

# 2017 NSW PRESSURE INJURY POINT PREVALENCE SURVEY REPORT



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COMMISSION

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# EXECUTIVE SUMMARY

This report outlines the results of Pressure Injury Point Prevalence Surveys conducted by Local Health Districts (LHDs) and Speciality Health Networks (SHNs) in 2017. The survey data provides valuable information on pressure injuries in the NSW public health system to understand the extent of the problem and provides recommendations to improve the care provided and reduce hospital-acquired prevalence rates.

Some LHDs and SHNs have been conducting annual pressure injury point prevalence surveys since the late 1990's, whilst some have only recently completed their first survey. The first NSW report on 2015 survey data was released in July 2016, and the second report on 2016 survey data was released in May 2017.

The 2017 NSW survey was conducted across three settings: inpatient, residential aged care (RAC) and community/outpatient as recommended in the 2015 report.<sup>1</sup>

Incontinence is recognised as a risk factor for pressure injury development on the sacral and buttock locations. The Clinical Excellence Commission (CEC) has worked closely with the Pressure Injury Prevention LHD/SHN representatives to develop resources to raise awareness of Incontinence Associated Dermatitis (IAD) to improve recognition, prevention, and management. The 2017 Pressure Injury Point Prevalence Survey included questions on IAD for the first time.

## Key Findings

The 2017 point prevalence survey results show:

- 17 LHD/SHNs participated in the survey, including 172 inpatient facilities, 67 Residential Aged Care facilities and 79 community and outpatient services.
- A total of 13,672 people consented to participate in the survey.
- An overall reduction of 1.3% in the hospital or health service-acquired pressure injury rate in those surveyed compared with the 2016 data (5.1% to 3.8%).
- 72% of patients at risk of developing a pressure injury had a documented care plan, compared to 58% in 2016.
- The most common locations for hospital or health service-acquired pressure injuries were the sacrum or buttocks (40%) and heel injuries (27%).
- Where a person was recorded as having one or more pressure injuries, 36% had a wound management record or chart documenting every current injury (Overall 2016, 51% and 2015, 44%).
- A difference was noted in the severity of pressure injuries that were not hospital or health service-acquired compared to those which developed in the hospital or health service.
  - Not hospital or health service-acquired were 29% serious injuries (Stage 3 – 11%, Stage 4 – 4%, Unstageable – 11% and Suspected Deep Tissue (SDT) – 4%) compared with hospital or health service-acquired pressure injuries 14% (Stage 3 – 4%, Stage 4 – 1%, Unstageable – 7% and SDT – 1%).
- Of the LHD/SHNs who included questions on Incontinence Associated Dermatitis (IAD) in the 2017 survey, 120 injuries were identified: 63% being hospital or health service-acquired, 72% were category 1 (persistent redness) and 28% were category 2 (skin loss).

## Recommendations

The CEC recommends that NSW Health organisations aim to:

- Improve pressure injury risk assessment to achieve >95% reliability for those patients at risk of pressure injury.
- Identify areas for improvement and use improvement science methodology including process improvement, PDSA cycles and measurement regularly on run charts.
- Ensure that patients, family and carers receive appropriate information on pressure injury prevention for those identified at risk of developing a pressure injury, and is documented.
- Ensure that pressure injury prevention interventions and plan of care are documented and implemented with input from the patient, family and carers.
- Ensure that when a person has one or more pressure injury a wound management record or chart documenting every current injury is completed.
- Participate in the 2018 Pressure Injury Point Prevalence Survey by collecting data in three separate settings (inpatient, RAC and community/outpatient).
- Use the minimum data set fields for the 2018 pressure injury point prevalence survey available on the Quality Audit Reporting System (QARS) from early May 2018.
- Continue to develop strategies to improve the prevention, recognition, management and reporting of IAD.

