

# 2014-2015 Influenza Report



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# Executive Summary

Influenza (commonly known as the flu) is a viral infection of the respiratory tract that spreads easily from person to person, most commonly in the late fall and winter months. Onset of symptoms is typically sudden and includes fever, chills, cough, sore throat, nasal congestion, and muscle pain. Those most at risk for developing health complications include children less than 5 years of age, adults more than 65 years of age, and individuals with chronic diseases, such as diabetes and cancer. Combined with regular hand washing, the influenza vaccine is the best way to protect oneself and others from the flu.

To reduce rates of influenza, the annual Universal Influenza Immunization Program (UIIP), funded by the Ontario Ministry of Health and Long-Term Care (MOHLTC), offers influenza immunizations at no cost to individuals aged 6 months and older in Ontario.

In support of the UIIP, each year Wellington-Dufferin-Guelph Public Health (WDG Public Health) conducts an Influenza Program to encourage individuals, particularly those considered high-risk and those who are in close contact with high-risk persons (e.g. healthcare workers), to receive the influenza vaccine. WDG Public Health offers the influenza vaccine at scheduled community clinics, through Public Health appointments, and by distributing vaccines to community partners (e.g. physicians, pharmacies). Public Health evaluates its Influenza Program each year to monitor reported cases of the flu, to identify immunization trends, and to encourage immunization rates by improving its own influenza clinics.

## Key Findings

Below is an overview of the key findings highlighted in this report on the 2014-2015 influenza season.

- WDG Public Health administered a total of 5,494 influenza doses through: 11 community clinics (2,376 doses), Public Health appointments (800 doses, 104 FluMist doses), and through two sponsored clinics (2,214).
- Vaccine distribution to pharmacies continues to increase with each influenza season (26,330 distributed in 2014-2015 season, a 35% increase since the 2013-2014 season).
- WDG Public Health community clinic attendance rates continue to decrease, likely due to increasing vaccine availability at pharmacies since 2012.
- Among clients who completed the WDG Public Health clinic survey, 97% were satisfied with their clinic experience.
- The most popular clinic promotional tools were newspaper advertisements, the WDG Public Health website and word of mouth.
- Immunization rates for healthcare workers in long-term care and retirement homes increased since last season. However, they remain relatively low among hospitals (52.5%).

## Recommendations

Based on the evidence presented in this report, the following is a summary of the key recommendations to strengthen WDG Public Health's Influenza Program for the 2015-2016 influenza season.

### Advertising

1. Continue to promote the FluMist vaccine as a vaccine alternative.
  - Consider promoting FluMist in local newspaper advertisements and through WDG Public Health's website and social media accounts;
  - Provide FluMist factsheets at community clinics and Public Health offices during future influenza seasons to increase public awareness.
2. Continue using clinic advertisements in local newspapers, provide the complete WDG community clinic schedule on Public Health's website, and promote clinics through its social media accounts.
3. Increase clinic signage outside locations and inside establishments well in advance of clinic dates.

### Promotional Activities

1. Continue to distribute copies of the Healthcare Worker Fact Sheet to hospitals, LTCHs, and RHs to encourage HCW immunization among this segment of the population.
2. Continue to target first responder service workers more directly to encourage increased influenza immunization rates (e.g. provide influenza immunizations at their facility rather than hosting a clinic at Public Health offices).

### Community Clinics

1. Continue to host future community clinics at the same 7 external sites from the 2014-2015 season, as these clinics experienced high attendance rates.
2. Consider hosting a 2015-2016 clinic at the Salvation Army, in Guelph. During the 2013-2014 season attendance at this location was very high.
3. Ensure signage is clear at all the clinics, particularly at locations where there are multiple entrances.
4. Consider extending community clinic hours to accommodate more individuals.

**Disclaimer:** Data presented in this report may not be the same as data in subsequent reports, as the 2014-2015 influenza season is ongoing at time of data extraction, and information is constantly being updated in iPHIS.

# Introduction

## Influenza

Influenza is caused by a virus that invades the respiratory tract. In Canada, influenza generally occurs in the late fall and winter months. Onset of symptoms is typically sudden and includes fever, chills, cough, sore throat, nasal congestion, and muscle pain (myalgia). Influenza spreads from person to person directly, through the airborne spray of respiratory droplets, and indirectly, through contact with contaminated articles or surfaces in the environment. While most individuals with influenza recover without complications, a significant number of those with the illness, including some who were previously healthy, may go on to experience serious complications, requiring hospitalization. Those most at risk for developing complications include children less than 5 years of age, adults more than 65 years of age, and individuals with chronic diseases, such as diabetes and cancer. Combined with regular hand washing, the influenza vaccine is the best way to protect oneself and others from the virus.<sup>1</sup>

## The Universal Immunization Program

As a means of reducing rates of influenza, the annual Universal Influenza Immunization Program (UIIP) is available at no cost to individuals, ages 6 months or older, who live, work, or attend school in Ontario. The objectives of the UIIP are to:

1. Provide individual protection against influenza;
2. Reduce the number and severity of influenza cases;
3. Reduce the impact on the health care system during the influenza season (including reducing the annual impact of influenza on emergency room overcrowding and the utilization of other health care facilities);
4. Decrease the economic impact of influenza during the influenza season.<sup>2</sup>

All healthy persons aged 6 months and older who do not have contraindications to influenza vaccine are encouraged to receive influenza vaccine.<sup>1</sup> However, below is a list of recommended recipient groups for the influenza vaccine.

## People at high risk of influenza-related complications or hospitalization

- Adults (including pregnant women) and children with the following chronic health conditions:
    - Cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma);
    - Diabetes mellitus and other metabolic diseases;
    - Cancer, immune compromising conditions (due to underlying disease and/or therapy);
-



- Renal disease;
- Anemia or hemoglobinopathy;
- Conditions that compromise the management of respiratory secretions and are associated with an increased risk of aspiration;
- Morbid obesity (BMI  $\geq 40$ ); and
- Children and adolescents (aged 6 months to 18 years) with conditions treated for long periods with acetylsalicylic acid.
- People of any age who are residents of nursing homes and other chronic care facilities.
- People  $\geq 65$  years of age.
- All children 6 to 59 months of age.
- Healthy pregnant women (the risk of influenza-related hospitalization increases with length of gestation (i.e. it is higher in the third than in the second trimester))
- Aboriginal peoples.<sup>1</sup>

### People capable of transmitting influenza to those at high risk

- Healthcare and other care providers in facilities and community settings who, through their activities, are capable of transmitting influenza to those at high risk of influenza complications.
- Household contacts (adults and children) or individuals at high risk of influenza-related complications (whether or not the individual at high risk has been immunized):
  - Household contacts of individuals at high risk, as listed in the section above;
  - Household contacts of infants  $< 6$  months of age as these infants are at high risk of complications from influenza but cannot receive the influenza vaccine; and
  - Members of a household expecting a newborn during the influenza season.
- Those providing regular child care to children  $\leq 59$  months of age, whether in or out of the home.
- Those who provide services within closed or relatively closed settings to persons at high risk (e.g. crew on a ship).<sup>1</sup>

### Others

- People who provide essential community services.
- People in direct contact during culling operations with poultry infected with avian influenza.<sup>1</sup>



# Methods

## APHEO Indicators

Indicators for this report were chosen from the list of core indicators recommended by the Association for Public Health Epidemiologists of Ontario (APHEO). APHEO has recognized the need for consistency among health reports. Its Core Indicators Working Group (CIWG) has aimed to systematically define and operationalize a core set of health indicators in Ontario, which includes a set of indicators for Influenza Vaccination. The CIWG works to ensure the Core Indicators are accurate and up-to-date, and reflect the legislative requirements set in the Ontario Public Health Standards.<sup>3</sup>

The six APHEO Influenza Vaccination indicators include: (1) the proportion of people who have had an influenza vaccine for the current influenza season (Data Source: Statistics Canada);<sup>4</sup> (2) the proportion of residents of long-term care facilities who have been vaccinated against influenza for the current influenza season by the date specified in the MOHLTC reporting requirements (Data Source: WDG Public Health);<sup>5</sup> (3) the proportion of staff at LTC facilities and hospitals who have been vaccinated for the current influenza season by the date specified in the MOHLTC reporting requirements (Data Source: WDG Public Health);<sup>6</sup> (4) the number of adverse events following immunization (AEFI) in a specified time period (Data Source: WDG Public Health);<sup>7</sup> (5) the total number of deaths each from infectious diseases relative to the total population (per 100,000) in a specified time period (Data Sources: Ontario Office of Registrar General (ORG) and Statistics Canada);<sup>8</sup> (6) the total number of new cases of infectious diseases relative to the total population (per 100,000) in a specified time period (Data Sources: WDG Public Health and Statistics Canada).<sup>9</sup>

Additional indicators were chosen for examination based on consultations with the WDG Public Health managers of School Health and Immunization, and Health Analytics and Health Promotion around data needs. Consideration was also made to meeting the data requirements set out in the Ontario Public Health Standards, the Accountability Agreement Indicators of the Ministry of Health and Long-Term Care, and WDG Public Health's Key Performance Indicators for monitoring the 2011-2016 strategic plan.

## Levels of Geography

Data are shown for Wellington-Dufferin-Guelph. Additionally, where possible, figures were calculated for both Wellington and Dufferin Counties and the City of Guelph.

## Time Period

WDG Public Health data on the Influenza Program are reported seasonally. This report highlights the time period of the 2014 to 2015 influenza season, and compares data to previous influenza seasons.

## Data Sources

Data sources used in this report were acquired from internal and external sources.

### Seasonal Flu Vaccine Consent Forms (WDG Public Health)

All individuals who receive an influenza immunization at a WDG Public Health community clinic or at a WDH Public Health office through an appointment or walk-in are required to complete Public Health's Seasonal Flu Vaccine Consent Form. During the 2014-2015 influenza season, 3,280 vaccine consent forms were completed. Forms are completed only by individuals eligible to receive the influenza vaccine, specifically persons aged 6 months and older, and are collected seasonally by WDG Public Health.

### Flu Clinic Client Satisfaction Questionnaire (WDG Public Health)

Individuals who received a flu vaccine at a WDG Public Health community clinic are encouraged to complete the Flu Clinic Survey: a client satisfaction questionnaire. A total of 597 surveys were completed during the 2014-2015 influenza season. Survey data is collected seasonally by WDG Public Health.

### WDG Public Health-Sponsored Clinics

WDG Public Health sponsors two clinics during the influenza season: at the University of Guelph and the Minto-Mapleton Family Health Team in Clifford. The organizations collect data on the number of immunization recipients at their respective clinics which are shared with WDG Public Health. These clinics and their data reporting to Public Health are conducted seasonally.

### Healthcare Provider Immunization Data

WDG institutions with healthcare providers, specifically long-term care facilities, hospitals and retirement homes, are required to report influenza immunization numbers for healthcare providers and residents to WDG Public Health. This data is collected on an annual basis for each influenza season.

