

## Influenza vaccination coverage for staff of acute care facilities British Columbia, 2016/17

### Background

Immunization coverage assessment is an important part of a quality immunization program and serves three main functions:

- i) Identifying populations with low levels of immunization coverage
- ii) Evaluating the delivery of immunization programs
- iii) Informing program planning

Targets for coverage among staff of acute care facilities at the provincial and national levels are 60% and 80%, respectively.<sup>1,2</sup>

From the 2007/08 to 2011/12 influenza seasons, influenza vaccination coverage for staff of acute care facilities in BC ranged from 35% to 46%. Coverage increased following implementation of the new BC Influenza Prevention Policy, ranging from 74% to 76% for seasons 2012/13 through 2015/16.

The BC Influenza Prevention Policy requires healthcare workers in all health authorities to be vaccinated against influenza or to wear a surgical mask while in patient care areas during the influenza season. The policy covers all health authority staff who work in patient care areas: unionized and excluded staff, volunteers, paramedics, students, contractors, and physicians. The policy was widely communicated and its implementation was accompanied by strategies such as the use of peer immunizers. Staff reporting of their influenza immunization was enabled through an online immunization self-reporting website. Disciplinary measures for staff who do not comply with the Policy which were enacted beginning 2013/4 include loss of privileges and termination of employment.

### Objective

To quantify the percentage of staff in acute care facilities in British Columbia who were vaccinated against influenza during the 2016/17 influenza season.

### Methods

Influenza immunization coverage for healthcare workers in acute care facilities was calculated at the facility level, health service delivery area level, health authority level, and for BC. There are five regional health authorities, which are comprised of 16 health service delivery areas, and a Provincial Health Services Authority (PHSA) which is responsible for select acute care province-wide healthcare programs and services.

---

1. Immunize BC: a strategic framework for immunization in B.C. 2007. Victoria, BC: British Columbia Ministry of Health. Available at: <http://www.health.gov.bc.ca/library/publications/year/2007/immunizebc.pdf>

2. Public Health Agency of Canada. Final Report of Outcomes from the National Consensus Conference for Vaccine-Preventable Diseases in Canada. *Can Commun Dis Rep* 2008;34S2:1-56. Available at: <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/08pdf/34s2-eng.pdf>

Acute care facilities were defined as non-profit institutions that are designated as a hospital by the Minister and are operated primarily for the reception and treatment of persons

- suffering from the acute phase of illness or disability;
- convalescing from or being rehabilitated after acute illness or injury; or
- requiring extended care at a higher level than that generally provided in a private hospital.

An administrative dataset of occupational health records, the Workplace Health Indicator Tracking and Evaluation (WHITE) database, was used to calculate vaccination coverage results. The WHITE data were an anonymized individual healthcare worker level dataset which included influenza vaccination status. One acute care facility in BC did not have data for its employees in WHITE and aggregate facility level immunization coverage data were reported from this facility.

This was the fifth season of influenza coverage reporting using WHITE data. Staff whose records were included in the analysis must have been employed by a health authority and have worked for a minimum of 8 hours from December 1, 2016 to February 28, 2017. Staff who were not on a health authority's payroll (contracted staff, trainees, etc.) were not included in the WHITE database. Physicians and medical residents were not included in the WHITE database for most facilities.

Staff were defined as all persons who work or train on a full time, part time or casual basis in a facility or hospital who have direct or indirect contact with patients or residents, regardless of whether they are health care providers. This includes administrative and non-patient care staff (e.g., medical records, housekeeping and dietary) and excludes volunteers. This definition of staff is unchanged since the 2013/14 season and is based on the Ministry's Performance Agreements.

Healthcare workers were counted in the facility and region where they work, rather than by their health authority employer. Some healthcare workers worked at multiple facilities during the influenza season. For coverage statistics at the provincial, health authority or health service delivery area level, each healthcare worker was included only in the facility where they worked the most hours. For facility level coverage statistics, healthcare workers were included in each facility where they worked for at least 8 hours during the influenza season. This is the same method that was used for last season's (2015/16) coverage report.

Changes in coverage rates over time should be interpreted with caution as the data collection methods have changed from aggregate facility level reporting of immunization coverage as of February 28<sup>th</sup> each year prior to the 2012/13 season to individual healthcare worker level reporting using WHITE data, and there have been incremental methodological changes in use of WHITE data.

