



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

**National hand hygiene compliance report:
1 July 2021 to 31 October 2021**

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Introduction

This report presents results for the period 1 July 2021 to 31 October 2021 including national hand hygiene compliance for:

- 20 district health boards (DHBs)
- 21 private surgical hospitals (PSHs).

Data was extracted on 4 November 2021.

Compliance is measured as part of the Health Quality & Safety Commission's (the Commission's) Hand Hygiene New Zealand (HHNZ) programme, one of its two current infection prevention and control (IPC) programmes. These targeted improvement initiatives aim to reduce the harm and cost of healthcare associated infections within Aotearoa New Zealand's health and disability sector.

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

Achievements in this audit period

- National compliance for DHBs was 87.5 percent, compared with 86.2 percent in the previous audit period. National compliance for PSHs was 82.4 percent.
- Sixteen DHBs and 17 PSHs achieved at or above the national target of 80 percent compliance.
- Eleven DHBs and 17 PSHs met or were less than 100 moments short of the minimum requirement of moments.

Well done to all the hand hygiene auditors, coordinators and gold auditor trainers who continued to audit, educate, and promote hand hygiene over the last year while responding to the demands of the COVID-19 pandemic. Compliance has not only remained high but has increased over this period, which is important for patient safety.

Of note:

- The compliance rate for 12 DHBs was between 85 percent and 90 percent over the most recent audit period.
- Nine DHBs exceeded the 80 percent compliance threshold over 13–27 audit periods.
- For the first time, DHBs exceeded the ≥ 80 percent target for moment 5: After touching a patient's surroundings.
- For the first time, DHBs reached the ≥ 80 percent target for compliance for medical professionals.
- The four DHBs that did not achieve the target of 80 percent compliance were close to the target with compliance rates of ≥ 77.6 percent.

Hand hygiene auditing periods

Start date	End date
1 July	31 October
1 November	28 February
1 March	30 June

Useful resources

- [Commission COVID-19 resources](#)
- Hand hygiene posters, for public areas: [How to hand rub/How to hand wash](#). These posters are available in English, te reo Māori, Samoan, Hindi, Tongan, Arabic and Simplified Chinese.
- Hard copies of some hand hygiene posters/resources are available for ordering through the Commission as part of the COVID-19 response – [order here](#).
- [HHNZ auditing manual \(2019\)](#)
- [Presentations from the HHNZ workshop \(2017\)](#)
- [Other HHNZ resources](#)

National hand hygiene compliance data: 1 July 2021 to 31 October 2021

The DHB national aggregated hand hygiene compliance rate for this measurement period was 87.5 percent. The national average performance by DHB was similar, at 84.8 percent (this figure represents the average of DHBs that submitted data).

The PSH national aggregated hand hygiene compliance rate for this measurement period was 82.6 percent. The national average performance by PSH was similar, at 84.6 percent (this figure represents the average of PSHs that submitted data).

The average rate gives equal weighting to each DHB/PSH result regardless of size, whereas the aggregate rate is more affected by the performance of larger DHBs/PSHs. Similar rates indicate comparable performance by large/small DHBs/PSHs.

Table 1: National aggregated hand hygiene compliance, 1 July 2021 to 31 October 2021

	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
DHBs	58,592	66,935	87.5%	87.3%	87.8%
PSHs	2,464	2,992	82.4%	80.9%	83.7%

