

INFLUENZA IN MANITOBA – 2010/2011 SEASON

Cases reported up to April 23, 2011

The public health disease surveillance system of Manitoba Health received its first laboratory-confirmed positive case of influenza for the 2010/2011 season (running from July 1, 2010 to June 30, 2011) during Week 39, September 26 – October 2, 2010. This season there have been **474** laboratory-confirmed cases of Influenza A and **11** lab-confirmed cases of Influenza B in the province.

LABORATORY-CONFIRMED INFLUENZA

- Reports from Cadham Provincial Laboratory (CPL) are forwarded to the public health disease surveillance system of Manitoba Health weekly.
- The number of positive cultures is an underestimate of the total number of cases, since not all persons with influenza seek medical attention, and of those that do, not all are cultured for the virus.
- Information contained within this update is based on positive lab reports confirmed on or before April 23, 2011. The date the laboratory specimen is taken is used to assign cases to the appropriate week/month.

INFLUENZA A

- There have been **474 cases of Influenza A** reported this season in Manitoba.
- Refer to **Table 1** for a summary of cases by Regional Health Authority (RHA) and week of specimen collection and **Table 3** for a summary of cases by age group.
- Refer to **Figure 1** for an illustration of the number of laboratory-confirmed cases of Influenza A by month in Manitoba, 2003/2004-2010/2011.

INFLUENZA B

- There has been **11 cases of Influenza B** reported this season in Manitoba.
- Refer to **Table 2** for a summary of cases by Regional Health Authority (RHA) and week of specimen collection and **Table 3** for a summary of cases by age group.
- Refer to **Figure 2** for an illustration of the number of laboratory-confirmed cases of Influenza B by month in Manitoba, 2003/2004-2010/2011.

REPORTS OF INFLUENZA-LIKE ILLNESS OUTBREAKS

- ILI outbreaks are defined as:
Schools: Greater than 10% absenteeism (or absenteeism that is higher (e.g. >5-10%) than expected level as determined by school or public health authority) which is likely due to ILI.
Hospitals and Residential institutions: two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case.
Other settings: two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case; i.e. workplace, closed communities.
- These outbreaks of influenza must be accompanied by a positive influenza lab report to be counted. The outbreak-related cases reflected on tables and figures within this report are lab-confirmed. Most outbreak-related cases are not lab-confirmed.

As of April 23, 2011, there were **36** regional outbreaks of lab-confirmed Influenza A and no lab-confirmed outbreaks of Influenza B reported to the public health disease surveillance system for the 2010-2011 season:

RHA:	LTCF*	Workplace	Acute Care Facility	Community
Winnipeg	21	1	1	
Brandon	2			
Interlake	2			
Central	2		1	
Assiniboine	4			
Parkland	1			
Burntwood				1

* LTCF = long term care facility

NATIONAL FLUWATCH PROGRAM

Manitoba Health participates in the National FluWatch Program coordinated by the Public Health Agency of Canada and the College of Family Physicians of Canada. In addition to laboratory-confirmation of influenza, this program relies on weekly reports of influenza-like illness (ILI) as reported by 23 current Manitoban sentinel physicians. These sentinels reflect cases found in eight regional health authorities.

- Manitoba Health receives weekly reports from the Public Health Agency of Canada presenting the provincial ILI rate and the specific data for each of the participating sentinel physicians. Not all sentinel physicians participate in the program each week, and 10 of the 23 sentinels participate in swabbing for influenza with their ILI patients.
- For the 2010/2011 season, ILI in the general population is defined as: *Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which is likely due to influenza. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.*
- Refer to **Figure 3** for an illustration of the ILI rate and number of reporting sentinels as it relates to the number of laboratory-confirmed cases of influenza.