## Results

### Reporting of facilities (table 1)

- All 91 acute care facilities in BC are included in this report
- 90/91 (99%) facilities used data from the WHITE database
- 1/91 (1%) facility used aggregate facility level data because WHITE data were not available

### 2016/17 influenza vaccination coverage (tables 2 and 3; figures 1 to 5)

- 75% (50,435/67,456) of staff in acute care facilities in BC were vaccinated against influenza, similar to the 74% (51,888/69,962) in 2015/16
- 66% to 79% coverage was the range across the six health authorities
- 61% to 82% coverage was the range across the sixteen health service delivery areas and PHSA
- 24% to 100% coverage was the range across all acute care facilities in BC
- 62% to 85% coverage was the range across the 33 facilities with 500 or more staff
- 86/91 (95%) facilities met the Immunize BC coverage target of 60%
- 32/91 (35%) facilities met the national coverage target of 80%

The total number of healthcare workers included in this acute care facility coverage report has fluctuated over the past several years; this year's total 67,456 is similar to the previous three seasons: 69,962 in 2015/16, 67,580 in 2014/15 and 67,459 in 2013/14.

## Summary

Influenza immunization coverage data were available for all 91 acute care facilities in BC. Influenza vaccination coverage for staff of acute care facilities in BC was 75%, which is below the national target of 80%, but exceeds the Immunize BC target of 60%.

Within most health authorities, there was a wide range of influenza vaccination coverage for acute care facilities. More variation in coverage was observed in facilities with <500 staff. Coverage in facilities with ≥500 staff ranged from 62 to 85%. The reasons behind the variation in vaccination coverage between facilities were not assessed.

The total number of healthcare workers included in the acute care facility coverage reports varied since 2010/11. The reasons for this variation are unknown.

Influenza immunization coverage for acute care healthcare workers in BC has ranged from 74% to 76% in the five seasons since implementation of the policy. Coverage rates during these seasons were about 35% higher than prior to implementation of the BC Influenza Prevention Policy. After the substantial increase in coverage during the first year of the Policy in 2012/3, immunization coverage for healthcare workers in acute care facilities has remained stable.

## Tables and Figures

Table 1: Acute care facilities included by health authority, 2016/17

Health authority	Acute care facilities		
	Reported	Total	% reported
Interior	27	27	100
Fraser	13	13	100
Vancouver Coastal	14	14	100
Vancouver Island	13	13	100
Northern	18	18	100
Provincial Health Services	6	6	100
British Columbia	91	91	100

Table 2: Influenza vaccination coverage for staff of acute care facilities by health authority and health service delivery area, 2016/17

Health authority	Acute care facility staff		
	Immunized	Total	%
<b>Interior</b>	<b>8,482</b>	<b>10,936</b>	<b>78</b>
East Kootenay	767	966	79
Kootenay Boundary	915	1,184	77
Okanagan	4,134	5,520	75
Thompson/Cariboo/Shuswap	2,666	3,266	82
<b>Fraser</b>	<b>14,110</b>	<b>18,057</b>	<b>78</b>
Fraser East	2,504	3,310	76
Fraser North	5,588	7,038	79
Fraser South	6,018	7,709	78
<b>Vancouver Coastal</b>	<b>12,000</b>	<b>16,249</b>	<b>74</b>
Richmond	1,024	1,297	79
Vancouver	9,091	12,430	73
N Shore/Coast Garibaldi	1,885	2,522	75
<b>Vancouver Island</b>	<b>7,653</b>	<b>11,585</b>	<b>66</b>
South Vancouver Island	4,345	6,487	67
Central Vancouver Island	1,967	3,247	61
North Vancouver Island	1,341	1,851	72
<b>Northern</b>	<b>3,035</b>	<b>4,117</b>	<b>74</b>
Northwest	786	1,077	73
Northern Interior	1,751	2,307	76
Northeast	498	733	68
<b>PHSA</b>	<b>5,155</b>	<b>6,512</b>	<b>79</b>
<b>BC</b>	<b>50,435</b>	<b>67,456</b>	<b>75</b>

Table 3: Acute care facility staff influenza vaccination coverage by health authority, 2008/09 to 2016/17

Health authority	Influenza immunization coverage (%) for staff of acute care facilities by influenza season									
	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Interior	51	45	52	44	44	76	69	77	73	78
Fraser	33	16	46	30	34	74	80	80	79	78
Vancouver Coastal	45	47	53	46	43	71	75	75	76	74
Vancouver Island	41	37	42	39	42	74	73	70	66	66
Northern	43	37	41	42	37	76	73	75	67	74
PHSA	40	32	36	46	43	71	78	79	79	79
British Columbia	42	35	46	40	40	74	75	76	74	75

Figure 1: Influenza immunization coverage for staff of acute care facilities, 2007/08 to 2016/17