The CEC established the Pressure Injury Prevention Project in October 2012. The project aims to help reduce the occurrence of pressure injuries, and if they do occur, to help reduce the recovery time for the patient. It promotes evidence-based practice for the prevention and management of pressure injuries and increases awareness of pressure injury prevention among health care professionals.

The project addresses the *National Safety and Quality Health Service Standards*<sup>2</sup>, the *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline 2014*<sup>3</sup> and the *NSW Health Pressure Injury Prevention and Management policy PD 2014\_007*<sup>4</sup> provides a framework for improvement.

To support the LHD/SHNs as part of the Pressure Injury Prevention Project the CEC has developed the following resources and training programs:

- The *NSW Health Pressure Injury Prevention and Management Policy (PD2014\_007)*<sup>4</sup> and accompanying implementation guide were released in 2014 to improve patient safety and the quality of clinical care.
- A Monitoring and Auditing Framework promoting a standard approach to pressure injury point prevalence survey data collection.<sup>5</sup> <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/pressure-injury-prevention-project/evaluation>
- An electronic data collection tool to support the 2018 Point Prevalence survey (available in early May) developed in the Quality Audit Reporting System (QARS), <http://qars.cec.health.nsw.gov.au/>
- The 2018 Point Prevalence survey guide to promote inter-rater reliability and provide instruction on completing the required survey documentation.
- A range of tools and resources to support health staff undertaking Quality Improvement (QI) initiatives is available on the CEC website <http://www.cec.health.nsw.gov.au/quality-improvement/improvement-academy/quality-improvement-tools>
- The CEC Quality Improvement Academy provides education and training on Improvement Science to build capacity and capability for Improvement Science for NSW Health staff. <http://www.cec.health.nsw.gov.au/quality-improvement/improvement-academy/qi-academy-curriculum>
- Patient information sheets (translated into multiple languages), patient stories and videos for clinicians promoting pressure injury prevention are available <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/pressure-injury-prevention-project>
- The Quality Improvement Data System (QIDS) provides an automated Pressure Injury dashboard to track outcome data and to support improvement work. <https://qids.cec.health.nsw.gov.au>
- Presentations promoting the prevention, recognition and management of Incontinence Associated Dermatitis (IAD). <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/pressure-injury-prevention-project/clinical-practice>

# INTRODUCTION

Internationally there has been an ongoing declining trend in pressure injury prevalence in the general acute care setting over the past decade. In other clinical care settings, trends are less clear because of significant variations in the study design, specific setting descriptions, and population differences confound analyses.<sup>3</sup>

Although most pressure injuries are avoidable some are unavoidable. Some individuals are more susceptible to pressure injury development, examples include: older adults, those who have experienced trauma, those with spinal-cord injuries, those who have sustained a fractured hip, those in long-term homes, the acutely ill, those with diabetes and those in critical care settings.<sup>3</sup>

The sacrum and heels are reported as the most common anatomical location and the location of the most severe injuries respectively.<sup>3</sup> Correct identification of pressure injuries is essential to ensure appropriate care is given and the injury accurately reported. It is often difficult for clinicians to correctly identify Incontinence Associated Dermatitis (IAD) and to distinguish it from pressure injuries (Stage 1 and Stage 2) on the sacral and buttock locations.<sup>6,7</sup> This is an area which has been identified as a priority with resources developed to support improved identification of sacral and buttock injuries.

In the paediatric populations the occiput and other head (including facial) injuries were commonly observed and medical devices estimated to account for 43% of pressure injuries. Medical devices have also been associated with up to 34.5% of pressure injuries in the acute care setting. Over the past decade there has been minimal variation in rates of medical device-related pressure injury; this continues to be a significant area to focus on prevention.<sup>3</sup>

## The Australian Context

There is no recently published statewide pressure injury point prevalence survey data available from other states.

