



HEALTH QUALITY & SAFETY  
COMMISSION NEW ZEALAND  
*Kupu Taurangi Hauora o Aotearoa*

**National hand hygiene compliance report:  
1 November 2016 to 31 March 2017**

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## **Introduction**

This report presents results for national hand hygiene compliance by district health boards (DHBs) for the period 1 November 2016 to 31 March 2017.

Compliance is measured as part of the Health Quality & Safety Commission's (the Commission) Hand Hygiene New Zealand (HHNZ) programme.

The HHNZ programme is one of two programmes that are part of the Commission's infection prevention and control programme. These targeted improvement initiatives aim to reduce the harm and cost of healthcare associated infections within New Zealand's health and disability sector.

The HHNZ programme uses the World Health Organization's (WHO) '5 moments for hand hygiene' framework to drive culture change and establish best hand hygiene practice for every patient, every time.

Auckland DHB delivered the HHNZ programme on behalf of the Commission between 2011 and 2015. In February 2016 the programme was transitioned to the Commission.

## **Achievements in this audit period**

- DHBs achieved the national hand hygiene compliance target of 80 percent set in June 2015 for the sixth consecutive audit period.
- Compliance among many health care worker categories continued to improve. Particularly pleasing is the continued improvement among nurses and midwives, health care assistants and allied health care workers.
- There are continual improvements being made in the areas where patients at high risk of infection are cared for, including emergency departments.
- Hand hygiene compliance and glove use has also continued to improve for before gloves are put on, and when gloves are taken off.
- Fourteen DHBs maintained or improved their compliance rate compared with the previous audit period.
- Fifteen DHBs achieved at or above the national target of 80 percent which is consistent with the previous audit period.

## **Continuing to drive improvement**

A key focus for the HHNZ programme in 2017 is to encourage the spread of auditing and other improvement activities across the clinical areas in public hospitals. Spreading and sustaining the improvements already achieved in hand hygiene practice is essential to prevent healthcare associated infections and to respond to the growing threat of infections caused by multi-resistant microorganisms.

Results from the 2016 hand hygiene stocktake survey have been published and can be accessed on our [website](#).

World Hand Hygiene Day is on 5 May 2017. The theme this year is 'Fight antibiotic resistance – it's in your hands'. The day is coordinated by the World Health Organization. The theme of the day aligns with the aim of the HHNZ programme, which is to reduce healthcare associated infections and prevent the spread of antibiotic resistance microorganisms within health settings. Further information available on our [website](#).

## **Useful resources**

[Frontline ownership having a positive impact on hand hygiene compliance](#)

[Frontline ownership workshop with Dr Michael Gardam](#)

[Additional HHNZ resources](#)

## National hand hygiene compliance data: 1 November 2016 to 31 March 2017

The nationally aggregated hand hygiene compliance rate for this measurement period is 83.6 percent. The national average performance by district health board (DHB) is similar at 80.6 percent. The average rate gives equal weighting to each DHB's result regardless of size, whereas the aggregate rate is more affected by the performance of large DHBs. The fact that the two rates are within three percentage points indicates that performance rates between large and small DHBs are very similar.

**Table 1: Aggregated hand hygiene compliance, 1 November 2016 to 31 March 2017**

Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
59,324	70,977	83.6%	83.3%	83.9%