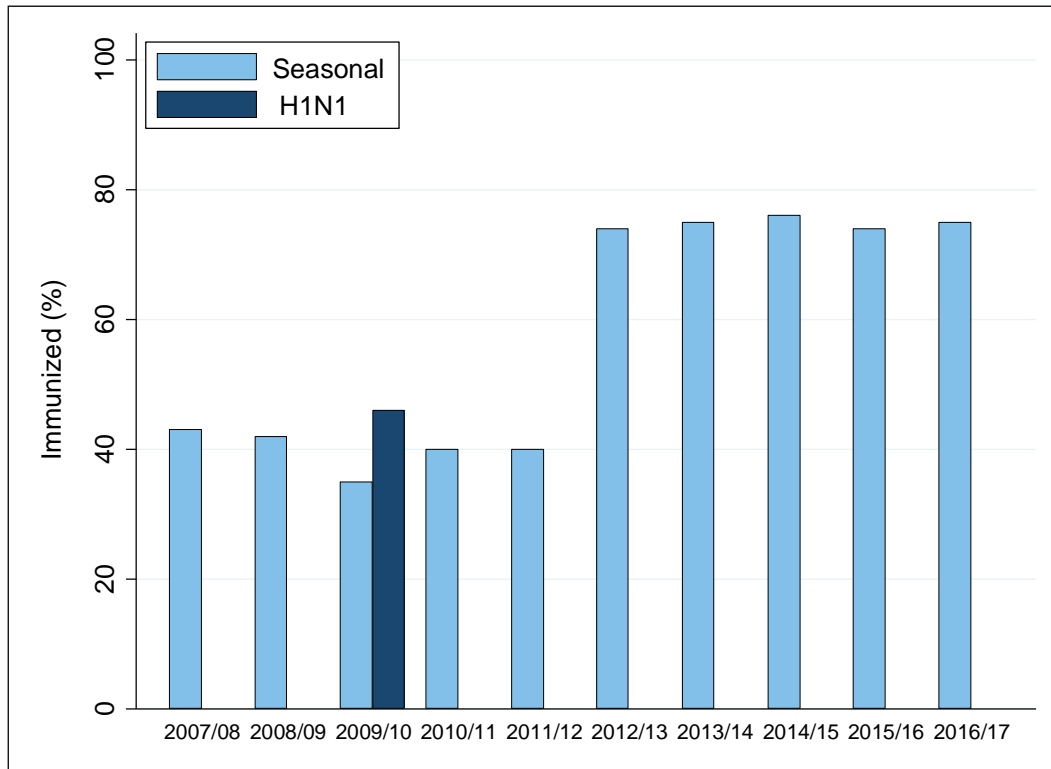


Figure 2: Influenza immunization coverage for staff of acute care facilities by health authority, 2016/17

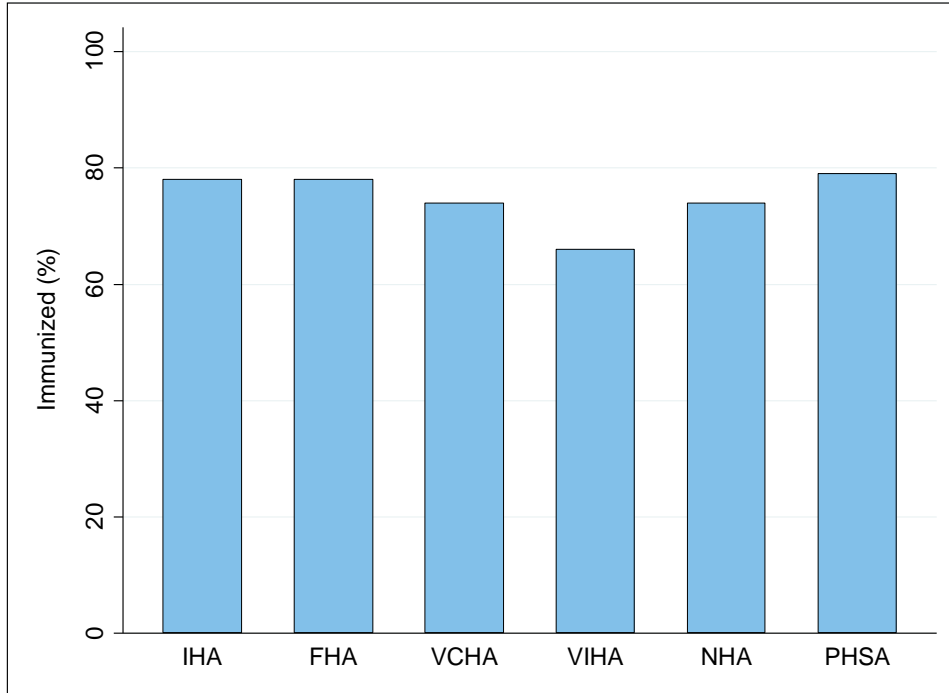


Figure 3: Influenza immunization coverage for staff of acute care facilities by health service delivery area and for PHSA, 2016/17

