

## Final Report Influenza Vaccine Coverage Staff of Acute Care Facilities British Columbia, 2023/24

### Background

As of 2012, BC's Influenza Prevention Policy requires all health care workers to be vaccinated against influenza or wear a mask in patient care areas during the fall respiratory season (September-April).<sup>1</sup> Influenza vaccination is important for health care staff in BC:

- i) To protect health care workers who may be exposed to patients/clients with influenza in their workplace
- ii) To prevent transmission of influenza from health care staff to patients/clients or other staff in health care facilities
- iii) To reduce influenza-related absenteeism

Influenza vaccine coverage assessment is important as a quality indicator, as well as to evaluate the Influenza Prevention Policy. Coverage assessment also enables identification of populations with lower levels of immunization coverage, to explore reasons for lower coverage, and informs program planning.

Targets for coverage among staff of acute care facilities were formerly 60% at the provincial level, but were updated to 80% during the 2021/22 season as BC is signatory to the national targets by 2025.<sup>2,3</sup>

### Objectives

To quantify the proportion of staff in BC acute care facilities who:

- i) Were vaccinated against influenza in the 2023/24 season
- ii) Self-reported their vaccination or vaccine declination including by job type

### Methods

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.

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) but excludes volunteers.

An anonymized individual health care worker level dataset was extracted from the electronic Workplace Health Indicator Tracking and Evaluation (WHITE) database of occupational health

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<sup>1</sup> BC Centre for Disease Control. BC Influenza Prevention Policy. Available at: <http://www.bccdc.ca/our-services/programs/immunization-program>

<sup>2</sup> 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>

<sup>3</sup> Public Health Agency of Canada. Vaccination Coverage Goals and Vaccine Preventable Disease Reduction Targets by 2025. Available at: <https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html>

records including influenza vaccination status on February 14, 2024. Influenza vaccination status in the WHITE data is based on self-reporting; staff report vaccination (date and provider) or vaccine declination. Data on health care worker job descriptions are recorded in WHITE using job codes designated by Health Sector Compensation Information Systems (HSCIS).

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 to January 31 during the influenza season. For the analysis of influenza policy compliance, health care workers who did not report were classified as unvaccinated. However, a proportion of these health care workers may have been immunized, and, therefore, the results may underestimate vaccination coverage.

Please refer to the separate Methods document for a full description of methods including definitions, data sources, and analyses as well as changes to methodology that should be used to interpret coverage trends over time.

## Results

### Reporting of facilities (Table 1)

- All 88 acute care facilities in BC were included<sup>4</sup>
- All 88 acute care facilities used data from the WHITE database

