

# Canterbury Wellbeing Index

## June 2015



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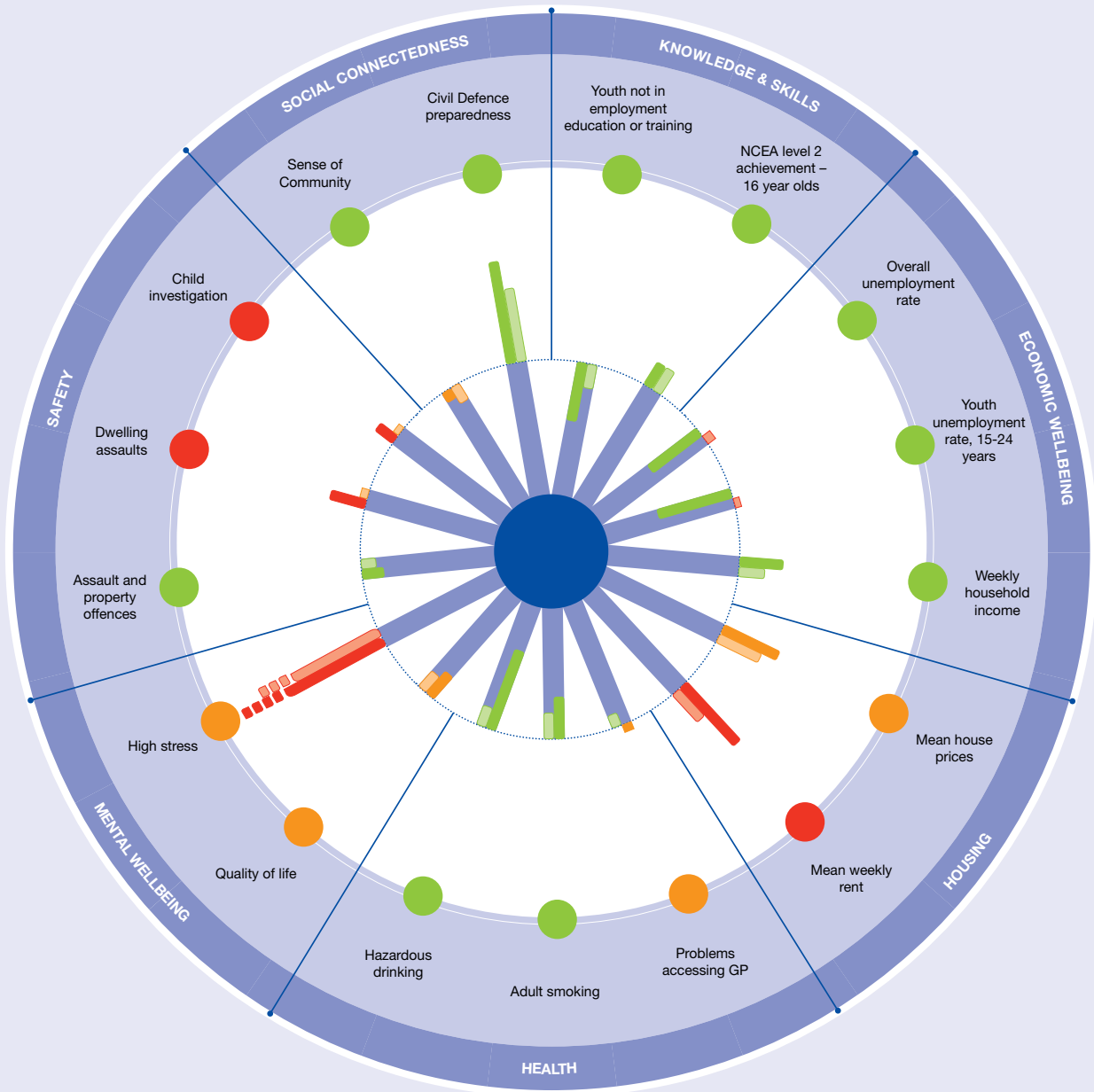
# Changes in social recovery

## Interpreting changes in social recovery 2008-10 to 2014-15

The spider diagram uses 'spokes' to represent changes in each indicator,

- the blue dotted circle represents average data prior to the September 2010 earthquake (where possible using a two year average); and
- the spokes represent post-earthquake data where possible using an average from 2014 to June 2015.

Longer spokes represent greater change. However, there is no relationship between indicators in magnitude of change. Spokes extending out from the blue circle indicate increases, and spokes extending inwards indicate decreases.



### Pre and Post Earthquake Social Recovery Analysis, greater Christchurch compared with New Zealand

	Changes in Greater Christchurch	Changes in New Zealand	Greater Christchurch in comparison with New Zealand
<b>FAVOURABLE</b> By comparison to pre-quake and where possible national trends			
<b>NEUTRAL</b> Either changes reflect national trends, the average has not changed or changes are otherwise ambiguous			
<b>LESS FAVOURABLE</b> By comparison to pre-quake and where possible national trends			

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# An overview of greater Christchurch's wellbeing<sup>1</sup>

## Overall

As the greater Christchurch region approaches the fifth anniversaries of the 2010 and 2011 earthquakes, there are many signs of progress in people's recovery. The rebuild has generated significant employment opportunities and in particular the region's young people are benefitting from this. The majority of residents report a high overall quality of life and this is improving over time. Residents are seeing tangible signs of progress in rebuilt and repaired private dwellings and public spaces and report a stronger sense of personal commitment to the region.

