

Influenza vaccination coverage for residents of residential care facilities British Columbia, 2013/14

Background

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

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

The 2007 Immunize BC Strategic Framework for Immunization target for influenza vaccination for residents of residential care facilities is 90% coverage. Influenza vaccination coverage for residents of residential care facilities in British Columbia (BC) ranged from 89% to 93% from the 2004/05 to 2012/13 influenza seasons.

Objective

- i) To quantify the proportion of residents of residential care facilities in British Columbia who were vaccinated against influenza during the 2013/14 influenza season.

Methods

Influenza immunization coverage for residents of residential 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 in BC, which are comprised of 16 health service delivery areas.

Residential care facilities were defined as facilities with 50% or more residents aged 65 years and older that are either:

- licensed under the Hospital Act; or
- licensed under the Community Care and Assisted Living Act and provide some health care services.

A list of the residential care facilities included in the 2012/13 influenza season's vaccination coverage statistics was sent to each health authority for review and updating. Residential care facilities that closed during the previous year were removed and new facilities were added to the list. For each residential care facility, data were collected on the number of residents who were vaccinated against influenza and the total number of residents. Vaccination coverage data were collected by health authority staff and entered into an online data collection form.

Results

Reporting of facilities (table 1)

- 328/362 (91%) residential care facilities in BC are included in this report

2013/14 influenza vaccination coverage (tables 2 and 3; figures 1 to 5)

- 90% (25,317/28,105) of residents of residential care facilities in BC were vaccinated against influenza, similar to the 89% (26,784/30,109) coverage in 2012/13
- 84% to 93% coverage was the range across the five health authorities
- 68% to 95% coverage was the range across the sixteen health service delivery areas
- 9% to 100% coverage was the range across all residential care facilities in BC
- 202/328 (62%) facilities met the 90% immunization coverage target, which is up from 193/348 (55%) in 2012/13

Results excluding privately funded facilities (Tables 5 and 6)

- 241/275 (88%) publicly funded or contracted residential facilities were included
- 90% (18,575/20,654) of residents were vaccinated against influenza

Summary

Influenza immunization data were available for the majority of residential care facilities. Influenza vaccination coverage for residents of residential care facilities in BC was 90%, which is the Immunization BC coverage target; 202/328 (62%) facilities met the 90% coverage target. Influenza immunization coverage was the same (90%) when privately funded facilities were excluded from the analysis.

There was a wide range of influenza vaccination coverage for residential care facilities within health authorities, except for Vancouver Coastal Health in which all facilities had at least 80% coverage. The reasons behind the variation in vaccination coverage between facilities were not assessed.

While the 90% influenza vaccination coverage target was met for residents of residential care facilities for the 2013/14 season, substantial room for improvement remains for some facilities.

Tables and Figures

Table 1: Number and proportion of residential care facilities for which resident coverage rates were reported, by health authority, 2013/14

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	63	94	67
Fraser	102	103	99
Vancouver Coastal	60	62	97
Vancouver Island	79	79	100
Northern	24	24	100
British Columbia	328	362	91

Table 2: Influenza vaccination coverage for residents of residential care facilities by health authority, health service delivery area, 2013/14

Health authority	Residential care facility residents		
	Immunized	Total	%
Interior	3,717	4,433	84
East Kootenay	416	616	68
Kootenay Boundary	512	620	83
Okanagan	1,630	1,929	84
Thompson/Cariboo/Shuswap	1,159	1,268	91
Fraser	8,608	9,411	91
Fraser East	1,543	1,721	90
Fraser North	3,121	3,441	91
Fraser South	3,944	4,249	93
Vancouver Coastal	6,178	6,631	93
Richmond	774	818	95
Vancouver	3,896	4,178	93
N Shore/Coast Garibaldi	1,508	1,635	92
Vancouver Island	5,792	6,502	89
South Vancouver Island	3,109	3,471	90
Central Vancouver Island	2,058	2,326	88
North Vancouver Island	625	705	89
Northern	1,022	1,128	91
Northwest	244	284	86
Northern Interior	551	594	93
Northeast	227	250	91
BC	25,317	28,105	90