Table 2: National compliance rates by DHB, 1 July 2021 to 31 October 2021

DHB	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Auckland DHB	11,374	12,836	88.6%	88.0%	89.1%
Bay of Plenty DHB*	1,392	1,770	78.6%	76.7%	80.5%
Canterbury DHB*	3,099	3,525	87.9%	86.8%	88.9%
Capital & Coast DHB	2,390	2,775	86.1%	84.8%	87.4%
Counties Manukau DHB	9,127	10,569	86.4%	85.7%	87.0%
Hauora Tairāwhiti	649	743	87.3%	84.8%	89.5%
Hawke's Bay DHB*	1,218	1,334	91.3%	89.7%	92.7%
Hutt Valley DHB	1,575	2,015	78.2%	76.3%	79.9%
Lakes DHB*	734	888	82.7%	80.0%	85.0%
MidCentral DHB*	1,260	1,415	89.0%	87.3%	90.6%
Nelson Marlborough DHB	1,174	1,420	82.7%	80.6%	84.6%
Northland DHB*	1,727	2,053	84.1%	82.5%	85.6%
South Canterbury DHB*	347	441	78.7%	74.6%	82.3%
Southern DHB	2,173	2,456	88.5%	87.2%	89.7%
Taranaki DHB*	406	523	77.6%	73.9%	81.0%
Waikato DHB*	2,643	3,110	85.0%	83.7%	86.2%
Wairarapa DHB	171	206	83.0%	77.3%	87.5%
Waitematā DHB	15,746	17,207	91.5%	91.1%	91.9%
West Coast DHB	598	736	81.2%	78.3%	83.9%
Whanganui DHB	789	913	86.4%	84.0%	88.5%

* DHB more than 100 moments short of the minimum requirement for this audit period.

Note: The minimum number of moments for each DHB is based on the number of areas (departments or wards) and the total number of beds for each hospital.

Table 3: Hand hygiene compliance by geographic region, 1 July 2021 to 30 October 2021

Region	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
Northern	37,974	42,665	89.0%	88.7%	89.3%
Midland	5,824	7,034	82.8%	81.9%	83.7%
Central	7,403	8,658	85.5%	84.7%	86.2%
South Island	7,391	8,578	86.2%	85.4%	86.9%

Table 4: Compliance by moment, 1 July 2021 to 31 October 2021

Moment	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
DHBs					
1. Before touching a patient	16,308	19,410	84.0%	83.5%	84.5%
2. Before procedure	6,592	7,312	90.2%	89.4%	90.8%
3. After a procedure or body fluid exposure risk	8,546	9,086	94.1%	93.6%	94.5%
4. After touching a patient	17,897	19,640	91.1%	90.7%	91.5%
5. After touching a patient's surroundings	9,249	11,487	80.5%	79.8%	81.2%
PSHs					
1. Before touching a patient	717	899	79.8%	77.0%	82.3%
2. Before procedure	231	276	83.7%	78.9%	87.6%
3. After a procedure or body fluid exposure risk	334	370	90.3%	86.8%	92.9%
4. After touching a patient	751	867	86.6%	84.2%	88.7%
5. After touching a patient's surroundings	523	681	76.8%	73.5%	79.8%

Table 5: Department compliance rates, 1 July 2021 to 31 October 2021

Department type	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
DHBs					
Acute aged care	1,644	1,865	88.2%	86.6%	89.5%
Ambulatory care	1,643	1,856	88.5%	87.0%	89.9%
Critical care unit	3,685	4,276	86.2%	85.1%	87.2%
Emergency department	2,701	3,271	82.6%	81.2%	83.8%
Maternity	1,582	1,804	87.7%	86.1%	89.1%
Medical	14,439	16,524	87.4%	86.9%	87.9%
Mixed	2,044	2,369	86.3%	84.8%	87.6%
Neonatal care	2,555	2,772	92.2%	91.1%	93.1%
Oncology/haematology	1,993	2,267	87.9%	86.5%	89.2%
Other	3,586	3,994	89.8%	88.8%	90.7%
Paediatrics	3,537	3,773	93.7%	92.9%	94.5%
Perioperative	2,661	3,162	84.2%	82.8%	85.4%
Radiology/radiation oncology	687	781	88.0%	85.5%	90.1%
Renal	3,896	4,312	90.4%	89.4%	91.2%
Surgical	11,264	13,184	85.4%	84.8%	86.0%
PSHs					
Ambulatory care	101	102	99.0%	94.7%	99.8%
Critical care unit	103	121	85.1%	77.7%	90.4%
Medical	47	58	81.0%	69.1%	89.1%
Other	80	90	88.9%	80.7%	93.9%
Perioperative	341	434	78.6%	74.5%	82.2%
Surgical	1,884	2,288	82.3%	80.7%	83.9%

