OICC teleconference tomorrow, the Agency’s President has requested we draft a public health notice regarding this outbreak. We’d like to discuss this as part of tomorrow’s OICC teleconference. In preparation for the call, can you please identify your communications lead for this outbreak - this person will be asked to work in collaboration with PHAC’s communication lead: Sara Coleman (sara.coleman@hc-sc.gc.ca), to review and input into any necessary communications products that may be needed to support this investigation.

Thanks,
Meghan Hamel
Epidemiologist/Epidémiologiste
Outbreak Management Division/Dévision de la gestion des éclipsions
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)

130 Colonnade Rd, Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
Posted Alert

EA-003331
Subject: Listeria monocytogenes in ON, QC, NB, PE, NL

Important

Canada
Public Health Agency of Canada

Status:
Posted

Audience

Viewing
Ont, Man, Sask, Alta, BC, FPT Reviewers, CCMOH, PHAC, YT, NWT, NU, PEI, NL, NS, NB, Que

Notified
Ont, Man, Sask, Alta, BC, FPT Reviewers, CCMOH, PHAC, YT, NWT, NU, PEI, NL, NS, NB, Que

Author and Contact Information

Posting Number
EA-003331

Reporting Date
18-Jan-2016

Person Reporting
Ms. Mihaela Gheorghe

Contact Person
Ms. Mihaela Gheorghe

Email
mihaela.gheorghe@phac-aspc.gc.ca

Phone Number
(613)462-1874

https://www.cnphi-rcrsp.ca/han/faces/alert/viewAlert.xhtml?alertId=3331&userid=1008164
Fax Number

Posting Information

Suspect Organism
Listeria monocytogenes

Suspect Source
Unknown

Setting
Community

Location of Cases
National (more than one P/T)

Date Investigation Started
15-Jan-2016

Posting Description

Translation

English / French

The Public Health Agency of Canada is collaborating with provincial health authorities, the Canadian Food Inspection Agency, and Health Canada to investigate a cluster of Listeria monocytogenes in Ontario, Quebec, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. No common source has been identified to date, however leafy greens exposures are of interest.

SUMMARY:

• A national Outbreak Investigation Coordinating Committee (OICC) was established on January 15, 2016 to facilitate coordination and information exchange amongst investigative partners.

• There are currently 7 cases (ON=3, QC=1, NB=1, PE=1, NL=1) with a matching PFGE pattern combination (see case definition below).

• The PFGE pattern combination associated with this cluster is uncommon in the PulseNet Canada database, and was last seen in December 2014.

• Ages range from 68 to 90 years with a median of 83 years. 71% (5/7) of cases are female and available onset dates range from September 23 to December 17, 2015.

In collaboration with provincial and laboratory partners, epidemiological information for the cases is currently being reviewed.

CONFIRMED CASE DEFINITION:

A resident of or visitor to Canada with:

- Laboratory confirmation of *Listeria monocytogenes* AND
- The PFGE pattern combination LMACI.0331/LMAAI.0815 AND
- Symptom onset on or after September 1, 2015

*In the case of a miscarriage, stillbirth or premature delivery, isolation of Listeria monocytogenes from fetal tissue, placental tissue or a normally sterile site (cerebrospinal fluid, blood).

ACTION:

- Please report any cases of *Listeria monocytogenes* (PFGE pattern LMACI.0331) with symptom onset on or after September 2015 to your Provincial/Territorial representatives. Provincial Health representatives, in turn, are asked to notify the Outbreak Management Division (OMD) at entericoutbreak@phac-aspc.gc.ca or 519-546-8463.
- PHAC and provincial partners are asking that any new cases of *Listeria monocytogenes* be interviewed using the supplemental questionnaire (see attached) in conjunction with routine Listeria follow up questionnaires. Please share completed questionnaires with your provincial/territorial representatives.

Attached Files

Name


2015-823 Draft Focused Questionnaire - 2016-01-18 FR.pdf (/cnphi/Download?ID=6941&shortAppName=CNPHI_HAN)
[2015-823] Multi-provincial outbreak of *Listeria monocytogenes* in ON, QC, NB, PE, NL

Epidemiologic Summary, *January 25, 2016* as of 08:00 EST

<table>
<thead>
<tr>
<th>P/T Case Count</th>
<th>Confirmed cases (n=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>ON=3, QC=1, NB=1, PE=1, NL=1</td>
</tr>
<tr>
<td>Mean</td>
<td>81</td>
</tr>
<tr>
<td>Median</td>
<td>83</td>
</tr>
<tr>
<td>Range</td>
<td>68-90</td>
</tr>
<tr>
<td>Sex: % Female</td>
<td>71% (5/7)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>100% (7/7)</td>
</tr>
<tr>
<td>Deaths</td>
<td>14% (1/7)</td>
</tr>
</tbody>
</table>

**Onset date range**: Sep 23, 2015 to Jan 2, 2016

**Epidemic curve**

**PFGE patterns**: LMACl.0331/LMAAl.0815

**Food Exposures and Hypotheses:**
- 5/7 cases report consuming pre-packaged salad blends, and salad kits prior to illness onset.
- All cases report shopping at retail locations that carry Dole products.
- Brand information of pre-packaged salad blends and kits is available for 3/6 cases:
  - 2/3 cases reported consuming Dole brand products. The third case reported consuming pre-packaged bagged spinach from a store known to carry Dole products. The description of the packaging is consistent with Dole products.
  - One case only purchases the Dole Caesar salad kit, and consumes multiple times per week. Lot information was used to trace this product back to the Dole facility in Ohio.
  - The other case reported eating multiple types of Dole bagged salad mixes. These include: Classic Romaine, Italian Blend, Classic Iceberg, Colourful Coleslaw, Ultimate Caesar, Light Caesar, and roma ine hearts. The case also reported eating a Dole spring mix in a clamshell.

Prepared by PHAC. This information is shared in confidence; further distribution should be done only in accordance with the Foodborne Illness Outbreak Response Protocol.
Preliminary information and subject to change throughout the day

Case Follow up:
- Initial interview questionnaires for all cases have been received.
- All cases have been re-interviewed using an open-ended approach in combination with the focused questionnaire. Four were re-interviewed by a single interviewer and three have been re-interviewed by the local health authority.
- Purchase history consent has been obtained for three cases; purchase history has been received for one case.

<table>
<thead>
<tr>
<th>Case</th>
<th>Interview Status</th>
<th>Date of Interview</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-1</td>
<td>Complete</td>
<td>Jan 19</td>
<td>ON</td>
</tr>
<tr>
<td>PE-2</td>
<td>Complete</td>
<td>Jan 16</td>
<td>PHAC</td>
</tr>
<tr>
<td>ON-3</td>
<td>Complete</td>
<td>Jan 17</td>
<td>PHAC</td>
</tr>
<tr>
<td>ON-4</td>
<td>Complete</td>
<td>Jan 20</td>
<td>PHAC</td>
</tr>
<tr>
<td>QC-5</td>
<td>Complete</td>
<td>Jan 22</td>
<td>QC</td>
</tr>
<tr>
<td>NL-6</td>
<td>Complete</td>
<td>Jan 19</td>
<td>PHAC</td>
</tr>
<tr>
<td>NB-7</td>
<td>Complete</td>
<td>Jan 20</td>
<td>NB</td>
</tr>
</tbody>
</table>

Lab Investigation:
- WGS has been completed for the ON isolates, and NML/OM are comparing the sequences with those of the US cases and the US food isolate.

US Investigation:
- Investigating 14 cases with onset dates from July 2015 to Dec 2015.
- 12 of 14 cluster closely by WGS, 2 are pending
- Leafy greens are of interest, with most cases reporting pre-chopped bagged salads and/or salad bars.
- A positive food isolate from a leafy green processing facility in the US was collected in November 2015. The isolate matches the US cases by WGS.
- On Jan 22, CDC posted a public notification of the outbreak and named Dole as the source.

Food Safety Investigation:
- On Jan 21, the FDA reported that Dole has ceased production at their Springfield, Ohio facility and will withdraw their product from the marketplace.
- On Jan 22 the CDC issued a public statement about their outbreak and advised Americans not to eat Dole products produced at the Ohio facility.
- As of Jan 22, four samples of Dole pre-packaged salad products processed at Ohio facility, tested by the CFIA, have tested positive for Listeria monocytogenes. PFGE and WGS results are pending.
- On Jan 22 the CFIA classified the Dole-initiated product action as a Class 1 recall to the consumer level. A Food Recall Warning was issued.

Communications Update:
- The Public Health Notice was updated on the PHAC website on Jan 23 to advise Canadians not to consume certain Dole and PC Organics brand leafy greens, pre-packaged chopped salads, salad blends and kits.

Prepared by PHAC. This information is shared in confidence, further distribution should be done only in accordance with the Foodborne Illness Outbreak Response Protocol.
Multi-provincial outbreak of *Listeria monocytogenes* in ON, QC, NB, PE, NL

Epidemiologic Summary - January 19, 2016 as of 15:00 EST

**Confirmed cases (n=7)**

<table>
<thead>
<tr>
<th>P/T Case Count</th>
<th>ON=3, QC=1, NB=1, PE=1, NL=1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>81</td>
</tr>
<tr>
<td>Median</td>
<td>83</td>
</tr>
<tr>
<td>Range</td>
<td>68-90</td>
</tr>
<tr>
<td>Sex: % Female</td>
<td>71% (5/7)</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>86% (6/7)</td>
</tr>
<tr>
<td>Deaths</td>
<td>14% (1/7)</td>
</tr>
<tr>
<td>Onset date range</td>
<td>Sep 23, 2015 (onset date) to Jan 4, 2016 (specimen collection date)</td>
</tr>
</tbody>
</table>

**Epidemic curve**

*Specimen collection date*

**PFGE patterns**

LMACI.0331/LMAAI.0815

**Food Exposures and Hypotheses:**

- See Appendix I for food frequencies, comparison to Foodbook reference values, and case-case analysis.
- Pre-packaged greens and mixed salad blends are of interest
  - A variety of greens and mixes have been reported (spinach, iceberg blend, caesar salad kit, coleslaw)
  - The majority of cases report purchasing these products at retail stores under the Loblaw's banner (Fortino's, Superstore, Dominion, Maxi, Value Mart)
- Coleslaw is the only item flagging as above expected based on comparison to Foodbook values, however Foodbook equivalent was “store-bought coleslaw”
  - 1 restaurant exposure
  - 1 exposure in hospital
  - 2 purchased at grocery store

Prepared by PHAC. This information is shared in confidence, further distribution should be done only in accordance with the Foodborne Illness Outbreak Response Protocol.
Preliminary information and subject to change throughout the day

Case Follow up:
- Initial interview questionnaires for all cases have been received.
- 4/7 cases have been re-interviewed by a single interviewer using an open-ended approach in combination with the focused questionnaire
- Purchase history consent has been obtained for one case (NL-6)
- One case (ON-3) reported eating a single type of salad purchased at a single location. Brand and lot information for this salad was shared with CFIA

<table>
<thead>
<tr>
<th>Case</th>
<th>Interview Status</th>
<th>Date of Interview</th>
<th>Interviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON-1</td>
<td>Pending</td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>PE-2</td>
<td>Complete</td>
<td>Jan 16, 2016</td>
<td>PHAC</td>
</tr>
<tr>
<td>ON-3</td>
<td>Complete</td>
<td>Jan 17, 2016</td>
<td>PHAC</td>
</tr>
<tr>
<td>ON-4</td>
<td>Complete</td>
<td>Jan 19, 2016</td>
<td>PHAC</td>
</tr>
<tr>
<td>QC-5</td>
<td>Pending</td>
<td></td>
<td>QC</td>
</tr>
<tr>
<td>NL-6</td>
<td>Complete</td>
<td>Jan 19, 2016</td>
<td>PHAC</td>
</tr>
<tr>
<td>NB-7</td>
<td>Pending</td>
<td></td>
<td>NB</td>
</tr>
</tbody>
</table>

US Investigation:
- Investigating 13 cases with onset dates from July 2015 to Dec 2015
- Leafy greens are of interest, with most cases reporting pre-chopped bagged salads and/or salad bars.
- A positive food isolate from a leafy green processing facility in the US was collected in November 2015. The isolate matches the US cases by WGS.
- FDA is investigating at the facility and has collected additional samples.

Food Safety Investigation:
- CFIA is sampling a cross section of various salads and production dates that were produced at the US facility.
- CFIA is collaborating with US DFA on their on-going investigation at the processing facility.

Prepared by PHAC. This information is shared in confidence, further distribution should be done only in accordance with the Foodborne Illness Outbreak Response Protocol.
### Appendix I: Food Frequency Analysis

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Confirmed cases</th>
<th>Sums</th>
<th>Foodbook* Reference Values</th>
<th>Blonomial probability (using Foodbook Values)</th>
<th>Case-case analysis**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Prob</td>
<td>No</td>
<td>%Y+P</td>
<td>YP</td>
</tr>
<tr>
<td>Any salad</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>83.33%</td>
<td>5</td>
</tr>
<tr>
<td>Other cheese</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>83.33%</td>
<td>5</td>
</tr>
<tr>
<td>Pasteurized milk</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>83.33%</td>
<td>5</td>
</tr>
<tr>
<td>Whole lettuce</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>80.00%</td>
<td>4</td>
</tr>
<tr>
<td>Any lettuce</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>66.67%</td>
<td>4</td>
</tr>
<tr>
<td>Bagged chopped lettuce/salad mix</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>66.67%</td>
<td>4</td>
</tr>
<tr>
<td>Coleslaw</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>66.67%</td>
<td>4</td>
</tr>
<tr>
<td>Yogurt</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>66.67%</td>
<td>4</td>
</tr>
<tr>
<td>Butter</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>60.00%</td>
<td>3</td>
</tr>
<tr>
<td>Other salad</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>60.00%</td>
<td>3</td>
</tr>
<tr>
<td>Fresh pre-cut fruit</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>50.00%</td>
<td>2</td>
</tr>
<tr>
<td>Any seafood</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>40.00%</td>
<td>2</td>
</tr>
<tr>
<td>Shrimp</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>40.00%</td>
<td>2</td>
</tr>
</tbody>
</table>

* Foodbook survey uses 7-day exposure history.
** From Enhanced Listeriosis Surveillance Program
1 Foodbook equivalent was “packaged lettuce”
2 Foodbook equivalent was “store-bought coleslaw”
3 Foodbook equivalent was “fruit salad/pre-cut fruit/fruit platter”

Prepared by PHAC. This information is shared in confidence, further distribution should be done only in accordance with the Foodborne Illness Outbreak Response Protocol.
From: CIOSC_Enteric@cnphi-rcrsp.ca
To: CIOSC_Enteric@cnphi-rcrsp.ca
Subject: Enteric [Important] EA-003331 — Listeria monocytogenes in ON, QC, NB, PE, NL
Date: Monday, January 18, 2016 4:31:05 PM

The PHA-Enteric Posting noted above contains sensitive information. To retrieve this Posting, please log on to the PHA-Enteric web site using the following link: https://www.cnphi-rcrsp.ca/164570

Information contained in this posting is not to be distributed without the consent of the author.
Great thanks Chris, we will hear from PHAC if anything comes of it I will let you know.
Cathy

---

From: Chris Nolan [mailto:Chris.Nolan@easternhealth.ca]
Sent: Tuesday, January 19, 2016 8:36 AM
To: O'Keefe, Cathy (HCS)
Subject: RE: Enhanced Listeriosis Surveillance Questionnaire

Good Morning,

Just an FYI- I spoke to The case's [CC] late yesterday and in light of the linkage to the other national listeria cases [CC] agreed to providing PHAC with her contact info. Kristyn will follow up.

Thanks
Chris

---

From: O'Keefe, Cathy (HCS) [mailto:okeefe@gov.nl.ca]
Sent: Monday, January 18, 2016 1:56 PM
To: Chris Nolan <Chris.Nolan@easternhealth.ca>
Subject: Re: Enhanced Listeriosis Surveillance Questionnaire

My thanks

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Chris Nolan
Sent: Monday, January 18, 2016 1:20 PM
To: Meghan Hamel; O'Keefe, Cathy (HCS)
Cc: Kristyn Franklin; Johnson, Darryl
Subject: RE: Enhanced Listeriosis Surveillance Questionnaire

Good Afternoon,

I'm in the office for the rest of the day. I'm at 7092291576 or I can call you if that works better.

Thanks
Chris

From: Meghan Hamel [mailto:meghan.hamel@phac-aspc.gc.ca]
Sent: Monday, January 18, 2016 12:43 PM
Hi Cathy,
Thanks for linking us in with Chris.
Chris, would you be available for a quick call with Kristyn and I?

Thanks,

Meghan

Sent from my BlackBerry 10 smartphone on the Rogers network.

Hi Chris, thanks great idea regarding the DC manual update.

I just had a call from PHAC regarding the [REDACTED] case and I explained the situation regarding the...s.40(1)

Meghan and Kristyn have asked for a workaround (permission to access purchase history from the supermarkets) and I suggested that they work with you directly on this rather than me being the go-between. So please guys take it from here.

My best,

Cathy O’Keefe RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John’s, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647

“This email and any attached files are intended for the sole use of the primary and copied
Good afternoon,

The Outbreak Management Division would like to invite you to an OICC call on Wednesday, January 20, 2016 at 11:00 EDT.

Please forward this invitation to others in your province/agency as needed.

The teleconference details are as follows:
1-877-413-4790 / 613-960-7514
Conference ID: [redacted] Security code: [redacted]

A proposed agenda is below. Please let us know if you have any questions.

Proposed agenda:
1. Welcome and role call
   - Epidemiology
   - Laboratory
3. CDC update - Amanda, Safety Investigation
4. Provincial updates
5. Discussion of hypotheses
6. Communications - leafy greens - PH Notice this week
7. Next steps

[2015-823] Listeria ATT00001.htm ATT00002.htm c181849.ics

O'Keefe, Cathy

Subject: Information Update - Description has changed: [2015-823] Multiprovincial L. Monocytogenes Outbreak ON, QC, PE, NL, NB

Start: Wed 1/20/2016 12:30 PM
End: Wed 1/20/2016 1:30 PM
Recurrence: (none)
Meeting Status: Accepted
Organizer: entericoutbreak/HC-SC/GC/CA

[WARNING - NOT VIRUS SCANNED]
OK, I will keep you informed, we still only have 1 case

From: Allison, David
Sent: Wednesday, January 20, 2016 11:44 AM
To: O'Keefe, Cathy (HCS)
Subject: Re: [2015-823] Listeria investigation - Public Comms

I probably won't be available for the teleconference this pm

David Allison
Sent from my BlackBerry

From: O'Keefe, Cathy (HCS)
Sent: Wednesday, January 20, 2016 11:40 AM
To: Williams, Tina (HCS)
Cc: Allison, David; Stone, Karen M.; Johnson, Darryl; O'Keefe, Cathy (HCS); Earles, Susan A; Phillips, Jennifer; Earles, Brenda P
Subject: FW: [2015-823] Listeria investigation - Public Comms

Hi Tina, there may be a public notification coming your way on this topic (see e-mail at the bottom of the page). WRT this outbreak NL has one case related to the outbreak and we are cooperating with PHAC to aid in the investigation. Please let me know if you have any questions. A summary of the events below:

The Public Health Agency of Canada is collaborating with provincial health authorities, the Canadian Food Inspection Agency, and Health Canada to investigate a cluster of Listeria monocytogenes in Ontario, Quebec, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. No common source has been identified to date, however leafy greens exposures are of interest.

SUMMARY:
- A national Outbreak Investigation Coordinating Committee (OICC) was established on January 15, 2016 to facilitate coordination and information exchange amongst investigative partners.
- There are currently 7 cases (ON=3, QC=1, NB=1, PE=1, NL=1) with a matching PFGE pattern combination (see case definition below).
- The PFGE pattern combination associated with this cluster is uncommon in the PulseNet Canada database, and was last seen in December 2014.
- Ages range from 68 to 90 years with a median of 83 years. 71% (5/7) of cases are female and available onset dates range from September 23 to December 17, 2015.
- In collaboration with provincial and laboratory partners, epidemiological information for the cases is currently being reviewed.
Hi everyone.

As we prepare for the OICC teleconference tomorrow, the Agency's President has requested we draft a public health notice regarding this outbreak. We'd like to discuss this as part of tomorrow's OICC teleconference.

In preparation for the call, can you please identify your communications lead for this outbreak - this person will be asked to work in collaboration with PHAC's communication lead: Sara Coleman (sara.coleman@hc-sc.gc.ca), to review and input into any necessary communications products that may be needed to support this investigation.

Thanks,

Meghan

Meghan Hamel
Epidemiologist/Epidémiologue
Outbreak Management Division/Dévision de la gestion des éclatons
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)

130 Colonnade Rd. Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
Hi all,

We are on a call with PHAC/CFIA/US-CDC. The PHAC comms folks are looking at a public release this week to remind of food safety. Unfortunately for listeriosis washing prepackaged leafy greens does not mitigate this risk. Once further testing is complete there is a possibility of recall. This is impacting the Ontario and east population in Canada and the northeastern USA.

The PHAC will share messaging with P/Ts as it is developed for comments prior to release.