However, for some, multiple stressors and compounding pressures remain. In particular, people with unresolved insurance issues and those living in the more damaged parts of the city are experiencing greater challenges, as are people with pre-existing vulnerabilities.

Housing pressures remain a key stressor with some households living in damaged or temporary accommodation, experiencing difficulties finding affordable rentals, or continuing to negotiate settlement of their insurance claims. Households in these circumstances may have relocated several times with associated disruption to their routines and these layers of stress impact on the stability and wellbeing of the family unit.

Family wellbeing through the recovery can also be challenged by other factors including the quality of family or community support. Those who experience the greatest material losses (for example the loss of their homes) and their social networks (for example through moving to another community) are likely to experience the most psychological distress.

There are signs that people's relationships have become strained with dwelling assaults increasing. Social agencies report that the complexity of people's circumstances has grown immensely which creates more difficulty for these agencies to work with people to progress their recovery.

International evidence suggests that people's recovery can take between five and ten years after a major disaster and as we approach the fifth anniversaries of the earthquakes we can see tangible signs of progress as well as a clear need for ongoing support for a proportion of the population over the next few years.

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## Knowledge and skills

Against a backdrop of considerable disruption to school and home life, NCEA Level 2 achievement for greater Christchurch 16 year olds increased by 15 per cent between the pre-earthquake period and 2014 to 75 per cent, compared with the New Zealand average achievement rate of 72.5 per cent.

Young people in greater Christchurch have taken advantage of rebuild opportunities. The rate of 15-24 year olds not in education, employment or training decreased by 33 per cent between the pre-earthquake period and March 2015, compared with a 13 per cent decrease nationally. At March 2015 the greater Christchurch rate was 7.3 per cent compared with 12.6 per cent across New Zealand.

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## Economic wellbeing

Between the pre-earthquake period and March 2015 the unemployment rate dropped by 35 per cent in greater Christchurch (to 3.2 per cent), compared with a 5 per cent increase across New Zealand (to 6.1 per cent). Over the same period the unemployment rate for young people aged 15-24 years dropped by 42 per cent, compared with a 2 per cent increase across New Zealand.

Increased employment has generated a 24 per cent increase in median weekly household income between the pre-earthquake period and 2014, compared with a 14 per cent increase across New Zealand.

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## Housing

The earthquakes significantly damaged housing stock with 167,500 dwelling claims made, including 24,200 claims for serious damage and 8,061 properties classified as residential red zone. The effect of this loss of housing was then compounded by growing demand for housing from migrant workers and temporarily displaced households. As a result, mean house prices increased by 34 per cent between 2009 and 2014, compared with a 25 per cent increase across New Zealand.

Similarly, mean weekly rent rose 44 per cent between the pre-earthquake period and February 2015, compared with a 20 per cent increase across New Zealand. Low income households were most affected with a 69 per cent reduction in available affordable rental accommodation (<\$300 a week) between the pre-earthquake period and February 2014.

<sup>1</sup>Data presented in the summary highlights key information from both the spider diagram and the indicators.  
Note: unless otherwise stated the 'pre-earthquake period refers to the data collected between 2008 and 2010.

## Health

While hospital admissions have continued their pre-earthquake trend upwards, residents report that their ability to access general practitioners remains relatively similar to before the earthquakes.

Smoking and hazardous drinking rates have dropped significantly compared with the national average. Between 2006/07 and 2013/14 the smoking rate for greater Christchurch dropped by 23 per cent, compared with a drop of 14 per cent across New Zealand. In the same period, hazardous drinking dropped 46 per cent, compared with an 11 per cent drop across the country.

## Mental wellbeing

International evidence indicates that people's psychological and social recovery can take between five and ten years after a major disaster. In greater Christchurch there is evidence that many groups remain impacted by the earthquakes and the multiple stressors that have emerged since.

Overall quality of life in greater Christchurch decreased by 16 per cent between the pre-earthquake period and April 2015 compared with an 11 per cent decrease across New Zealand. However, since September 2013, overall quality of life in greater Christchurch has been slowly increasing, from a low of 73 per cent to 79 per cent in April 2015.

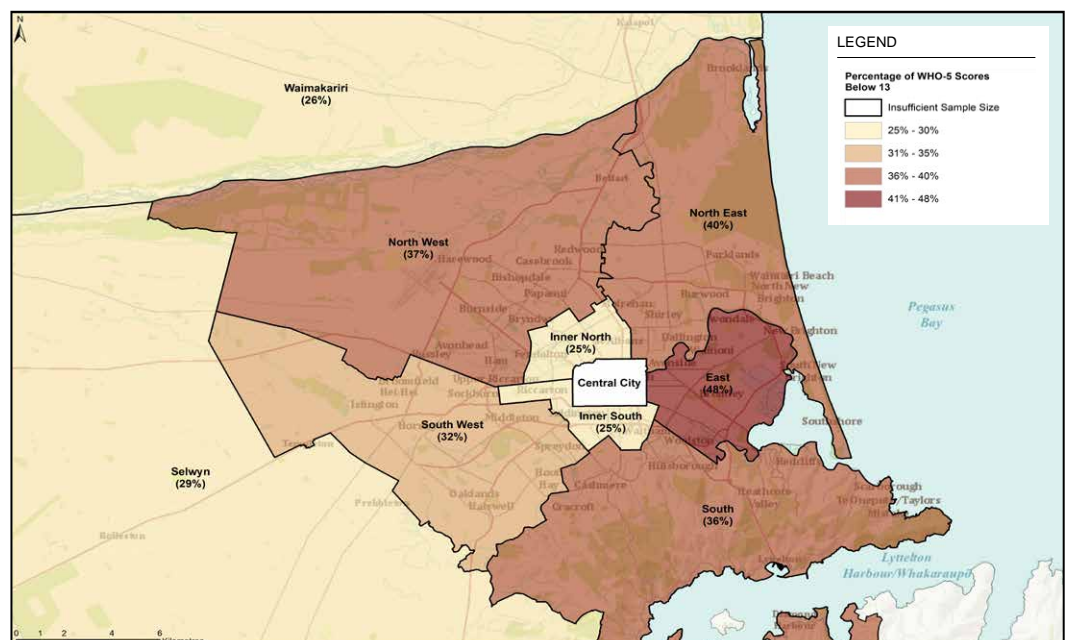
The proportion of people reporting that they feel stressed always or most of the time has increased significantly from 8 per cent in the pre-earthquake period to 19 per cent in April 2015. However, this reflects a similar (but lesser) increase across New Zealand.