Table 3: Residential care facility resident influenza vaccination coverage by health authority 2004/05 to 2013/14

Health authority	Influenza immunization coverage (%) for residents of residential care facilities by influenza season									
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Interior	90	91	90	89	89	88	85	85	84	84
Fraser	91	93	93	93	91	90	90	90	91	91
Vancouver Coastal	94	93	94	93	93	91	92	92	92	93
Vancouver Island	91	90	93	91	91	89	90	88	88	89
Northern	93	95	95	93	92	89	90	87	89	91
British Columbia	92	92	93	92	91	90	90	89	89	90

Figure 1: Influenza immunization coverage for residents of residential care facilities, 2003/04 to 2013/14

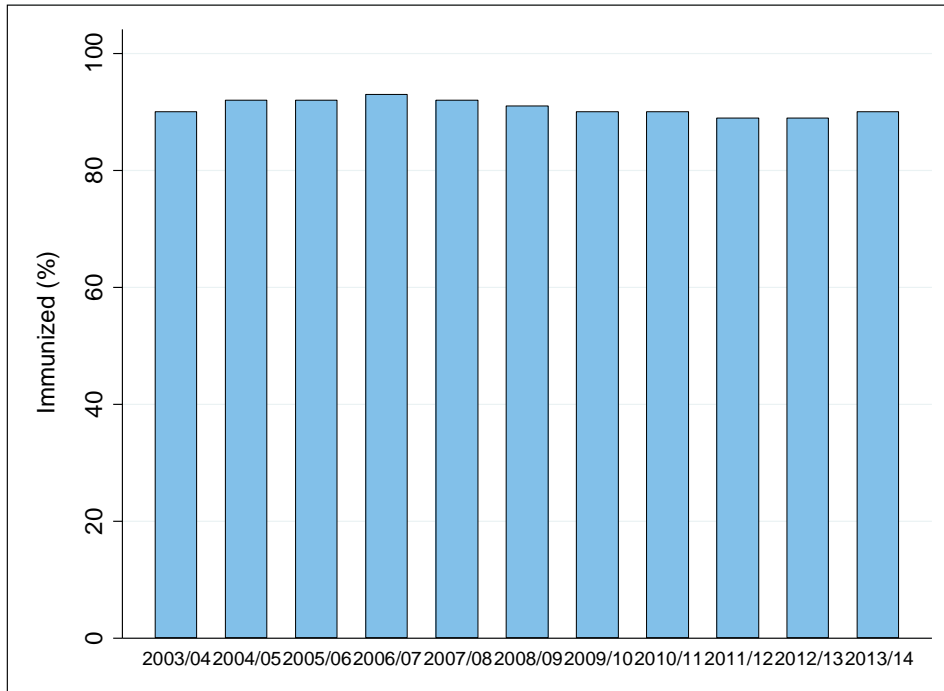


Figure 2: Influenza immunization coverage for residents of residential care facilities by health authority, 2013/14