SUB-TYPING, STRAIN CHARACTERIZATION, AND ANTIVIRAL RESISTANCE

- **Sub-Typing:** The following summarizes the breakdown of influenza by type and sub-type, as reported by CPL:

A/H1N1	A/H3N2	A unsubtype	A Total
1	57	416	474

- **Strain Characterization:** Since September 1st, 2010, National Microbiology Laboratory (NML) reports that it has antigenically characterized **10** influenza viruses that were received from CPL. Nine Influenza A/H3N2 viruses characterized were antigenically related to A/Perth/16/2009-like, and one Influenza B virus was antigenically related to B/Brisbane/60/2008-like.
- **Antiviral Resistance:** Since September 1st, 2010, NML has tested for antiviral resistance on Manitoba isolates with the following results:

	Influenza A/H3N2		Influenza B	
	Resistant	Sensitive	Resistant	Sensitive
Amantadine	16	0	0	0
Oseltamivir	0	8	0	1
Zanamivir	0	8	0	1

INFLUENZA-RELATED HOSPITALIZATIONS, ICU ADMISSIONS, AND DEATHS

- Lab-confirmed report of influenza infection is required for a hospitalization, ICU admission, or death to be counted.
- Influenza-related death should be interpreted with caution as underlying cause of death may or may not be directly related to the lab-confirmed positive influenza diagnosis.
- Reporting on hospitalizations, ICU admissions, and deaths has now ended for the 2010/2011 influenza season. The following table presents the total number of severe outcomes reported this season.

	Cumulative Total
Hospitalizations:	98
ICU Admissions:	17
Deaths:	6

HEALTH LINKS – INFO SANTÉ (HL-IS)

- HL-IS is a 24-hour, 7-days a week telephone information service staffed by registered nurses with the knowledge to provide answers over the phone to health care questions and guidance to appropriate care.
- From April 17-23, 2011, there were a total of **19 calls** made to HL-IS Influenza Service. Of these calls:

0	caller(s) selected to hear the <i>Flu Appointment</i> option
1	caller(s) selected the <i>Influenza Program</i>
15	caller(s) selected <i>Flu Management</i>
3	caller(s) selected the <i>Free Flu Shot Program</i>

- See **Figure 4** for an illustration of the number of calls as it relates to the number of lab-confirmed cases of influenza.

For other Epidemiology and Surveillance reports, please view the Manitoba Health Internet Website:
<http://www.gov.mb.ca/health/publichealth/surveillance/index.html>

For national surveillance data, refer to:
<http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>

Table 1. Reported Cases of Influenza A by RHA and Week of Specimen Collection, Manitoba 2010-2011

RHA	26/09 - 02/10	03/10 - 09/10	10/10 - 16/10	17/10 - 23/10	24/10 - 30/10	31/10 - 06/11	07/11 - 13/11	14/11 - 20/11	21/11 - 27/11	28/11 - 04/12	05/12 - 11/12	12/12 - 18/12	19/12 - 25/12	26/12 - 01/01	02/01 - 08/01	09/01 - 15/01	16/01 - 22/01	23/01 - 29/01	30/01 - 05/02	06/02 - 12/02	13/02 - 19/02	20/02 - 26/02	27/02 - 05/03	06/03 - 12/03	13/03 - 19/03	20/03 - 26/03	27/03 - 02/04	03/04 - 09/04	10/04 - 16/04	17/04 - 23/04	TOTAL	
Winnipeg	0	0	0	0	0	1	0	4	6	7	20	28	31	30	12	3	3	7	2	1	5	2	5	1	0	0	0	0	0	0	0	168
Brandon	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	2	0	2	0	5	0	0	0	0	0	0	0	0	0	0	13
North Eastman	0	0	0	0	0	0	0	0	0	5	7	6	5	2	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	31
South Eastman	0	0	0	0	0	0	0	0	0	0	3	0	0	4	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Interlake	0	0	0	0	0	0	0	0	0	0	6	9	5	4	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	28
Central	0	0	0	0	0	0	0	0	0	0	2	1	10	2	2	10	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	31
Assiniboine	0	0	0	0	0	0	0	0	0	0	1	0	1	5	5	3	7	5	5	0	1	0	0	0	0	0	0	0	0	0	0	33
Parkland	0	0	0	0	0	0	0	0	2	0	3	1	5	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Norman	1	0	0	0	0	0	0	0	1	0	7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Burntwood	0	0	0	0	0	0	0	0	26	16	32	35	12	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126
Churchill	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
MANITOBA	1	0	0	0	0	1	0	4	35	30	82	81	69	55	26	26	18	14	9	2	11	2	7	1	0	0	0	0	0	0	474	

