

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 3, Week 46

November 11 to 17, 2012



BC Centre for Disease Control
An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Early low-level signals of increase in influenza activity in BC

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Summary

During week 46 (November 11-17, 2012), there were low-level signals of increase in influenza activity in BC from the previous week, still within the expected level for this time of the year. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was 0.23%, higher than the previous week, but within the expected level of this time of year. The ILI consultation rate in the BC Children's Hospital ER increased to 9.3%, still consistent with this time of year. Two lab-confirmed A/H3N2 influenza outbreaks were reported in week 46 from long-term care facilities in Vancouver Coastal Health Authority. So far in the current week (week 47), one school ILI outbreak has been reported from Northern Health Authority (pathogen unknown), and one influenza A outbreak has been reported from a long-term care facility in Fraser Health Authority (subtype pending). Compared to the previous weeks, influenza virus detections increased in week 46. Out of the 97 specimens submitted, 13 (13.4%) were positive for influenza, including 12 A/H3N2 from all Health Authorities except Northern, and 1 influenza B from Interior Health Authority. Rhino/enteroviruses continued to predominate (22/97, 22.7%). Other respiratory viruses were also sporadically detected.

Report disseminated November 23, 2012

Contributors: Helen Guiyun Li, Lisan Kwindt, Naveed Janjua, Danuta Skowronski

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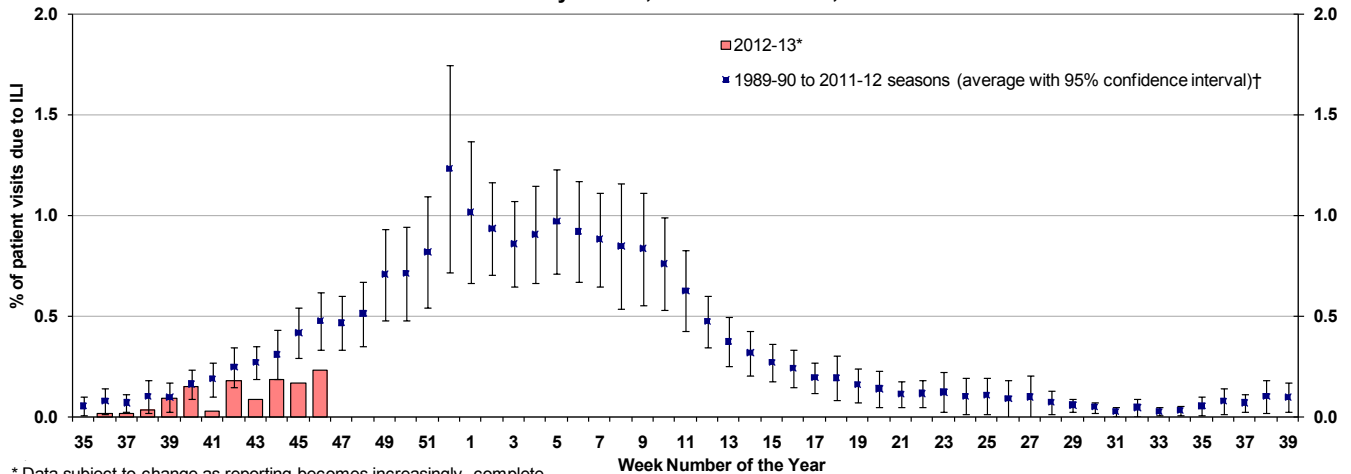
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British Columbia

Sentinel Physicians

In week 46, the proportion of patients with ILI among those presenting to sentinel physicians was 0.23%, higher than the preceding week, but below the expected range for this time of year. To date, 66% of sentinel physician sites have reported for week 46.

Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 20 Seasons, Sentinel Physicians, British Columbia, 2012-2013



