Hand cleaning compliance in acute care facilities, Q2 of 2015/2016

Prepared by the Provincial Hand Hygiene Working Group of British Columbia **December 2015**

Our Mission: to create a comprehensive provincial program to improve and sustain hand hygiene culture with the goal of decreasing the transmission of healthcare-associated infections

Why are we measuring hand cleaning compliance?

Every year, more than 200,000 patients get infections while receiving healthcare in Canada, resulting in more than 8,000 deaths. These infections can easily be transmitted among patients, healthcare providers, and visitors by direct person-to-person touch or by touching contaminated shared surfaces. Proper hand hygiene can significantly reduce the spread of infection. All healthcare providers must clean their hands as a safety measure to protect both the patients and themselves from transmittable diseases.

What are we measuring?

We observe how often healthcare providers clean their hands **before** and **after** they come into contact with patients and the patient's immediate environment (e.g. around their bedside).

How do we measure it?

Every quarter, trained auditors observe a sample of healthcare providers in acute care sites across each health authority, including nursing staff, physicians, clinical support services, and others such as housekeeping staff. Glove use is not a substitute for hand cleaning. The percentage score reports how often healthcare providers clean their hands when required to do so. The health authorities do not measure the compliance in exactly the same way (e.g. self-auditing versus dedicated auditors); however, they are measuring the same thing.

How are we doing?

The overall hand cleaning compliance, at **84%** in quarter 2 (Q2) of 2015/16, continues to exceed the target of 80%. Compliance before contact is 10% lower than after contact (78% vs. 88%). Physicians continue to have the lowest compliance among the healthcare provider groups, at 74%.

What are some of the barriers?

Barriers to increasing compliance include availability of sinks and hand cleaning products, and a culture where people feel too busy to wash their hands when there is an opportunity.

What are we doing?

1. Making improvements to reduce the barriers identified, such as ensuring that hand cleaning products are readily available for all staff and patients
2. Encouraging all healthcare providers to incorporate hand cleaning into their practice routines before and after direct patient care
3. Reporting performance on a regular basis to unit staff, as well as senior leaders, physicians, and managers across the health authorities, and to the public
4. Using a variety of communications such as posters, newsletters, and posting of results in facilities and units
5. Identifying new initiatives and opportunities to improve the compliance before patient contact and to engage physicians more effectively
6. Refreshing hand hygiene programs and education to further improve and sustain the compliance
7. Working to standardize the auditing process

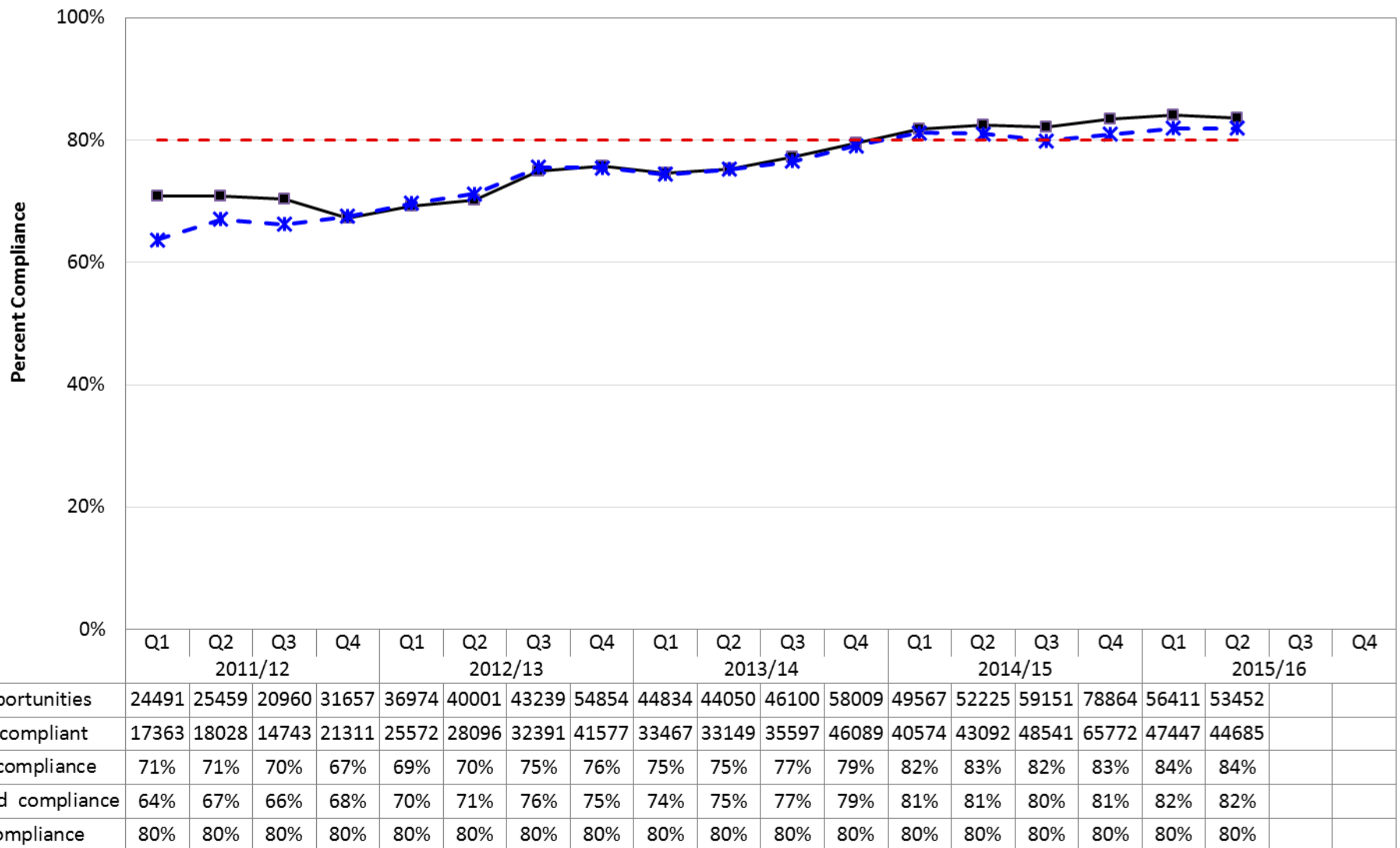
How can you become involved?