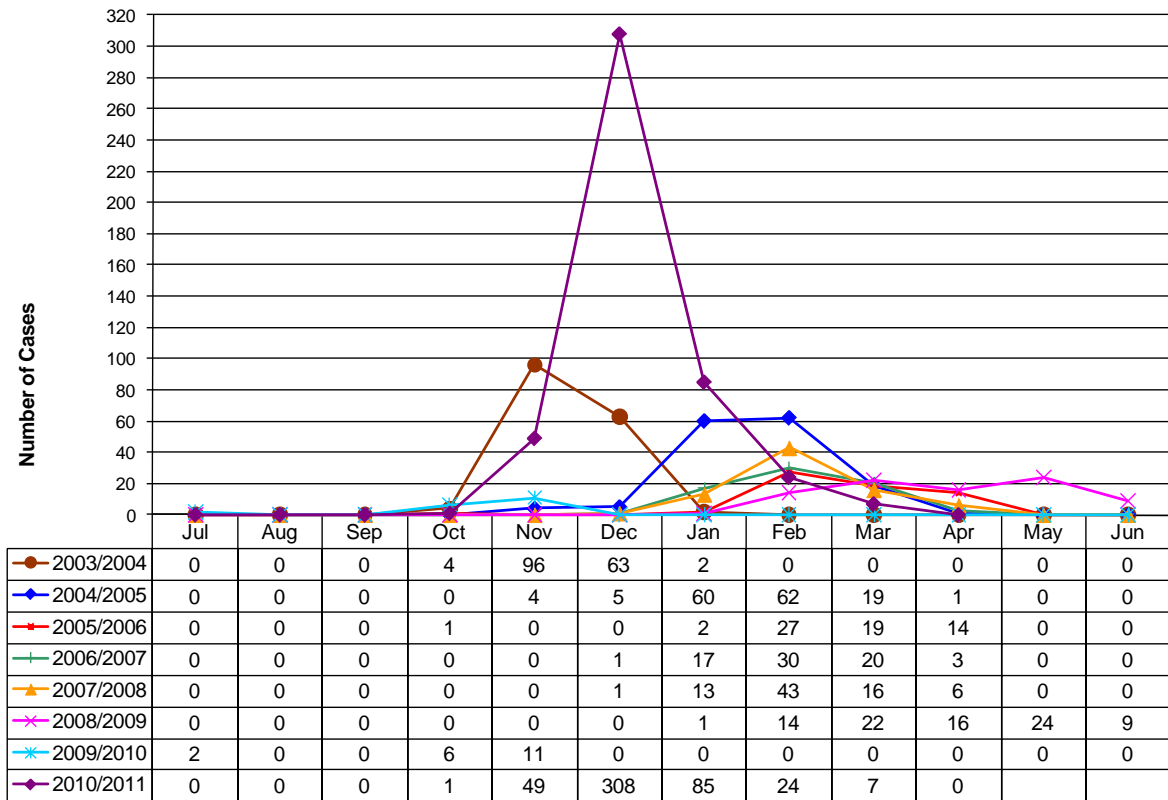
Table 2. Reported Cases of Influenza B by RHA and Week of Specimen Collection, Manitoba 2010-2011

RHA	26/09 - 02/10	03/10 - 09/10	10/10 - 16/10	17/10 - 23/10	24/10 - 30/10	31/10 - 06/11	07/11 - 13/11	14/11 - 20/11	21/11 - 27/11	28/11 - 04/12	05/12 - 11/12	12/12 - 18/12	19/12 - 25/12	26/12 - 01/01	02/01 - 08/01	09/01 - 15/01	16/01 - 22/01	23/01 - 29/01	30/01 - 05/02	06/02 - 12/02	13/02 - 19/02	20/02 - 26/02	27/02 - 05/03	06/03 - 12/03	13/03 - 19/03	20/03 - 26/03	27/03 - 02/04	03/04 - 09/04	10/04 - 16/04	17/04 - 23/04	TOTAL	
Winnipeg	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	1	7	
Brandon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Eastman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	
South Eastman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Interlake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Central	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
Assiniboine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Parkland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Burntwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Churchill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MANITOBA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	4	1	11	

