



PREVENTION. CARE. RECOVERY.

Te Kaporeihana Awhina Hunga Whara

# SUPPORTING PATIENT SAFETY



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TREATMENT  
INJURY  
INFORMATION

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APRIL 2017

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SUPPORTING PATIENT SAFETY - APRIL 2017

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## FOREWORD

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*Dame Paula Rebstock*

ACC is focused on delivering better outcomes for all New Zealanders in care, recovery, and through injury prevention. Our injury prevention approach is based on sound evidence and strong and enduring partnerships.

In 2015/16, ACC accepted 8,881 treatment injury claims. Each of these claims represents a person who was inadvertently harmed during the course of treatment. About half of these injuries are considered preventable.

ACC wants to encourage improvements in patient safety, just like we do for workplaces, sport, on the roads, at home, and in all the ways that people can be injured.

New Zealand has a high performing health system with dedicated and talented health professionals. Sometimes, despite everyone's best efforts, things can go wrong. When they do, we need to do the right thing for the patient while also supporting clinicians and health professionals to learn why and how it happened and try to prevent it happening again.

Many treatment injuries can be resolved quickly and, with the right medical care, the patient can make a full recovery. In a small number of cases, the treatment injury can have a lasting impact on that person and their family.

This is why ACC is publishing the information in this publication: to better understand and learn from treatment injuries, so they are less likely to occur in future.

To support this approach, ACC will invest about \$45 million in treatment injury prevention programmes across the health sector over the next five years.

By publishing this information, ACC wishes to encourage an open and informed discussion about treatment injury.

Improving patient safety is a priority for the health sector, including as part of the 2016 New Zealand Health Strategy. ACC is working with the Health Quality and Safety Commission, the Ministry of Health, District Health Boards, and others on initiatives to improve safety.

ACC welcomes the opportunity to work in partnership with clinicians, their managers, and everyone in New Zealand who has an interest in patient safety. ACC's information on treatment injury will support ACC's collaborative sector-wide approach and investments in actions to improve the safety and quality of health care.

**Dame Paula Rebstock**  
Chair, ACC Board

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## HEALTH QUALITY AND SAFETY COMMISSION FOREWORD

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*Professor Alan Merry*

The Health Quality and Safety Commission (HQSC) welcomes the Accident Compensation Corporation's (ACC) first publication of accepted claims for treatment injury. This information will promote openness and understanding of our health services. Transparency of this sort is essential for improving services by learning from events.

Last year, the HQSC published its position paper on the transparency of information related to health care interventions. We surveyed the international evidence and discussed the considerations involved when publishing outcome data. These considerations included the views of patients and consumers, understanding the validity and quality of the data, and the appropriateness of the outcome measures. The primary purpose of publishing data should be to improve the quality and safety of care and we need to think carefully about how to achieve this.

There is compelling evidence that teamwork is a very important determinant of outcomes in health care. 'The team' includes the different health professionals caring for patients, as well as the administrators and support services that facilitate their clinical work. Outcomes are a function of the culture and commitment to excellence of whole institutions, not just of individuals within institutions. This principle applies even more widely to the overall system of health care within a country. Agencies like the ACC, the Commission and the Ministry of Health must work together, and with other providers, to reduce harm to patients and improve the quality of New Zealand's health care.

Transparency is important, but the interpretation of data needs care and caution. The data in this publication (based on accepted claims) is similar to the data the HQSC publishes on serious adverse events in reflecting variable claims and reporting by district health boards (DHBs) rather than precise estimates of patient harm. As there is considerable uncertainty over rates of claims and reporting, neither should be used to compare the performance of individual DHBs. However, each report and the patterns within the overall reports can highlight improvement needed by DHBs, individually and across the whole country. While there is no one single measure of safety in health, different sources of data can be used together to build a more complete picture of how safe our health care services are, and identify where improvement is needed.

This publication of ACC treatment injury claims data adds to the overall picture of quality, safety and harm across the sector, and the HQSC endorses the ACC's approach. The data adds support to the view that the rate of harm arising from health care in New Zealand is similar to that in other comparable countries, and in relation to serious harm actually quite low. Despite this, the publication is quite right in emphasising that each accepted injury claim represents a person harmed. There is no room here for complacency.

It would, however, be easy to miss the positive things associated with this publication. New Zealand deals well with accidental injury in health care, compared with most other countries. The very existence of the ACC is a major factor. The ACC gives injured patients access to appropriate care and compensation, avoiding costly and emotionally challenging legal processes typical of most other parts of the world - even countries close to us physically and politically. The considerable investment by the ACC (and the Government through the HQSC and other routes) into injury prevention initiatives (outlined on pages 14 and 15 of this publication) is very encouraging. New Zealand's key agencies and organisations are increasingly committed to working together in a transparent way. Their collaborative efforts in aligning data sources to improve our health system are also very positive. Finally, and most importantly, the people who actually care for patients in New Zealand have a high level of commitment to excellence. We must value and take pride in this.

We commend the ACC for taking this step and contributing to the positive change we are also working toward. We look forward to continuing to work with the ACC, the Ministry of Health and other organisations as we continue to build world-leading health and disability services all New Zealanders can trust.

**Professor Alan Merry**

Chair, Health Quality and Safety Commission Board



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## MINISTRY OF HEALTH FOREWORD

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*Dr Andrew Simpson*

We know that treatment can have associated risk. It is important we recognise and acknowledge the impact treatment injuries have on affected individuals and their whanau. While we continue to support those affected we need to learn from these events so we can reduce the risk of injury for those undergoing treatment in the future. This publication indicates an increase in accepted treatment injury claims since 2005 – when this category was first introduced. It also details accepted claims from 2015/16 with a focus on public hospitals.

During that time, our health system has delivered more treatment caring for a growing population that is also getting older, with associated greater complex needs and higher potential for complications. Since 2005, New Zealand's population has increased in size from 4.1 to 4.6 million, and the number aged over 65 years increased from 497,000 to 674,000 people. The annual volume of elective and arranged surgery has increased from 135,000 to over 200,000, and the number of hospital discharges from 837,000 to 1,136,000. From 2009 when the 'Shorter stays in emergency departments (ED)' health target was introduced, annual ED attendances have increased from 900,000 to 1,100,000.

In parallel with increasing access to treatment, improving patient safety and reducing patient harm is a priority for all health systems. Countries such as the United Kingdom (UK), United States (US) and Australia are making substantial investments in this area. International research indicates that the rate of patient harm in New Zealand hospitals is comparable to other countries.

Some risk of patient harm is unavoidable, particularly in situations where urgent and invasive treatments are being provided, and where people being treated have co-morbidities that increase risk. We can, however, work to minimise risk and the impact of any injury.

ACC's publication makes visible a significant proportion of the cases that make up the 5,002 accepted claims attributed to DHBs for 2015/16. Ongoing transparency of accepted treatment injury claims will help inform where to direct efforts for best effect.

This publication shows that infection post-surgery constituted 24% of accepted claims and 11% of the cost of treatment injury. Comparatively, medication adverse reactions made up 7% of the volume and 6% of the cost; while pressure injuries made up 5% of the claims but under 1% of the cost. In contrast, neonatal encephalopathy was a small volume; however, made up 9% of the cost for 2015/16. We need to target the areas that have the greatest impact and this publication helps provide that focus.

There is already work underway across ACC, the Health Quality and Safety Commission and the Ministry of Health to address these and other areas as highlighted in this publication. There are currently programmes for surgical site infection, pressure injury, and neonatal encephalopathy amongst others. There is also an on-going programme of work across the health and disability sector to identify and analyse adverse events that result in patient harm and implement system changes to drive continuous improvement.

Insights from this publication and other measures of health care quality and safety play an important role in helping to target interventions and investment to achieve best outcomes. Our goal is that all New Zealanders live well, stay well, get well.

**Dr Andrew Simpson**  
Chief Medical Officer, Ministry of Health

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## EXECUTIVE SUMMARY

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### INVESTING IN IMPROVED PATIENT SAFETY

New Zealand has a high performing health system and most patients get predictable and good results. Sometimes, despite best efforts, things go wrong. When they do, ACC steps in to provide appropriate care toward recovery. The health system though can learn from what happened and try to prevent it happening again.

The information in this publication examines the accepted claims for treatment injuries – cases where patients are inadvertently harmed during the course of their treatment in public hospitals.

ACC is working closely across the health sector as part of a targeted injury prevention strategy to improve patient safety to prevent treatment injuries or reduce their severity.

Claims for treatment injuries have increased in both number and cost since eligibility for cover was changed from medical misadventure to treatment injury. In the last five years, claims have risen 66%.

The actual and predicted future costs for all treatment injuries last year was \$418 million. ACC's predicted liability for the future costs of all treatment injuries to date is \$5.1 billion.

International research indicates the type and number of treatment injuries in New Zealand hospitals is comparable to other countries. It also suggests that about half of the treatment injuries can be prevented or minimised. Improving patient safety is a priority for many health systems, including the UK, US and Australia.

Last year 5,002 treatment injury claims were accepted by ACC during the course of treatment in a public DHB hospital. Another 3,879 treatment injuries were sustained in private hospitals, general practice, and other health settings. Each of these was a person inadvertently harmed.

Initially, ACC is publishing treatment injury information specific to public hospitals. Over time, ACC will also publish information for private hospitals and other settings, including general practice and aged residential care.

Common injuries include infections of several types, and reactions to medication or medication errors. Most of these are easily remedied and have little or no lasting effects. A few are serious and have lasting impact. These latter type of cases have the highest human and financial cost and need to be our main target for prevention.

ACC currently has four national treatment injury prevention programmes that it will invest between \$15 million and \$20 million in over the next five years. Existing initiatives are

focused on safer surgery, pressure injuries, infections, and brain injuries at birth. ACC is developing other initiatives with health sector partners, and these will begin as soon as possible. It has identified opportunities to build on existing programmes and develop new injury prevention initiatives that will take the total to about \$45 million over five years.

The information contained in this publication describes several of the most common and important treatment injuries that occur in public hospitals. We will add to these over time, to support our partnerships for patient safety across the health sector.

The number of claims is not a direct indicator of a hospital's safety record. It is important to note that simple comparisons between DHBs is not valid. Each DHB takes up different case-mixes, demographics and/or socio-economic conditions among their catchment population. These can influence the risk of treatment injury.

The main purpose of tracking the number of treatment injuries over time is to encourage improvement within each DHB and hospital. ACC will continue to provide feedback to the public, clinicians and their managers in a transparent and open manner.

This information will help guide our ongoing investment into improving patient safety, working in conjunction with the Ministry of Health (MoH), DHBs, HQSC and others.

Throughout this publication 2015/16 refers to the financial year period 1 July to 30 June.

SECTION

.01 +

SUPPORTING SAFER HEALTH  
CARE IN NEW ZEALAND



OVERVIEW OF  
ALL TREATMENT INJURY  
CLAIMS IN 2015/16

97,786

Registered health  
practitioners in New Zealand.

8,881

ACC accepted treatment  
injury claims in all settings.

ABOUT  
4%

Decided claims reported to  
the responsible authority  
where there is a risk of harm  
to the public.

\$5.1b

Current value of future  
costs for all existing  
treatment injury claims,  
as at 30 June 2016.

## SUPPORTING SAFER HEALTH CARE IN NEW ZEALAND

THE PURPOSE OF THIS PUBLICATION IS TO:

- SUPPORT IMPROVEMENTS IN PATIENT SAFETY
- PROVIDE A CASE FOR PREVENTION: EFFECTIVE IMPROVEMENTS IN PATIENT SAFETY REDUCE PATIENT HARM
- BE CONSISTENT WITH THE NEW ZEALAND HEALTH STRATEGY, AND THE GOVERNMENT'S DESIRE TO INCREASE TRANSPARENCY OF HEALTH INFORMATION.

### SUPPORTING IMPROVEMENTS

**Each accepted treatment injury claim represents a person harmed during the course of medical treatment. The number of claims has been rising. This may be due to higher reporting, or more people being harmed, or perhaps both to a degree.**

- Greater understanding is needed of the extent and nature of patient harm.
- There is a strong case for investment in injury prevention.
- ACC is partnering with the health sector to improve patient safety and reduce the number and severity of treatment injuries.

**One purpose of this publication is to support improvements in patient safety.**

- It aims to inform and guide collective efforts to reduce patient harm.
- Treatment injury information is one measure of patient safety and adds to other measures across the health sector to provide a richer evidence base.
- The best way to tackle treatment injuries is evidence-informed approaches to reduce patient harm.
- ACC will work with clinicians, managers, institutions, consumers, and health agencies to improve patient safety.

SECTION .01  
SUPPORTING  
SAFER HEALTH CARE  
IN NEW ZEALAND

OVERVIEW OF PUBLIC  
HOSPITAL TREATMENT  
INJURY CLAIMS IN 2015/16

Every treatment injury claim accepted represents a person harmed.

1.1m

Discharges from DHB hospitals.

56%

Accepted treatment injury claims are from DHB hospitals.

5,002

Accepted claims for treatment delivered in DHBs in 2015/16

\$91m

Total costs paid for new and existing treatment injury claims in DHB hospitals in 2015/16.

**This publication provides information about all treatment injury claims - the numbers, costs, and overall lifetime cost burden to New Zealand.**

- This publication will be updated regularly. The scope and level of detail will broaden over time, and include more injury types. ACC will continuously work with the sector to refine the information published.
- It is recognised internationally that patients can be harmed during health care. Improving patient safety is an important priority for health systems around the world.
- The scientific literature indicates that between 40% and 60% of patient harm is preventable in some way, depending on the patient's health condition and types of treatment used.

**The initial focus for publishing treatment injury information is public hospitals.**

- This publication will be extended later to other areas of health care in New Zealand, including private hospitals and primary care.
- Public hospitals account for over half of all accepted treatment injury claims. This is because many patients are admitted in a clinically compromised state, and treatment often includes the use of invasive devices and procedures that carry inherent risk for patient harm.

**The extent of patient harm is not fully known in New Zealand or any other country.**

- There is no single way of measuring patient harm. All health systems rely on various ways to detect harm to patients. These include reporting systems, case file reviews, reportable events processes and treatment injury claims. Each of these has some uncertainty and all are 'lagging indicators'.
- Treatment injury claims accepted by ACC involve physical injury experienced by patients due to treatment. Due to the definition of treatment injury, treatment injury claims are a subset of all patient harm.

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**WE WILL INCLUDE MORE INJURY TYPES OVER TIME IN THIS PUBLICATION**

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## ACC'S COMMITMENT TO TREATMENT INJURY PREVENTION

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ACC is working in partnership with the Ministry of Health, Health Quality and Safety Commission, District Health Boards, stakeholders and clinicians across the health sector to improve patient safety.

As part of these sector-wide actions, ACC will invest about \$45 million in treatment injury prevention initiatives over the next five years. These initiatives are grouped around four main themes:

### **Safer surgery**

This involves working with HQSC's safer surgery programme. Simulation training is well-established in other sectors (such as aviation) and is increasingly used in clinical training. More effective teamwork and communication has been shown to reduce injury in an operating room context.

- ACC has contracted the School of Medicine at Auckland University to deliver Multidisciplinary Operating Room Simulation (MORSim) training to operating room personnel from ten DHBs over the next three years, with plans to cover the remaining ten DHBs over the following two years.

### **Surgical Site Infection Improvement Programme**

Infections are the most frequent treatment injury claim. Most are minor and easily remedied but a small minority have a much greater impact with higher cost and duration.

- ACC has contracted HQSC to complete provision of the national Surgical Site Infection Improvement Programme for all DHBs in hip and knee orthopaedic surgery, and to extend this programme to the five DHBs that perform cardiac surgery.
- ACC is funding the roll-out of a national infection prevention and control surveillance platform for all DHBs, approved by the National Health IT Board.

### **Pressure Injury Prevention Programme**

ACC, MoH and HQSC have convened an expert reference panel drawing on expertise from across the sector.

Pressure injuries are a major cause of preventable harm for health care services, including hospital, residential aged care and home care.

- ACC has funded regional workshops throughout New Zealand to develop national clinical guidance that can be applied in hospitals and in other care settings.



### **Safer maternity care**

ACC has convened an independently-chaired national taskforce (NE Taskforce) to reduce the incidence and severity of preventable neonatal encephalopathy. This is aligned with MoH's Maternal Health Quality Improvement Strategy and the findings of HQSC's Perinatal and Maternal Mortality Review Committee (PMMRC). Neonatal encephalopathy is a type of often severe birth brain injury that is very low volume, but very high impact to the individual and their family, with a high cost for a long duration for the ACC Scheme.

ACC is also working with MoH, HQSC, Pharmac, Medsafe and community organisations to develop and implement a prevention toolkit for Foetal Anti-Convulsant Syndrome (FACS). FACS is a cluster of congenital malformations in infants exposed to anti-epileptic drugs in utero, and is considered difficult to diagnose.

As well, ACC is planning to invest in four upcoming initiatives that combine cutting-edge research, training and support for clinicians, to strengthen monitoring and surveillance to reduce treatment injuries at birth. These cover a neonatal early warning system, foetal surveillance training, cord lactate testing, and development of biomarker antenatal testing.

In addition to the initiatives outlined above, ACC is planning to support a **national patient safety challenge** to encourage and support innovation across the health sector. New Zealand has outstanding researchers, clinicians and hospitals. ACC will issue a request for proposals to seek their ideas to improve patient safety. In doing so, ACC can identify good practice that could be applied more broadly across the sector, from the projects that are supported.

THE PURPOSE OF  
THIS PUBLICATION IS  
TO SUPPORT  
IMPROVED PATIENT  
SAFETY THROUGHOUT  
NEW ZEALAND. EVERY  
TREATMENT INJURY  
CLAIM REPRESENTS  
AN INJURED  
NEW ZEALANDER

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## AN IMPORTANT ROLE FOR INJURY PREVENTION

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### SUPPORTING IMPROVED PATIENT SAFETY

Enabling safer health care will reduce the amount and severity of patient harm that occurs. This will improve health outcomes for New Zealanders and reduce treatment injury.

ACC is an important part of the health sector and a key contributor to the patient safety area. It has an injury prevention responsibility to help reduce the incidence and severity of treatment injuries.

Improving patient safety is a priority action of the 2016 New Zealand Health Strategy. To achieve this goal, clinicians, managers, institutions, consumers, ACC, health agencies, and others need to work together.

### IMPORTANT TERMINOLOGY USED IN THIS PUBLICATION\*

**Patient safety** - the prevention of errors and adverse effects to patients associated with health care.

**Patient harm** - anything that impairs or adversely affects the safety of patients in clinical care, drug therapy, research investigations, or public health.

**Hospital acquired conditions** - conditions that developed during the hospital stay.

**Treatment injury** - a personal injury suffered during treatment from, or at the direction of, a registered health professional. The injury must have been caused by treatment; but not be a necessary part, or ordinary consequence, of the treatment, taking into account all the circumstances of the treatment.

**Accepted ACC treatment injury claim** - a personal injury that has been clinically investigated and that meets the criteria under section 32 of the Accident Compensation Act 2001.

**Risk of harm** - when a treatment injury claim highlights a risk of harm to the public, ACC must report this to the relevant authority responsible for patient safety, under section 284 of the Accident Compensation Act 2001.

### CARE, RECOVERY AND INJURY PREVENTION

Since its inception over 40 years ago, ACC has provided some type of cover for people harmed during health care. The information collected has not, until now, been used systematically to inform patient safety and improve outcomes.

\* Selected glossary and definitions relating to treatment injury are contained in the appendices on page 103

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## A KEY ROLE FOR ACC IS TO PROVIDE INFORMATION TO ASSIST IN PREVENTION OF INJURY

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### ACC WORKS WITH PARTNERS TO IMPROVE PATIENT SAFETY

ACC considers the best way to tackle treatment injuries is to work collaboratively to improve patient safety, using evidence-informed approaches to reduce patient harm.

ACC is working with primary, secondary, and tertiary providers in both the public and private sectors. This is being done in collaboration with the MOH, DHBs, HQSC, other agencies, and professional colleges and associations.

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## ACC IS SUPPORTING DISCUSSIONS AT THE LOCAL LEVEL ABOUT HOW TO ENHANCE PATIENT SAFETY

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### SUPPORTING INJURED NEW ZEALANDERS

Each accepted claim ensures an injured New Zealander can access the care and support that they need and to which they are entitled.

ACC provides cover for treatment injury according to the provisions of the Accident Compensation Act 2001. Not all discomfort or harm experienced by people having treatment is an injury caused by that treatment.

For accepted claims, ACC funds treatment and on-going care to address the injury. Where the patient is incapacitated, compensation is provided for lost income and any permanent loss of function. ACC also provides rehabilitation to help the patient return to activity and work, and to participate in society. Taken together, these costs to ACC provide a reasonable approximation of the economic and social costs of a treatment injury sustained by a patient.

Improving patient safety will generate substantial benefits through improved health outcomes, reduced suffering, shorter periods of hospitalisation, reduced readmissions, and avoiding the costs of injuries. This in turn will help to manage the impact of treatment injury claims on ACC.

## TOWARD UNDERSTANDING TREATMENT INJURIES AND LEVELS OF PATIENT HARM IN NEW ZEALAND

Other countries with health systems similar to New Zealand are also prioritising actions to improve patient safety. It is common practice to use information about patient harm to inform actions to improve patient safety, and to track their progress over time. For example:

- In the US, the Affordable Care Act ('ObamaCare') includes a strong emphasis on data publication to make cost and outcome data publically-available to inform and engage clinicians and patients and to improve patient safety (for example, there is a particular focus on reducing post-surgery complications and improving recovery).
- In the UK, the failures at the Mid-Staffordshire National Health Service (NHS) Foundation Trust prompted a sustained effort to lift patient safety. A range of initiatives are under way to change the safety culture in the NHS to be more open and honest, to learn from when things go wrong and take steps to prevent them from being repeated. This includes a commitment to being open and transparent through the publication of patient safety data.

Comparisons across countries are difficult, reflecting different models for the delivery of health care, and differences in definitions, reporting and data capture. International research suggests around 10% of hospital admissions result in patient harm. This rate of patient harm is relatively consistent across countries. New Zealand research also suggests a similar rate of patient harm. Patient harm is a wider concept than the ACC definition of treatment injury, and includes falls and other non-treatment related injuries. All countries collect patient safety data in various ways, but this is not directly comparable to New Zealand.

There are examples of where data, for particular types of patient harm, has been constructed to enable comparisons across countries. As an example, the PMMRC compares rates of neonatal encephalopathy with other countries. The Organisation for Economic Co-operation and Development (OECD) also reports a small number of health care quality indicators across countries, including for retained objects, pulmonary embolism and deep vein thrombosis following surgery. New Zealand rates of patient harm appear comparable to those seen in other countries on these measures for particular injury types.

## PROVIDING TREATMENT INJURY INFORMATION

This publication provides information about all treatment injury claims, and those arising in public hospitals - the numbers, costs, and the overall cost burden to the ACC scheme and ultimately to New Zealand.

The number of accepted treatment injury claims is useful to help quantify the amount of injury. It does not by itself address the causes or lead to improvement. Rather, it emphasises the need for more effective prevention strategies.