### Pharmacy Immunization Data

Data on influenza vaccination administration by pharmacies during the 2014-2015 influenza season was collected by the Ministry of Health and Long-Term Care as part of the Universal Influenza Immunization Program. This data is collected seasonally.<sup>2</sup>

### Laboratory-Confirmed Influenza Cases

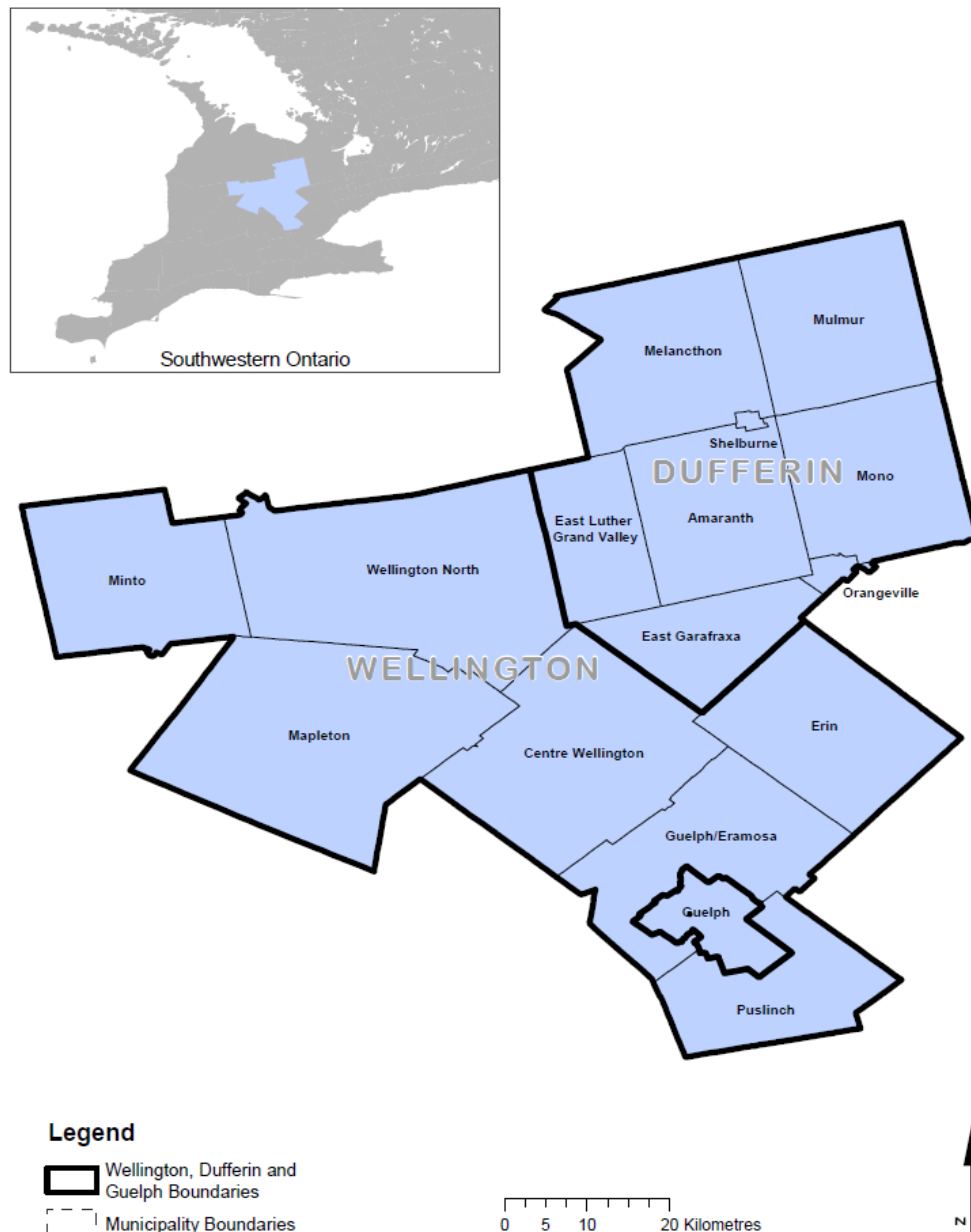
Data were extracted from the integrated Public Health Information System (iPHIS) and WDG Public Health Syndromic Surveillance absenteeism database on May 4<sup>th</sup>, 2015. Analyses were done in Stata 11.0 (College Station, Texas) and Microsoft Excel.

***Disclaimer:*** Data presented in this report may not be the same as data in subsequent reports, as the 2014-2015 influenza season is ongoing at time of data extraction, and information is constantly being updated in iPHIS.

# A Profile of Wellington-Dufferin-Guelph

Wellington-Dufferin-Guelph Public Health (WDGPH) is one of 36 local health departments in Ontario. The area served by WDGPH is located in southwestern Ontario, approximately 100 km west of Toronto, and comprises two counties: Wellington County and Dufferin County. The municipality of the City of Guelph is geographically located within Wellington County (See Figure 1). In this report, the area served by WDGPH is referred to as Wellington-Dufferin-Guelph (WDG).

Figure 1: Municipalities in Wellington-Dufferin-Guelph, Southwestern Ontario



## Mandate

The mandate of WDGPH is to improve the health of the population through activities that promote health, protect health, and prevent disease and injury.

Wellington-Dufferin-Guelph Public Health is an essential community health service with dedicated staff that focus on promoting and protecting the health of our community. We offer programs and services and advocate for healthy public policies that:

- Promote healthy infant and child development, responsive parenting, healthy lifestyles, and positive mental, reproductive, sexual, and dental health.
- Protect our communities from communicable and infectious diseases, and environmental hazards such as contaminated food and water.
- Prevent disease and injuries.

Table 1: Sociodemographic profile of Wellington-Dufferin-Guelph, compared to Ontario

Indicator	Wellington-Dufferin-Guelph	Ontario
<b>Population</b> (Census 2011, Statistics Canada)	265,240	12,851,820
<b>Geographical Profile:</b>		
<i>Percentage of geographical area that is rural</i> (Census 2011, Statistics Canada)	98% (97.53%)	N/A
<i>Percentage of geographical area that is urban</i> (Census 2011, Statistics Canada)	2% (2.47%)	N/A
<b>Population Profile</b> (Census 2011, Statistics Canada)	46% of the population lives in urban areas	N/A
<b>Population Growth</b> (from 2006-2011) (Census 2011, Statistics Canada)	4.1% increase	5.7% increase
<b>Projected Population Growth from 2011 to 2016</b> (Census 2006, Statistics Canada)	6.1% increase to 295,000 residents.	N/A
<b>Diversity:</b>		
<i>Immigrant Status</i> (National Household Survey 2011, Statistics Canada)	15.7%	28.5%
<i>Percentage increase of new immigrants from 2001-2006 compared with 1996-2001</i> (Census 2006, Statistics Canada)	24%	N/A
<i>Visible minority population</i> (National Household Survey 2011, Statistics Canada)	9.0%	25.9%
<i>Largest visible minority groups</i> (National Household Survey 2011, Statistics Canada)	South Asian, Chinese, Southeast Asian, Black, Filipino	South Asian, Chinese, Black, Filipino, and Latin American
<b>Education</b> (Census 2006, Statistics Canada)	47.7% of the population aged 15 years and older has completed post-secondary education*.	52.7% of the population aged 15 years and older has completed post-secondary education*
<b>Percentage of Population With No Knowledge of Official Languages</b> (Census 2011, Statistics Canada)	0.8%	2.3%
<b>Median 2005 Family Income After Tax</b> (Census 2006, Statistics Canada)	\$65,284	\$63,441
<b>Unemployment Rate (2012, 15yr+)</b> (CANSIM Table 109-5324, Statistics Canada 2013)	5.1%	7.8%
<b>Percentage of Children &lt;6 years of age Living in Low-income Households</b> (Census 2006, Statistics Canada)	6.8%	14.8%

Post-secondary education includes apprenticeship degrees/certificates, college degrees, and university degrees

# The WDG Public Health Influenza Program

The 2014-2015 WDG Public Health Influenza Program had five main objectives:

1. Reach a goal of 4,500 influenza vaccinations at WDG Public Health community clinics between September 2014 and February 28<sup>th</sup>, 2015.
2. Encourage the immunization of healthcare workers.
3. Encourage the immunization of high-risk individuals.
4. Promote the low-cost FluMist nasal spray vaccine (particularly for young children).
5. Promote excellent customer service at WDG Public Health influenza immunization clinics.

During the 2014-2015 influenza season, WDG Public Health ran a total 11 community clinics throughout the Wellington-Dufferin-Guelph (WDG) region, administering 2,376 doses of the influenza vaccine to the public. WDG Public Health also offered vaccines through appointments and walk-ins at Public Health offices, with 904 individuals receiving their immunization through this service. An additional 2,070 doses were administered at the WDG Public Health-sponsored clinics at the University of Guelph while a further 144 doses were administered at the WDG Public Health-sponsored clinics at the Minto-Mapleton Family Health Team in Clifford. Lastly, for the third influenza season, WDG Public Health offered FluMist, an intranasal spray, as an alternative to the traditional flu vaccine. FluMist is not publicly funded by the Ministry of Health and Long-Term Care (MOHLTC). As a result, it was not administered at community clinics, but was available by appointment at a cost of \$20 per dose. Of the 904 doses administered at Public Health offices, 104 were FluMist.

Overall, WDG Public Health facilitated the administration of 5,390 doses of the influenza vaccine and 104 FluMist doses, for a total of 5,494 doses during the 2014-2015 influenza season. This was 994 doses above WDG Public Health's goal of 4,500 influenza vaccinations. According to the previous season's 2013-2014 Influenza Report, a total of 7,245 doses were administered at WDG Public Health clinics, offices and sponsored clinics. Therefore, the total number of doses administered during the 2014-2015 season was 1,751 doses less than the total administered during the 2013-2014 season, representing a 24.2% decrease. Table 2 below compares influenza immunization numbers between the last three influenza seasons.

Table 2: Summary of WDG Public Health Influenza Vaccination Doses Administered during Influenza Seasons, 2012-2013, 2013-2014 and 2014-2015

	<b>2012-2013 Influenza Season</b>	<b>2013-2014 Influenza Season</b>	<b>2014-2015 Influenza Season</b>
No. of WDG Public Health Clinics	24	19	11
WDG Public Health's Immunization Goal	14,000	8,000	4,500
WDG Public Health Community Clinic Influenza Doses	6,535	3,887	2,376
WDG Public Health Appointment & Walk-in Clinic Influenza Doses	546	918	800
WDG Public Health FluMist Influenza Doses	96	156	104
Minto-Mapleton Family Health Team Influenza Doses	325	314	144
University of Guelph Influenza Doses	1,601	1,970	2,070
<b>Total Influenza Doses Administered</b>	<b>9,103</b>	<b>7,245</b>	<b>5,494</b>

One likely reason for the decline in influenza doses administered by WDG Public Health is the increase in immunizations administered by local pharmacies. WDG Public Health distributes the influenza vaccine to community partners including physicians, hospitals, long-term care homes, and most recently pharmacies. The 2012-2013 influenza season marked the first year pharmacies that met MOHLTC qualifications could offer the influenza vaccine to individuals 5 years of age and older. Seven local pharmacies qualified to administer the vaccine during the 2012-2013 season, and 42 were qualified during the 2013-2014 season. This season, 52 local pharmacies provided the influenza vaccine, and WDG Public Health distributed 26,330 doses to these qualifying pharmacies. This is a 35.0% increase from the 19,500 doses that were distributed during the 2013-2014 season.