Population groups experiencing higher levels of stress include those with pre-existing vulnerabilities such as people with health conditions or a disability and low income households, but also include new groups such as those with unresolved insurance claims, people in temporary accommodation and those living in the more damaged eastern parts of Christchurch city.

Map 1 shows that there are geographic differences in wellbeing across greater Christchurch. The WHO-5 index is a self-identified rating of emotional wellbeing with a score of less than 13 indicating lower wellbeing.

Almost half the respondents in the more damaged East of the city are more likely to have a WHO-5 score of less than 13 compared with others in greater Christchurch. Forty per cent of people in the North East and similar proportions in the North West and South also had low wellbeing scores. In contrast, just 25 per cent of people in the Inner North and Inner South had low scores.

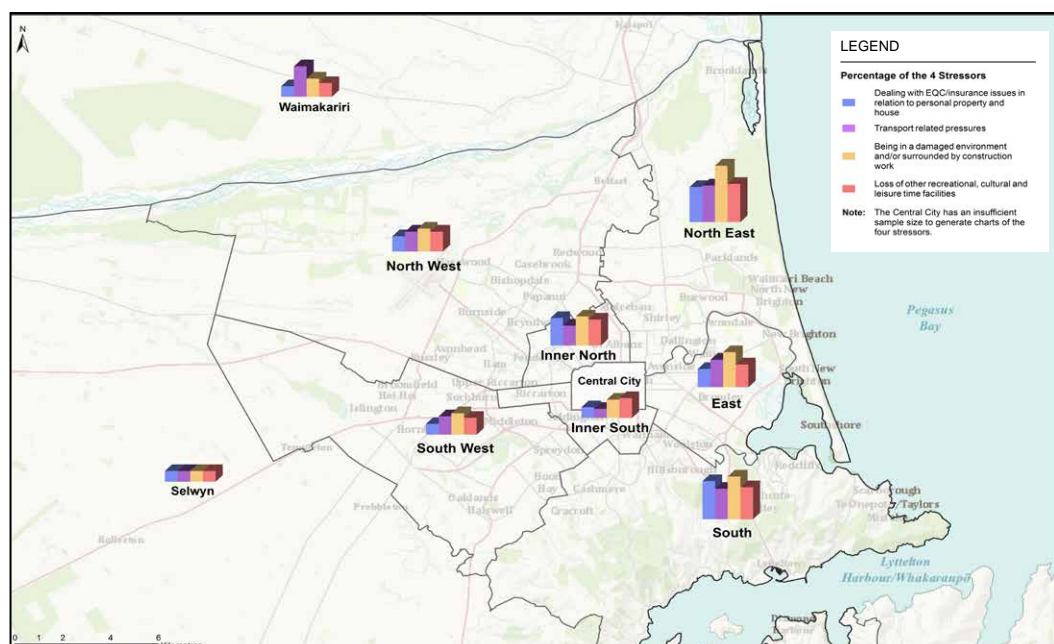
Map 1: Percentage of the population with a WHO-5 score less than 13 by geographic area, April 2015



Map 2 indicates that there are also large geographic differences between the impacts of secondary stressors on people living in different parts of greater Christchurch.

People living in the North East, South, East and Inner North have generally experienced higher levels of the top four stressors. These stressors relate to living in a damaged environment with associated loss of social infrastructure and problems with transport. They are also more likely to still be negatively impacted by dealing with EQC and insurance issues. Waimakariri district respondents have also recorded higher levels of stress around transport related pressures.

Map 2: Impact of most common negative issues by geographic area, April 2015



The number of people entering mental health services increased by 37 per cent between 2010 and 2014. The bulk of this increase occurred from mid-2012 suggesting that post-earthquake stressors such as managing repairs and rebuilds, living in a damaged environment and the loss of facilities and services may have impacted on wellbeing.

Since 2011 people in Canterbury assessed within outpatient mental health services have shown higher and more severe levels of symptoms, distress and dysfunction than those in other district health boards. This data indicates that as we approach the fifth anniversary of the earthquakes that there are still ongoing mental health impacts.

## Safety

Between 2008-09 and 2014 total assaults and property offences decreased by 12 per cent in greater Christchurch, compared with an 8 per cent drop across New Zealand.