**Table 1.** Acute care facilities included by health authority, 2023/24

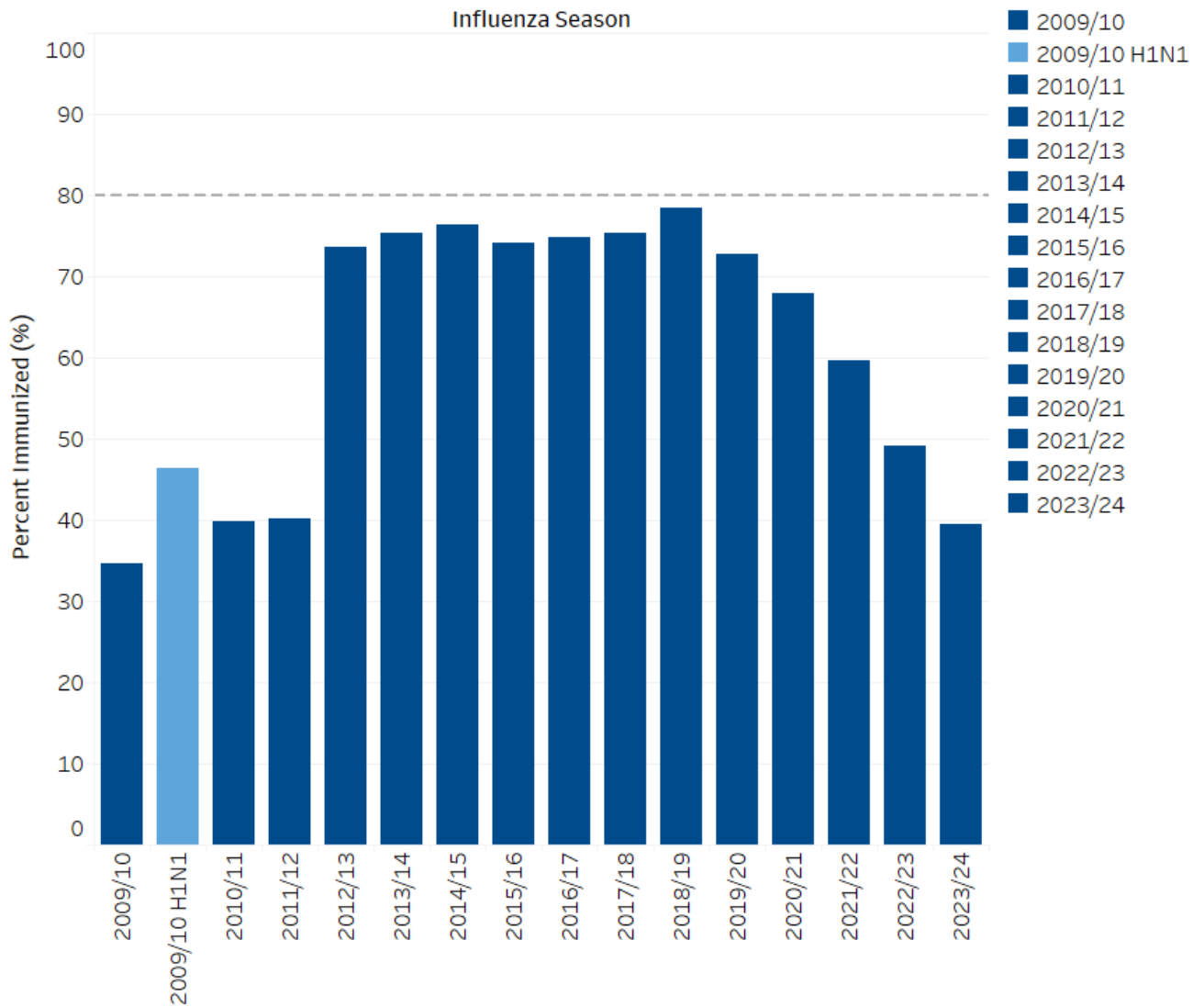
Health authority	Number of acute care facilities
Interior	23
Fraser	13
Vancouver Coastal	14
Island	13
Northern	18
Provincial Health Services <sup>5</sup>	7
<b>British Columbia</b>	<b>88</b>