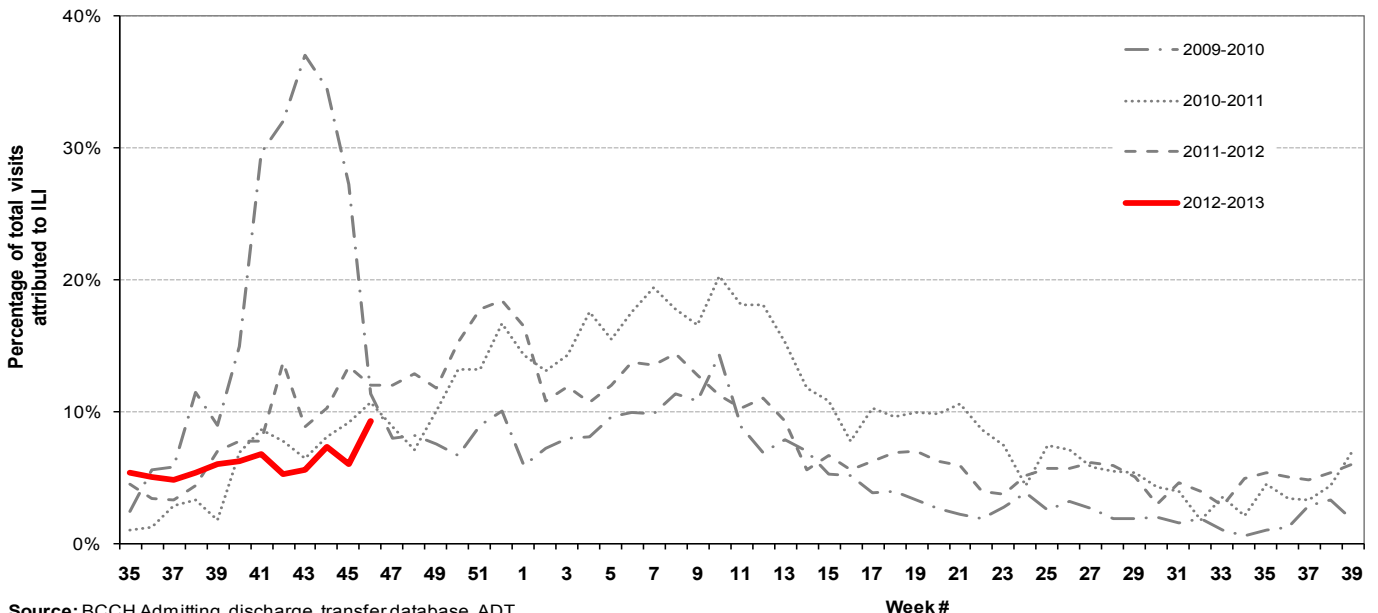
* Data subject to change as reporting becomes increasingly complete.

† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

BC Children's Hospital Emergency Room

In week 46, the percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness increased to 9.3%, higher than last week but consistent with the expected level for this time of year.

Percentage of Patients Presenting to BC Children's Hospital ER with Presenting Complaint (Triage Chief Complaint) of "Flu," "Influenza," or "Fever/Cough", by Week



Source: BCCH Admitting, discharge, transfer database, ADT

Note: Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

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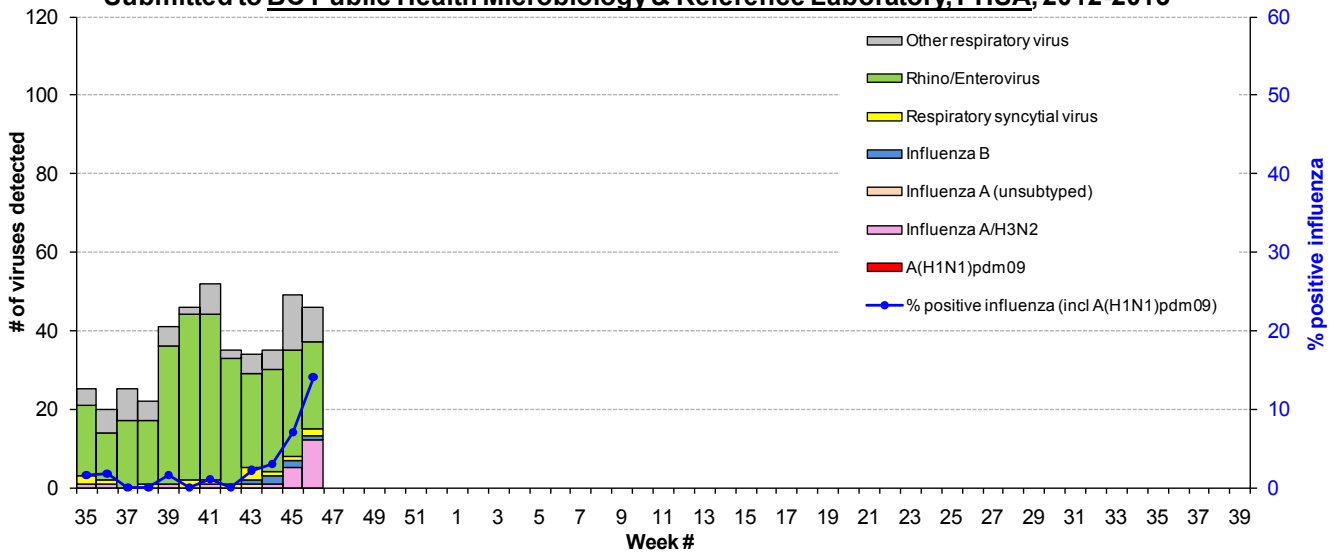
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Laboratory Reports