My best,

Cathy O'Keefe
RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John's, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647

Hi Tina, there may be a public notification coming your way on this topic (see e-mail at the bottom of the page). WRT this outbreak NL has one case related to the outbreak and we are cooperating with PHAC to aid in the investigation. Please let me know if you have any questions. A summary of the events below:

The Public Health Agency of Canada is collaborating with provincial health authorities, the Canadian Food Inspection Agency, and Health Canada to investigate a cluster of *Listeria monocytogenes* in Ontario, Quebec, New Brunswick, Prince Edward Island, and Newfoundland and Labrador. No common source has been identified to date, however leafy greens exposures are of interest.

**SUMMARY:**

- A national Outbreak Investigation Coordinating Committee (OICC) was established on
January 15, 2016 to facilitate coordination and information exchange amongst investigative partners.

- There are currently 7 cases (ON=3, QC=1, NB=1, PE=1, NL=1) with a matching PFGE pattern combination (see case definition below).

- The PFGE pattern combination associated with this cluster is uncommon in the PulseNet Canada database, and was last seen in December 2014.

- Ages range from 68 to 90 years with a median of 83 years. 71% (5/7) of cases are female and available onset dates range from September 23 to December 17, 2015.

- In collaboration with provincial and laboratory partners, epidemiological information for the cases is currently being reviewed.

From: Meghan Hamel [mailto:meghan.hamel@phac-aspc.gc.ca]
Sent: Tuesday, January 19, 2016 11:31 PM
To: yvonne.whitfield@oahpp.ca; Marc.Fiset@msss.gouv.qc.ca; hanan.smadi@gnb.ca; cjsanford@goy.pe.ca; O'Keefe, Cathy (HCS)
Cc: Sara Coleman; entericoutbreak
Subject: [2015-823] Listeria investigation - Public Comms

Hi everyone.

As we prepare for the OICC teleconference tomorrow, the Agency's President has requested we draft a public health notice regarding this outbreak. We'd like to discuss this as part of tomorrow's OICC teleconference.

In preparation for the call, can you please identify your communications lead for this outbreak - this person will be asked to work in collaboration with PHAC's communication lead: Sara Coleman (sara.coelman@hc-sc.gc.ca), to review and input into any necessary communications products that may be needed to support this investigation.

Thanks,

Meghan

Meghan Hamel
Epidemiologist/Epidémioleste
Outbreak Management Division/Division de la gestion des éclissions
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZ/ID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)

130 Colonnade Rd, Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
The following message is being shared on behalf of Dr. Howard Njoo, Associate Deputy Chief Public Health Officer, Public Health Agency of Canada

Attached please find an advanced copy of Public Health Notice: Outbreak of Listeria infections under investigation. The final version will be issued to Newswire later tonight. The Public Health Agency of Canada is posting this notice following Ontario's decision to publically report on their cases this evening. Media lines will follow.

(See attached file: PHAC_PHN - Listeriosis Outbreak - Jan 20 - FINAL - EN (advance).docx)

Le message suivant et envoyé au nom de Dr. Howard Njoo, sous-administrateur en chef de la santé publique.

Veuillez trouver ci-joint une copie avancée d'un avis de santé publique: Épidémie d'infections causées par la bactérie Listeria. La version finale sera publiée à Newswire plus tard ce soir. L'Agence de la santé publique est en affichant cet avis suite à la décision de l'Ontario de faire rapport publiclement sur leurs cas ce soir. Lignes de presse suivra.

(See attached file: PHAC_PHN - Listeriosis Outbreak - Jan 20 - FINAL - FR (advance).docx)
FYI

From: Meghan Hamel [mailto:meghan.hamel@phac-aspc.gc.ca]
Sent: Wednesday, January 20, 2016 7:11 PM
To: Yvonne Whitfield; Christina Lee; Marc Fiset; Smadi, Hanan (DH/MS); Carolyn Sanford; O'Keefe, Cathy (HCS)
Cc: enteric outbreak
Subject: Fw: URGENT UPDATE: PHAC Public Health Notice - Listeria Outbreak - January 20
Importance: High

Hi everyone,

Please see email below - the timelines for the PHN have been changed and it will be issued tonight.

Thanks,

Meghan

---

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Sara Coleman <sara.coleman@hc-sc.gc.ca>
Sent: Wednesday, January 20, 2016 5:30 PM
To: Catherine.Fraser@ontario.ca; DDCILLS@gov.pe.ca; Isabelle.Robitaille@msss.gouv.qc.ca; TinaWilliams@gov.ni.ca; Genevieve.Mallet-Chassson@gnb.ca; sadjia.bejali@inspq.qc.ca; Marc.Richard@inspection.gc.ca; Laura Stephen; David S. Martin
Cc: enteric outbreak; Erika Paulson; Erika-Kirsten Easton; Vance White; Meghan Hamel; Diane MacDonald
Subject: URGENT UPDATE: PHAC Public Health Notice - Listeria Outbreak - January 20

Hello,

Following my email from earlier this afternoon, we have been advised by Ontario that they will be issuing a statement to the media tonight related to their three cases. Given the timing of these activities by Ontario, our President's office has made a decision to issue our public health notice this evening which interrupts the timelines I had previously outlined.

Dr. Howard Njoo, our acting Chief Public Health Officer will be trying to contact your CMOH this evening to flag this decision by the Agency.

My sincere apologies as I realize this approach does not allow for your input as originally forecasted. I assure you this approach is not a best practice by communications and should you have comments related to this notice from you or your OICC partners, please feel free to share them with me at any point and we will do our best to address them in our next update.

Should you wish to discuss further prior the next OICC, please feel free to contact me by email or phone at your earliest convenience.

Thanks!

SC
Good afternoon.

Please find attached for your comment by 8:30AM EDT tomorrow morning, January 21, the public health notice that has been drafted to support the multi-jurisdictional outbreak of Listeria in ON, QC, NB, PE, and NL.

(See attached file: PHAC_PHN - Listeriosis Outbreak - Jan 20 - 1427.docx)

This draft reflects comments shared during the comms discussion that took place on today's OICC teleconference.

The Agency's President has asked us to issue this notice as soon as possible. Given the timing today, we are aiming to post this notice tomorrow morning, Thursday January 21.

Please share this draft notice with your OICC leads, and use track changes and the comment tool to provide your input into this version.

I have requested a French copy - and will provide that as soon as it is available (before end of day).

Media lines and Qs and As are in development, and will be shared before the PHN is issued. You will also be provided a heads up note before this notice is posted live to the newswire.

PHAC will lead all media calls on human illness as they related to the national investigation, but questions related to the provincial and local context will be refer to the impacted provinces. Any calls related to the food safety investigation will be referred to CFIA.

Please acknowledge receipt of this email, and advise if you will not be able to meet the requested timeline.

If you have any questions or comments, please feel free to contact me by email or phone at anytime today.

Thanks!

SC
E-mail | Courriel: sura.coleman@he-se.ge.ca
Hi David,

now recovered (awaiting LOS from Chris Nolan)

A purchase history is being attempted through PHAC, they will report when they have any results.

This case fits the PHAC case definition for the outbreak:

**Confirmed Case**

A resident of or visitor to Canada with:

Laboratory confirmation of *Listeria monocytogenes* AND

The PFGE pattern combination LMACI.0331/LMAAI.0815 AND

Symptom onset on or after September 1, 2015

*In the case of a miscarriage, stillbirth or premature delivery, isolation of *Listeria monocytogenes* from fetal tissue, placental tissue or a normally sterile site (cerebrospinal fluid, blood).
My best,

**Cathy O’Keefe RN BN MSc**
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John’s, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647
From: O'Keefe, Cathy (HCS)  
To: Allison David  
Subject: Listeriosis NL case  
Date: Thursday, January 21, 2016 11:38:54 AM

FYI, do you require anything else?

Cathy

From: Chris Nolan [mailto:Chris.Nolan@easternhealth.ca]  
Sent: Thursday, January 21, 2016 11:35 AM  
To: O'Keefe, Cathy (HCS)  

Good Morning,

This case was seen at the [redacted]. The case was discharged on [redacted]. There is an odd glitch in Meditech where it is listing the case as an inpatient in visit history. I have no explanation for that.

Thanks

Chris

From: O'Keefe, Cathy (HCS) [mailto:okeefe@gov.nl.ca]  
Sent: Thursday, January 21, 2016 10:22 AM  
To: Chris Nolan <Chris.Nolan@easternhealth.ca>  

Chris, was this case hospitalized, if yes how long?

From: Chris Nolan [mailto:Chris.Nolan@easternhealth.ca]  
Sent: Friday, January 15, 2016 3:02 PM  
To: O'Keefe, Cathy (HCS)  

Good Afternoon,

I have attached the raw form C, please let me know if there are issues with reading it. I can try to rescan it. The interview was conducted with the [redacted] of the case. I have followed up with [redacted] to try and get the permissions requested. Other than conversations between the EHO involved and myself on details of the investigation, there is little changed since. (Details are in the previous e-mail below)
Hi Chris,

The case you have outlined below is indeed part of a national cluster and PHAC would like to read the full food history and if possible interview the person who was ill themselves. They will be calling an Outbreak Investigation Conference Call (OICC) on this topic early next week. I have included some of the investigation results below.

Could you de-identify the food Hx and scan and send along, also if there is any update since it was completed. Also if you could contact the person to ask if they would give permission to provide PH agency with their contact information to participate in a more detailed food Hx. Given the length of time and this this may not be feasible, please let me know.

National Cluster: LMACI.0331/LMAAI.0815. (ON=3, QC=1, PE=1, NL=1)
- Onset dates range from September 23 to December 17 2015.
- Cases range in age from 58 to 90 years, median age of 83 years.
- 3/5 (60%) are female.
- 4/5 (80%) cases have been hospitalised, no deaths have been reported.
- Questionnaires for 5 of 6 cases have been received:
  - 4/5 cases have reported any lettuce (includes bagged lettuce [4/5] and whole lettuce [4/5])
  - 3/5 cases have reported coleslaw (not home-made)
  - Other common exposures include: pasteurized milk (4/5), various types of cheese (4/5), butter (3/4) and yogurt (3/5)
- Ontario investigating another cluster of Listeria, with a different and unrelated PFGE pattern.
- US Investigation:
  - Investigating 13 cases with onset dates from July 2015 onward
  - Bagged leafy greens a preliminary hypothesis, including spinach and romaine lettuce
  - Most cases report pre-chopped bagged salads and/or salad bars. Limited brand details at this time.
amélioré de surveillance nationale de la listériose - Rapport annuel de 2013

Happy New year to you also, I hope it’s a good one!

That case was actually a [redacted] resident. Like many of the other such cases we have had, [redacted]

That’s the quick and dirty, if you have any specific questions please send them on. We haven’t had any other reported cases.

Thanks
Chris

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated. ***

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution,
use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender.”

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated. ***
Good morning PHNC and CCMOH members,

Please find attached: 1) links to the Public Health Notice now available on the Agency’s website and 2) Media Lines (FR to follow).


(See attached file: PHAC_PHN_Listeria Outbreak_Jan20-2101.docx)

Thank you,
PHN Secretariat

------ Forwarded by Alicia Malcolm-Robinson/HC-SC/GC/CA on 2016-01-21 10:55 AM ------

The following message is being shared on behalf of Dr. Howard Njoo, Associate Deputy Chief Public Health Officer, Public Health Agency of Canada

Attached please find an advanced copy of Public Health Notice: Outbreak of Listeria infections under investigation. The final version will be issued to Newswire later tonight. The Public Health Agency of Canada is posting this notice following Ontario’s decision to publically report on their cases this evening. Media lines will follow.

(See attached file: PHAC_PHN-Listeriosis Outbreak-Jan 20 - FINAL - EN (advance).docx)
A recall has been added to the CFIA's Food Recall Report.

Class 1
Reason for Recall: Health Hazard - Listeria
Product(s): Certain Dole brand pre-packaged chopped salads, salad blends and kits and leafy greens and certain PC Organics brand leafy greens
Recalling Firm: Dole Fresh Vegetables Inc.
Distribution: New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Possibly National, Prince Edward Island, Quebec


Causes of Food Poisoning - http://inspection.gc.ca/food-poisoning

Un rappel a été ajouté au Rapport sur les rappels d’aliments de l’ACIA.

Class 1
Raison du rappel : Danger pour la santé - Listeria
Produit(s) : certaines salades coupées, de mélanges de salades, de préparations pour salades et de légumes-feuilles préemballées de marque Dole et certaines légumes-feuilles préemballées de marque PC Biologique Entreprise effectuant le rappel : Dole Fresh Vegetables Inc.

Vous trouverez les détails sur le produit à l’adresse suivante : http://inspection.gc.ca/au-sujet-de-l-acia/salle-de-nouvelles/avis-de-rappel-d-aliments/liste-complet/2016-01-22c/fra/1453522915084/1453522920123

Causes des empoisonnements alimentaire - http://inspection.gc.ca/empoisonnements_alimentaire

The Canadian Food Inspection Agency (CFIA) issues public advisories and email notifications for food recalls for all high-risk food recalls (mainly Class I) when the product is available for sale or could be in consumers' homes.

All other recalls (Class II and III), and food products that are sold exclusively to restaurants, are posted on the CFIA's Food Recall Report. Email notifications are also available for all allergen recalls.
Food and consumer product recalls are also available at www.healthycanadians.gc.ca.

L'ACIA publie des mises en garde et envoie des avis par courriel sur les rappels d'aliments à risque élevé (principalement ceux de la classe I) lorsque le produit est en vente ou pourrait se trouver chez les consommateurs.

Tous les autres rappels (classe II et III) ainsi que les produits vendus exclusivement aux restaurants sont publiés dans le Rapport sur les rappels d'aliments de l'ACIA. Les avis par courriel sont offerts pour tous les rappels d'aliments contenant des allergènes.

Les rappels d'aliments et de produits de consommation sont aussi diffusés sur le site www.canadiensensante.gc.ca.
Attached is recent communication materials.

On Monday, we'll frame out some information for the Telegram based on these media lines.

Tina Williams
Director of Communications
Department of Health and Community Services
Government of Newfoundland and Labrador
709-729-1377
TinaWilliams@gov.nl.ca

From: Sara Coleman <sara.coleman@hc-sc.gc.ca>
Sent: Saturday, January 23, 2016 11:47 AM
To: Catherine.Fraser@ontario.ca; DDGILLIS@gov.pe.ca; Williams, Tina (HCS); Genevieve.Mallet-Chiasson@gnb.ca; sadja.beckal@inspq.qc.ca; Marc.Richard@inspection.gc.ca; Laura Stephen; David S. Martin; Jason.Bett@inspection.gc.ca; Marla.Kubacki@inspection.gc.ca; Naomi.Sterling@inspection.gc.ca; Amy.J.Hope@ontario.ca; Karine.White@msss.gouv.qc.ca
Cc: entericoutbreak; Erika-Kirsten Easton; Vance White; Meghan Hamel; Diane MacDonald; Rob Ammerman; Laura Russo
Subject: Posted Live: PHN Update - Listeria Outbreak - CFIA Recall - January 23

Good Morning!

The Listeria PHN Update has been posted to the web, wire and Twitter. The CFIA recall did not go out until 1:30 AM, so we made the decision late last night to hold off our posting of the PHN update until this morning.

PHAC Web

RSS Links
http://www.phac-aspc.gc.ca/rss/new-eng.xml
http://www.phac-aspc.gc.ca/rss/new-fra.xml

CNW Web

Tweets - @PHAC_GC, @ASPC_GC
#Listeria: do not consume packaged salad products from the Dole processing plant in Ohio
#Listeria : ne pas consommer de produits de salade emballés, s'ils ont été produits aux installations de Dole en Ohio

If you wish to retweet from your provincial accounts, please do so. @CFIA_Food and @ACIA_Aliments has also tweeted their recall notice, if you wish retweet that message as well.
I am attaching the final word copies along with Media Lines and Qs and As that have been prepared (French copy to be provided once available) to support this PHN Update.

If you have any questions, please let me know.

SC

---

**Sara Coleman**

Senior Communications Advisor | Conseillère principale en communications
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications
Health Canada - Public Health Agency of Canada | Santé Canada - L'agence de la santé publique du Canada
100 Colonnade Rd, Ottawa, Ontario K1A 0K9 | 100, chemin Colonnade, Ottawa Ontario K1A 0K9
Tel | Tél : 613.882.7511
E-mail | Courriel : sara.coleman@hc-sc.gc.ca

---

Good evening.

This is a heads up email to let you know the Agency is planning to issue an update to the Listeria outbreak Public Health Notice tonight.

Over the course of the day, you may be aware that the CDC issued a public notice for their outbreak linked to packaged salads from a Dole processing plant in Springfield, Ohio.

The Canadian Food Inspection Agency (CFIA) plans to issue a food recall warning this evening. We are updating our notice to reflect these developments and to advise Canadians not to eat packaged salad that is being recalled.

A draft copy of this notice is attached for information. We are aiming to issue it later this evening. The updated notice will be available on our website where our initial notice was posted.

The French copy is in translation and I will provide it as soon as it is available.

[attachment "PHAC_PHN - Listeriosis Outbreak - Jan 22 - 1800.docx" deleted by Sara Coleman/HC-SC/GC/CA]

Updated Media lines and Qs and As are also in approvals, and I will share those once I am able.

If you have any questions, please let me know.
Thanks and have a great weekend!

SC

Sara Coleman
Senior Communications Advisor | Conseillère principale en communications
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications
Health Canada - Public Health Agency of Canada | Santé Canada - L'agence de la santé publique du Canada
100 Colonnade Rd, Ottawa, Ontario K1A 0K9 | 100, chemin Colonnade, Ottawa Ontario K1A 0K9
Tel | Tél : | 613.882.7511
E-mail | Courriel : sara.coleman@hc-sc.gc.ca
From: Johnson, Darryl
To: O'Keefe, Cathy (HCS); Earles, Susan A; Allison, David
Subject: FW: 20160122c - Food Recall Warning (Listeria) / Avis de rappel d'aliments (Listeria)
Date: Saturday, January 23, 2016 1:15:56 PM

FYI

Regards,

Darryl

Original Message

From: CFIA Webmaster <cfiamaster@INSPECTION.GC.CA>
Sent: Saturday, January 23, 2016 3:08 AM
To: FOODRECALLS_RAPPELSALIMENTS@WWW.AGR.GC.CA
Reply To: CFIA Webmaster <cfiamaster@INSPECTION.GC.CA>
Subject: 20160122c - Food Recall Warning (Listeria) / Avis de rappel d'aliments (Listeria)

Le texte français suit le texte anglais.

A recall has been added to the CFIA's Food Recall Report.

Class I
Reason for Recall: Health Hazard - Listeria
Product(s): Certain Dole brand pre-packaged chopped salads, salad blends and kits and leafy greens and certain PC Organics brand leafy greens
Recalling Firm: Dole Fresh Vegetables Inc.
Distribution: New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Possibly National, Prince Edward Island, Quebec


****************************

Un rappel a été ajouté au Rapport sur les rappels d'aliments de l'ACIA.

Class I
Raison du rappel : Danger pour la santé - Listeria
Produit(s) : certaines salades coupées, de mélanges de salades, de préparations pour salades et de légumes-feuilles préemballés de marque Dole et certaines légumes-feuilles préemballés de marque PC Biologique
Entreprise effectuant le rappel : Dole Fresh Vegetables Inc.

Vous trouverez les détails sur le produit à l'adresse suivante : http://inspection.gc.ca/au-sujet-de-l-acia/salle-de-nouvelles/avis-de-rappel-d-aliments/liste-complete/2016-01-22c/fr/1453522915084/1453522920123

Causes des empoisonnements alimentaire - http://inspection.gc.ca/empoisonnements_alimentaire

*******************************************************************************
The Canadian Food Inspection Agency (CFIA) issues public advisories and email notifications for food recalls for all high-risk food recalls (mainly Class I) when the product is available for sale or could be in consumers' homes.

All other recalls (Class II and III), and food products that are sold exclusively to restaurants, are posted on the CFIA's Food Recall Report. Email notifications are also available for all allergen recalls.

Food and consumer product recalls are also available at www.healthycanadians.gc.ca.

L'ACIA publie des mises en garde et envoie des avis par courriel sur les rappels d'aliments à risque élevé (principalement ceux de la classe I) lorsque le produit est en vente ou pourrait se trouver chez les consommateurs.

Tous les autres rappels (classe II et III) ainsi que les produits vendus exclusivement aux restaurants sont publiés dans le Rapport sur les rappels d'aliments de l'ACIA. Les avis par courriel sont offerts pour tous les rappels d'aliments contenant des allergènes.

Les rappels d'aliments et de produits de consommation sont aussi diffusés sur le site www.canadiensensante.gc.ca.
This sounds reasonable to me,

Cathy

---

From: Shea, Erin
Sent: Monday, January 25, 2016 3:41 PM
To: Stone, Karen M.
Cc: Williams, Tina (HCS); Drover, Rodney C; Allison, David; Johnson, Darryl; O'Keefe, Cathy (HCS)
Subject: FOR APPROVAL: Media request on Listeria

Please see the following media response for approval. The question is for a basic update on the cases of Listeria in NL:

“The Department of Health and Community Services collaborated with the Public Health Agency of Canada to identify potential causes for cases of Listeria in the Atlantic provinces. The following update was provided by Public Health Agency of Canada on January 23, 2016: http://www.phac-aspc.gc.ca/phn-asp/2016/listeria-eng.php”

Thanks,
E.