### 2023/24 influenza vaccination coverage (Figures 1-3, Table 2)

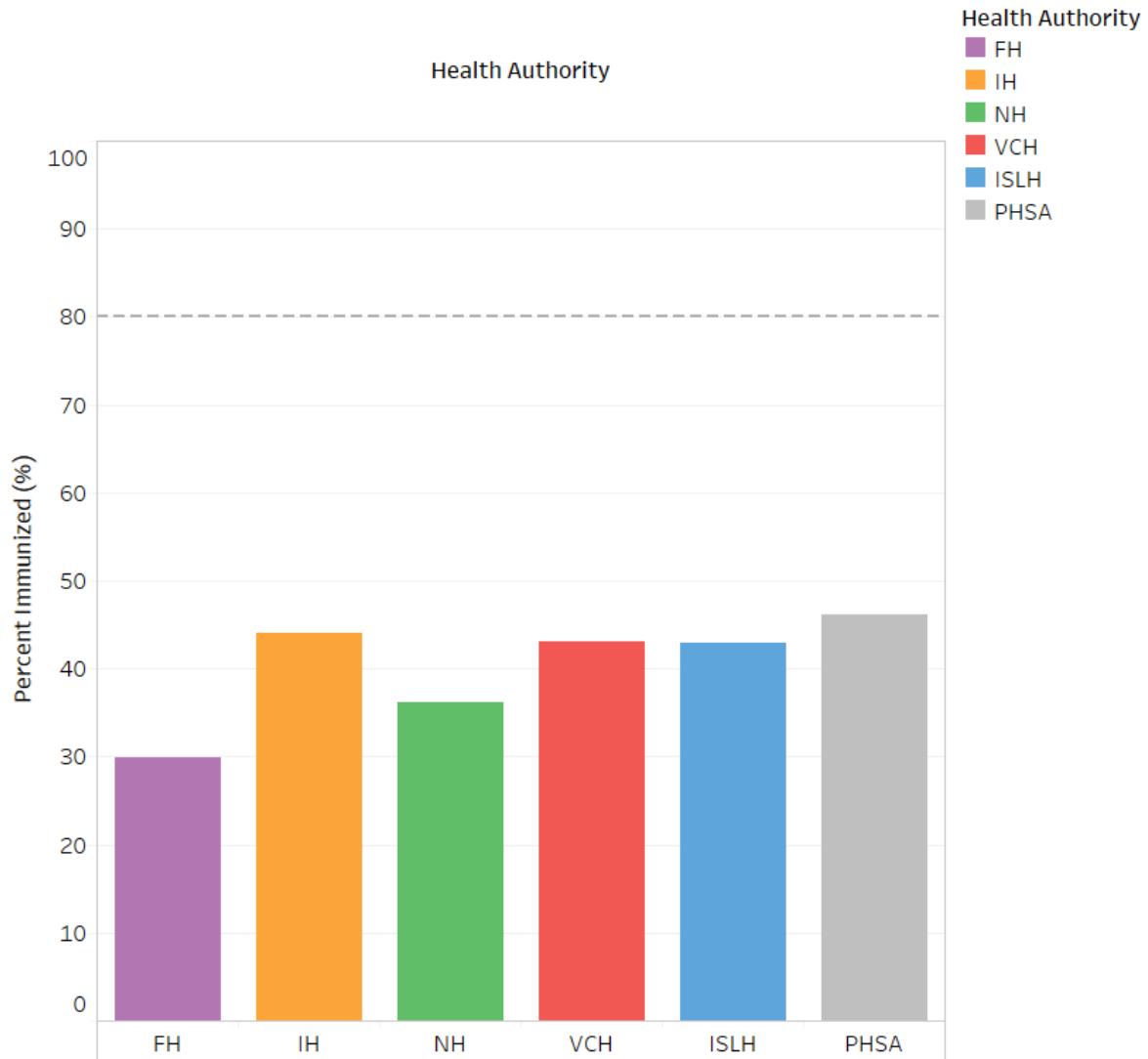
- 40% (33,552/84,896) of staff in acute care facilities in BC reported influenza vaccine receipt, the lowest since the Influenza Prevention Policy was enacted in 2012/2013 (Figure 1, Table 2)
- 30% to 46% coverage was the range across the five regional health authorities and PHSA (Figure 2)
- 27% to 49% coverage was the range across the sixteen health service delivery areas and PHSA (Table 2)
- 22% to 68% coverage was the range across all acute care facilities in BC (Figure 3)
- 25% to 50% coverage was the range across the 33 facilities with 500 or more staff
- 4/88 (5%) facilities had coverage of 60% or higher (Figure 3)
- 0/88 (0%) facilities met the provincial and national coverage target of 80% (Figure 3)

<sup>4</sup> For the 2023/2024 season, an updated list of acute facilities in BC from the Ministry of Health was used – this replaced the previous list used in prior reports. The number of acute facilities decreased from 92 to 88 in the current report

