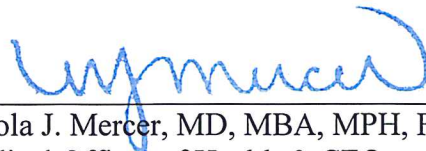


**Report to:** Board of Health  
**Submitted by:** Dr. Nicola Mercer, Medical Officer of Health & CEO  
**Prepared by:** Neena Riarh, Manager, School Health and Immunization  
**Approved by:** Rita Sethi, Director, Community Health and Wellness  
**Subject:** INFLUENZA COVERAGE IN WDG, 2015-2016 SEASON

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**RECOMMENDATION(S)**

- (a) That the Board of Health receives this report for information.



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Nicola J. Mercer, MD, MBA, MPH, FRCPC  
Medical Officer of Health & CEO

## EXECUTIVE SUMMARY

Annually, under the Universal Influenza Implementation Program (UIIP), Wellington-Dufferin-Guelph Public Health (WDGPH) undertakes a campaign to promote influenza immunization to all citizens of Wellington-Dufferin-Guelph (WDG). WDGPH is also required by the Ministry of Health and Long-Term Care (MOHLTC) to gather and report influenza immunization rates for healthcare workers (HCWs) in long-term care homes (LTCHs), retirement homes (RHs), and public hospitals.

From October to December 2015, WDGPH distributed 77,808 doses of influenza to healthcare providers, with physician offices receiving the largest number of doses, followed by pharmacies. As of December 31, 2015, Public Health had provided 2586 influenza immunizations in community clinics and in public health offices. Due to an increase in the number of pharmacies providing influenza immunization (57 pharmacies provided this service), WDGPH decreased the number of influenza immunizations offered in the community. Instead, WDGPH increased the number of drop-in clinics offered in WDGPH offices for the months of November and December.

Reported influenza immunization rates for healthcare providers immunization rates for WDG in 2015-2016 were:

- Long-term care facilities – 80.9%
- Hospitals- 47.9%
- Retirement homes – 64.5%

Hospital workers continue to have the lowest reported rates of influenza immunization. According to the 2012 adult National Immunization Coverage survey, which examined vaccine coverage amongst Canadian adults, the estimated influenza coverage amongst healthcare workers nationally was 68.6% (2012).<sup>1</sup> As rates in WDG are less than the estimated national average, WDGPH will need to continue to target this group to increase coverage rates for influenza. The Canadian Healthcare Influenza Immunization Network has published *Successful Influenza Immunization Campaigns for Healthcare Personnel: A Guide for Program Planners*.<sup>2</sup> This may be a tool that WDGPH examines to further target this group.

Circulating strains of influenza in Ontario and Canada display an antigenic match to influenza A and B strains in the influenza vaccine this year. Influenza rates remain low in WDG and rest of Ontario, with WDG having 35 lab-confirmed cases of influenza as of February 16, 2016. . There were no institutional outbreaks of influenza reported as of February 16, 2016 in WDG area.

## BACKGROUND

Annually, under the UIIP, WDGPH undertakes a campaign to promote influenza immunization to all citizens of WDG. Wellington-Dufferin-Guelph Public Health is also required by the Ministry of Health and Long-term Care (MOHLTC) to gather and report influenza immunization rates for HCWs in LTCHs, and public hospitals by December 15, 2015. Public Health Units are to electronically report this information to MOHLTC by **January 15, 2016** using a secure URL website with a previously assigned password.



In February of each year the World Health Organization recommends the formulation of the influenza vaccine based on circulating influenza strains from the previous September-January.<sup>3</sup> This year, WHO recommended the following composition of influenza vaccines:

- an A/California/7/2009 (H1N1) pdm09-like virus;
- an A/Switzerland/97-15293/2013 (H3N2)-like virus;
- a B/Phuket/3073/2013-like virus

The 2015-2016 Influenza season marks the first year when quadrivalent influenza vaccines were made available as publicly-funded in Ontario. The traditional trivalent influenza vaccine protects against two influenza A viruses and one influenza B virus while the new quadrivalent influenza vaccine protects against an additional influenza B virus, offering broader protection against circulating influenza B viruses.<sup>2</sup> Quadrivalent vaccines were prioritized for children ages 6 months to 17 years as influenza B affects children and adolescents more frequently than it affects the adult population.<sup>4</sup> The quadrivalent vaccines recommended this year by WHO included the above three viruses and the addition of B/Brisbane/60/2008-like virus.<sup>3</sup>