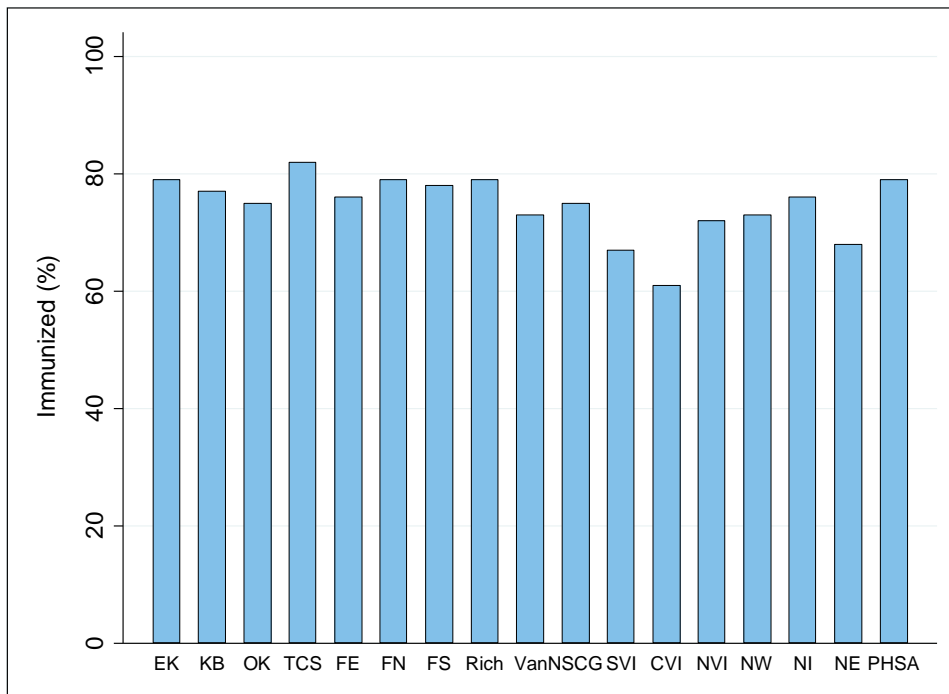


Figure 4: Influenza immunization coverage for staff of acute care facilities by facility size (number of staff), 2016/17

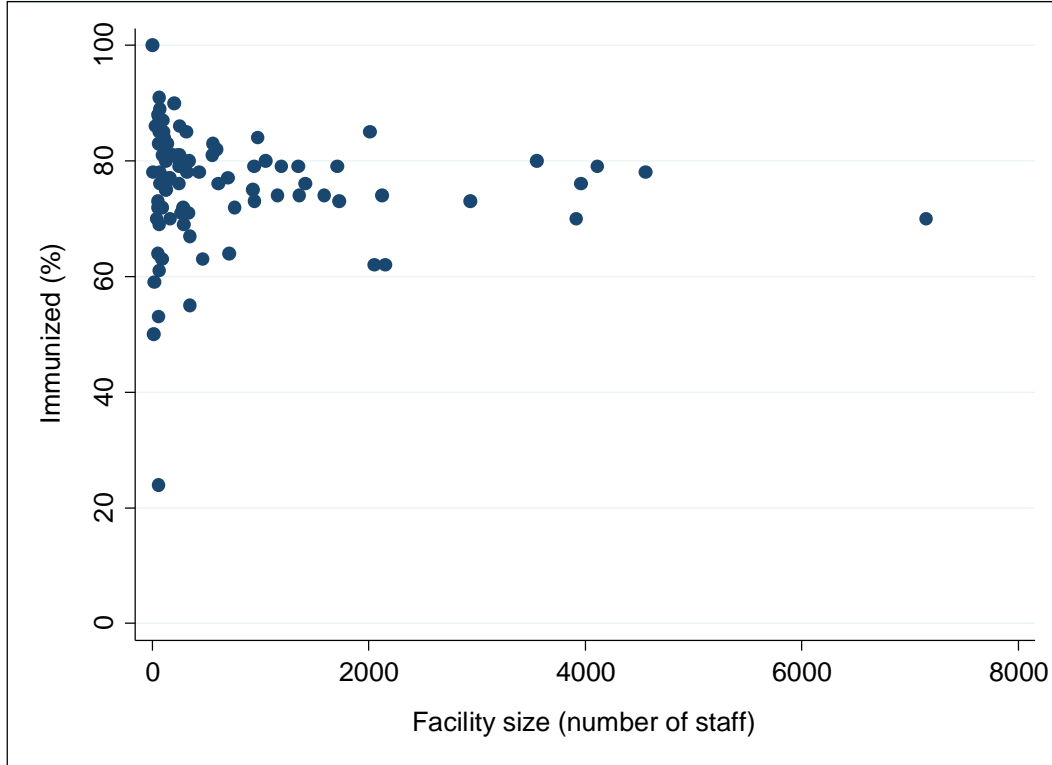


Figure 5: Influenza immunization coverage for staff of acute care facilities by facility within each health authority, 2016/17