As outlined in the Pressure injury in *Australian public hospitals: a cost-of-illness study*,<sup>8</sup> the treatment cost across all states and severity in 2012-13 was estimated to be A\$983 million per annum, representing approximately 1.9% of all public hospital expenditure or 0.6% of the public recurrent health expenditure. The opportunity cost was valued at an additional A\$820 million per annum. These estimates were associated with a total number of 121,645 pressure injury cases in 2012-13 and a total number of 524,661 bed days lost.<sup>8</sup>

Statewide audits estimate pressure injury prevalence in hospitals ranges from 9.5% to 17.6%. Studies in nursing home and long-term care settings estimate the prevalence of pressure injury to be around 8.9%.<sup>3</sup>

## NSW Practice

This is the third Pressure Injury Point Prevalence Survey statewide report and provides information to inform the provision of health care that is safe, person-centred, sustainable and of the highest standard.

*"A pressure injury is a localised injury to the skin and/or underlying tissue, usually over a bony prominence, resulting from sustained pressure (including pressure associated with shear)."*<sup>3</sup>

*A point prevalence survey aims to:*

- *Identify pressure injury prevalence within an organisation*
- *Identify core pressure injury prevention practices, including documentation, adherence to best-practice and evidence-based guidelines, to evaluate and inform strategic planning on service quality improvement, and demonstrate trends in care processes and patient outcomes*
- *Determine the severity and anatomical location of identified pressure injuries, distinguishing between pre-existing injuries and those acquired during this admission/episode of care*
- *Provide data for benchmarking between organisations.*<sup>5</sup>

## KEY FINDINGS

The data provides NSW Health and executives in public hospitals information to inform safety and quality activities and effective management strategies. LHDs/SHNs conducted the survey during the calendar year of 2017 at a time to suit their local audit schedule.

### Survey

In 2017, 17 NSW Health LHD/SHNs undertook a comprehensive pressure injury prevalence survey, 172 inpatient facilities, 67 RAC facilities and 79 community and outpatient services participated in the survey.

84% of people eligible for the survey consented to a skin inspection (13,672 people) and are included in the results.

### Pressure Injuries

In 2017 the overall prevalence of pressure injury for people consenting to a skin inspection was 7.9%.

- Inpatient 7.7% (2016 – 9.1% and 2015 – 10.5%)
- RAC 7.8% (2016 – 10.3% and 2015 – 8%)
- Community and outpatient 9.3% (2016 – 7.7% and 2015 – 8.2%).

In 2017 the overall prevalence of hospital or health service-acquire pressure injury was 3.8%.

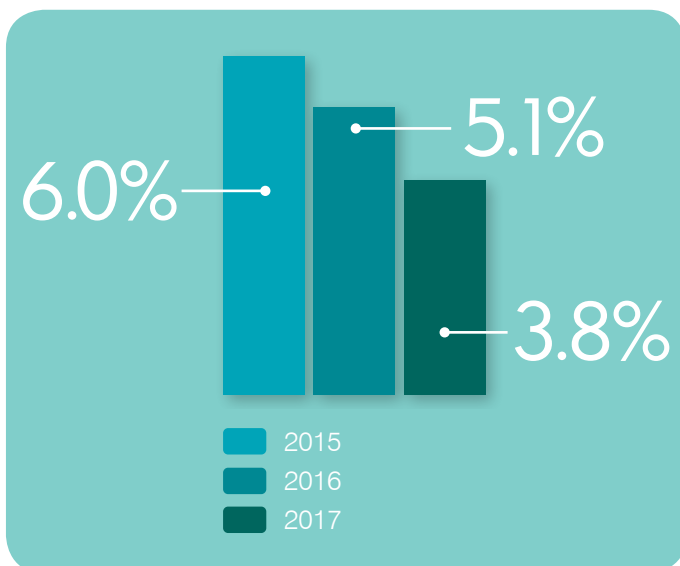


Figure 1. Overall hospital or health service-acquired pressure injury rate

Compared to 2015 and 2016 there was a reduction in the percentage of people found to have a pressure injury that developed during their current stay or episode of care.