However, the rate of dwelling offences (a category that primarily includes incidents of family violence) has increased by 20 per cent over this period, compared with a 4 per cent increase across New Zealand. Similarly, when comparing the pre-earthquake period to the 12 months to June 2014, child investigations (notifications requiring further action which are generated by concerns about child abuse, or the behaviour of a child or young person) increased by 11 per cent, compared with a 3 per cent increase across New Zealand. However, importantly, child investigations have shown a decreasing trend since 2013 in Canterbury and across New Zealand.

## Social connectedness

People's connections to their communities are important, particularly in recovery after disaster. However, levels of connectedness have been slowly decreasing in New Zealand cities. Despite significant population movement as a result of the earthquakes, people in greater Christchurch reported that levels of connectedness in their neighbourhoods decreased less between the pre-earthquake period and April 2015 (a 5 per cent decrease) than across other New Zealand cities (a 10 per cent decrease).

Emergency preparedness is a strong indicator of resilience. Between the pre-earthquake period and 2014 there was a 56 per cent increase in the preparedness of residents compared with a 40 per cent increase across New Zealand.

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# About the Canterbury Wellbeing Index

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## Why do we need the Canterbury Wellbeing Index?

The Canterbury Wellbeing Index was developed by the Canterbury Earthquake Recovery Authority (CERA) with the support of multiple agencies to track the progress of the social recovery in greater Christchurch. Indicators are used to identify emerging social trends and issues to enable agencies to respond in a timely way. The Canterbury Wellbeing Index is also prepared to provide the greater Christchurch community with accurate and comprehensive information about the social recovery.

The Canterbury Wellbeing Index has been published annually since June 2013. Results can be accessed in full at [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

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## How was the Canterbury Wellbeing Index developed?

In late 2011 CERA convened a series of meetings with representatives of 28 agencies to identify the social indicators that should be tracked through the recovery. Expert advice was received through the literature review of international best practice "Designing indicators for measuring recovery from disasters", undertaken by Canterbury District Health Board.

CERA requests and receives administrative and survey data from multiple agencies regularly to form the basis of the indicators in the Canterbury Wellbeing Index. Where possible, indicators are tailored to the greater Christchurch boundaries comprised of Christchurch city, and the Selwyn and Waimakariri districts.

The six-monthly CERA Wellbeing Survey was developed to provide additional recovery-focused data on the wellbeing of the residents of greater Christchurch. It forms a significant part of the Canterbury Wellbeing Index. CERA Wellbeing Survey data are also published in full on the CERA website.

Draft indicators are subjected to peer review and quality assurance processes, and agencies responsible for the indicators review the content prior to public release.

The Canterbury Wellbeing Index is a collaborative project across many government agencies:

Action on Smoking and Health, Canterbury District Health Board, Canterbury Earthquake Temporary Accommodation Service, Canterbury Public Health, Child, Youth and Family, Christchurch City Council, Creative New Zealand, Department of Corrections, Department of Internal Affairs, Department of Labour, Earthquake Commission, Electoral Commission, Energy Efficiency and Conservation Authority, Environment Canterbury, Housing New Zealand, Corporation, Ministry of Business, Innovation and Employment, Ministry of Civil Defence and Emergency Management, Ministry of Culture and Heritage, Ministry of Education, Ministry of Health, Ministry of Justice, Ministry of Pacific Island Affairs, Ministry of Social Development, Natural Hazards Research Platform, New Zealand Police, Partnership Health, Selwyn District Council, Sports Canterbury, Sports New Zealand, Statistics New Zealand, Te Pou, Te Puni Kōkiri, Te Rūnanga o Ngāi Tahu and Waimakariri District Council.

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## What happens in response to the trends identified in the Canterbury Wellbeing Index?

Emerging trends and issues identified through the Canterbury Wellbeing Index are used to inform decision-making by CERA and other social sector agencies working towards social recovery. Examples of initiatives and decisions that were informed by data collected through the Canterbury Wellbeing Index include the establishment of the Residential Advisory Service to help property owners progress their home repairs or rebuild; as well as the Government's Budget 2014 decision to allocate on-going funding for the provision of psychosocial services. In addition Canterbury Wellbeing Index data is used across agencies to plan the delivery of the psychosocial services under the Community in Mind psychosocial strategy for greater Christchurch.

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**New Zealand Government**



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is participation in education important?

Our early childhood centres, schools and tertiary institutions exist as an investment in the futures of our children and young people.

Participation in all stages of the education system is crucial so that young people can develop the skills and knowledge they need to find employment and gain a high quality of life. When levels of participation and achievement are high, the region and the country benefit economically, society is more cohesive and cultures are enriched.

By participating in early childhood education, young children are prepared socially and academically for their transition to primary school. Participation in early childhood education can also help reduce inequalities among our most vulnerable children.

A low level of participation in compulsory education can be a signal that issues such as a disruptive home life or behavioural problems are interfering with attendance. Sustained truancy affects educational achievement and can be a strong predictor of violence, delinquency, substance abuse, suicide risk, unemployment and early parenting.<sup>1</sup> Linkages between truancy and crime are of considerable concern.

Young people who are not engaged in employment, education or training (NEET) miss the opportunity to develop skills and knowledge at an age that has a strong influence on future success. They also miss the opportunity to contribute fully to society.

Tertiary education builds on human capital. It is vital for creating a socially cohesive greater Christchurch. Young people who have valued qualifications and skills are more likely to find sustainable employment, put roots down in the city, and work to create a better future.