1. Clean your hands often and thoroughly before and after contact with patient and the patient's immediate environment.
2. Remind your colleagues, including physicians, to clean their hands before touching a patient.
3. Ask patients and visitors to clean their hands before and after entering patient's room and/or care unit.

Performance in Q2 of 2015/16	Performance target	Expectation
84%	**80%**	**100%**
of hand cleaning opportunities taken	of hand cleaning opportunities taken	while recognizing positive improvement

Acknowledgements: Thanks to the PICNet's Surveillance Steering Committee and Provincial Hand Hygiene Working Group Communications Sub-committee.

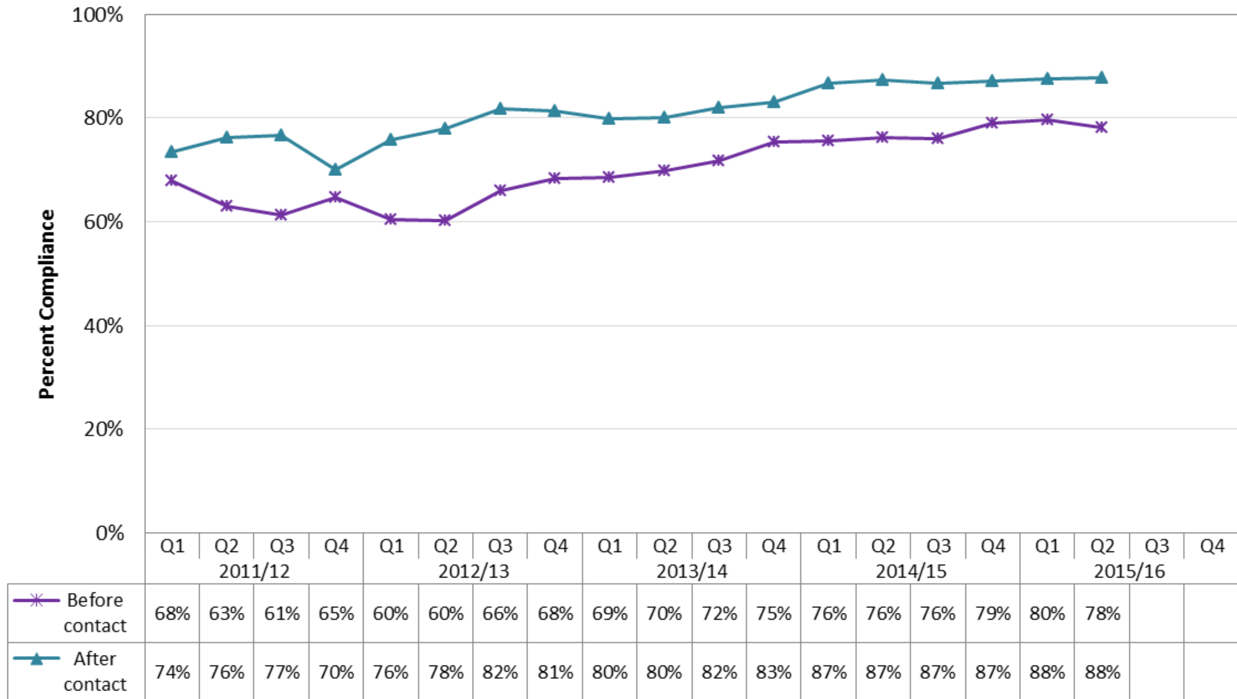
Figure 1. Overall provincial hand cleaning compliance by quarter and year[1], 2011/2012 – 2015/2016