- Inpatient 4% (2016 – 5.3%, and 2015 – 6.1%)
- RAC 5.9% (2016 – 8.5% and 2015 – 7.3%)
- Community and outpatient service 1.9% (2016 – 2.2% and 2015 – 2.4%).

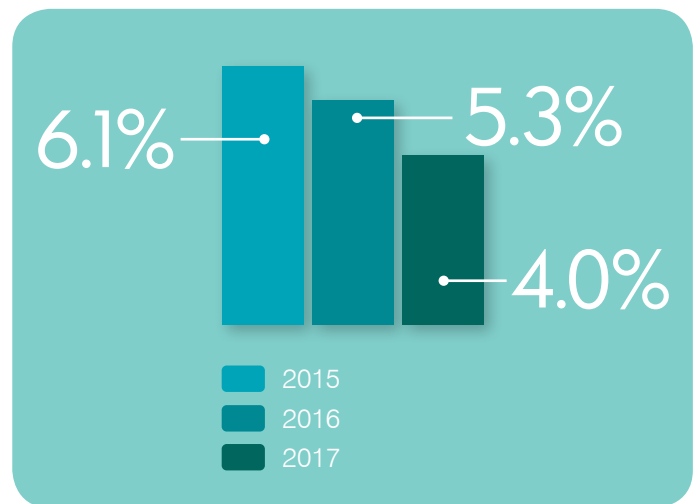


Figure 2. People with one or more hospital-acquired pressure injury - Inpatient

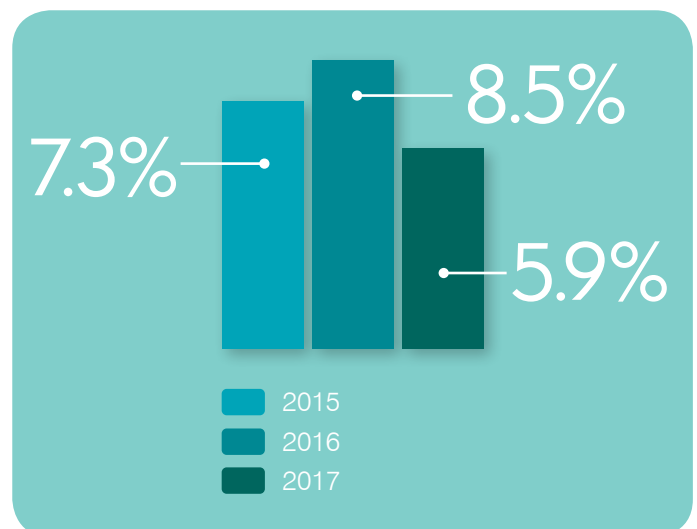


Figure 3. People with one or more health service-acquired pressure injury - RAC

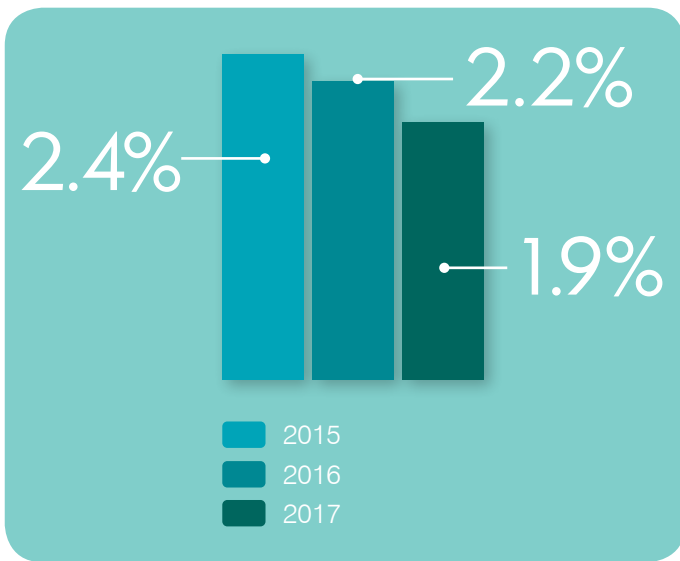


Figure 4. People with 1 or more health service-acquired PI – Community and outpatient

When a location was recorded in the 2017 NSW survey 40% of hospital or health service-acquired injuries were located on the sacrum or buttocks and 27% on the heels.