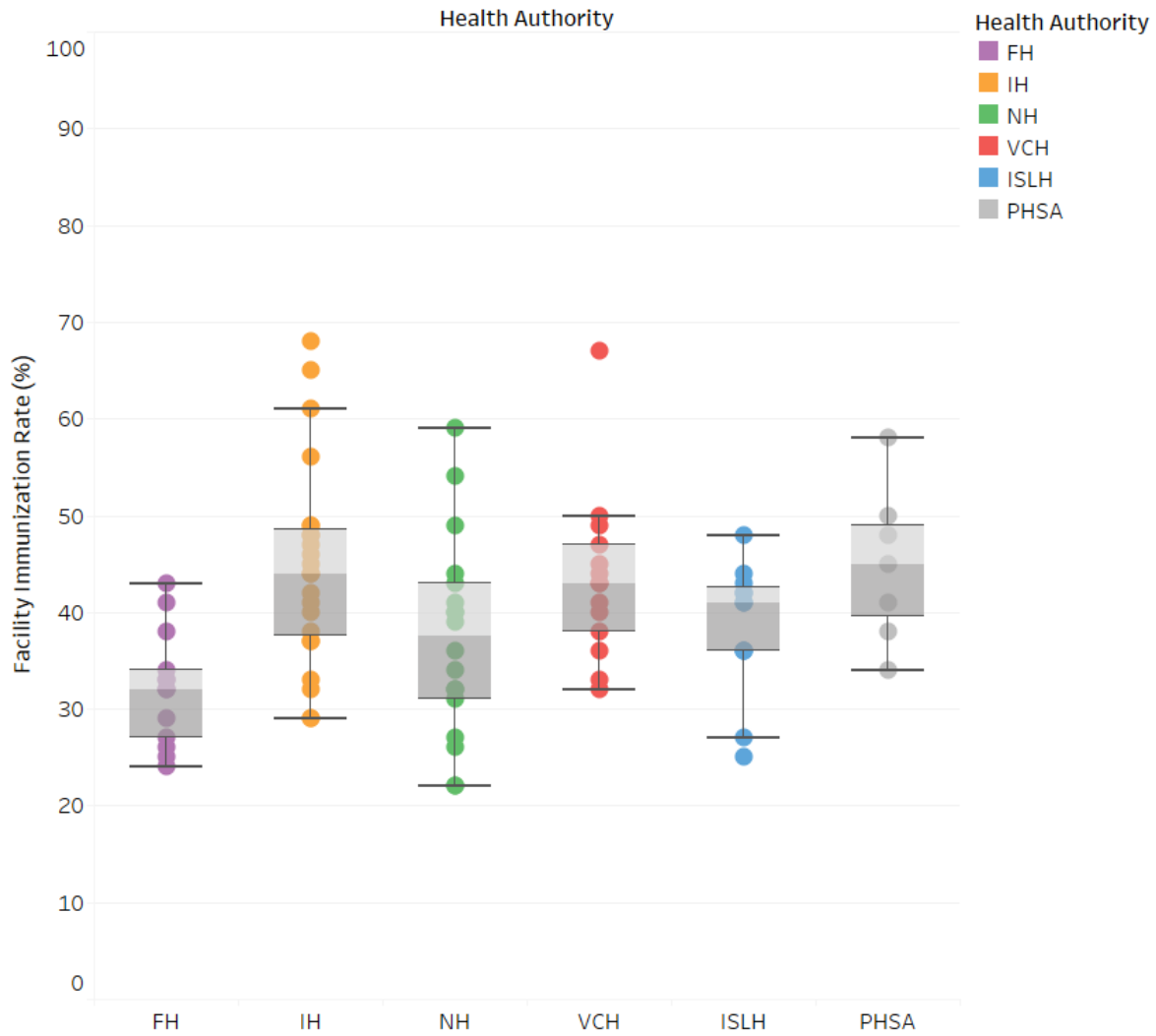
<sup>5</sup> Provincial Health Service Authority acute care facilities include: BC Cancer Agency (Abbotsford, Centre for the Southern Interior, Prince George, Surrey, Vancouver, Victoria), BC Children & Women’s Hospital



**Figure 1.** Influenza immunization coverage for staff of acute care facilities by influenza season, British Columbia, 2009/10 – 2023/24



**Figure 2.** Influenza immunization coverage for staff of acute care facilities by health authority, British Columbia, 2023/24



**Figure 3.** Influenza immunization coverage for staff of acute care facilities per facility and by health authority, British Columbia 2023/24<sup>6</sup>

<sup>6</sup> Figure 3 illustrates the distribution of influenza vaccine coverage for residents of LTCFs by facility in each health authority for the 2023/24 influenza season. The horizontal lines represent the minimum\*, 25th percentile, median (transition from light to dark grey), 75th percentile, and maximum\* from bottom to top.

\*After excluding outliers. Outliers are those below the 25<sup>th</sup> percentile minus 1.5 times the interquartile range, or above the 75<sup>th</sup> percentile plus 1.5 times the interquartile range.