	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	2011/12				2012/13				2013/14				2014/15				2015/16			
Total opportunities	24491	25459	20960	31657	36974	40001	43239	54854	44834	44050	46100	58009	49567	52225	59151	78864	56411	53452		
Number compliant	17363	18028	14743	21311	25572	28096	32391	41577	33467	33149	35597	46089	40574	43092	48541	65772	47447	44685		
Percent compliance	71%	71%	70%	67%	69%	70%	75%	76%	75%	75%	77%	79%	82%	83%	82%	83%	84%	84%		
Weighted compliance	64%	67%	66%	68%	70%	71%	76%	75%	74%	75%	77%	79%	81%	81%	80%	81%	82%	82%		
Target compliance	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%		

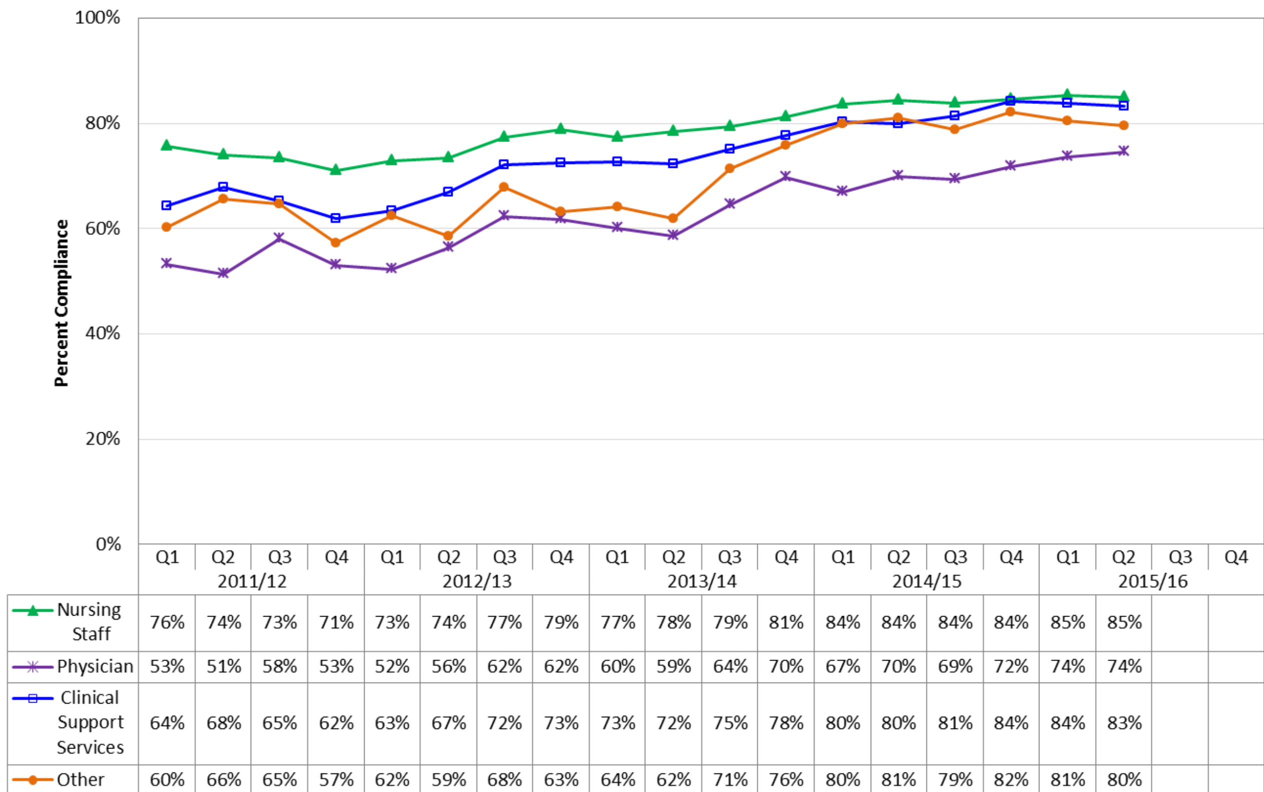
1. Data were aggregated by fiscal quarter (Q2 of 2015/2016 was from Jun 18 – Set 10, 2015) for FHA, PHC, VIHA, and NHA, and by calendar quarter (Jul 1 – Sep 30, 2015) for IHA, VCHA (except PHC) and PHSA. The provincial weighted compliance was calculated using the proportion of inpatient days in the health authorities as the weighting values. The provincial target, established by the provincial Hand Hygiene Working Group (PHHWG) in 2011, was to achieve 80% compliance by the end of fiscal year 2014/15 (March 31, 2015).