The National Advisory Committee on Immunization (NACI) provides the Public Health Agency of Canada with recommendations in regards to annual influenza immunization. NACI recommended the following changes for the 2015-2016 Influenza season:

- For children 6-23 months, a quadrivalent (QIV) vaccine be used. If QIV is not available, either an unadjuvanted or adjuvanted trivalent (TIV) should be used.
- For healthy children and adolescents, 2 to 17 years of age, who do not have contraindications to the vaccine, a live attenuated influenza vaccine (LAIV) be used. If LAIV is not available for those to whom it is considered superior, a QIV should be used, if that is not available, then a TIV should be used. LAIV is preferential for children under 6 years of age. TIV LAIV has shown to have superior efficacy than inactivated influenza vaccine (TIV).<sup>5</sup>

The MOHLTC distributed the following influenza vaccines this year to WDGPH with the following eligibility criteria:

**Table 1:** Influenza vaccines for 2015-2016

Product	Vaccine Formulation	Eligibility
Fluviral	TIV	18 years and older
Influvac	TIV	18 years and older
Fluad	TIV (adjuvanted)	65 years and older who reside in a LTCH
Fluzone	QIV	6 months through 17 years
FluMist	LAIV	2 years to 17 years (publicly-funded)
FluMist	LAIV (QIV)	18-59 years (cost of \$20)

New this year was the addition of FluMist as a publicly-funded vaccine for children 2-17 years of age. WDGPH also offered FluMist to adults aged 18-59 years of age at a cost of \$20/dose. Clients were offered this by appointment at WDGPH offices.

Although, NACI recommends influenza vaccine to everyone 6 months of age and older without contraindications, there are certain “high risk” groups that NACI identifies, that immunization programs should prioritize (Appendix A)<sup>2</sup>. At WDGPH, individuals meeting “high risk” criteria were offered influenza immunization two weeks prior to the general public when the initial influenza vaccine supply was received at WDGPH the end of October. Children 2-5 years were also prioritized by WDGPH to receive the initial supply of FluMist as the MOHLTC initially deemed this age group a priority group.

## ANALYSIS/RATIONALE

### Influenza Program at WDGPH

The MOHLTC launched the UIIP in mid-October 2015. Over the last two influenza seasons, vaccine distributed to pharmacies continued to increase while attendance at Public Health clinics continued to decrease. Table 2 details this below.

**Table 2:** Pharmacies and Public Health influenza doses distributed/given.

Provider	2012-2013 Influenza Doses	2013-2014 Influenza Doses	2014-2015 Influenza Doses
Pharmacies	5,650	19,500	26,330
Public Health	7,177	4,961	3,280

The increase in doses distributed to pharmacies can be attributed to the number of pharmacies now providing influenza immunizations. In 2012-2013, the initial influenza season when pharmacies were accepted into the UIIP, 7 pharmacies provided influenza immunizations. In 2014-2015, the number of pharmacies in UIIP had a seven-fold increase, with 57 pharmacies providing this service. As a result WDGPH decreased the number of influenza immunization clinics in the community this season but increased the number of drop-in clinics offered in WDGPH offices for the months of November and December. WDGPH also ensured that each community had at least one pharmacy or physician offering immunizations prior to planning clinic locations.

A total of 11 influenza immunization clinics were offered during the 2015-2016 influenza season. Emergency medical services (EMS) workers and Poultry workers were offered clinics first as NACI recommended these were high-risk groups (Appendix A). Clinics were offered in each of WDGPH’s offices from October 20-November 5, 2015. Additional clinics were offered at:

- Victoria Park Senior Centre- Fergus
- Evergreen Senior Centre – Guelph
- Orangeville Senior Centre- Orangeville

Drop-in Flu Clinics were also offered at WDGPH offices from November 10-December 10. A total of 2586 influenza immunizations were provided in these clinics by WDG Public Health as of December 31, 2015.