Where the classification of the injury was recorded 51% were Stage 1 and 32% were Stage 2.

A difference in the severity of pressure injuries that were not hospital or health service-acquired compared to those which developed in the hospital or health service.

- Not hospital or health service-acquired were 29% serious injuries (Stage 3 – 11%, Stage 4 – 4%, Unstageable – 11% and Suspected Deep Tissue (SDT) – 4%) compared with hospital or health service-acquired pressure injuries 14% (Stage 3 – 4%, Stage 4 – 1%, Unstageable – 7% and SDT – 1%).

In the paediatric setting, two thirds (67%) of health care-acquired pressure injuries (6 of the 9 injuries identified) in patients from the Sydney Children’s Health Network were device-related.

## Risk Assessment

In 2017, overall 68% of people surveyed had a comprehensive risk assessment documented, including a skin assessment and use of a validated tool, within eight hours of presentation (inpatient and RAC) or first presentation (community and outpatient).

- Inpatient 67%
- RAC 58%
- Community and outpatient 76%.

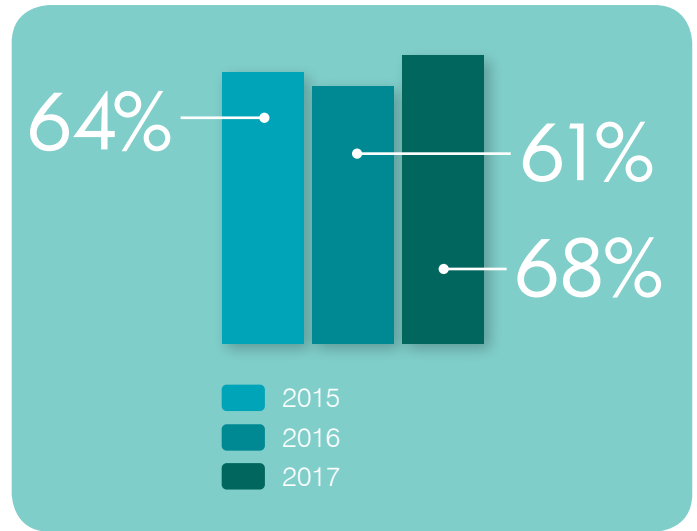


Figure 5. Comprehensive risk assessment documented

In 2017, overall 59% of people who were identified at risk or higher on the initial risk assessment had ongoing comprehensive pressure injury risk assessments attended as recommended.



## Care plan

Overall in 2017, of the people who were identified at risk of developing a pressure injury on the initial assessment, 72% had documentation of an appropriate pressure injury prevention care plan compared to 58% in 2016.

- Inpatient 73%
- RAC 84%
- Community and outpatient 51%.

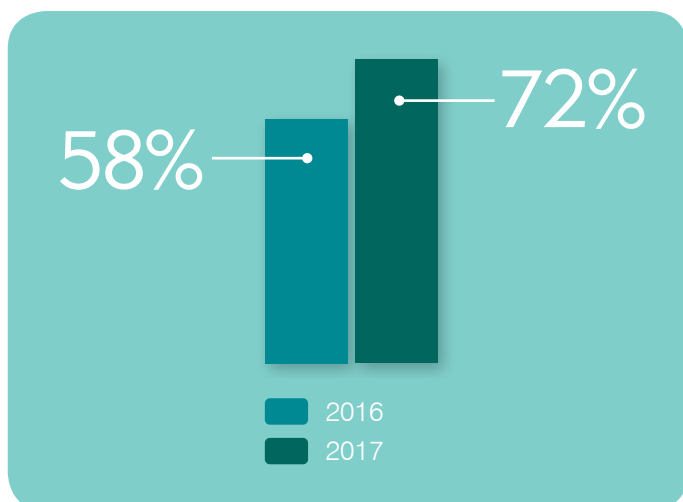


Figure 6. Documentation of an appropriate pressure injury prevention care plan

## Information on pressure injury prevention being provided

In 2017 documentation of pressure injury prevention information being provided to the person or carer.