**Table 2.** Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2012/13 to 2023/24

Health authority		Influenza season											
		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
<b>INTERIOR</b>	immunized	6,540	7,419	8,152	7,982	8,482	8,958	8,802	8,742	7,945	6,389	6,181	5,622
	total staff	8,593	10,726	10,647	10,989	10,936	11,060	10,781	11,593	12,123	11,600	12,271	12,774
	<b>% immunized</b>	<b>76</b>	<b>69</b>	<b>77</b>	<b>73</b>	<b>78</b>	<b>80</b>	<b>82</b>	<b>75</b>	<b>66</b>	<b>55</b>	<b>50</b>	<b>44</b>
East Kootenay	immunized	684	739	780	758	767	822	764	838	742	626	618	550
	total staff	812	970	953	982	966	995	913	1,017	1,102	1,091	1,161	1,153
	<b>% immunized</b>	<b>84</b>	<b>76</b>	<b>82</b>	<b>77</b>	<b>79</b>	<b>83</b>	<b>84</b>	<b>82</b>	<b>67</b>	<b>57</b>	<b>53</b>	<b>48</b>
Kootenay Boundary	immunized	706	817	928	891	915	950	919	928	813	627	576	508
	total staff	995	1,230	1,197	1,220	1,184	1,224	1,197	1,252	1,342	1,257	1,260	1,363
	<b>% immunized</b>	<b>71</b>	<b>66</b>	<b>78</b>	<b>73</b>	<b>77</b>	<b>78</b>	<b>77</b>	<b>74</b>	<b>61</b>	<b>50</b>	<b>46</b>	<b>37</b>
Okanagan	immunized	3,323	3,901	3,886	3,829	4,134	4,359	4,380	4,262	3,828	3,040	2,883	2,780
	total staff	4,593	5,845	5,283	5,509	5,520	5,529	5,437	5,872	6,126	5,875	6,118	6,395
	<b>% immunized</b>	<b>72</b>	<b>67</b>	<b>74</b>	<b>70</b>	<b>75</b>	<b>79</b>	<b>81</b>	<b>73</b>	<b>63</b>	<b>52</b>	<b>47</b>	<b>43</b>
Thompson Cariboo Shuswap	immunized	1,827	1,962	2,558	2,504	2,666	2,827	2,739	2,714	2,562	2,096	2,104	1,784
	total staff	2,193	2,681	3,214	3,278	3,266	3,312	3,234	3,452	3,553	3,377	3,732	3,863
	<b>% immunized</b>	<b>83</b>	<b>73</b>	<b>80</b>	<b>76</b>	<b>82</b>	<b>85</b>	<b>85</b>	<b>79</b>	<b>72</b>	<b>62</b>	<b>56</b>	<b>46</b>
<b>FRASER</b>	immunized	11,013	15,247	15,399	15,547	14,110	14,213	13,566	13,141	12,720	10,436	9,187	7,031
	total staff	14,883	19,001	19,262	19,742	18,057	18,032	17,434	18,388	18,726	18,592	20,299	23,463
	<b>% immunized</b>	<b>74</b>	<b>80</b>	<b>80</b>	<b>79</b>	<b>78</b>	<b>79</b>	<b>79</b>	<b>72</b>	<b>68</b>	<b>56</b>	<b>45</b>	<b>30</b>
Fraser East	immunized	2,053	2,761	2,859	2,745	2,504	2,491	2,379	2,448	2,236	1,457	1,555	1,329
	total staff	2,781	3,510	3,635	3,655	3,310	3,318	3,155	3,464	3,435	3,372	3,849	4,540
	<b>% immunized</b>	<b>74</b>	<b>79</b>	<b>79</b>	<b>75</b>	<b>76</b>	<b>75</b>	<b>75</b>	<b>71</b>	<b>65</b>	<b>43</b>	<b>40</b>	<b>29</b>
Fraser North	immunized	4,390	5,893	5,790	6,007	5,588	5,641	5,413	5,103	4,962	4,474	3,940	3,023
	total staff	5,825	7,301	7,167	7,492	7,038	6,931	6,749	6,939	7,020	7,037	7,741	9,038
	<b>% immunized</b>	<b>75</b>	<b>81</b>	<b>81</b>	<b>80</b>	<b>79</b>	<b>81</b>	<b>80</b>	<b>74</b>	<b>71</b>	<b>64</b>	<b>51</b>	<b>33</b>
Fraser South	immunized	4,570	6,593	6,750	6,795	6,018	6,081	5,774	5,590	5,522	4,505	3,695	2,679
	total staff	6,277	8,190	8,460	8,595	7,709	7,783	7,530	7,985	8,271	8,183	8,729	9,885
	<b>% immunized</b>	<b>73</b>	<b>81</b>	<b>80</b>	<b>79</b>	<b>78</b>	<b>78</b>	<b>77</b>	<b>70</b>	<b>67</b>	<b>55</b>	<b>42</b>	<b>27</b>