Table 6: Health care worker compliance rates, 1 July 2021 to 31 October 2021

Health care worker	Correct moments	Total moments	Compliance rate	Lower 95% confidence interval	Upper 95% confidence interval
DHBs					
Nurse/midwife	34,735	38,578	90.0%	89.7%	90.3%
Medical practitioner	8,428	10,328	81.6%	80.8%	82.3%
Allied health care worker	2,526	2,881	87.7%	86.4%	88.8%
Phlebotomy invasive technician	2,188	2,326	94.1%	93.0%	95.0%
Health care assistant	5,317	6,314	84.2%	83.3%	85.1%
Cleaner and meal staff	1,293	1,597	81.0%	79.0%	82.8%
Administrative and clerical staff	158	190	83.2%	77.2%	87.8%
Student doctor	250	307	81.4%	76.7%	85.4%
Other – orderly and not categorised elsewhere	1,427	1,832	77.9%	75.9%	79.7%
Student allied health	105	113	92.9%	86.6%	96.4%
Student nurse/midwife	2,163	2,467	87.7%	86.3%	88.9%
PSHs					
Nurse/midwife	1,898	2,194	86.5%	85.0%	87.9%
Medical practitioner	313	466	67.2%	62.8%	71.3%
Allied health care worker	72	93	77.4%	67.9%	84.7%
Phlebotomy invasive technician	13	14	92.9%	68.5%	98.7%
Health care assistant	169	207	81.6%	75.8%	86.3%
Cleaner and meal staff	35	45	77.8%	63.7%	87.5%
Administrative and clerical staff	12	15	80.0%	54.8%	93.0%
Other – orderly and not categorised elsewhere	27	38	71.1%	55.2%	83.0%
Student nurse/midwife	17	21	81.0%	60.0%	92.3%

Hand hygiene compliance in glove use

Non-sterile gloves continue to be a key cause of missed hand hygiene opportunities.

The latest DHB glove statistics are:

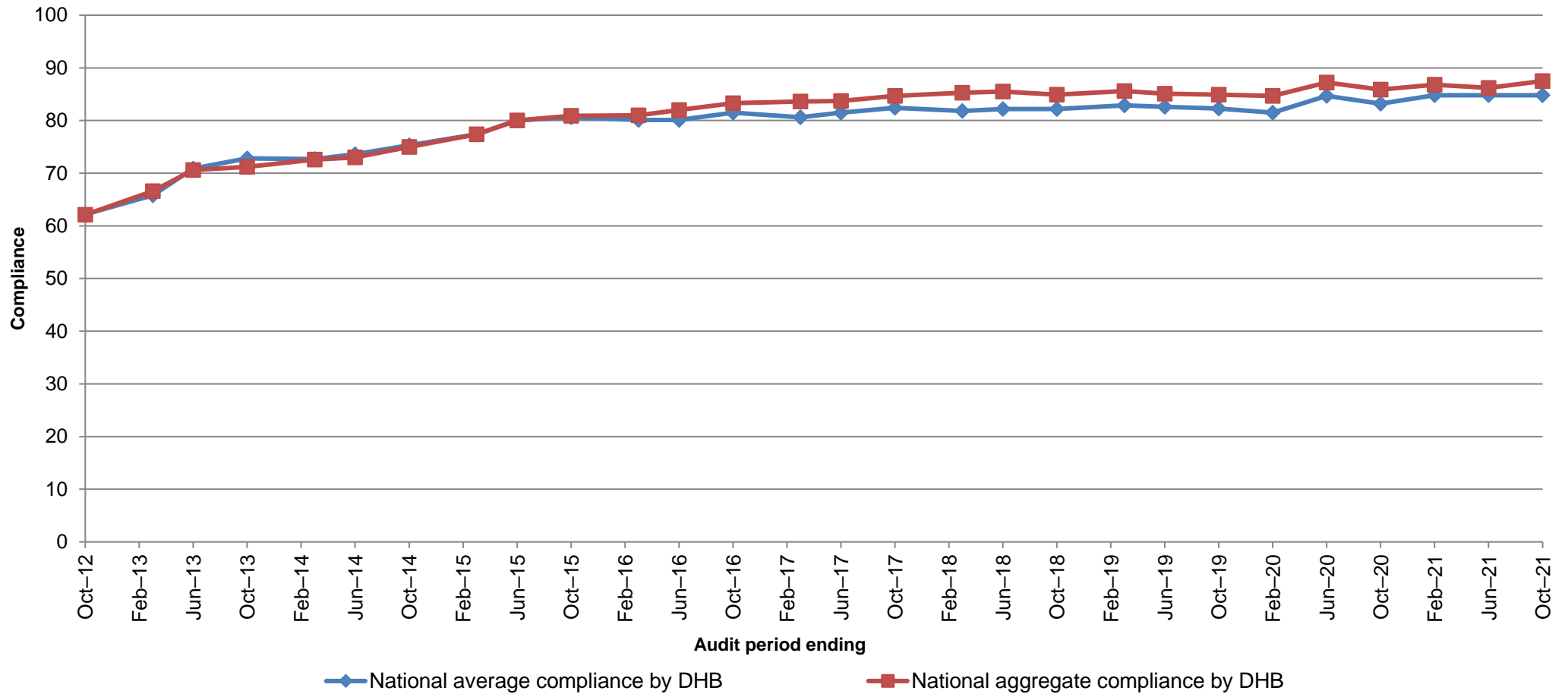
- when gloves are taken OFF, the proportion of hand hygiene opportunities missed was 3.8 percent compared with 5.1 percent in the previous audit period
- when gloves are put ON, the proportion of hand hygiene opportunities missed was 10.5 percent compared with 12.1 in the previous audit period
- of all moments where glove use was recorded, health care workers failed to complete hand hygiene 13.8 percent of the time compared with 15.4 percent in the previous audit period.