- Inpatient 41% (2016 – 30%)
- RAC 70% (2016 – 62%)
- Community and outpatient 57% (2016 – 77%).

## Wound Management record or chart

In 2017 where a person was recorded as having one or more pressure injuries, 36% had a wound management record or chart documenting every current injury (Overall 2016 – 51% and 2015 – 44%).

- Inpatient 29% (2016 – 45% and 2015 – 40%)
- RAC 48% (2016 – 81% and 2015 – 42%)
- Community and outpatient 68% (2016 – 77% and 2015 – 81%).

## Incontinence Associated Dermatitis

2017 was the first year IAD questions were included in the minimum data set fields for the pressure injury point prevalence survey available on QARS from July 2017. Some LHD/SHNs completed the survey prior to July and did not collect this data.

Of the LHD/SHNs submitting data on IAD, 120 IAD injuries were identified with 63% being hospital or health service-acquired. 72% were category 1 (persistent redness) and 28% were category 2 (skin loss).

## Incident Information Management System (IIMS)

There were 24,677 pressure injury incident notifications made in IIMS for 2017. Of these 55% were assigned an Actual (SAC) of 2 or 3.

Over 8,000 notifications were recorded where the injury was not present on admission to the facility or service. Where the pressure injury was present on admission the patient was more likely to be admitted from an aged care facility or nursing home 27%, home with no NGO services 25% and home with NGO services 18%.

Where an age group is recorded for the incident, 79% of notifications are for patients aged 65 years or older.

52% of injuries notified were located on the sacrum or buttocks and 18% on the heels.

Where the classification of the injury was recorded, 37% were Stage 1 and 50% were Stage 2.

# NSW HEALTH 2017 INPATIENT PRESSURE INJURY PREVALENCE SURVEY

## 96%

of inpatient facilities undertook a survey in 2017 (172 facilities across 17 LHD/SHNs).

## 84%

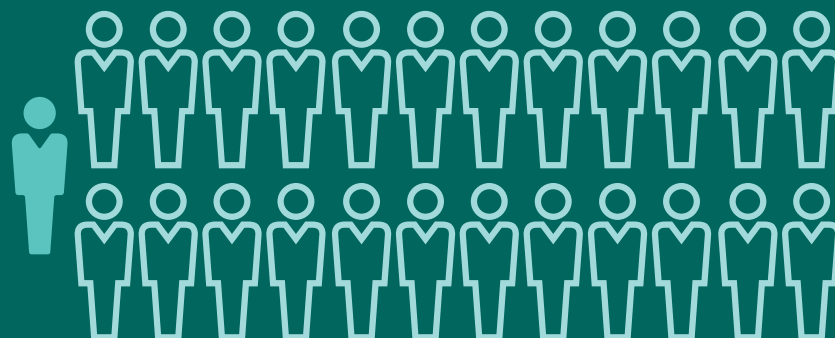
of patients consented to a skin inspection (11,059 people total).

### PRESSURE INJURY PREVALENCE



7.7% Overall

The range varied across participating organisations between 0% and 13.8%.



4.0% Hospital-acquired

The range varied across participating organisations between 1.8% and 7.7%.

## 67%

of patients received a comprehensive risk assessment (including a skin assessment and use of a validated tool) within 8 hours of admission to the facility.

### HOSPITAL-ACQUIRED PRESSURE INJURIES

Location

## 41%

were located on the sacrum or buttocks and

## 27%

on the heels.