Table 3 outlines the number of vaccine doses distributed by WDG Public Health to community partners. WDG Public Health distributed a total of 87,498 doses of the influenza vaccine to community partners during the 2014-2015 season, compared to 73,665 doses during the 2013-2014 season. These numbers do not include doses that were distributed to WDG Public Health community clinics and to Public Health offices for appointment and walk-in immunizations. As represented in Table 3, the number of influenza doses distributed to community partners has remained fairly stable over the past three years, apart from a large and continued increase in dose distribution to local pharmacies.

Table 3: Number of Influenza Vaccine Doses Distributed to Community Partners during Influenza Seasons, 2012-2013, 2013-2014 and 2014-2015

Community Partners	Number of Doses Distributed in 2012-2013	Number of Doses Distributed in 2013-2014	Number of Doses Distributed in 2014-2015
Public Hospitals and Homewood	3,260	3,530	3,688
Long-Term Care Homes and St. Joseph's	4,540	4,160	4,160
Physicians' Offices (including Minto-Mapleton Family Health Team)	43,740	37,240	44,370
Retirement Homes	2,090	1,770	1,910
Health Care Agencies	3,890	3,615	2,770
Workplaces	160	350	300
Community Care Access Centres (CCAC)	N/A	N/A	N/A
Community Health Centres (CHC)	730	980	1,060
Correctional Facilities and Youth Justice Facilities	90	120	110
Other (Masai Centre, University of Guelph Student Health Services, Ontario Addiction Treatment Centres (OATC), Medysis, Hopewell Children's Home)	2,180	2,400	2,800*
Pharmacies	5,650	19,500	26,330
<b>Grand Total</b>	<b>66,330</b>	<b>73,665</b>	<b>87,498</b>

\*Note. OATC did not participate in the 2014-2015 UIIP. Therefore, they did not receive the influenza vaccine from WDG Public Health this season.

WDG Public Health cannot track the number of doses administered by other agencies. However, in light of the recent increase in vaccine distribution to pharmacies, the MOHLTC collects information on pharmacy administered influenza doses. This is done through the UIIP. During the 2014-2015 influenza season, of the 26,330 influenza vaccine doses distributed to 52 WDG pharmacies, 18,963 doses were administered (72%). The continued increase in dose distribution to pharmacies represents an increasing demand by the public, supported by a high percentage of dose administration. It is likely that influenza vaccination by pharmacies will continue to rise while the number administered at WDG Public Health clinics and by community partners, including physicians' offices, may continue to fall. In response to this trend, WDG Public Health elected to offer fewer community clinics this season, offering 11 during the 2014-2015 season compared to 19 community clinics during the 2013-2014 season.



## The 2014-2015 Influenza Season Vaccine

Every year the influenza vaccine is formulated based on recommendations by the World Health Organization. The 2014-2015 influenza season vaccine contains the following virus strains:

- A/California/7/2009 (H1N1)pdm09-like virus;
- A/Texas/50/2012 (H3N2)-like virus;
- B/Massachusetts/2/2012-like virus<sup>10</sup>

## The 2014-2015 Influenza Season Program Evaluation

In keeping with WDG Public Health's Strategic Direction B, Evidence-Informed Practice,<sup>11</sup> an evaluation plan was incorporated into the planning process for Public Health's 2014-2015 Influenza Program. Public Health tracked vaccine distribution to community partners and their administration numbers. Public Health also conducted surveillance of reported influenza cases. Lastly, immunization consent forms were completed for all vaccine recipients at WDG Public Health community clinics, and those clients were encouraged to complete a client satisfaction questionnaire on their clinic experience. These tools collected both quantitative and qualitative data.

### Rationale

According to the National Advisory Committee on Immunization (NACI), the most effective intervention to protect against influenza is the annual vaccine.<sup>1</sup> The UIIP provides an opportunity for all residents in Ontario to receive the annual influenza vaccine free of charge. Overcoming barriers, such as misinformation and lack of knowledge, while also emphasizing the importance of the annual influenza vaccine among the general public and healthcare providers remain challenges. WDG Public Health must continue to develop creative strategies to address these concerns in our community.

### Evaluation Objectives

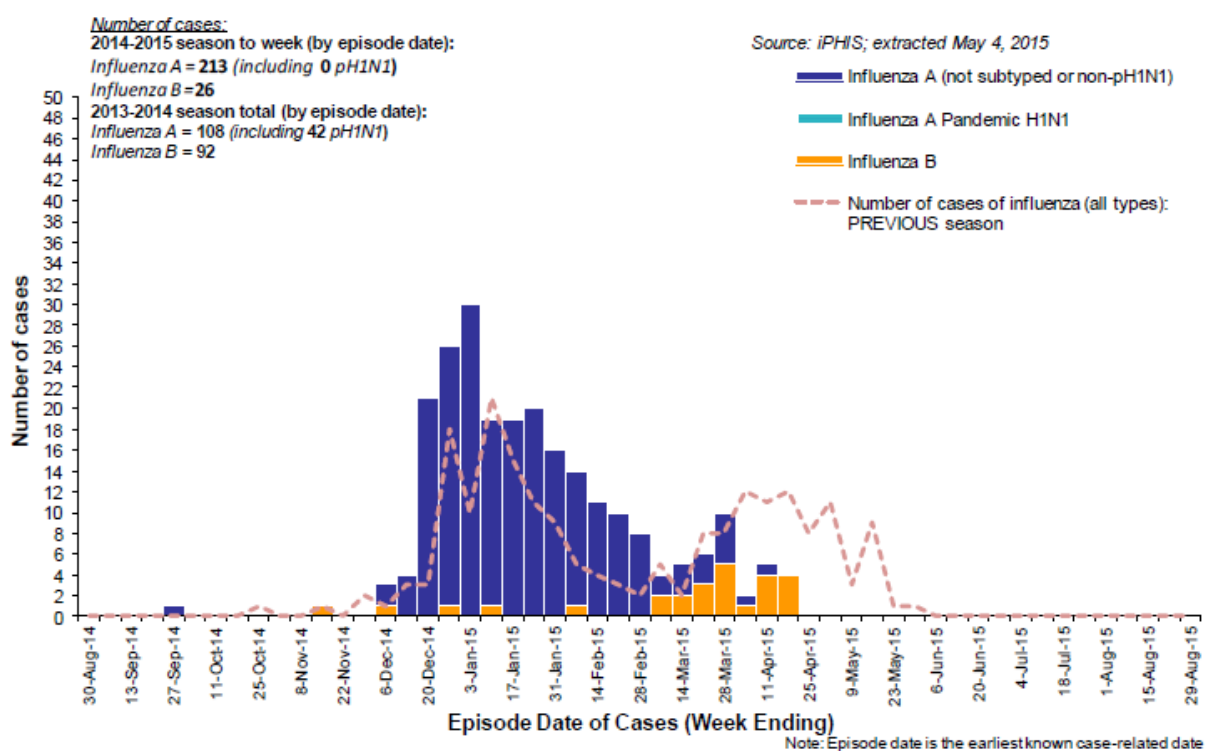
WDG Public Health's Influenza Program evaluation aims to:

1. Present an overview of influenza activity in Wellington-Dufferin-Guelph.
2. Present an overview of influenza vaccine distribution and administration numbers by community partners.
3. Understand the demographics of clients visiting clinics.
4. Review areas of improvement identified by clients.
5. Determine what promotional activities were most effective in each of the areas we serve as a means of better informing future flu campaigns.

## Influenza Activity in WDG, 2014-2015 Influenza Season

The number of reported influenza cases represents a fraction of the total number of individuals ill with influenza; in order for a case to be reported, it must have a positive laboratory test, but very few cases are actually tested. However, reported cases allow Public Health to gain a better understanding of influenza activity in our community. Results presented in this section may contain some low case counts and is meant for internal use only. To date, the number of reported influenza cases in WDG for the 2014-2015 influenza season totaled 239. This is an increase from the 2013-2014 season, which had a total number of 200 reported influenza cases. Figure 2 highlights the current number of confirmed cases of influenza reported to Public Health by Flu Season Week for the 2014-2015 flu season. The figure differentiates each confirmed case by aetiological agent and subtype and also compares the weekly confirmed cases with the number of cases of influenza (all types) from the previous 2013-2014 season.

Figure 2: Number of Confirmed Cases of Influenza Report to WDG Public Health by Flu Season Week, 2014-2015 Influenza Season



As seen in Figure 2, the beginning of the 2014-2015 flu season followed a similar pattern to the previous season. However, the number of reported cases from December to February was much higher during the current season compared to the last. Although these data do not provide a complete representation of the 2014-2015 season, as the most recent data were pulled May 4<sup>th</sup>, 2015, the latter part of the current season appears to have fewer reported cases than in the 2013-2014 season. Figure 2 also demonstrates that while the number of

confirmed cases of Influenza B declined since last season, the number of confirmed Influenza A cases largely increased. The distribution of influenza cases also occurred in two distinct waves in 2014-2015 (a biphasic distribution). The vast majority of Influenza A cases occurred between early December, 2014 and late March, 2015 while, as is typical in an annual influenza season, the majority of Influenza B cases did not begin until late February, 2015 and are continually being reported.

Of the 239 confirmed cases reported to date in the 2014-2015 season, 115 (48.1%) were female, and 124 (51.9%) were male. The age distribution of current laboratory-confirmed cases is highlighted in Figure 3 below.