Table 3. Reported Cases of Influenza A and B by Age Group, in Manitoba 2010-2011

Age Group	Influenza A		Influenza B	
	# of cases	% of total	# of cases	% of total
<1 yrs	30	6.3%	4	36.4%
1-4 yrs	46	9.7%	2	18.2%
5-9 yrs	27	5.7%	1	9.1%
10-14 yrs	32	6.8%	1	9.1%
15-19 yrs	13	2.7%	0	0.0%
20-24 yrs	18	3.8%	1	9.1%
25-29 yrs	23	4.9%	1	9.1%
30-39 yrs	52	11.0%	0	0.0%
40-49 yrs	42	8.9%	1	9.1%
50-59 yrs	40	8.4%	0	0.0%
60-69 yrs	18	3.8%	0	0.0%
70-79 yrs	33	7.0%	0	0.0%
>79 yrs	100	21.1%	0	0.0%
Missing	0	0.0%	0	0.0%
TOTAL	474		11	

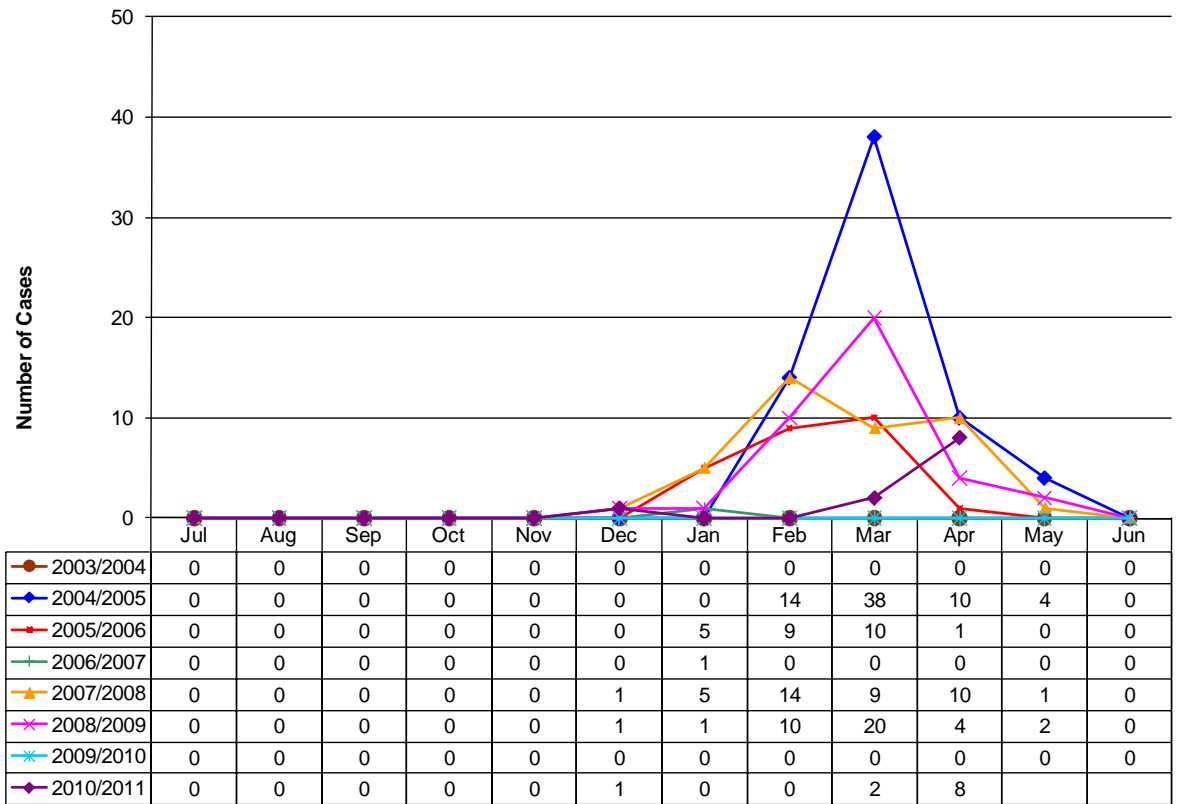
Figure 1. Laboratory-Confirmed Cases of Influenza A*, 2003/2004-2010/2011**



* Excludes pandemic H1N1 cases reported during Wave 1 and 2 of the 2009/2010 pandemic.