Erin Shea | Media Relations Manager
Department of Health and Community Services
Confederation Complex, West Block, 1st Floor
Government of Newfoundland and Labrador
P.O. Box 8700, St. John's NL A1B 4H6
(709) 729-1399 (t)

---

From: Shea, Erin
Sent: Monday, January 25, 2016 8:07 AM
To: O'Keefe, Cathy (HCS); Allison, David
Cc: Williams, Tina (HCS); Drover, Rodney C
Subject: Fw: Posted Live: PHN Update - Listeria Outbreak - CFIA Recall - January 23

Hi,

I received this from Tina on Sat. Can you take it into account when you provide new info for the media request for an update on Listeria issue? They are looking for NL-specific update on the issue.

Thanks,
E.

---

From: Williams, Tina (HCS) <TinaWilliams@gov.nl.ca>
Sent: Saturday, January 23, 2016 12:00 PM
To: Shea, Erin
Subject: Fw: Posted Live: PHN Update - Listeria Outbreak - CFIA Recall - January 23

For Monday. Most recent media lines for Josh's request.
Good Morning!

The Listeria PHN Update has been posted to the web, wire and Twitter. The CFIA recall did not go out until 1:30 AM, so we made the decision late last night to hold off our posting of the PHN update until this morning.

**PHAC Web**

**RSS Links**
http://www.phac-aspc.gc.ca/rss/new-eng.xml
http://www.phac-aspc.gc.ca/rss/new-fra.xml

**CNW Web**

**Tweets - @PHAC_GC, @ASPC_GC**
#Listeria: do not consume packaged salad products from the Dole processing plant in Ohio
#Listeria : ne pas consommer de produits de salade emballés, s'ils ont été produits aux installations de Dole en Ohio

If you wish to retweet from your provincial accounts, please do so. @CFIA_Food and @ACIA_Aiments has also tweeted their recall notice, if you wish retweet that message as well.

I am attaching the final word copies along with Media Lines and Qs and As that have been prepared (French copy to be provided once available) to support this PHN Update.

If you have any questions, please let me know.

SC
Good evening.

This is a heads up email to let you know the Agency is planning to issue an update to the Listeria outbreak Public Health Notice tonight. Over the course of the day, you may be aware that the CDC issued a public notice for their outbreak linked to packaged salads from a Dole processing plant in Springfield, Ohio.

The Canadian Food Inspection Agency (CFIA) plans to issue a food recall warning this evening. We are updating our notice to reflect these developments and to advise Canadians not to eat packaged salad that is being recalled.

A draft copy of this notice is attached for information. We are aiming to issue it later this evening. The updated notice will be available on our website where our initial notice was posted.

The French copy is in translation and I will provide it as soon as it is available.

[attachment "PHAC_PHN - Listeriosis Outbreak - Jan 22 - 1800.docx" deleted by Sara Coleman/HC-SC/GC/CA]

Updated Media lines and Qs and As are also in approvals, and I will share those once I am able.

If you have any questions, please let me know.

Thanks and have a great weekend!

SC

--- Forwarded by Sara Coleman/HC-SC/GC/CA on 2016-01-22 10:10 AM ---
Do you still have the questionnaire? I can resend if needed.

Sent from my BlackBerry 10 smartphone on the Bell network.

See the investigation required. Main concern is not gastro, it is invasive disease characterized by presence of the organism in blood or CSF. If these are not cultured can you be sure they are. Attached is the questionnaire. At this point no action is indicated, need to confirm the diagnosis. Is there food product available?

David Allison
729-3433

Hi Dr. Allison,
I just had a call from the ICP regarding a

Stools are being sent

for cultures.

I am unsure if there is anything from a public health perspective that we need to action. Please advise.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH:(709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca
Hi Dr. Allison,

I just spoke with the ICP she will try and find out from the client if there is any food product left. A blood culture has been taken.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH: (709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

See the investigation required. Main concern is not gastro, it is invasive disease characterized by presence of the organism in blood or CSF. If these are not cultured can you be sure they are.

Attached is the questionnaire. At this point no action is indicated, need to confirm the diagnosis. Is there food product available?

David Allison
729-3433

Hi Dr. Allison,

I just had a call from the ICP regarding a...
Hi Dr. Allison,

We do have some leftover spinach from the client's home product. Family can bring it into Gander at 16:30. What do we do with the food specimen? Do we consult SNL? Please advise.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH: (709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

See the investigation required. Main concern is not gastro, it is invasive disease characterized by presence of the organism in blood or CSF. If these are not cultured can you be sure they are.
Attached is the questionnaire. At this point no action is indicated, need to confirm the diagnosis. Is there food product available?

David Allison
729-3433

Hi Dr. Allison,
I just had a call from the ICP regarding an
FYI

-----Original Message-----
From: Laura Gilbert [mailto:Laura.Gilbert@easterhealth.ca]
Sent: Thursday, January 28, 2016 3:22 PM
To: Corey Murray; Cheryl Janes; Robert Needle; 'Sam Ratnam'; O'Keefe, Cathy (HCS)
Cc: Sandra Pike
Subject: FW: [CNPHI-RCRSP] New message posted.

Hi Guys,

Attached are updated phylogenies that include our isolate! Ours is referred to as 15-9019. We fall into the same clade as the larger outbreak.

Thanks!

Laura

-----Original Message-----
From: Lorelee.Tschetter@phac-aspc.gc.ca [mailto:Lorelee.Tschetter@phac-aspc.gc.ca]
Sent: January-27-16 6:00 PM
To: Lorelee.Tschetter@phac-aspc.gc.ca
Subject: [CNPHI-RCRSP] New message posted.

CLSN - RCRL Collaboration Centre
Message posted in forum "PulseNet Canada Steering Committee".
AUTHOR: Lorelee Tschetter

RE: 1512LM331IMP - Listeria monocytogenes OICC [2015-823]

Hi

Please find attached the latest phylogenies for this investigation.

Interpretation:

-So far the 5 Canadian isolates sequenced are genetically related to each other and fall into an outbreak clade with 9 USA isolates. 1 of the US isolates in the outbreak clade was collected from bagged lettuce.

-There are 2 US isolates that fall on branches outside the outbreak clade and are roughly 7-12 SNPs different from the outbreak isolates. These isolates may be genetic variants of the main outbreak strain as they do group closer than the others. There are a number of US isolates currently considered to be part of their outbreak investigation that we would not normally consider to be related to the outbreak clade based on the number of SNP differences seen (ie) greater than 20 SNPs - this is a definite area of discussion and evaluation moving forward, particularly since they group with the background isolates included that are discussed in the next point.
- All background isolates, including those with the same, or similar PFGE patterns as this OICC investigation fell outside the outbreak clade and would not be considered related or associated with the same exposure event(s).

- WGS data was shared with the CDC and their interpretation is in alignment with ours. 5 of our isolates are related to their outbreak. Please see their phylogeny which is also attached (1509MLGX6-2WGS_PNC.pptx).

Recommendations/Next Steps:

- Consider Canadian & US investigations related? already being done based on PFGE & epi evidence

- Complete WGS for 1 ON isolate (being repeated to confirm original data), 1 QC isolate, as well as CFIA isolates collected from various produce items? phylogeny expected next week

- Share these phylogenies with Federal Epi group and OICC tomorrow January 28th.

https://www.cnphl-rerp.ca/164838

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated. ***
Thanks...a family member is dropping off the sample at SNL around 1630 or so...if it can’t get out this evening they will secure it there and send out on Monday....

Lola

Wayne Lynch has been in touch. Hopefully a food specimen will be obtained and secured over the weekend, to be sent to the PH lab next week. Clinical specimens will likely take that long anyway.

David Allison
729-3433.

Hi Dr. Allison,
SNL is questioning whether they need to interview the client. I am thinking no at this point as we do not have a confirmed diagnosis. Please advise.
Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH:(709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

See the investigation required. Main concern is not gastro, it is invasive disease characterized by
Hi,

To date these blood cultures are negative, and will be finalized tomorrow. The food samples should arrive tomorrow to the PHL, if the blood cultures are finalized as negative tomorrow, we will not be moving forward with food testing.

Thanks,

Rob

---

Hi Rob,

Sorry I missed your message on Friday and I am off this morning but will be back in the office this afternoon...In the meantime you may contact Hayley Cooze CDND for patient info...

Hayley Cooze
1-709-651-624
hayley.cooze@centralhealth.nl.ca

Thanks,

Lola

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated. ***
I have let the lab know
Cathy

From: Allison, David
Sent: Tuesday, February 02, 2016 2:40 PM
To: Cooze, Hayley
Cc: Byrne-Budgell, Janine; O'Keefe, Cathy (HCS); Johnson, Darryl; Lynch, Wayne; Gushue, Lola; Denise Tilley (dtilley@gov.nl.ca)
Subject: RE: Suspect listeriosis

That will also mean the PH Lab will not process the food specimen.

David Allison
729-3433

From: Cooze, Hayley [mailto:Hayley.Cooze@centralhealth.nl.ca]
Sent: Tuesday, February 2, 2016 2:25 PM
To: Allison, David
Cc: Byrne-Budgell, Janine; O'Keefe, Cathy (HCS); Johnson, Darryl; Lynch, Wayne; Gushue, Lola; Denise Tilley (dtilley@gov.nl.ca)
Subject: Suspect listeriosis

Hi,
I just got a call from the JPMH lab advising that the final report on the client's blood culture indicates
"No growth after 5 days incubation"

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
Ph:(709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

From: Allison, David [mailto:DavidAllison@gov.nl.ca]
Sent: Friday, January 29, 2016 2:36 PM
To: Cooze, Hayley
Cc: Byrne-Budgell, Janine; O'Keefe, Cathy (HCS); Johnson, Darryl; Lynch, Wayne; Gushue, Lola
Subject: RE: Suspect listeriosis
Not at this time. Need confirmation of the diagnosis via micro before getting into it. Appropriate medical history and physical is obviously relevant. If a foodborne source is suspected, it doesn't hurt to obtain it and process accordingly.

David Allison
729-3433

From: Cooze, Hayley [mailto:Hayley.Cooze@centralhealth.nl.ca]
Sent: Friday, January 29, 2016 2:33 PM
To: Allison, David
Cc: Byrne-Budgell, Janine; O'Keefe, Cathy (HCS); Johnson, Darryl; Lynch, Wayne; Gushue, Lola
Subject: RE: Suspect listeriosis

Hi Dr. Allison,

SNL is questioning whether they need to interview the client. I am thinking no at this point as we do not have a confirmed diagnosis. Please advise.

Thanks

Hayley Cooze BN RN CCHN(C)
Communicable Disease Control Nurse
Central Health
Health Protection Division- Level III
125 Trans Canada Highway
Gander NL
A1V 1P7
PH: (709) 651 6234 Fax: (709) 256 4977
hayley.cooze@centralhealth.nl.ca

From: Allison, David [mailto:DavidAllison@gov.nl.ca] Same e-mail as pgs. 62-63
Sent: Friday, January 29, 2016 1:59 PM
To: Cooze, Hayley
Cc: Byrne-Budgell, Janine; O'Keefe, Cathy (HCS); Johnson, Darryl
Subject: RE: Suspect listeriosis

See the investigation required. Main concern is not gastro, it is invasive disease characterized by presence of the organism in blood or CSF. If these are not cultured can you be sure they are. Attached is the questionnaire. At this point no action is indicated, need to confirm the diagnosis. Is there food product available?

David Allison
729-3433

From: Cooze, Hayley [mailto:Hayley.Cooze@centralhealth.nl.ca]
Sent: Friday, January 29, 2016 1:54 PM
To: Allison, David
Cc: Byrne-Budgell, Janine
Subject: Suspect listeriosis

Hi Dr. Allison,
Yes, they are usually invasive but with the outbreak related to the Dole products they wish to add non-invasive for high risk for this outbreak only. It may be useful in this case only, other P/Ts are also investigating the opportunity.

Cathy

---

From: Laura Gilbert [mailto:Laura.Gilbert@easternhealth.ca]
Sent: Tuesday, February 02, 2016 3:14PM
To: O'Keefe, Cathy (HCS)
Subject: RE: stool samples

It’s not very common.

Listeria as a whole isn’t common. But, it seems like it is mostly blood.

Thanks!
Laura

---

From: O'Keefe, Cathy (HCS) [mailto:cokeefe@gov.nl.ca]
Sent: February-02-16 3:07 PM
To: Laura Gilbert
Subject: Stool samples

Hi, do you guys ever get stool samples for listeriosis?

My best,

Cathy O'Keefe RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John’s, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647

“This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this
email in error, please delete it immediately and notify the sender.”

*** This communication (including all attachments) is intended solely for the use of the person or persons to whom it is addressed and should be treated as a confidential communication from Eastern Health. If you are not the intended recipient, any use, distribution, printing, or copying of this email is strictly prohibited. If you received this email in error, please immediately notify the originator and delete it from your system. Your cooperation is appreciated. ***
Hi,

As an update to the listeriosis investigations:
ON has decided to do stool testing for those outlined in the document attached. The outbreak team feels it is a little late to start now but will consider this for future outbreaks. The issue of people being colonized was discussed in terms of what is the value of stool testing.

Cathy

---

From: Mihaela Gheorghe [mailto:mihaela.gheorghe@phac-aspc.gc.ca] On Behalf Of entericoutbreak
Sent: Tuesday, February 02, 2016 3:29 PM
To: cjsanford@gov.pe.ca; O'Keefe, Cathy (HCS); hanan.smadi@gnb.ca; marc.fiset@msss.gouv.qc.ca
Cc: Christina.lee@oahpp.ca; Yvonne.Whitfield@oahpp.ca; entericoutbreak
Subject: [2015-823] LM Outbreak Investigation - Epi Discussion

As promised during today's call:
(See attached file: LAB-SD-043-004 - Listeria monocytogenes - Clinical and Food Testing Guid....pdf)

Regards,

Mihaela

---

Outbreak Management Division
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. W, Unit 120
Guelph, ON. Canada N1H 8J1
Tel: (519) 546-8483
Fax: (519) 826-2984
The PHA-Enteric Posting noted above contains sensitive information. To retrieve this Posting, please log on to the PHA-Enteric web site using the following link: https://www.cnphj-rccsp.ca/165367.

Information contained in this posting is not to be distributed without the consent of the author.
Good morning,

We are writing to provide you an update on the on-going investigation activities for 2015-823 Listeria monocytogenes in ON, QC, NB, NL, PE. Since the last OICC teleconference four new cases from ON were added to the outbreak cluster based on their similarity to the PFGE pattern of the positive CFIA cole slaw isolate. There are now 11 Canadian cases in this investigation: ON (7), QC (1), NB (1), PE (1) and NL (1).

An updated Public Health Notice was posted on Feb 2 to include the four new cases included in this investigation (http://www.phac-aspc.gc.ca/phn-asp/2016/listeria-eng.php)

The Public Health Alert on CNPHI has also been updated.

The FDA reported that their two positive Listeria isolates from product collected at the Ohio processing facility have the main outbreak strain.

Whole Genome Sequencing (WGS) and analysis has been completed on nine of eleven Canadian outbreak isolates. WGS trees will be updated to include the two remaining Canadian isolates (QC, ON) next week.

We will continue to provide updates as new information becomes available. If you have any questions please don’t hesitate to contact us.

Many thanks for all of your cooperation in this investigation to date.

Kristyn

Outbreak Management Division
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. W, Unit 120
Guelph, ON, Canada N1H 8J1
Tel: (519) 546-8463
Fax: (519) 826-2984
Dear all,

Please see attached below the WGS trees provided by NML. Bullets have also been provided to help everyone understand how to interpret the trees in the context of this investigation. Lore has kindly agreed to meet with the group to walk through the trees and answer any questions that you may have.

We would like to propose two meeting times: **Monday Feb 8th at 12 PM EST** or **Wednesday Feb 10th at 1 PM EST** (apologies for those in the EST zone, we realise this is over lunch but we are trying to juggling many schedules!). If possible please let us know your availability before the end of the day and we will do our best to accommodate the majority of the group. I will send out an invitation with teleconference details as soon as I hear back from everyone. In the meantime if you have any questions please let me know.

Have a great day,
Kristyn

**[2015-823] WGS Summary**

1. **Phylogeny for LMA CI.0331/LMA AI.0815 (Canadian & USA clinical & food isolates):**
   - WGS (core genome SNV) indicates that the Canadian clinical and food isolates are genetically related to each other, as well as, to the USA clinical and food isolates.
   - When isolates belonging to the outbreak clade are compared to each other they differ by a range of 0-5 SNVs.
   - Of the 8 USA outbreak isolates that do not fall within the outbreak clade, 7 are not associated with the Dole investigation but rather are epidemiologically linked to a separate cheese outbreak. The remaining 1 isolate (PNUSAL001765) that falls outside the outbreak clade is still being included in the US investigation based on potential exposure to packaged lettuce (possibly Dole but brand not confirmed). This isolate, PNUSAL001765, differs from the outbreak clade isolates by 13-16 SNVs. The CDC considers this isolate to be "in the gray zone" degree of relatedness (what we would term "inconclusive").

(See attached file: 1512LM331MP_20160129.pdf)

2. **Phylogeny for LMA CI.0052/LMA AI.0421 & LMA CI.0786/LMA AI.0421:**
   - WGS does not indicate genetic relatedness between any of the isolates included in this analysis. There is a variation of 27-51 SNV's, which falls outside what we would typically call a cluster based
on recently sequenced clusters/outbreaks. This type of variation would seem to indicate multiple strains.

(See attached file: 1509LM52ON_20160129.pdf)

3. Phylogenies for LMACI.0331, LMACI.0052 & background/historical/contextual isolates:
A couple of larger phylogeny including multiple clusters and patterns were generated for a couple of reasons. The first was to confirm how isolates were grouping, and did that correlate with what was being seen by PFGE, and the second was to compare the current clusters to historical outbreaks with confirmed epi links between cases. There are several interesting observations that can be made when reviewing the larger phylogenies:

(a) 1509LM52ON_1512LM331MP (Canadian & USA clinical & food isolates plus background Canadian isolates)

- The grouping of the isolates does correlate with PFGE (ie) the LMACI.0052 & LMACI.0786 isolates branch together, and the LMACI.0331 isolates branch together. This type of phylogeny confirms that these groupings are different strains, and most likely associated with different exposure events.
- By including a wider variety of PFGE patterns (uploaded over a range of time and from various geographical locations), with varied degrees of relatedness, it changes the core genome used, and will thus alter the number of SNV differences seen between isolates. In this instance, it lowers the degree of variation seen among the LMACI.0052, LMACI.0786 isolates to 8-14 SNV's. This would be considered to be inconclusive evidence of relatedness, again based on what has been seen with recent clusters.
- With the inclusion of historical isolates with similar PFGE patterns to the LMACI.0331 investigation, it allows us to observe that while all of the LMACI.0331 isolates do indeed group together, there is a high degree of SNV differences evident which suggests different strains, and possibly exposures as well. This provides additional support/confidence to the current cluster(s) being significant.

(See attached file: 1509LM52ON_1512LM331MP.pdf)

(b) LMACI0052_0331_CDC_CFIA_Context_20160202 (Current clusters as well as historical outbreak investigations):

- By including historical calibrator outbreak investigations, it allows us to observe similarities/differences between the SNV variation that has been seen within investigations with confirmed epi linkages between cases.
- With the representative isolates for the historical outbreaks included. we see SNV variation of 0-18 SNVs. Something not included in this tree is a number of isolates associated with the 1981 coleslaw outbreak. The representative isolates for this outbreak that are in this phylogeny exhibit 12-18 SNV differences, but there were in fact, multiple strains associated with that outbreak so the degree of SNV variation is actually much higher overall.
- This phylogeny indicates that it is possible to have a higher degree of variation within an outbreak than what we may typically expect, and that these cases have been, and would be, included based on confirmed epidemiological & PFGE evidence.
- The SNV variation seen within the LMACI.0052 and LMACI.0786 isolates is 18-27 SNVs - smaller than what is seen in the phylogeny with only these isolates, and larger than what is seen with the representative outbreak isolates in this larger phylogeny. Thus the WGS evidence would be considered inconclusive with respect to establishing genetic relatedness.
(See attached file: LMACI0052_0331_CDC_CFIA_Context_20160202.pdf)
Hi Christa,
I just had a look at the questionnaire. As this was self-reported and no testing completed it is not reported as a case. If there were testing it would not be stool, it would be serum.
Thanks and have a good weekend.
Cathy

---

Hi Cathy,

I have uploaded a Listeria case detail form in VPN. Brian received this today from one of our EHOs. I have placed it under 2016 CDCN referrals in VPN. Brian wasn't sure if you would want to review & possibly send it on to PHAC.