**Table 2 (cont'd).** Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2012/13 to 2023/24

Health authority		Influenza season											
		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
VANCOUVER COASTAL	immunized	5,553	12,060	12,274	12,702	12,000	11,471	11,741	11,303	11,231	10,239	8,683	9,039
	total staff	7,828	15,982	16,312	16,785	16,249	15,615	16,074	17,159	17,588	17,401	19,533	21,016
	<b>% immunized</b>	<b>71</b>	<b>75</b>	<b>75</b>	<b>76</b>	<b>74</b>	<b>73</b>	<b>73</b>	<b>66</b>	<b>64</b>	<b>59</b>	<b>44</b>	<b>43</b>
Richmond	immunized	792	1,055	1,086	1,119	1,024	1,002	1,097	976	914	853	784	812
	total staff	993	1,327	1,285	1,353	1,297	1,252	1,415	1,382	1,379	1,386	1,524	1,666
	<b>% immunized</b>	<b>80</b>	<b>80</b>	<b>85</b>	<b>83</b>	<b>79</b>	<b>80</b>	<b>78</b>	<b>71</b>	<b>66</b>	<b>62</b>	<b>51</b>	<b>49</b>
Vancouver	immunized	3,364	8,994	9,093	9,558	9,091	8,508	8,792	8,423	8,525	7,772	6,561	6,803
	total staff	4,996	12,003	12,400	12,767	12,430	11,876	12,186	12,942	13,292	13,161	14,702	15,811
	<b>% immunized</b>	<b>67</b>	<b>75</b>	<b>73</b>	<b>75</b>	<b>73</b>	<b>72</b>	<b>72</b>	<b>65</b>	<b>64</b>	<b>59</b>	<b>45</b>	<b>43</b>
North Shore/Coast Garibaldi	immunized	1,397	2,011	2,095	2,025	1,885	1,907	1,852	1,904	1,792	1,614	1,338	1,424
	total staff	1,839	2,652	2,627	2,665	2,522	2,487	2,473	2,835	2,917	2,854	3,307	3,539
	<b>% immunized</b>	<b>76</b>	<b>76</b>	<b>80</b>	<b>76</b>	<b>75</b>	<b>77</b>	<b>75</b>	<b>67</b>	<b>61</b>	<b>57</b>	<b>40</b>	<b>40</b>
ISLAND	immunized	6,143	8,241	7,811	7,593	7,653	7,432	9,154	9,713	9,486	8,600	8,130	6,088
	total staff	8,345	11,360	11,119	11,592	11,585	11,447	11,454	12,072	12,797	12,701	13,506	14,160
	<b>% immunized</b>	<b>74</b>	<b>73</b>	<b>70</b>	<b>66</b>	<b>66</b>	<b>65</b>	<b>80</b>	<b>81</b>	<b>74</b>	<b>68</b>	<b>60</b>	<b>43</b>
South Vancouver Island	immunized	3,975	4,722	4,458	4,312	4,345	4,148	5,029	5,345	5,334	4,866	4,786	3,597
	total staff	5,295	6,402	6,395	6,585	6,487	6,402	6,290	6,605	6,947	6,901	7,482	7,852
	<b>% immunized</b>	<b>75</b>	<b>74</b>	<b>70</b>	<b>65</b>	<b>67</b>	<b>65</b>	<b>80</b>	<b>81</b>	<b>77</b>	<b>71</b>	<b>64</b>	<b>46</b>
Central Vancouver Island	immunized	1,673	2,070	2,060	1,970	1,967	2,023	2,507	2,678	2,454	2,224	2,027	1,570
	total staff	2,401	3,119	3,080	3,231	3,247	3,342	3,255	3,436	3,532	3,486	3,753	3,955
	<b>% immunized</b>	<b>70</b>	<b>66</b>	<b>67</b>	<b>61</b>	<b>61</b>	<b>62</b>	<b>77</b>	<b>78</b>	<b>69</b>	<b>64</b>	<b>54</b>	<b>40</b>
North Vancouver Island	immunized	495	1,449	1,293	1,311	1,341	1,261	1,618	1,690	1,698	1,510	1,317	921
	total staff	649	1,839	1,644	1,776	1,851	1,803	1,909	2,031	2,318	2,314	2,271	2,353
	<b>% immunized</b>	<b>76</b>	<b>79</b>	<b>79</b>	<b>74</b>	<b>72</b>	<b>72</b>	<b>85</b>	<b>83</b>	<b>73</b>	<b>65</b>	<b>58</b>	<b>39</b>