Figure 3: Confirmed Cases of Influenza Reported to WDG Public Health, by Age Group, 2014-2015 Influenza Season

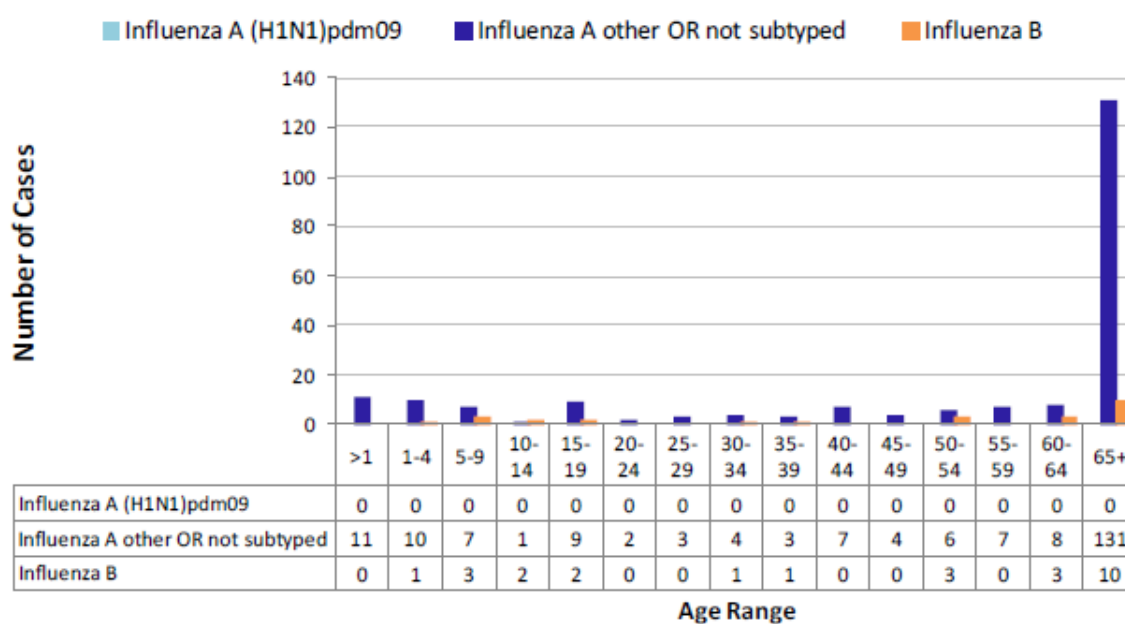
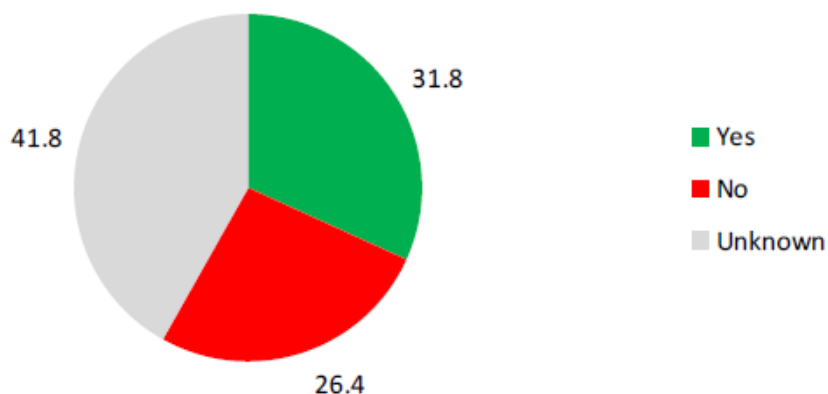


Figure 3 highlights that the age category with the highest number of influenza cases was among older adults in the community, with 59.0% of all confirmed cases being reported among individuals 65 years of age and older. This age group had a particularly high number of reported Influenza A (other or not subtyped) cases. Of note, the less than 1 year of age, and the 1-4 years of age groups had the second highest number of reported Influenza A (other or not subtyped) cases, with 11 and 10 confirmed cases respectively.

Regarding the immunization status of laboratory-confirmed cases of influenza reported to Public Health to date during the 2014-2015 season, 26.4% were not immunized, 31.8% were immunized and 41.8% had unknown immunization status. Figure 4 highlights these findings; however, it is important to note that the accuracy of reported numbers/percentages may be unreliable due to a defect in the reporting system. Reported cases of influenza that are known to have received immunization this season were of various age groups ranging from 0-4 years old to over 65 years old.

To date, during the 2014-2015 influenza season, there have been 189 hospitalizations and emergency department visits for influenza and 8 known mortalities to date (all patients were aged 75+ years). WDG Public Health also investigates the number of reported adverse events following influenza immunization. To date, there have been 5 reported adverse events following influenza immunization this season. However, only 2 of the 5 cases were confirmed.

Figure 4: Immunization Status of Laboratory-Confirmed Cases of Influenza Report to WDG Public Health, 2014-2015 Influenza Season



## Client Demographics at Flu Clinics

Through immunization consent forms, demographic information was collected for all clients who attended WDG Public Health flu clinics (*See Appendix A for a copy of the consent form*). Table 4 outlines the number and percentage of clinic attendees who were considered to be high-risk (first responders, healthcare workers, pork/poultry workers, pregnant women, residents or staff in a nursing home, caregivers to an infant, immune-compromised, or seniors).

Table 4 also summarizes the number of vaccine doses (shots) administered at each WDG Public Health community clinic during the 2014-2015 season and compares these totals to clinic attendance during the 2013-2014 season.

There are several important factors to consider when examining these data. WDG Public Health held only 11 community clinics during the 2014-2015 influenza season compared to 19 clinics in the 2013-2014 season. Additionally, while the clinic location for many clinics was the same in each year, the date of the clinic was not; which may have impacted clinic attendance. The data presented in the table below corresponds to the date of the clinic in the 2014-2015 influenza season. Additional rows for the eight 2013-2014 season clinics that were not held in the 2014-2015 season are listed as well for comparison. Lastly, some clients may have fallen into multiple high-risk categories, for example a pregnant woman could also be a healthcare worker. As a result, the sum of all the high-risk categories may be higher than the total number of individuals that were identified as high-risk.

Table 4: Client Demographics at Community Flu Clinics, 2014-2015 Influenza Season

Clinic Date (mm-dd-yy) & Time	Location	Town	# (%) First responders	# (%) Poultry/pork workers	# (%) Healthcare workers	# (%) Adult 65+	# (%) Pregnant women	# (%) Nursing home staff/ volunteer	# (%) Caregiver to an infant less than six months	# (%) Caregiver to anyone immuno- compromised	# (%) Child under 9 years AND getting vaccine for first time	# shots 2013- 2014	# shots 2014- 2015
10-21-14 3-6pm	WDG Public Health Fergus office	Fergus	16(20.3%)	28(35.5%)	4(5.1%)	5(6.3%)	0(0.0%)	0(0.0%)	1(1.3%)	3(3.8%)	0(0.0%)	106	79
10-22-14 3-6pm	WDG Public Health Orangeville office	Orangeville	0(0.0%)	0(0.0%)	8(18.8%)	1(3.1%)	0(0.0%)	0(0.0%)	0(0.0%)	1(3.1%)	1(3.1%)	40	32
10-23-14 3-6pm	WDG Public Health Guelph office	Guelph	5(9.1%)	2(3.6%)	18(32.7%)	1(1.8%)	0(0.0%)	1(1.8%)	0(0.0%)	3(5.5%)	0(0.0%)	121	55
10-23-14 3-6pm	WDG Public Health Mount Forest office	Mount Forest	0(0.0%)	8(66.7%)	2(16.7%)	0(0.0%)	0(0.0%)	1(8.3%)	0(0.0%)	0(0.0%)	0(0.0%)	49	12
10-24-14 10am-3pm	Orangeville Senior Centre	Orangeville	7(2.1%)	0(0.0%)	14(4.2%)	184(54.7%)	1(0.3%)	13(3.9%)	5(1.5%)	3(0.9%)	6(1.8%)	290	336
10-28-14 10am-3pm	Victoria Park Senior Centre	Fergus	0(0.0%)	4(1.7%)	4(1.7%)	144(62.3%)	0(0.0%)	6(2.6%)	0(0.0%)	4(1.7%)	2(0.9%)	210	231
10-29-14 10am-3pm	Evergreen Senior Centre	Guelph	0(0.0%)	0(0.0%)	9(2.2%)	258(62.9%)	1(0.2%)	15(3.7%)	2(0.5%)	10(2.4%)	4(1.0%)	376	410
10-30-14 3-7pm	Shelldale Centre	Guelph	4(1.6%)	0(0.0%)	11(4.5%)	12(4.9%)	6(2.4%)	10(4.1%)	8(3.2%)	4(1.6%)	13(5.3%)	200	247
11-03-14 3-7pm	Compass Community Church	Orangeville	2(0.7%)	0(0.0%)	9(3.0%)	74(24.8%)	0(0.0%)	9(3.0%)	6(2.0%)	10(3.3%)	13(4.4%)	387	299
11-05-14 3-7pm	CW Community Sportsplex	Fergus	2(0.7%)	1(0.3%)	9(2.9%)	39(12.8%)	1(0.3%)	4(1.3%)	12(3.9%)	6(2.0%)	8(2.6%)	382	306
11-06-14 3-7pm	Dublin Street United Church	Guelph	1(0.3%)	3(0.8%)	13(3.5%)	63(17.1%)	3(0.8%)	9(2.4%)	11(3.0%)	1(0.3%)	15(4.1%)	475	369
<b>2013-2014 Season Clinics not held in the 2014-2015 influenza season</b>													
11-11-13	Rockwood Library	Rockwood	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	195	N/A

Clinic Date (mm-dd-yy) & Time	Location	Town	# (%) First responders	# (%) Poultry/pork workers	# (%) Healthcare workers	# (%) Adult 65+	# (%) Pregnant women	# (%) Nursing home staff/ volunteer	# (%) Caregiver to an infant less than six months	# (%) Caregiver to anyone immuno- compromised	# (%) Child under 9 years AND getting vaccine for first time	# shots 2013- 2014	# shots 2014- 2015
11-12-13	Arthur Curling Club	Arthur	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	N/A
11-14-13	Erin Centre	Erin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	95	N/A
11-18-13	Salvation Army	Guelph	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	486	N/A
11-21-13	Tony Rose Memorial Sports Centre	Orangeville	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	136	N/A
11-25-13	WDGPH Clinic	Fergus	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	103	N/A
12-03-13	Mel Lloyd Centre	Shelburne	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	82	N/A
12-05-13	Parkwood Gardens Church	Guelph	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	94	N/A
<b>Total</b>	<b>N/A</b>	<b>N/A</b>	<b>37(34.8%)</b>	<b>46(108.6%)</b>	<b>101(95.3%)</b>	<b>781(250.7%)</b>	<b>12(4.0%)</b>	<b>68(31.1%)</b>	<b>45(15.4%)</b>	<b>45(24.6%)</b>	<b>62(23.2%)</b>	<b>3,887</b>	<b>2,376</b>

As shown in the above table, clinic attendance declined at the majority of clinics when compared to last season. There are many reasons to account for this decrease. Firstly, 11 clinics were held during the 2014-2015 season compared to 19 clinics in the previous season. Among the 8 clinic locations that were not reinstated, 5 of them experienced low attendance during the previous season. These clinics include: the Arthur Curling Club, Tony Rose Memorial Sports Complex in Orangeville, Mel Lloyd Centre in Shelburne, Parkwood Gardens Church in Guelph, and a second WDG Public Health Clinic in Fergus. This would partly explain why these clinics were not reinstated. Secondly, the continued increase in dose distribution to local pharmacies likely contributes to lower Public Health clinic attendance rates.