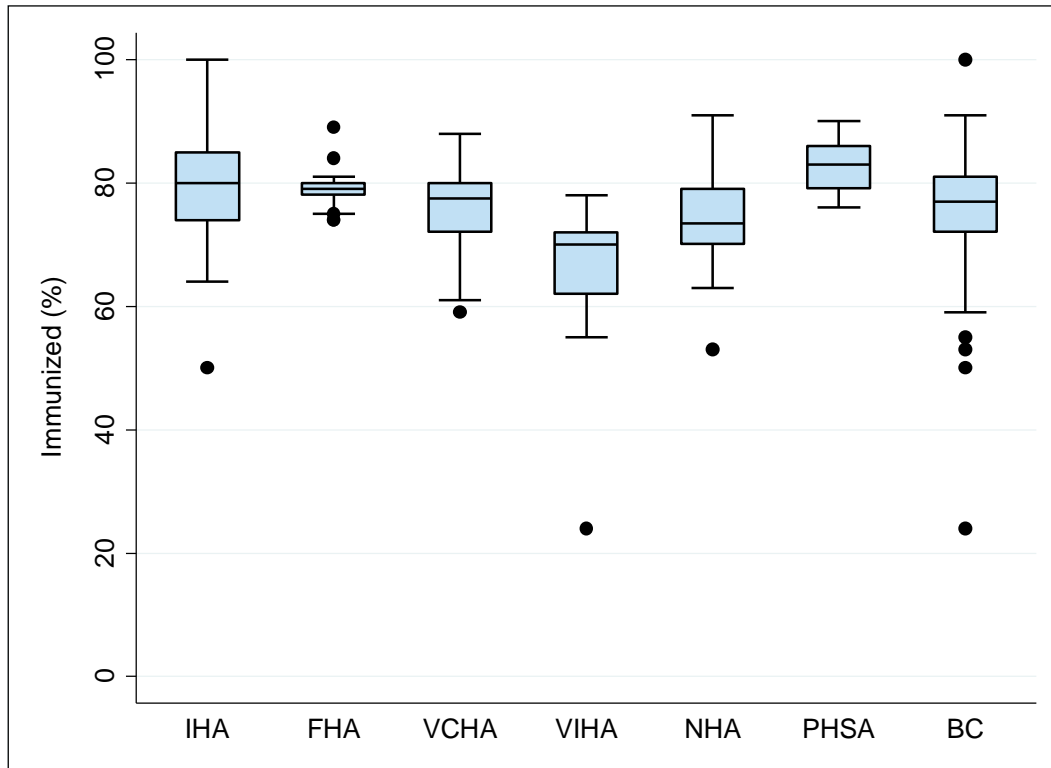


Figure 5 illustrates the range of influenza immunization coverage for acute care facilities within each health authority and for BC for the 2016/17 influenza season. The horizontal line below each box represents the lowest observed coverage value that is greater than or equal to the first quartile minus 1.5 times the interquartile range; the lower edge of each box represents the 25<sup>th</sup> percentile; the solid horizontal line within each box represents the median coverage value; the upper edge of each box represents the 75<sup>th</sup> percentile; the horizontal line above each box represents the highest observed coverage value that is less than or equal to the third quartile plus 1.5 times the interquartile range, and the dots represent facilities with unusually low or high coverage values which are outliers.



Table 4: Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health authority		Influenza season									
		2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<b>INTERIOR</b>	immunized	5,192	4,610	5,317	4,490	4,558	6,540	7,419	8,152	7,982	8,482
	total staff	10,213	10,249	10,307	10,132	10,473	8,593	10,726	10,647	10,989	10,936
	% immunized	51	45	52	44	44	76	69	77	73	78
East Kootenay	immunized	656	547	620	560	540	684	739	780	758	767
	total staff	1,067	1,038	999	1,033	1,031	812	970	953	982	966
	% immunized	61	53	62	54	52	84	76	82	77	79
Kootenay Boundary	immunized	605	504	497	422	381	706	817	928	891	915
	total staff	1,350	1,382	1,382	1,324	1,306	995	1,230	1,197	1,220	1,184
	% immunized	45	36	36	32	29	71	66	78	73	77
Okanagan	immunized	2,074	1,972	2,376	1,793	2,156	3,323	3,901	3,886	3,829	4,134
	total staff	4,631	4,652	4,600	4,635	5,412	4,593	5,845	5,283	5,509	5,520
	% immunized	45	42	52	39	40	72	67	74	70	75
Thomps Carib Shuswap	immunized	1,857	1,587	1,824	1,715	1,481	1,827	1,962	2,558	2,504	2,666
	total staff	3,165	3,177	3,326	3,140	2,724	2,193	2,681	3,214	3,278	3,266
	% immunized	59	50	55	55	54	83	73	80	76	82
<b>FRASER</b>	immunized	5,031	2,586	7,371	5,173	5,446	11,013	15,247	15,399	15,547	14,110
	total staff	15,154	15,867	15,867	16,984	15,881	14,883	19,001	19,262	19,742	18,057
	% immunized	33	16	46	30	34	74	80	80	79	78
Fraser East	immunized	912	520	1,318	1,033	1,219	2,053	2,761	2,859	2,745	2,504
	total staff	2,759	2,860	2,860	3,119	3,115	2,781	3,510	3,635	3,655	3,310
	% immunized	33	18	46	33	39	74	79	79	75	76
Fraser North	immunized	2,221	1,158	3,301	2,289	2,110	4,390	5,893	5,790	6,007	5,588
	total staff	6,496	6,612	6,612	7,003	6,228	5,825	7,301	7,167	7,492	7,038
	% immunized	34	18	50	33	34	75	81	81	80	79
Fraser South	immunized	1,898	908	2,752	1,851	2,117	4,570	6,593	6,750	6,795	6,018
	total staff	5,899	6,395	6,395	6,862	6,538	6,277	8,190	8,460	8,595	7,709
	% immunized	32	14	43	27	32	73	81	80	79	78