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**THIS PUBLICATION IS THE BEGINNING OF A PROCESS TO SYSTEMATICALLY USE ACC INFORMATION TO HELP IMPROVE PATIENT SAFETY**

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No single data set provides a complete picture of patient safety and harm. Treatment injury claims are an important but incomplete indicator of patient safety.

ACC's treatment injury information will be most useful if it is joined up with other measures of patient harm. This process is often referred to as 'triangulation' - and ACC will work toward this approach with other agencies. Several additional indicators of patient harm are collected in New Zealand. These include hospital standardised mortality ratios from MoH, patient harm captured by the National Minimum Data Set (NMDS), adverse event reporting to HQSC, complaints to the Health and Disability Commissioner (HDC), deaths in health care investigated by the Coronial Services, the Health Roundtable, and others.

## INITIAL FOCUS ON PUBLIC HOSPITALS

The initial focus for publishing treatment injury information is on public hospitals. They account for 56% of all accepted treatment injury claims. This includes a number of hospital-acquired conditions - that is, those developed during the hospital stay that lead to treatment injury claims.

Like all health data, measures of patient harm can be tabulated or adjusted by several variables such as age, gender, health status, and the presence of various health conditions. All available measures are potentially incomplete reflecting the methods of data capture.

Supporting patient safety requires an understanding of the size and nature of the problem, so that suitable prevention approaches can be put in place. Reporting treatment injuries, when they occur, is a responsible and appropriate part of that process.

## PROGRESS TOWARD ANSWERING THE IMPORTANT QUESTIONS

Over time, we will be able to contribute to answering key questions regarding the New Zealand health system:

- What is the scale and nature of patient harm?
- When, where, and how does patient harm occur?
- What causes and contributing factors can be identified, including system ones?
- Which prevention approaches are successful, for whom, and when?

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## ACC SUPPORT FOR PEOPLE INJURED DURING TREATMENT

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The range of treatment injuries is very wide. Most are easily remedied and only require medical treatment. Most also have no lasting impact.

Some treatment injuries are more serious and require more assistance. The support available from ACC depends on the injury and the person's circumstances, and may include:

- contributions towards treatment costs
- weekly compensation for lost income if the injury keeps the person from working
- home help with activities such as housekeeping and childcare
- house or vehicle modifications
- compensation for permanent impairment

Common types of treatment injury claims are wound infections following surgery and pressure injuries. The following examples illustrate complex cases - along with details of the required treatment and support. Names have been changed in these examples.

### EXAMPLE 1: DEEP INFECTION AFTER JOINT REPLACEMENT

Manu, aged 67, has osteoarthritis and had elective surgery for a total left hip joint replacement. The operation was straightforward (including pre-operative antibiotic prophylaxis) and Manu was discharged four days later. A week after returning home, Manu went to his general practitioner (GP) with pus coming from the wound and increasing pain that was worse when walking. As Manu had a fever, the GP referred him to hospital where tests confirmed the joint replacement was infected. Manu needed further surgery including a revision of the joint replacement, then a prolonged course of antibiotics through an intravenous line. A treatment injury claim for post-operative infection was accepted. ACC assisted Manu with some of the costs of his additional medical treatment and with rehabilitation.

*Wound infections are the most common type of treatment injury accepted by ACC. The ones that occur following surgery usually involve an infection at the site of orthopaedic surgery.*



## EXAMPLE 2: PRESSURE INJURY

Tania, aged 77, was admitted to hospital with a chest infection and problems getting around because of gout, osteoarthritis, and poor circulation to her feet. The focus of the medical team was on pain relief and treating the chest infection. As the nursing assessment did not include any risk of developing pressure injury, no preventive measures were put in place. Five days after admission Tania was diagnosed with a stage 2 pressure wound on her lower back, as well as pressure injury on her left and right heels - stages 3 and 2 respectively. Pressure dressings were applied, and pressure relief placed under Tania's ankles. An air mattress was ordered and arrived two days later, but the pressure injury on the left heel progressed to stage 4. Surgery was needed to debride the pressure injury, and Tania needed a longer stay in hospital with further surgery. She also needed district nurse care once she returned home. Support from ACC included surgery and specialised wound care in hospital, district nursing, home help and some housing modifications to allow better access by health care workers as Tania recovered. ACC's support did not include care relating to the arthritis or circulation problems.

*Pressure injury claims are generally related to inadequate pressure area prevention or management. For example, no risk assessment, no prevention plan, or a lack of pressure injury care.*

### EXAMPLE 3: ANTIBIOTIC-INDUCED HEPATITIS

Craig, a 19 year-old orchard worker, was a non-smoker without any underlying illnesses. Craig had experienced repeated skin infections over the last year including two episodes of a localised abscess on his right lower leg. He was prescribed a four week course of an antibiotic (flucloxacillin) to try to prevent further abscesses.

One week after completing the antibiotics, Craig developed extreme tiredness and lost his appetite. His GP ordered blood tests which showed Craig had developed a mild case of hepatitis (liver inflammation). Further testing showed this was not due to a virus, obstruction, other illnesses or due to alcohol or chemicals used in his workplace. Consultation with a hospital specialist confirmed the hepatitis was due to the flucloxacillin. The hospital specialist lodged the claim with ACC on Craig's behalf with a medical certificate of incapacity.

ACC was able to assist with weekly compensation, a contribution to transport to the hospital, and to medical visits.

Craig was monitored with repeat blood tests during his recovery at home and was able to resume full-time work after three weeks. Craig has no lasting effects from this injury.

*Medication adverse events are the second largest category of treatment injury accepted by ACC.*

*Antibiotic-associated hepatitis is an uncommon adverse event, occurring in less than four in 100,000 prescriptions. Most people recover quickly from this. For further information on antibiotic associated hepatitis, see the Medsafe website (New Zealand Medicines and Medical Devices Safety Authority) at <http://www.medsafe.govt.nz/profs/PUArticles/AntibioticsSept2012.htm>*

SECTION

# .02+

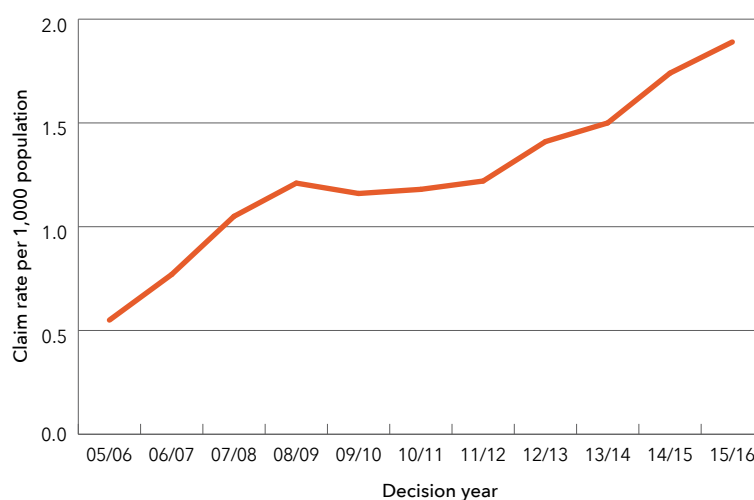
TREATMENT INJURY DASHBOARD  
FOR NEW ZEALAND



ALL ACCEPTED TREATMENT  
INJURY CLAIMS, IN ALL  
FACILITIES (PER 1,000  
POPULATION, BY  
DECISION YEAR)

### NATIONAL PROGRESS SUMMARY

The number and rate of all treatment injury claims has been growing steadily. In 2015/16, there were 8,881 accepted treatment injury claims, equivalent to 1.9 per 1,000 people.



Note: This data is standardised by the national population<sup>1</sup> because it includes all treatment injury claims from all sources: 56% of treatment injury claims are the result of treatment in DHB facilities (public hospitals), 16% in private hospitals, and 28% in other locations - including general practice and aged residential care.

ALL TREATMENT INJURY CLAIMS DECIDED AND ACCEPTED, BY TYPE OF TREATMENT FACILITY, 2015/16			
Facility	Number of claims decided	Number of claims accepted	Percentage accepted
Public hospitals	7,233	5,002	69.2%
Private hospitals	1,897	1,430	75.4%
Other	4,695	2,449	52.1%
<b>Total</b>	<b>13,825</b>	<b>8,881</b>	<b>64.2%</b>

In 2015/16, there were 1.1 million discharges following treatment at a public hospital,<sup>2</sup> and 5,002 accepted treatment injury claims. Overall, 0.45% of discharges from public hospitals resulted in an accepted treatment injury claim (that is 45.0 accepted treatment injury claims per 10,000 discharges). This has increased from 0.26% in 2011/12 (being 26.2 accepted treatment injury claims per 10,000 discharges).

1 Source: Population data from Statistics New Zealand

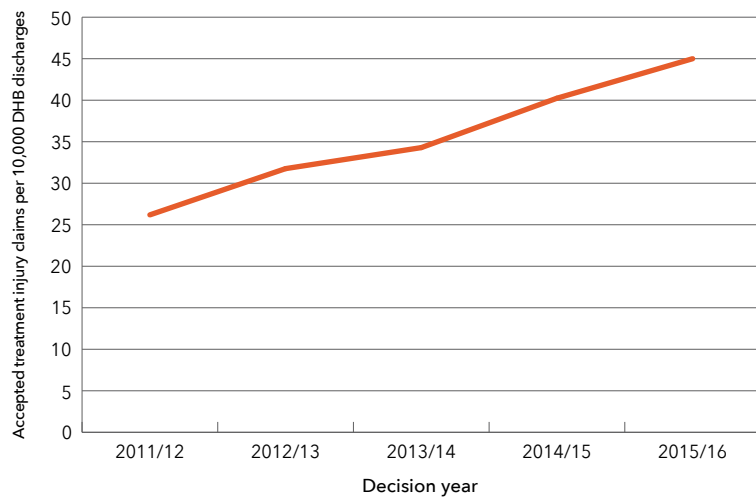
2 Source: National Minimum Data Set, Ministry of Health

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SECTION .02  
TREATMENT INJURY  
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Every DHB has opportunities to improve patient safety. ACC is working in partnership with DHBs and the rest of the health sector to improve patient safety. This is being done through national initiatives to address common issues, and regional and local actions to address particular areas of focus. Publishing treatment injury information will help to increase the profile of patient safety and support actions to improve patient safety and limit harm.

ACCEPTED TREATMENT  
INJURY CLAIMS PER 10,000  
DISCHARGES FOR ALL DHB  
FACILITIES, BY DECISION YEAR



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

Each DHB is different - with a distinctive case-mix due to the demographics and health status of their catchment populations. Furthermore, public hospitals provide different types of surgery, treatments, and services. As a result, it is not meaningful to make direct comparisons across or between DHBs.

SECTION .02  
TREATMENT INJURY  
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**DIRECT COMPARISONS BETWEEN DHBS ARE NOT MEANINGFUL DUE TO DIFFERENT CASE-MIX AND CONTEXT**

SUMMARY CLAIMS INFORMATION FOR ALL DHB FACILITIES, 2015/16					
DHB Region	Population <sup>3</sup>	Number of discharges <sup>4</sup>	Accepted Treatment Injury claims	Accepted claims per 10,000 discharges	Percentage of discharges accepted as treatment injury claims
Auckland	507,200	139,620	538	38.53	0.38%
Bay of Plenty	226,700	57,273	204	35.62	0.36%
Canterbury	539,600	118,635	414	34.90	0.35%
Counties Manukau	534,200	118,031	458	38.80	0.39%
Hawke's Bay	161,400	40,074	126	31.44	0.31%
Hutt Valley	145,900	36,452	248	68.03	0.68%
Lakes	106,600	28,511	103	36.13	0.36%
MidCentral	174,200	40,354	187	46.34	0.47%
Nelson Marlborough	146,400	30,484	197	64.62	0.65%
Northland	171,400	45,447	223	49.07	0.49%
Southern	318,900	67,192	228	33.93	0.34%
Sth Canterbury	59,200	13,942	109	78.18	0.78%
Tairāwhiti	47,800	11,103	68	61.24	0.61%
Taranaki	116,800	30,541	245	80.22	0.80%
Waikato	399,500	107,261	571	53.23	0.53%
Wairarapa	43,600	9,461	86	90.90	0.91%
Waitematā	590,700	120,981	324	26.78	0.27%
Whanganui	63,000	17,163	119	69.34	0.69%
Wellington/Capital and Coast	306,600	71,968	526	73.09	0.73%
West Coast	32,500	7,508	28	37.29	0.37%

<sup>3</sup> Source: Population data from Statistics New Zealand.

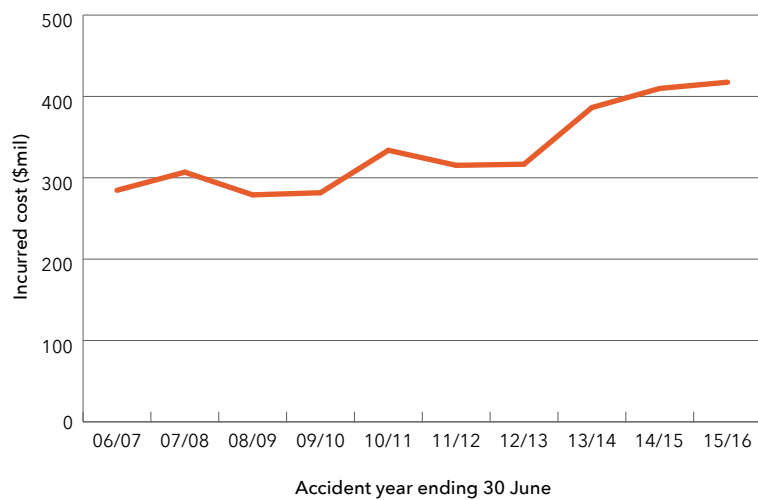
<sup>4</sup> Source: National Minimum Data Set, Ministry of Health.

SECTION .02  
**TREATMENT INJURY  
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Incurred costs for all treatment injury were \$418 million in 2015/16. This includes actual and **predicted** cost and reflects the costs of treatment, expected on-going care, support, and rehabilitation for people who were hurt while receiving medical treatment. Incurred costs for treatment injury have increased by 47% since 2006/07.

**INCURRED COSTS FOR  
 ALL TREATMENT INJURY  
 CLAIMS IN ALL FACILITIES,  
 BY ACCIDENT YEAR  
 (2006 - 16)**

Incurred cost includes actual and **predicted** costs of all injuries that occurred in 2015/16



Incurred costs include estimates of the lifetime cost of accepted claims in that accident year, and estimates of claims that will be accepted in future years for treatment injuries that occurred during the accident year. For this reason, it is not possible to analyse incurred costs by treatment facility and injury type.

Total costs paid for new and existing treatment injury claims were \$134.2 million in 2015/16. Costs paid do not include the expected lifetime costs of claims, but this is a measure that can help illustrate the relative impact of differing treatment injury types and different treatment facilities.

Cost paid in 2015/16 for new claims made in 2015/16 and for existing claims from previous years

COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS, BY TREATMENT FACILITY		
Facility	Costs paid for new and existing treatment injury claims	Costs paid for new and existing accepted treatment injury claims
Public hospitals	\$90,798,905	\$84,097,642
Private hospitals	\$23,279,331	\$22,353,868
Other	\$20,130,036	\$16,737,357
<b>Total</b>	<b>\$134,208,272</b>	<b>\$123,188,867</b>

### NATIONAL ANALYSIS OF TREATMENT INJURY CLAIMS INFORMATION

There were 8,881 accepted treatment injury claims in all settings in 2015/16. The rate of treatment injury claims has been growing steadily since 2005.

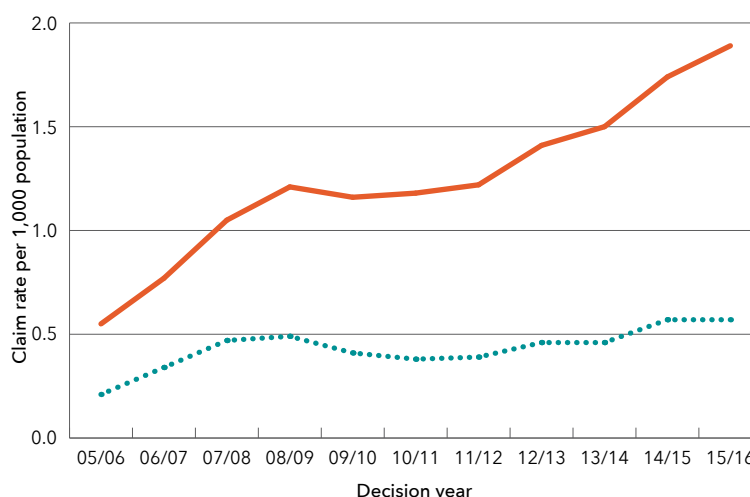
In 2015/16, there were 1.9 accepted treatment injury claims per 1,000 population, around three times as many as in 2005/06 when the rate was 0.55.

Some claims only necessitate medical treatment for their treatment injuries. Other claims, referred to as 'entitlement claims' receive additional support.

**ALL ACCEPTED  
 TREATMENT INJURY CLAIMS,  
 IN ALL FACILITIES  
 (PER 1,000 POPULATION,  
 BY DECISION YEAR)**

**KEY**

- All claims
- Entitlement claims



Note: This data is standardised by the national population because it includes all treatment injury claims from all sources: 56% of treatment injury claims are the result of treatment in DHB facilities (public hospitals), 16% in private hospitals, and 28% in other locations - including general practice and aged residential care.

Growth in treatment injury claims was anticipated with the expansion of cover to all treatment injury from 1 July 2005\*. Other factors that may also be contributing to growth of treatment injury claims include: increased volumes of treatment across the health system, greater risk factors in the patient population, and efforts to encourage greater reporting of treatment injury.

\* The history of ACC's governing legislation is outlined in the appendices.



## **SOME TREATMENT INJURIES WILL HAVE A BIGGER IMPACT ON THE PERSON INJURED**

The cost of a treatment injury claim is an indicator of the severity of the injury. An assumption is that more costly claims have a more severe impact on the person injured. While there is not always a direct relationship, it is one indicator.

We can also compare the number of cases that only require medical treatment for their treatment injury as against those that also receive additional support. The latter are called 'entitlement claims'. These more serious injuries have on-going costs over and above the initial medical treatment. These can be lifetime costs and may include weekly compensation for loss of earnings, home help, attendant care, vehicle modifications, housing modifications, vocational rehabilitation, or various other types of social rehabilitation support.

There has been smaller growth in accepted treatment injury entitlement claims between 2005/06 and 2015/16, although the rate per 1,000 population has doubled, from 0.21 to 0.58.

A small number of entitlement claims each year are further classified as 'serious injury' claims. A 'serious injury' claim is an internal classification that ACC uses for clients who will have a lifelong relationship with ACC. This enables ACC to ensure allocation of appropriate financial reserves and identification of claims suitable for lifetime rehabilitation planning. Clients are only allocated to the serious injury category if they satisfy specific clinical criteria, because this provides access to long-term support. These criteria include spinal cord injury; moderate and severe brain injury; multiple limb amputations; severe burns; and blindness in both eyes.

Serious injury claims are rare. In 2015/16, 35 entitlement claims were classified as serious injuries. Despite this, they have a substantial impact on the injured patient and their family. It is important for ACC to focus on reducing the incidence and severity of the treatment injuries with the greatest impacts (that is, entitlement claims and, within these subsets, serious injury claims).

## TREATMENT INJURIES OCCUR IN A WIDE RANGE OF SETTINGS

The health sector is complex and involves a wide range of professions that work in various settings. For convenience, these are often divided into primary, secondary, and tertiary services. Another commonly used approach is to separate into public and private providers.

Hospitals are a common setting for patient safety events. They face higher risks of patient harm because many patients are admitted in a clinically compromised state, and care often includes the use of invasive devices and procedures that carry inherent risk for patient harm.

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## HOSPITAL SETTINGS ACCOUNT FOR OVER 70% OF ACCEPTED TREATMENT INJURY CLAIMS

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Public and private hospitals account for over 70% of accepted treatment injury claims. As a result, hospitals have established patient safety activities to help manage these risks, and hospitals are important partners of ACC for initiatives to improve patient safety.

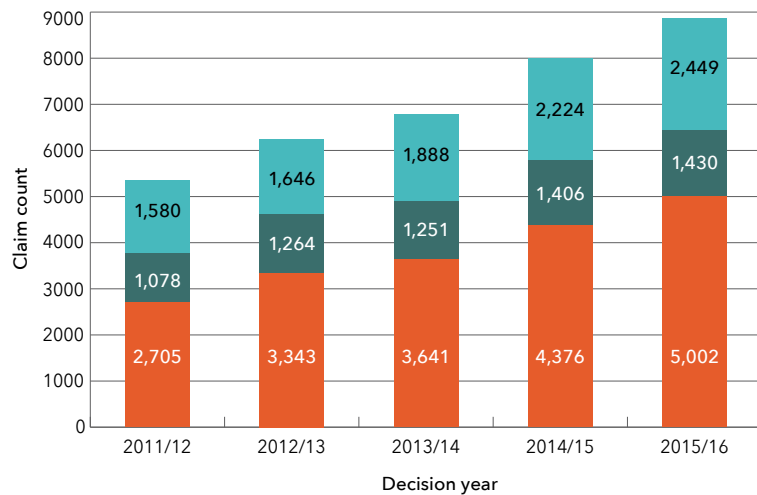
Hospital-acquired conditions are those that develop during the hospital stay. These can lead to poor outcomes and increased health care costs, and may result in treatment injury claims. Many of these injuries are preventable. Consequently, hospital settings are an important focus for improving patient safety.

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**ALL ACCEPTED TREATMENT  
 INJURY CLAIMS, BY  
 TREATMENT FACILITY AND  
 DECISION YEAR**

**KEY**

- Other
- Private hospital
- DHB facilities



In this chart 'DHB facilities' cover public hospitals, and 'private hospital' refers to private surgical hospitals. The 'other' category includes primary care and community settings such as 'rooms-based procedures'.

The volume and complexity of treatment across the health system has been increasing. In 2015/16, there were 1.1 million discharges following treatment at a DHB facility, around 8% more than in 2011/12. New Zealand's population grew by about 6.5%, from 4.40 million to 4.70 million over the same period.

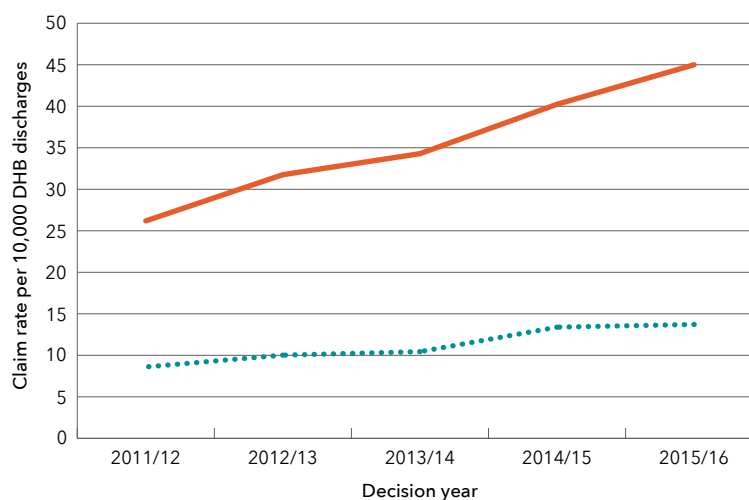
In 2015/16 there were 45 accepted treatment injury claims per 10,000 discharges across all DHB facilities (0.45%), compared with 26 accepted claims per 10,000 discharges (0.26%) in 2011/12.