During the 2014-2015 season, two clinics experienced a percent decrease in attendance of over 50%. These clinics include: clinics held at the WDG Public Health offices in Guelph and Mount Forest. One clinic that stood out for its improvement in attendance was the clinic held at the Shelldale Centre which saw a percent increase of 23.5% from the previous season. The Shelldale Centre clinic continues to experience increases in attendance, as it saw a 65.3% increase in attendance from the 2012-2013 to 2013-2014 seasons. Overall, there was a 38.9% decrease in community clinic attendance. The decrease in attendance at the four WDG Public Health clinics was 43.7%. It is possible this decrease was influenced by a later campaign start this season compared to previous years.

## Client Satisfaction Questionnaires

A client satisfaction questionnaire (CSQ) (*See Appendix B*) was distributed at all community flu clinics. Similar to previous years, the survey was available in paper format. It was decided not to make surveys available in an online format as only two online survey responses were received during the 2013-2014 season.

In total, 597 CSQs were collected from seven of the eleven clinics. The overall response rate was 27.2%. It is important to note that not all those who attended a clinic and received an influenza vaccination completed the CSQ. Interestingly, it was observed during the clinics that if a family or couple visited the clinic together, often only one attendee from the family/pair would complete the survey; this would impact response rates and future evaluations should try to measure how many individuals one evaluation might be representing. Response rates at individual clinics ranged from 13.0% to 33.9%. The clinic held at Victoria Park Senior Centre in Fergus had the lowest response rate (13.0%) while clinics held at the Orangeville Senior Centre and the Compass Community Church in Orangeville had the highest response rates (33.9% and 33.8%, respectively).

The survey first asked respondents to rate their overall experience at the clinic. Other questions related to convenience of location and hours, clinic staff, wait time, and overall satisfaction. Table 5 highlights the percent of individuals agreeing or strongly agreeing with each statement by clinic. As Table 5 demonstrates, the vast majority of clients were in high agreement with all statements about their clinic experience.



Table 5: Client Satisfaction at Flu Clinics, 2014-2015 Influenza Season

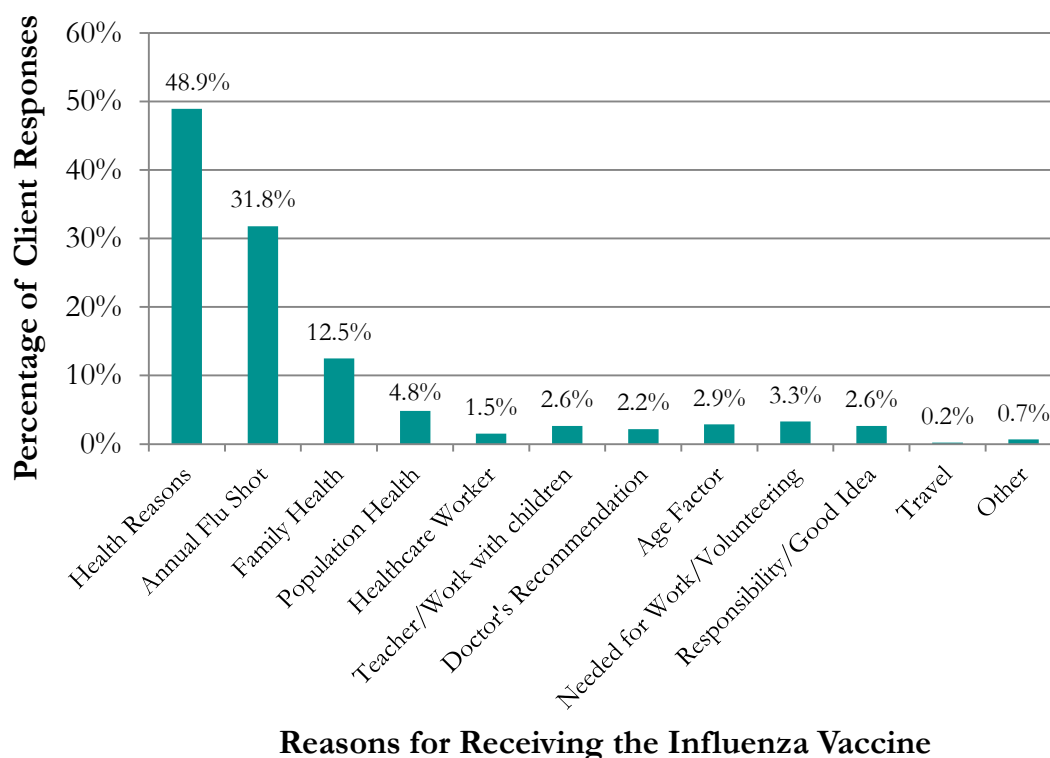
Date (mm-dd-yyyy)	Location	Town	Clinic location was convenient	Clinics hours were convenient	Clinic staff made me feel comfortable	Wait time was acceptable	Nurses answered questions about vaccine/side effects	Overall, I am satisfied with clinic experience
10-24-2014	Orangeville Senior Centre	Orangeville	96.5%	94.7%	96.5%	97.4%	94.7%	96.5%
10-28-2014	Victoria Park Senior Centre	Fergus	93.3%	93.3%	93.3%	93.3%	93.3%	96.7%
10-29-2014	Evergreen Senior Centre	Guelph	89.3%	91.1%	92.9%	94.6%	92.0%	93.8%
10-30-2014	Shelldale Centre	Guelph	93.6%	100.0%	100.0%	100.0%	97.9%	100.0%
11-03-2014	Compass Community Church	Orangeville	93.1%	92.1%	96.0%	96.0%	91.1%	96.0%
11-05-2014	CW Community Sportsplex	Fergus	98.9%	97.9%	98.9%	98.9%	93.6%	97.9%
11-06-2014	Dublin Street United Church	Guelph	93.9%	97.0%	99.0%	97.0%	91.9%	98.0%
<b>N/A</b>	<b>Overall Score for All Clinics</b>	<b>N/A</b>	<b>94.1%</b>	<b>95.2%</b>	<b>96.7%</b>	<b>96.8%</b>	<b>93.5%</b>	<b>97.0%</b>

Within the CSQ, clients were given the opportunity to provide additional feedback about their clinic experience. A total of 138 individuals wrote additional comments on the CSQ. Of those 138 comments, only 16 (11.6%) indicated negative or constructive criticism (*Please note that data from the Evergreen Senior Centre CSQ was not able to be analyzed for this question prior to the publication of this report*). Four minor themes emerged from these 16 comments. First, three respondents suggested clinic hours should be extended in order to accommodate more people. Second, three individuals commented that more clinics should be offered, including more evening clinics. This was reported at: the Community Sportsplex in Fergus (1); the Shelldale Centre in Guelph (1); and the Dublin St. United Church in Guelph (1). Third, one individual noted that better parking was needed (at the Orangeville Senior Centre), and finally, better signage was recommended by two individuals from the following locations: Dublin St. United Church (1); and Victoria Park Senior Centre (1). A complete list of relevant responses can be found in *Appendix C*.

However, the vast majority of client feedback was positive. Clients found staff to be extremely friendly, professional, and knowledgeable. Several clients noted how accommodating Public Health Nurses (PHNs) were, particularly when interacting with children to ensure they had a positive experience at the flu clinic. Furthermore, clients appreciated the short wait times that were experienced and the excellent organization of the clinics. This should not be overshadowed by two negative comments made about poor registration procedures (*See Appendix C*), as the vast majority of respondents stated the clinic setup was very well organized. A few clients also stated they would return to clinics next year to receive their influenza vaccine due to their positive clinic experience.

Clients were also asked to indicate their reasons for getting the influenza vaccination. Figure 5 highlights the top reasons for receiving the flu shot (*Please note that data from the Evergreen Senior Centre CSQ was not able to be analyzed for this question prior to the publication of this report*). A large portion (48.9%) of individuals stated that they received their flu vaccine for health reasons. Many of these individuals stated that they had the flu in the past and did not want to have it again. Other individuals stated that they had pre-existing medical conditions and felt it was important to receive a flu shot for that reason. Another large proportion of individuals (31.8%) indicated that getting the annual flu shot was a part of their routine. Many stated that they had received their vaccination for years and had not become ill. The third most common reason for receiving a vaccination (12.5%) was due to family health concerns. Many individuals were living with children or elderly individuals and wanted to get immunized to protect their family.

Figure 5: Reasons for Receiving the Influenza Vaccine among WDG Public Health Clinic Clients, 2014-2015 Influenza Season



## Flu Clinic Promotional Activities

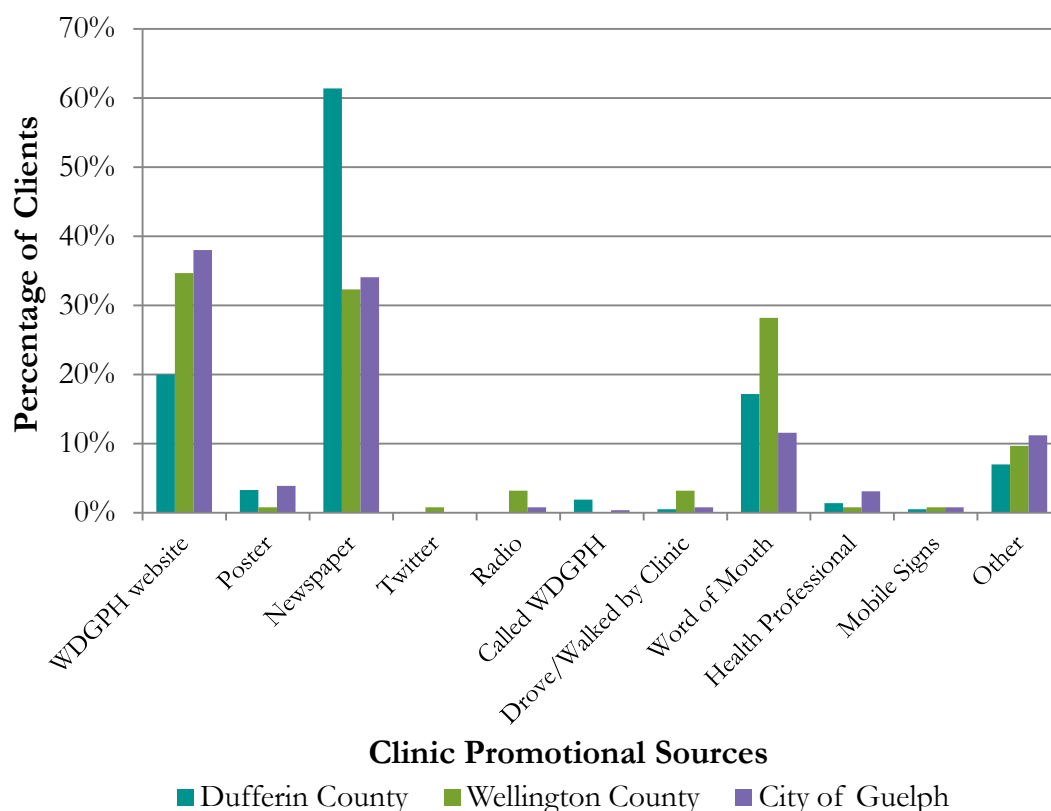
In the CSQ, clients were asked to list where they heard about community flu clinics. This data was separated into three groups based on geography: Dufferin County, Wellington County and the City of Guelph. As seen in Figure 6, clinic attendees most commonly heard about flu clinics from newspapers (61.4%, 32.3%, 34.1% respectively), the WDG Public Health website (20.0%, 34.7%, 38.0% respectively), and by word of mouth (17.2%, 28.2%, 11.6% respectively).