**Table 2: National compliance rates by DHB, 1 November 2016 to 31 March 2017**

DHB	1 November 2016 to 31 March 2017			Lower 95% confidence interval	Upper 95% confidence interval
	Correct moments	Total moments	Compliance rate		
Hawke's Bay DHB	1,715	1,934	88.7%	87.2%	90.0%
Waitemata DHB	19,762	22,977	86.0%	84.8%	87.1%
Whanganui DHB	819	958	86.0%	85.6%	86.5%
Northland DHB	3,023	3,514	85.5%	83.1%	87.6%
Waikato DHB	2,541	3,031	84.0%	83.4%	84.6%
Counties Manukau Health	3,263	3,905	83.8%	82.5%	85.1%
Auckland DHB	12,446	14,809	83.6%	82.4%	84.7%
Southern DHB	2,263	2,726	83.3%	81.9%	84.6%
Canterbury DHB	2,528	3,036	83.0%	81.6%	84.4%
Lakes DHB	785	954	82.3%	79.7%	84.6%
Wairarapa DHB	196	241	81.3%	75.9%	85.7%
Bay of Plenty DHB	1,712	2,120	80.8%	79.0%	82.4%
West Coast DHB	444	553	80.3%	76.8%	83.4%
Hutt Valley DHB	1,464	1,827	80.1%	78.2%	81.9%
MidCentral DHB	1,605	2,041	79.0%	77.4%	80.6%
Capital & Coast DHB	1,939	2,453	78.6%	76.8%	80.4%
Nelson Marlborough DHB	1,116	1,438	77.6%	75.4%	79.7%
Hauora Tairāwhiti	621	866	71.7%	68.6%	74.6%
Taranaki DHB	597	850	70.2%	67.1%	73.2%
South Canterbury DHB	408	615	66.3%	62.5%	70.0%

**Table 3: Hand hygiene compliance by geographic region, 1 November 2016 to 31 March 2017**

Name	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Northern region	38,494	45,205	85.2%	84.8%	85.5%
Midland region	6,256	7,821	80.0%	79.1%	80.9%
Central region	7,738	9,454	81.8%	81.1%	82.6%
South Island region	6,759	8,368	80.8%	79.9%	81.6%

**National compliance rates by each of the WHO ‘five moments for hand hygiene’**

**Table 4: Compliance by moment, 1 November 2016 to 31 March 2017**

Moment	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
1. Before touching a patient	16,720	21,091	79.3%	78.7%	79.8%
2. Before procedure	5,905	7,096	83.2%	82.3%	84.1%
3. After a procedure or body fluid exposure risk	8,558	9,448	90.6%	90.0%	91.2%
4. After touching a patient	18,348	20,712	88.6%	88.1%	89.0%
5. After touching a patient's surroundings	9,716	12,501	77.7%	77.0%	78.4%

## National compliance rates by health care worker category

**Table 5: Health care worker compliance rates, 1 November 2016 to 31 March 2017**

Health care worker	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Phlebotomy invasive technician	2,409	2,737	88.0%	86.7%	89.2%
Nurse/midwife	37,069	42,649	86.9%	86.6%	87.2%
Student nurse/midwife	1,236	1,476	83.7%	81.8%	85.5%
Allied health care worker	2,763	3,305	83.6%	82.3%	84.8%
Student doctor	278	340	81.8%	77.3%	85.5%
Health care assistant	4,892	6,030	81.1%	80.1%	82.1%
Student allied health	114	145	78.6%	71.3%	84.5%
Administrative and clerical staff	170	217	78.3%	72.4%	83.3%
Medical practitioner	8,877	11,886	74.7%	73.9%	75.5%
Cleaner and meal staff	807	1,105	73.0%	70.3%	75.6%
Other (orderly and not categorised elsewhere)	629	954	65.9%	62.9%	68.9%