Thanks,

Christa Mosher BN RN CCHN
Communicable Disease Control Nurse
Western Health
(709) 637-5000 ext:5436

All information in this communication, including attachments, is strictly confidential and intended solely for delivery to and authorized use by the addressee(s) identified above, and may contain privileged, confidential, and/or proprietary information entitled to protection and/or exemption from disclosure under applicable law. If you are not the intended recipient, please take notice that any disclosure, copying, distribution, and/or any action taken or omitted to be taken in reliance upon it, is unauthorized and may be unlawful. If you have received this communication in error, please notify the sender immediately and delete the message and any attachments from your system.
From: CIOSC_Enteric@cnphi-rscrsp.ca
To: CIOSC_Enteric@cnphi-rscrsp.ca
Subject: Enteric [Important] EA-003339 -- Listeria monocytogenes in ON, QC, NB, PE, NL - Update
Date: Friday, February 05, 2016 5:21:34 PM

The PHA-Enteric Posting noted above contains sensitive information. To retrieve this Posting, please log on to the PHA-Enteric web site using the following link: https://www.cnphi-rscrsp.ca/165408

Information contained in this posting is not to be distributed without the consent of the author.
The attached 2016 questionnaire was attached to a recent CNPHI post - for future reference.

David J. Allison MD, FRCP(C)
Chief Medical Officer of Health
Department of Health and Community Services
Main Floor, West Block
Confederation Building
St. John's, NL
A1B 4J6
O: (709) 729-3433
Confidential Fax: 729-4647
Hello,

We are writing to provide you an update on the on-going investigation activities for [2015-823] *Listeria monocytogenes* in ON, QC, NB, NL, PE. Since the last update, there has been one additional case reported in this outbreak, from QC. There are now 12 Canadian cases in this investigation: ON (7), QC (2), NB (1), PE (1) and NL (1). Information on this case is pending, however the specimen collection date was Feb 5, 2016. Once the case information is available, we'll be looking to close the OICC for this investigation shortly afterwards.

Whole Genome Sequencing (WGS) and analysis has been completed on 11 of 12 Canadian outbreak isolates.

We'll be holding a debrief for this investigation on March 2, 2016 from 10:30am to 12 pm EST. An calendar invite will be sent out shortly, and the agenda will be sent out early next week.

Many thanks for all of your cooperation in this investigation to date, and we look forward to speaking with you at the debrief call.

Meghan

Meghan Hamel
Epidemiologist/Epidémiologiste
Outbreak Management Division/Division de la gestion des éclissions
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)

130 Colonnade Rd, Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
Sent from my BlackBerry 10 smartphone on the Bell network.

From: O'Keefe, Cathy (HCS) <cokeefe@gov.nl.ca>
Sent: Wednesday, January 27, 2016 1:08 PM
To: Stone, Karen M.

Sorry, forgot to cc you.

From: O'Keefe, Cathy (HCS)
Sent: Wednesday, January 27, 2016 12:21 PM
To: Allison, David; Williams, Tina (HCS)

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Meghan Hamel <meghan.hamel@phac-aspc.gc.ca>
Sent: Wednesday, January 27, 2016 11:53 AM
To: yvonne.whitfield@oahpp.ca; christina.lee@oahpp.ca; Marc.Fiset@msss.gouv.qc.ca; hanan.smadi@gnb.ca; cjsanford@gov.pe.ca; O'Keefe, Cathy (HCS)
Cc: entericoutbreak@phac-aspc.gc.ca

Hello,
Please see below an updated Public Health Notice and media lines that have just been circulated to your respective communications representatives.
The notice will be posted later this morning.

Thanks,

Meghan

Meghan Hamel
Epidemiologist/Epidémiologist
Outbreak Management Division/Division de la gestion des éclissions
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)
130 Colonnade Rd, Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
Good morning.

This is a heads up email to advise you that the Agency will be posting an updated Public Health Notice for the Listeria outbreak later this morning.

This update advises Canadians of the laboratory confirmed results linking the Canadian cases of illness to the packaged salad products from the Dole processing plant in the US.

I am attaching an advance copy of the PHN, as well as updated media lines (french copy to follow as soon as its available).

PHN Update

(See attached file: PHAC_PHN - Listeriosis Outbreak-2016-1-27 - FINAL - EN (advance).docx)
(See attached file: PHAC_PHN - Listeriosis Outbreak-2016-1-27 - FINAL - FR (advance).docx)

MLQA's

(See attached file: PHAC_ML_Listeria Outbreak_Jan27 - FINAL - EN.docx)

If you have any questions please let me know.

The updated notice will be available at this link, once posted live:


Please share this information with your OICC leads.

Thanks, and have a great day.

SC

Sara Coleman
Senior Communications Advisor | Conseillère principale en communications
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications
Health Canada - Public Health Agency of Canada | Santé Canada - L'Agence de la santé publique du Canada
100 Colonnade Rd, Ottawa, Ontario K1A 0K9 | 100, chemin Colonnade, Ottawa Ontario K1A 0K9
Tel | Tél: (613) 957-2700
E-mail | Courriel: sara.coleman@hc-sc.gc.ca
Karen for approval:

Thanks Cathy. As per Darryl’s feedback, I changed the term to “listeriosis”:

“The Department of Health and Community Services collaborated with the Public Health Agency of Canada to identify potential causes for cases of listeriosis in the Atlantic provinces. The following update was provided by Public Health Agency of Canada on January 23, 2016: http://www.phac-aspc.gc.ca/phn-asp/2016/listeria-eng.php”

E.

Erin Shea | Media Relations Manager
Department of Health and Community Services
Confederation Complex, West Block, 1st Floor
Government of Newfoundland and Labrador
P.O. Box 8700, St. John’s NL A1B 4H6
(709) 729-1399 (I)

From: O’Keefe, Cathy (HCS)
Sent: Monday, January 25, 2016 3:59 PM
To: Shea, Erin; Stone, Karen M.
Cc: Williams, Tina (HCS); Drover, Rodney C; Allison, David; Johnson, Darryl; O’Keefe, Cathy (HCS)
Subject: RE: FOR APPROVAL: Media request on Listeria

This sounds reasonable to me,

Cathy

From: Shea, Erin
Sent: Monday, January 25, 2016 3:41 PM
To: Stone, Karen M.
Cc: Williams, Tina (HCS); Drover, Rodney C; Allison, David; Johnson, Darryl; O’Keefe, Cathy (HCS)
Subject: FOR APPROVAL: Media request on Listeria

Please see the following media response for approval. The question is for a basic update on the cases of Listeria in NL:

“The Department of Health and Community Services collaborated with the Public Health Agency of Canada to identify potential causes for cases of Listeria in the Atlantic provinces. The following update was provided by Public Health Agency of Canada on January 23, 2016: http://www.phac-aspc.gc.ca/phn-asp/2016/listeria-eng.php”
Hi,

I received this from Tina on Sat. Can you take it into account when you provide new info for the media request for an update on Listeria issue? They are looking for NL-specific update on the issue.

Thanks,
E.

---

From: Williams, Tina (HCS) <TinaWilliams@gov.nl.ca>
Sent: Saturday, January 23, 2016 12:00 PM
To: Shea, Erin
Subject: Fw: Posted Live: PHN Update - Listeria Outbreak - CFIA Recall - January 23

For Monday, Most recent media lines for Josh's request;

Tina Williams
Director of Communications
Department of Health and Community Services
Government of Newfoundland and Labrador
709-729-1377
TinaWilliams@gov.nl.ca

---

From: Sara Coleman <sara.coleman@hc-sc.gc.ca>
Sent: Saturday, January 23, 2016 11:47 AM
To: Catherine.Fraser@ontario.ca; DDGILLIS@gov.pe.ca; Williams, Tina (HCS); Genevieve.Mallet-Chiasson@mnb.ca; sadjia.bekal@inspq.qc.ca; Marc.Richard@inspection.gc.ca; Laura Stephen; David S. Martin; Jason.Bett@inspection.gc.ca; Maria.Kubacki@inspection.gc.ca; Naomi.Sterling@inspection.gc.ca; Amy.J.Hope@ontario.ca; Karine.White@msss.gouv.qc.ca
Cc: entericoutbreak; Erika-Kirsten Easton; Vance White; Meghan Hamel; Diane MacDonald; Rob Ammerman; Laura Russo
Subject: Posted Live: PHN Update - Listeria Outbreak - CFIA Recall - January 23

Good Morning!

The Listeria PHN Update has been posted to the web, wire and Twitter.
The CFIA recall did not go out until 1:30 AM, so we made the decision late last night to hold off our posting of the PHN update until this morning.
If you wish to retweet from your provincial accounts, please do so.
@CFIA_Food and @ACIA_Aliments has also tweeted their recall notice, if you wish retweet that message as well.

I am attaching the final word copies along with Media Lines and Qs and As that have been prepared (French copy to be provided once available) to support this PHN Update.

If you have any questions, please let me know.

SC

Sara Coleman
Senior Communications Advisor | Conseillère principale en communications
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications
Health Canada - Public Health Agency of Canada | Santé Canada - L’agence de la santé publique du Canada
100 Colonnade Rd, Ottawa, Ontario K1A 0K9 | 100, chemin Colonnade, Ottawa Ontario K1A 0K9
Tel | Tél : 613.882.7511
E-mail | Courriel : sara.coleman@hc-sc.gc.ca

--- Forwarded by Sara Coleman/HC-SC/GC/CA on 2016-01-23 10:10 AM ---

From: Sara Coleman/HC-SC/GC/CA
To: Catherine.Franer@ontario.ca, DDGILLIS@gov.pe.ca, Tina.Williams@gov.nl.ca, Genevieve.Mallet-Chiasson@gov.nb.ca, sadie.betel@nsno.ca, Marc.Richard@inspection.gc.ca, Laura.Stephenson/HC-SC/GC/CA@HWC, David.S.Martin/HC-SC/GC/CA@HWC, Jason.Reed@inspection.gc.ca, Marie.Kubari@inspection.gc.ca, Bonnie.Stirling@inspection.gc.ca, Amy.J.Hope@ontario.ca, Karine.White@mass.gov.qc.ca
Cc: entericoutbreak/HC-SC/GC/CA@HWC, Erika-Kristen.Easton/HC-SC/GC/CA@HWC, Vance.White/HC-SC/GC/CA@HWC, Meghan.Hamer/HC-SC/GC/CA@HWC, Dianne.MacDonald/HC-SC/GC/CA@HWC, Rob.Ammerman/HC-SC/GC/CA@HWC, Laura.Russo/HC-SC/GC/CA@HWC
Date: 2016-01-22 09:04 PM
Subject: Heads Up: PHN Update - Listeria Outbreak - CFIA Recall - January 22

Good evening.
This is a heads up email the let you know the Agency is planning to issue an update to the Listeria outbreak Public Health Notice tonight. Over the course of the day, you may be aware that the CDC issued a public notice for their outbreak linked to packaged salads from a Dole processing plant in Springfield, Ohio.

The Canadian Food Inspection Agency (CFIA) plans to issue a food recall warning this evening. We are updating our notice to reflect these developments and to advise Canadians not to eat packaged salad that is being recalled.

A draft copy of this notice is attached for information. We are aiming to issue it later this evening. The updated notice will be available on our website where our initial notice was posted.

The French copy is in translation and I will provide it as soon as its available.

[attachment "PHAC_PHN - Listeriosis Outbreak - Jan 22 - 1800.docx" deleted by Sara Coleman/HC-SC/GC/CA]

Updated Media lines and Qs and As are also in approvals, and I will share those once I am able.

If you have any questions, please let me know.

Thanks and have a great weekend!

SC

Sara Coleman
Senior Communications Advisor | Conseillère principale en communications
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications
Health Canada - Public Health Agency of Canada | Santé Canada - L’agence de la santé publique du Canada
100 Colonnade Rd, Ottawa, Ontario K1A 0K9 | 100, chemin Colonnade, Ottawa Ontario K1A 0K9
Tel | Tél : 613.882.7511
E-mail | Courriel : sara.coleman@hc-sc.gc.ca
Hello,

We’d like to provide an update to the ongoing national Listeriosis investigation.

Dole Fresh Vegetables Inc. has suspended operations at its Springfield, Ohio facility, and is withdrawing all products processed from that location. The CFIA has classified this client initiated product action as a Class 1 recall to the consumer level. A Food Recall Warning will be issued later today. As well, the following product was confirmed positive for *Listeria monocytogenes*:

Dole brand Chopped Romaine
Product Identification 071430 01082
Lot A01400706:51
BB 16 JA 27

Addition lab results for food samples are expected over the weekend.

PHAC will be updating the Public Health Notice with advice to Canadians not to consume products manufactured at the Dole facility in Ohio. We’ll send out a note to the group once its been posted. P/T comms reps have been looped in.

Have a good weekend,

Meghan
Meghan Hamel
Epidemiologist/Epidémiologiste
Outbreak Management Division/Division de la gestion des éclissions
Centre for Foodborne, Environmental and Zoonotic Infectious Diseases (CFEZID)
Centre des maladies infectieuses d'origine alimentaire, environnementale et zoonotique (CMIAEZ)
Public Health Agency of Canada (PHAC)/Agence de la santé publique du Canada (ASPC)

130 Colonnade Rd, Room 235A-05, AL 6502A
Ottawa ON K1A 0K9
Tel: (613) 697-9535
meghan.hamel@phac-aspc.gc.ca
Sent from my BlackBerry 10 smartphone on the Bell network.

From: Stone, Karen M. <karens@gov.nl.ca>
Sent: Monday, March 14, 2016 5:19 PM
To: Power, Elaine
Subject: Fw: Listeriosis

Hi all,

Please see the following public health notice, thanks to Chris Nolan who has been the lead for NL in the investigation for our case.


My best,

Cathy O'Keefe
RN BN MSc
Director, Communicable Disease Control
Population Health Branch
PO Box 8700
St. John's, NL
A1B 4J6
Telephone 709-729-5019
Fax 709-729-4647
Good afternoon,

As all investigative activities for this outbreak are now complete, the OICC for this investigation is being closed today, March 15.
The minutes of the debrief session held on March 2 are attached. If you have any questions or comments, please let me know.

A final epidemiological summary will be shared in the coming weeks.

On behalf of PHAC-OMD, we thank you all for your collaboration on this investigation!

Regards,

Mihaela

(See attached file: [2015-823] Listeria OICC Debrief Meeting.pdf)

Outbreak Management Division
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. W, Unit 120
Guelph, ON, Canada N1H 8J1
Tel: (519) 546-8463
Fax: (519) 826-2984
Dear colleagues,

As the Foodborne Illness Outbreak Response Protocol (FIORP) Duty Officer for your province, the Public Health Agency of Canada (PHAC) would like to provide you with an update of the ongoing Listeria monocytogenes investigation that your organization is involved in.

The status of the food-borne illness outbreak was reviewed and all partners agreed to the deactivation of the Outbreak Investigation Coordination Committee (OICC) on March 15, 2016. PHAC will continue to monitor for additional cases following the OICC deactivation. Pending any new cases, the outbreak will be declared over on April 30, 2016. In collaboration with OICC partners, PHAC will prepare a summary report to chronicle key events and findings from the outbreak investigation.

A post outbreak debrief/review was held on March 2, 2016.

As per the FIORP, your responsibility as a Duty Officer is to inform your senior officials that the OICC has been deactivated (and the outbreak investigation has concluded).
Thank you for your cooperation,

Mihaela Gheorghe on behalf of the Outbreak Management Division

Outbreak Management Division
Centre for Food-borne, Environmental and Zoonotic Infectious Diseases
Public Health Agency of Canada
255 Woodlawn Rd. W, Unit 120
Guelph, ON. Canada N1H 8J1
Tel: (519) 546-8463
Fax: (519) 826-2984
Attachment #1
**Invasive Listeriosis Questionnaire**

**Please complete questionnaire for all invasive listeriosis cases that meet the following case definition:**

**Clinical Evidence:** Invasive clinical illness is characterized by meningitis or bacteremia. Infection during pregnancy may result in fetal loss through miscarriage, stillbirth, neonatal meningitis or bacteremia.

**Laboratory Criteria for Diagnosis:** Laboratory confirmation of infection with symptoms:
- isolation of *Listeria monocytogenes* from a normally sterile site (e.g., blood, cerebral spinal fluid, joint, pleural or pericardial fluid) OR
- in the setting of miscarriage or stillbirth, isolation of *L. monocytogenes* from placental or fetal tissue (including amniotic fluid and meconium)

**For cases of Listeria in pregnant women or infants ≤1 month of age the MOTHER is the case.**

### Section 1. Interviewer Details:

<table>
<thead>
<tr>
<th>Case Interviewed by</th>
<th>Date of Interview: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent was:</td>
<td></td>
</tr>
</tbody>
</table>

### Section 2. Case Information:

<table>
<thead>
<tr>
<th>Case Name</th>
<th>Proxy Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Home phone:</td>
</tr>
<tr>
<td>Block-out if sending to PHAC</td>
<td>Work phone:</td>
</tr>
<tr>
<td>Physician:</td>
<td>Cell phone:</td>
</tr>
<tr>
<td>Date of birth d / m / y</td>
<td>Sex: M F</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Health Unit/Authority:</td>
<td>Province:</td>
</tr>
</tbody>
</table>

**Is Listeria Case Associated with Pregnancy?** (Illness in pregnant woman, fetus or neonate ≤ 1 month)

- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, Skip to Section 4
If no, continue to Section 3
If unknown, continue to Section 3

### Section 3. Clinical Information: (Non-pregnant adults and children > 1 month of age)

<table>
<thead>
<tr>
<th>Positive specimen type(s):</th>
<th>Other:</th>
<th>PFGE Patterns:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date reported to Health Authority: d / m / y</th>
<th>Date first positive specimen collected: d / m / y</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date of onset of first symptom: d / m / y</th>
<th>Type of Illness:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>When did symptoms resolve (recovery date): d / m / y</th>
<th>Other:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Symptoms:</th>
<th>Other:</th>
</tr>
</thead>
</table>

- Diarrhea* Y N DK
- Headache Y N DK
- Vomiting Y N DK
- Chills Y N DK
- Nausea Y N DK
- Muscle aches Y N DK
- Fever Y N DK
- Asymptomatic Y N DK
- Other: __________________________

*3 or more loose stools in 24 hours*
**Case ID:**

**National ID:**

<table>
<thead>
<tr>
<th>Admitted to hospital because of the illness?</th>
<th>Date of admission: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Y □ N □ DK</td>
<td>Date of discharge: d / m / y</td>
</tr>
</tbody>
</table>

*do not include individuals who visit an emergency room or outpatient clinic

<table>
<thead>
<tr>
<th>Case deceased?</th>
<th>Date of death: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Y □ N □ DK</td>
<td></td>
</tr>
</tbody>
</table>

If yes, *Listeria* infection underlying/contributing cause of death? □ Y □ N □ DK

If yes, was determination based on death certificate? □ Y □ N □ DK

Underlying conditions or medications that suppress the immune system (e.g. diabetes, cancer, steroids)? □ Y □ N □ DK

If yes, specify:

**Proceed to Section 5. Exposure Sources**

**Section 4. Clinical Information: (Pregnant woman, fetus or neonate ≤ 1 month)**

<table>
<thead>
<tr>
<th>Positive specimen type(s):</th>
<th>PFGE Patterns:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ CSF (mother)</td>
<td></td>
</tr>
<tr>
<td>□ Blood (mother)</td>
<td></td>
</tr>
<tr>
<td>□ Other:</td>
<td></td>
</tr>
<tr>
<td>□ CSF (neonate)</td>
<td></td>
</tr>
<tr>
<td>□ Blood (neonate)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date reported to Health Authority: d / m / y</th>
<th>Date first positive specimen collected: d / m / y</th>
</tr>
</thead>
</table>

**Clinical Information on Mother**

<table>
<thead>
<tr>
<th>Date of onset of first symptom: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did symptoms resolve (recovery date)? d / m / y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of illness:</th>
<th>Bacteremia/sepsis</th>
<th>Meningitis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UTI</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symptoms:</th>
<th>Diarrhea*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Y □ N □ DK</td>
</tr>
<tr>
<td>Headache</td>
<td>□ Y □ N □ DK</td>
</tr>
<tr>
<td>Vomiting</td>
<td>□ Y □ N □ DK</td>
</tr>
<tr>
<td>Chills</td>
<td>□ Y □ N □ DK</td>
</tr>
</tbody>
</table>

*3 or more loose stools in 24 hours

<table>
<thead>
<tr>
<th>Admitted to hospital because of the illness?</th>
<th>Date of admission: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Y □ N □ DK</td>
<td>Date of discharge: d / m / y</td>
</tr>
</tbody>
</table>

*do not include individuals who visit an emergency room or outpatient clinic

<table>
<thead>
<tr>
<th>Case deceased?</th>
<th>Date of death: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Y □ N □ DK</td>
<td></td>
</tr>
</tbody>
</table>

If yes, *Listeria* infection underlying/contributing cause of death? □ Y □ N □ DK

If yes, was determination based on death certificate? □ Y □ N □ DK

Underlying conditions or medications that suppress the immune system (e.g. diabetes, cancer, steroids)? □ Y □ N □ DK

If yes, specify:

**Outcome of Pregnancy:** □ Still pregnant □ Fetal death (miscarriage/stillbirth) □ Induced abortion □ Live birth

<table>
<thead>
<tr>
<th>No. weeks gestation</th>
<th>Date: d / m / y</th>
</tr>
</thead>
</table>

**Clinical Information on Neonate:**

<table>
<thead>
<tr>
<th>Date of onset of first symptom: d / m / y</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did symptoms resolve (recovery date)? d / m / y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of illness:</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Meningitis</td>
</tr>
<tr>
<td></td>
<td>Bacteremia</td>
</tr>
<tr>
<td></td>
<td>Febrile Gastroenteritis</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

**Invasive listeriosis questionnaire v 8.0 - June 2012**
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted to hospital because of the illness?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>Date of admission: d m y</td>
<td></td>
</tr>
<tr>
<td>Date of discharge: d m y</td>
<td></td>
</tr>
<tr>
<td>Still hospitalized at time of interview</td>
<td></td>
</tr>
<tr>
<td>Neonate deceased?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>Date of death: d m y</td>
<td></td>
</tr>
<tr>
<td>If yes, Listeria infection underlying/contributing cause of death?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>If yes, was determination based on death certificate?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>In the 4 weeks before onset of illness did you/case:</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>Live in a residential institution?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>(e.g. Nursing home, long term care facility, hospital, boarding school, etc)</td>
<td></td>
</tr>
<tr>
<td>Institution type/name:</td>
<td></td>
</tr>
<tr>
<td>Departure: d m y</td>
<td></td>
</tr>
<tr>
<td>Return: d m y</td>
<td></td>
</tr>
<tr>
<td>Have any contact with domestic animals or animal waste (include reptiles, fish, birds, cats, dogs, pet waste etc):</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>If yes, specify</td>
<td></td>
</tr>
<tr>
<td>Have any contact with non-domestic animals or animal waste (include farm animals, wildlife, zoo animals, animal waste etc):</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>If yes, specify</td>
<td></td>
</tr>
<tr>
<td>Where did you/case purchase food for home consumption in the last 4 weeks (include grocery stores, farmers markets, speciality stores, ethnic markets, food banks etc)?</td>
<td>Store Name</td>
</tr>
<tr>
<td>Eating place outside the home:</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>Eating Place Name</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Are you/case a vegetarian?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>Are you/case allergic to any foods?</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>If yes, specify which foods:</td>
<td></td>
</tr>
<tr>
<td>In the 4 weeks prior to illness, were you/case on a special or restricted diet? (e.g. diabetic diet, kosher, halal, etc)</td>
<td>Y, N, DK</td>
</tr>
<tr>
<td>If yes, describe</td>
<td></td>
</tr>
</tbody>
</table>
### Section 9: Food History

**Did you/case eat any of the following foods in the 4 weeks prior to illness onset?**

**Instructions for interviewer:** For each food item that the case consumed, ask follow up questions regarding the brand, location of purchase. Please read all response options to case in each category. In the event of a fetal death/neonatal infection (<1 month of age), the MOTHER is the case; ask her about her food history during the 4 weeks before DELIVERY.