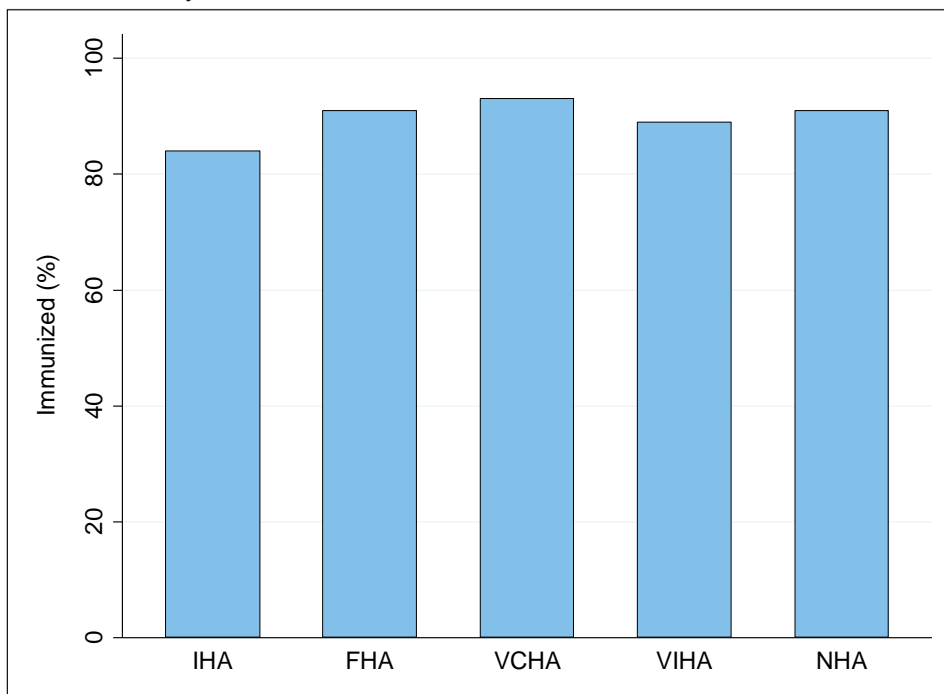


Figure 3: Influenza immunization coverage for residents of residential care facilities by health service delivery area, 2013/14

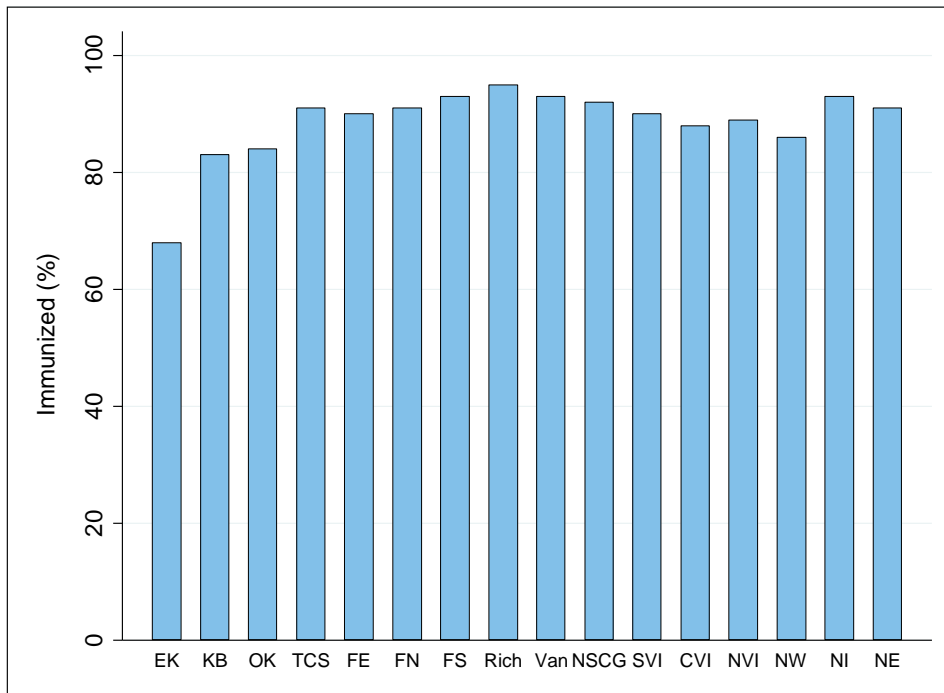


Figure 4: Influenza immunization coverage for residents of residential care facilities by facility size (number of residents), 2013/14