**Table 2 (cont'd).** Immunization coverage for staff of acute care facilities by health authority and health service delivery area, 2012/13 to 2023/24

Health authority		Influenza season											
		2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
<b>NORTHERN</b>	immunized	2,612	2,913	3,012	2,849	3,035	2,956	3,010	3,244	2,872	2,844	2,311	1,620
	total staff	3,459	3,992	4,007	4,232	4,117	4,123	3,882	4,289	4,319	4,289	4,415	4,485
	<b>% immunized</b>	<b>76</b>	<b>73</b>	<b>75</b>	<b>67</b>	<b>74</b>	<b>72</b>	<b>78</b>	<b>76</b>	<b>67</b>	<b>66</b>	<b>52</b>	<b>36</b>
Northwest	immunized	673	732	774	736	786	780	770	840	724	695	580	466
	total staff	909	1,017	1,035	1,078	1,077	1,081	991	1,090	1,069	1,037	1,070	1,133
	<b>% immunized</b>	<b>74</b>	<b>72</b>	<b>75</b>	<b>68</b>	<b>73</b>	<b>72</b>	<b>78</b>	<b>77</b>	<b>68</b>	<b>67</b>	<b>54</b>	<b>41</b>
Northern Interior	immunized	1,473	1,661	1,695	1,618	1,751	1,666	1,759	1,869	1,706	1,752	1,376	914
	total staff	1,908	2,229	2,228	2,387	2,307	2,325	2,238	2,475	2,512	2,548	2,598	2,557
	<b>% immunized</b>	<b>77</b>	<b>75</b>	<b>76</b>	<b>68</b>	<b>76</b>	<b>72</b>	<b>79</b>	<b>76</b>	<b>68</b>	<b>69</b>	<b>53</b>	<b>36</b>
Northeast	immunized	466	520	543	495	498	510	481	535	442	397	355	240
	total staff	642	746	744	767	733	717	653	724	738	704	747	795
	<b>% immunized</b>	<b>73</b>	<b>70</b>	<b>73</b>	<b>65</b>	<b>68</b>	<b>71</b>	<b>74</b>	<b>74</b>	<b>60</b>	<b>56</b>	<b>48</b>	<b>30</b>
<b>PHSA</b>	immunized	4,038	4,998	4,932	5,215	5,155	5,570	5,479	5,185	4,939	4,485	2,545	4,152
	total staff	5,710	6,398	6,233	6,622	6,512	6,778	6,328	6,966	6,892	7,393	5,362	8,998
	<b>% immunized</b>	<b>71</b>	<b>78</b>	<b>79</b>	<b>79</b>	<b>79</b>	<b>82</b>	<b>87</b>	<b>74</b>	<b>72</b>	<b>61</b>	<b>48</b>	<b>46</b>
<b>BC</b>	immunized	35,899	50,878	51,580	51,888	50,435	50,456	51,752	51,328	49,193	42,993	37,040	33,552
	total staff	48,818	67,459	67,580	69,962	67,456	67,055	65,953	70,467	72,445	71,976	75,406	84,896
	<b>% immunized</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>74</b>	<b>75</b>	<b>75</b>	<b>78</b>	<b>73</b>	<b>68</b>	<b>60</b>	<b>49</b>	<b>40</b>



2023/24 policy compliance results (Figure 4, Table 3)

- Pharmacy, management/leadership, and allied health staff reported the highest coverage; this is the same finding as in the previous five influenza seasons (Figure 4)
- 40% of staff in acute care facilities in BC reported being vaccinated, 12% reported declining vaccination, and 49% did not report vaccination status and were considered to be unvaccinated for the purpose of this report (Table 3)
  - The low coverage in certain occupation categories (e.g., medical staff) is largely due to non-reporting rather than declining vaccination. In 2023/24, only 0.3% of medical staff declined vaccination, while 82% did not report their vaccination status (Figure 4)