**Table 3:** Number of doses of influenza vaccine delivered to healthcare providers. Note that in previous years, the rates were reported until April whereas for the 2015-2016 season, rates are reported until December 31, 2015.

Community Partners	# of Doses Distributed 2012-2013	# of Doses Distributed 2013-2014	# of Doses Distributed 2014-2015	# of Doses Distributed Oct.1-Dec 31, 2015
Public Hospitals and Homewood	3,260	3,530	3,688	3,940
Long-Term Care Homes and St. Joseph's	4,540	4,160	4,160	3,975
Physicians' Offices (including Minto-Mapleton Family Health Team)	43,740	37,240	44,370	38,375
Retirement Homes	2,090	1,770	1,910	2,435
Health Care Agencies	3,890	3,615	2,770	1,610
Workplaces	160	350	300	90
Community Care Access Centres (CCAC)	N/A	N/A	N/A	N/A
Community Health Centres (CHC)	730	980	1,060	910
Correctional Facilities and Youth Justice Facilities	90	120	110	50
Other (Masai Centre, University of Guelph Student Health Services, Ontario Addiction Treatment Centre (OATC), Medysis, Hopewell Children's Home)	2,180	2,400	2,800*	2,220
Pharmacies	5,650	19,500	26,330	24,203
<b>Grand Total</b>	<b>66,330</b>	<b>73,665</b>	<b>87,498</b>	<b>77,808</b>

\*OATC did not participate in the UIIP this year. Medysis is now Dawson Travel Clinic

### Healthcare Provider Influenza Immunization Rates

NACI considers the provision of influenza immunizations to all healthcare workers as an essential standard of care for providers by offering protections for their patients.<sup>2</sup> As such, the MOHLTC requires WDGPH to report healthcare worker immunizations rates. Hospitals and long-term care facilities are required to report the healthcare worker immunization rates to WDGPH by December 15 every year in order for WDGPH to report to the MOHLTC by January 15.

Rates for each long-term care facility, hospital and retirement homes in WDG are detailed in Appendix 2. The overall average rates of influenza immunization rates in WDG were as follows:

- Long-term care homes- 80.9%
- Hospitals- 47.9%
- Retirement homes- 64%%

Hospital workers continue to have the lowest reported rates of influenza immunization. According to the 2012 adult National Immunization Coverage survey, which examined vaccine coverage amongst Canadian adults, the estimated influenza coverage amongst healthcare workers nationally was 68.6% (2012).<sup>1</sup> As rates in WDG are less than the estimated national average, WDGPH will need to continue to target this group to increase coverage rates for influenza. The Canadian Healthcare Influenza Immunization Network has published *Successful Influenza Immunization Campaigns for Healthcare Personnel: A Guide for Program Planners*.<sup>2</sup> This may be a tool that WDGPH examines to further target this group.

### Influenza Surveillance

As of February 16, 2016, there were a total of 35 cases of lab-confirmed influenza cases in Wellington-Dufferin-Guelph. The majority of these were identified as H1N1 strains. There have been no confirmed institutional influenza outbreaks as of February 16, 2016 at WDGPH.<sup>6</sup>

According to the FluWatch report which trends influenza across Canada, in week 06 (ending Feb.13, 2016), there were 1862 laboratory detections of influenza and 82% of these have been Influenza A (H3N2).<sup>7</sup> Public Health Ontario's (PHO) Respiratory Pathogen Bulletin showed that at Week 06, there were 540 cases of influenza (463 Influenza A, 76 Influenza B, and 1 Influenza A and B) in Ontario.<sup>8</sup>

Circulating strains of influenza in Ontario and Canada display an antigenic match to influenza A and B strains in the influenza vaccine this year. PHO reports that genetic characterization performed at the National Microbiology Laboratory showed that 206 influenza A (H1N1) viruses tested were antigenically similar to A/California/7/2009 which is the A/H1N1 component in this season's influenza vaccine. Twenty-three influenza A (H3N2) viruses from Canada were characterized as antigenically similar to A/Switzerland/9715293/2013 which is in the Influenza A (H3N2) component of this year's influenza vaccine. Furthermore, 87 of the influenza B viruses characterized in Canada were antigenically similar to B/Phuket/3073/2013 which is in the trivalent influenza vaccine (TIV), and nine influenza B viruses were characterized as B/Brisbane/60/2008-like which is included in the quadrivalent influenza vaccine (QIV) this year.<sup>8</sup>

## ONTARIO PUBLIC HEALTH STANDARD

### Infectious Diseases Program Standards: Vaccine Preventable Diseases

Goal: To reduce or eliminate the burden of vaccine preventable diseases.