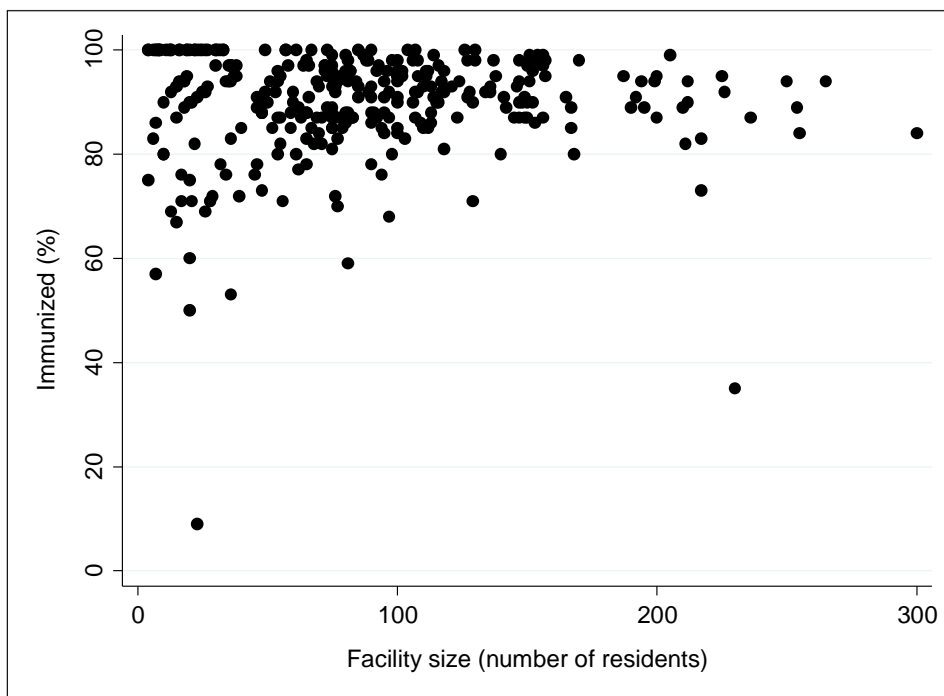


Figure 5: Influenza immunization coverage for residents of residential care facilities by facility within each health authority, 2013/14

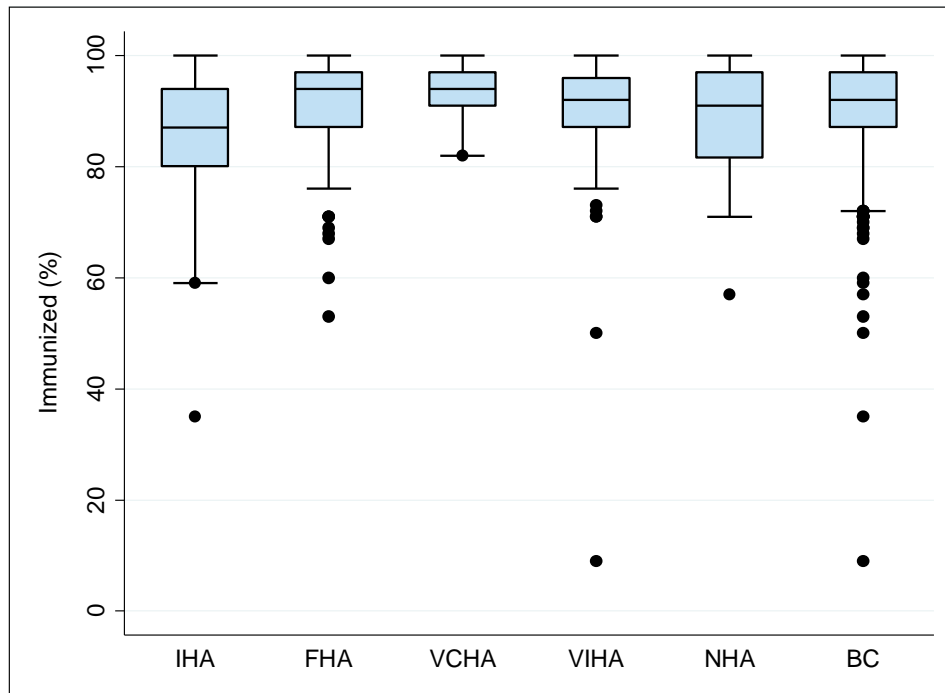


Figure 5 illustrates the range of influenza immunization coverage for residential care facilities in each health authority and for BC for the 2013/14 influenza season. The horizontal line below each box represents the lowest observed coverage value that is greater than or equal to the first quartile minus 1.5 times the interquartile range; the lower edge of each box represents the 25th percentile; the solid horizontal line within each box represent the median coverage value; the upper edge of each box represents the 75th percentile; the horizontal line above each box represents the highest observed coverage value that is less than or equal to the third quartile plus the interquartile range; and the dots represent facilities with unusually high or low coverage values which may be outliers.

