

June
2011

TARRANT VIRAL WATCH

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The flu season is coming to a close here in Alberta and the past season is summarized on page 2.



The end of the season, however, doesn't mean the end of respiratory disease surveillance in the province. We continue data collection & analysis over the summer months as we look for indicators of early season outbreaks and develop a summer profile of respiratory illnesses. We request TARRANT sentinels to continue sending the Weekly Incident reports indicating the total number of patients seen, and the number of patients with influenza-like illnesses (ILI) and lower respiratory tract illnesses (LRTI).

The Vaccine Effectiveness Study will also continue over the summer, so please continue to obtain respiratory swabs from every patient who presents with an ILI. Vaccine history & laboratory findings are correlated to determine the effectiveness of the current-season vaccine. This will change in the fall, once the new season vaccine becomes available.

We are always looking to recruit sentinels for both programs. If you know anyone who may be interested in joining us, please send in the form on page three.

TARRANT On-line Reporting Option Now Available!

We now have an on-line reporting system for TARRANT that is efficient, easy to use and environmentally friendly. You can access the new method of reporting through the TARRANT website (www.tarrantviralwatch.ca).

If you are interested, please e-mail us or fax the form on page 4. If you don't have Internet access in your office, you can still complete and fax the paper forms as usual.

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2010/2011 Respiratory Disease Season Summary

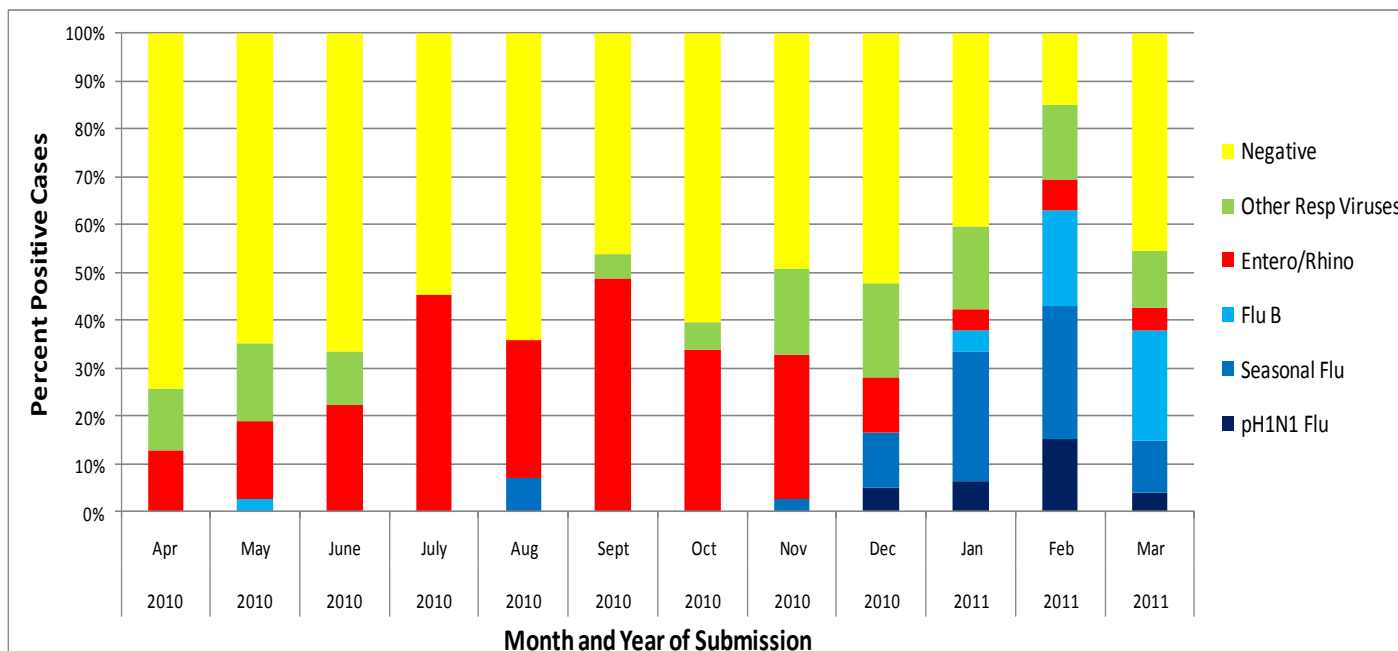
Influenza in Alberta

Since the beginning of this season (October 3rd, week 40) until the most recent report (June 4th, week 22) there have been 1504 laboratory-confirmed cases of influenza in the province. Most cases were in the 25-44 age group.

Influenza A isolates numbered slightly higher than Influenza B isolates, with each virus comprising 54% and 46% of the total respectively. Almost all of the isolates of both types were compatible with the vaccine components for the current season. Two neuraminidase inhibitors (oseltamivir and zanamivir) tested by National Microbiology Laboratory showed little to no resistance to the isolates tested. The opposite was reported with amantadine; almost all isolates showed resistance to this medication. Antiviral resistance is further updated on page 4 of this newsletter.