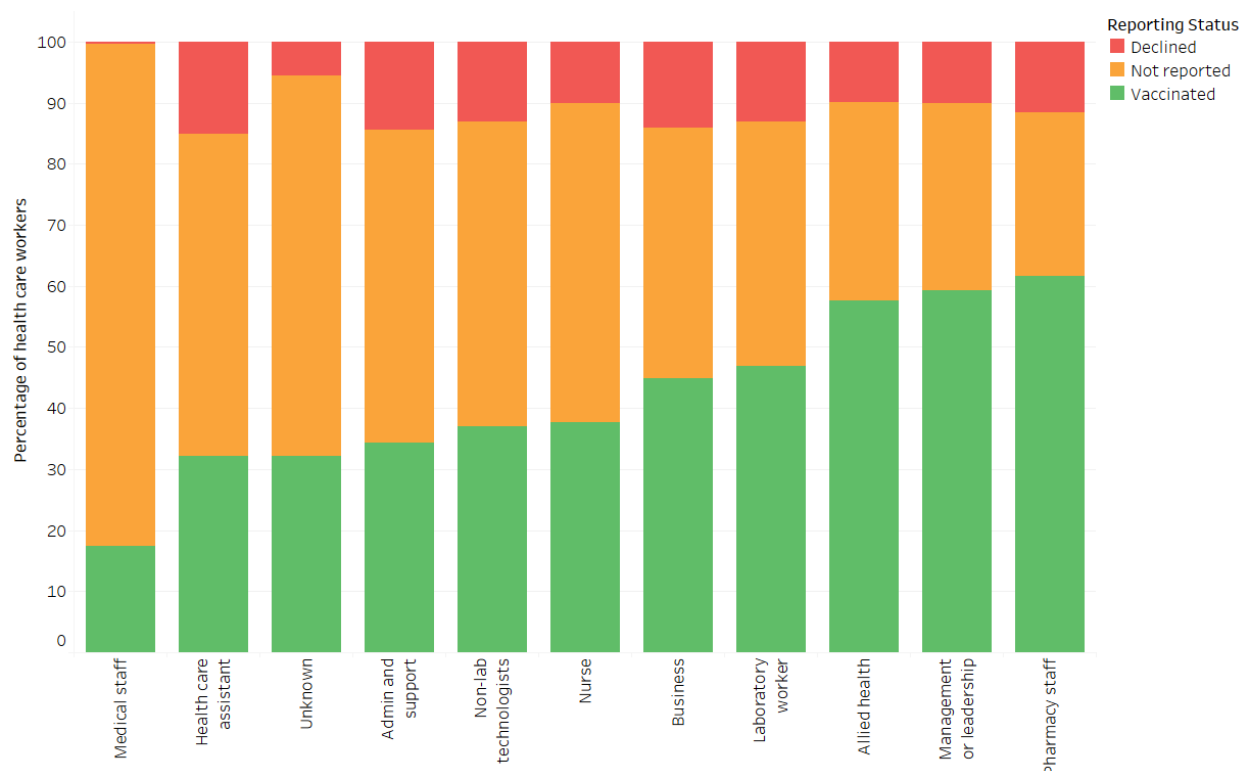


Figure 4. Influenza immunization coverage for staff of acute care facilities by occupation group, British Columbia 2023/24

Table 3. Influenza Prevention Policy compliance for acute health care workers by health authority, 2023/24

Health Authority	Compliance Status						Total	
	Vaccinated		Declined		Not reported		No.	%
	No.	%	No.	%	No.	%		
IH	5,622	44	2,984	23	4,168	33	12,774	100
FH	7,031	30	2,625	11	13,807	59	23,463	100
VCH	9,039	43	1,276	6	10,701	51	21,016	100
ISLH	6,088	43	1,933	14	6,139	43	14,160	100
NH	1,620	36	665	15	2,200	49	4,485	100
PHSA	4,152	46	528	6	4,318	48	8,998	100
<b>Total</b>	<b>33,552</b>	<b>40</b>	<b>10,011</b>	<b>12</b>	<b>41,333</b>	<b>49</b>	<b>84,896</b>	<b>100</b>