## TREATMENT INJURY DASHBOARD FOR NEW ZEALAND

### ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES FOR ALL DHB FACILITIES, BY DECISION YEAR

#### KEY

- All claims
- Entitlement claims



Note: This data is standardised by the number of DHB discharges<sup>5</sup> because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

### MANY FACTORS INFLUENCE THE RISK OF BEING INJURED DURING TREATMENT

Different hospitals provide varying types of surgery, treatments, and services - many of which carry inherent risks of injury to the patient. For example, some public hospitals provide complex medical and surgical interventions, such as cancer management, neurosurgery, cardiac surgery, treatment for severe burns, and advanced neonatology services. Patients for these services will often be in a clinically compromised state, and may have been transferred to the specialist facility from other parts of the country.

Similarly, each DHB will have a distinctive case-mix reflecting the age, gender, and health status of their catchment populations. These characteristics can also increase the risks of treatment injury. For example, some DHBs have relatively high proportions of older people in their population, while other DHBs have relatively high levels of socio-economic disadvantage. Added to this, some DHBs have relatively high rates of diabetes and obesity in their population, whilst others cover large geographical areas with a mostly rural population.

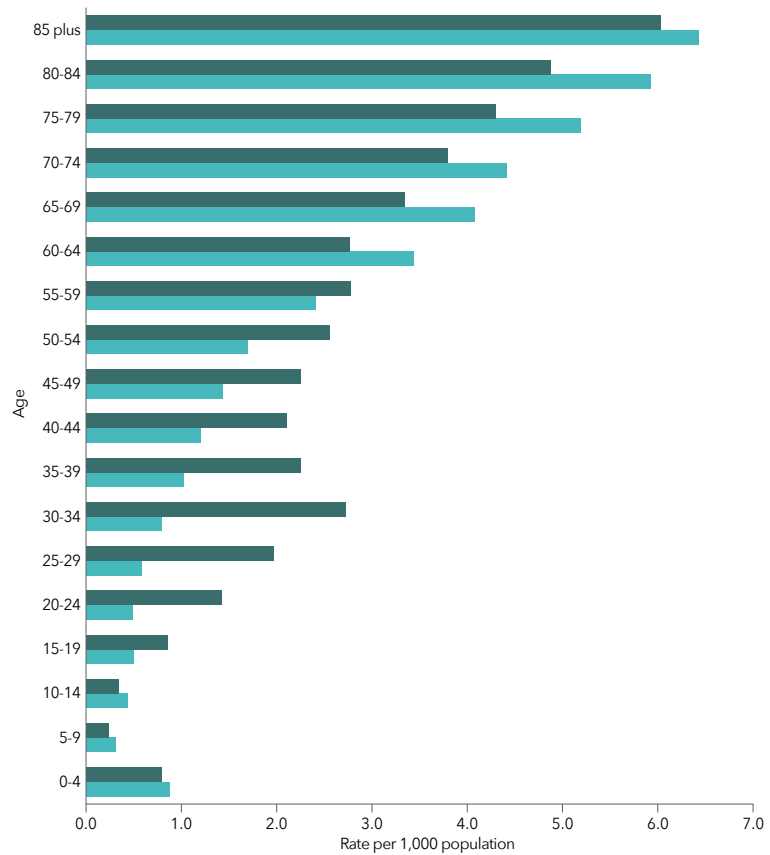
<sup>5</sup> Source: National Minimum Data Set

SECTION .02  
**TREATMENT INJURY  
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**RATE PER 1,000 POPULATION  
 FOR ALL ACCEPTED  
 TREATMENT INJURY  
 CLAIMS IN 2015/16,  
 BY AGE AND GENDER**

**KEY**

- Female claim rate per 1,000 population
- Male claim rate per 1,000 population



Note: This data is standardised by the national population<sup>6</sup> because it includes all treatment injury claims from all sources: 56% of treatment injury claims are the result of treatment in DHB facilities (public hospitals), 16% in private hospitals, and 28% in other locations - including general practice and aged residential care.

**RATES OF TREATMENT INJURY CLAIMS VARY SIGNIFICANTLY  
 WITH AGE AND GENDER**

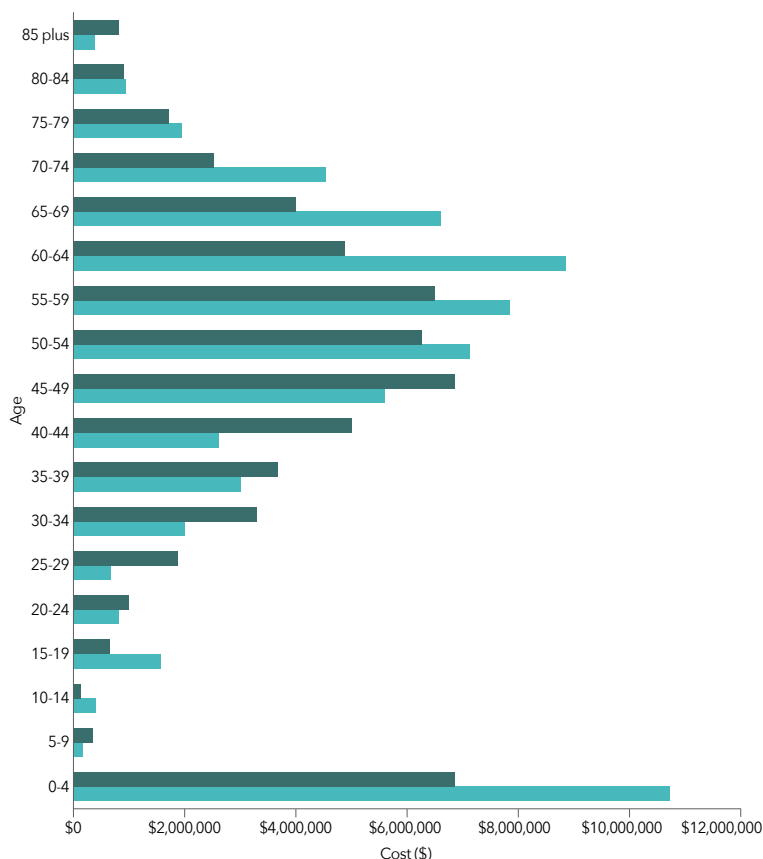
<sup>6</sup> Source: Population data from Statistics New Zealand

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**TREATMENT INJURY  
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**TOTAL COSTS PAID IN 2015/16  
 FOR ALL NEW AND EXISTING  
 ACCEPTED TREATMENT INJURY  
 CLAIMS, BY AGE AND GENDER**

**KEY**

- Female claim cost
- Male claim cost



Note: This data is standardised by the national population<sup>7</sup> because it includes all treatment injury claims from all sources: 56% of treatment injury claims are the result of treatment in DHB facilities (public hospitals), 16% in private hospitals, and 28% in other locations - including general practice and aged residential care.

These patterns by age and gender reflect the greater utilisation of treatment services by certain cohorts at particular times in their life. They also reflect differences in risk factors. We note, for example, that:

- Overall, treatment injuries become more prevalent later in life (aged 50 plus) reflecting the greater exposure of older people to treatment, and the greater prevalence of co-morbidities in older people.
- There is a relatively high rate of injury for young children aged 0 to 4. This includes a small number of very severe birth brain injuries that have a large lifetime impact - increasing the average cost or impact measured for this age group.
- Women aged 20 to 54 have consistently higher rates of treatment injury than men of the same age, and these injuries have a larger cost or impact on average. This probably reflects their greater use of treatment services in the context of reproductive health and/or maternity care.

<sup>7</sup> Source: Population data from Statistics New Zealand

SECTION .02  
**TREATMENT INJURY  
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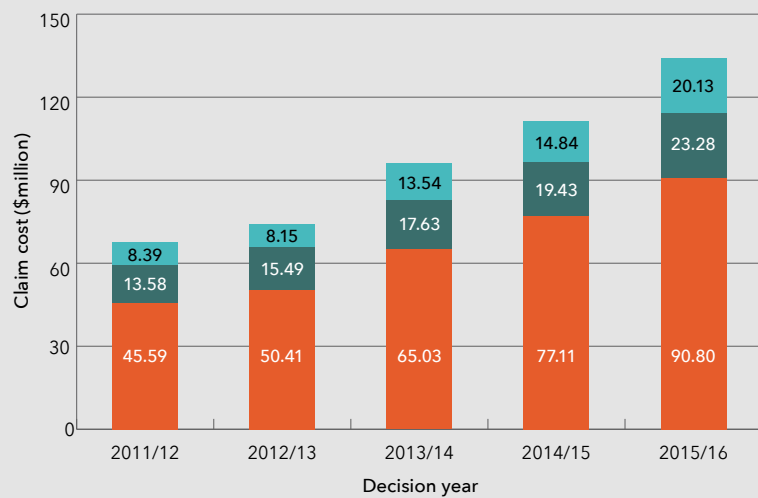
**COSTS PAID FOR NEW AND EXISTING TREATMENT INJURY CLAIMS**

Total costs paid for new and existing treatment injury claims were \$134.2 million in 2015/16.

**TOTAL COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS, BY TREATMENT FACILITY AND PAYMENT YEAR**

**KEY**

- Other
- Private hospital
- DHB facilities

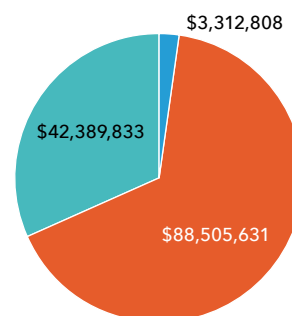


**A PROPORTION (0.4% OF ACCEPTED CLAIMS) OF MORE SERIOUS TREATMENT INJURIES GENERATE THE MAJORITY OF COSTS**

Thirty percent of all treatment injury claims accepted in 2015/16 were entitlement claims. New and existing entitlement claims accounted for 98% of all costs paid by ACC for treatment injury in 2015/16. New and existing serious injury claims (a subset of entitlement claims) accounted for 32% of all costs paid for treatment injury in 2015/16.

### COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS

**TOTAL 2015/16**  
**\$134,208,272**



#### KEY

● All other ● Entitlement ● Serious injury

Note, this cost information includes all treatment injury claims from all sources: DHB facilities (public hospitals), private hospitals, and other locations (including general practice and aged residential care).

### INCURRED COST FOR ALL TREATMENT INJURY IN 2015/16

Estimated lifetime costs for all treatment injury claims that occurred in 2015/16 is \$418 million. These costs include:

- Costs paid to date for new claims accepted for injuries that occurred in 2015/16.
- An estimate of the costs that will be incurred in future years for those claims (expressed as a present value - that is, the amount needed in 2015/16 to meet those future costs).
- An estimate of the costs for future claims for injuries that occurred in the current year (that is, the present value of claims made in 2016/17 or later years, for injuries that occurred in 2015/16).
- Costs paid for declined treatment injury claims. ACC may pay some costs before a claim is decided - for example, for the initial treatment required.

### ESTIMATED OUTSTANDING CLAIMS COST OF TREATMENT INJURY

The outstanding claims liability for treatment injury was \$5.1 billion as at 30 June 2016.

This is an estimate of the current value of the lifetime impact of treatment injury to those patients who have already been injured.

It is the current value of all future treatment, care and support for all existing accepted treatment injury claims to date. One way of understanding this is to remember that, if ACC went out of existence today, this is the amount that would still have to be paid out in the future.



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## ACC RISK OF HARM NOTIFICATIONS

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ACC is required to assess all treatment injury claims (whether accepted or declined) to determine the actual (or potential) risk of harm to the public.<sup>8</sup> This includes an assessment of the likelihood of recurrence and the actual or potential consequence of the event. All events assessed as presenting a risk of harm to the public are reported to the Director-General of Health. They may also be referred to the relevant professional authority if potential competency issues are identified. ACC also copies the risk of harm notifications to HQSC.

There are parallels between ACC's reporting of risk of harm and the reporting of adverse events to HQSC by health care providers, under the National Reportable Events Policy.

The principal reason for adverse event reporting to exist in any health system is to support learning from clinically meaningful events and near misses. This should involve identification of causes and contributing factors, and using these to inform practice so that the same or similar incidents can be prevented in future.

ACC's assessment of the risk of harm is based on the MoH Severity Assessment Code (SAC).<sup>9</sup> ACC is working with MoH and HQSC to better align this risk of harm reporting, and to make better use of the insights that can be drawn from treatment injury claims to better support this wider learning to improve patient safety.

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**IN 2015/16, 587 CLAIMS WERE ASSESSED AS PRESENTING A RISK OF HARM TO THE PUBLIC. THIS IS ABOUT 4% OF ALL DECIDED CLAIMS (BEING BOTH ACCEPTED AND DECLINED CLAIMS)**

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<sup>8</sup> Section 284 of the Accident Compensation Act 2001 requires ACC to report 'risk of harm to the public' based on information collected in the course of processing claims for treatment injury, including those that are in the nature of claims for treatment injury but are caused by a person who is not a registered health professional.

<sup>9</sup> More information regarding risk of harm notification is set out in the appendices.

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RISK OF HARM NOTIFICATIONS AND TREATMENT INJURY CLAIMS DECIDED BY FINANCIAL YEAR					
	2011/12	2012/13	2013/14	2014/15	2015/16
Claims decided	8,543	10,029	10,355	12,590	13,825
Serious risk of harm (aligned with SAC2)	335	320	236	313	509
Serious risk of harm (aligned with SAC1)	62	49	47	46	78

Note: Further information about the MoH Severity Assessment Code (SAC) is contained in the appendices.

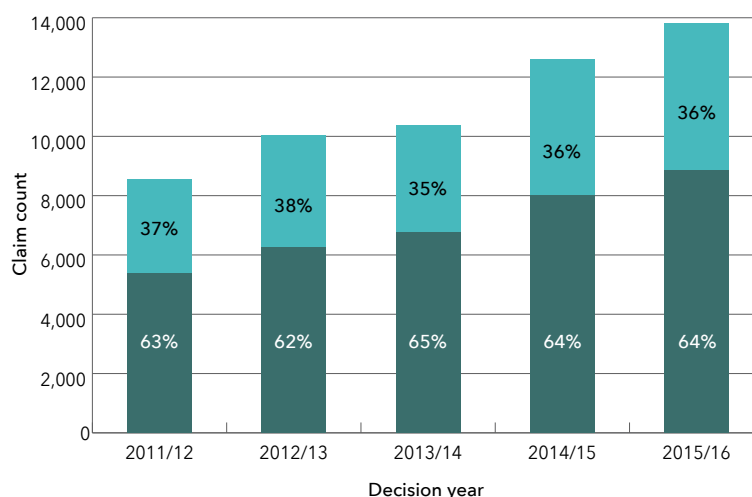
**TWO-THIRDS OF TREATMENT INJURY CLAIMS ARE  
ACCEPTED EACH YEAR**

Overall, the proportion of treatment injury claims accepted has remained relatively stable over the past five years, at around 64%. During the same period, the number of claims decided has increased rapidly (from 8,543 in 2011/12 to 13,825 in 2015/16).

**RATES OF ACCEPTED AND  
DECLINED TREATMENT INJURY  
CLAIMS BY DECISION YEAR**

**KEY**

- Declined
- Accepted



There are three broad reasons why treatment injury claims are declined:

- **61% of declined claims** do not have an injury caused by the treatment (for 30% there is no injury; for 27% there is no causal link between the treatment and the injury; and 4% are the result of an underlying health condition).
- **13% of declined claims** do not meet the tests to be a treatment injury (11% are an 'ordinary consequence' of the treatment; 1% a necessary part of the treatment; and 1% did not involve a registered health provider in the treatment).
- **20% of declined claims** are withdrawn (11%) or have insufficient information (9%).

All treatment injury claims are submitted with the help of a health professional. Rates of declined claims vary across DHBs - ranging from 18% to 39% of all lodged claims in 2015/16.

The relatively high rate of declined claims highlights an opportunity for ACC to work more closely with health professionals. This includes development of stronger guidance and assistance to better identify cases of treatment injury, and ensuring the necessary information is presented to support ACC's decision on the claim.

Attributing treatment injuries to the setting where treatment occurred relies on accurate information from the treatment provider.

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THE NAME OF THE FACILITY WHERE THE TREATMENT CAUSING THE INJURY WAS DELIVERED IS PROVIDED TO ACC BY THE REGISTERED HEALTH PROFESSIONAL LODGING THE CLAIM

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## NATIONAL RATES OF TREATMENT INJURIES BY INJURY TYPE IN PUBLIC HOSPITALS

The table provides volumes and costs for the areas of focus for ACC treatment injury prevention, based on all accepted treatment injury claims in the 2015/16 financial year where the treatment provider is a DHB.

The selection of areas for focus includes injuries with significant impact on individuals (and their families), injuries which are identified internationally as amenable to prevention strategies, or injuries that may be indicators of safer care.

Over time we will increase the number of categories that we monitor and use this information to support more prevention approaches.

ACCEPTED TREATMENT INJURY CLAIMS IN THE 2015/16 FINANCIAL YEAR WHERE THE TREATMENT PROVIDER IS A DHB, HIGHLIGHTING THE AREAS OF FOCUS FOR PREVENTION.			
INJURY TYPE	ACCEPTED CLAIMS	CLAIM COSTS (does not include lifetime costs)	CONTEXT OF CLAIMS
Infection (Total) Of which:	1,364	\$11,017,258	This injury type includes skin lesion removal such as moles (13%), hip and knee surgery (10.5%) and I.V. Cannulation (6.5%).
- Infections following surgery	1,177	\$9,878,273	<i>Includes all infection following surgery.</i>
- Line infections	122	\$411,378	<i>Peripheral line infections are higher by volume while central line infections are more costly due to the level of support required.</i>
- Other infections	65	\$727,607	
Pressure Injury	320	\$833,302	The major causes are lack of identifying risk factors (65%), immobilisation (17%) and splints or other casts (8%).
Medication Adverse effects	345	\$5,462,183	Reactions to medications such as antibiotics and pain relievers. Reaction to injections make up 16% of this category.
Medication errors	18	\$525,038	Errors in prescribing and/or dispensing medication.
Pulmonary Embolism	25	\$402,371	These are included as internationally, it is regarded as an indicator of safe surgery.
Deep Vein Thrombosis	40	\$177,064	
Neonatal Encephalopathy*	11	\$9,641,095	These are rare, high impact and high cost events that last for the individual's lifetime.

\* Includes public and private facilities

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The following charts provide further analysis of specific injury types within public hospitals (DHB facilities). This analysis focuses on the injury categories recorded by ACC that are most clinically meaningful. Over time, we will look to add analysis of more types of treatment injury.

## INFECTIONS OF ALL TYPES

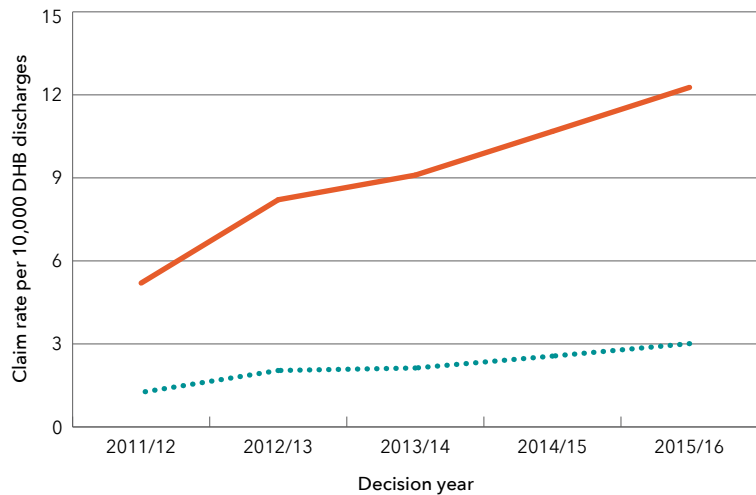
ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES FOR ALL TYPES OF INFECTIONS IN ALL DHB FACILITIES

**KEY**

- All claims
- Entitlement claims

1,364

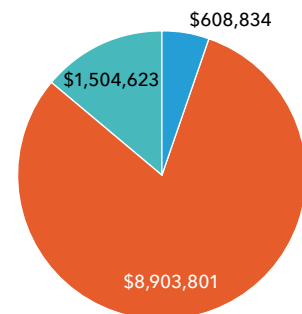
NUMBER OF ACCEPTED TREATMENT INJURIES IN DHBS IN 2015/16 FOR INFECTIONS OF ALL TYPES



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS INFECTIONS OF ALL TYPES IN ALL DHB FACILITIES

**TOTAL 2015/16  
 \$11,017,258**



**KEY**

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

ACCEPTED TREATMENT INJURY  
 CLAIMS FOR INFECTIONS  
 FOLLOWING SURGERY PER  
 10,000 DISCHARGES, IN ALL  
 DHB FACILITIES

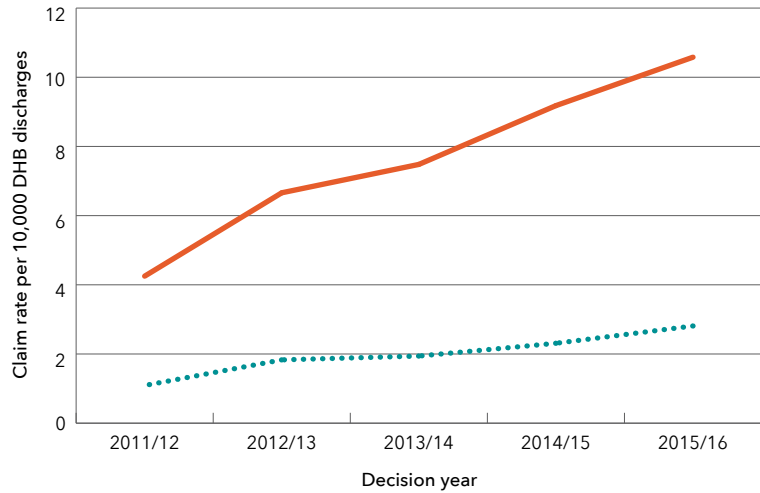
KEY

- All claims
- Entitlement claims

1,177

NUMBER OF ACCEPTED  
 TREATMENT INJURIES  
 IN DHBS IN 2015/16  
 FOR INFECTIONS  
 FOLLOWING SURGERY

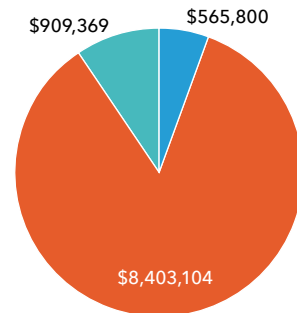
INFECTIONS FOLLOWING SURGERY



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

COSTS PAID IN 2015/16 FOR  
 NEW AND EXISTING ACCEPTED  
 TREATMENT INJURY CLAIMS  
 FOR INFECTIONS FOLLOWING  
 SURGERY IN ALL DHB FACILITIES

TOTAL 2015/16  
**\$9,878,273**



KEY

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

## LINE INFECTIONS (PERIPHERAL AND CENTRAL)

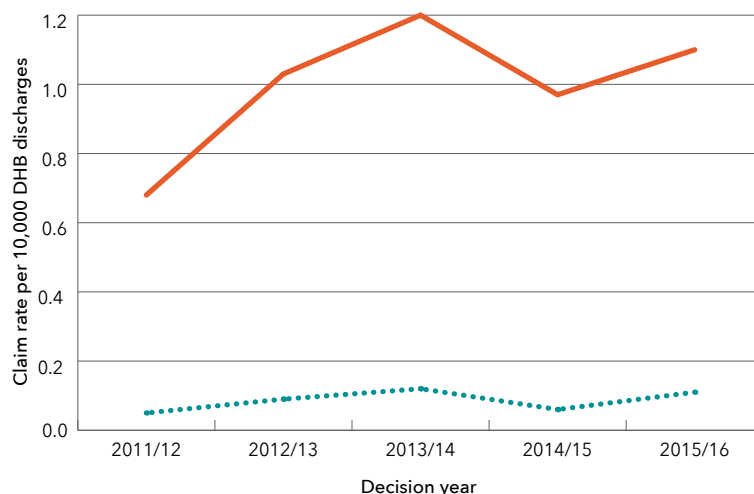
ACCEPTED TREATMENT INJURY CLAIMS FOR PERIPHERAL AND CENTRAL LINE INFECTIONS PER 10,000 DISCHARGES, IN ALL DHB FACILITIES

KEY

- All claims
- Entitlement claims

122

NUMBER OF ACCEPTED TREATMENT INJURIES IN DHBS IN 2015/16 FOR LINE INFECTIONS (PERIPHERAL AND CENTRAL)



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

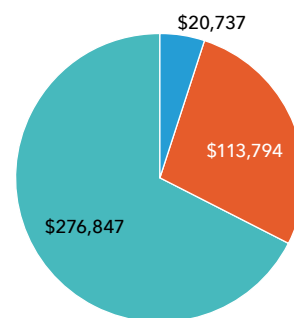
COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS FOR PERIPHERAL AND CENTRAL LINE INFECTIONS IN ALL DHB FACILITIES

TOTAL 2015/16  
\$411,378

KEY

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).