** April 2011 monthly total up to April 23.

Figure 2. Laboratory-Confirmed Cases of Influenza B, 2003/2004-2010/2011*



* April 2011 monthly total up to April 23.

Figure 3. Influenza-Like Illness (ILI) Rate, Number of Influenza A and B Cases by Week of Specimen Collection, and Number of Sentinels Participating in FluWatch, 2010-2011 Season by Week

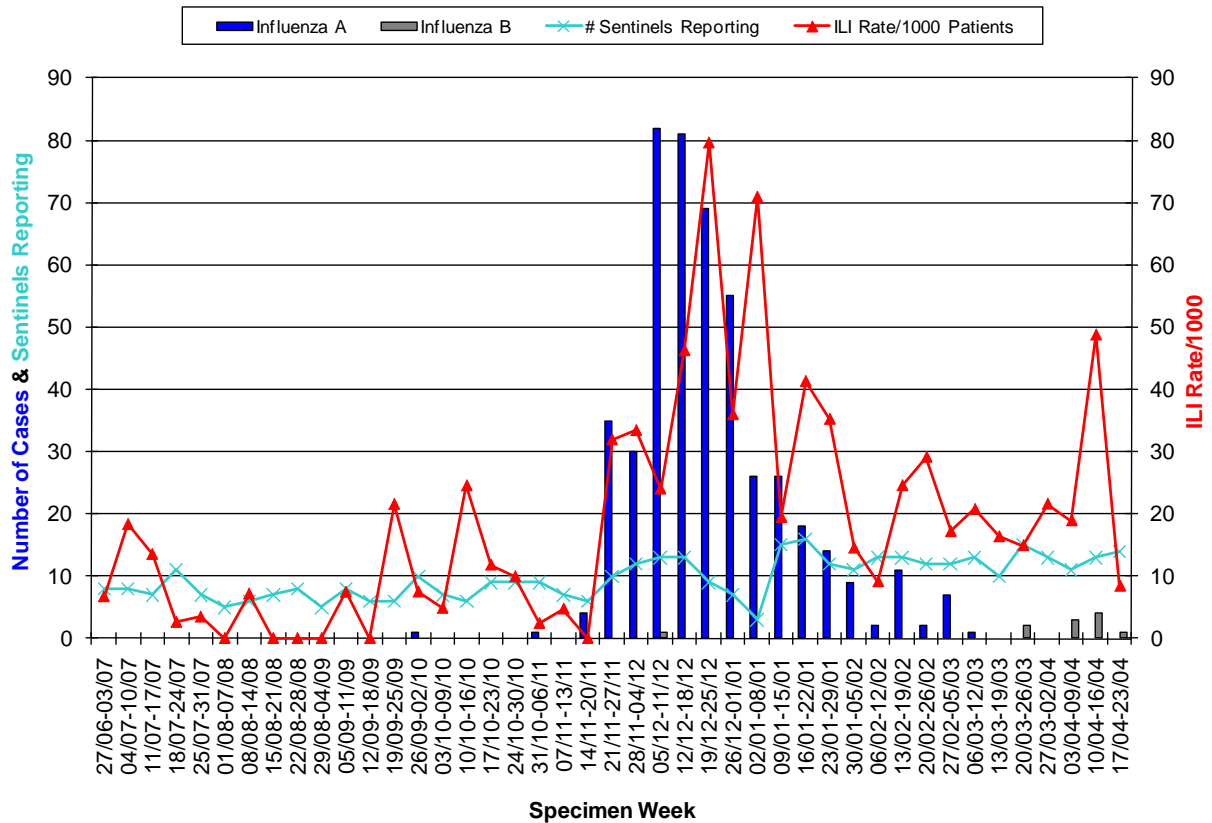
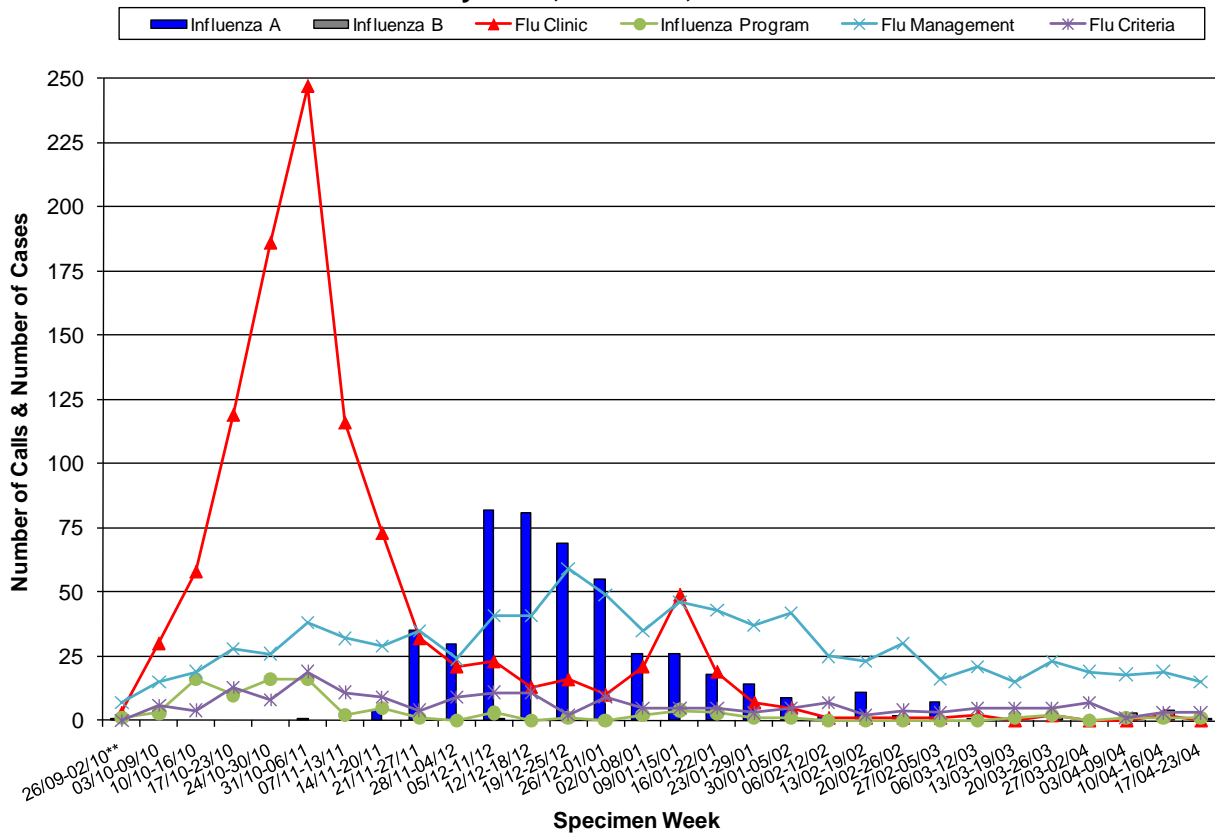


Figure 4. Number of Calls to Health Links – Info Santé Influenza Service by Type of Enquiry* and Number of Influenza A and B Cases by Week, Manitoba, 2010/2011 Influenza Season



- * **Influenza Program** The number of calls where the caller selected the Influenza Program
- Flu Management** The number of calls where the caller selected the Flu Management
- Flu Shot Criteria** The number of calls where the caller selected the Free Flu Shot Program
- Flu Clinic** The number of calls where the caller selected to hear the Flu Appointment option

** Number of calls to Health Links – Info Santé available for October 1-2 only (2010-2011 Health Links – Info Santé Seasonal Influenza Service was launched on October 1, 2010).