Figure 2. Provincial hand cleaning compliance by moment of contact[2], 2011/2012 – 2015/2016



	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3	Q4
Before contact	68%	63%	61%	65%	60%	60%	66%	68%	69%	70%	72%	75%	76%	76%	76%	79%	80%	78%		
After contact	74%	76%	77%	70%	76%	78%	82%	81%	80%	80%	82%	83%	87%	87%	87%	87%	88%	88%		

Figure 3. Provincial hand cleaning compliance by healthcare provider, 2011/2012 – 2015/2016

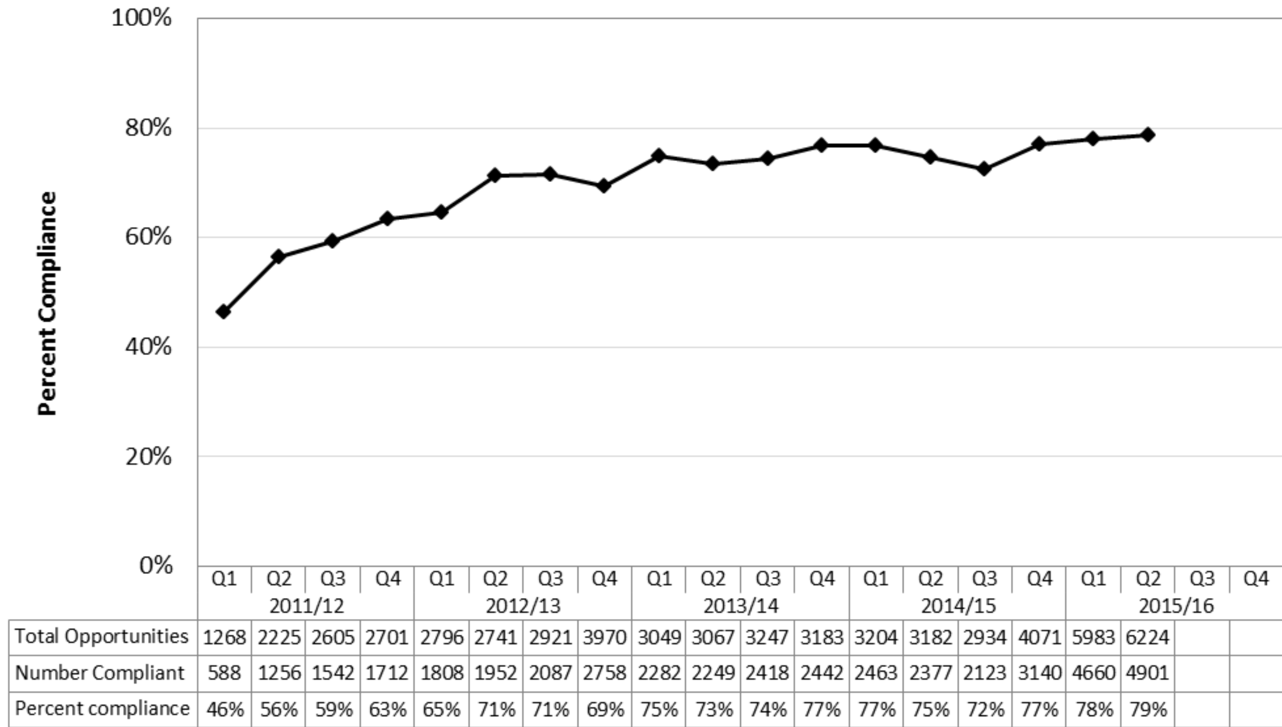


	2011/12 Q1	Q2	Q3	Q4	2012/13 Q1	Q2	Q3	Q4	2013/14 Q1	Q2	Q3	Q4	2014/15 Q1	Q2	Q3	Q4	2015/16 Q1	Q2	Q3	Q4
Nursing Staff	76%	74%	73%	71%	73%	74%	77%	79%	77%	78%	79%	81%	84%	84%	84%	84%	85%	85%		
Physician	53%	51%	58%	53%	52%	56%	62%	62%	60%	59%	64%	70%	67%	70%	69%	72%	74%	74%		
Clinical Support Services	64%	68%	65%	62%	63%	67%	72%	73%	73%	72%	75%	78%	80%	80%	81%	84%	84%	83%		
Other	60%	66%	65%	57%	62%	59%	68%	63%	64%	62%	71%	76%	80%	81%	79%	82%	81%	80%		

2. Before contact includes the moments before contact with the patient or the patient's immediate environment (i.e. around their bedside). After contact includes the moments after contact with the patient or the patient's immediate environment (i.e. around their bedside)