Table 4 (continued): Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health authority		Influenza season									
		2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
VANCOUVER COASTAL	immunized	7,152	6,841	7,639	5,644	5,541	5,553	12,060	12,274	12,702	12,000
	total staff	15,975	14,506	14,506	12,173	12,897	7,828	15,982	16,312	16,785	16,249
	% immunized	45	47	53	46	43	71	75	75	76	74
Richmond	immunized	648	634	716	516	520	792	1,055	1,086	1,119	1,024
	total staff	1,414	1,265	1,265	1,016	1,085	993	1,327	1,285	1,353	1,297
	% immunized	46	50	57	51	48	80	80	85	83	79
Vancouver	immunized	5,082	5,145	5,565	4,193	4,219	3,364	8,994	9,093	9,558	9,091
	total staff	11,540	10,600	10,600	9,026	9,805	4,996	12,003	12,400	12,767	12,430
	% immunized	44	49	53	46	43	67	75	73	75	73
N Shore/Coast Garibaldi	immunized	1,422	1,062	1,358	935	802	1,397	2,011	2,095	2,025	1,885
	total staff	3,021	2,641	2,641	2,131	2,007	1,839	2,652	2,627	2,665	2,522
	% immunized	47	40	51	44	40	76	76	80	76	75
VANCOUVER ISLAND	immunized	4,075	3,727	3,881	3,941	3,844	6,143	8,241	7,811	7,593	7,653
	total staff	9,981	10,175	9,183	10,021	9,166	8,345	11,360	11,119	11,592	11,585
	% immunized	41	37	42	39	42	74	73	70	66	66
South Van Island	immunized	2,130	1,987	2,389	2,035	1,944	3,975	4,722	4,458	4,312	4,345
	total staff	5,476	5,540	5,540	5,405	4,860	5,295	6,402	6,395	6,585	6,487
	% immunized	39	36	43	38	40	75	74	70	65	67
Central Van Island	immunized	1,173	982	1,163	1,184	1,139	1,673	2,070	2,060	1,970	1,967
	total staff	2,843	2,932	2,932	2,982	2,766	2,401	3,119	3,080	3,231	3,247
	% immunized	41	33	40	40	41	70	66	67	61	61
North Van Island	immunized	772	758	329	722	761	495	1,449	1,293	1,311	1,341
	total staff	1,662	1,703	711	1,634	1,540	649	1,839	1,644	1,776	1,851
	% immunized	46	45	46	44	49	76	79	79	74	72

Table 4 (continued): Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2008/09 to 2016/17

Health authority		Influenza season									
		2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
<b>NORTHERN</b>	immunized	1,972	1,558	1,737	1,832	1,623	2,612	2,913	3,012	2,849	3,035
	total staff	4,630	4,251	4,260	4,396	4,354	3,459	3,992	4,007	4,232	4,117
	% immunized	43	37	41	42	37	76	73	75	67	74
Northwest	immunized	486	372	478	498	548	673	732	774	736	786
	total staff	1,228	1,100	1,108	1,094	1,121	909	1,017	1,035	1,078	1,077
	% immunized	40	34	43	46	49	74	72	75	68	73
Northern Interior	immunized	1,105	875	966	997	785	1,473	1,661	1,695	1,618	1,751
	total staff	2,625	2,444	2,445	2,565	2,467	1,908	2,229	2,228	2,387	2,307
	% immunized	42	36	40	39	32	77	75	76	68	76
Northeast	immunized	381	311	293	337	290	466	520	543	495	498
	total staff	777	707	707	737	766	642	746	744	767	733
	% immunized	49	44	41	46	38	73	70	73	65	68
<b>PHSA</b>	immunized	2,785	2,753	3,093	2,015	2,363	4,038	4,998	4,932	5,215	5,155
	total staff	7,037	8,536	8,536	4,389	5,441	5,710	6,398	6,233	6,622	6,512
	% immunized	40	32	36	46	43	71	78	79	79	79
<b>BC</b>	immunized	26,207	22,075	29,038	23,095	23,375	35,899	50,878	51,580	51,888	50,435
	total staff	62,990	63,584	62,659	58,095	58,212	48,818	67,459	67,580	69,962	67,456
	% immunized	42	35	46	40	40	74	75	76	74	75