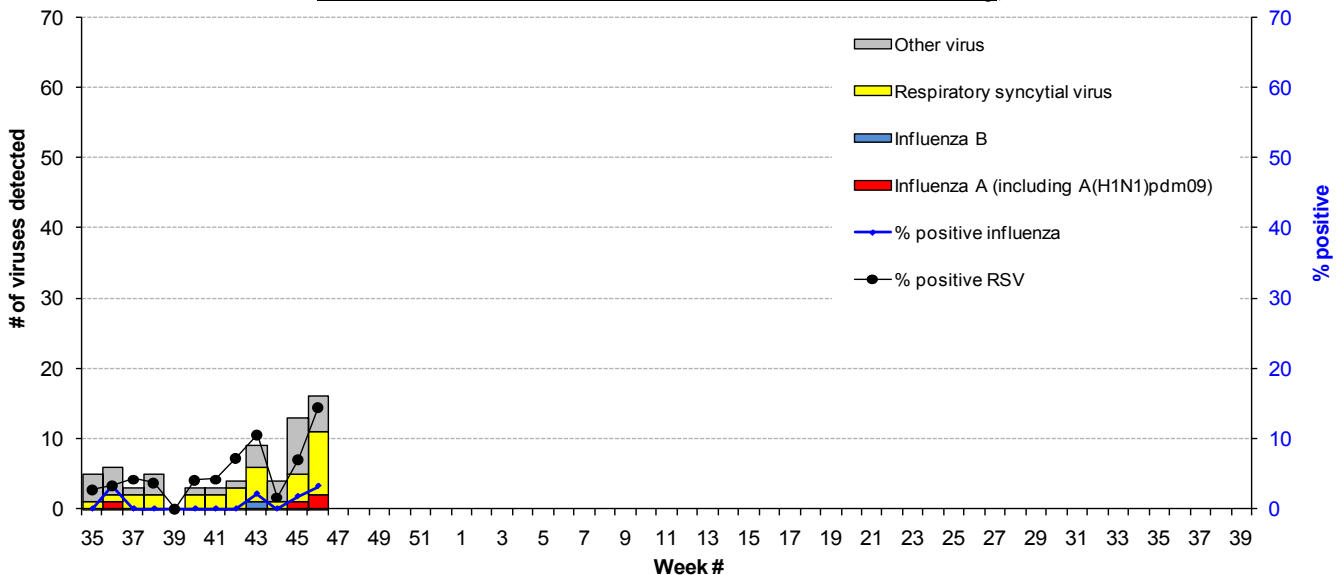
In week 46, ninety-seven specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 13 (13.4%) were positive for influenza. A single influenza B was detected from an adult in the Interior. The remaining 12 influenza A were all of the H3 subtype and were detected from all HAs except Northern, distributed as follows: 6 in Vancouver (1 child < 19 years, 1 adult 20-64 years, 4 elderly 65+), 4 in Fraser (3 adults, one elderly), 1 on Vancouver Island (elderly), and one from the Interior (adult). Rhinovirus/enteroviruses (22/97, 22.7%) continued to be the most common detections during this period. Other respiratory viruses were sporadically detected.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2012-2013



In week 46, BC Children's and Women's Health Centre Laboratory tested 62 respiratory specimens, of which 2 (3.2%) were positive for influenza A (un-subtyped). RSV (9/62, 14.5%) was the most common detection among the other respiratory viruses. Parainfluenza and human metapneumovirus were also sporadically detected.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2012-2013



