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| **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 resour](https://www.hqsc.govt.nz/our-programmes/advance-care-planning/talking-covid/)ces
* Hand hygiene posters, for public areas: [How to hand rub](https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/3699/)/[How to hand wash](https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/3700). 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](http://bit.ly/orderhandhygiene).
* [HHNZ auditing manual (2019)](https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/3762/)
* [Presentations from the HHNZ workshop (2017)](https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/publications-and-resources/publication/3147/)
* [Other HHNZ resources](http://www.handhygiene.org.nz/index.php?option=com_content&view=article&id=13&Itemid=115)

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 rateis 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:** | ≥ 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



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **High-riskward 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.



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Standard-riskward 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 |