**INSTRUCTIONS TO READ TO CASE:**

I am interested in the foods you ate during the 4 weeks before your illness onset date. I will be asking you questions about 4 weeks before this date, that is, from d___/m___/y___ through d___/m___/y____. For each food item, please give me your best guess as to whether you ATE the food, you're not sure but you PROBABLY ate the food, or you DID NOT EAT the food. Please include foods eaten by themselves, as part of a sandwich, or as part of another food dish, including salads.

*Prob (Probably Ate) = Case thinks he/she ate this food or case usually eats this food, but is unsure if eaten during time period in question

**DK = Don't know if it was eaten during the time period in question

<table>
<thead>
<tr>
<th>Brand/Details</th>
<th>Yes</th>
<th>Prob*</th>
<th>No</th>
<th>DK**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DELI MEATS:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey deli meat</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken deli meat</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef deli meat</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ham deli meat</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bologna</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastrami</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salami</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepperoni</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other deli meat (e.g. corned beef, kielbasa, prosciutto, mortadella)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>□ prepackaged</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ sliced at the deli counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepackaged sandwich (purchased from vending machine, cafeteria, gas station, grocery store etc.)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>OTHER MEATS:</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooked chicken eaten cold</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>Cooked ham eaten cold</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>Cooked turkey eaten cold</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td>Cooked sausage eaten cold</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>OK</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>Prob*</td>
<td>No</td>
<td>DK**</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----</td>
<td>-------</td>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>Cured or dried meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. parma ham, pepperoni)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pâté/meat spread</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not canned)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, heated before eating?</td>
<td>Y</td>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Other, specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEESE and DAIRY:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brie</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camembert</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. roquefort, gorgonzola, stilton etc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goat cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cottage cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ricotta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican-style cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. queso fresco, queso blanco)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other soft/semi-soft cheeses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. Havarti, Bocconcini, Gouda)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other cheese, all types</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpasteurized cheese</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter (not margarine)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unpasteurized (raw) milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pasteurized milk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specify (e.g. whole, skim, 1%, 2% flavoured)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice cream (soft serve)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ice cream (other)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yogurt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sour Cream</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEAFOOD:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrimp/Prawns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not heated before eating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mussels</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not heated before eating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oysters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not heated before eating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crab</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not heated before eating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imitation crab meat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not heated before eating)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoked or cured fish</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not canned)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw fish</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. sushi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SALADS/DIPS:</td>
<td>Yes</td>
<td>Prob*</td>
<td>No</td>
<td>DK**</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----</td>
<td>-------</td>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>Potato salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pasta salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuna salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bean salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cole slaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seafood salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hummus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other salads/dips (e.g. chicken salad, egg salad, tabouli) specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- homemade</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>- purchased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VEGETABLES:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alfalfa sprouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bean sprouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bagged chopped lettuce/salad mix</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Prepared green salad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(purchased from grocery store, cafeteria)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Whole lettuce</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh raw mushrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Herbs (e.g. basil, cilantro, parsley)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Other vegetables purchased pre-cut (e.g. diced onions) specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRUIT:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honeydew melon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cantaloupe</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Watermelon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh pre-cut fruit (e.g. fruit salad)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Unpasteurized fruit/vegetable juice (eg fresh squeezed orange juice)</td>
<td>Y</td>
<td>P</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>Other specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments (Attach additional pages if needed):
Attachment #2
Questionnaire sur la listériose invasive

Veuillez remplir le présent questionnaire pour chaque cas de listériose invasive qui correspond à la définition suivante :

Manifestations cliniques : La maladie clinique se caractérise par une méningite ou une bactériémie. L’infection durant la grossesse peut entraîner la mort fœtale par avortement spontané, mortinassance, méningite néonatale ou bactériémie.

Critères de laboratoire pour le diagnostic : Confirmation en laboratoire de l’infection et présence de symptômes :
- isolement de Listeria monocytogenes dans un site normalement stérile (p. ex. sang, liquide céphalorachidien [LCR] ou liquide artificielle, pleural ou périscardique) OU
- lorsqu’il se produit un avortement spontané ou une mortinassance, isolement de L. monocytogenes dans le tissu placentaire ou fœtal (y compris le liquide amniotique et le mécnonium).

Dans les cas d’infection à Listeria chez les femmes enceintes ou les nourrissons de moins d’un mois, le patient est la MÈRE.

Section 1. Détails sur l’intervieweur:

Cas interviewé par: 

Date de l’entrevue: j ___ / m ___ / a ___ 

Le répondant était un: □ cas □ parent □ conjoint □ soignant □ autre (précisez): __________________________

Section 2. Renseignements sur le cas:

Nom du cas:

Adresse:

Obsecrit si envoyé à l’ASPC

Nom du mandataire:

Téléphone à la maison: __________________________

Téléphone au travail: __________________________

Cellulaire: __________________________

Date de naissance: j ___ / m ___ / a ___ age: ________

Sexe: □ M □ F

Unité / autorité sanitaire:

Province:

Le cas d’infection à Listeria est-il associé à la grossesse? (maladie chez la femme enceinte, le fœtus ou le nourrisson d’un mois ou moins)

□ Oui Si oui, passez à la section 4

□ Non Si non, passez à la section 3

□ Ne sais pas Si ce renseignement est inconnu, passez à la section 3

Section 3. Renseignements cliniques (adultes non enceintes et nourrissons de plus d’un mois)

Types d’échantillon(s) positif(s):

□ LCR □ Sang □ Urine □ Autre: __________________________

Profil électrophorétique (ECP):

Date de signalement à l’autorité sanitaire: j ___ / m ___ / a ___

Date de prélèvement de l’échantillon positif: j ___ / m ___ / a ___

Date de l’apparition des premiers symptômes: j ___ / m ___ / a ___

Type de maladie: □ Bactériémie/septicémie □ Meningite

Date de résolution des symptômes (date de rétablissement)? j ___ / m ___ / a ___ □ Toujours malade □ NSP

□ Infection des voies urinaires

□ Autre: __________________________

Symptômes:

Diarrhée*: □ O □ N □ NSP

□ Nausees □ O □ N □ NSP

□ Céphalée □ O □ N □ NSP

□ Douleurs musculaires □ O □ N □ NSP

□ Vomissements □ O □ N □ NSP

□ Fièvre □ O □ N □ NSP

□ Frissons □ O □ N □ NSP

□ Aucun symptôme □ O □ N □ NSP

□ Autre: __________________________

*3 selles molles ou plus au cours de 24 heures

□ Aucun selles molles au cours de 24 heures
Section 4. Renseignements cliniques (femmes enceintes, fœtus ou nourrissons d'un mois ou moins)

<table>
<thead>
<tr>
<th>Types d'échantillon(s) positif(s) :</th>
<th>LCR (mère)</th>
<th>Sang (mère)</th>
<th>LCR (nouveau-né)</th>
<th>Sang (nouveau-né)</th>
<th>Autre :</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profil électrophorétique (ECP) :</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date de signalisation à l'autorité sanitaire :</td>
<td>j___ / m___ / a___</td>
<td>Date de prélèvement de l'échantillon positif : j___ / m___ / a___</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Renseignements cliniques sur la mère :

| Date de l'apparition des premiers symptômes : | j___ / m___ / a___ |
| Date de résolution des symptômes (date de rétablissement) ? | j___ / m___ / a___ |
| Symptômes : | Diarrhée* | Nausées |
| | Céphalée | Douleurs musculaires |
| | Vomissements | Fièvre |
| | Frissons | Aucun symptôme |
| *3 selles molles ou plus au cours de 24 heures |

Renseignements cliniques sur le nouveau-né :

| Date de l'apparition des premiers symptômes : | j___ / m___ / a___ |
| Date de résolution des symptômes (date de rétablissement) ? | j___ / m___ / a___ |

Id du cas : 
ID nationale :
Admission à l'hôpital en raison de la maladie?  □ O  □ N  □ NSP  
* À l'exception des personnes qui se présentent à l'urgence ou dans une clinique externe.

ID du cas: 
ID nationale:

Date de l'admission: j_____ / m_____ / a______

Date du congé : j_____ / m_____ / a______

Dans l'affirmative, encore hospitalisé au moment de l'entrevue

Decès du nouveau-né?  □ O  □ N  Date du décès : j_____ / m_____ / a______

Dans l'affirmative, la listériose est-elle une cause fondamentale/contributive?  □ O  □ N  □ NSP

Dans l'affirmative, l'identification de la listériose comme cause de mortalité est-elle fondée sur le certificat de décès?  □ O  □ N  □ NSP

Section 5. Les sources d'exposition

Dans les quatre semaines précédant l'apparition de la maladie:

Le cas habitait-il (habitiez-vous) dans un établissement résidentiel?  □ O  □ N  □ NSP

(p.ex. centre pour ânes, centre de soins de longue durée, hôpital, prison, pensionnat)

Type/Nom de l'établissement:

Voyages?  □ O  □ N  □ NSP

Dans l'affirmative : □ Dans la province/le territoire  □ Autre province/territoire  □ À l'extérieur du Canada

Départ : j_____ / m_____ / a______

Retour : j_____ / m_____ / a______

Destination du voyage (pays/ville/lieu de villégiature):

Y a-t-il eu contact avec des animaux domestiques ou des déchets d'origine animale (notamment des reptiles, des poissons, des oiseaux, des chats, des chiens, des déchets d'animal domestiques, etc):

□ O  □ N  □ NSP

Dans l'affirmative, précisez :

Y a-t-il eu contact avec des animaux non-domestiques ou des déchets d'origine animale (notamment des animaux de ferme, des animaux sauvages, des animaux de zoo, des déchets d'animaux, etc):

□ O  □ N  □ NSP

Dans l'affirmative, précisez :

Section 6. Achat d'aliments pour la maison

Ou le cas a-t-il (avez-vous) acheté des aliments pour consommation à la maison au cours des quatre dernières semaines (inclure les épiceries, les marchés fermiers, les magasins de spécialités, les banques alimentaires, etc.)?

Nom du magasin  Endroit/Adresse

Section 7. Alimentation à l'extérieur du domicile

Dans les 4 semaines précédant l'apparition de la maladie avez-vous/la personne concernée a-t-elle mangé au restaurant, dans un établissement de restauration rapide, dans un café, dans une cafétéria ou pendant un événement social?  □ O  □ N  □ NSP

Nom du restaurant  Endroit  Date

Section 8. Régimes alimentaires spéciaux:

Le cas est-il (êtes-vous) végétarien?  □ O  □ N  □ NSP

Le cas est-il (êtes-vous) allergique à des aliments?  □ O  □ N  □ NSP

Dans l'affirmative, précisez quels aliments :

Au cours des quatre semaines précédant la maladie, le cas suivait-il (suiviez-vous) un régime alimentaire spécial ou restreint? (p. ex. régime pour diabétique, régime kosher, régime halal, etc.)  □ O  □ N  □ NSP

Dans l'affirmative, décrivez ce régime
Section 8. Antécédents d'alimentation : Le cas a-t-il (avez-vous) consommé les aliments suivants au cours des quatre semaines précédant l'apparition de la maladie?

Instructions pour l'intervieweur : Pour chaque aliment que le cas a consommé, posez les questions suivantes concernant la marque, l'endroit d'achat. Veuillez lire à voix haute toutes les options de réponse dans chacune des catégories. En cas de décès intra-utérin ou d'infection néonatale (à moins d'un mois), la MERE est le cas; interrogez-la au sujet de ses antécédents d'alimentation au cours des quatre semaines précédant l'ACCOUCHEMENT.

INSTRUCTIONS À LIRE AU CAS

Je suis intéressé par les aliments que vous avez consommés au cours des quatre semaines précédant votre maladie. Je vous poserai des questions au sujet des quatre semaines précédant cette date, c'est-à-dire, du j__/m__/a__ au j__/m__/a__. Pour chaque aliment, veuillez me dire, au mieux de votre connaissance, si vous AVEZ CONSOMMÉ l'aliment, si vous N'AVEZ PAS CONSOMMÉ l'aliment. Veuillez inclure les aliments consommés seuls, dans un sandwich, ou dans un autre mets, y compris les salades.

*Prob. (probablement) : Le répondant croit avoir consommé cet aliment ou en consomme habituellement, mais ne sait pas s'il en a consommé durant la période en question
**NSP : Le répondant ne sait pas s'il a consommé l'aliment durant la période en question

<table>
<thead>
<tr>
<th>CHARCUTERIES:</th>
<th>Oui</th>
<th>Prob*</th>
<th>Non</th>
<th>NSP**</th>
<th>Marque/Détails</th>
<th>Endroit d'achat ou de consommation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viande de dinde déli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viande de poulet déli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charcuterie de bœuf</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viande de jambon déli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saucissons de Bologne</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastrami</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salami</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepperoni</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>préemballée</td>
<td>O</td>
<td>P</td>
<td>N</td>
<td>NSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oui</td>
<td>Prob*</td>
<td>Non</td>
<td>NSP**</td>
<td>Marque/Détails</td>
<td>Endroit d’achat ou de consommation:</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>----------------</td>
<td>-----------------------------------</td>
<td></td>
</tr>
<tr>
<td>Autre charcuterie (p. ex. bœuf salé, saucisse kielbassa, prosciutto, mortadelle)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Précisez:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préemballée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ tranchée au comptoir de la charcuterie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandwich préemballé</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>(acheté dans une machine distributrice, une cafétéria, une station-service, à l’épicerie, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTRES VIandes:</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Poulet cuit consommé froid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jambon cuit consommé froid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dinde cuit consommée froid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saucisse cuit consommée froid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viande saumurée ou séchée</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>(p. ex. jambon de Parme, pepperettes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pâté/viande à tartiner (pas en conserve)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Hot dogs</td>
<td>□ O</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Si oui, ont-ils été réchauffés avant la consommation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autre, précisez:</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>CHEESE and DAIRY:</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Brie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camembert</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Fromage bleu (p. ex. roquefort, gorgonzola, stilton etc.)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Féta</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Fromage de chèvre</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Fromage cottage</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Ricotta</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Fromage de type mexicain (p. ex. queso fresco, queso blanco)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Autres fromages à pâte molle ou semi-ferrme (p. ex. Huvarth, Bocconcini, Gouda)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Précisez:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autre fromage, tous les types</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Précisez:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fromage non pasteurisé</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Précisez:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beurre (non pas la margarine)</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Unpasteurized (raw) milk</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Lait pasteurisé</td>
<td>□ O</td>
<td>□ P</td>
<td>□ N</td>
<td>□ NSP</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>(précisez, p. ex. entier, écrémé, 1%, 2%, aromatisé)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oui</td>
<td>Prob*</td>
<td>Non</td>
<td>NSP**</td>
<td>Marque/Détails</td>
<td>Endroit d’achat ou de consommation:</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----</td>
<td>-------</td>
<td>-----</td>
<td>-------</td>
<td>----------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Crème glacée (molle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crème glacée (autre)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoghurt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crème sure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AUTRE, précisez</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FRUITS DE MER:**

<table>
<thead>
<tr>
<th></th>
<th>Oui</th>
<th>Prob*</th>
<th>Non</th>
<th>NSP**</th>
<th>Marque/Détails</th>
<th>Endroit d’achat ou de consommation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crevettes/langoustines (non réchauffées avant la consommation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moules (non réchauffées avant la consommation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Huîtres (non réchauffées avant la consommation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crabe (non réchauffé avant la consommation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chair de crabe artificielle (non réchauffée avant la consommation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poisson fumé (pas en conserve)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poisson cru (p. ex. aushi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AUTRE, précisez</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SALADES/TREMPETTES:**

<table>
<thead>
<tr>
<th></th>
<th>Oui</th>
<th>Prob*</th>
<th>Non</th>
<th>NSP**</th>
<th>Marque/Détails</th>
<th>Endroit d’achat ou de consommation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salade de pommes de terre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salade de pâtes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salade au thon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salade de haricots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salade de chou</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salade aux fruits de mer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hummus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autres salades /trempettes (p. ex. salade de poulet, salade aux oeufs, taboulé)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRÉCISEZ</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ préparée à la maison □ achetée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LÉGUMES:**

<table>
<thead>
<tr>
<th></th>
<th>Oui</th>
<th>Prob*</th>
<th>Non</th>
<th>NSP**</th>
<th>Marque/Détails</th>
<th>Endroit d’achat ou de consommation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germes de luzerne</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fèves germées</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laitue coupée /mélange à salade emballés</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Salade verte préparée
(achetée à l'épicerie, dans une cafétéria)
Laitue entière
Champignons crus frais
Herbes fraîches (p. ex. basilic, coriandre, persil)
Autres légumes achetés pré coupés
(p. ex. oignons coupés)

FRUIT:
Melon miel
Cantaloup
Melon d'eau
Fruit frais pré-coupés (p. ex. salade de fruits)
Jus de fruits ou de légumes non pasteurisé (p. ex. jus d'orange fraîchement pressé)

<table>
<thead>
<tr>
<th></th>
<th>Oui</th>
<th>Prob</th>
<th>Non</th>
<th>NSP**</th>
<th>Marque/Détails</th>
<th>Endroit d'achat ou de consommation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salade verte préparée</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(achetée à l'épicerie, dans une cafétéria)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laitue entière</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Champignons crus frais</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbes fraîches (p. ex. basilic, coriandre, persil)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autres légumes achetés pré coupés (p. ex. oignons coupés)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRUIT:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melon miel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cantaloup</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melon d'eau</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit frais pré-coupés (p. ex. salade de fruits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jus de fruits ou de légumes non pasteurisé (p. ex. jus d'orange fraîchement pressé)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Commentaires (joindre les pages supplémentaires au besoin):
Public Health Notice – Outbreak of *Listeria* infections under investigation

**January 20, 2016**

**Why you should take note?**

The Public Health Agency of Canada is collaborating with federal and provincial public health partners to investigate an outbreak of *Listeria monocytogenes* infections in five provinces. To date, the source of this outbreak has not been confirmed. However prepackaged leafy greens, salad blends, and salad kits are food items being investigated. This notice will be updated as new information becomes available.

At this time, the risk to Canadians is low, but given that *Listeria* can cause severe illness to some high-risk groups, Canadians are being asked to review and follow proper safe food handling practices in an effort to prevent illnesses.