The latest PSH glove statistics are:

- when gloves are taken OFF, the proportion of hand hygiene opportunities missed was 5.2 percent
- when gloves are put ON, the proportion of hand hygiene opportunities missed was 14.8 percent
- of all moments where glove use was recorded, health care workers failed to complete hand hygiene 18.7 percent of the time.

National DHB hand hygiene compliance over time

Figure 1: Trends in national aggregate and average hand hygiene compliance, October 2012 to October 2021



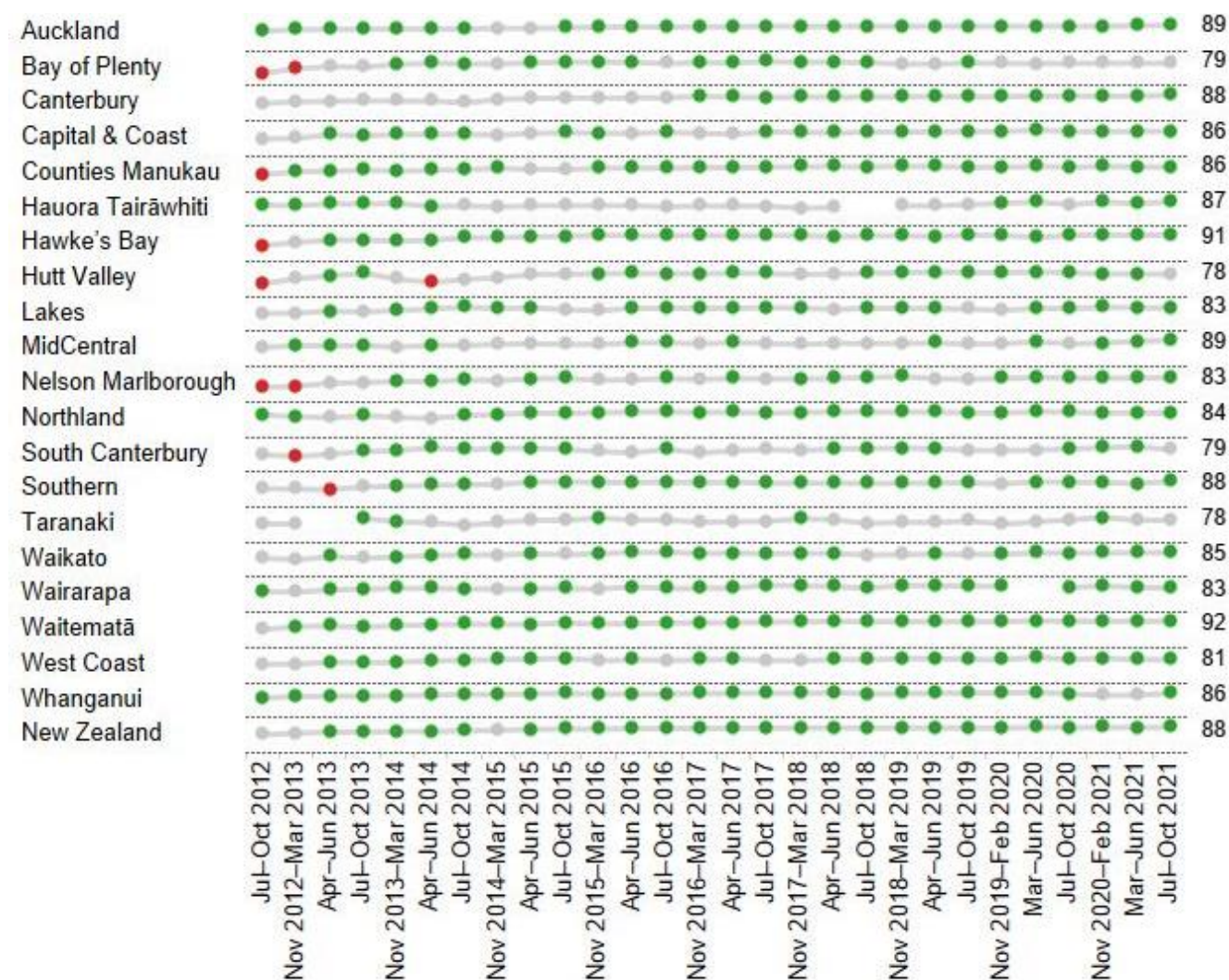
National targets for DHBs

The DHB national target for hand hygiene compliance has increased over time, as the programme has successfully gained traction. 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.

Figure 2: Compliance over time by DHB, October 2012 to October 2021

Measure definition

Five moments: Percentage of opportunities taken



Upper group:	<ul style="list-style-type: none"> ≥ 70 percent before quarter 3, 2014 ≥ 75 percent before quarter 3, 2015 ≥ 80 percent from quarter 3, 2015
Middle group:	Percentage is 60 percent to target
Lower group:	Percentage < 60 percent