Board of Health Outcomes:

- The public is aware of the importance of immunization across the lifespan.

### Assessment and Surveillance Requirements

2. The Board of Health shall conduct epidemiological analysis of surveillance data, including monitoring of trends over time, emerging trends, and priority populations, in accordance with the *Infectious Diseases Protocol, 2008* (or as current) and the *Population Health Assessment and Surveillance Protocol, 2008* (or as current).



## Health Promotion and Policy Development Requirements

3. The Board of Health shall work with community partners to improve public knowledge and confidence in immunization programs by:

- a. Supplementing national and provincial health communication strategies, and/or
- b. Developing and implementing regional/local communication strategies.

## WDGPH STRATEGIC COMMITMENT

### Organizational capacity

We will improve our capacity to effectively deliver public health programs and services. Nurses working in the influenza program review the NACI statement and vaccine product monographs and undergo training prior to attending an influenza clinic. WDGPH uses the best available information to guide decisions regarding planning of the UIIP. This involved reviewing recommendations from NACI and the MOHLTC as well as statistics from the 2014-2015 Influenza Report.

## HEALTH EQUITY

The annual influenza vaccine is available at no cost to individuals 6 months or older who live, work, or attend school in Ontario. WDGPH strives to ensure that immunization clinics are fully accessible to all residents.

## APPENDICES

Appendix A: “NACI classification for people at high risk for influenza-related complications or hospitalizations”

Appendix B: Rates for each long-term care facility, hospital and retirement homes in WDG

## REFERENCES

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## APPENDIX “A”

### NACI classification for 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, therapy or both);
  - 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  $\geq 40$ );
  - children and adolescents (age 6 months to 18 years) with the following conditions:
    - neurologic or neurodevelopment conditions (including seizure disorders, febrile seizures and isolated developmental delay);
    - undergoing treatment for long periods with acetylsalicylic acid, because of the potential increase of Reye’s syndrome associated with influenza
- 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

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

- Health care 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) of 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
  - 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)

### Others

- People who provide essential community services
- People in direct contact during culling operations with poultry infected with avian influenza<sup>2</sup>

## APPENDIX “B”

Rates for each hospital, long-term care facility and retirement homes in WDG

**Table 1: Influenza Immunization Rates at Hospitals in WDG**

<b>Hospitals</b>				
<b>Hospital Name</b>	<b>2015 Staff</b>			
	Total Staff	Total Vaccinated	Vacc'n Rate (%)	Medically exempt
Groves Memorial Hospital	415	249	60.6%	4
Guelph General Hospital	1747	910	52.2%	4
Headwaters Health Care Centre	1117	365	32.7%	0
Homewood Health Centre	932	494	53.0%	0
North Wellington Health Care-Louise Marshall Hospital	216	169	78.6%	1
North Wellington Health Care-Palmerston & District Hospital	192	157	82.2%	1
St. Joseph's Health Centre Guelph	994	337	34.0%	2
<b>Totals</b>	<b>5613</b>	<b>2681</b>	<b>47.9%</b>	<b>12</b>