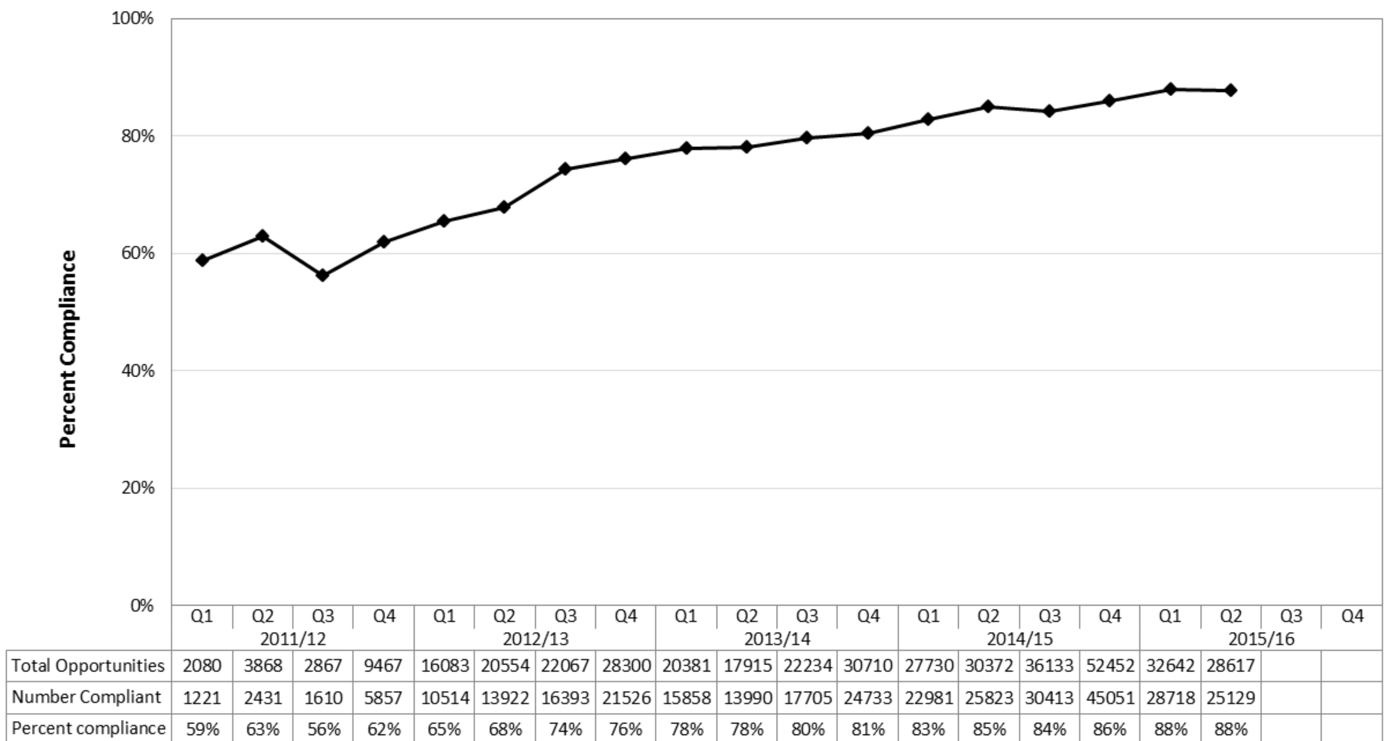
Note: Direct comparison of the percent compliances between health authorities is **NOT** recommended due to the differences in the auditing methodology and sampling strategy.

Figure 4. Overall hand cleaning compliance in Interior Health, 2011/2012 – 2015/2016



	2011/12 Q1	2011/12 Q2	2011/12 Q3	2011/12 Q4	2012/13 Q1	2012/13 Q2	2012/13 Q3	2012/13 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2015/16 Q1	2015/16 Q2	2015/16 Q3	2015/16 Q4
Total Opportunities	1268	2225	2605	2701	2796	2741	2921	3970	3049	3067	3247	3183	3204	3182	2934	4071	5983	6224		
Number Compliant	588	1256	1542	1712	1808	1952	2087	2758	2282	2249	2418	2442	2463	2377	2123	3140	4660	4901		
Percent compliance	46%	56%	59%	63%	65%	71%	71%	69%	75%	73%	74%	77%	77%	75%	72%	77%	78%	79%		