## APPENDIX

### **Additional vaccination and Policy compliance information for staff of acute care facilities British Columbia, 2016/17**

Since 2013/14, health authority staff covered by the Influenza Prevention Policy have been required to self-report their influenza vaccination via an online self-reporting website. Starting in the 2015/16 season, all staff were asked to self-report either being vaccinated, or declining vaccination with the commitment to wear a mask in patient care areas throughout the influenza season. Self-reporting was only possible for facilities that used the electronic Workplace Health Indicator Tracking and Evaluation (WHITE) database of occupational health records.

This appendix presents self-reported compliance with the policy for all acute care staff who have records in the WHITE database.

#### **Objectives**

- i) To quantify the percentages of staff in acute care facilities in British Columbia who self-reported vaccination or vaccine declinations as per the Influenza Prevention Policy
- ii) To quantify self-reported vaccination and vaccine declinations by job type
- iii) To quantify the source of influenza vaccination among acute care staff by immunizer type

#### **Methods**

The only source of data for analyses in this appendix is an anonymized individual healthcare worker level dataset from the electronic Workplace Health Indicator Tracking and Evaluation (WHITE) database of occupational health records.

Staff whose records were included in the analysis must have been employed by a health authority and have worked for a minimum of 8 hours from December 1, 2016 to February 28, 2017. Staff who were not on a health authority's payroll (contracted staff, trainees, etc.) were not included in the WHITE database. Physicians and medical residents were not included in the WHITE database for most facilities.

Staff were defined as all persons who work or train on a full time, part time or casual basis in a facility or hospital who have direct or indirect contact with patients or residents, regardless of whether they are health care providers. This includes administrative and non-patient care staff (e.g., medical records, housekeeping and dietary) and excludes volunteers.

Some healthcare workers (HCWs) worked at multiple facilities or in multiple positions during the influenza season. For coverage statistics at the provincial, health authority or health service delivery area level, each healthcare worker was included only in the facility and the job at which they worked the most hours.

Data on 'policy compliance status' (Table 2) originates from the self-reporting website at which staff have the option to record their vaccination or vaccine declination. The self-reporting website populates each HCW's WHITE database record. Data on HCWs' job descriptions (Table 3) is recorded in WHITE using job codes designated by Health Sector Compensation Information Systems (HSCIS). HSCIS codes are grouped into 162 subfamilies, which have been further collapsed into 10 job categories and 1 'other' category for the purposes of this report. Data on the immunizer type (Table 4) is reported by staff on the self-reporting website.

## Results

Table 1: Acute care facilities included in WHITE by health authority, 2016/17

Health authority	Acute care facilities		
	Reported	Total	% reported in WHITE
Interior	27	27	100
Fraser	13	13	100
Vancouver Coastal	14	14	100
Vancouver Island	12	13	92
Northern	18	18	100
Provincial Health Services	6	6	100
British Columbia	90	91	99

Table 2: Policy compliance status for staff of the 90 acute care facilities using WHITE by health authority and health service delivery area, 2016/17

Health authority	Acute care facility staff						Total
	Vaccinated	%	Declined	%	Not reported	%	
<b>Interior</b>	<b>8,482</b>	<b>78</b>	<b>1,247</b>	<b>11</b>	<b>1,207</b>	<b>11</b>	<b>10,936</b>
East Kootenay	767	79	92	10	107	11	966
Kootenay Boundary	915	77	143	12	126	11	1,184
Okanagan	4,134	75	707	13	679	12	5,520
Thompson/Cariboo/Shuswap	2,666	82	305	9	295	9	3,266
<b>Fraser</b>	<b>14,109</b>	<b>78</b>	<b>1,343</b>	<b>7</b>	<b>2,604</b>	<b>14</b>	<b>18,056</b>
Fraser East	2,504	76	268	8	538	16	3,310
Fraser North	5,587	79	483	7	967	14	7,037
Fraser South	6,018	78	592	8	1,099	14	7,709
<b>Vancouver Coastal</b>	<b>12,001</b>	<b>74</b>	<b>681</b>	<b>4</b>	<b>3,568</b>	<b>22</b>	<b>16,250</b>
Richmond	1,024	79	57	4	216	17	1,297
Vancouver	9,092	73	533	4	2,806	23	12,431
N Shore/Coast Garibaldi	1,885	75	91	4	546	22	2,522
<b>Vancouver Island</b>	<b>6,961</b>	<b>65</b>	<b>134</b>	<b>1</b>	<b>3,542</b>	<b>33</b>	<b>10,637</b>
South Vancouver Island	4,345	67	58	1	2,084	32	6,487
Central Vancouver Island	1,967	61	68	2	1,212	37	3,247
North Vancouver Island	649	72	8	1	246	27	903
<b>Northern</b>	<b>3,035</b>	<b>74</b>	<b>404</b>	<b>10</b>	<b>678</b>	<b>16</b>	<b>4,117</b>
Northwest	786	73	78	7	213	20	1,077
Northern Interior	1,751	76	223	10	333	14	2,307
Northeast	498	68	103	14	132	18	733
<b>PHSA</b>	<b>5,155</b>	<b>79</b>	<b>288</b>	<b>4</b>	<b>1,069</b>	<b>16</b>	<b>6,512</b>
<b>BC</b>	<b>49,743</b>	<b>75</b>	<b>4,097</b>	<b>6</b>	<b>12,668</b>	<b>19</b>	<b>66,508</b>