## CENTRAL LINE INFECTIONS

Within the accepted treatment injury claims for line infections, there were 11 for infections to peripherally inserted central catheter lines in 2015/16. These occurred in non-ICU settings, with most relating to surgery, oncology or other medicines.

ACCEPTED TREATMENT  
INJURY CLAIMS PER 10,000  
DISCHARGES FOR PRESSURE  
INJURIES IN ALL DHB FACILITIES

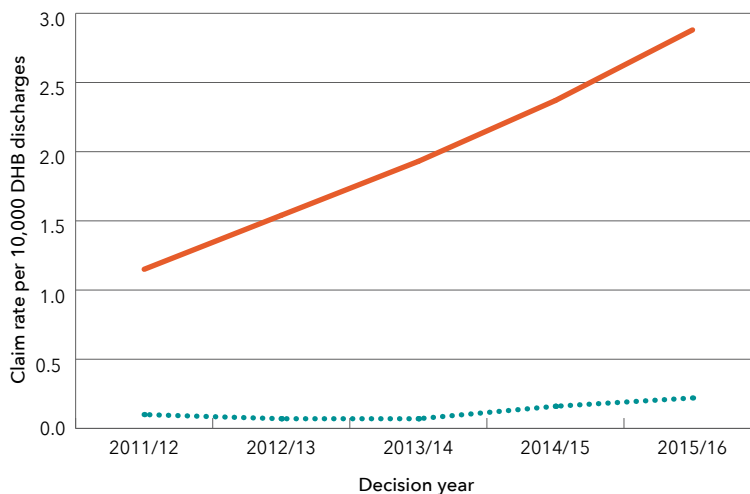
KEY

- All claims
- Entitlement claims



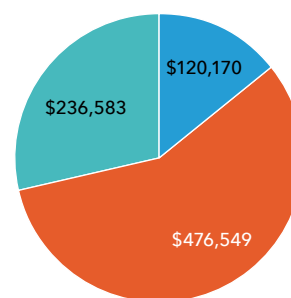
NUMBER OF ACCEPTED  
TREATMENT INJURIES  
IN DHBS IN 2015/16 FOR  
PRESSURE INJURIES

## PRESSURE INJURIES



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

COSTS PAID IN 2015/16 FOR  
ALL NEW AND EXISTING  
TREATMENT INJURY CLAIMS  
FOR PRESSURE INJURIES IN ALL  
DHB FACILITIES



**TOTAL 2015/16**  
**\$833,302**

KEY

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).



**ACCEPTED TREATMENT INJURY  
 CLAIMS FOR MEDICATION  
 ADVERSE REACTIONS PER  
 10,000 DISCHARGES IN ALL  
 DHB FACILITIES**

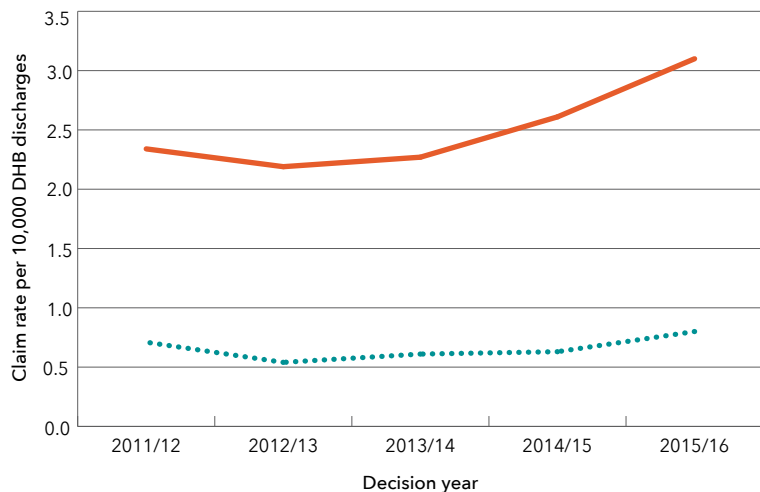
**KEY**

- All claims
- Entitlement claims



**NUMBER OF ACCEPTED  
 TREATMENT INJURIES  
 IN DHBS IN 2015/16 FOR  
 MEDICATION ADVERSE  
 REACTIONS**

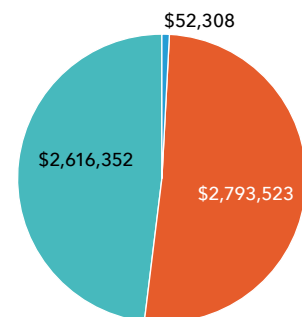
**MEDICATION ADVERSE REACTIONS**



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim. It does not include accepted claims for medication errors.

**COSTS PAID IN 2015/16 FOR ALL  
 NEW AND EXISTING TREATMENT  
 INJURY CLAIMS FOR MEDICATION  
 ADVERSE REACTIONS IN ALL DHB  
 FACILITIES**

**TOTAL 2015/16  
 \$5,462,183**



**KEY**

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

## MEDICATION ERRORS (PRESCRIBING AND DISPENSING)

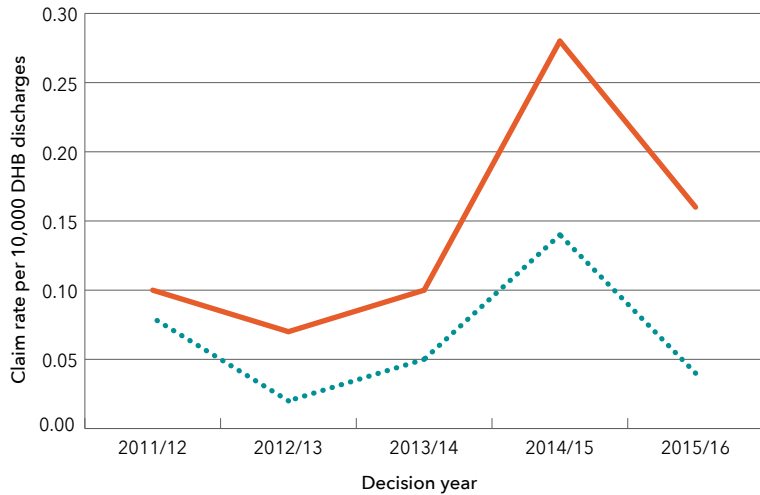
ACCEPTED TREATMENT INJURY CLAIMS FOR MEDICATION ERRORS (PRESCRIBING AND DISPENSING) PER 10,000 DISCHARGES IN ALL DHB FACILITIES

KEY

- All claims
- Entitlement claims



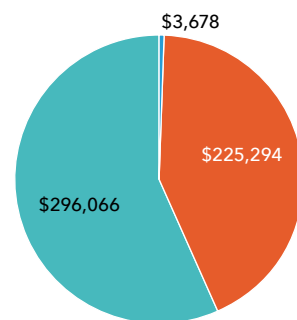
NUMBER OF ACCEPTED TREATMENT INJURIES IN DHBs IN 2015/16 FOR MEDICATION ERRORS (PRESCRIBING AND DISPENSING)



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim. It does not include accepted claims for medication adverse reactions.

COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS FOR MEDICATION ERRORS IN ALL DHB FACILITIES

TOTAL 2015/16  
 \$525,038



KEY

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

SECTION .02  
 TREATMENT INJURY  
 DASHBOARD FOR  
 NEW ZEALAND

ACCEPTED TREATMENT  
 INJURY CLAIMS FOR  
 PULMONARY EMBOLISM  
 PER 10,000 DISCHARGES IN  
 ALL DHB FACILITIES

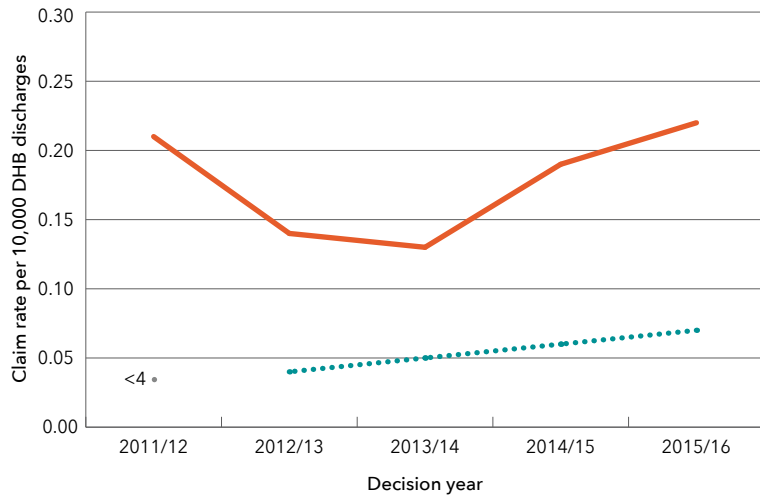
KEY

- All claims
- Entitlement claims



NUMBER OF ACCEPTED  
 TREATMENT INJURIES  
 IN DHBS IN 2015/16 FOR  
 PULMONARY EMBOLISM

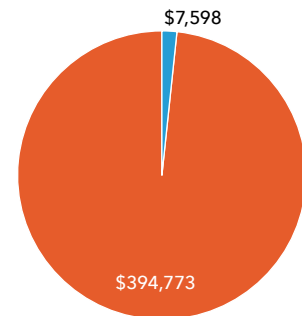
PULMONARY EMBOLISM (PE)



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

COSTS PAID IN 2015/16 FOR  
 ALL NEW AND EXISTING  
 TREATMENT INJURY CLAIMS  
 FOR PULMONARY EMBOLISM  
 IN ALL DHB FACILITIES

TOTAL 2015/16  
 \$402,371



KEY

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

## DEEP VEIN THROMBOSIS (DVT)

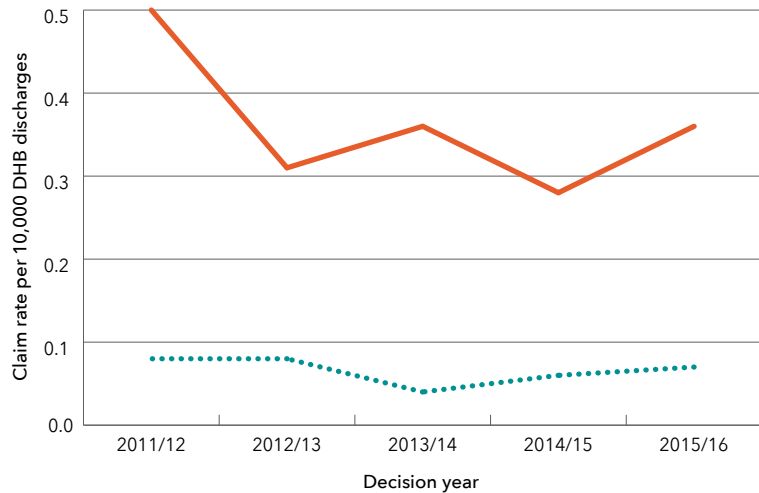
ACCEPTED TREATMENT INJURY CLAIMS FOR DEEP VEIN THROMBOSIS PER 10,000 DISCHARGES IN ALL DHB FACILITIES

**KEY**

- All claims
- Entitlement claims



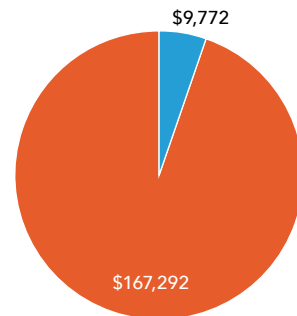
NUMBER OF ACCEPTED TREATMENT INJURIES IN DHBs IN 2015/16 FOR DEEP VEIN THROMBOSIS



Note: This data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING TREATMENT INJURY CLAIMS FOR DEEP VEIN THROMBOSIS (DVT) IN ALL DHB FACILITIES

**TOTAL 2015/16  
 \$177,064**



**KEY**

- All other
- Entitlement
- Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

PE and DVT are often reported as indicators of safer surgery. Due to the numbers of accepted treatment injury claims being small for these injury types, they are only reported at the national level.

## NEONATAL ENCEPHALOPATHY (NE)

NE includes hypoxic birth injuries and hypoxic ischemic encephalopathy (HIE). The number of NE cases is low, but the impact to the individual and their family is extremely high and lasts throughout the individual's lifetime.

Some cases of NE are not caused by treatment. ACC may only accept a treatment injury claim where NE is causally related to treatment by a registered health professional. Each case of NE generates substantial lifetime costs for (often advanced) nursing care. The predicted nominal lifetime cost for an NE serious injury claim was estimated to be between \$33 million and \$55 million as of 30 June 2015/16.

ACC has accepted an average of ten claims per annum for NE over the period from 2011/12 to 2015/16 in all settings.

	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16
Accepted NE claims	6	9	10	17	11

The PMMRC undertakes comprehensive surveillance of NE. It recorded 355 cases of NE of varying severity from 2010 to 2014 - from no harm through to serious injury and death. This amounted to approximately 70 cases per year. These cases are distributed across DHBs.

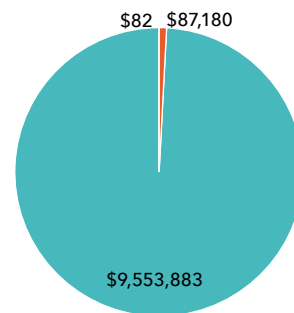
The PMMRC's NE working group found that death and severity of morbidity was **potentially avoidable in 55% of cases**. For this reason, ACC has convened a taskforce representing stakeholders and professional bodies in maternity care (the NE Taskforce). The NE Taskforce will identify, develop, and implement injury prevention actions to reduce the incidence and severity of preventable NE, based on national and international best practice interventions.

**INJURIES TO BABIES AT BIRTH ACCOUNT FOR BETWEEN 35% AND 50% OF ALL SERIOUS INJURY CLAIMS FOR TREATMENT INJURY. ON AVERAGE, TEN NE CLAIMS ARE ACCEPTED EACH YEAR.**

SECTION .02  
TREATMENT INJURY  
DASHBOARD FOR  
NEW ZEALAND

COSTS PAID IN 2015/16 FOR ALL  
NEW AND EXISTING TREATMENT  
INJURY CLAIMS FOR NEONATAL  
ENCEPHALOPATHY (NE)

**TOTAL 2015/16**  
**\$9,641,095**



**KEY**

● All other    ● Entitlement    ● Serious injury

Note: Serious injuries are a subset of entitlement claims, and this cost information includes only DHB facilities (public hospitals).

SECTION

.03 +

DHB TREATMENT INJURY  
DASHBOARDS



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## DHB TREATMENT INJURY DASHBOARDS

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### WHAT EACH DHB TREATMENT INJURY DASHBOARD CONTAINS

The information provided in each dashboard includes only treatment injury claims resulting from treatment in the DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim.

Background information has been provided for inclusion by each DHB. This provides context to the information about the numbers and costs of accepted treatment injury claims, including:

- the population served by the DHB, and an outline of key features of the population.
- the facilities provided by the DHB.

The treatment injury information provided includes:

- the rate of accepted claims per 10,000 discharges from the DHB over the last five years<sup>1</sup>, presented in a chart that also includes the rate for all DHBs.
- the total costs paid for all new and existing accepted treatment injury claims that arose from treatment within the DHB during 2015/16.  
This is also presented in a chart to identify costs paid for serious injury, entitlement, and all other claims<sup>2</sup>.
- the proportion of treatment injury claims that were accepted and declined which arose from treatment within the DHB during 2015/16<sup>3</sup>.
- the numbers of accepted treatment injury claims and rates per 10,000 discharges for six types of injury<sup>4</sup>:
  - Infections of all types
  - Infections following surgery
  - Line infections
  - Pressure injuries
  - Medication adverse reactions
  - Medication errors

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1 Data is standardised by the number of DHB discharges because it includes only treatment injury claims resulting from treatment in DHB facilities (public hospitals). The name of the facility where the treatment causing the injury was delivered is provided to ACC by the registered health professional lodging the claim. Discharge numbers are provided by the Ministry of Health from the National Minimum Data Set.

2 Serious Injury claims are an internal classification that ACC uses for clients who will have a lifelong relationship with ACC. Entitlement claims have on-going costs over and above the initial medical treatment. Both types of claim indicates severity of impact on the person injured.

3 Each declined claim may result in mismatched expectations.

4 These six treatment injury types are those with significant impact on individuals and their families, injuries which are identified internationally as amenable to prevention strategies or injuries that may be indicators of safer care. Over time ACC will increase the number of categories monitored and use this information to support more prevention approaches.



## INTERPRETING THE DHB TREATMENT INJURY DASHBOARDS

### Comparison across time within a DHB

The main purpose of tracking the number of treatment injuries over time is to encourage improvement within each DHB hospital. Each accepted claim represents a person who was inadvertently harmed during the course of treatment. The treatment injury frequency count provides one indication of physical injury experienced by patients due to treatment.

Direct comparisons between DHBs are not meaningful due to different case mix and context.

Each DHB is different, with a distinctive case-mix due to the demographics and health status of their catchment populations. Furthermore, public hospitals provide different types of surgery, treatments, and services. As a result, it is not meaningful to make direct comparisons across DHBs.

\* As a matter of practice, ACC has a policy not to disclose data below a certain value to maintain privacy. Accordingly, some entries in the dashboards only indicate that the relevant number is less than four (denoted by "<4") and in those instances where there is no claim this is denoted by "-".

AUCKLAND DHB

507,200  
people

538

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

AUCKLAND DHB HAS THREE  
MAJOR FACILITIES:



AUCKLAND CITY HOSPITAL  
STARSHIP CHILDREN'S  
HOSPITAL  
GREENLANE CLINICAL  
CENTRE

## AUCKLAND DHB



### Auckland DHB is based in Auckland City.

It has a population of 507,200 people.

- Auckland's population tends to be younger than the national average.
- Auckland has a lower proportion of Māori and a higher proportion of Pacific people living there in comparison with the national average.
- Auckland's deprivation levels are similar to the national average.

Auckland DHB employs approximately 10,000 health and medical staff, which equates to a little over 8,000 full-time equivalent positions.

Auckland DHB has three major facilities:

- Auckland City Hospital
- Starship Children's Hospital
- Greenlane Clinical Centre.

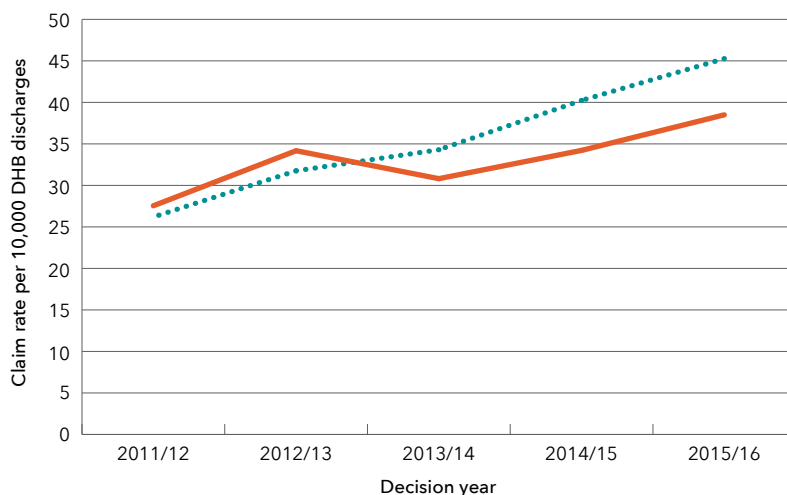
**Auckland City Hospital** is New Zealand's largest public hospital as well as the largest clinical research facility.

**Starship Children's Hospital** is a dedicated paediatric health care service and major teaching centre. It provides family centred care to children and young people throughout New Zealand and the South Pacific.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

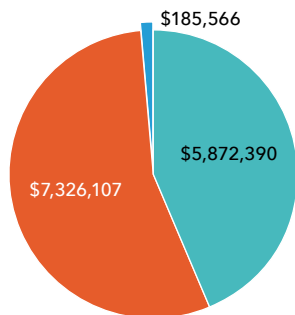
**KEY**

- Auckland
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

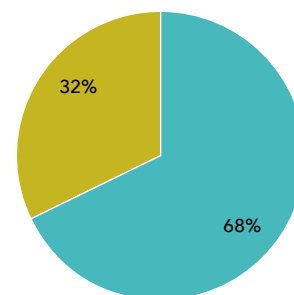
**TOTAL 2015/16 \$13,384,063**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.63	8.1	5.37	7.63	7.88
	Number	46	106	72	103	110
Infections following surgery	Rate	2.60	6.27	4.03	5.70	6.52
	Number	33	82	54	77	91
Line infections	Rate	0.79	0.84	0.90	0.96	0.86
	Number	10	11	12	13	12
Pressure injuries	Rate	-	0.38	0.82	1.93	1.15
	Number	<4	5	11	26	16
Medication adverse reactions	Rate	3.39	2.60	2.98	3.11	3.80
	Number	43	34	40	42	53
Medication errors	Rate	-	-	-	-	-
	Number	<4	<4	<4	<4	<4

BAY OF PLENTY DHB

226,700  
people

204

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

BAY OF PLENTY DHB HAS  
TWO MAJOR FACILITIES:



TAURANGA HOSPITAL  
WHAKATĀNE HOSPITAL

## BAY OF PLENTY DHB



### Bay of Plenty DHB is based in Tauranga.

It has a population of 226,700 people.