International students have a doubly positive impact. First, they strengthen the financial position of schools and tertiary providers they attend. Second, they bring an international perspective to greater Christchurch.

Attracting domestic and international students back to tertiary providers based in greater Christchurch will contribute significantly to the economic recovery.

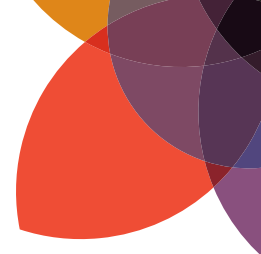
## How was participation in education impacted by the earthquakes?

After the February 2011 earthquake, 18 schools were relocated and 7,000 students were bussed daily to host sites. Fifty-five per cent of secondary students were 'site sharing', with one school holding classes in the mornings and another school holding classes in the afternoons.<sup>2</sup>

Within three weeks 84 per cent of school students were able to attend school again, and within a month 78 per cent of early childhood education centres were back up and running.

However, the earthquakes continued to have a major impact on education provision. Many early childhood centres, schools and tertiary providers had been damaged in some way or the number of enrolments had changed as people moved around or away from greater Christchurch.

The earthquakes changed patterns of attendance in early childhood education, with enrolments down by 1,125 in the year to July 2011. Many affected centres were located in the east of the city.



Following the February 2011 earthquake, over 12,000 primary and secondary students also left the school they had been attending and enrolled elsewhere, often at a school outside the region. Many returned, but in July 2012 there were 3,573 fewer students enrolled in greater Christchurch schools than in July 2010.

In the tertiary sector, 2011 domestic enrolments were down 14 per cent on 2010. Across Lincoln and Canterbury universities, first year enrolments were down by 28 per cent.

International enrolments for the first eight months of 2011 were down 31 per cent. The earthquakes dented the confidence of potential international students in Christchurch as an education destination. A large proportion of the reductions in international students were in private training establishments.<sup>3</sup>

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## What is happening now?

The Ministry of Education and Tertiary Education Commission have engaged with educators and communities to develop the Education Renewal Recovery Programme for greater Christchurch.

The draft Education Renewal Recovery Programme was released for public consultation in May 2012 and finalised in August 2012 in the document entitled *Directions for Education Renewal in Greater Christchurch*. It was developed in response to population change and damage to land and educational facilities that occurred after the Christchurch earthquakes in 2010 and 2011. The programme aims to offer an innovative response to the earthquakes by improving the delivery of education, extending options for learners and lifting student achievement.

### Schools

As part of the overall plan for education renewal, proposals to close or merge 38 schools in greater Christchurch were announced in September 2012. These proposals took into account earthquake damage, roll numbers, weather tightness, the age and wear and tear of buildings, population movement and future population growth and school locations.<sup>4</sup>

Extensive consultation was undertaken with schools and communities on these proposals. Considerable feedback helped shape the final decisions, which affected 24 of the original 38 schools. 11 schools merged to create five merged schools, 11 others closed (including the four schools that will form the new Aranui Community School for years 1-13) and two schools chose to close voluntarily.

These final decisions then fed into the Christchurch Schools Rebuild Programme announced in November 2013 in which the Government committed to invest \$1.137 billion to rebuild and renew 115 schools in greater Christchurch over the next 10 years.

During the 10-year programme,<sup>5</sup> the Ministry of Education will construct 13 new schools on new sites, rebuild 10 schools on existing sites, fully redevelop 34 schools and moderately redevelop 58 schools.

The Ministry of Education has a dedicated team that works in partnership with schools from initial planning to design and final construction. This programme is now fully under way and as at May 2015 Halswell and Pegasus schools have been completed and other schools are between the planning and construction phases.<sup>6</sup>

Redcliffs School is the only school in the Christchurch Schools Rebuild Programme with a decision on its future still outstanding. In March 2015 the Ministry of Education announced the proposed closure of the school and this proposal is out for consultation until July 2015.

When the Christchurch Schools Rebuild Programme is complete, more than 80 per cent of teaching spaces in greater Christchurch will be repaired and/or modernised to facilitate quality teaching and learning environments.

To make the most of the flexibility, openness and access to resources offered by modern quality teaching and learning environments, there is also a focus on ensuring teachers are supported to adopt modern learning practices. This will ensure greater Christchurch has a quality teaching and learning environment that will serve as a platform for student learning well into the future.



## Tertiary

In October 2013, the Government announced an \$18.9 million funding boost for Christchurch Polytechnic Institute of Technology (CPIT), which allowed it to train an additional 1,000 trade students each year to support the growing demand for skilled workers for the Canterbury rebuild.<sup>7</sup>

The Tertiary Education Strategy (2014–19) released in March 2014, set out the Government’s long-term strategic directions for the tertiary education system and highlighted “delivering skills for industry” as one of its key priorities.<sup>8</sup> The University of Canterbury’s redevelopment programme has been designed to modernise 80 per cent of its campus and infrastructure. The total programme is valued at \$1.1 billion over 10 years, and is jointly funded by insurers, the university and \$260 million from the Government. The university has already awarded two major construction contracts for the Canterbury Engineering the Future project (engineering rebuild) and the Regional Science and Innovation Centre. Both are due for completion in 2017.

Lincoln University is working on its campus redevelopment plan as it identifies what it needs to do to recover and grow, and is considering a number of different investment options. A core component of this plan is the ‘Lincoln Hub’ which is a collaborative partnership between AgResearch, Dairy NZ, Landcare Research, Plant and Food Research and Lincoln University. In July 2014 Cabinet agreed to an ‘in principle’ investment of \$107.5 million for the Science Facilities Rebuild in conjunction with the Lincoln Hub.