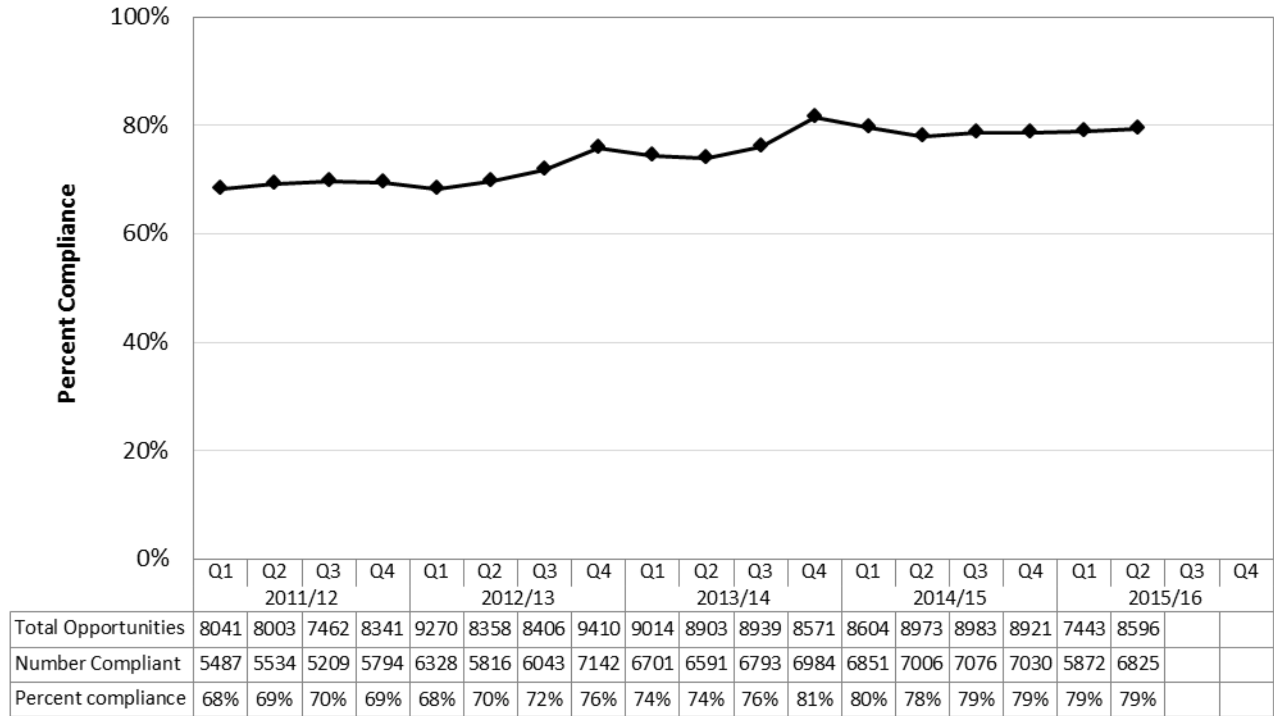
Figure 5. Overall hand cleaning compliance in Fraser Health[3], 2011/2012 – 2015/2016



	2011/12 Q1	2011/12 Q2	2011/12 Q3	2011/12 Q4	2012/13 Q1	2012/13 Q2	2012/13 Q3	2012/13 Q4	2013/14 Q1	2013/14 Q2	2013/14 Q3	2013/14 Q4	2014/15 Q1	2014/15 Q2	2014/15 Q3	2014/15 Q4	2015/16 Q1	2015/16 Q2	2015/16 Q3	2015/16 Q4
Total Opportunities	2080	3868	2867	9467	16083	20554	22067	28300	20381	17915	22234	30710	27730	30372	36133	52452	32642	28617		
Number Compliant	1221	2431	1610	5857	10514	13922	16393	21526	15858	13990	17705	24733	22981	25823	30413	45051	28718	25129		
Percent compliance	59%	63%	56%	62%	65%	68%	74%	76%	78%	78%	80%	81%	83%	85%	84%	86%	88%	88%		

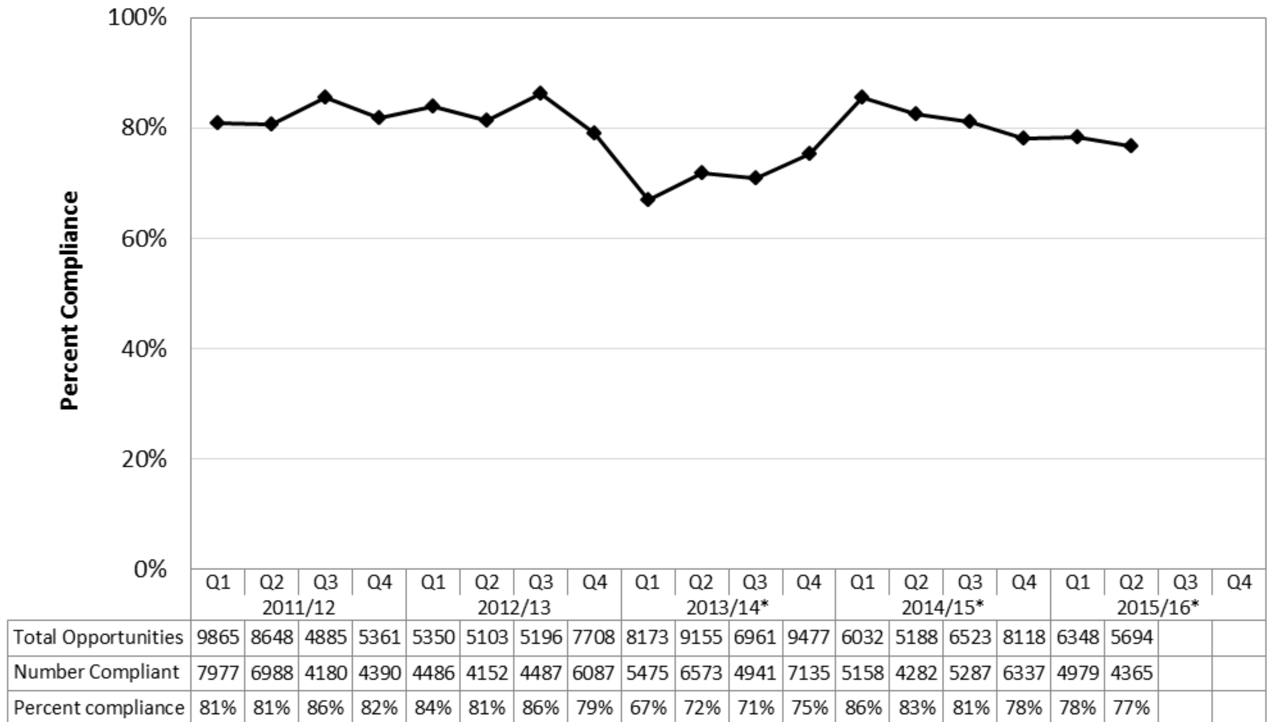
3. Includes self-audits conducted by units/departments in some facilities