- Bay of Plenty's population tends to have a greater proportion of people aged 50 years and above than the national average.
- Bay of Plenty has a higher proportion of Māori and almost no Pacific people living there, in comparison with the national average.
- Bay of Plenty's deprivation levels are higher than the national average.

Bay of Plenty DHB employs approximately 3,180 health and medical staff, which equates to a little over 2,562 full-time equivalent positions.

Bay of Plenty DHB has two major facilities:

- Tauranga Hospital
- Whakatāne Hospital.

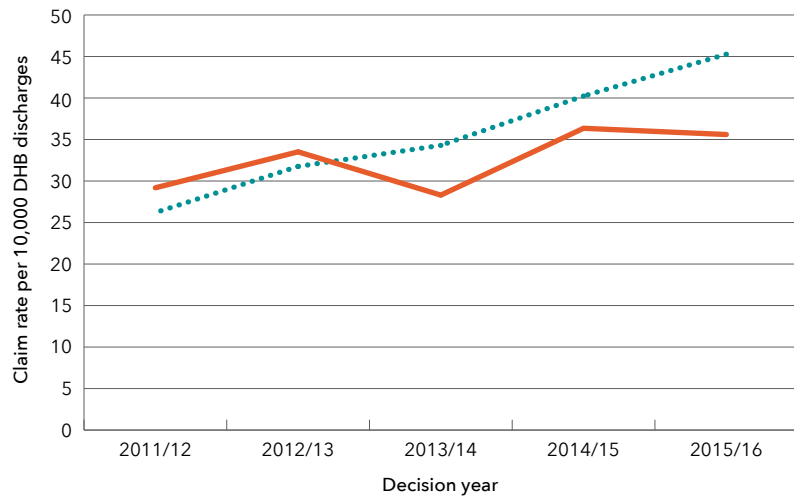
**Tauranga Hospital** is a secondary hospital that has experienced significant expansion to keep pace with its rapidly growing population.

**Whakatāne Hospital** is a secondary hospital that serves a rural and coastal population. It is also home to the Project Hope Cancer Centre, which represents a community/DHB collaboration.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

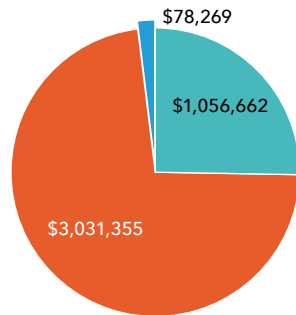
**KEY**

- Bay of Plenty
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

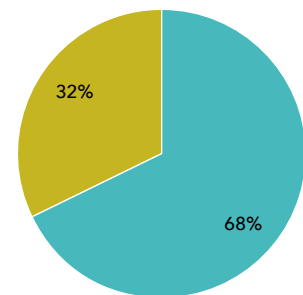
**TOTAL 2015/16 \$4,166,286**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.53	5.75	4.94	6.48	4.89
	Number	18	29	26	36	28
Infections following surgery	Rate	2.94	4.36	4.18	4.68	3.67
	Number	15	22	22	26	21
Line infections	Rate	-	1.39	-	1.26	0.70
	Number	<4	7	<4	7	4
Pressure injuries	Rate	2.94	2.97	2.85	1.98	3.67
	Number	15	15	15	11	21
Medication adverse reactions	Rate	2.15	2.78	2.28	3.24	3.32
	Number	11	14	12	18	19
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	-	<4

## CANTERBURY DHB

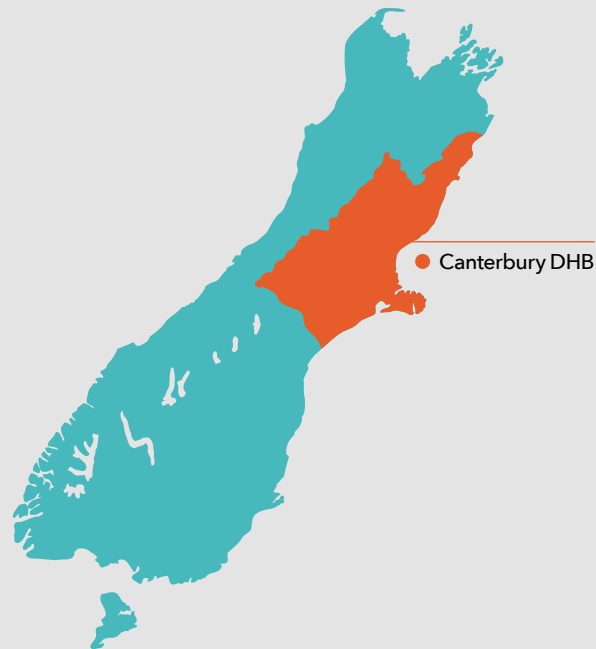
539,600  
people

414

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHBCANTERBURY DHB HAS  
TEN MAJOR FACILITIES:

ASHBURTON HOSPITAL  
BURWOOD HOSPITAL  
CHRISTCHURCH HOSPITAL  
CHRISTCHURCH  
WOMEN'S HOSPITAL  
HILLMORTON HOSPITAL  
KAIKŌURA HOSPITAL  
RANGIORA HEALTH HUB  
PRINCESS MARGARET  
HOSPITAL  
AKAROA HOSPITAL  
CHATHAM ISLANDS  
HEALTH CENTRE

## CANTERBURY DHB



**Canterbury DHB is based in Christchurch and funds and provides health services to people in Canterbury and the Chatham Islands.**

Canterbury has a population of 539,600 people which is 11.5% of New Zealand's population.

- Canterbury's population tends to be similar in age structure to the national average, with slightly more people aged 40 and over.
- Canterbury has a lower proportion of Māori and Pacific people living there, in comparison with the national average.
- Canterbury has New Zealand's largest elderly population.
- Canterbury's deprivation levels are lower than the national average.

Canterbury DHB employs approximately 9,590 staff, which equates to a little over 7,318 full-time equivalent positions.

Canterbury DHB has a number of facilities:

- Ashburton Hospital
- Burwood Hospital
- Christchurch Hospital
- Christchurch Women's Hospital
- Hillmorton Hospital
- Kaikōura Hospital
- Akaroa Hospital
- Rangiora Health Hub
- Princess Margaret Hospital
- Chatham Islands Health Centre

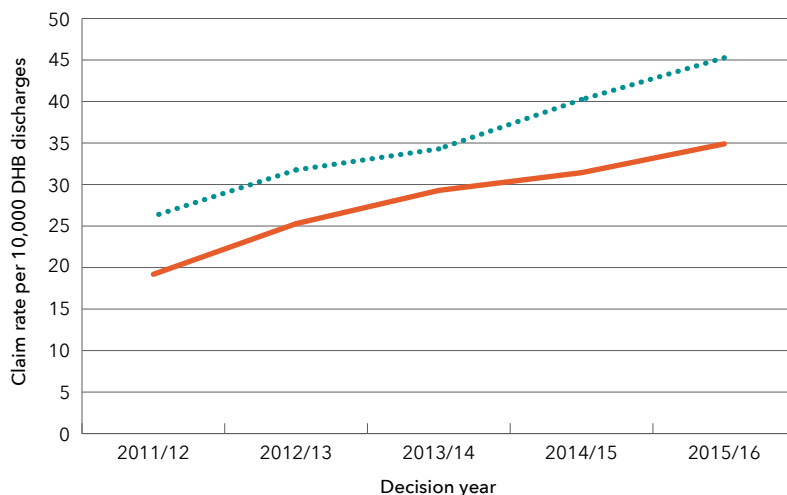
**Burwood Hospital** is a \$215 million hospital that opened in 2016 that will focus on facilities for older people, while continuing its orthopaedic services, spinal injury treatment and rehabilitation, and brain injury treatment.

The new Acute Services Building at Christchurch Hospital is currently under construction, due for completion in 2018, as is the new Christchurch Outpatients Centre, located adjacent to the hospital.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

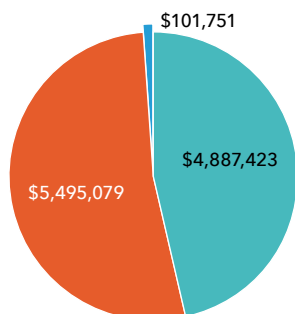
**KEY**

- Canterbury
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

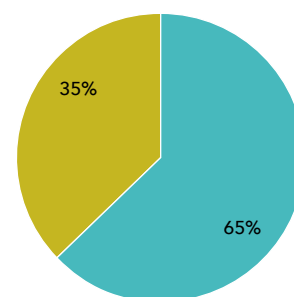
**TOTAL 2015/16  
\$10,484,253**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.46	4.75	5.63	4.27	4.47
	Number	38	53	65	50	53
Infections following surgery	Rate	3.00	3.59	5.11	3.67	3.29
	Number	33	40	59	43	39
Line infections	Rate	0.45	0.72	0.43	-	0.59
	Number	5	8	5	<4	7
Pressure injuries	Rate	-	2.60	2.25	2.48	4.21
	Number	<4	29	26	29	50
Medication adverse reactions	Rate	1.45	1.08	2.08	2.73	3.20
	Number	16	12	24	32	38
Medication errors	Rate	-	-	-	-	-
	Number	-	-	<4	<4	<4

CAPITAL & COAST DHB

306,600  
people

526

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

CAPITAL & COAST DHB HAS  
FOUR MAJOR FACILITIES:



WELLINGTON  
REGIONAL HOSPITAL  
KENEPURU  
COMMUNITY HOSPITAL  
KĀPITI HEALTH CENTRE  
RATONGA-RUA-O-PORIRUA

## CAPITAL & COAST DHB



### Capital & Coast DHB is based in Wellington.

It has a population of 306,600 people.

- Capital & Coast's population tends to be younger than the national average.
- Capital & Coast has a lower proportion of Māori and a slightly higher proportion of Pacific people living there, in comparison with the national average.
- Capital & Coast's deprivation levels are lower than the national average.

Capital & Coast DHB employs approximately 5,500 health and medical staff, which equates to a little over 4,340 full-time equivalent positions.

Capital & Coast DHB has four major facilities:

- Wellington Regional Hospital
- Kenepuru Community Hospital in Porirua
- Kāpiti Health Centre in Paraparaumu
- Ratonga-Rua-O-Porirua campus in Porirua.

**Wellington Regional Hospital** is one of five major tertiary hospitals in New Zealand (for Otago University's Wellington School of Medicine and post-graduate training for clinical professionals). It is also the region's main emergency and only trauma service (helipad).

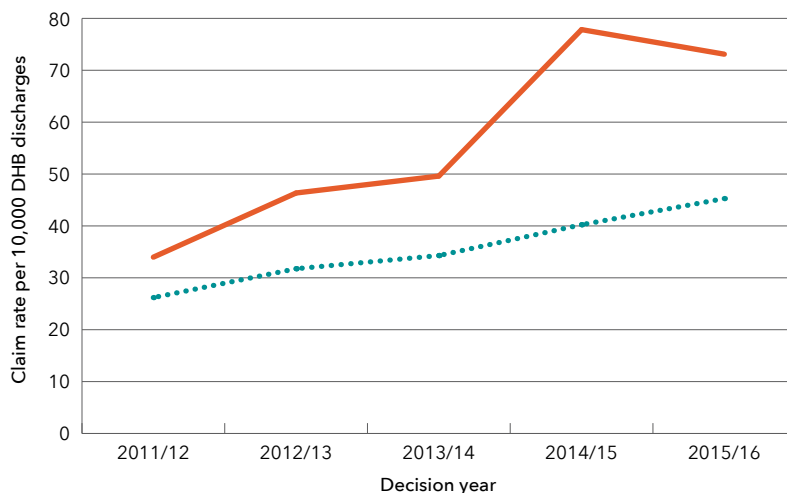
**Kenepuru Community Hospital** is a secondary hospital, which also includes an adult and adolescent psychiatric facility.



**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

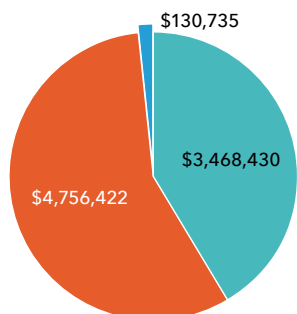
**KEY**

- Capital & Coast
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

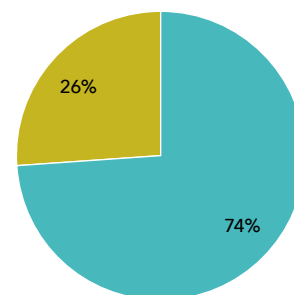
**TOTAL 2015/16 \$8,355,587**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	7.74	11.14	11.93	17.22	18.90
	Number	51	75	83	121	136
Infections following surgery	Rate	6.37	9.80	9.78	14.94	16.67
	Number	42	66	68	105	120
Line infections	Rate	0.91	0.74	1.44	1.71	1.53
	Number	6	5	10	12	11
Pressure injuries	Rate	1.37	1.04	3.45	3.84	4.86
	Number	9	7	24	27	35
Medication adverse reactions	Rate	3.64	3.71	2.88	4.84	5.97
	Number	24	25	20	34	43
Medication errors	Rate	-	-	-	0.71	-
	Number	<4	<4	<4	5	<4

COUNTIES MANUKAU  
DHB

534,200  
people

458

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

COUNTIES MANUKAU DHB  
HAS THREE  
MAJOR FACILITIES:



MIDDLEMORE HOSPITAL  
FRANKLIN MEMORIAL  
HOSPITAL  
PUKEKOHE HOSPITAL

## COUNTIES MANUKAU DHB



### Counties Manukau DHB is based in Manukau.

It has a population of 534,200 people.

- The population is ethnically diverse. Approximately 16% of the population identifies as Māori, 21% Pacific, 24% Asian, and 38% NZ European and other ethnicities.
- The population is both youthful and aging. Whilst 23% of the population is aged 14 years or younger (the largest child population of any DHB), at the same time, the population aged 65 years and over is increasing (estimated to increase on average 5% each year).
- At the time of the 2013 Census, 36% of the population lived in areas classified as being the most socio-economically deprived in New Zealand (that is, Deprivation Index 9 and 10), including 45% of children 14 years and under.
- This population has very high and rising rates of factors, such as diabetes and obesity, which increase the risk of infection.

Counties Manukau DHB employs approximately 7,400 health and medical staff, which equates to a little over 5,494 full-time equivalent positions.

Counties Manukau DHB has three major facilities:

- Middlemore Hospital
- Pukekohe Hospital
- Franklin Memorial Hospital.

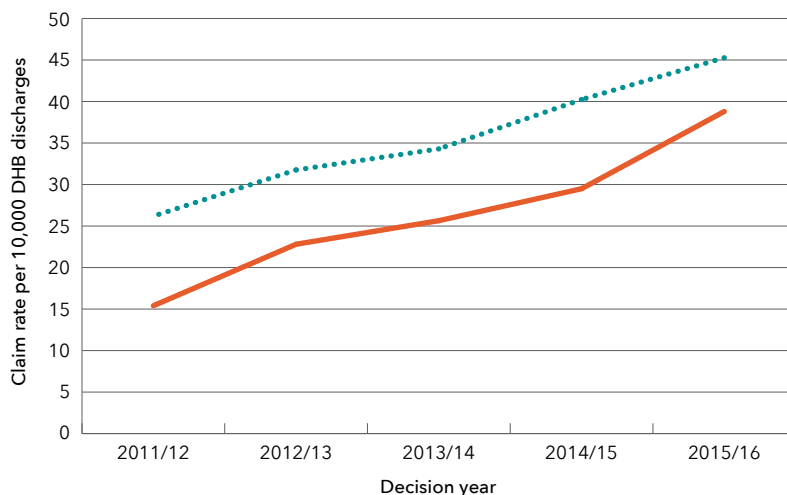
**Middlemore Hospital** is a secondary hospital and one of the largest tertiary teaching hospitals in New Zealand.

The DHB services include the national burns unit and supra-regional spinal injury services. It also provides surgery for complex orthopaedic and plastic/reconstructive surgical cases referred from other DHBs.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

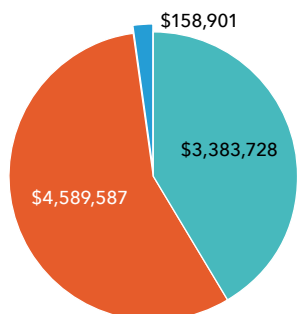
**KEY**

- Counties Manukau
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

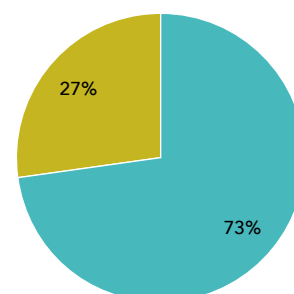
**TOTAL 2015/16 \$8,132,216**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.29	6.42	8.16	8.74	13.39
	Number	40	78	99	107	158
Infections following surgery	Rate	2.47	5.02	6.84	6.94	11.69
	Number	30	61	83	85	138
Line infections	Rate	0.58	0.82	0.99	1.55	1.53
	Number	7	10	12	19	18
Pressure injuries	Rate	0.33	1.48	1.15	2.61	2.97
	Number	4	18	14	32	35
Medication adverse reactions	Rate	1.56	1.15	1.81	1.31	1.95
	Number	19	14	22	16	23
Medication errors	Rate	-	-	-	-	-
	Number	<4	-	<4	-	<4

HAWKE'S BAY DHB

161,400  
people

126

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

HAWKE'S BAY DHB HAS  
FOUR MAJOR FACILITIES:



HAWKE'S BAY  
FALLEN SOLDIERS'  
MEMORIAL HOSPITAL

WAIROA HOSPITAL  
AND HEALTH CENTRE

NAPIER HEALTH CENTRE

CENTRAL HAWKE'S BAY  
HEALTH CENTRE

## HAWKE'S BAY DHB



### Hawke's Bay DHB is based in Hastings.

In 2016/17, the Hawke's Bay district population will grow slightly to just under 161,400.

Most of the population lives in Napier or Hastings, two cities located within 20 kilometres of each other that, together, account for more than 80% of the total numbers.

About 10% of the population lives in or close to Wairoa or Waipukurau, which are relatively concentrated rural settlements, and the remaining 10% live in rural and remote locations.

- Hawke's Bay's population tends to be older than the national average (18% versus 15%).
- Hawke's Bay has a higher proportion of Māori (26% versus 16%) and a lower proportion of Pacific people living there, in comparison with the national average.
- Hawke's Bay's deprivation levels are higher than the national average (28% versus 20%).

Hawke's Bay DHB employs just over 2,900 health and medical staff.

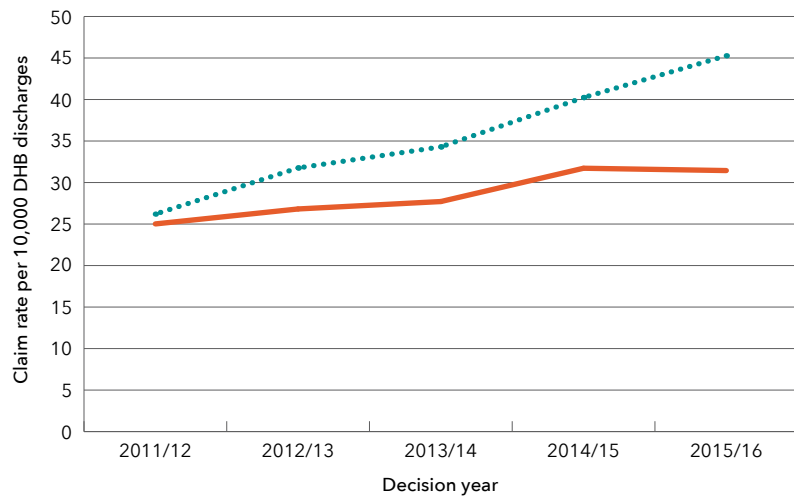
Hawke's Bay DHB has four major facilities:

- Hawke's Bay Fallen Soldiers' Memorial Hospital
- Wairoa Hospital and Health Centre
- Napier Health Centre
- Central Hawke's Bay Health Centre

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

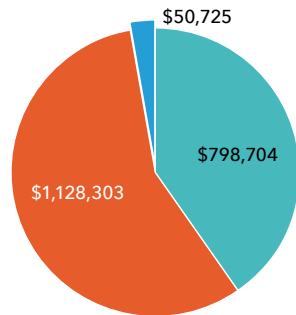
**KEY**

- Hawke's Bay
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

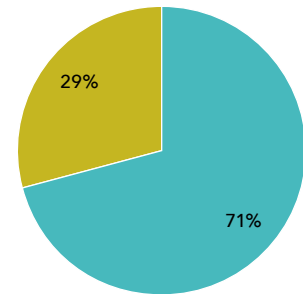
**TOTAL 2015/16 \$1,977,732**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	7.04	6.57	8.07	6.87	6.24
	Number	27	25	30	26	25
Infections following surgery	Rate	4.43	5.52	6.73	5.29	4.74
	Number	17	21	25	20	19
Line infections	Rate	1.82	-	-	-	1.00
	Number	7	<4	<4	<4	4
Pressure injuries	Rate	-	1.31	1.08	1.59	2.25
	Number	<4	5	4	6	9
Medication adverse reactions	Rate	2.08	1.58	1.35	4.23	2.00
	Number	8	6	5	16	8
Medication errors	Rate	-	-	-	-	-
	Number	-	<4	-	<4	-

HUTT VALLEY DHB

145,900  
people

248

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

HUTT VALLEY DHB HAS  
ONE MAJOR FACILITY:



HUTT HOSPITAL

## HUTT VALLEY DHB



### Hutt Valley DHB is based in Lower Hutt.

It has a population of 145,900 people.

- The age structure of Hutt Valley's population tends to be in line with the national average.
- Hutt Valley has a similar proportion of Māori and Pacific people living there, in comparison with the national average.
- Hutt Valley's deprivation levels are equal to the national average.

Hutt Valley DHB employs approximately 2,400 health and medical staff, which equates to 1,631 full-time equivalent positions.

Hutt Valley DHB has one major facility:

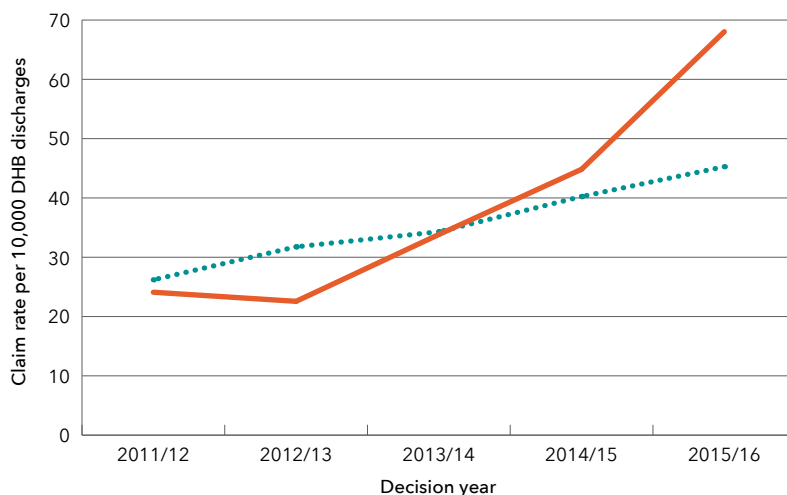
- Hutt Hospital.