## What are the indicators telling us?

### ECE participation

This is measured in this report as the proportion of Year 1 entrants who had prior participation in early childhood education (ECE).

Before the earthquakes, greater Christchurch was well-served with 15,644 ECE places, which increased to 16,407 in 2014. Figure 1 confirms that despite the earthquakes ECE participation has been consistently higher than the national average. Latest data for 2014 shows a slight drop in ECE participation in greater Christchurch (particularly in Selwyn and Waimakariri districts), however it remains higher than the national rate.

Figure 1: Proportion of Year 1 entrants who had previously participated in early childhood education



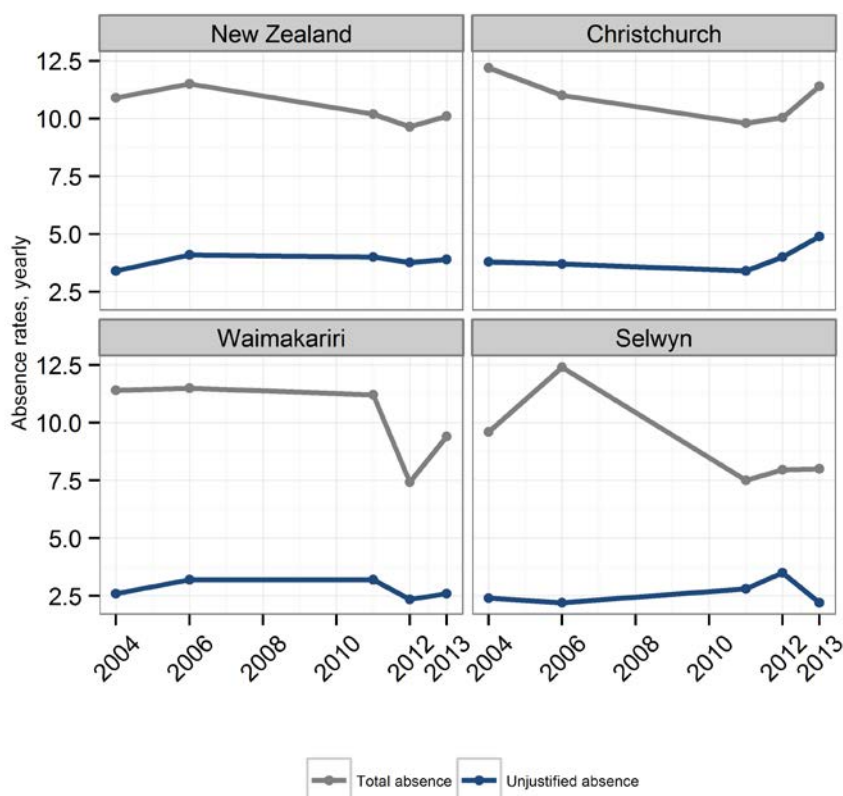


### Student absences

This is measured through the total absence rate and unjustified absence rate from primary and secondary schools. Unjustified absence is also called 'truancy'.

Both the total absence and unjustified absence rates decreased in the immediate post-earthquake period in the three areas which make up greater Christchurch, but they have generally increased since 2011. However, the rates in the Selwyn and Waimakariri districts remain lower than pre-earthquake levels. By 2013 the unjustified absence rate for Christchurch city was above the national average.

Figure 2: Total absence rate and unjustified absence rate<sup>9</sup>



As young people in greater Christchurch have taken advantage of rebuild opportunities, the NEET rate has decreased by 33 per cent between the pre-earthquake period and March 2015, compared with a 13 per cent decrease nationally. At March 2015 the greater Christchurch rate was 7.3 per cent, compared with 12.6 per cent across New Zealand.

### NEET (not in education, employment or training) rate

Figure 3 shows that the proportion of young people aged 15–24 years who are not in employment, education or training (NEET) in greater Christchurch spiked after the February 2011 earthquakes.

However, as young people in greater Christchurch have taken advantage of rebuild opportunities, the NEET rate has decreased by 33 per cent between the pre-earthquake period (two years to March 2010) and the year to March 2015, compared with a 13 per cent decrease nationally. It peaked at 16.8 per cent in March 2011 and has subsequently halved. At March 2015 the greater Christchurch rate was 7.3 per cent, compared with 12.6 per cent across New Zealand.

By March 2015 there were just 2,000 NEET males in greater Christchurch (5.3 per cent, compared with 9.6 per cent of males in New Zealand overall) and 3,200 NEET females (9.5 per cent, compared with 15.7 per cent of females in New Zealand overall). These are significant decreases from the March 2011 quarter when there were 3,900 NEET males in greater Christchurch (15.8 per cent) and 4,700 NEET females (17.8 per cent).