Note: For the purposes of analysis and reporting, we assume that HCWs who did not report their status (19% across BC) were unvaccinated; however, a proportion of these HCWs may have been immunized. Therefore, the results presented earlier in this report may underestimate vaccination coverage.

Table 3: Policy compliance status for staff of the 90 acute care facilities using WHITE by job type, 2016/17

	Acute care facility staff						Total
	Vaccinated	%	Declined	%	Not reported	%	
Nurse	20,240	76	1,391	5	5,083	19	26,714
Admin and Support	8,750	72	1,026	8	2,317	19	12,093
Allied health <sup>‡</sup>	4,551	85	219	4	577	11	5,347
Health care assistant	3,753	66	388	7	1,534	27	5,675
Laboratory worker	2,742	79	402	12	336	10	3,480
Non-lab technologists	2,487	79	225	7	434	14	3,146
Management or Leadership	2,294	83	102	4	352	13	2,748
Pharmacy staff	1,728	87	117	6	144	7	1,989
Business	1,212	67	112	6	490	27	1,814
Medical Staff <sup>§</sup>	719	46	5	0	833	54	1,557
Other	153	77	7	4	38	19	198
<b>Total</b>	<b>48,629</b>	<b>75</b>	<b>3,994</b>	<b>6</b>	<b>12,138</b>	<b>19</b>	<b>*64,761</b>

\* Missing 1,747/66,508 (3%) acute care staff whose job descriptions were not available in WHITE.

‡ Allied health refers to professions in health care other than medicine and nursing (e.g., dietitians, occupational/physical/respiratory therapists, social workers, etc.).

§ Medical staff reporting results should be interpreted with caution. A minority of medical staff are included in WHITE. In 2016/17 the majority of medical staff (e.g., doctors, dentists and midwives) reported their immunization status to Medical Staff Offices at each health authority.

Table 4: Immunizer type for vaccinated staff of the 90 acute care facilities using WHITE by health authority, 2016/17

Health Authority		IHA*	FHA	VCHA	VIHA	NHA	PHSA	BC
Flu Clinic Nurse	No.	2,233	4,817	4,494	3,558	1,310	3,324	19,736
	%	26	34	37	51	43	64	40
Peer Nurse Immunizer	No.	1,744	3,317	2,381	2,068	928	261	10,699
	%	21	24	20	30	31	5	22
Pharmacist	No.	3,714	4,256	3,644	782	387	1,028	13,811
	%	44	30	30	11	13	20	28
Family Physician	No.	150	842	686	183	50	275	2,186
	%	2	6	6	3	2	5	4
Public Health	No.	444	344	312	206	282	106	1,694
	%	5	2	3	3	9	2	3
Other	No.	150	369	385	148	50	58	1,160
	%	2	3	3	2	2	1	2
Unknown	No.	47	165	98	16	28	103	457
	%	1	1	1	0	1	2	1
<b>Total</b>	<b>No.</b>	<b>8,482</b>	<b>14,110</b>	<b>12,000</b>	<b>6,961</b>	<b>3,035</b>	<b>5,155</b>	<b>49,743</b>

\*Onsite clinics at Interior Health were staffed exclusively by pharmacist immunizers; therefore the 26% of HCWs reporting immunization by a flu clinic nurse should be interpreted with caution.

## Summary

2016/17 is the second season in which WHITE data was analyzed to determine use of the self-reporting system, vaccination rates by job type, and immunizer type. In 2016/17, some health authorities did not require staff to report declining vaccination. Nevertheless, higher non-reporting rates seen in regions of lowest coverage call into question the validity of vaccination coverage reports, since for the purpose of analysis, non-reported status has been considered unvaccinated. Efforts should be made to improve self-reporting rates, including for individuals who have chosen not to be immunized.

Similarly to 2015/16, pharmacy, allied health, and management or leadership employees reported the highest immunization coverage by job type.

Immunizer type varied at the regional level, which may be indicative of the availability of immunizing personnel in the community (e.g. family physicians or pharmacist immunizers) as well as management decisions in how to deliver the influenza vaccine program to HCWs at the workplace.