**Hutt Hospital** is one of New Zealand's four regional burns and plastics surgery providers. It also provides breast screening services for the greater Wellington region.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

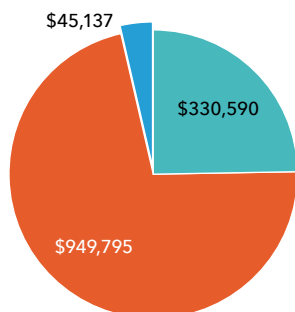
**KEY**

- Hutt Valley
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

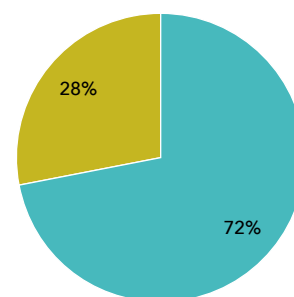
**TOTAL 2015/16  
\$1,325,522**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	1.85	5.11	11.67	9.54	17.01
	Number	6	17	40	33	62
Infections following surgery	Rate	1.54	4.51	7.58	8.97	11.80
	Number	5	15	26	31	43
Line infections	Rate	-	-	3.21	-	4.12
	Number	<4	<4	11	<4	15
Pressure injuries	Rate	1.54	-	2.62	6.94	5.49
	Number	5	<4	9	24	20
Medication adverse reactions	Rate	3.40	2.71	1.17	3.18	3.84
	Number	11	9	4	11	14
Medication errors	Rate	-	-	-	-	-
	Number	<4	-	<4	<4	<4

LAKES DHB

106,600  
people

103

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

LAKES DHB HAS  
TWO MAJOR FACILITIES:



TAUPŌ HOSPITAL  
ROTORUA HOSPITAL

## LAKES DHB



### Lakes DHB is based in Taupō and Rotorua.

It has a population of 106,600 people.

- Lakes' population tends to be younger than the national average.
- Lakes has a much higher proportion of Māori (35%) and a lower proportion of Pacific people (2.4%), in comparison with the national average.
- Lakes' deprivation levels are higher than the national average.

Lakes DHB employs approximately 1,500 health and medical staff, which equates to 1,095 full-time equivalent positions.

Lakes DHB has two major facilities:

- Taupō Hospital
- Rotorua Hospital.

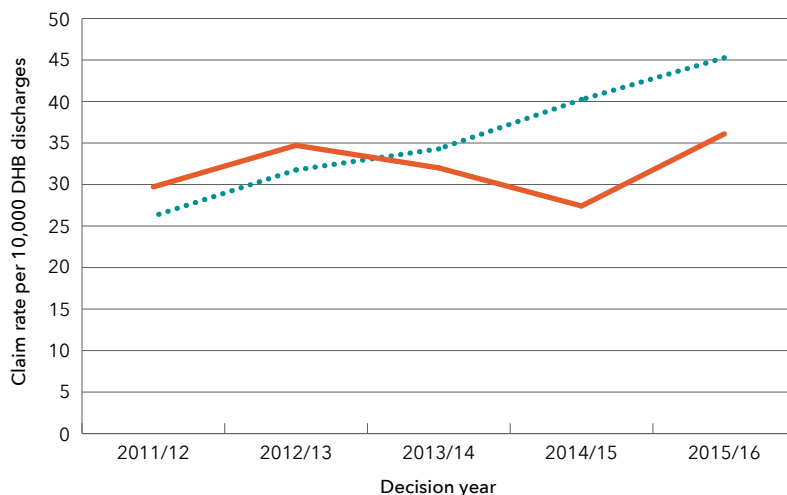
It also has a hospital specialist service Psychogeriatric Unit.



**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

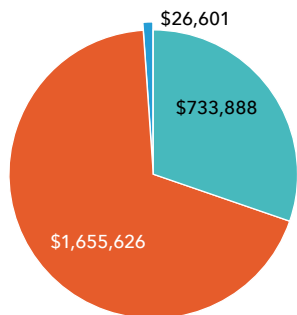
**KEY**

- Lakes
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

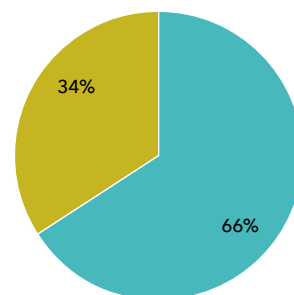
**TOTAL 2015/16 \$2,416,115**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	5.47	11.31	7.62	5.12	9.82
	Number	14	29	20	14	28
Infections following surgery	Rate	4.69	7.80	6.10	4.75	9.12
	Number	12	20	16	13	26
Line infections	Rate	-	2.34	-	-	-
	Number	<4	6	<4	-	<4
Pressure injuries	Rate	2.35	1.56	2.29	2.19	2.10
	Number	6	4	6	6	6
Medication adverse reactions	Rate	2.35	-	1.52	-	2.10
	Number	6	<4	4	<4	6
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	-	-

MIDCENTRAL DHB

174,200  
people

187

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

MIDCENTRAL DHB HAS  
ONE MAJOR FACILITY:



PALMERSTON NORTH  
HOSPITAL

## MIDCENTRAL DHB



### MidCentral DHB is based in Palmerston North.

It has a population of 174,200 people.

- MidCentral's population age profile is broadly similar to the national average but with a slightly higher proportion of older adults.
- MidCentral has a higher proportion of Māori (19%) and a lower proportion of Pacific (3%) and Asian people living there, in comparison with the national average.
- MidCentral's population has a higher proportion of people living in more deprived neighbourhoods, when compared with the national average.

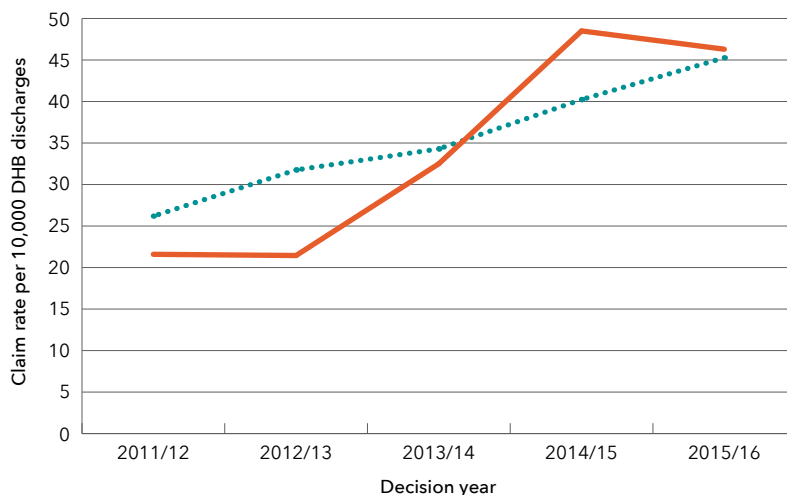
MidCentral DHB employs approximately 2,674 health and medical staff, which equates to 2,160 full-time equivalent positions (December 2015).

- MidCentral DHB has one major hospital facility located in Palmerston North city.
- The centralAlliance is a collaborative agreement between Whanganui and MidCentral DHBs that capitalises on their combined strength to achieve health gains and improve clinical viability for their combined populations.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

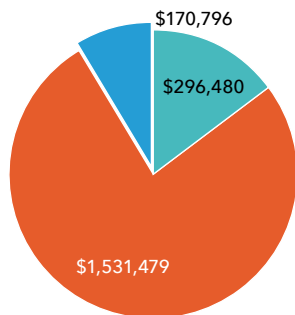
**KEY**

- MidCentral
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

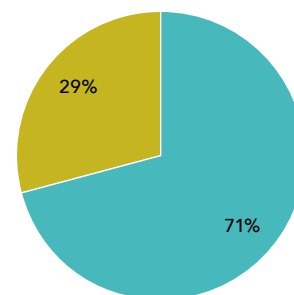
**TOTAL 2015/16 \$1,998,755**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.24	4.19	9.51	15.73	19.08
	Number	12	16	36	60	77
Infections following surgery	Rate	2.43	3.66	7.93	15.21	15.36
	Number	9	14	30	58	62
Line infections	Rate	-	-	1.32	-	1.49
	Number	-	<4	5	<4	6
Pressure injuries	Rate	1.35	-	3.17	3.41	3.72
	Number	5	<4	12	13	15
Medication adverse reactions	Rate	3.51	2.35	3.44	3.15	3.96
	Number	13	9	13	12	16
Medication errors	Rate	-	-	-	-	-
	Number	-	<4	-	<4	-

NELSON  
MARLBOROUGH DHB

146,400  
people

197

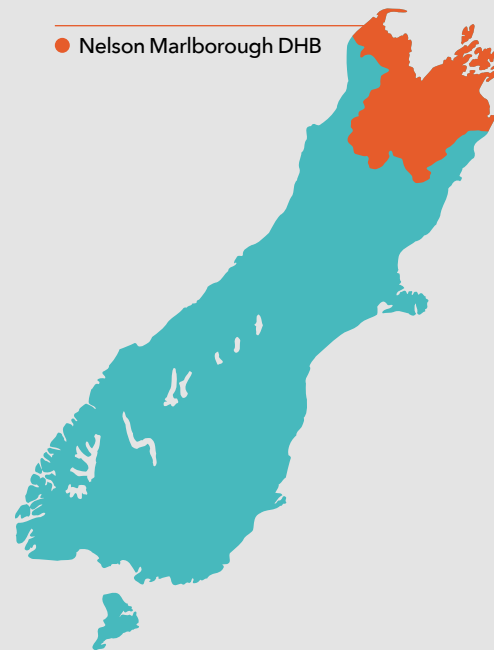
TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

NELSON MARLBOROUGH  
DHB HAS FOUR  
MAJOR FACILITIES:



NELSON HOSPITAL  
WAIRAU HOSPITAL  
ALEXANDRA HOSPITAL  
MURCHISON COMMUNITY  
HOSPITAL

## NELSON MARLBOROUGH DHB



### Nelson Marlborough DHB is based in Nelson.

It has a population of 146,400 people.

- Nelson Marlborough's population tends to be older than the national average.
- Nelson Marlborough has a significantly lower proportion of Māori (10%) and Pacific people (1.4%), compared with the national average.
- Nelson Marlborough's deprivation levels are lower than the national average.

Nelson Marlborough DHB employs approximately 2,550 health and medical staff, which equates to 1,762 full-time equivalent positions.

Nelson Marlborough DHB has four major facilities:

- Nelson Hospital
- Wairau Hospital
- Alexandra Hospital
- Murchison Community Hospital.

**Nelson Hospital** and **Wairau Hospital** are secondary hospitals.

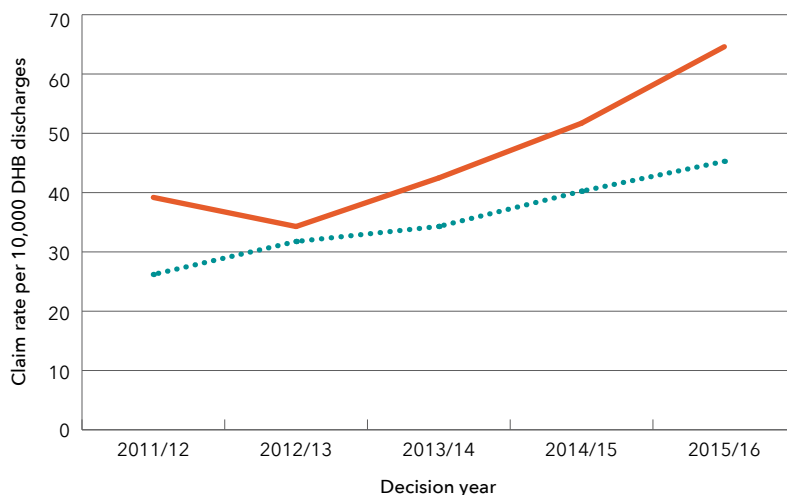
**Alexandra Hospital** offers dementia and older persons' mental health services.

**Murchison Community Hospital** is a rural facility.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

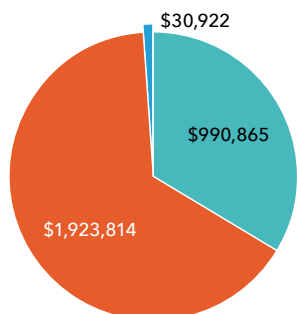
**KEY**

- Nelson Marlborough
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

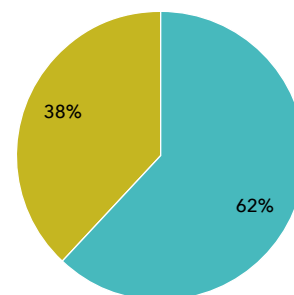
**TOTAL 2015/16 \$2,945,601**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	16.39	9.90	9.85	18.23	24.93
	Number	46	28	29	55	76
Infections following surgery	Rate	14.96	9.19	8.16	15.91	24.28
	Number	42	26	24	48	74
Line infections	Rate	-	-	1.70	1.99	-
	Number	<4	<4	5	6	<4
Pressure injuries	Rate	-	-	2.38	-	1.64
	Number	-	-	7	<4	5
Medication adverse reactions	Rate	1.78	2.83	2.72	3.65	3.28
	Number	5	8	8	11	10
Medication errors	Rate	-	-	-	-	-
	Number	-	-	<4	<4	-

## NORTHLAND DHB

171,400  
people

223

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

NORTHLAND DHB HAS  
FOUR MAJOR FACILITIES:



WHANGĀREI HOSPITAL  
DARGAVILLE HOSPITAL  
BAY OF ISLANDS HOSPITAL  
KAITAIA HOSPITAL

## NORTHLAND DHB



### Northland DHB is based in Whangārei.

It has a population of 171,400 people.

- Northland's population tends to be significantly older than the national average.
- Northland has a much higher proportion of Māori (34%) and a lower proportion of Pacific people (1.6%) living there, in comparison with the national average.
- Northland's deprivation levels are much higher than the national average.

Northland DHB employs approximately 2,742 health and medical staff, which equates to 2,205 full-time equivalent positions.

Northland DHB has four major facilities:

- Whangārei Hospital
- Dargaville Hospital
- Bay of Islands Hospital
- Kaitaia Hospital.

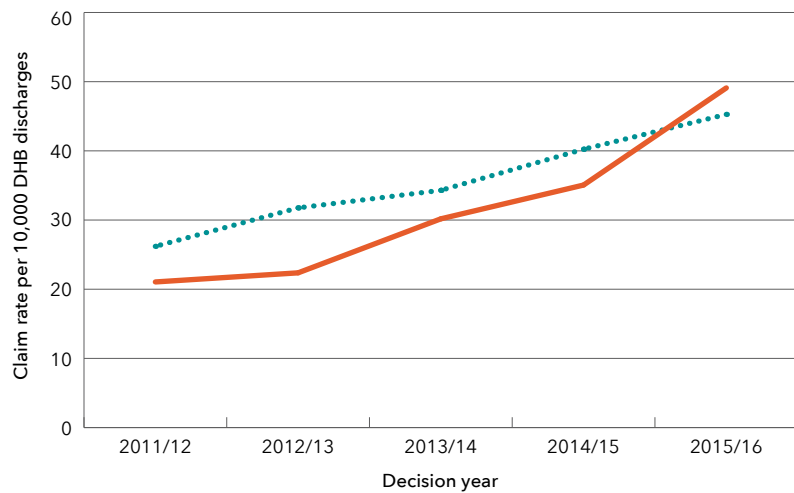
Northland DHB is currently undergoing a long-term redevelopment of its hospitals.

**Whangārei Hospital** provides secondary specialist care to all of Northland. A new maternity unit, Te Kotuku, opened in February 2016.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

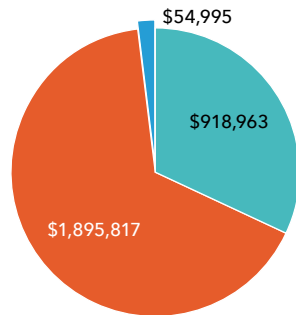
**KEY**

- Northland
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

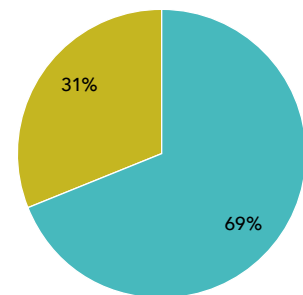
**TOTAL 2015/16  
\$2,869,775**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.22	4.58	8.21	10.40	15.84
	Number	17	25	34	46	72
Infections following surgery	Rate	2.47	3.30	5.31	8.37	14.08
	Number	13	18	22	37	64
Line infections	Rate	-	0.92	2.17	1.13	1.54
	Number	<4	5	9	5	7
Pressure injuries	Rate	1.33	0.92	1.45	1.58	2.86
	Number	7	5	6	7	13
Medication adverse reactions	Rate	2.28	2.75	2.17	3.85	3.30
	Number	12	15	9	17	15
Medication errors	Rate	-	-	-	-	-
	Number	<4	-	<4	<4	-

SOUTH CANTERBURY  
DHB

59,200  
people

109

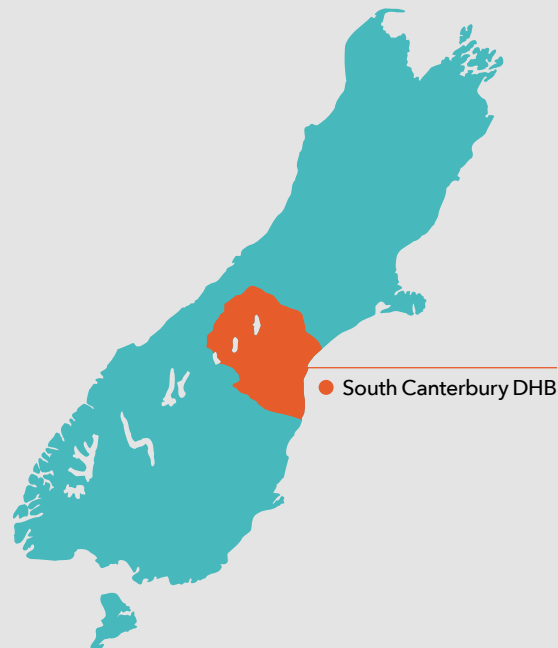
TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

SOUTH CANTERBURY DHB  
HAS ONE  
MAJOR FACILITY:



TIMARU HOSPITAL

## SOUTH CANTERBURY DHB



### South Canterbury DHB is based in Timaru.

It has an estimated population of 59,200 people.

- South Canterbury has the highest percentage of people aged 65 and over, compared with the national average.
- South Canterbury has a lower proportion of Māori (8%) and Pacific people (1%) living there, in comparison with the national average.
- South Canterbury's deprivation levels are lower than the national average.

South Canterbury DHB employs approximately 950 health and medical staff, which equates to 620 full-time equivalent positions.

South Canterbury DHB has one major facility:

- Timaru Hospital.

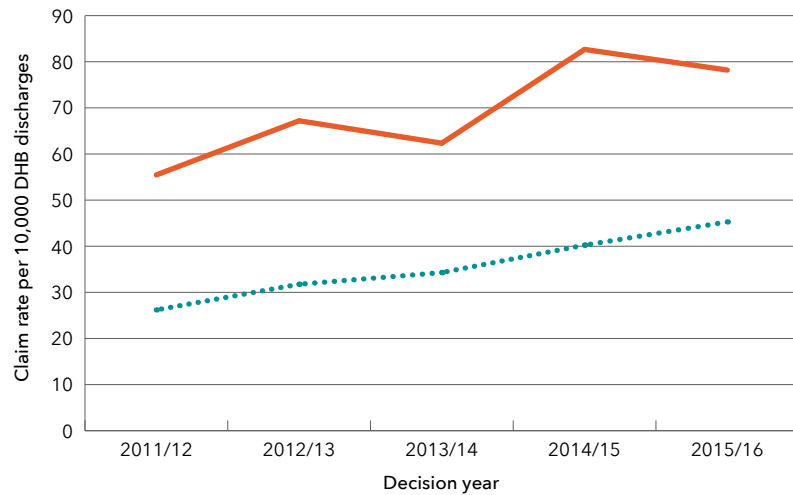
South Canterbury is part of the South Island Alliance that enables the region's five DHBs to work collaboratively to develop more innovative and efficient services than could be achieved independently.



**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

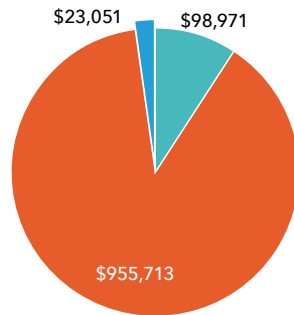
**KEY**

- South Canterbury
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

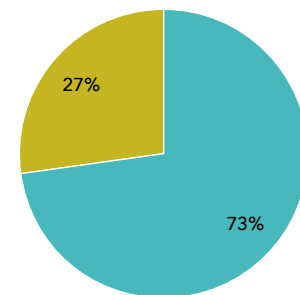
**TOTAL 2015/16 \$1,077,735**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	9.74	13.28	15.21	26.30	18.65
	Number	13	17	20	35	26
Infections following surgery	Rate	8.99	10.16	13.69	24.80	13.63
	Number	12	13	18	33	19
Line infections	Rate	-	3.13	-	-	3.59
	Number	-	4	<4	-	5
Pressure injuries	Rate	10.49	8.60	12.16	11.27	7.89
	Number	14	11	16	15	11
Medication adverse reactions	Rate	3.00	6.25	-	-	3.59
	Number	4	8	<4	<4	5
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	<4	-

SOUTHERN DHB

318,900  
people

228

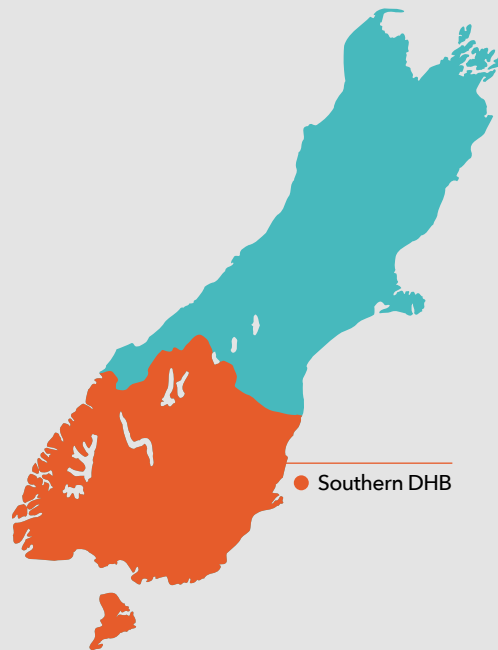
TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

SOUTHERN DHB HAS  
FOUR MAJOR FACILITIES:



SOUTHLAND HOSPITAL  
LAKES DISTRICT HOSPITAL  
DUNEDIN HOSPITAL  
WAKARI HOSPITAL

## SOUTHERN DHB



### Southern DHB is based in Dunedin.

It has a population of 318,900 people.

- Southern's population tends to be slightly older than the national average.
- Southern has a low proportion of Māori (10%) and Pacific people (2%) living there, in comparison with the national average.
- Southern's deprivation levels are lower than the national average.
- Southern covers the largest geographic area of all DHBs and has a large rural constituency.