*Listeria* is a type of bacteria that can be found in food, soil, plants, sewage and other places in nature. Eating food with *Listeria* on it can cause a serious disease, called listeriosis, in high-risk groups. People can get listeriosis by eating meat, fish, dairy products, plants or vegetables contaminated with *Listeria*.

**Ongoing Investigation**

Currently, there are seven (7) cases of *Listeria monocytogenes* in five provinces related to this outbreak: Ontario (3), Quebec (1), New Brunswick (1), Prince Edward Island (1), and Newfoundland and Labrador (1). Individuals became sick between September 2015 and early January 2016. The majority of cases (71%) are female, with an average age of 81 years. All cases have been hospitalized, and one person has died, however it has not been determined if *Listeria* contributed to the cause of death.

**Who is most at risk?**

Some people face a higher risk of becoming sick with *Listeria* than others. Those who are at highest risk of serious illness include pregnant women and their unborn/newborn children, adults 65 and over, and people with weakened immune systems. High-risk individuals should follow safe food handling practices and avoid high risk food items such as:

- uncooked meat and vegetables including pre-packaged leafy greens;
- unpasteurized (raw) milk and cheeses and other food made from unpasteurized milk;
- ready-to-eat meats such as hot dogs, pâté and deli meats; and
- refrigerated smoked seafood and fish.
**What you should do to protect your health?**

Following safe food handling practices is the key to preventing *Listeria* and the spread of foodborne illnesses. Foods that are contaminated with *Listeria* may look, smell and taste normal. Unlike most bacteria, *Listeria* can survive and sometimes grow on foods being stored in the refrigerator. *Listeria* can be killed by cooking food properly, and illnesses can be avoided by following these food safety tips:

- Thoroughly clean fruits and vegetables before you eat them. Wash your leafy greens under fresh, cool running water.
- Don't soak leafy greens in a sink full of water. They can become contaminated by bacteria in the sink.
- Thoroughly clean and sanitize all surfaces used for food preparation after handling foods in the kitchen, especially raw foods such as meat and fish.
- Read and follow all package labels and instructions on food preparation and storage.
- Cook foods thoroughly, using a clean thermometer to measure the temperature.
- To avoid cross-contamination, clean all knives, cutting boards and utensils used with for raw food before using them again.
- Refrigerate or freeze prepared food and leftovers within two hours.
- Defrost food in the refrigerator, in cold water or in the microwave, but never at room temperature.
- Keep leftovers for a maximum of four days, but preferably for only two to three days. Reheat leftovers to an internal temperature of 74°C (165°F) before eating them.
- Check the temperature in your refrigerator using a thermometer to make sure it is at 4°C (40°F) or below. The higher the temperature in your refrigerator, the greater the risk that *Listeria* may grow in foods. The risk of getting sick increases as the number of bacteria in food rises.
- Wash and disinfect your refrigerator frequently. The more often it is cleaned, the less chance there will be for *Listeria* to be transferred from contaminated food and surfaces to non-contaminated foods.
Symptoms

Many people are exposed to Listeria, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:

- headache
- poor coordination
- seizures
- neck stiffness

In the milder form of the disease, symptoms can start the following day after consuming a product with Listeria. For the more serious form of the disease, the incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

Listeriosis can be treated with antibiotics, but early diagnosis is key, especially for people at high-risk, such as pregnant women, older adults and people with weakened immune systems.

What the Public Health Agency of Canada is doing

The Government of Canada is committed to food safety. The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal and provincial partners to monitor and take collaborative steps to address the outbreak.

Health Canada provides food-related health risk assessments to determine if the presence of a certain substance or microorganism poses a health risk to consumers.

The Canadian Food Inspection Agency (CFIA) conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to this investigation becomes available.
Additional information

- Listeriosis and Listeria Fact Sheet
- Leafy Greens Fact Sheet

Media Contact

Public Health Agency of Canada
Media Relations
(613) 957-2983
Public Health Notice – Outbreak of *Listeria* infections under investigation

January 21, 2016

**Why you should take note?**

The Public Health Agency of Canada is collaborating with federal and provincial public health partners to investigate an outbreak of *Listeria monocytogenes* infections in five provinces. To date, the source of this outbreak has not been confirmed, however prepackaged leafy greens and salad blend kits are food items of interest in the ongoing investigation. This notice will be updated as new information becomes available.

At this time, the risk to Canadians is low, but given that *Listeria* can cause severe illness to some high-risk groups, Canadians are being asked to review and follow proper safe food handling practices in an effort to prevent illnesses.

*Listeria* is a type of bacteria that can be found in food, soil, plants, sewage and other places in nature. Eating food with *Listeria* on it can cause a serious disease called listeriosis. People can get listeriosis by eating meat, fish, dairy products, plants or vegetables contaminated with *Listeria*.

**Ongoing Investigation**

Currently, there are seven (7) cases of *Listeria monocytogenes* in five provinces related to this outbreak: Ontario (3), Quebec (1), New Brunswick (1), Prince Edward Island (1), and Newfoundland and Labrador (1). Individuals became sick between September 2015 and early January 2016. The majority of cases (71%) are female, with an average age of 81 years. All cases have been hospitalized, and one person from Ontario has died.

**Who is most at risk?**

Some people face a higher risk of becoming sick with *Listeria* than others. Those who are at highest risk of serious illness include pregnant women and their unborn/newborn children, older adults, and people with weakened immune systems. High-risk individuals should follow safe food handling practices and avoid high risk food items such as:

- uncooked meat and vegetables including pre-packaged leafy greens;
- unpasteurized (raw) milk and cheeses and other food made from unpasteurized milk;
- ready-to-eat meats such as hot dogs, pâté and deli meats; and
- refrigerated smoked seafood and fish.
What you should do to protect your health?

Following safe food handling practices is the key to preventing *Listeria* and the spread of foodborne illnesses. Foods that are contaminated with *Listeria* may look, smell and taste normal. Unlike most bacteria, *Listeria* can survive and sometimes grow on foods being stored in the refrigerator. *Listeria* can be killed by cooking food properly, and illnesses can be avoided by following these food safety tips:

- Thoroughly clean fruits and vegetables before you eat them. Wash your leafy greens under fresh, cool running water.
- Don't soak leafy greens in a sink full of water. They can become contaminated by bacteria in the sink.
- Thoroughly clean and sanitize all surfaces used for food preparation after handling foods in the kitchen, especially raw foods such as meat and fish.
- Read and follow all package labels and instructions on food preparation and storage.
- Cook foods thoroughly, using a clean thermometer to measure the temperature.
- To avoid cross-contamination, clean all knives, cutting boards and utensils used with for raw food before using them again.
- Refrigerate or freeze perishable food, prepared food and leftovers within two hours.
- Defrost food in the refrigerator, in cold water or in the microwave, but never at room temperature.
- Keep leftovers for a maximum of four days, but preferably for only two to three days. Reheat leftovers to an internal temperature of 74°C (165°F) before eating them.
- Check the temperature in your refrigerator using a thermometer to make sure it is at 4°C (40°F) or below. The higher the temperature in your refrigerator, the greater the risk that *Listeria* may grow in foods. The risk of getting sick increases as the number of bacteria in food rises.
- Wash and disinfect your refrigerator frequently. The more often it is cleaned, the less chance there will be for *Listeria* to be transferred from contaminated food and surfaces to non-contaminated foods.
Symptoms

Many people are exposed to Listeria, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:

- headache
- poor coordination
- seizures
- neck stiffness

In the milder form of the disease, symptoms can start the following day after consuming a product with Listeria. For the more serious form of the disease, the incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

Listeriosis can be treated with antibiotics, but early diagnosis is key, especially for people at high risk, such as pregnant women, older adults and people with weakened immune systems.

What the Public Health Agency of Canada is doing

The Government of Canada is committed to food safety. The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal and provincial partners to monitor and take collaborative steps to address the outbreak.

Health Canada provides food-related health risk assessments to determine if the presence of a certain substance or microorganism poses a health risk to consumers.

The Canadian Food Inspection Agency (CFIA) conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to this investigation becomes available.
Additional information

- Listeriosis and Listeria Fact Sheet
- Leafy Greens Fact Sheet

Media Contact

Public Health Agency of Canada
Media Relations
(613) 957-2983
Attachment #5
Mise à jour de l’avis de santé publique – Éclosion d’infections causées par la bactérie Listeria; les consommateurs doivent éviter de consommer des produits de salade emballés provenant de l’installation de traitement de Dole à Springfield, en Ohio

23 janvier 2016

Le présent avis est mis à jour pour informer les Canadiens qu’ils ne doivent pas consommer de produits de salades provenant de l’installation de traitement de Dole à Springfield, en Ohio. Un avis de rappel d’aliments a été émis par l’Agence canadienne d’inspection des aliments.

Pourquoi tenir compte du présent avis

L’Agence de la santé publique du Canada collabore avec ses partenaires fédéraux et provinciaux de la santé publique, avec les Centers for Disease Control and Prevention (CDC) des États-Unis et le Secrétariat américain aux produits alimentaires et pharmaceutiques pour enquêter sur une éclosion d’infections causées par la bactérie Listeria monocytogenes liée aux produits de salade emballés, produits dans une usine de traitement américaine, à Springfield, en Ohio. L’Agence canadienne d’inspection des aliments a publié un Avis de rappel d’aliments pour informer les Canadiens du rappel des produits de salades emballés par Dole sous divers noms de produits, distribués dans les provinces de l’est.

L’Agence canadienne d’inspection des aliments conseille aux Canadiens de ne pas consommer de produits de salade emballés, s’ils ont été produits aux installations de Dole à Springfield, en Ohio. Ces produits comprennent ceux de marque Dole et d’autres marques. Pour une liste complète des produits, veuillez consulter l’avis de rappel de l’ACIA. Ces produits peuvent être distingués par la lettre « A » au début du code de fabrication présent sur l’emballage.

Le risque pour la santé de la population canadienne est faible. La Listeria est une bactérie qu’on retrouve dans les aliments, dans le sol, dans les plantes, dans les eaux usées et ailleurs dans la nature. L’ingestion d’aliments contaminés par Listeria peut causer chez certains groupes à risque élevé une maladie grave, appelée listériose.

Enquête en cours

Actuellement, on a recensé sept (7) cas de Listeria monocytogenes liés à cette éclosion et distribués dans cinq provinces : en Ontario (3), au Québec (1), au
Nouveau Brunswick (1), à l’Île du Prince Édouard (1), et à Terre Neuve et Labrador (1). Les personnes sont tombées malades entre le mois de septembre 2015 et le début du mois de janvier 2016. Certaines des personnes qui sont tombées malades ont déclaré avoir mangé de la salade emballée. Nous pensons que ces salades ont été produites à l’installation de Dole en Ohio. La majorité des cas canadiens (71 %) sont des femmes dont l’âge moyen est de 81 ans. Toutes ces personnes ont été hospitalisées, et une personne est décédée. Cependant, il n’a pas encore été déterminé si *Listeria* a contribué à la cause du décès.

**Qui est le plus à risque?**

Certaines personnes sont plus à risque que d’autres de tomber malades en présence de *Listeria*. Ces risques sont plus élevés chez les femmes enceintes et leurs fœtus ou nouveau-nés, les personnes âgées de 65 ans et plus, et les personnes dont le système immunitaire est affaibli. Les personnes à risque élevé ne doivent pas consommer les aliments visés par un rappel.

**Ce que vous devez faire pour protéger votre santé**

Si vous avez des produits de salade emballés provenant de l’installation de traitement de Dole à Springfield, en Ohio, à la maison, ne les mangez pas. Pour obtenir une liste des marques et des noms de produits ciblés, de même que des magasins qui les vendent, veuillez consulter l’avis de rappel.

Si vous n’êtes pas certains que vos produits de salade emballés sont visés par l’avis de rappel, ne les consommez pas. Emballez sécuritairement le produit dans un sac de plastique, jetez-le et lavez-vous les mains à l’eau chaude savonneuse.


Si vous pensez que vous êtes tombés malades parce que vous avez mangé un produit de salade emballée Dole, ou si vous présentez des symptômes semblables à ceux de la listériose, parlez-en à votre fournisseur de soins de santé.

**Symptômes**

Beaucoup de personnes sont exposées à *Listeria*, mais seules quelques unes contracteront la listériose. Les symptômes bénins peuvent inclure:

- fièvre
- douleurs musculaires
- nausée
Les symptômes graves peuvent inclure:

- mal de tête
- manque de coordination
- convulsions
- raideur de la nuque

Dans la forme bénigne de la maladie, les symptômes peuvent commencer le jour suivant la consommation d'un produit contaminé par *Listeria*. Dans le cas de la forme plus grave de la maladie, la période d'incubation est généralement beaucoup plus longue; en moyenne environ 21 jours, mais peut aller jusqu'à 70 jours après l'exposition.

La listériose peut être traitée à l'aide d'antibiotiques, mais un diagnostic précoce est la clé, en particulier pour les personnes à risque élevé comme les femmes enceintes, les personnes âgées et les personnes dont le système immunitaire est affaibli.

**Ce que fait l'Agence de la santé publique du Canada**

Le gouvernement du Canada s'engage à assurer la salubrité des aliments. L'Agence de la santé publique du Canada mène l'enquête sur la santé humaine concernant cette écllosion et est en contact régulier avec ses partenaires fédéraux et provinciaux pour assurer une vigie et prendre des mesures de collaboration afin de remédier à l'écllosion.

Santé Canada offre des évaluations des risques pour la santé liés à l'alimentation pour déterminer si la présence d'une certaine substance ou d'un microorganisme pose un risque pour la santé des consommateurs.

L'ACIA mène des enquêtes sur la salubrité des aliments dans le but de déterminer si la source d'une écllosion est d'origine alimentaire.

Le gouvernement du Canada communiquera des mises à jour à la population canadienne dès que de nouveaux renseignements relatifs à cette enquête seront disponibles.

**Renseignements supplémentaires**

- Avis de rappel d'aliments – produits de salade emballés – Dole
- Fiche de renseignements sur la *Listeria* et la listériose
- Fiche de renseignements sur les légumes feuilles
- Déclaration d'épidémie de listériose dans plusieurs états des CDC (Anglais seulement)
Personne ressource pour les médias

Agence de la santé publique du Canada
Relations avec les médias
613 957 2983
Attachment #6
Public Health Notice Update – Outbreak of Listeria; consumers advised not to consume packaged salad products from the Dole processing plant in Springfield, Ohio

January 23, 2016

This notice has been updated to advise Canadians not to consume packaged salads products from the Dole processing plant in Springfield, Ohio. A food recall warning has been issued from the Canadian Food Inspection Agency.

Why you should take note?

The Public Health Agency of Canada is collaborating with federal and provincial public health partners, the United States Centers for Disease Control and Prevention (CDC), and the United States Food and Drug Administration to investigate an outbreak of Listeria monocytogenes infections linked to Dole packaged salad products produced from a US processing facility in Springfield, Ohio. The Canadian Food Inspection Agency (CFIA) has issued a food recall warning advising Canadians of the recall to Dole packaged salad products under various product names that have been distributed in eastern provinces.

The Public Health Agency of Canada advises Canadians not to consume packaged salad products that have been processed at the Dole facility in Springfield, Ohio. This includes Dole brand items as well as items sold under other brand names. For a full list of products, please refer to the CFIA recall notice. These products can be identified by letter "A" at the beginning of the manufacturing code found on the package.

The overall risk to Canadians is low. Listeria is a type of bacteria that can be found in food, soil, plants, sewage and other places in nature. Eating food with Listeria on it can cause a serious disease, called listeriosis, in high-risk groups.

Ongoing Investigation

Currently, there are seven (7) cases of Listeria monocytogenes in five provinces related to this outbreak: Ontario (3), Quebec (1), New Brunswick (1), Prince Edward Island (1), and Newfoundland and Labrador (1). Individuals became sick between September 2015 and early January 2016. Some of the individuals who became ill have reported eating packaged salads. It is suspected that these salads were produced at the Dole facility in Ohio. The majority of Canadians cases (71%) are female, with an average age of 81 years. All cases have been hospitalized, and one person has died, however it has not been determined if Listeria contributed to the cause of death.
**Who is most at risk?**

Some people face a higher risk of becoming sick with *Listeria* than others. Those who are at highest risk of serious illness include pregnant women and their unborn/newborn children, adults 65 and over, and people with weakened immune systems. High-risk individuals should not consume the recalled products.

**What you should do to protect your health?**

If you have packaged salad products from the Dole processing facility in Springfield, Ohio in your home, do not eat them. For a list of product brands and names, as well as stores that these products were sold at, please read the recall notice.

If you are unsure whether your packaged salad product is part of the food recall warning, do not consume it. Secure the product in a plastic bag, throw it out and wash your hands with warm soapy water.

Foods that are contaminated with *Listeria* may look, smell and taste normal. Unlike most bacteria, *Listeria* can survive and sometimes grow on foods being stored in the refrigerator.

If you suspect you have become ill from eating a Dole packaged salad product, or have symptoms consistent for listeriosis, talk with your healthcare provider.

**Symptoms**

Many people are exposed to *Listeria*, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:

- headache
- poor coordination
- seizures
- neck stiffness

In the milder form of the disease, symptoms can start the following day after consuming a product with *Listeria*. For the more serious form of the disease, the
incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

Listeriosis can be treated with antibiotics, but early diagnosis is key, especially for people at high-risk, such as pregnant women, older adults and people with weakened immune systems.

**What the Public Health Agency of Canada is doing**

The Government of Canada is committed to food safety. The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal and provincial partners to monitor and take collaborative steps to address the outbreak.

Health Canada provides food-related health risk assessments to determine if the presence of a certain substance or microorganism poses a health risk to consumers.

The CFIA conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to this investigation becomes available.

**Additional information**

- Food Recall Warning Dole packaged salad products
- Listeriosis and Listeria Fact Sheet
- Leafy Greens Fact Sheet
- CDC Multi-state listeriosis outbreak

**Media Contact**

Public Health Agency of Canada
Media Relations
(613) 957-2983
Attachment #7
Media Lines
Outbreak of *Listeria monocytogenes*
January 2016

**Issue:**
The Public Health Agency of Canada is collaborating with provincial public health partners, the Canadian Food Inspection Agency, and Health Canada to investigate an outbreak of *Listeria* infections in five provinces. As of January 22, 2016 seven cases have been confirmed: ON (3), QC (1), NB (1), PE (1), NL (1). The Canadian Food Inspection Agency is issuing a food recall warning for packaged salads that were processed in a Dole processing facility in Springfield, Ohio. Some of the individuals who became ill have reported eating packaged salads produced at this facility. All cases are over the age of 65. All cases have been hospitalized and one death has been reported, although it has not been confirmed if *Listeria* contributed to the cause of death.

A Public Health Notice has been issued and updated to communicate to Canadians about the outbreak and to advise Canadians to not consume the recalled products.

**Key Messages:**

- The Public Health Agency of Canada is working with the Canadian Food Inspection Agency, Health Canada, provincial public health authorities, the United States Centers for Disease Control and Prevention (CDC) and the US Food and Drug Administration (FDA) on the investigation of an outbreak of *Listeria monocytogenes*.

- The Canadian Food Inspection Agency has issued a food recall warning advising Canadians of the recall of packaged salads produced at a Dole processing facility in Springfield, Ohio.

- The Public Health Agency of Canada advises Canadians not to consume packaged salad products that have been processed at the Dole facility in Springfield, Ohio. This includes Dole products as well as packaged salads sold under other brand names.

- The Public Health Agency of Canada is aware of the CDC’s public notice, and is working closely with its partners to determine if the Canadian cases of illness have the same genetic fingerprint as the US cases. The Agency expects to have laboratory analysis completed the week of January 25th to determine whether the outbreak strains in the US and Canadian investigations are also related.

- The Public Health Agency of Canada can confirm that some of the individuals who became ill in the Canadian investigation did report consuming packaged salads. It is suspected that these salads were produced at the Dole facility in Ohio.
The Agency has issued an updated public health notice on Friday, January 22 with updated guidance for Canadians.

Currently, there are seven cases of Listeria in five provinces: ON (3), QC (1), NB (1), PE (1), NL (1). Individuals became sick between September 2015 and early January 2016. The majority of cases (71%) are female, with an average age of 81 years. Some of the individuals who became sick have reported eating packaged salads produced at the Dole facility in Ohio.

All cases have been hospitalized. One person has died, however it has not been determined if Listeria contributed to the cause of death. The recovery status of the remaining six cases is not known at this time.

The overall risk to Canadians is low. Listeria poses a greater risk to pregnant women and their unborn/newborn children, adults 65 and over, and people with weakened immune systems.

Questions and Answers

1. What is the Public Health Agency of Canada doing about this outbreak?

The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal, provincial, and international partners to respond and ensure appropriate measures are being taken to protect public health. The Agency has issued a public health notice to Canadians advising them of this outbreak and providing specific guidance on how to protect citizens from illness. The Agency will continue to update Canadians as new information related to this investigation becomes available.

2. Is the outbreak currently under investigation in Canada, related to the US CDC's announcement of Listeria in packaged salads from the Dole processing plant in Springfield, Ohio?