Classification

## 54%

were Stage 1

## 31%

were Stage 2.

Of the patients receiving a comprehensive risk assessment, 49% were identified at risk of developing a pressure injury (at risk or higher) on the initial assessment.

Where a patient was identified as being at risk or higher on the initial risk assessment 73% had a documented pressure injury prevention care plan.

Where a patient was recorded as having one or more pressure injuries, 29% had a wound management record or chart documenting every current pressure injury.

# NSW HEALTH 2017 RESIDENTIAL AGED CARE (RAC) PRESSURE INJURY PREVALENCE SURVEY

## 97%

of RAC facilities undertook a survey in 2017 (67 facilities across 10 LHD/SHNs).

## 88%

of residents consented to a skin inspection (910 people total).

### PRESSURE INJURY PREVALENCE



#### 7.8% Overall

The range varied across participating organisations between 0% and 9.5%.



#### 5.9% Hospital/Health Service-acquired

The range varied across participating organisations between 0% and 7.5%.

## 58%

of residents received a comprehensive risk assessment (including a skin assessment and use of a validated tool) within 8 hours of admission to the facility.

### HEALTH SERVICE-ACQUIRED PRESSURE INJURIES

#### Location

## 39%

were located on the sacrum or buttocks and

## 25%

on the heels.

#### Classification

## 51%

were Stage 1

## 26%

were Stage 2.

Of the resident receiving a comprehensive risk assessment, 66% were identified at risk of developing a pressure injury (at risk or higher) on the initial assessment.

Where a resident was identified as being at risk of developing a pressure injury on the initial risk assessment 84% had a documented pressure injury prevention care plan.

Where a resident was recorded as having one or more pressure injuries 48% had a wound management record or chart documenting every current pressure injury.

## 79%

of community/outpatient facilities undertook a survey in 2017 (79 facilities across 17 LHD/SHNs).

## 86%

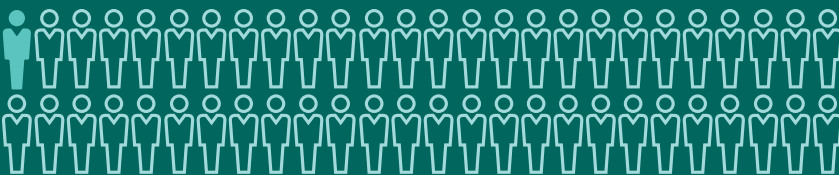
of clients consented to a skin inspection (1,703 people total).

### PRESSURE INJURY PREVALENCE



#### 9.3% Overall

The range varied across participating organisations between 3.7% and 17.6%.



#### 1.9% Hospital/Health Service-acquired

The range varied across participating organisations between 0% and 3.5%.

## 76%

of clients received a comprehensive risk assessment (including a skin assessment and use of a validated tool) at first presentation to the service.

### HOSPITAL-ACQUIRED PRESSURE INJURIES

#### Location

## 21%

were located on the sacrum or buttocks and

## 34%

on the heels.

#### Classification

## 18%

were Stage 1

## 47%

were Stage 2.

Of the clients receiving a comprehensive risk assessment, 24% were identified at risk of developing a pressure injury (at risk or higher) on the initial assessment.

Where a client was identified as being at risk of developing a pressure injury on the initial risk assessment 51% had a documented pressure injury prevention care plan.

Where a client was recorded as having one or more pressure injuries, 66% had a wound management record or chart documenting every current pressure injury.

# GLOSSARY

## Pressure injury point prevalence

Is the number of individuals with a pressure injury at a specific point in time, and indicates the scale of the issue. The injury may have developed recently, or over an extended period of time, and for inpatients, they may have been present on presentation to the facility.<sup>1</sup>

### **Point Prevalence (%)**

Number of patients with pressure injury at a specific point in time X 100

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Total number of patients in the survey population at a specific point in time.<sup>1</sup>

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