Note: Colours may not accurately represent compliance as rates are rounded to the nearest whole number before colour groups are assigned.

Traffic light approach for DHBs

The red–amber–green figures (Figures 3–5) use a ‘traffic light’ approach. A cell is coloured green if the 80 percent target was achieved, amber if within 5 percent of the target and red if more than 5 percent from the target. Every year’s rate until 2020 has been averaged.

Figure 3: Change in national hand hygiene compliance over time by moment, October 2012 to October 2021

Key

< 75% 75–80% ≥ 80% target achieved

Moment	2012	2013	2014	2015	2016	2017	2018	2019	2020	Feb 21	Jun 21	Oct 21
Before touching a patient	55.5	64.7	69.1	75.6	78.1	79.9	81.3	81.5	82.4	83.1	82.3	84.0
Before a procedure	55.6	62.6	69.7	78.2	81.9	84.4	87.8	87.8	88.7	89.2	89.4	89.4
After a procedure or body fluid exposure risk	69.4	74.1	78.3	84.2	88.8	90.7	91.9	92.4	92.8	93.6	93.1	94.1
After touching a patient	71.9	76.5	80.0	85.9	87.1	88.7	89.2	89.3	89.9	90.9	90.0	91.1
After touching a patient's surroundings	54.9	64.6	69.0	75.7	76.6	77.9	78.5	77.0	79.5	79.2	79.3	80.5