### Hand hygiene compliance in glove use

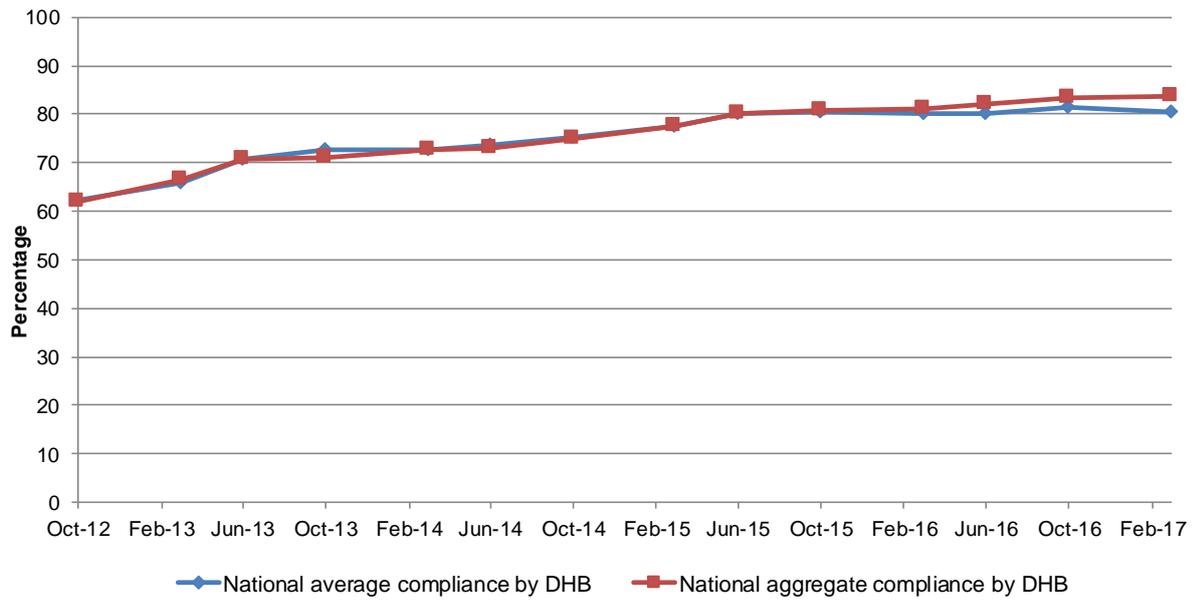
Inappropriate use of non-sterile gloves remains a barrier to excellent hand hygiene practice.

However, it is good to see that ongoing improvement in better glove use and hand hygiene performance has continued during this measurement period: before gloves are put on, when they are taken off and at the appropriate times during patient care.

The latest glove statistics are:

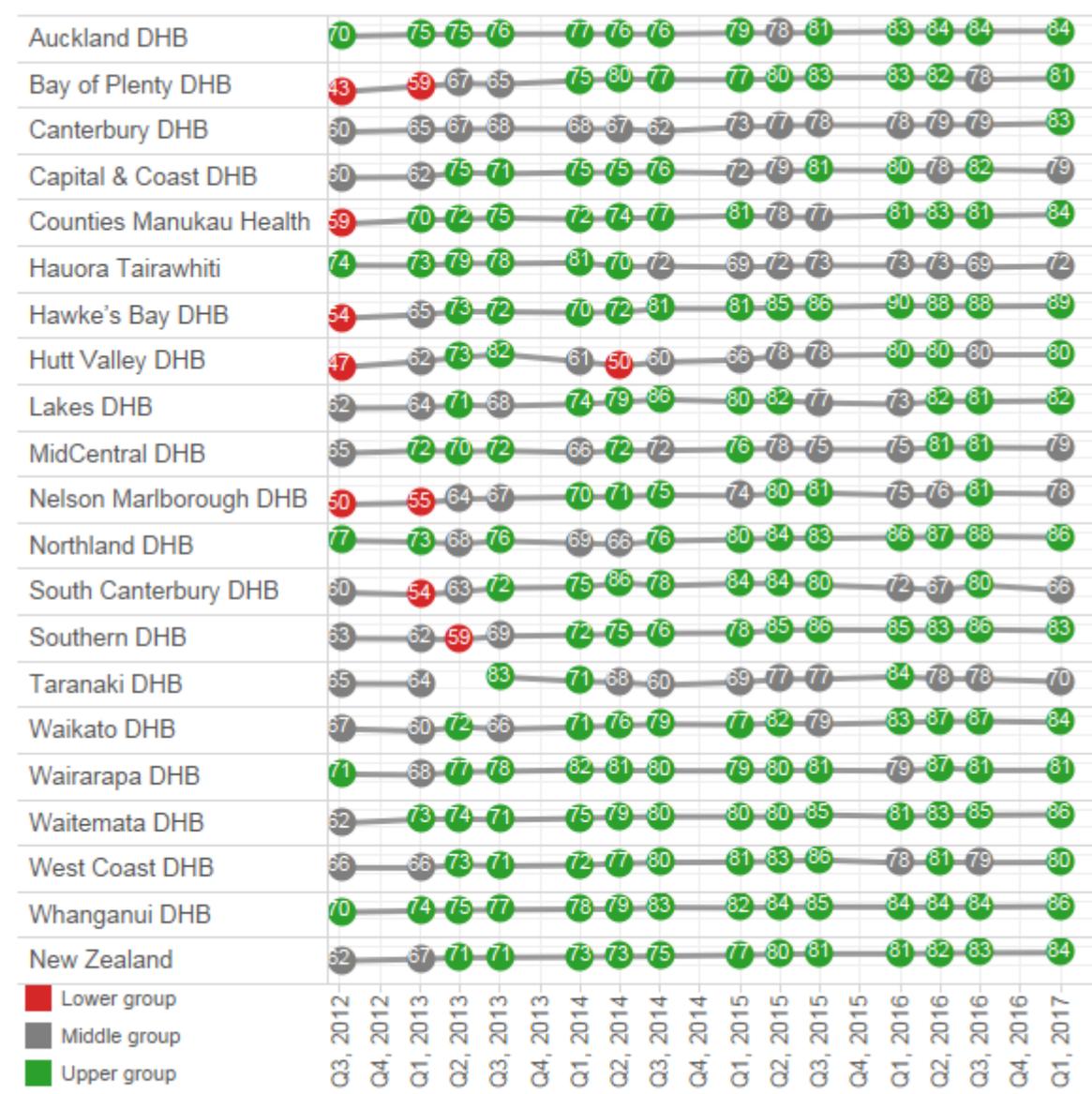
- when gloves are taken OFF, the proportion of hand hygiene opportunities missed was 6.2 percent compared with 6.9 percent in the October 2016 audit
- when gloves are put ON, the proportion of hand hygiene opportunities missed was 17.8 percent compared with 18.0 percent in the October 2016 audit
- of all moments where glove use is recorded, health care workers failed to complete hand hygiene 15.0 percent of the time, compared to 12.5 percent in the October 2016 audit.

**Figure 1: Trends in national aggregate and average hand hygiene compliance, October 2012 to March 2017**



**Figure 2: Compliance over time by DHB, October 2012 to March 2017**

The national target for hand hygiene compliance has increased over time, as the programme has successfully gained traction in DHBs. The target was set at 64 percent in June 2012, 70 percent in June 2013, 75 percent in June 2014 and 80 percent in June 2015. The programme is now focused on spreading and embedding good hand hygiene practice to support sustained increases in compliance across DHBs.



- Upper group: ≥ 70 percent before quarter 3 2014, ≥ 75 percent before quarter 3 2015 and ≥ 80 percent from quarter 3 2015.
- Middle group: percentage is 60 percent to target.
- Lower group: percentage < 60 percent.
- Hand hygiene national compliance data is reported on three times per annum, therefore no data point is shown specifically for quarter 4 in any year.

The bar graphs representing hand hygiene compliance by moment, health care worker type and high-risk ward, have been replaced with a RAG (red, amber, green) table using a 'traffic light' approach (figure 3 to figure 5). A cell is coloured green if the 80 percent target was achieved, amber if within five percent of the target, and red if more than five percent from the target.