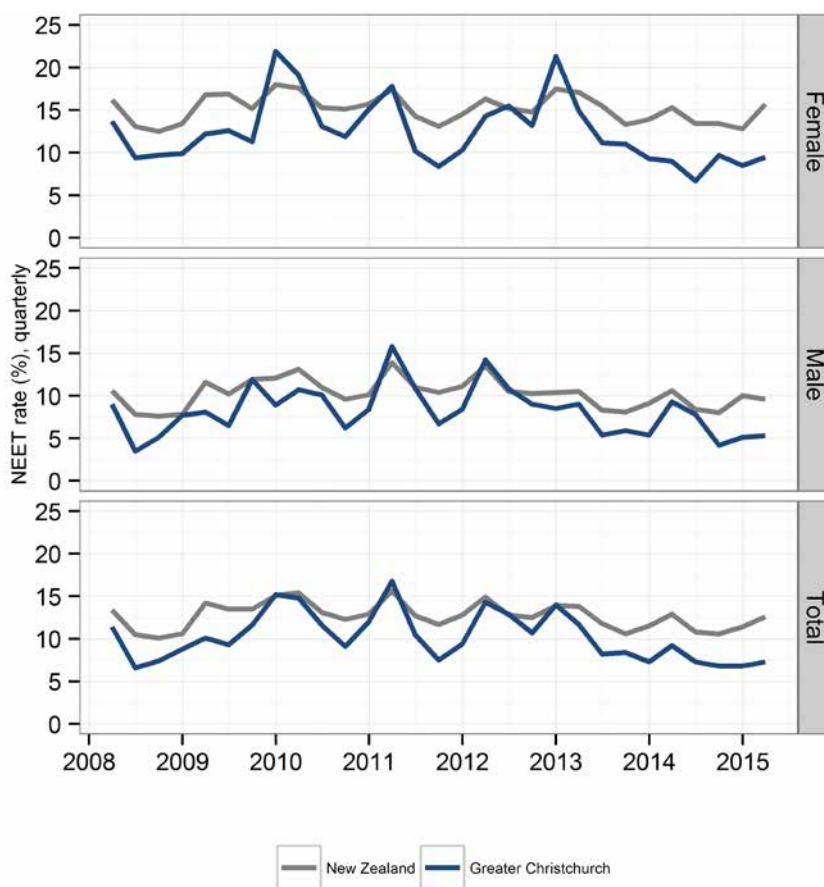


In December 2012 the NEET rate for females peaked at 21.3 per cent. This was because early rebuild-related employment opportunities favoured males and there was a loss of significant retail and hospitality work in which young females traditionally found employment.

Trade training scholarships for women (aged under 25 years) offered by CPIT aim to provide the skills and knowledge needed to start a career in the trade industry. These scholarships are also expected to encourage women to explore career opportunities in the rebuild, particularly those in traditionally male-dominated occupations.

Overall, employment and training opportunities generated by the rebuild have led to a reduction in the NEET rate and a widening gap between the greater Christchurch and the national rates.

Figure 3: 'Not in employment, education or training' (NEET) rate for the youth population by sex





### Tertiary enrolments

This is a measurement of the domestic and international students enrolled in tertiary institutions.

Figure 4 shows that enrolments of all part-time and full-time students in formal tertiary education in greater Christchurch declined by nearly 17 per cent between 2009 (45,912 students) and 2013 (38,258 students), compared with an 11 per cent decline across New Zealand. By 2014 there had been a further decrease to 36,454 (compared with a slight increase across New Zealand).

Annually the greatest decrease in total enrolments in greater Christchurch occurred between 2010 and 2011. Since then figures have levelled off but remain below those recorded before the earthquakes.

Enrolments in universities in greater Christchurch declined by 17 per cent between 2009 (21,552 students) and 2014 (17,995 students). Polytechnic enrolments declined by 32 per cent over the same period (17,494 to 11,920 students) compared with a 23 per cent decline nationally.

Polytechnic enrolments dropped most notably at the time of the major earthquakes but have subsequently started to increase. There are growing trades training opportunities offered at CPIT to support demand for skilled workers for the Canterbury rebuild. However there was a slight drop in polytechnic enrolments for greater Christchurch in 2014.

Figure 4: Number of tertiary enrolments

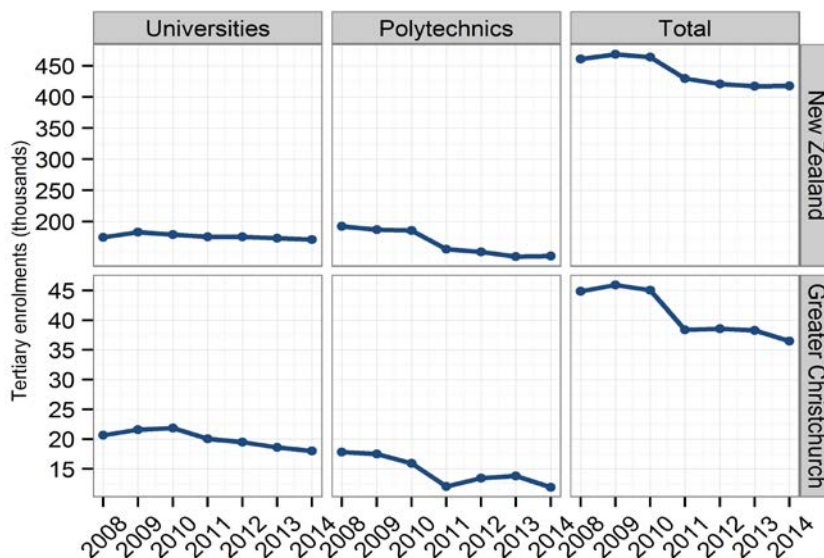


Table 1 sets out enrolment numbers for domestic and international students.<sup>10</sup> Between 2010 and 2011 enrolments in tertiary education dropped significantly by 14 per cent for domestic students and 17 per cent for international students.