Southern DHB employs approximately 4,500 health and medical staff, which equates to 3,464 full-time equivalent positions.

Southern DHB has four major facilities:

- Southland Hospital
- Lakes District Hospital
- Dunedin Hospital
- Wakari Hospital.

There are also five rural trust hospitals in the region.

Southern DHB was formed in 2010 as a result of the merger of Southland and Otago DHBs.

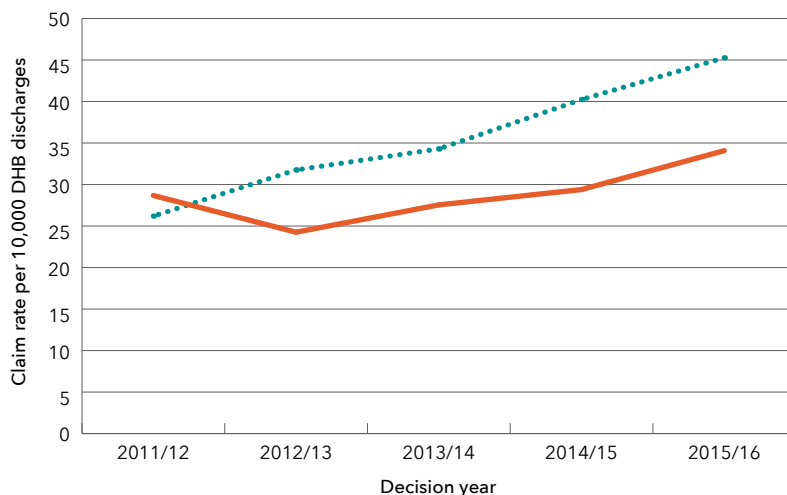
Southern DHB has a close working relationship with Otago University's School of Medicine.

**Dunedin Hospital** is undergoing redevelopment (long-term project).

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

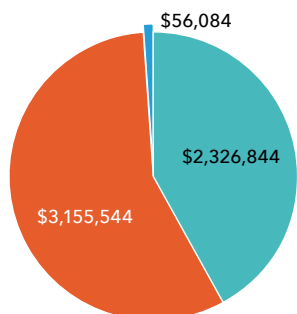
**KEY**

- Southern
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

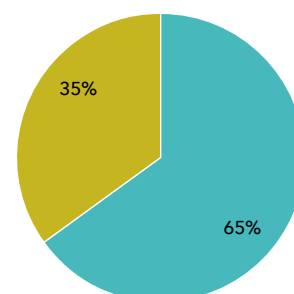
**TOTAL 2015/16 \$5,538,472**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.50	4.02	3.94	5.61	5.06
	Number	22	26	26	37	34
Infections following surgery	Rate	3.35	2.32	2.72	4.70	4.32
	Number	21	15	18	31	29
Line infections	Rate	-	1.08	0.76	0.61	-
	Number	<4	7	5	4	<4
Pressure injuries	Rate	1.12	0.62	0.76	0.76	2.23
	Number	7	4	5	5	15
Medication adverse reactions	Rate	3.03	1.70	1.51	2.12	2.83
	Number	19	11	10	14	19
Medication errors	Rate	-	-	-	-	-
	Number	<4	<4	-	<4	-

TAIRĀWHITI DHB

47,800  
people

68

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

TAIRĀWHITI DHB HAS  
ONE MAJOR FACILITY:



GISBORNE HOSPITAL

## TAIRĀWHITI DHB



### Hauora Tairāwhiti is the DHB based in Gisborne.

It serves a population of 47,800 people.

- Tairāwhiti's population tends to be much younger than the national average.
- Tairāwhiti has a large proportion of Māori (49%) and a smaller proportion of Pacific people (2.5%) living there, in comparison with the national average.
- Tairāwhiti's deprivation levels are much higher than the national average.

Hauora Tairāwhiti employs approximately 587 health and medical staff, which equates to 470 full-time equivalent positions.

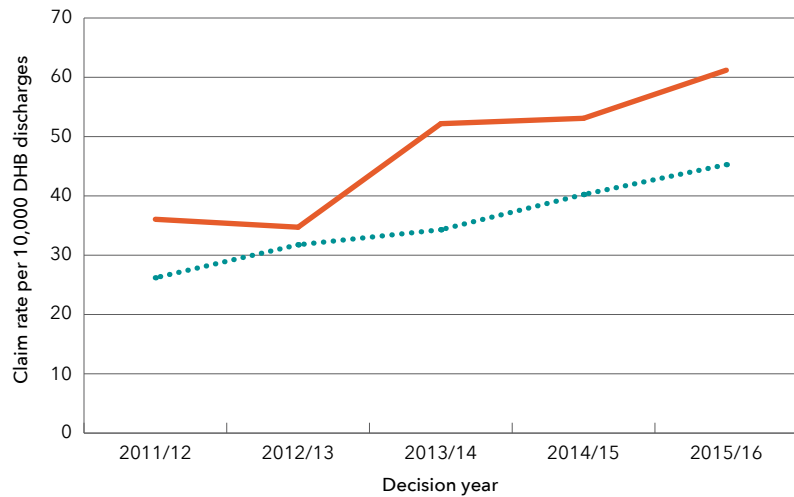
Hauora Tairāwhiti has one major facility:

- Gisborne Hospital.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

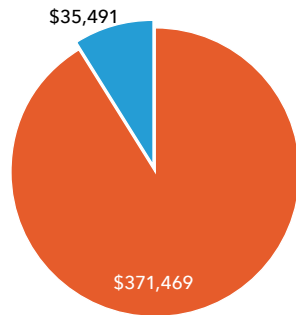
**KEY**

- Tairāwhiti
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

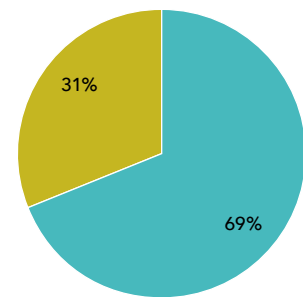
**TOTAL 2015/16 \$406,960**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	15.18	14.47	21.26	14.22	25.22
	Number	16	15	22	15	28
Infections following surgery	Rate	13.28	13.50	19.33	13.27	24.32
	Number	14	14	20	14	27
Line infections	Rate	-	-	-	-	-
	Number	<4	-	<4	-	<4
Pressure injuries	Rate	-	-	-	5.69	-
	Number	-	<4	<4	6	<4
Medication adverse reactions	Rate	4.74	-	-	-	-
	Number	5	<4	<4	<4	<4
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	-	-

TARANAKI DHB

116,800  
people

245

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

TARANAKI DHB HAS  
TWO MAJOR FACILITIES:



TARANAKI BASE HOSPITAL  
HAWERA HOSPITAL

## TARANAKI DHB



### Taranaki DHB is based in New Plymouth.

It has a population of 116,800 people.

- Taranaki's population tends to be older than the national average.
- Taranaki has a slightly higher proportion of Māori (18%) than nationally (15.5%), and a much lower proportion of Pacific people living there, in comparison with the national average.
- Taranaki's deprivation levels are slightly higher than the national average.

Taranaki DHB employs approximately 1,787 health and medical staff, which equates to 1,287 full-time equivalent positions.

Taranaki DHB has two major facilities:

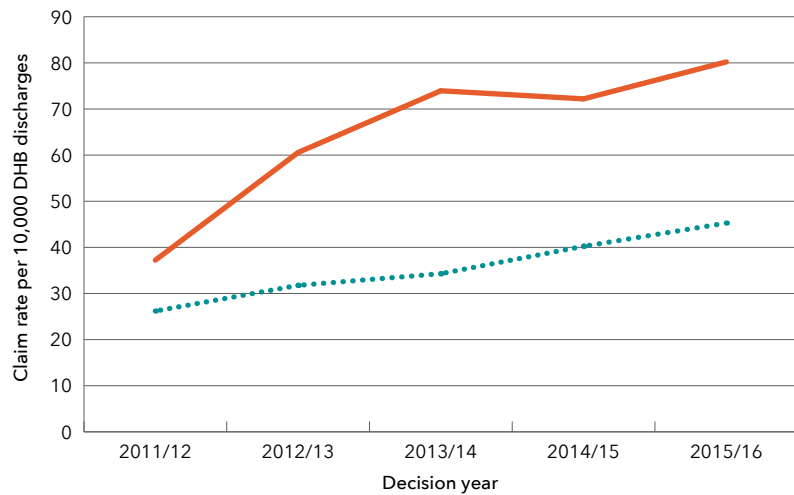
- Taranaki Base Hospital
- Hawera Hospital.

Project Maunga was the major redevelopment project of Taranaki Base Hospital that was completed in 2014.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

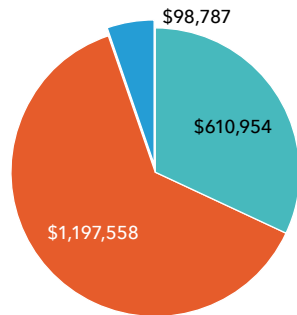
**KEY**

- Taranaki
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

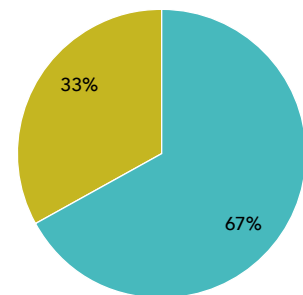
**TOTAL 2015/16 \$1,907,299**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	11.79	29.74	38.62	32.35	37.98
	Number	32	82	106	95	116
Infections following surgery	Rate	8.48	24.30	33.52	28.95	35.03
	Number	23	67	92	85	107
Line infections	Rate	3.32	3.99	4.01	2.04	2.62
	Number	9	11	11	6	8
Pressure injuries	Rate	-	-	4.01	2.72	3.27
	Number	<4	<4	11	8	10
Medication adverse reactions	Rate	3.69	2.90	2.55	3.41	4.91
	Number	10	8	7	10	15
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	-	<4

WAIKATO DHB

399,500  
people

571

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

WAIKATO DHB HAS  
TWO MAJOR FACILITIES:



WAIKATO HOSPITAL  
THAMES HOSPITAL

## WAIKATO DHB



### Waikato DHB is based in Hamilton.

It has a population of 399,500 people.

- Waikato's population age profile tends to be similar to the national average.
- Waikato has a higher proportion of Māori (23%) and a lower proportion of Pacific people (3%) living there, in comparison with the national average.
- Waikato's deprivation levels are slightly higher than the national average.

Waikato DHB employs approximately 6,560 health and medical staff, which equates to 5,480 full-time equivalent positions.

Waikato DHB has two major facilities:

- Waikato Hospital
- Thames Hospital.

**Waikato Hospital** is a tertiary provider, while Thames Hospital is a secondary provider.

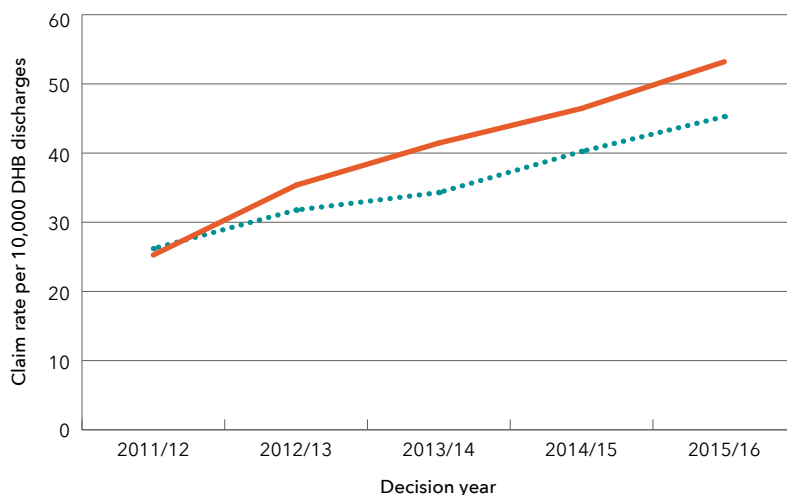
**Te Puna Oranga** (Māori Health) is a service within Waikato DHB.



**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

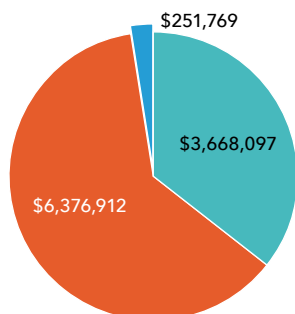
**KEY**

- Waikato
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

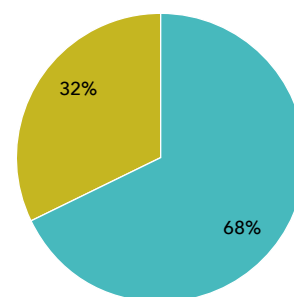
**TOTAL 2015/16 \$10,296,778**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	3.07	7.98	11.51	13.55	15.20
	Number	29	79	115	142	163
Infections following surgery	Rate	2.11	6.06	9.41	12.31	13.24
	Number	20	60	94	129	142
Line infections	Rate	0.42	1.41	1.40	0.76	0.84
	Number	4	14	14	8	9
Pressure injuries	Rate	2.11	3.43	2.70	2.29	2.61
	Number	20	34	27	24	28
Medication adverse reactions	Rate	1.80	1.62	3.10	2.00	2.52
	Number	17	16	31	21	27
Medication errors	Rate	-	-	-	0.38	0.37
	Number	<4	-	<4	4	4

WAIRARAPA DHB

43,600  
people

86

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

WAIRARAPA DHB HAS  
ONE MAJOR FACILITY:



WAIRARAPA HOSPITAL

## WAIRARAPA DHB



### Wairarapa DHB is based in Masterton.

It has a population of 43,600 people.

- Wairarapa's population tends to be significantly older than the national average.
- Wairarapa has a similar proportion of Māori and a much lower proportion of Pacific people living there, in comparison with the national average.
- Wairarapa's deprivation levels are slightly higher than the national average.

Wairarapa DHB employs approximately 642 health and medical staff, which equates to 440 full-time equivalent positions.

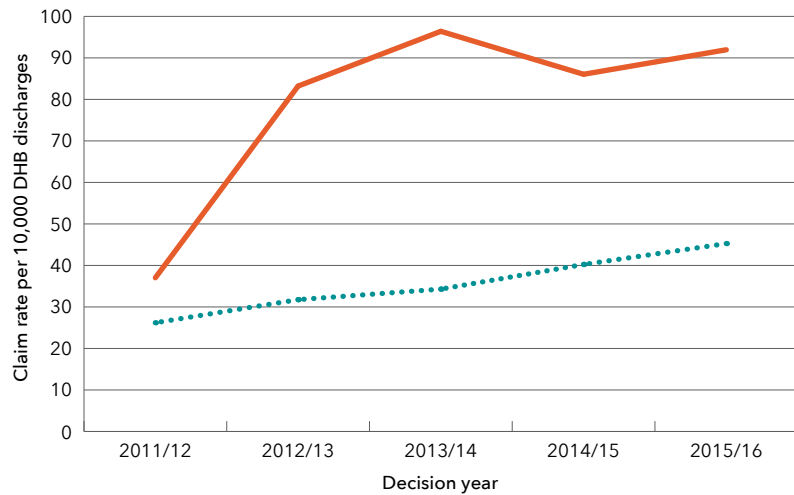
Wairarapa DHB has one major facility:

- Wairarapa Hospital.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

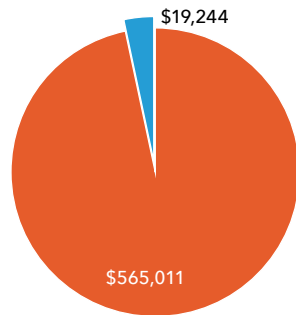
**KEY**

- Wairarapa
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

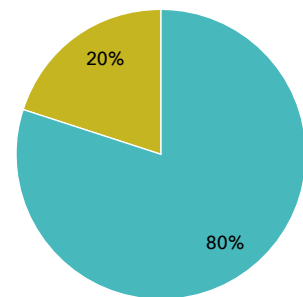
**TOTAL 2015/16  
\$584,255**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	6.54	41.60	45.55	29.75	20.08
	Number	6	36	43	28	19
Infections following surgery	Rate	4.36	36.98	41.31	26.56	19.03
	Number	4	32	39	25	18
Line infections	Rate	-	-	-	-	-
	Number	<4	<4	<4	<4	-
Pressure injuries	Rate	4.36	4.62	5.30	-	-
	Number	4	4	5	<4	<4
Medication adverse reactions	Rate	5.45	8.09	4.24	6.37	8.46
	Number	5	7	4	6	8
Medication errors	Rate	-	-	-	-	-
	Number	<4	-	-	<4	<4

WAITEMATĀ DHB

590,700  
people

324

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

WAITEMATĀ DHB HAS  
TWO MAJOR FACILITIES:



NORTH SHORE HOSPITAL  
WAITAKERE HOSPITAL

## WAITEMATĀ DHB



### Waitematā DHB is based in Takapuna.

It has a population of 590,700 people.

- Waitematā's population tends to be similar to the national average in terms of its age profile.
- Waitematā has a lower proportion of Māori (10%), a similar proportion of Pacific people and a much higher proportion of Asian people living there, in comparison with the national average.
- Waitematā's deprivation levels are lower than the national average.

Waitematā DHB employs approximately 6,800 health and medical staff, which equates to 5,700 full-time equivalent positions.

Waitematā DHB has two major facilities:

- North Shore Hospital
- Waitakere Hospital.

Waitematā DHB is the largest DHB by population.

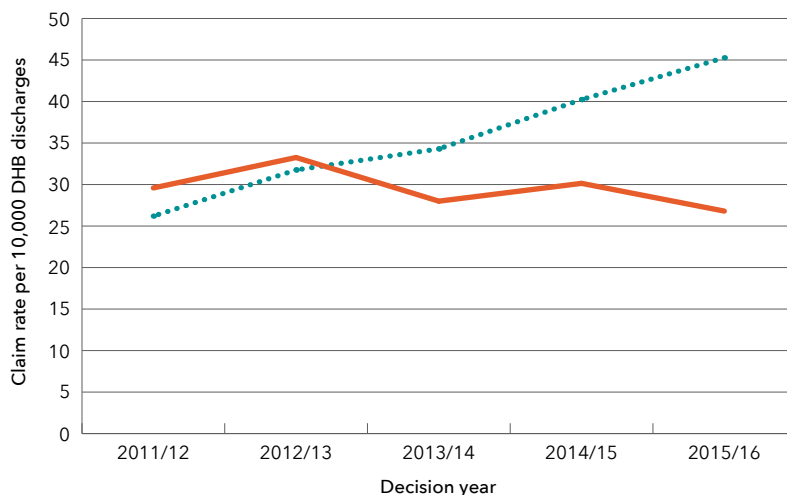
Includes the Regional Forensic Psychiatric Services (the Mason Clinic).

**The Wilson Centre** is a child rehabilitation service.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

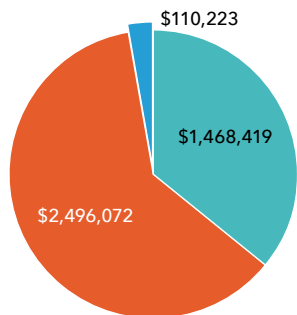
**KEY**

- Waitemata
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

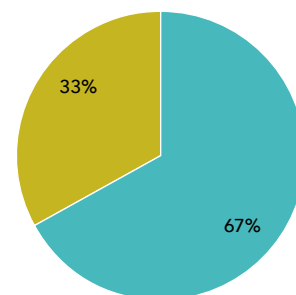
**TOTAL 2015/16 \$4,074,714**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	9.08	11.05	7.97	10.96	7.52
	Number	93	118	90	128	91
Infections following surgery	Rate	8.20	9.84	6.73	9.50	6.70
	Number	84	105	76	111	81
Line infections	Rate	0.68	0.94	0.97	1.20	0.58
	Number	7	10	11	14	7
Pressure injuries	Rate	1.17	1.31	0.53	0.77	1.07
	Number	12	14	6	9	13
Medication adverse reactions	Rate	1.07	1.87	1.59	1.46	1.32
	Number	11	20	18	17	16
Medication errors	Rate	-	-	-	-	-
	Number	<4	-	-	-	<4

## WEST COAST DHB

32,500  
people

28

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

WEST COAST DHB HAS  
ONE MAJOR FACILITY:



GREY BASE HOSPITAL

## WEST COAST DHB



### West Coast DHB is based in Greymouth.

It has a population of 32,500 people.

- West Coast's population tends to be older than the national average.
- West Coast has an increasing proportion of Māori (11.7%) although still lower than the national average (15.5%). West Coast has fewer Pacific people (1%), in comparison with the national average.
- West Coast's deprivation levels are higher than the national average.
- West Coast DHB is the smallest DHB by population, but has a large geographical area, making the West Coast DHB the most sparsely populated DHB in the country.

West Coast DHB employs approximately 985 health and medical staff, which equates to 610 full-time equivalent positions.

West Coast DHB has one major facility:

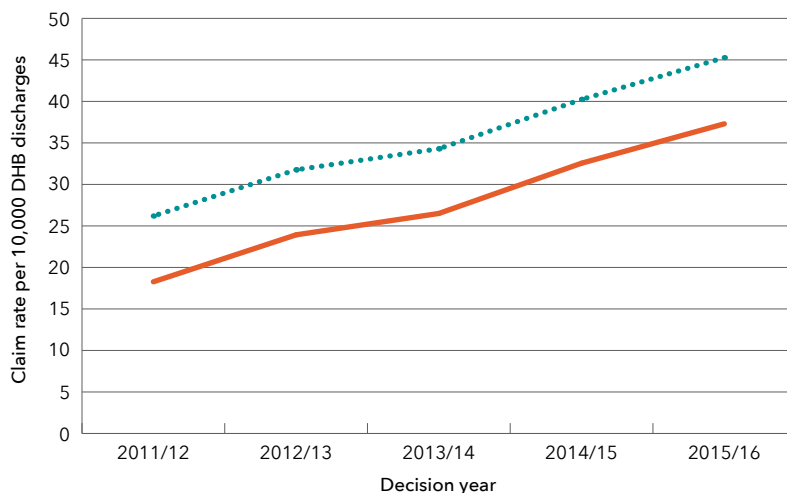
- Grey Base Hospital.

The Government is funding a \$77.8 million new hospital and integrated family health centre in Greymouth to service the West Coast community - the new Grey Base Hospital and Integrated Family Health Centre.

**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

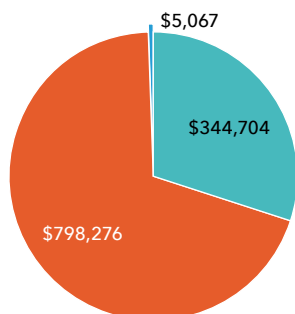
**KEY**

- West Coast
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

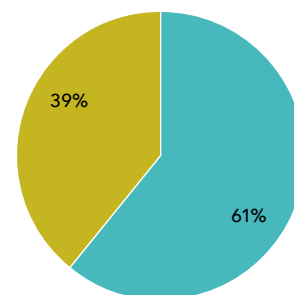
**TOTAL 2015/16 \$1,148,047**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	-	-	-	-	5.33
	Number	<4	-	-	<4	4
Infections following surgery	Rate	-	-	-	-	-
	Number	<4	-	-	<4	<4
Line infections	Rate	-	-	-	-	-
	Number	-	-	-	-	<4
Pressure injuries	Rate	-	-	-	-	5.33
	Number	-	-	-	-	4
Medication adverse reactions	Rate	-	10.47	-	-	5.33
	Number	<4	7	-	<4	4
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	-	-

WHANGANUI DHB

63,000  
people

119

TOTAL ACCEPTED  
TREATMENT INJURY CLAIMS  
IN 2015/16 FOR THIS DHB

WHANGANUI DHB HAS  
ONE MAJOR FACILITY:



WHANGANUI HOSPITAL

## WHANGANUI DHB



### Whanganui DHB is based in Whanganui.

It has a population of 63,000 people.