**Figure 3: Change in national hand hygiene compliance over time by moment, October 2012 to March 2017**

Moment	Key													
	< 75%				75-80%				≥80% target achieved					
	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17
Before touching a patient	55.5	61.8	66.0	66.4	68.0	68.8	70.6	73.3	76.0	77.6	76.1	78.4	79.8	79.3
Before procedure	55.6	60.5	61.4	65.9	70.3	68.5	70.2	75.5	78.7	80.5	80.5	82.0	83.3	83.2
After a procedure or body fluid exposure risk	69.4	73.1	73.8	75.4	79.0	76.9	79.0	82.5	85.1	85.0	88.7	87.7	90.0	90.6
After touching a patient	71.9	74.2	77.7	77.6	78.5	79.3	82.3	87.3	84.9	85.6	86.2	87.4	87.6	88.6
After touching a patient's surroundings	54.9	60.7	65.2	68.0	67.6	69.2	70.1	76.2	74.7	76.1	75.3	77.4	77.0	77.7

**Figure 4: Change in national hand hygiene compliance over time for health care workers, October 2012 to March 2017**

**A. Nurse/midwife, medical practitioner, allied health care worker and phlebotomy invasive technician**

Health care worker	Key													
	< 75%				75-80%				≥80% target achieved					
	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17
Nurse/midwife	65.0	69.4	72.4	74.1	75.3	75.7	77.7	80.5	83.1	83.5	84.4	86.0	86.6	87.0
Medical practitioner	55.0	56.6	61.4	62.2	62.5	63.8	67.3	69.4	72.3	76.4	74.2	76.0	76.3	75.0
Allied health care worker	62.7	66.2	65.3	68.5	72.8	72.2	74.1	76.2	76.9	83.4	79.0	81.0	81.5	84.0
Phlebotomy invasive technician	70.4	73.0	76.3	74.9	84.9	76.1	83.6	80.9	79.1	84.8	88.9	87.0	88.7	88.0

## B. Health care assistant, student doctor, student allied health worker and student nurse/midwife

### Key

< 75%      75-80%      ≥80% target achieved

Health care worker	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17
Health care assistant	61.5	69.8	75.2	70.0	73.0	74.9	74.3	74.7	77.9	76.7	76.9	80.0	80.6	81.0
Student doctor	42.6	46.6	62.5	52.1	61.2	57.5	72.9	76.3	81.2	79.2	75.8	78.0	78.9	82.0
Student allied health	46.7	68.2	61.7	65.6	69.5	70.1	71.4	74.7	84.6	79.7	80.7	84.0	84.7	79.0
Student nurse/midwife	61.2	68.4	68.5	70.1	72.5	69.1	70.3	76.8	78.4	79.9	82.6	82.0	81.6	84.0

This audit period shows compliance by student doctors was achieved for the first time since June 2015, which is very encouraging.

**Figure 5: Changes in national hand hygiene compliance by high-risk ward type, October 2012 to March 2017**

### Key

< 75%      75-80%      ≥80% target achieved

Ward type	Oct-12	Mar-13	Jun-13	Oct-13	Mar-14	Jun-14	Oct-14	Mar-15	Jun-15	Oct-15	Mar-16	Jun-16	Oct-16	Mar-17
Critical care	61.0	63.8	68.3	69.3	71.0	71.1	71.0	74.0	77.0	78.0	79.6	80.4	82.1	83.0
Neonatal intensive care	70.1	74.8	69.2	75.7	81.1	81.7	81.0	84.0	85.0	86.0	86.8	88.2	86.6	88.5
Oncology/ haematology	68.7	70.0	72.8	73.7	75.6	75.9	83.0	82.0	84.0	87.0	87.0	87.6	90.3	86.6
Renal	64.7	72.4	73.0	75.1	79.0	80.2	80.0	82.0	81.0	81.0	86.7	85.9	88.3	88.4
Emergency department	34.1	46.8	60.5	61.5	62.8	63.7	73.0	69.0	67.0	74.0	73.2	74.6	77.5	78.6