Figure 6. Overall hand cleaning compliance in Vancouver Coastal Health[4], 2011/2012 – 2015/2016



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Opportunities	8041	8003	7462	8341	9270	8358	8406	9410	9014	8903	8939	8571	8604	8973	8983	8921	7443	8596		
Number Compliant	5487	5534	5209	5794	6328	5816	6043	7142	6701	6591	6793	6984	6851	7006	7076	7030	5872	6825		
Percent compliance	68%	69%	70%	69%	68%	70%	72%	76%	74%	74%	76%	81%	80%	78%	79%	79%	79%	79%		

Figure 7. Overall hand cleaning compliance in Island Health[5], 2011/2012 –Q1 2015/2016

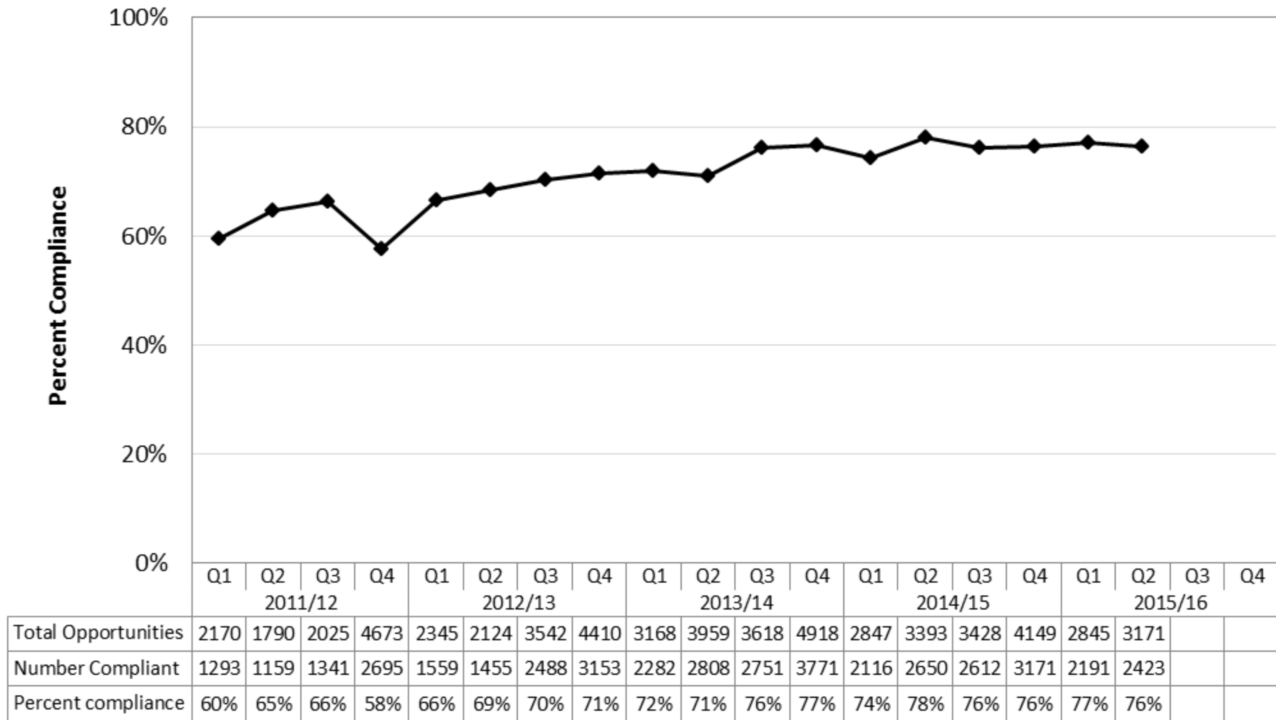


	2011/12				2012/13				2013/14*				2014/15*				2015/16*			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Opportunities	9865	8648	4885	5361	5350	5103	5196	7708	8173	9155	6961	9477	6032	5188	6523	8118	6348	5694		
Number Compliant	7977	6988	4180	4390	4486	4152	4487	6087	5475	6573	4941	7135	5158	4282	5287	6337	4979	4365		
Percent compliance	81%	81%	86%	82%	84%	81%	86%	79%	67%	72%	71%	75%	86%	83%	81%	78%	78%	77%		