Table 4: Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2005/06 to 2013/14

Health region		Influenza season									
		2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14
INTERIOR	immunized	4,214	4,341	4,970	4,846	4,968	-	5,081	5,343	4,883	3,717
	total residents	4,623	4,797	5,575	5,443	5,648	-	5,985	6,322	5,843	4,433
	% immunized	91	90	89	89	88	-	85	85	84	84
East Kootenay	immunized	463	444	444	343	490	-	544	479	570	416
	total residents	515	467	551	371	572	-	711	573	650	616
	% immunized	90	95	81	92	86	-	77	84	88	68
Kootenay Boundary	immunized	547	552	457	545	391	-	547	650	581	512
	total residents	602	648	589	641	466	-	682	812	809	620
	% immunized	91	85	78	85	84	-	80	80	72	83
Okanagan	immunized	2,338	2,317	2,770	2,587	2,724	-	2,666	3,203	2,773	1,630
	total residents	2,585	2,553	3,026	2,916	3,159	-	3,124	3,755	3,315	1,929
	% immunized	90	91	92	89	86	-	85	85	84	84
Thomps Carib Shuswap	immunized	866	1,028	1,299	1,371	1,363	-	1,324	1,011	959	1,159
	total residents	921	1,129	1,409	1,515	1,451	-	1,468	1,182	1,069	1,268
	% immunized	94	91	92	90	94	-	90	86	90	91
FRASER	immunized	7,253	8,034	7,269	7,352	7,703	6,884	7,911	8,041	8,812	8,608
	total residents	7,787	8,615	7,855	8,092	8,571	8,611	8,750	8,935	9,679	9,411
	% immunized	93	93	93	91	90	80	90	90	91	91
Fraser East	immunized	1,520	1,587	1,548	1,471	1,425	1,192	1,478	1,447	1,559	1,543
	total residents	1,705	1,706	1,733	1,629	1,630	1,631	1,640	1,635	1,768	1,721
	% immunized	89	93	89	90	87	73	90	89	88	90
Fraser North	immunized	2,637	2,872	2,663	2,768	2,614	2,422	3,032	3,035	3,052	3,121
	total residents	2,798	3,057	2,846	3,025	2,878	2,826	3,341	3,333	3,334	3,441
	% immunized	94	94	94	92	91	86	91	91	92	91
Fraser South	immunized	3,096	3,575	3,058	3,113	3,664	3,270	3,401	3,559	4,201	3,944
	total residents	3,284	3,852	3,276	3,438	4,063	4,154	3,769	3,967	4,577	4,249
	% immunized	94	93	93	91	90	79	90	90	92	93

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2005/06 to 2013/14

Health region		Influenza season									
		2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14
VANCOUVER COASTAL	immunized	6,547	6,824	6,741	6,713	6,171	5,325	6,800	6,487	6,387	6,178
	total residents	7,034	7,268	7,256	7,208	6,794	6,794	7,375	7,047	6,960	6,631
	% immunized	93	94	93	93	91	78	92	92	92	93
Richmond	immunized	810	856	830	729	832	601	798	789	664	774
	total residents	844	888	861	752	882	882	841	834	705	818
	% immunized	96	96	96	97	94	68	95	95	94	95
Vancouver	immunized	4,293	4,320	4,202	4,240	3,968	3,566	4,224	4,073	4,013	3,896
	total residents	4,669	4,627	4,559	4,580	4,372	4,372	4,592	4,418	4,345	4,178
	% immunized	92	93	92	93	91	82	92	92	92	93
N Shore/Coast Garibaldi	immunized	1,444	1,648	1,709	1,744	1,371	1,158	1,778	1,625	1,710	1,508
	total residents	1,521	1,753	1,836	1,876	1,540	1,540	1,942	1,795	1,910	1,635
	% immunized	95	94	93	93	89	75	92	91	90	92
VANCOUVER ISLAND	immunized	5,224	4,963	5,107	5,384	5,606	-	5,617	5,605	5,579	5,792
	total residents	5,783	5,361	5,614	5,896	6,291	-	6,264	6,404	6,370	6,502
	% immunized	90	93	91	91	89	-	90	88	88	89
South Van Island	immunized	2,979	2,836	2,931	2,850	2,996	-	2,988	2,928	2,974	3,109
	total residents	3,283	3,065	3,215	3,107	3,355	-	3,301	3,415	3,424	3,471
	% immunized	91	93	91	92	89	-	91	86	87	90
Central Van Island	immunized	1,783	1,649	1,707	2,030	2,020	-	2,034	2,066	1,993	2,058
	total residents	2,005	1,796	1,897	2,248	2,299	-	2,300	2,308	2,262	2,326
	% immunized	89	92	90	90	88	-	88	90	88	88
North Van Island	immunized	462	478	469	504	590	-	595	611	612	625
	total residents	495	500	502	541	637	-	663	681	684	705
	% immunized	93	96	93	93	93	-	90	90	89	89