Yes, based on the epidemiological investigation to date, we believe these two outbreaks are related. Further laboratory analysis is underway to determine whether the outbreak strains in the US and Canadian investigations are also related. The Public Health Notice will be updated as new information related to this investigation becomes available.

3. Are there specific packaged salad products or brands associated with this outbreak?

Yes, the Canadian Food Inspection Agency has issued a food recall warning related to this outbreak. Specific brands and product codes are available on CFIA website (insert link once available).
4. **Given the cases date back to September 2015, why was the information not released until January 2016?**

Investigations into cases of foodborne illness can be complex and can involve several federal and provincial health and food safety partners, each of whom has certain responsibilities.

Determining if cases are related depends on genetic testing done by provincial/federal laboratories. All cases of Listeriosis are characterized by PFGE fingerprinting and assessed for relatedness on an ongoing basis through PulseNet Canada.

Identifying common food items among ill persons often involves multiple interviews with cases. The time between consumption of contaminated food and listeria symptoms can be up to a month, therefore recall of foods consumed prior to illness is challenging. Additionally, foodborne illness outbreak investigations can be challenging given the length of time between when an individual becomes sick with listeriosis and when their illness is reported to public health.

5. **What are the symptoms of a listeriosis infection?**

Many people are exposed to Listeria, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:

- headache
- poor coordination
- seizures
- neck stiffness

In the milder form of the disease, symptoms can start the following day after consuming a product with Listeria. For the more serious form of the disease, the incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

6. **How can people protect themselves against Listeria as it relates to this outbreak?**
Canadians are advised not to eat packaged salad products from the Dole processing facility in Springfield, Ohio that they may have in their homes. For a list of product brands and name, as well as stores that these products were sold at, please read the recall notice.

If you are unsure whether your packaged salad products are part of the food recall warning, do not consume it. Secure the product in a plastic bag, throw it out and wash your hands with warm soapy water.

Foods that are contaminated with *Listeria* may look, smell and taste normal. Unlike most bacteria, *Listeria* can survive and sometimes grow on foods being stored in the refrigerator.

If you suspect you have become ill from eating a Dole packaged salad product, or have symptoms of listeriosis, talk with your healthcare provider.

Prepared by:
Sara Coleman, PHSCD, 613.882.7511
Reviewed by:
Outbreak Management Division, PHAC
ATTACHMENT #8
Multi-provincial of Listeria monocytogenes in ON, QC, NB, PE, NL

Data removed as risk to re-identify individuals may be possible.

Reference 15C1046165SPAdes Assembled; Context LMACI.0331/LMAAI.0815 current investigation. NML Bioinformatics SNVphyl pipeline. Maximum-likelihood tree based on 21059 high-quality core genome single nucleotide polymorphisms (SNP) positions identified among 41 isolates over 94% of the reference genome. 2016-01-25 PulseNet Canada
ATTACHMENT #9
Multi-provincial outbreak of Listeria monocytogenes in ON, QC, NB, PE, NL with background isolates

Data removed as risk to re-identify individuals may be possible.

Reference : T5C1046165SPAdes Assembled; Context LMAC1.0331 / LMAAI.0815 current investigation. NML Bioinformatics SNVphy pipeline. Maximum-likelihood tree based on 233 high-quality core genome single nucleotide polymorphisms (SNP) positions identified among 27 isolates over 94% of the reference genome.

2016-01-25 PulseNet Canada
ATTACHMENT #10
There is a sixth Canadian sequence associated with id 15H0131283 that has no close wgMLST results (<25 alleles) in our database at this time. This isolate differs to this cluster by ~300 alleles.
ATTACHMENT #11
Labstract – January 2016

Listeria monocytogenes – Clinical and Food Testing Guidelines for Foodborne Illness Outbreaks

To Health Care Providers,

Listeriosis is a foodborne illness that usually presents as a self-limited syndrome with malaise, fever, and diarrhea with no further untoward outcome. In a minority of cases, particularly in the immunocompromised, neonates, elderly and pregnant women, illness such as bacteremia, meningitis, and fetal loss can ensue. Ingestion of suspect food by healthy or immunocompetent persons does not necessarily result in infection with Listeria.

These guidelines are applicable during an outbreak investigation or when there is a known contaminated or recalled food product. The guidelines address both clinical testing and food testing for Listeria.

Individuals with symptoms of meningitis and/or invasive disease require clinical laboratory testing, regardless of consumption of a known contaminated or recalled food product. The optimal clinical specimens for suspected, symptomatic cases of listeriosis are blood cultures.

Listeria stool testing should ONLY be submitted to the Public Health Ontario Laboratory (PHOL) for symptomatic, high risk persons (i.e., immunocompromised, 65 years of age and over, pregnant women) with known consumption of a contaminated or recalled food product. Stool specimens submitted will be forwarded to Health Canada for testing however they may not be very helpful in clinical management as it takes up to 2 weeks from sample collection to final results and may have a lower sensitivity.

Testing for Listeria in asymptomatic people who consumed a contaminated or recalled food product is not required.
**CLINICAL TESTING FOR LISTERIA**

<table>
<thead>
<tr>
<th>Clinical symptoms/ exposure</th>
<th>Host affected</th>
<th>Testing recommended</th>
<th>Where to submit testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptomatic with consumption of a known contaminated or recalled food product</td>
<td>All hosts, including immunocompromised, pregnant and those 65 years of age or older</td>
<td>None.</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
|                                                                 | Immobile hosts who are not pregnant and not 65 years of age or older | • Stool for routine culture and susceptibility as per usual practice  
• Stool testing for Listeria is not indicated  
• Counsel regarding potential symptoms of invasive listeriosis and to return to the health care provider should these develop  
• If evidence of fever within 24 hours of clinical assessment, may consider 2 sets of routine blood cultures (which detect *Listeria spp.*.) | • Routine stool and blood cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*  
• Routine blood or stool cultures are not available at PHO |
| Gastroenteritis with or without fever and no other symptoms AND consumption of a known contaminated or recalled food product | Pregnant, immunocompromised, or 65 years of age | • Stool for routine culture and susceptibility as per usual practice  
• If evidence of fever within 24 hours of clinical assessment, may consider 2 sets of routine blood cultures (which detect *Listeria spp.*.)  
• Stool cultures for *Listeria* can be considered (these can be submitted to PHOL in a sterile urine container for testing at Health Canada). Of note, stool culture for *Listeria* may not be very helpful in clinical management, as it may have a lower sensitivity and takes up to 2 weeks from sample collection to final results.  
• Counsel regarding potential symptoms of invasive listeriosis and to return to the health care provider should these develop | • Routine stool and blood cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*  
• Routine blood or stool cultures are not available at PHO  
• Stool cultures for *Listeria* can be submitted to PHOL in a sterile urine container for testing at Health Canada. These specimens must be accompanied by a PHO laboratory requisition |
| Evidence of systemic involvement suggested by headache, stiff neck, confusion, loss of balance, or convulsions in addition to fever and muscle aches, REGARDLESS of exposure to a known contaminated or recalled food product | All hosts. | • Routine blood cultures (which will detect *Listeria spp.*.)  
Two sets of blood cultures should be taken from different sites. A third set of blood cultures should be drawn only if endocarditis is suspected. Collect another set of blood cultures after 48 hours if the previous cultures are negative and there is ongoing concern of invasive infection with *Listeria monocytogenes*.  
• If clinical assessment is suggestive of possible neurological involvement (meningitis or meningoencephalitis), consider lumbar puncture and bacterial culture of cerebrospinal fluid  
• Culture of other potentially involved anatomic sites as needed (e.g., joint, pleural, pericardial fluid, sputum) | • Routine blood and other sterile site cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*  
• Blood or cerebrospinal fluid cultures are not available at PHO |

NB. Serology for *Listeria* is not available.  
*If clinical specimens are positive for *Listeria monocytogenes*, the hospital or commercial laboratory should forward isolates to PHOL for molecular subtyping.

*Listeria monocytogenes* – Clinical and Food Testing Guidelines for Foodborne Illness Outbreaks  
LAB-SD-043-004  
Page 2 of 3
FOOD TESTING FOR LISTERIA

Food testing at PHOL is performed to support local public health units to identify contaminated food products linked to human illness and mitigate ongoing exposure and risk.

Suspect foods can be submitted for testing to PHOL for laboratory-confirmed cases of listeriosis, to support a foodborne illness investigation after assessment by the local public health unit.

Food products that are already recalled are generally not tested. A recalled product may be considered for testing only for laboratory-confirmed clinical cases of listeriosis following an assessment by the local public health unit and Public Health Ontario.

For further information:

- Contact the PHOL Customer Service Centre at 416-235-6556 or 1-877-604-4567 (toll-free), or by email at CustomerServiceCentre@oahpp.ca
- For PHOL specimen collection information and previous Labstracts, refer to http://www.publichealthontario.ca/Labs
- The current version of the PHOL General Test Requisition and other forms are available at http://www.publichealthontario.ca/Requisitions
- To subscribe to future Labstracts, email labstracts@oahpp.ca
- To register for Autofax and receive laboratory reports by fax directly from our laboratory information system as soon as they are released, contact the PHOL Customer Service Centre.
ATTACHMENT #12
Reference 15C1046165 SPAdes assembled. Context: LMACI.0331/LMAAI.0815 NML Bioinformatics SNVphy1 pipeline. Maximum-likelihood tree based on 84 high-quality core genome single nucleotide polymorphisms (SNP) positions identified amongst 28 isolates over 97% of the reference genome.

2016-01-29 PulseNet Canada
ATTACHMENT #13
Data removed as risk to re-identify individuals may be possible.

1509LM52ON with CFIA lMACI.0786/LMAAI.0421

Reference 15P0052517 SPAdes assembled. NML Bioinformatics SNVphyll pipeline. Maximum-likelihood tree based on 74 high-quality core genome single nucleotide polymorphisms (SNP) positions identified amongst 5 isolates over 99% of the reference genome

2016-01-29 PulseNet Canada
ATTACHMENT #14
Data removed as risk to re-identify individuals may be possible.

Reference 81-0861 Closed Finished Genome. Context: LMACI.0331/LMAAI.0815, LMACI.0052/LMAAI.0421, LMACI.0786/LMAAI.0421

NML Bioinformatics SNVphyl pipeline. Maximum-likelihood tree based on 19679 high-quality core genome single nucleotide polymorphisms (SNP) positions identified amongst 51 isolates over 88% of the reference genome

2016-01-29 PulseNet Canada
ATTACHMENT
#15
Reference 81-0861 Closed Finnsihed Genome. Context: LMACI.0331/LMAAI.0815, LMACI.0352/LMAAI.0421, LMACI.0786/LMAAI.0421
NML Bioinformatics SNVphyl pipeline with density filtering. Maximum-likelihood tree based on 10375 high-quality core genome single nucleotide polymorphisms (SNP) positions identified amongst 59 isolates over 88% of the reference genome
ATTACHEMNT

#16
## Section 1: Interviewer Details:

<table>
<thead>
<tr>
<th>Case Interviewed by:</th>
<th>Date of interview: d__/m__/y__</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent was:</td>
<td></td>
</tr>
</tbody>
</table>

- □ case
- □ family member
- □ caretaker
- □ other, specify: __________

## Section 2: Possible Food Sources

Did (you/case) eat any of the following foods in the **four weeks prior to illness onset**?

*Prob (Probably Ate) = Case thinks he/she ate this food or case usually eats this food, but is unsure if eaten during time period in question*

<table>
<thead>
<tr>
<th>FOOD ITEMS:</th>
<th>Yes</th>
<th>No</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any lettuce or leafy-greens?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any pre-made, ready to eat salad kit?</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- □ Prepackaged – made by the store
- □ Prepackaged – commercially prepared
- □ In a bag
- □ In a plastic box/clamshell

**Type/Name:**

**Brand:**
- □ Et Tu
- □ Fresh Express
- □ Fresh Attitude
- □ Eat Smart
- □ Dole
- □ PC
- □ Sensations
- □ Earthbound Farms
- □ Taylor Farms
- □ Andy Boy
- □ Other:

**Was it:**
- □ Organic
- □ Conventional (not organic)
- □ Unknown

**Describe packaging/size:**

**Purchased at:**

**Address:**

**Purchase Date:**

If eaten outside the home, please specify where (list names and locations):

**Leftover products from that time period available?**
- □ Yes
- □ No

**May we collect it for testing if needed?**
- □ Yes
- □ No

**Ingredients, including dressings, add-ins:**

---

**[2015-823] 2016-01-14**
Any lettuce/leafy green mixes or blends (i.e., more than one type of lettuce or leafy green in a bag)?

- Prepackaged – made by the store
- Prepackaged – commercially prepared
- In a bag  In a plastic box/clamshell

Type/Name: ____________________________
Brand: Et Tu  Fresh Express  Fresh Attitude  Eat Smart
- Dole  PC  Sensations  Earthbound Farms
- Taylor Farms  Andy Boy  Other: ____________________________

Was it: Organic  Conventional (not organic)  Unknown

Describe packaging/size: __________________________________________

Ingredients, including dressings, add-ins: __________________________________________

Any coleslaw?

- Prepackaged – made by the store
- Prepackaged – commercially prepared
- In a bag  In a plastic box/clamshell

Type/Name: ____________________________
Brand: Et Tu  Fresh Express  Fresh Attitude  Eat Smart
- Dole  PC  Sensations  Earthbound Farms
- Taylor Farms  Andy Boy  Other: ____________________________

Was it: Organic  Conventional (not organic)  Unknown

Describe packaging/size: __________________________________________

Ingredients, including dressings, add-ins: __________________________________________
<table>
<thead>
<tr>
<th><strong>Cabbage?</strong></th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Loose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Prepackaged (shredded) - made by the store</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Prepackaged (shredded) - commercially prepared</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Raw</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ Cooked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was it: ☐ Organic ☐ Conventional (not organic) ☐ Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe packaging/size:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How was it eaten (e.g., in a salad, or on a sandwich)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List other ingredients of the dish:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Spinach?</strong></th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Loose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Prepackaged - in a bag</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Prepackaged - in a plastic box/clamshell</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ In a shake or smoothie</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Frozen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Raw</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ Cooked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type (e.g., baby, regular):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was it: ☐ Organic ☐ Conventional (not organic) ☐ Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe packaging/size:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How was it eaten (e.g., in a salad, or on a sandwich)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List other ingredients of the dish:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Romaine Lettuce

- **[ ]** Loose/head
- **[x]** Prepackaged – in a bag
- **[ ]** Prepackaged – in a plastic box/clamshell

**Brand:**

**Type (e.g., baby, hearts, whole, chopped):**

**Was it:**  
- **[ ]** Organic  
- **[ ]** Conventional (not organic)  
- **[ ]** Unknown

**Describe packaging/size:**

**How was it eaten (e.g., in a salad, or on a sandwich)?**

**Leftover products from that time period available?**  
- **[x]** Yes  
- **[ ]** No

**May we collect it for testing if needed?**  
- **[x]** Yes  
- **[ ]** No

**List other ingredients of the dish:**

---

### Iceberg Lettuce

- **[ ]** Loose/head
- **[x]** Prepackaged – in a bag
- **[ ]** Prepackaged – in a plastic box/clamshell

**Brand:**

**Type (e.g., whole, chopped):**

**Was it:**  
- **[ ]** Organic  
- **[ ]** Conventional (not organic)  
- **[ ]** Unknown

**Describe packaging/size:**

**How was it eaten (e.g., in a salad, or on a sandwich)?**

**Leftover products from that time period available?**  
- **[ ]** Yes  
- **[ ]** No

**May we collect it for testing if needed?**  
- **[ ]** Yes  
- **[ ]** No

**List other ingredients of the dish:**

---
<table>
<thead>
<tr>
<th>Kale?</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Loose/bundle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged — in a bag</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged — in a plastic box/clamshell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ In a shake or smoothie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Raw □ Cooked</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type (e.g., baby, regular):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was it: □ Organic □ Conventional (not organic) □ Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe packaging/size:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How was it eaten (e.g., in a salad, or on a sandwich)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List other ingredients of the dish:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arugula?</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Loose/head</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged — in a bag</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged — in a plastic box/clamshell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Raw □ Cooked</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type (e.g., baby, regular):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was it: □ Organic □ Conventional (not organic) □ Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe packaging/size:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How was it eaten (e.g., in a salad, or on a sandwich)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List other ingredients of the dish:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other lettuce or leafy green(s)?</td>
<td>Y</td>
<td>N</td>
<td>DK</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---</td>
<td>---</td>
<td>----</td>
</tr>
<tr>
<td>Please specify name(s):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Loose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged - in a plastic box/clamshell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Prepackaged - shredded/chopped</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ In a shake or smoothie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Frozen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Raw □ Cooked</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Purchased at: ____________________________

Address: ____________________________

Purchase Date: ____________________________

If eaten outside the home, please specify where (list names and locations):

Leftover products from that time period available? □ Yes □ No

May we collect it for testing if needed? □ Yes □ No

Brand: ____________________________

Type (e.g., baby, regular): ____________________________

Was it: □ Organic □ Conventional (not organic) □ Unknown

Describe packaging/size: ____________________________

How was it eaten (e.g., in a salad, or on a sandwich)? ____________________________

List other ingredients of the dish: ____________________________

---

**Section 3: Store and Loyalty/Points/Membership Card Information**

Did (you/case) have any loyalty, points cards or membership cards for any of the stores you purchased any of the above items at?

<table>
<thead>
<tr>
<th>Store 1</th>
<th>Store Name: ____________________________</th>
<th>Loyalty Card? □ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address: ____________________________</td>
<td>Would you be willing to share your loyalty card number and purchase information with us? □ Yes □ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loyalty Card Number:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Store 2</th>
<th>Store Name: ____________________________</th>
<th>Loyalty Card? □ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address: ____________________________</td>
<td>Would you be willing to share your loyalty card number and purchase information with us? □ Yes □ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loyalty Card Number:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Store 3</th>
<th>Store Name: ____________________________</th>
<th>Loyalty Card? □ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address: ____________________________</td>
<td>Would you be willing to share your loyalty card number and purchase information with us? □ Yes □ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loyalty Card Number:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Store 4</th>
<th>Store Name: ____________________________</th>
<th>Loyalty Card? □ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address: ____________________________</td>
<td>Would you be willing to share your loyalty card number and purchase information with us? □ Yes □ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loyalty Card Number:</td>
</tr>
</tbody>
</table>

In the event that additional information is needed, would you be willing to be contacted again? □ Yes □ No
ATTACHMENT #17
Public Health Notice Update – Outbreak of Listeria; Link between illness and packaged salad products from the Dole processing plant in Springfield, Ohio confirmed

January 27, 2016

This notice has been updated to advise Canadians of a laboratory confirmed link to packaged salads products from the Dole processing plant in Springfield, Ohio. A food recall warning had previously been issued from the Canadian Food Inspection Agency.

Why you should take note?

The Public Health Agency of Canada is collaborating with federal and provincial public health partners, the United States Centers for Disease Control and Prevention (CDC), and the United States Food and Drug Administration (FDA) to investigate an outbreak of *Listeria monocytogenes* infections linked to Dole packaged salad products produced from a US processing facility in Springfield, Ohio.

Laboratory results from the Canadian Food Inspection Agency confirmed a link between recalled packaged salad products and the outbreak of listeriosis in five provinces.

On Friday, January 22, the Canadian Food Inspection Agency (CFIA) issued a food recall warning advising Canadians of the recall to Dole packaged salad products under various product names that were distributed in eastern provinces.

The Public Health Agency of Canada advises Canadians not to consume packaged salad products that have been processed at the Dole facility in Springfield, Ohio. This includes Dole brand items as well as items sold under other brand names. These products can be identified by letter the "A" at the beginning of the manufacturing code found on the package. For a full list of products, please refer to the CFIA recall notice.

The overall risk to Canadians is low. *Listeria* is a type of bacteria that can be found in food, soil, plants, sewage and other places in nature. Eating food with *Listeria* on it can cause a serious disease, called listeriosis, in high-risk groups.

Ongoing Investigation

Currently, there are seven (7) cases of *Listeria monocytogenes* in five provinces related to this outbreak: Ontario (3), Quebec (1), New Brunswick (1), Prince Edward Island (1), and Newfoundland and Labrador (1). Individuals became sick between September 2015 and early January 2016. Some of the individuals who
became ill have reported eating packaged salads. It is suspected that these salads were produced at the Dole facility in Ohio. The majority of Canadians cases (71%) are female, with an average age of 81 years. All cases have been hospitalized, and one person has died, however it has not been determined if Listeria contributed to the cause of death.

**Who is most at risk?**

Some people face a higher risk of becoming sick with Listeria than others. Those who are at highest risk of serious illness include pregnant women and their unborn/newborn children, adults 65 and over, and people with weakened immune systems. High-risk individuals should not consume the recalled products.

**What you should do to protect your health?**

If you have packaged salad products from the Dole processing facility in Springfield, Ohio in your home, do not eat them. For a list of product brands and names, as well as stores that these products were sold at, please read the recall notice.

If you are unsure whether your packaged salad product is part of the food recall warning, do not consume it. Secure the product in a plastic bag, throw it out and wash your hands with warm soapy water.

Foods that are contaminated with Listeria may look, smell and taste normal. Unlike most bacteria, Listeria can survive and sometimes grow on foods being stored in the refrigerator.