**Table 2: Influenza Immunization Rates at Long-term Care Homes in WDG**

<b>Long Term Care Facility</b>								
<b>Facility</b>	<b>2015 Staff</b>				<b>2015 Residents</b>			
	Total Staff	# Vaccinated	Vacc'n Rate (%)	Medically Exempt	Total Res	# Vaccinated	Vacc'n Rate (%)	Medically Exempt
Avalon Care Centre	165	130	<b>79.8%</b>	2	136	117	86.0%	0
Caessant Care Nursing Home (Arthur)	150	81	<b>56.3%</b>	6	77	72	94.7%	1
Caessant Care Nursing Home (Fergus)	121	72	<b>60.5%</b>	2	87	68	78.2%	0
Caessant Care Nursing Home (Harriston)	114	110	<b>97.3%</b>	1	81	76	95.0%	1
Dufferin Oaks	329	172	<b>53.6%</b>	8	158	133	84.2%	0
Eden House Care Facility	110	98	<b>91.6%</b>	3	58	55	98.2%	2
Elliott Home for the Aged	164	152	<b>92.7%</b>	0	85	79	92.9%	0
LaPointe Fisher Nursing Home	130	105	<b>81.4%</b>	1	92	77	83.7%	0
Morrison Park Nursing Home	42	34	<b>89.5%</b>	4	29	26	92.9%	1
Riverside Glen LTC	391	348	<b>91.6%</b>	11	192	176	98.3%	13



Royal Terrace	123	116	94.3%	0	67	63	95.5%	1
Saugeen Valley Nursing Centre	111	88	79.3%	0	80	67	85.9%	2
Shelburne Residence	110	81	73.6%	0	55	46	85.2%	1
Wellington Terrace - Home for the Aged	367	334	94.4%	13	176	168	96.0%	1
<b>Totals</b>	<b>2427</b>	<b>1921</b>	<b>80.9%</b>	<b>51</b>	<b>1373</b>	<b>1223</b>	<b>90.6%</b>	<b>23</b>

**Table 3:** Influenza Immunization rates for Retirement homes in WDG.

Facility	Retirement Homes							
	2015 Staff				2015 Residents			
	Total Staff	# Vaccinated	Vacc'n Rate (%)	Medically Exempt	Total Resident	# Vaccinated	Vacc'n Rate (%)	Medical Exempt
Avalon Care Centre	31	20	66.7%	1	41	30	75.0%	1
Bethsaida Retirement	27	15	55.6%	0	28	19	100.0%	9
Birmingham Retirement Community	31	30	96.8%	0	60	57	95.0%	0
Caessant Care Arthur Retirement	21	16	76.2%	0	23	17	73.9%	0
Caessant Care Fergus Retirement	15	14	100.0%	1	34	30	100.0%	4
Caessant Care Harriston Retirement	17	11	68.8%	1	23	18	78.3%	0
College Place Retirement Home	25	16	64.0%	0	58	42	72.4%	0
Countryview Retirement Residence	<b>Did not submit</b>							
Eden House	24	16	69.6%	1	20	19	95.0%	0
Fox Run	<b>Did not submit</b>							
Guelph Lake Commons	41	41	100.0%	0	132	132	100.0%	0
Hamilton House - Hometown Living, Harriston	<b>Did not submit</b>							
Harmony House Rest Home	3	3	100.0%	0	5	5	100.0%	0
Heritage House Rest Home	56	33	60.0%	1	54	47	87.0%	0
Heritage River Retirement Residence	47	41	87.2%	0	117	109	93.2%	0
Highland Manor	41	27	65.9%	0	67	55	82.1%	0
Hillsburgh Rest Home	6	6	100.0%	0	6	6	100.0%	0
Lord Dufferin Centre - Retirement Home	86	34	39.5%	0	55	44	80.0%	0
Montgomery Village	64	36	59.0%	3	142	124	96.1%	13
Norfolk Manor Rest Home	65	14	22.6%	3	48	40	83.3%	0
Royal Terrace RH	66	63	95.5%	0	47	44	97.8%	2
Shelburne residence RH	<b>Did not submit</b>							
Stone Lodge Retirement Home	<b>Did not submit</b>							

The Elliot	108	92	<b>86.0%</b>	1	141	136	100.0%	5
The Royal on Gordon	66	24	<b>100.0%</b>	42	74	65	87.8%	0
The Village of Arbour Trails	<b>Did not submit</b>							
Village of Riverside Glen Retirement Home	206	160	<b>79.2%</b>	4	182	171	95.5%	3
Wellington Park Terrace	58	20	<b>34.5%</b>	0	111	107	100.0%	4
<b>Totals</b>	<b>969</b>	<b>625</b>	<b>64.5%</b>	<b>57</b>	<b>1299</b>	<b>1162</b>	<b>91.4%</b>	<b>27</b>