Among the 7.0% of Dufferin clients who selected 'Other', the majority heard about a clinic from their local senior centre's flyers and newsletters, while others learned about clinics from social media (i.e. Facebook) and from Internet searches.

Among the 9.7% of Wellington clients who selected 'Other', approximately half of clients heard about the clinic from their senior centre's flyers or newsletters, and the other half from Internet searches.

Among the 11.2% of Guelph clients who selected 'Other', many clients learned of clinics from their employer or volunteering institution, from their local senior's centre, and from Internet searches.

Figure 6: Where Clients Heard About Community Flu Clinics, by WDG Region, 2014-2015 Influenza Season



## Healthcare Workers

On an annual basis, WDG Public Health is required to gather and report influenza immunization rates for healthcare workers (HCWs) in long-term care homes (LTCHs), retirement homes (RHs), and public hospitals.

### Healthcare Worker Immunization

NACI considers the provision of influenza vaccination to be an essential component of the standard of care for all healthcare workers for the protection of their patients.<sup>1</sup> Healthcare facilities were required to report their immunization rates to WDG Public Health no later than December 15, 2014. WDG Public Health reported these rates to the MOHLTC by the January 15, 2015 deadline.

The overall rate of influenza immunization for all HCWs in WDG was 61.7%. The overall rates for HCW immunization for long-term care homes (LTCHs), retirement homes (RHs), and hospitals were 80.6%, 72.7%, and 52.5% respectively. Although rates among LTCHs and RHs increased compared to the previous season (while the hospital rate slightly

decreased from 53.5%), they indicate that more work needs to be done in future years to increase the local rate of influenza immunization for HCWs. Particularly as the NACI recommends that all HCWs receive the influenza vaccine annually.<sup>1</sup>

HCW influenza immunization rates among individual LTCHs ranged from 51.4% to 97.5%. Eleven out of 15 LTCHs (73.3%) achieved a HCW influenza immunization rate of 80% or higher.

HCW influenza immunization rates among individual RHs ranged from 40.5% to 100%. Of the 28 RHs in WDG, only 21 reported their immunizations rates to WDG Public Health prior to the publication of this report. Eleven out of 21 RHs (52.4%) achieved a HCW influenza immunization rate of 80% or higher, and 4 RHs (Caressant Care - Fergus, Hillsburgh Rest Home, Harmony House Rest Home, and Shelburne Residence) achieved a HCW influenza immunization rate of 100%. It should be noted that two of these facilities have six or less staff members.

HCW influenza immunization rates among individual hospitals ranged from 30.7% to 82.6%. Two hospitals achieved a HCW influenza immunization rate of 80% or higher. These were the North Wellington Health Care-Louise Marshall Hospital in Mount Forest and the North Wellington Health Care-Palmerston & District Hospital. *See Appendix D* for graphs of HCW influenza immunization rates for LTCHs, RHs, and hospitals in WDG, by facility.

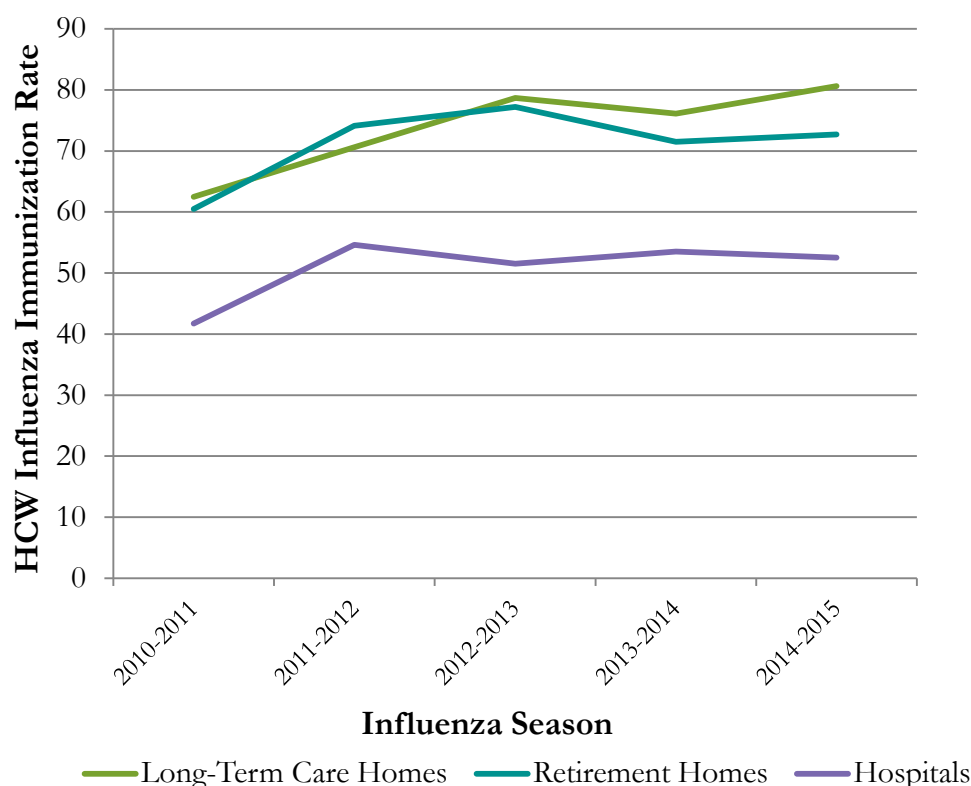
During the 2013-2014 influenza season, the data collection process was revised to mandate immunization reporting of staff, volunteers, and independent practitioners from facilities. Historically, facilities only had to report the immunization of staff. The reporting changes that began last season render direct comparisons to HCW influenza immunization rates from previous seasons difficult. However, Table 6 and Figure 7 summarize the rates of HCW immunization from the 2010-2011 season to the present.

Table 6: Comparison of HCW Influenza Immunization Rates since the 2010-2011 Influenza Season

Influenza Season	Healthcare Facility Type		
	LTCH	RH	Hospital
2010-2011	62.5	60.5	41.7
2011-2012	70.6	74.1	54.6
2012-2013	78.7	77.2	51.5
2013-2014	76.1	71.5	53.5
2014-2015	80.6	72.7	52.5

As demonstrated in Table 6, influenza immunization rates among HCW in WDG long-term care homes, retirement homes and hospitals have largely increased since the 2010-2011 season. However, Figure 7 emphasizes that HCW immunization rates in hospitals are noticeably lower than in long-term care and retirement homes.

Figure 7: Comparison of HCW Influenza Immunization Rates since the 2010-2011 Influenza Season



## The Flu Shot Challenge

Similar to the previous influenza season, WDG Public Health organized and promoted the Flu Shot Challenge in an effort to increase immunization rates among healthcare workers closer to the 80% NACI target and threshold required for herd immunity. A secondary goal of the Flu Shot Challenge was to encourage facilities to report their staff immunization rates to Public Health by the set deadline of December 15, 2014.

Two challenges were held for LTCHs, RHs and hospitals (*See Appendix E for Challenge letters*). For the first challenge, facilities that achieved an overall staff and volunteer immunization rate of 80% or higher were entered into a draw. One long-term care home, one retirement home and one hospital were chosen. From there, all staff and volunteer members from the selected facilities who received their flu shot by December 15th were entered into a draw, and one winner from each of the three facilities won an iPad Mini.

For the second challenge, all facilities that supplied Public Health with their immunization statistics by December 15th were entered into a draw. From the draw, one long-term care home, one retirement home and one hospital each won two free registrations to WDG Public Health's 2015 Infection Connection conference.

This season, a third challenge was held with local first responder service providers. Police, paramedic, and fire services that achieved an overall staff and volunteer immunization rate of 80% or more were entered into a draw to choose one service. All staff and volunteer members from the selected service who received their flu shot by December 15th were then entered into a draw, and one winner from the chosen service won an iPad Mini.

These challenges were developed to encourage immunization rates and early reporting to WDG Public Health from LTCHs, RHs, and hospitals, as well as first responder service providers. In the previous years, a large volume of calls and follow-up to facilities past the submission deadline was required.

## Limitations

It is important to consider that only people who actually attended the clinics were surveyed with the client satisfaction questionnaire. Therefore, individuals who could not find information, had a scheduling conflict, lack of transportation, lack of interest, or were not aware of the clinics were not surveyed.

A further limitation relates to survey response rates. Clinics ranged in their response rates from 13.0% to 33.9% (similar to those experienced during the previous season), with the vast majority of clinics achieving low response rates. This may have resulted in an unrepresentative sample. As a result, information collected from clients in clinics with low response rates should be interpreted with caution.



# Recommendations

Based on the information presented in this report the following recommendations are proposed to strengthen the WDG Public Health Influenza Program for the 2015-2016 season.

## Advertising

1. Continue to promote the FluMist vaccine. A FluMist factsheet was created for the 2013-2014 influenza season to increase the public's awareness of FluMist and to inform their decision-making when selecting an appropriate vaccination method for themselves and their children. WDG Public Health should:
  - Consider promoting FluMist in local newspaper advertisements and through WDG Public Health's website and social media accounts;
  - Provide FluMist factsheets at community clinics and Public Health offices during future influenza seasons to increase public awareness.
2. Newspapers and the WDG Public Health website were the most common ways in which clients heard about Public Health community flu clinics. WDG Public Health should:
  - Continue using advertisements in local newspapers (suggestion to publish advertisements with clinic hours and locations);
  - Post the full WDG community clinic schedule on Public Health's website and promote clinics through its social media accounts.
3. A few clients from different clinics commented that clinic signage could be improved. It is recommended that WDG Public Health:
  - Continue to ask community partners to display clinic posters well in advance at their location, and at those of their partners;
  - Consider using more signage outside of clinics to attract both individuals passing by and individuals planning on attending a flu clinic.

## Promotional Activities

1. Continue to distribute copies of the Healthcare Worker Fact Sheet to hospitals, LTCHs, and RHs to encourage HCW immunization among this segment of the population.
2. Continue to target first responder service workers more directly to encourage increased influenza immunization rates (e.g. provide influenza immunizations at their facility rather than hosting a clinic at Public Health offices).

## Community Clinics

1. Continue to host future community clinics at the same 7 external sites from the 2014-2015 season, as these clinics experienced high attendance rates.
2. Consider hosting a 2015-2016 clinic at the Salvation Army, in Guelph. During the 2013-2014 season attendance at this location was very high.
3. Ensure signage is clear at all the clinics, particularly at locations where there are multiple entrances.