Data provided by Virology Department at Children's & Women's Health Centre of BC

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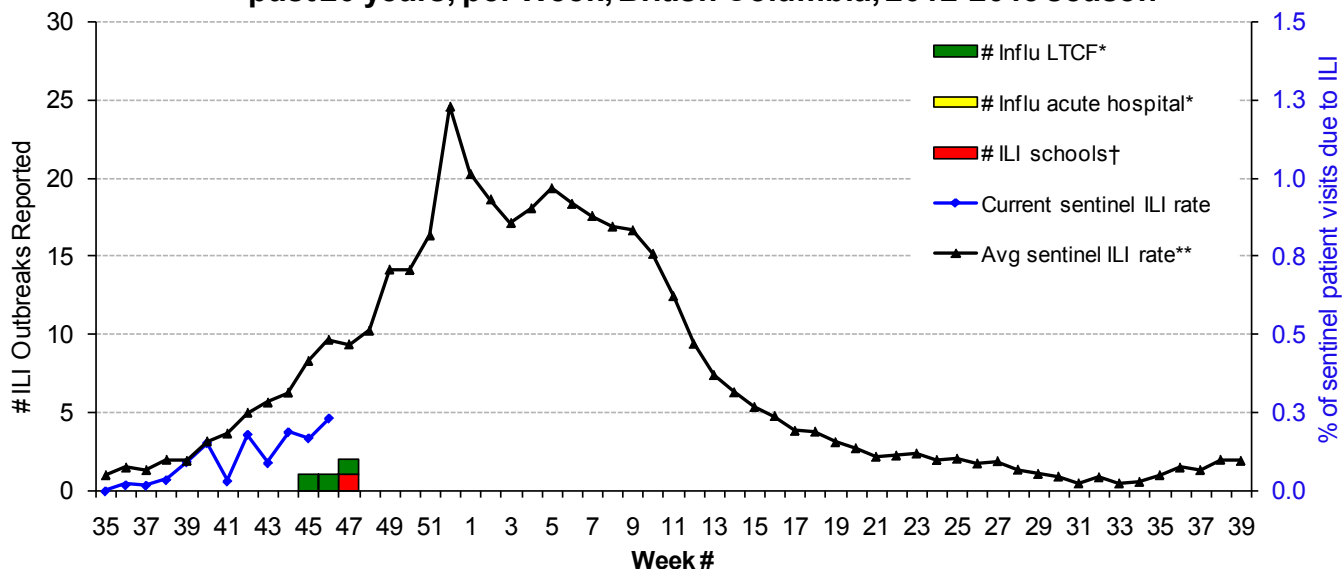
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ILI Outbreaks

The first lab-confirmed influenza outbreaks for the 2012-13 season were reported in week 46 from two long-term care facilities in VCHA, both influenza A/H3N2: one began on the last day of week 45 (reporting delayed), and another in week 46. So far in the beginning of week 47, one ILI outbreak report has been received from a school in NHA (pathogen unknown), and one lab-confirmed influenza A outbreak report has been received from an LTCF in FHA (subtype pending).

Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 20 years, per Week, British Columbia, 2012-2013 season



* Facility influenza outbreak defined as 2 or more ILI cases within 7-day period, with at least one case laboratory-confirmed as influenza.
 † School ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI.
 ** Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

CANADA

FluWatch

In week 45 (November 4 - November 10, 2012), influenza activity in Canada increased compared to the previous week, but overall activity in Canada still remained relatively low. A total of 106 laboratory detections of influenza were reported, of which 92.5% were for influenza A viruses, predominantly A/H3N2. www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

From September 1 to November 22, 2012, 20 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

- 12 A/Victoria/361/2011-like (H3N2)[¶] from PEI, QUE, ONT, SASK, and BC;
- 3 A/California/07/2009-like* from ONT;
- 1 B/Brisbane/60/2008-like** from ONT;
- 4 B/Wisconsin/01/2010-like[†] from QUE and ONT;

[¶] indicates a strain match to the recommended H3N2 component for the 2012-2013 northern hemisphere influenza vaccine
[†] belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 northern hemisphere influenza vaccine.

* indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.

** belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.

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NML: Antiviral Resistance

From September 1 to November 22, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 12; zanamivir: 12; amantadine: 35), A(H1N1)pdm09 (oseltamivir: 3; zanamivir: 3; amantadine: 1), and influenza B isolates (oseltamivir: 5; zanamivir: 5). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

INTERNATIONAL

USA: during week 46 (November 11 to November 17, 2012), influenza activity increased. 494 (13.2%) influenza viruses were detected, including 67.6% influenza A viruses [52% A/H3N2, 2% A(H1N1)pdm09, and 46% un-subtyped A], and 32.4% influenza B. One influenza-A/H3N2 associated paediatric death was further reported by the USA. www.cdc.gov/flu/weekly

WHO: The WHO has issued no new report since November 9, 2012.

www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

Avian Influenza: The WHO has issued no new reports.

WHO Recommendations for 2012-13 Northern Hemisphere Influenza Vaccine

On 23 February, 2012 the WHO announced the recommended strain components for the 2012-13 northern hemisphere vaccine:

A/California/7/2009 (H1N1)pdm09 virus

A/Victoria/361/2011 (H3N2)-like virus*

B/Wisconsin/1/2010 (Yamagata lineage)-like virus*

* these two of the three recommended components are different from the northern hemisphere seasonal TIV vaccines produced and administered in 2010-11 and 2011-2012. For further details, see:

www.who.int/influenza/vaccines/virus/recommendations/2012_13_north/en/index.html

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Contact Us:

Communicable Disease Prevention and Control (CDPACS):
BC Centre for Disease Control (BCCDC)

List of Acronyms

ACF: Acute Care Facility

AI: Avian influenza

FHA: Fraser Health Authority

HBoV: Human bocavirus

HMPV: Human metapneumovirus

HSDA: Health Service Delivery Area

IHA: Interior Health Authority

ILI: Influenza-Like Illness

LTCF: Long-Term Care Facility

MSP: BC Medical Services Plan

NHA: Northern Health Authority

NML: National Microbiological Laboratory

pH1N1: Pandemic H1N1 influenza

RSV: Respiratory syncytial virus

VCHA: Vancouver Coastal Health Authority

VIHA: Vancouver Island Health Authority

WHO: World Health Organization

Web Sites

1. Influenza Web Sites

Canada – Flu Watch: www.phac-aspc.gc.ca/fluwatch/

Washington State Flu Updates: www.doh.wa.gov/FLUNews/

USA Weekly Surveillance reports: www.cdc.gov/flu/weekly/

European Influenza Surveillance Scheme: www.ecdc.europa.eu

WHO – Global Influenza Programme: www.who.int/csr/disease/influenza/mission/

WHO – Weekly Epidemiological Record: www.who.int/wer/en/

Influenza Centre (Australia): www.influenzacentre.org/

Australian Influenza Report: www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm

New Zealand Influenza Surveillance Reports: www.surv.esr.cri.nz/virology/influenza_weekly_update.php

2. Avian Influenza Web Sites

World Health Organization – Avian Influenza: www.who.int/csr/disease/avian_influenza/en/

World Organization for Animal Health: www.oie.int/eng/en_index.htm

3. This Report On-line: www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm

Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to ilioutbreak@bccdc.ca

**Note: This form is for provincial surveillance purposes.
Please notify your local health unit per local guidelines/requirements.**

ILI: Acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia, or prostration which *could* be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

Schools and work site outbreak: greater than 10% absenteeism on any day, most likely due to ILI.

Residential institutions (facilities) outbreak: two or more cases of ILI within a seven-day period.

A	Reporting Information	Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Person Reporting: _____	Title: _____
	Contact Phone: _____	Email: _____
	Health Authority: _____	HSDA: _____
	Full Facility Name: _____	
	Is this report:	<input type="checkbox"/> First Notification (<i>complete section B below; Section D if available</i>) <input type="checkbox"/> Update (<i>complete section C below; Section D if available</i>) <input type="checkbox"/> Outbreak Over (<i>complete section C below; Section D if available</i>)

B	First Notification
	Type of facility: <input type="checkbox"/> LTCF <input type="checkbox"/> Acute Care Hospital <input type="checkbox"/> Senior's Residence (if ward or wing, please specify name/number: _____)
	<input type="checkbox"/> Workplace <input type="checkbox"/> School (grades: _____) <input type="checkbox"/> Other (_____)
	Date of onset of first case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

C	Update AND Outbreak Declared Over
	Date of onset for most recent case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>
	If over, date outbreak declared over (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

D	Laboratory Information
	Specimen(s) submitted? <input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know