Other Respiratory Diseases in Alberta

Although our focus is on influenza surveillance, we also track & report on several other respiratory infections. Over the past season, rhinovirus/enterovirus predominated over the beginning & end of the season (weeks 35-49, weeks 13-22). Respiratory syncytial virus predominated mid-season (week 50-week 12). Parainfluenza remained at low, constant background levels throughout the season. Adenovirus, coronavirus, metapneumovirus and mixed infections each contributed a small degree to respiratory illness in the province.



**Positive cases of respiratory illnesses by calendar date, April 1, 2010 to March 31, 2011
(Based on 747 NP swabs submitted by Tarrant Sentinels in Alberta)**

Expanding Influenza Surveillance in Seniors

Seniors present a unique challenge in respiratory disease surveillance. In general, seniors have decreased immunocompetence, leaving them more susceptible to infectious diseases. Recent studies in Canada have shown that approximately 4,000 influenza-related deaths occur each year from respiratory complications, with over 95% of deaths occurring in patients older than 65 years. (1) The rate of hospitalization in this age-group is also much higher than the general population. (2)

Another important factor is vaccine effectiveness in seniors. Historically, there have been concerns that seniors generally respond less well to immunization than young, healthy adults and have a lower duration of seroprotection.

Based on these concerns, we are planning to expand our respiratory disease surveillance and vaccine effectiveness programs with focus on patients over 55 years of age. In the past, our studies have included relatively few older patients with "ILI" and a very low proportion of these patients have detectable viruses.

If you are a current sentinel, we request that you submit samples from as many seniors with ILI as possible. If you are not currently a sentinel but are affiliated with senior residences or consult with a large number of senior patients, we would love to have you join our program. In addition, we would like to hear thoughts from any of our readers with suggestions on how to best reach medical practitioners who are involved with this target population.

- 1) Schanzer DL, et al. Influenza-attributable deaths, Canada 1990-1999. *Epidemiol Infect.* 2007;135(7):1109-16
- 2) Schanzer DL, et al. Role of influenza and other respiratory viruses in admissions of adults to Canadian hospitals. *Influenza Other Respir Viruses* 2008;2(1):1-8.

Wanted: TARRANT Sentinels *Sentinel Peer Referral Program*

We would like to expand our TARRANT network to improve surveillance throughout the province. Do you know of any clinics that might be interested in joining the Viral Watch program? We are always interested in increasing the number of active sentinels to replace those who are leaving or retiring. This year, we are particularly interested in increasing participation of clinics in Northern Alberta and in areas with a significant number of aboriginal patients.

Clinic: _____

Physician/Nurse Practitioner: _____

Phone: _____

E-mail address: _____

Suggested by: _____

Antiviral Resistance Update

The final report of the season from ProvLab Alberta showed no resistance to oseltamivir in any of the Influenza A samples tested in the province.

During the surveillance period of November 22nd, 2010 until April 28th, 2011 a total number of 237 Influenza A samples of both circulating subtypes (H1N1 and H3N2) were evaluated. Focus was placed on representative sampling from patients in which emergence of resistant strains were a particular concern. Sources included hospitalized patients, index outbreak cases and TARRANT patients. Hospitalized patients with prolonged viral pneumonia resulting in extended stays were tested at weekly intervals. Deceased patients were also tested.

On a national level, one of 245 H3N2, one of 501 H1N1 and one of 501 Influenza B samples were resistant to oseltamivir. None of the Influenza A subtypes were resistant to zanamivir, but the B isolate was considered to be resistant by inference.

Source: ProvLab Alberta Laboratory Bulletin, May 31, 2011 (Dr. Kevin Fonseca, Clinical Virologist)

Funding Update for the Vaccine Effectiveness Study

At a recent teleconference of the principal investigators, it was announced that funding for the study will continue for the 2011-2012 influenza season.

We will send updated requisition forms in the fall when the new seasonal vaccine becomes available and we begin measuring its effectiveness. For now, please continue using the current forms.

Sentinel Feedback

Is there anything we can do to make your work as a sentinel easier? Do you have any input on form design or submission? We rely on consistent & timely reports from our sentinels, so if there is anything we can do to help, please let us know!

We greatly appreciate our sentinels and their ongoing participation in respiratory disease surveillance in Alberta.

Would you like to receive this newsletter electronically?

Some of our recipients are now receiving this newsletter by email. If you would like to receive your copy in this format, please send us an email & we would be happy to send your copy as a PDF (and save a few trees!)

Interested in On-line Reporting for TARRANT?

If you would like to switch over to our new online reporting system, please provide us with your email address and we will set you up with a user name and password. Please fill out the form below and either fax it back to us (403-270-4329) or e-mail us at tarrant@ucalgary.ca

Yes, I am interested in on-line reporting.

Name: _____

Email Address: _____