* Dedicated auditors were employed to perform auditing in some facilities as of Q1 of 2013/2014

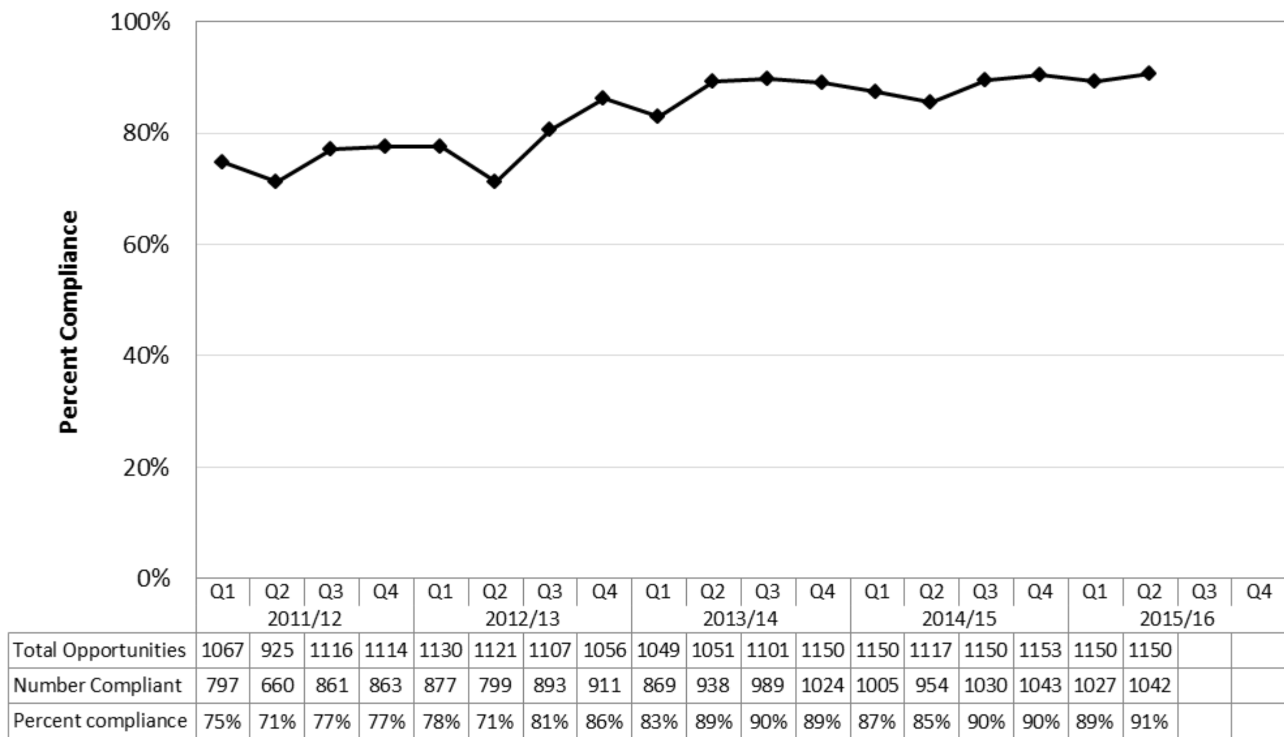
4. Includes Providence Health Care, which aggregated audits data by fiscal quarter
5. Includes self-audits conducted by units/departments in some facilities.

Figure 8. Overall hand cleaning compliance in Northern Health[6], 2011/2012 – 2015/2016



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Opportunities	2170	1790	2025	4673	2345	2124	3542	4410	3168	3959	3618	4918	2847	3393	3428	4149	2845	3171		
Number Compliant	1293	1159	1341	2695	1559	1455	2488	3153	2282	2808	2751	3771	2116	2650	2612	3171	2191	2423		
Percent compliance	60%	65%	66%	58%	66%	69%	70%	71%	72%	71%	76%	77%	74%	78%	76%	76%	77%	76%		

Figure 9. Overall hand cleaning compliance in Provincial Health Services Authority[7], 2011/2012 –Q1 2015/2016



	2011/12				2012/13				2013/14				2014/15				2015/16			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Opportunities	1067	925	1116	1114	1130	1121	1107	1056	1049	1051	1101	1150	1150	1117	1150	1153	1150	1150		
Number Compliant	797	660	861	863	877	799	893	911	869	938	989	1024	1005	954	1030	1043	1027	1042		
Percent compliance	75%	71%	77%	77%	78%	71%	81%	86%	83%	89%	90%	89%	87%	85%	90%	90%	89%	91%		

6. Includes self-audits conducted by units/departments in some facilities
7. Includes BC Children's Hospital, BC Women's Hospital, and BC Cancer Agency Vancouver Center