Table 4 (cont'd): Immunization coverage for residents of residential care facilities by health authority and health service delivery area, 2005/06 to 2013/14

Health region		Influenza season									
		2005/06	2006/07	2007/08	2008/09	2009/10	2009/10 H1N1	2010/11	2011/12	2012/13	2013/14
NORTHERN	immunized	997	934	936	931	950	694	971	956	1,123	1,022
	total residents	1,051	986	1,005	1,009	1,072	1,075	1,079	1,103	1,257	1,128
	% immunized	95	95	93	92	89	65	90	87	89	91
Northwest	immunized	325	250	239	242	216	146	243	241	233	244
	total residents	340	264	258	260	263	264	273	277	283	284
	% immunized	96	95	93	93	82	55	89	87	82	86
Northern Interior	immunized	479	487	498	475	520	378	506	503	556	551
	total residents	494	499	521	516	569	571	562	583	597	594
	% immunized	97	98	96	92	91	66	90	86	93	93
Northeast	immunized	193	197	199	214	214	170	222	212	334	227
	total residents	217	223	226	233	240	240	244	243	377	250
	% immunized	89	88	88	92	89	71	91	87	89	91
BC	immunized	24,235	25,096	25,023	25,226	25,398	-	26,380	26,432	26,784	25,317
	total residents	26,278	27,027	27,305	27,648	28,376	-	29,453	29,811	30,109	28,105
	% immunized	92	93	92	91	90	-	90	89	89	90

Coverage excluding privately funded residential care facilities

Table 5: Number and proportion of residential care facilities reporting resident coverage, by health authority, 2013/14
(excluding privately funded residential care facilities)

Health authority	Residential care facilities		
	Reported	Total	% reported
Interior	45	76	59
Fraser	93	94	99
Vancouver Coastal	19	21	90
Vancouver Island	62	62	100
Northern	22	22	100
British Columbia	241	275	88

Table 6: Influenza vaccination coverage for residents of residential care facilities by health authority and health service delivery area, 2013/14
(excluding privately funded residential care facilities)

Health authority	Residential care facility staff		
	Immunized	Total	%
Interior	2,555	2,963	86
East Kootenay	263	297	87
Kootenay Boundary	328	414	78
Okanagan	1,113	1,325	86
Thompson/Cariboo/Shuswap	851	927	91
Fraser	8,147	8,924	91
Fraser East	1,543	1,721	88
Fraser North	3,047	3,359	92
Fraser South	3,557	3,844	93
Vancouver Coastal	1,806	1,970	92
Richmond	325	343	94
Vancouver	843	916	92
N Shore/Coast Garibaldi	638	711	90
Vancouver Island	5,187	5,816	88
South Vancouver Island	2,770	3,112	87
Central Vancouver Island	1,792	1,999	88
North Vancouver Island	625	705	89
Northern	880	981	89
Northwest	244	284	82
Northern Interior	409	447	92
Northeast	227	250	89
BC	18,575	20,654	90