If you suspect you have become ill from eating a Dole packaged salad product, or have symptoms consistent for listeriosis, talk with your healthcare provider.

**Symptoms**

Many people are exposed to Listeria, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:

- headache
- poor coordination
- seizures
• neck stiffness

In the milder form of the disease, symptoms can start the following day after consuming a product with *Listeria*. For the more serious form of the disease, the incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

Listeriosis can be treated with antibiotics, but early diagnosis is key, especially for people at high-risk, such as pregnant women, older adults and people with weakened immune systems.

**What the Public Health Agency of Canada is doing**

The Government of Canada is committed to food safety. The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal, provincial, and international partners to monitor and take collaborative steps to address the outbreak.

Health Canada provides food-related health risk assessments to determine if the presence of a certain substance or microorganism poses a health risk to consumers.

The CFIA conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to this investigation becomes available.

**Additional information**

- Food Recall Warning Dole packaged salad products
- Listeriosis and Listeria Fact Sheet
- Leafy Greens Fact Sheet
- CDC Multi-state listeriosis outbreak

**Media Contact**

Public Health Agency of Canada
Media Relations
(613) 957-2983
ATTACHMENT #18
Mise à jour de l'avis de santé publique – Éclosion d'infections causées par la bactérie Listeria; confirmation du lien entre la maladie et des produits de salade emballés provenant de l'installation de traitement de Dole à Springfield, en Ohio

27 janvier 2016

Le présent avis est mis à jour pour informer les Canadiens qu'un laboratoire a confirmé le lien entre l'éclosion et des produits de salades provenant de l'installation de traitement de Dole à Springfield, en Ohio. Un avis de rappel d'aliments a préalablement été émis par l'Agence canadienne d'inspection des aliments.

Pourquoi tenir compte du présent avis

L'Agence de la santé publique du Canada collabore avec ses partenaires fédéraux et provinciaux de la santé publique, avec les Centers for Disease Control and Prevention (CDC) des États-Unis et le Secrétariat américain aux produits alimentaires et pharmaceutiques (FDA) pour enquêter sur une éclosion d'infections causées par la bactérie Listeria monocytogenes liée aux produits de salade emballés, transformés dans une usine de traitement américaine, à Springfield, en Ohio.

Les résultats des analyses de laboratoire effectuées par l'Agence canadienne d'inspection des aliments ont confirmé un lien entre des produits de salades emballées visés par un rappel et l'éclosion de listériose dans cinq provinces.

Le vendredi 22 janvier, l'Agence canadienne d'inspection des aliments a publié un avis de rappel d'aliments pour informer les Canadiens du rappel des produits de salades emballés par Dole sous divers noms de produits, distribués dans les provinces de l'est.

L'Agence canadienne d'inspection des aliments conseille aux Canadiens de ne pas consommer de produits de salade emballés, s'ils ont été produits aux installations de Dole à Springfield, en Ohio. Ces produits comprennent ceux de marque Dole et d'autres marques. Ces produits peuvent être distingués par la lettre « A » au début du code de fabrication présent sur l'emballage. Pour une liste complète des produits, veuillez consulter l'avis de rappel de l'ACIA.

Le risque pour la santé de la population canadienne est faible. La Listeria est une bactérie qu'on retrouve dans les aliments, dans le sol, dans les plantes, dans les eaux usées et ailleurs dans la nature. L'ingestion d'aliments contaminés par
Listeria peut causer chez certains groupes à risque élevé une maladie grave, appelée listériose.

**Enquête en cours**

Actuellement, on a recensé sept (7) cas de *Listeria monocytogenes* liés à cette écllosion et distribués dans cinq provinces : en Ontario (3), au Québec (1), au Nouveau-Brunswick (1), à l'Île du Prince Édouard (1), et à Terre-Neuve-et-Labrador (1). Les personnes sont tombées malades entre le mois de septembre 2015 et le début du mois de janvier 2016. Certaines des personnes qui sont tombées malades ont déclaré avoir mangé de la salade emballée. Nous pensons que ces salades ont été produites à l'installation de Dole en Ohio. La majorité des cas canadiens (71 %) sont des femmes dont l'âge moyen est de 81 ans. Toutes ces personnes ont été hospitalisées, et une personne est décédée. Cependant, il n’a pas encore été déterminé si *Listeria* a contribué à la cause du décès.

**Qui est le plus à risque?**

Certaines personnes sont plus à risque que d'autres de tomber malades en présence de *Listeria*. Ces risques sont plus élevés chez les femmes enceintes et leurs fœtus ou nouveau-nés, les personnes âgées de 65 ans et plus, et les personnes dont le système immunitaire est affaibli. Les personnes à risque élevé ne doivent pas consommer les aliments visés par un rappel.

**Ce que vous devez faire pour protéger votre santé**

Si vous avez des produits de salade emballés provenant de l'installation de traitement de Dole à Springfield, en Ohio, à la maison, ne les mangez pas. Pour obtenir une liste des marques et des noms de produits ciblés, de même que des magasins qui les vendent, veuillez consulter l'avis de rappel.

Si vous n'êtes pas certains que vos produits de salade emballés sont visés par l'avis de rappel, ne les consommez pas. Emballez sûrement le produit dans un sac de plastique, jetez-le et lavez-vous les mains à l'eau chaude savonneuse.


Si vous pensez que vous êtes tombés malades parce que vous avez mangé un produit de salade emballée Dole, ou si vous présentez des symptômes semblables à ceux de la listériose, parlez-en à votre fournisseur de soins de santé.
Symptômes

Beaucoup de personnes sont exposées à Listeria, mais seules quelques unes contracteront la listériose. Les symptômes bénins peuvent inclure:

- fièvre
- douleurs musculaires
- nausée
- diarrhée

Les symptômes graves peuvent inclure:

- mal de tête
- manque de coordination
- convulsions
- raideur de la nuque

Dans la forme bénigne de la maladie, les symptômes peuvent commencer le jour suivant la consommation d'un produit contaminé par Listeria. Dans le cas de la forme plus grave de la maladie, la période d'incubation est généralement beaucoup plus longue; en moyenne environ 21 jours, mais peut aller jusqu'à 70 jours après l'exposition.

La listériose peut être traitée à l'aide d'antibiotiques, mais un diagnostic précoce est la clé, en particulier pour les personnes à risque élevé comme les femmes enceintes, les personnes âgées et les personnes dont le système immunitaire est affaibli.

Ce que fait l'Agence de la santé publique du Canada

Le gouvernement du Canada s'engage à assurer la salubrité des aliments. L'Agence de la santé publique du Canada mène l'enquête sur la santé humaine concernant cette éclission et est en contact régulier avec ses partenaires fédéraux, provinciaux et internationaux pour assurer une vigie et prendre des mesures de collaboration afin de remédier à l'éclission.

Santé Canada offre des évaluations des risques pour la santé liés à l'alimentation pour déterminer si la présence d'une certaine substance ou d'un microorganisme pose un risque pour la santé des consommateurs.

L'ACIA mène des enquêtes sur la salubrité des aliments dans le but de déterminer si la source d'une éclission est d'origine alimentaire.

Le gouvernement du Canada communiquera des mises à jour à la population canadienne dès que de nouveaux renseignements relatifs à cette enquête seront disponibles.
Renseignements supplémentaires

- Avis de rappel d'aliments – produits de salade emballés – Dole
- Fiche de renseignements sur la Listeria et la listérose
- Fiche de renseignements sur les légumes feuilles
- Déclaration d'épidémie de listérose dans plusieurs États des CDC (Anglais seulement)

Personne-ressource pour les médias

Agence de la santé publique du Canada
Relations avec les médias
613-957-2983
Issue:
The Public Health Agency of Canada is collaborating with provincial public health partners, the Canadian Food Inspection Agency, and Health Canada to investigate an outbreak of *Listeria* infections in five provinces. As of January 22, 2016 seven cases have been confirmed: ON (3), QC (1), NB (1), PE (1), NL (1). The Canadian Food Inspection Agency issued a food recall warning for packaged salads that were processed in a Dole processing facility in Springfield, Ohio. Laboratory results from the Canadian Food Inspection Agency have confirmed a link between recalled packaged salad products and the outbreak of listeriosis in five provinces. All cases are over the age of 65. All cases have been hospitalized and one death has been reported, although it has not been confirmed if *Listeria* contributed to the cause of death.

A Public Health Notice has been issued and updated to communicate to Canadians about the outbreak and to advise Canadians to not consume the recalled products.

Key Messages:

- The Public Health Agency of Canada is working with the Canadian Food Inspection Agency, Health Canada, provincial public health authorities, the United States Centers for Disease Control and Prevention (CDC) and the US Food and Drug Administration (FDA) on the investigation of an outbreak of *Listeria monocytogenes*.

- The Canadian Food Inspection Agency has issued a food recall warning advising Canadians of the recall of packaged salads produced at a Dole processing facility in Springfield, Ohio.

- The Public Health Agency of Canada advises Canadians not to consume packaged salad products that have been processed at the Dole facility in Springfield, Ohio. This includes Dole products as well as packaged salads sold under other brand names.

- Laboratory testing and analysis completed by the Public Health Agency of Canada has confirmed that the Canadian and US outbreaks are related and the Agency has also shared these results with the CDC.

- The Public Health Agency of Canada can confirm that some of the individuals who became ill in the Canadians investigation did report consuming packaged salads. It is suspected that these salads were produced at the Dole facility in Ohio.
The Agency issued an updated public health notice on Tuesday, January 26 confirming the link between recalled Dole packaged salad products and the multi-provincial outbreak.

Currently, there are seven cases of *Listeria* in five provinces: ON (3), QC (1), NB (1), PE (1), NL (1). Individuals became sick between September 2015 and early January 2016. The majority of cases (71%) are female, with an average age of 81 years. Some of the individuals who became ill have reported eating packaged salads. It is suspected that these salads were produced at the Dole facility in Ohio.

All cases have been hospitalized. One person has died, however it has not been determined if *Listeria* contributed to the cause of death. The recovery status of the remaining six cases is not known at this time.

The overall risk to Canadians is low. *Listeria* poses a greater risk to pregnant women and their unborn/newborn children, adults 65 and over, and people with weakened immune systems.

**Questions and Answers**

1. **What is the Public Health Agency of Canada doing about this outbreak?**

The Public Health Agency of Canada is leading the human health investigation of this outbreak and is in regular contact with its federal, provincial, and international partners to respond and ensure appropriate measures are being taken to protect public health. The Agency has issued a public health notice to Canadians advising them of this outbreak and providing specific guidance on how to protect themselves from illness. The Agency will continue to update Canadians as new information related to this investigation becomes available.

2. **Is the outbreak currently under investigation in Canada, related to the US CDC's announcement of *Listeria* in packaged salads from the Dole processing plant in Springfield, Ohio?**

Yes, laboratory results from the Canadian Food Inspection Agency have confirmed a link between recalled Dole packaged salad products and the outbreak of listeriosis in five provinces.

Laboratory testing and analysis completed by the Public Health Agency of Canada has confirmed that the Canadian and US outbreaks are also related.
As of January 22, twelve people infected with the outbreak strain of Listeria have been reported in six U.S. states since July 5, 2015. The Public Health Notice will be updated as new information related to the Canadian investigation becomes available.

3. Are there specific packaged salad products or brands associated with this outbreak?

Yes, the Canadian Food Inspection Agency has issued a food recall warning related to this outbreak. Specific brands and product codes are available on CFIA website (http://www.inspection.gc.ca/about-the-cfia/newsroom/food-recall-warnings/complete-listing/2016-01-22c/eng/1453522915084/1453522920123).

4. Given the cases date back to September 2015, why was the information not released until January 2016?

Investigations into cases of foodborne illness can be complex and can involve several federal and provincial health and food safety partners, each of whom has certain responsibilities.

Determining if cases are related depends on genetic testing done by provincial/federal laboratories. All cases of Listeriosis are characterized by PFGE fingerprinting and assessed for relatedness on an ongoing basis through PulseNet Canada.

Identifying common food items among ill persons often involves multiple interviews with cases. The time between consumption of contaminated food and listeria symptoms can be up to a month, therefore recall of foods consumed prior to illness is challenging. Additionally, foodborne illness outbreak investigations can be challenging given the length of time between when an individual becomes sick with listeriosis and when their illness is reported to public health.

5. What are the symptoms of a listeriosis infection?

Many people are exposed to Listeria, but only a few will actually develop listeriosis. Mild symptoms may include:

- fever
- muscle aches
- nausea
- diarrhea

Severe symptoms may include:
- headache
- poor coordination
- seizures
- neck stiffness
In the milder form of the disease, symptoms can start the following day after consuming a product with Listeria. For the more serious form of the disease, the incubation period is generally much longer; on average about 21 days, but can be up to 70 days after exposure.

6. **How can people protect themselves against Listeria as it relates to this outbreak?**

Canadians are advised not to eat packaged salad products from the Dole processing facility in Springfield, Ohio that they may have in their homes. For a list of product brands and name, as well as stores that these products were sold at, please read the recall notice.

If you are unsure whether your packaged salad products are part of the food recall warning, do not consume it. Secure the product in a plastic bag, throw it out and wash your hands with warm soapy water.

Foods that are contaminated with *Listeria* may look, smell and taste normal. Unlike most bacteria, *Listeria* can survive and sometimes grow on foods being stored in the refrigerator.

If you suspect you have become ill from eating a Dole packaged salad product, or have symptoms of listeriosis, talk with your healthcare provider.

Prepared by:
Sara Coleman, PHSCD, 613.882.7511
Reviewed by:
Outbreak Management Division, PHAC
ATTACHMENT

#20
### Initial stage of the outbreak
- Outbreak detection and surveillance systems (e.g., NESP, National Enhanced Listeriosis Surveillance Program)
- Case definitions (define and identify cases)
- Notification of partners (P/Ts, CDC, use of Public Health Alerts, senior management, Duty Officers)

### Outbreak Detection
- The surveillance systems detected the cluster early.
- Connected with the US once the investigation started. US had been investigating for a while, however did not have a strong hypothesis.
- ON was investigating three clusters at the time, and felt that it would have been helpful to have earlier national involvement.

### National Enhanced Listeriosis Surveillance Program
- National surveillance program made it possible to start the investigation with consistent, detailed exposure information for all cases. The Program is very useful.
- Quick analysis allowed for the identification of a signal for leafy greens very early on.
- Front line interviewers found the terminology around the different leafy green items confusing (i.e., bagged versus prepackaged).

### Case Definitions
- A discussion around including non-invasive Listeriosis in the case definition was held later in the investigation. It was decided not to include non-invasive Listeriosis but would be good to keep in mind for future outbreaks, in order to identify the full spectrum of illness linked to an outbreak, not only severely ill cases.
- An additional PFGE pattern was added to the case definition during the investigation, despite previous decision to wait to WGS results.
- Use of WGS during outbreaks for including/excluding cases was not clear during the investigation. NML is supportive of having a discussion with the PulseNet Canada Steering Committee and that a recommendation be taken to the Canadian Public Health Laboratory Network (CPHLN).

### Recommendations
- OMD/ESPS to review Listeria surveillance questionnaire (as well as Salmonella and E.coli hypothesis generation) to clearly define the different types of leafy green.
- OMD to collate information on the PT practices regarding non-invasive cases of Listeriosis during investigations and report back to P/Ts.
- NML-PulseNet to continue working with PT labs on interpretation guidelines for WGS, and engage P/T epis.
<table>
<thead>
<tr>
<th>Topics</th>
<th>Comments</th>
<th>Action Items and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outbreak Investigation</strong>&lt;br&gt;<strong>Coordination Committee</strong>&lt;br&gt;<strong>Initial Assessment</strong>&lt;br&gt;• Was the call assessment call held in timely manner?&lt;br&gt;<strong>Activation</strong>&lt;br&gt;• Decision-making and building consensus around activation of OICC?&lt;br&gt;<strong>OICC Calls</strong>&lt;br&gt;• Comments of OICC calls (ie. Frequency, structure, attendance)</td>
<td><strong>Initial Assessment</strong>&lt;br&gt;• Not all of the PTs were present at the call and this slightly delayed the activation of the investigation.&lt;br&gt;<strong>OICC Calls</strong>&lt;br&gt;• The teleconference calls were well chaired by OMD.</td>
<td>• OMD will make it a best practice to connect with the PTs involved in an investigation ahead of the call to confirm they will attend; if not, provide an update ahead of the call.</td>
</tr>
<tr>
<td><strong>Describe and orient the data in person, place and time</strong>&lt;br&gt;• Were the epi summaries clear, helpful, and distributed in a timely manner?&lt;br&gt;• Was the linelist easy to understand and complete?</td>
<td>• Epi summaries were clear.&lt;br&gt;• Discussion of multiple concurrent Listeria clusters during OICC teleconferences was confusing.</td>
<td></td>
</tr>
<tr>
<td><strong>Hypothesis generation/evaluation</strong>&lt;br&gt;• Focused questionnaire development&lt;br&gt;• Coordinated approach to interviewing&lt;br&gt;• CDC collaboration</td>
<td><strong>Focused Questionnaire Development</strong>&lt;br&gt;• ON has found that it was helpful for investigators to go to the stores and take pictures of products to show cases. This allowed cases to verify brands they purchases. Pictures could be included in focused questionnaires.</td>
<td></td>
</tr>
<tr>
<td><strong>Coordination approach to interviewing</strong>&lt;br&gt;• Coordinated interview was done well and much appreciated.&lt;br&gt;• Traditionally centralized interviewing is conducted by one individual. In this investigation, a coordinated approach was used and provided a good opportunity to have a conversation with the local and provincial interviewers. Interviewers at the local level took great interest and continued follow up interviews very well.</td>
<td><strong>CDC Collaboration</strong>&lt;br&gt;• It was helpful to have the US context, case information, investigation updates and the positive sample from the facility. It helped solidify the Canadian hypothesis and a quick move to a focused questionnaire.</td>
<td></td>
</tr>
<tr>
<td>Topics</td>
<td>Comments</td>
<td>Action Items and Recommendations</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Lab Investigation</strong></td>
<td><strong>Use/communication of WGS results</strong></td>
<td>• NML to work with the PTs to resolve how to handle differences in interpretation of WGS results between labs.</td>
</tr>
<tr>
<td>• Use of WGS as part of the investigation</td>
<td>• The OICC appreciated how NML communicated the WGS results and the teleconferences they held to communicate the findings. The open conversations on how results were interpreted and what happens next were helpful. It was very useful and the OICC felt they learnt a lot. NML spent a great deal of time with OMD outside of OICC calls to help with the WGS interpretation as well, and this was much appreciated.</td>
<td></td>
</tr>
<tr>
<td>• Communication of WGS results</td>
<td>• NML had a good experience with the WGS work and appreciate the ON lab for sharing their data.</td>
<td></td>
</tr>
<tr>
<td>• The CFIA lab was able to provide results faster than CDC. Communication was very good.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• There was a difference in interpretation of WGS between the ON lab and NML lab.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Food safety investigation</strong> (traceback data, risk assessments, recalls, plant investigation, food/environmental sampling)</td>
<td>• CFIA was prompt, communicated well with the OICC, and overall did a fantastic job.</td>
<td>• OMD will follow up with CDC regarding the Nov 2015 sample and share response with the OICC.</td>
</tr>
<tr>
<td>• Was the right information shared in a clear and timely way?</td>
<td>• Written summary of the food safety investigation would be helpful.</td>
<td></td>
</tr>
<tr>
<td>• Were the recalls initiated in a timely manner? Were they effective?</td>
<td>• The CFIA recall came after the US’s food withdrawal notice. The delay was because CFIA decided to list all of the implicated products in Canada. This took time verify the products, but this step was beneficial.</td>
<td></td>
</tr>
<tr>
<td>• The OICC is unsure why the US did not recall products based on the US product sample from facility in Nov 2015.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communications</strong></td>
<td><strong>Public communications</strong></td>
<td>• PHAC Comms, with OMD, will facilitate a discussion around the wording on Recall Notices.</td>
</tr>
<tr>
<td><strong>Decision-making around public communications</strong></td>
<td>• There was confusion with communication between the National and ON investigation. PHAC Comms dealt with this as best they could.</td>
<td></td>
</tr>
<tr>
<td>• The PHN did go live before the food recall, but the media was able to make the connection between the notice and the recall.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The CFIA recall notice stated that no illnesses were associated with the recall because there were no PFGE results available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• PTs would like to discuss how the OICC should decide the level of information on cases that should be shared in the PHN.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-outbreak</strong></td>
<td><strong>Decision-making around declaring the outbreak over and closing OICC</strong></td>
<td>• OMD will be in touch with the OICC regarding OICC closure, declaring the outbreak over, and work on manuscripts</td>
</tr>
<tr>
<td>• Manuscript</td>
<td>• Based on current case reports dates and reporting lags, the outbreak will be declared over April 30, 2016.</td>
<td></td>
</tr>
<tr>
<td>• The OICC will be closed pending final updates from provinces on recently reported cases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Manuscripts are being drafted/planned for this investigation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. CDC led paper: Notes From the Field MMWR article with a paragraph about the Canadian investigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Joint manuscript with CDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Canadian led manuscript</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>