Figure 4: Change in national hand hygiene compliance over time for health care workers, October 2012 to June 2021

Key

< 75%	75–80%	≥ 80% target achieved
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Health care worker	2012	2013	2014	2015	2016	2017	2018	2019	2020	Feb 21	Jun 21	Oct 21
Allied health care worker	62.7	66.7	73.0	78.8	80.5	83.5	85.6	84.6	86.3	87.5	83.9	88.8
Health care assistant	61.5	71.7	74.1	76.4	79.2	81.4	83.9	85.9	84.6	85.7	85.2	84.2
Medical practitioner	55.0	60.1	64.5	72.7	75.5	75.5	78.2	78.2	78.6	78.3	79.1	81.6
Nurse/midwife	65.0	72.0	76.2	82.4	85.7	87.1	87.8	88.1	88.7	89.6	89.3	90.0
Phlebotomy invasive technician	70.4	74.7	81.5	81.6	88.2	89.6	90.4	91.5	92.9	92.2	92.6	94.1
Student allied health	46.7	65.2	70.3	79.7	83.1	80.9	83.9	84.8	84.7	93.8	86.1	92.9
Student doctor	42.6	53.7	63.9	78.9	77.6	79.9	71.5	79.0	81.6	84.5	82.5	81.4
Student nurse/midwife	61.2	69.0	70.6	78.4	82.1	83.5	85.0	84.1	85.5	86.4	84.5	87.7

Figure 5: Changes in national hand hygiene compliance by high-risk ward type, October 2012 to October 2021

Key

< 75%	75–80%	≥ 80% target achieved
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High-risk ward type	2012	2013	2014	2015	2016	2017	2018	2019	2020	Feb 21	Jun 21	Oct 21
Critical care	61.0	67.1	71.0	76.3	80.7	84.0	82.6	83.3	83.9	85.5	84.9	86.2
Emergency department	34.1	56.3	66.5	70.0	75.1	77.0	78.3	80.4	80.5	80.7	79.7	82.6
Neonatal intensive care	70.1	73.2	81.3	85.0	87.2	88.4	90.7	91.0	89.5	88.7	88.5	92.2
Oncology/haematology	68.7	72.2	78.2	84.3	88.3	87.0	86.9	88.4	89.9	91.1	91.2	87.9
Renal	64.7	73.5	79.7	81.3	87.0	88.6	89.0	88.7	88.1	88.1	90.2	90.4

Figure 6: Changes in national hand hygiene compliance by standard-risk ward type, October 2018 to October 2021

On 1 July 2019 the requirement to audit across all clinical areas began.

Key

< 75%	75–80%	≥ 80% target achieved
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Standard-risk ward type	Oct 18	Mar 18	Jun 19	Oct 19	Feb 20	Jun 20	Oct 20	Feb 21	Jun 21	Oct 21
Acute aged care	87.1	89.5	89.5	88.7	88.5	92.2	91.9	91.1	89.3	88.2
Ambulatory care	87.8	87.6	84.9	85.1	86.0	89.4	89.8	87.0	87.1	88.5
Maternity	88.9	86.1	84.3	85.5	82.7	88.6	86.4	87.0	85.1	87.5
Medical	84.3	84.0	84.6	83.8	85.0	88.0	86.7	87.0	86.5	87.4
Mixed	85.7	87.0	83.0	81.4	84.5	86.8	87.4	88.1	85.1	86.3
Paediatrics	89.1	90.2	88.5	89.7	90.5	93.6	92.5	92.4	91.6	93.7
Perioperative	85.6	80.2	83.7	76.7	79.5	81.8	79.3	82.0	81.8	84.2
Radiology/ radiation oncology	80.7	83.0	83.1	85.7	83.0	86.7	85.1	87.0	85.1	88.0
Surgical	81.8	83.7	83.6	84.3	83.3	83.5	83.1	85.3	84.4	85.4