- Whanganui's population tends to be significantly older than the national average.
- Whanganui has a higher proportion of Māori (26%) and a lower proportion of Pacific people (2.6%) living there, in comparison with the national average.
- Whanganui's deprivation levels are much higher than the national average.

Whanganui DHB employs approximately 1,031 health and medical staff, which equates to 819 full-time equivalent positions.

Whanganui DHB has one major facility:

- Whanganui Hospital.

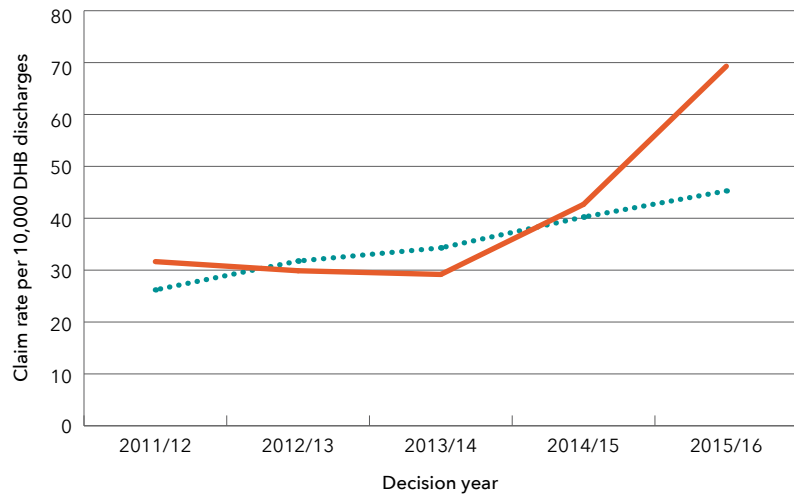
It is part of centralAlliance (together with MidCentral DHB).



**RATE PER 10,000 DISCHARGES FOR ALL ACCEPTED TREATMENT INJURY CLAIMS - BY FINANCIAL YEAR**

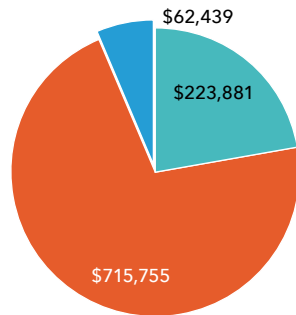
**KEY**

- Whanganui
- All DHBs



**COSTS PAID IN 2015/16 FOR ALL NEW AND EXISTING ACCEPTED TREATMENT INJURY CLAIMS**

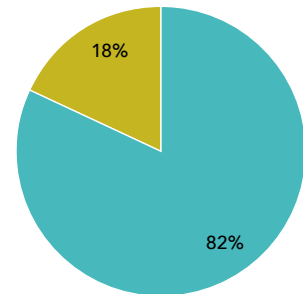
**TOTAL 2015/16 \$1,002,075**



**KEY**

- Serious injury
- Entitlement
- All other

**ACCEPTED AND DECLINED TREATMENT INJURY CLAIMS FOR 2015/16 FINANCIAL YEAR**



**KEY**

- Accepted
- Declined

Each declined claim may result in mismatched expectations. This underpins the need to understand how and why treatment injury claims are accepted or declined.

NUMBERS AND RATES OF ACCEPTED TREATMENT INJURY CLAIMS PER 10,000 DISCHARGES BY FINANCIAL YEAR						
		2011/12	2012/13	2013/14	2014/15	2015/16
Infections of all types	Rate	5.58	7.15	5.71	17.19	33.79
	Number	9	11	9	29	58
Infections following surgery	Rate	4.96	5.85	4.44	14.82	31.46
	Number	8	9	7	25	54
Line infections	Rate	-	-	-	-	-
	Number	<4	<4	<4	<4	<4
Pressure injuries	Rate	-	-	-	2.96	6.41
	Number	<4	-	-	5	11
Medication adverse reactions	Rate	-	2.60	3.80	2.37	-
	Number	<4	4	6	4	<4
Medication errors	Rate	-	-	-	-	-
	Number	-	-	-	<4	-

SECTION

# .04+

APPENDICES



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## DATA SOURCES AND METHOD

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### DATA SOURCES

ACC's treatment injury claims information is based on data collected via the ACC45 and ACC2152 forms. An ACC45 Injury Claim Form is completed by all clients in order to lodge a claim with ACC, often with the assistance of a treatment provider. For a treatment injury claim, a treatment provider also completes an ACC2152 form, to provide clinical information to support the claim.

The published analysis is based on data for treatment injury related claims from all fund accounts. The majority of treatment injury claims are covered by ACC's Treatment Injury Account.

A small number of treatment injury claims are the result of consequential injuries that result from treatment for an injury that is already covered under another ACC account. While they are covered under another account, they are treatment injuries that are relevant to patient safety, and so these consequential injuries have been included in the data used for this analysis.

For example, a client may require surgery as a result of a motor vehicle accident. If the client experiences a treatment injury as part of this surgery, it would be a consequential injury that is covered under the Motor Vehicle Account as part of their original claim. It is also a treatment injury that is relevant to patient safety, and so the consequential injury would be included in the data used for this analysis.

The treatment injury claims data used in this publication reflects the information held as at 17 March 2017 - for claims lodged from 1 July 2005 to 30 June 2016. All ACC claims data (including treatment injury claims data) is subject to revisions over time. For example, the claim numbers may change as a result of the review or appeal of an ACC decision.

Population data was sourced from Statistics New Zealand to calculate injury rate per 1,000 at the national and DHB regional level.

Hospital discharge data was sourced from the MoH's national minimum dataset to calculate treatment injury claims rates per 10,000 patients discharged (and also as a percentage).

## DATA ASSURANCE

ACC analysts have reviewed the treatment injury data against the original claims information, to ensure the data captured accurately reflects the information submitted.

A panel of ACC experts from operational, clinical and analytical backgrounds provided decision-support to develop the inclusion and exclusion definitions used to assemble the data by injury type. For example, adverse reactions to medication include a number of different injury types recorded in the underlying data - depending on the nature of the adverse reaction - and, at the same time, adverse reactions that are not the result of medication also need to be included.

ACC has also undertaken a data-matching exercise with all twenty DHBs. This exercise was to verify data for one or more of the following injury types: infections, pressure injuries, and medication adverse reactions. The data held by ACC was compared with the claims data (and underlying case notes) held by the DHB.

This data-matching confirmed that the ACC processes are accurately capturing and recording the information provided by claimants and treatment providers.

Approximately 5% of cases had incomplete information provided in the claims forms. In all of these cases, the data-matching exercise confirmed that a treatment injury had occurred. The corrections were confined to two aspects of the claims data: for some claims the specific injury type was updated and, for others, the facility where the injury occurred was updated.

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## HISTORY AND LEGISLATION

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ACC has provided comprehensive, no fault cover for people injured in accidents since 1974.

The right to take legal action for personal injury covered by ACC is removed other than for exemplary damages.

Levies from workers, employers, vehicle registrations, motor fuel, and taxpayers are collected to support the recovery of people with injuries. These monies are then managed to fund the current and future needs of people with long-term injuries.

ACC assistance is available to all New Zealand residents and temporary visitors. New Zealanders who are ordinarily resident may also be covered if they are injured while overseas, with assistance available on their return to New Zealand. New Zealand residents who suffer an injury from medical treatment overseas may be covered although restrictions apply. ACC assistance is available in New Zealand.

Once a claim is accepted by ACC, an injured person may have access to a range of entitlements from treatment and rehabilitation aids, to weekly compensation and lump sum compensation - depending on the injury and the person's circumstances.

ACC's primary function is injury prevention (refer section 3, Accident Compensation Act 2001 (AC Act)). This is to be achieved with interventions and approaches that reduce the incidence and severity of personal injury (see section 263, AC Act). Invoking the injury prevention provisions of the AC Act to support patient safety is a new approach for ACC.

### **CHANGE FROM MEDICAL MISADVENTURE TO TREATMENT INJURY**

Law changes since the scheme's introduction have also seen the criteria for cover evolve. The Accident Compensation Act 1974 added 'medical, surgical, dental, or first-aid misadventure' as a category of personal injury by accident.

Between 1992 and 2005, cover was available for medical misadventure. The Accident Rehabilitation and Compensation Insurance Act 1992 included specific categories of medical misadventure, namely 'medical error' and 'medical mishap' - injuries that were both a rare and severe outcome from properly given treatment. If there was an issue of medical error, the claim was considered by a Medical Misadventure Advisory Committee.

Changes in 2005 reduced the need to find fault as the cause of an injury, but finding that a health professional could and should have taken an alternative treatment pathway is still one of several 'causes' of a treatment injury.

Treatment injury (section 32, AC Act) is a personal injury that is caused by treatment from a registered health professional, and that is not a necessary part or ordinary consequence of that treatment, taking into account the underlying health condition of the patient and clinical knowledge at that time.

### **REPORTING RELATED TO MEDICAL MISADVENTURE**

ACC was required to notify relevant government agencies or professional bodies when it was believed there was risk of harm to the public. This included a series of medical misadventure incidents attributed to a single registered health professional.

ACC also had the discretion to report to the Health and Disability Commissioner and/or the Director-General of Health any accepted claim caused by treatment by a non-registered health professional such as an osteopath or a herbalist.

### **REPORTING OBLIGATIONS CONNECTED TO TREATMENT INJURIES**

Since 1 July 2005, ACC is able to report a belief of risk of harm to relevant authorities. After making the decision on whether to accept a claim, ACC staff also review information on file to consider if there is a risk of harm to the public.

Harm assessments are conducted on decided (both accepted and declined) claims and notifications made based on the likelihood of the event recurring in the future and the potential consequence of the event. The claim notification date could be in the year following the claim cover decision date.

(Further detail on pages 107 to 108.)

## TREATMENT INJURY CLAIM PROCESS

If an individual suffers a treatment injury, they need to see a health professional as soon as possible after the event. They should not wait until they feel better, as this can delay getting a decision and assistance from ACC.

An individual's health professional - for example, doctor, physiotherapist, dentist, or nurse - will help fill out an ACC45 Injury Claim Form and send it to ACC. They will also fill out an ACC2152 Treatment Injury Claim form, attaching any clinical notes that support the individual's claim.

Medical treatment can be complex, and sometimes the desired outcome is not always achieved. Not all outcomes or treatment are covered by ACC. Actual entitlement will depend on the individual's circumstances.

If a claim is accepted, ACC may be able to help with the cost of treatment and other assistance, such as rehabilitation or weekly compensation. Only a registered doctor or a nurse practitioner can certify work incapacity.



**More information on the claims process is available from the ACC website:**

<http://www.acc.co.nz/making-a-claim/how-do-i-make-a-claim/ECI0014>

### COMPLEX CLAIMS

Accident compensation legislation describes some claims for cover as 'complicated'. These claims take more time to assess because of the additional information needed. Complicated claims include personal injuries caused by treatment and claims lodged more than 12 months after the date the personal injury occurred.

When assessing complicated claims, ACC may seek the consent of the patient to contact treatment providers for additional information.

### WHAT IS THE 'ACCIDENT' FOR TREATMENT INJURY CLAIMS?

A treatment injury is a physical injury caused by treatment from a registered health professional – but some exclusions apply.

The 'accident' event is treatment by, or at the direction of, a registered health professional. The definition of treatment is broad and includes diagnosis, treatment decisions, as well as omission or failure to provide treatment.

There is no longer a requirement to find fault. This does not limit a finding in some cases that the cause of the injury will be inappropriate treatment in the circumstances.

Examples of treatment injuries range from a deep tissue infection at the site of an injection to operating on the wrong limb.

### EXCLUSIONS FROM TREATMENT INJURY

Both an underlying disease and other pre-existing diseases are not covered – although a significant worsening of disease caused by treatment may be covered.

Also excluded are:

- A necessary part of the treatment (for example, a skin puncture or surgical incision or the removal of a body part when those are a necessary part of the treatment required).
- The ordinary consequences of treatment (for example, hair loss following chemotherapy or radiotherapy burns are unlikely to be covered).
- Injury caused solely by decisions about allocating health resources (such as waiting list delays for joint replacement surgery).
- Injury caused because a patient unreasonably delayed or refused to give consent for treatment.
- Treatment that does not achieve the desired result is not a treatment injury.



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## SELECTED GLOSSARY AND DEFINITIONS RELATING TO TREATMENT INJURY

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### **INJURY CAUSED BY ACCIDENT**

Cover is provided for 'personal injury' that is caused by:

- An accident.
- A work-related gradual process, disease or infection (WRGPDI).
- Treatment that was provided by a registered health professional (treatment injury).

### **PERSONAL INJURY**

Personal injury is defined in the Accident Compensation Act as:

- Death.
- Physical injury.
- Damage to dentures or prostheses that replace a part of the human body.

With limited exceptions such as an WRGPDI mentioned above, wear and tear or injuries due to the ageing process are not covered by ACC.

### **MENTAL INJURY**

Cover is also available for mental injuries that result from a physical injury, including treatment injuries. A mental injury is a clinically significant behavioural, cognitive or psychological dysfunction. It does not include emotional effects such as hurt feelings, stress or loss of enjoyment.

### **ENTITLEMENTS**

Once a claim has been accepted, ACC will contribute to the costs of rehabilitation and treatment, and provide financial support to the injured person. The amounts depend on the injury and circumstances of the injured person.

An entitlement is the term given to ACC's contribution, and includes:

- Rehabilitation and treatment (including pharmaceuticals, x-rays, elective surgery), home-based care, and consumables.
- Support with transport, housing modifications, and equipment.
- Services aimed at restoring health and independence.
- Compensation for lost earnings as a result of the injury.
- Death benefits such as funeral grants and payments to dependants.
- An independence allowance for injuries that occurred before 1 April 2002.
- Lump sum compensation for injuries that happened on or after 1 April 2002.

### **ENTITLEMENT CLAIMS**

The majority of treatment injury claims are for relatively minor injuries that resolve after initial medical treatment. Claims that require more support will have additional entitlements counted against the claim. In this publication, the costs of those claims requiring additional support are included as 'entitlement claims'.

### **FATAL CLAIMS**

When someone dies from a treatment injury, ACC can provide financial support to the family of the deceased, including a contribution to the funeral costs and financial assistance to dependants.

### **SERIOUS INJURY**

The term 'serious injury' is a classification ACC created for people who will have a lifelong relationship with ACC due to the nature of their injury. Examples include damage to the spinal cord or brain.

### **DATE OF INJURY**

The date of injury (DOI) for a treatment injury is the date the person first sought or received treatment for the personal injury.

### **ACCEPTED CLAIMS**

Most of the information provided in this publication is based on accepted claims. The number of claims accepted is subject to small changes over time, because claims lodged in a specific year but not accepted until a later year are included in the updated dataset. Numbers can also change following a review or an appeal of an ACC decision.

### **COSTS PAID**

Costs paid for new and existing treatment injury claims in a given year are likely to be an underestimate, because some treatment - in particular, accident and emergency treatment in the first 24 hours after admission - is funded through the Public Health Acute Services (PHAS) agreement between ACC and the Ministry of Health, and is not included as part of an ACC claim.

There are three broad categories of claim costs:

1. Compensation (weekly compensation for lost earnings, lump sums, and death benefits).
2. Treatment (initial hospital treatment and ongoing primary and secondary treatment).
3. Rehabilitation support (physical rehabilitation and various forms of personal support).

### **LONG-TERM COSTS – LIABILITY**

Some injuries result in the injured person requiring long-term or lifetime support from ACC. ACC needs to estimate the total of those costs and put money aside for those people. The amount needed is determined by analysis of the types and numbers of injuries – as well as the expected support needed.

### **NUMBERS OF CLAIMS LODGED**

Claim lodgement rates are influenced by factors such as the health status of the population and rates of contact with treatment services; the facilities available (for example, tertiary versus secondary level hospitals); and the familiarity of health providers with the process of making a treatment injury claim.

The figures reported will differ from previously released data due to changes in underlying data as new information becomes available and claims are updated.

### **CONSEQUENTIAL CLAIMS**

A consequential treatment injury is an injury that occurs during treatment for an already covered personal injury.

Treatment related claims information might include consequential claims funded outside the treatment injury account. For instance, a claim for an injury sustained when receiving treatment for an initial injury from a motor vehicle accident will be funded through the motor vehicle account.

## **OTHER DEFINITIONS USED IN THIS PUBLICATION**

### **TREATMENT INJURY CLAIMS AND OTHER DATA SOURCES**

The ACC information is based on claims made to ACC. The reasons for lodging a claim with ACC are different from the reasons for making a complaint to the Health and Disability Commissioner or reporting of a serious or sentinel event to the Health Quality and Safety Commission. The data is complementary and there are some overlaps, however, the rates or numbers or types of injuries in this publication cannot be directly compared with reports from other sources.

### **DISCHARGE**

This relates to Ministry of Health data for the number of discharges from DHB facilities (public hospitals). This data also changes slightly over time, as National Minimum Dataset (NMDS) discharge figures are updated.

#### **AGE GROUPS**

This relates to the age of the injured person as at the date of injury.

#### **PRIVATE HOSPITAL**

The claims identified as occurring in private surgical hospitals are those where ACC is able to identify the hospital, operating theatre or ward was a private facility (but not an overseas facility).

#### **INFECTION**

This includes a range of injuries such as abscess, cellulitis, endocarditis, osteomyelitis, septicaemia, wound infection, arterial or venous line infections, post-surgical infection.

Note: Some adverse reactions to medication may also be reported as infections.

#### **NEONATAL ENCEPHALOPATHY**

This term includes cerebral palsy, hypoxic ischaemic encephalopathy, and stillbirth.

#### **FINANCIAL YEAR**

The period from 01 July to 30 June.

## REPORTING 'RISK OF HARM TO THE PUBLIC'

Section 284 of the Accident Compensation Act 2001 requires ACC to report 'risk of harm to the public' based on information collected in the course of processing claims for treatment injury, including those that are in the nature of claims for treatment injury but are caused by a person who is not a registered health professional.

ACC's definition of harm is based on those developed by the MoH.

EVENT	DEFINITION OF HARM
<b>Sentinel event</b>	An event during care or treatment that has resulted in an unanticipated death or major permanent loss of function not related to the natural course of the claimant's illness or underlying condition, pregnancy or childbirth.
<b>Serious event</b>	A serious event or pattern of events that has the potential to result in death or major permanent loss of function not related to the natural course of the claimant's illness or underlying condition, pregnancy or childbirth.
<b>Major event</b>	An event that results in short- to medium-term lessening of bodily function (sensory, motor, physiologic or intellectual) unrelated to the natural course of the illness and differing from the expected outcome of patient management, or any of the following: <ul style="list-style-type: none"> <li>• Increased length of stay as a result of the incident.</li> <li>• Surgical intervention required as a result of the incident.</li> </ul>
<b>Minor event</b>	An event that results in minimal lessening of bodily function and that may require an increased level of care, review and evaluation, further investigation, or referral to another clinician.

These definitions are based on the MoH Severity Assessment Code (SAC) that provides a rating of 1 to 4 for adverse events that occur, or have the potential to occur, to any person as a result of, or related to, the provision of health and disability services.

The National Reportable Events Policy<sup>7</sup> requires providers to determine the severity of every reported incident using the Severity Assessment Code, to report all SAC 1 and SAC 2 events to the HQSC and to undertake a formal review of all SAC 1 and SAC 2 events using a Root Cause Analysis (RCA) methodology or a serious incident review.

Sentinel and serious events may be notified to a health professional registration authority if ACC reasonably believes they pose a risk of harm, are clearly related to an individual professional, and have peer advice regarding the appropriateness of care from either:

- the HDC office
- the Coroner's office, or
- an ACC External Clinical Advisor.

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<sup>7</sup> <http://www.hqsc.govt.nz/our-programmes/adverse-events/publications-and-resources/publication/320/>

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## ROLE OF TRANSPARENCY IN IMPROVING PATIENT SAFETY – SUMMARY OF EVIDENCE REVIEW

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ACC commissioned an independent evidence review from the International Centre for Allied Health Evidence (iCAHE), located within the Sansom Institute in the University of South Australia. The review was completed in September 2015. It explored how publishing patient safety data might improve the quality of care and contribute to a reduction in the number and severity of claims received.

### METHODOLOGY

The literature review focused on peer-reviewed literature drawn from eight academic databases and the reference lists of grey literature (for example, government reports). Following a rigorous search and assessment, 58 articles (51 primary research articles and seven secondary evidence reviews) were identified and included in the review.

### KEY FINDINGS

Overall, the evidence base provides moderate support for publication of patient safety information and insights into how the impact of publication can be improved. In particular:

- There is evidence that public reporting of risk-adjusted mortality data for hospitals from well-defined surgical technique has had a positive effect on overall mortality rates, and that the public release of patient safety data altered provider behaviour.
- There is limited evidence related to the effects on morbidity related to treatment. The evidence suggests that the main influence was through providers with a culture of improving patient safety, that will use patient safety data to improve their performance.
- The evidence suggests that publication of patient safety data reports had limited effects on patient choices overall, and that more affluent and educated patients were more likely to be influenced by patient safety data.
- There was mixed evidence on whether publication could result in some providers avoiding high-risk surgery.
- There was limited evidence that providers may change their clinical behaviours related to intervention risk (as suggested in the literature in relation to cardiac surgery reports), which could lead to a reduction in treatment injury.
- There has been no primary research into the effects of Australia's initiative to publish patient safety information from 2010 – either overall or on major hospitals.

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## BIBLIOGRAPHY

---

Minister of Health. *New Zealand Health Strategy: Future direction*. Wellington: Ministry of Health, 2016.

Agency for health care Research and Quality. *National health care Quality and Disparities Report chartbook on patient safety*. Pub. No. 16-0015-2-EF. Rockville, 2016.

Francis R. *Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry*. London: The Stationery Office, 2013.

Davis P, Lay-Yee R, Briant R, et al. *Adverse Events in New Zealand Public Hospitals: Principal Findings from a National Survey*. Wellington: Ministry of Health, 2001.

Perinatal Maternal Mortality Review Committee. *Tenth Annual Report of the Perinatal and Maternal Mortality Review Committee*. Wellington: HQSC, 2016:1-191.

Organisation for Economic Co-operation and Development. OECD.Stat - Health Care Quality Indicators - Patient Safety: OECD; 2016 © [Available from: [http://stats.oecd.org/Index.aspx?DataSetCode=HEALTH\\_HCQI](http://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_HCQI).]

Health Foundation. *Evidence scan: Levels of harm*. London, Health Foundation, 2011.







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