4. Consider extending community clinic hours to accommodate more individuals. For clinics that ran from 3-7pm, it was suggested that clinic hours run until 8pm. Although three survey respondents commented that more clinics should be offered (1 in Fergus, 2 in Guelph), extending clinic hours may be a more suitable alternative than hosting additional clinics.

## Conclusion

The information presented in this report can be used to inform future WDG Public Health Influenza Programs and Flu Shot Challenge campaigns. In particular, this information can be used to determine realistic Program goals and objectives, based on trends of influenza activity, and vaccine distribution and administration data from community partners. It will also support the strategic planning of clinics to improve attendance and use of resources. This includes: determining the appropriate number of clinics to host, best clinic times and locations, and how to improve clinic experiences. Lastly, information in this report can be used to strengthen Public Health advertisements and promotional materials to increase clinic attendance and HCW immunization rates.

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## Appendix A

### Seasonal Flu Vaccine Consent Form

#### Contact Information (Please print):

Last Name	<input type="text"/>	First Name	<input type="text"/>
Address	<input type="text"/>	City	<input type="text"/>
		Postal Code	<input type="text"/>
Date of Birth	<input type="text"/>		
	MM	DD	YYYY
		<input type="radio"/> Male	
		<input type="radio"/> Female	
		<input type="radio"/> Other	
		Is this your first time getting the flu vaccine?	<input type="radio"/> Yes <input type="radio"/> No

Please shade in the bubbles as fully as possible.

#### Are you a (select all that apply):

- ☐ First responder (police, fire, EMS)
- ☐ Poultry/Pork worker
- ☐ Healthcare worker
- ☐ Adult aged 65 years or older
- ☐ Pregnant woman

Like this: ☒ Not like this: ☒ ☒ ☒

- ☐ Staff/volunteer in a nursing home or school residence
- ☐ Household contact/caregiver to an infant less than six months old
- ☐ Household contact/caregiver to anyone who is immunocompromised
- ☐ Child under 9 years **AND** getting the vaccine for the first time
- ☐ None of the above

#### Do you have (select all that apply):

- ☐ Cardiac (heart) disorder
- ☐ Diabetes
- ☐ Guillain-Barré syndrome
- ☐ Cancer, immunodeficiency, or immunosuppressed (body can't fight disease)

- ☐ Pulmonary (lung) disorder
- ☐ Fever
- ☐ None of the above

#### Are you allergic to (select all that apply):

- ☐ Eggs and egg products
- ☐ Thimerosal
- ☐ Neomycin

- ☐ Formaldehyde
- ☐ None of the above

#### Acknowledgment and Waiver

I read the flu vaccine information. I had the chance to ask questions and I am satisfied with the answers. I want to get the flu vaccine. After I get the vaccine, I understand that I must wait and be watched at the clinic for 15 minutes.

Client Signature: \_\_\_\_\_

Date:

MM DD YYYY

Parent/guardian signature (if applicable): \_\_\_\_\_

The information on this form is collected under the authority of the *Health Protection and Promotion Act* in accordance with the *Municipal Freedom of Information and Protection of Privacy Act* and the *Personal Health Information Protection Act*. This information will be used for the delivery of public health programs and services; the administration of the agency; and the maintenance of health-care databases, registries and related research, in compliance with legal and regulatory requirements. Any questions about the collection of this information should be addressed to the Chief Privacy Officer at 1-800-265-7293 ext 2975.

## FOR COMPLETION BY NURSE:

### Vaccine Information:

#### Type

☐ Vaxigrip
 ☐ Fluviral
 ☐ Agriflu
 ☐ Fluad
 ☐ FluMist

#### Dosage

☐ 0.5 ml IM
 ☐ 0.1 ml/nostril Right
 ☐ 0.1 ml/nostril Left
 ☐ Other:

#### Injection Site

	Right	Left
<input type="radio"/> Deltoid	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Anterolateral Thigh	<input type="radio"/>	<input type="radio"/>

Lot #

Insert Sticker Here

Expiry  
Date

<input type="text"/>	<input type="text"/>	<input type="text"/>
MM	DD	YYYY

Time  
Given

### Comments:

Administered by:

Nurse's signature

Date:

<input type="text"/>	<input type="text"/>	<input type="text"/>
MM	DD	YYYY

MM

DD

YYYY



**\*\*PLEASE DO NOT FOLD\*\***

## Appendix B

### Flu Clinic Survey

Your feedback is helpful for planning future flu clinics. Please shade in the bubbles as fully as possible. Do not use check marks or X's.

Like this: ☐ Not like this: ☒ ☐ ☐

Location

MM DD YYYY

Gender ☐ Male ☐ Female ☐ Other  
Age ☐ 18 or under ☐ 19-35 ☐ 36-64 ☐ 65+

**Please indicate your level of agreement with each statement.**

	Strongly Disagree	Disagree	Agree	Strongly Agree
Clinic location was convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinic hours were convenient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinic staff made me feel comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The waiting time was acceptable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The nurse answered any questions about the vaccine and possible side effects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my clinic experience today	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please indicate where you heard about the clinic (choose all that apply):**

☐ WDG Public Health website ☐ Called WDG Public Health  
☐ Poster ☐ Drove by the clinic  
☐ Newspaper ☐ Word of mouth  
☐ Twitter ☐ Health Professional (e.g., doctor)  
☐ Radio ☐ Mobile Signs  
☐ Other:

**Why did you decide to get your flu vaccine?**

**Is there anything else you would like to tell us about your experience at the clinic today?**

**Would you like to receive WDG Public Health's community e-newsletter?**

☐ No, thank you

☐ Yes, please Email address:

The information on this form is collected under the authority of the *Health Protection and Promotion Act* in accordance with the *Municipal Freedom of Information and Protection of Privacy Act* and the *Personal Health Information Protection Act*. This information will be used for the delivery of public health programs and services; the administration of the agency; and the maintenance of health-care databases, registries and related research, in compliance with legal and regulatory requirements. Any questions about the collection of this information should be addressed to the Chief Privacy.



## Appendix C

### Client Satisfaction Questionnaires: Flu Clinic Suggestions for Improvement

Comments
Back floor under construction. No handicap parkin[g]
extend hours into evening
I think the hours should be extended/working people
you need to provide weekly summary statistics on o/o vaccinated in a community.
Encourage uptake
There should be a flu clinic sign outside
Would appreciate more evening clinic options. We trust public health nurses to administer vaccine over pharmacists
Registration was not explained and no one at the door to tell people what to do. Poorly organized on that part
Have to fill out forms outside room before
open until 8 pm would be helpful
You need a clock to check when 15 minutes are up
Can there be a clinic in Arthur?
Fun stickers and fun bandages for kids would be a nice touch
Lots of pleasant, efficient staff and suggest posters within each school not just Board office to reach more families, students, staff
Need more clinics - 3 isn't enough within City of Guelph
Should have snacks

*Note.* Data from the Evergreen Senior Centre CSQ was not able to be analyzed for this question prior to the publication of this report.

## Appendix D

### Healthcare Worker (HCW) Influenza Immunization Rates for Long-Term Care Homes (LTCHs), Retirement Homes (RHs) and Hospitals in WDG

Figure 8: HCW Influenza Immunization Rates for LTCHs in WDG, 2014-2015 Influenza Season

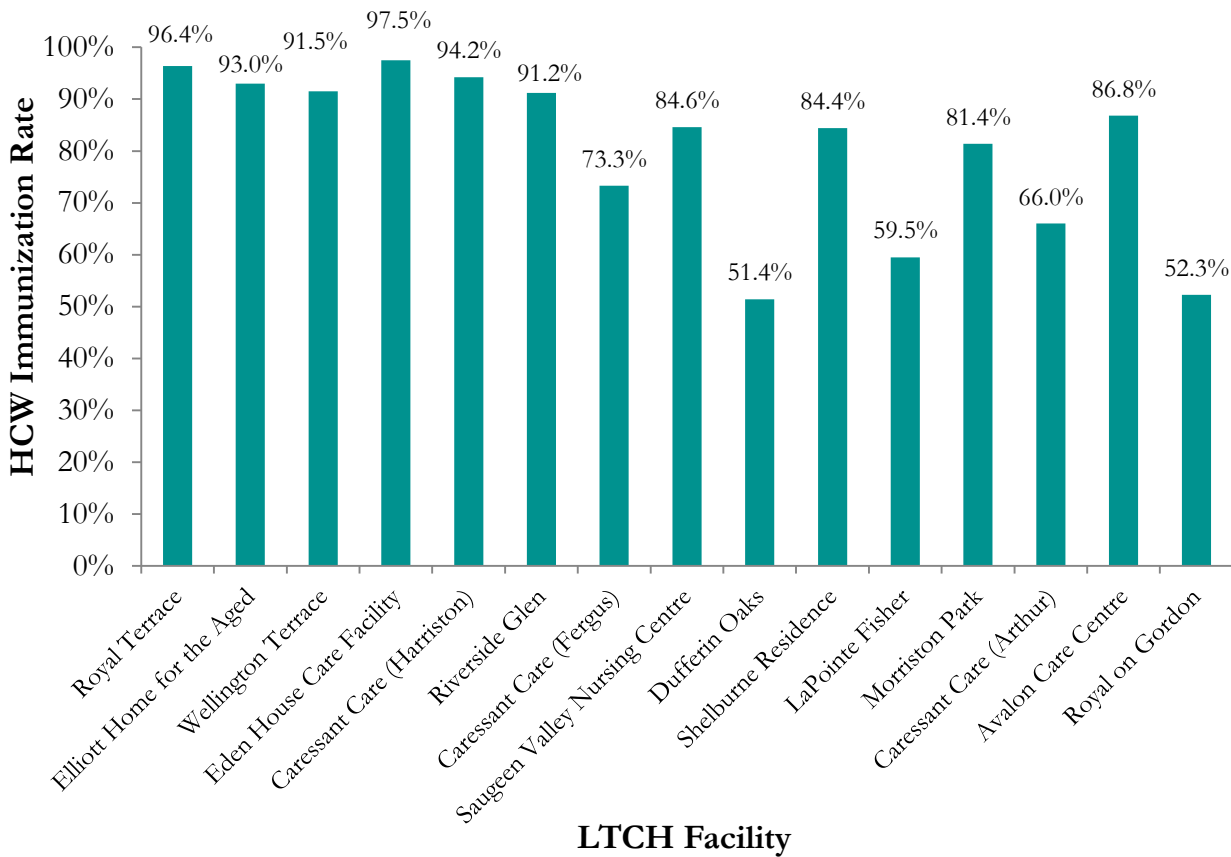
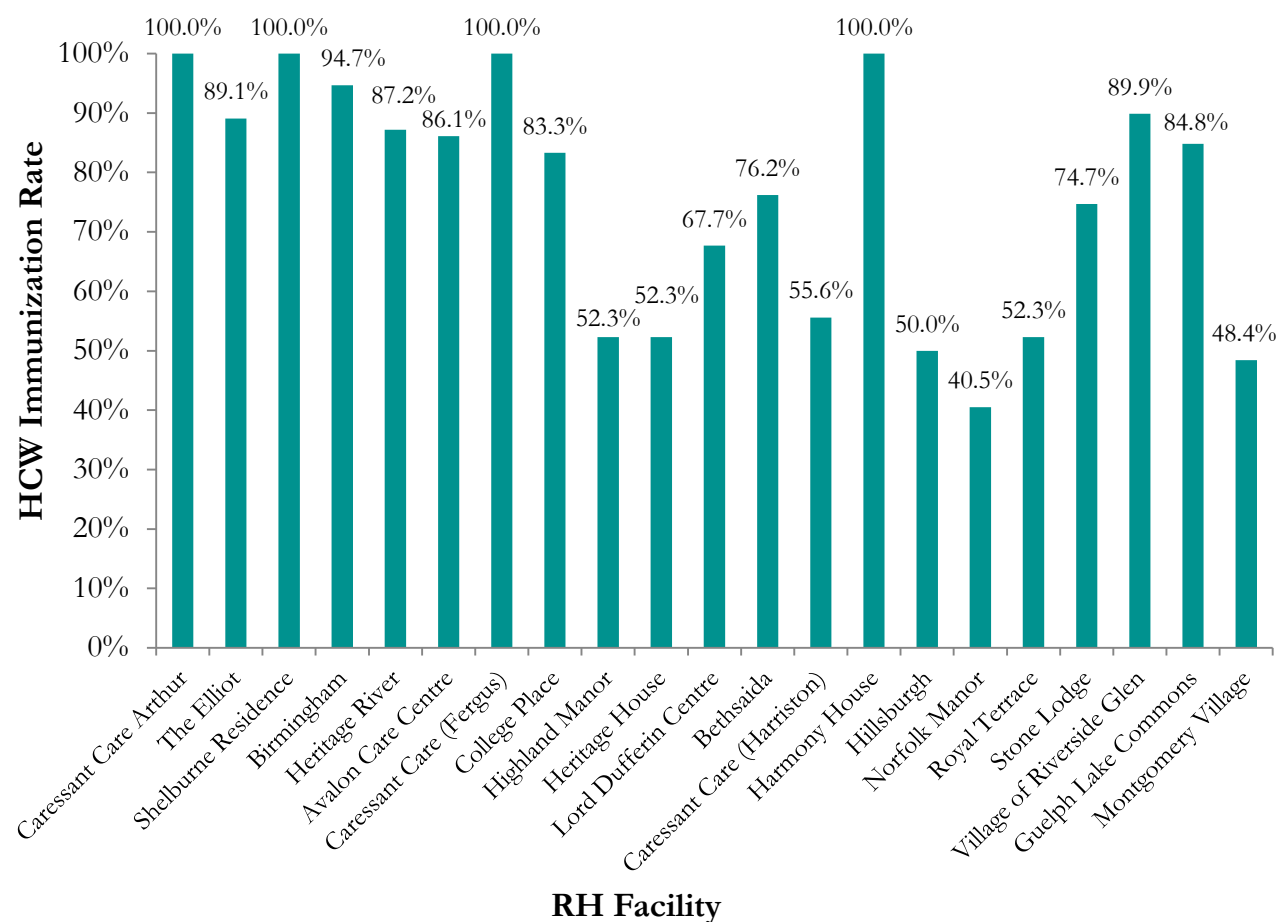
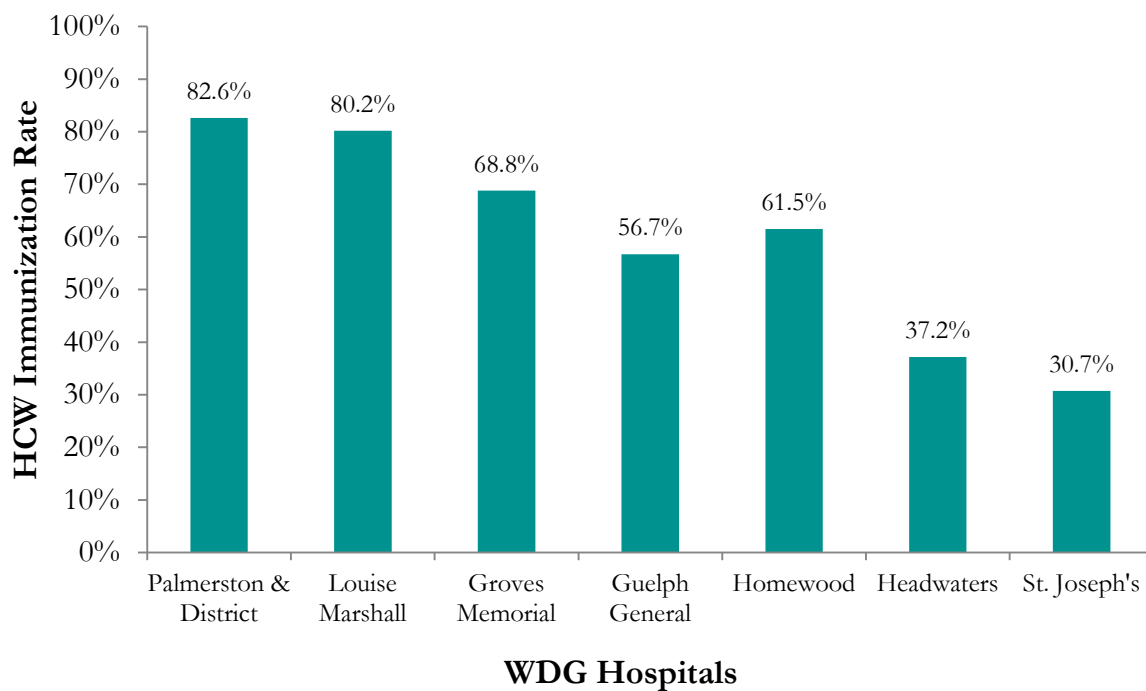


Figure 9: HCW Influenza Immunization Rates for RHs in WDG, 2014-2015 Influenza Season



*Note.* The following retirement homes did not report their 2014-2015 HCW immunization rates to WDG Public Health: Countryview Retirement Residence, Eden House, Fox Run, Hamilton House Hometown Living (Harriston), Royal Terrace, The Village of Arbour Trails, and Wellington Park Terrace.

Figure 10: HCW Influenza Immunization Rates for hospitals in WDG, 2014-2015 Influenza Season



## Appendix E

### Flu Shot Challenge Letters



Dear Health Care Facilities,

September 30 2014

We all know that keeping staff healthy has a direct impact on your patients' safety. One way to ensure this is for healthcare workers to get a seasonal flu shot. The National Advisory Committee on Immunization (NACI) considers the provision of influenza vaccination to be an essential component of the standard of care for all health care workers for the protection of their patients. This includes any person, paid or unpaid, who provides services, works, volunteers, or trains in a health care setting. We also know that, in the past, it has been challenging for many facilities to reach their target for staff flu shots.

To help facilities to motivate staff to get their flu shot, Wellington-Dufferin-Guelph Public Health is launching our annual Flu Shot Challenge. This year's challenge has two components:

#### Challenge 1:

Facilities that achieve an overall staff and volunteer immunization rate of 80% will be entered into a draw. One long-term care home, one retirement home and one hospital will be chosen. All staff and volunteer members from the selected facilities who got their flu shot by **December 15<sup>th</sup>** will be entered into a draw. One winner from the chosen long-term care facility, one winner from the chosen retirement home, and one winner from the chosen hospital will all receive an **iPad Mini**.

We're asking long-term care, retirement homes and hospitals to get involved by:

- Posting Flu Shot Challenge posters in your facility
- Encouraging staff and volunteers to get their Flu Shot.
- Providing Wellington-Dufferin-Guelph Public Health with your facility's flu shot immunization rates by **December 15, 2014 using a form that will be sent to your facility from Public Health at a later date.**

#### Challenge 2:

All facilities that supply Public Health with their immunization statistics on or before **December 15<sup>th</sup> 2014** will be entered into a draw. One long-term care home, one retirement home and one hospital will each win two free registrations to **Wellington-Dufferin-Guelph Public Health's 2015 Infection Connection conference**.

Following the Flu Shot Challenge, we will send a link to an online survey to forward to staff. This anonymous survey will ask how they felt about the challenge and if they got their annual flu shot.

We hope that through your participation, the flu immunization rates for health care workers will continue to increase. For information about the campaign, contact Yasmin Sivji, Health Promotion Specialist, at 1-800-265-7293 ext. 4309.

Yours truly,



Neena Riarh  
Manager, School Health and Immunization  
Wellington-Dufferin-Guelph Public Health

Hello,

September 30 2014

We all know that keeping staff healthy has a direct impact on the safety of those you serve. One way to promote this is for police, paramedics, and firefighters to get a seasonal flu shot. The National Advisory Committee on Immunization (NACI) considers the provision of influenza vaccination to be an essential component of the standard of care for all health care workers for the protection of their patients. This includes any person, paid or unpaid, who provides services, works, volunteers, or trains in a health care setting. We also know that, in the past, it has been challenging for many to reach their target for staff flu shots.

To help you motivate staff to get their flu shot, Wellington-Dufferin-Guelph Public Health is launching our Flu Shot Challenge campaign, and we'd like to invite your service to participate this year, in a friendly competition against your fellow local first responder services.

Those police, paramedic, and fire services that achieve an overall staff and volunteer immunization rate of 80% or more will be entered into a draw to choose one service. All staff and volunteer members from the selected service who got their flu shot by **December 15th** will then be entered into a draw. One winner from the chosen service will receive an **iPad Mini**. We will also be announcing the winners in the local media.

We're asking first responder agencies throughout Wellington, Dufferin, and Guelph to get involved by:

- Posting the enclosed Flu Shot Challenge posters in your facility
- Encouraging staff and volunteers to get their flu shot
- Email me your service's flu shot immunization rates (percentage of total staff and volunteers) by **December 15, 2014**

Following the Flu Shot Challenge, we will send a link to an online survey to forward to your staff and volunteers. This anonymous survey will ask how they felt about the challenge and if they got their annual flu shot.

We hope that through your participation, the flu immunization rates for first responder services will continue to increase. If you have any questions, please contact me.

Yours truly,



Tracey Croft

Manager, Emergency Preparedness, Wellington-Dufferin-Guelph Public Health  
[tracey.croft@wdgpublichealth.ca](mailto:tracey.croft@wdgpublichealth.ca)

### **Fergus Office**

474 Wellington Road #18, Suite 100

### **Guelph Office**

160 Chancellors Way

### **Mount Forest Office**

311 Foster St.

### **Orangeville Office**

71 Broadway

### **Shelburne Office (Mel Lloyd Centre)**

167 Centre St.