In 2014, total intakes of tertiary students at Christchurch-based institutions remained 19 per cent down on 2010. When compared with 2013, international enrolments increased strongly (11 per cent) while domestic enrolments were down (7 per cent).

Table 1: Full-year domestic and international student enrolments in greater Christchurch 2010–2014

Type of student	2010	2011	2012	2013	2014
Domestic	39,573	33,882	34,838	34,339	32,014
International	5,671	4,704	3,907	4,075	4,536
Total	45,244	38,586	38,745	38,414	36,550



**Stand-downs and suspensions declined in 2011 after the major earthquakes but have subsequently increased in line with national rates.**

### Student engagement

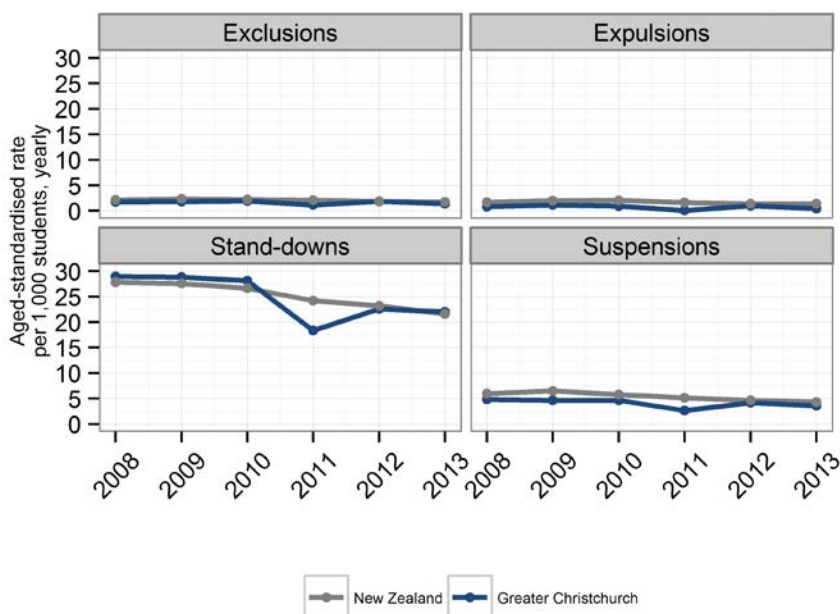
Student engagement is measured in this report by the age-standardised rate of exclusions, expulsions, stand-downs and suspensions for primary and secondary school students.

Stand-downs and suspensions declined in 2011 after the major earthquakes but have subsequently increased in line with national rates.

Figure 5 shows that the age-standardised rate for stand-downs in greater Christchurch decreased between 2009 and 2011 by 11 per 1,000 students (from 29 per 1,000 students in 2009 to 18 per 1,000 students in 2011). The rate subsequently increased to 22 per 1,000 students in 2013, in line with the New Zealand rate.

The age-standardised rate for suspensions in greater Christchurch also decreased between 2009 and 2011 by 2 per 1,000 students (from 5 per 1,000 students in 2009 to 3 per 1,000 students in 2011). The rate subsequently increased to 4 per 1,000 students in 2013, again in line with the New Zealand rate.

Figure 5: Age-standardised rate for stand-downs, expulsions, suspensions and exclusions per 1,000 students







**Student transience increased in 2011 but is now below pre-earthquake levels.**

**Student transience**

In this report, student transience is measured by the number of times a school student has re-enrolled within greater Christchurch during the school year.

Figure 6 shows that student transience increased in 2011 but is now below pre-earthquake levels.

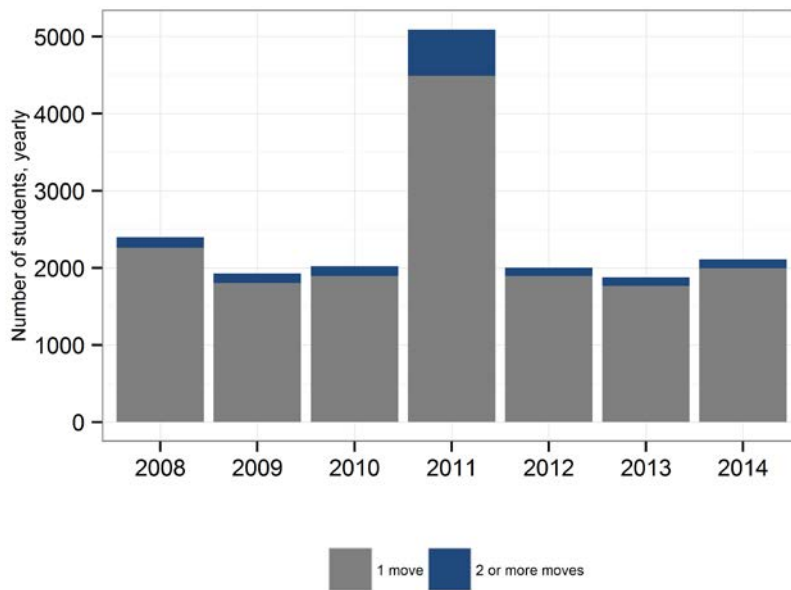
The proportion of students who re-enrolled at least once more than doubled between 2009 (2.7 per cent or 1,926 students) and 2011 (6.8 per cent or 5,091 students). By 2014 the rate had dropped back to 2.9 per cent (2,110 students).

The number of students who re-enrolled in a new school twice or more increased almost fivefold from 123 students in 2009 to 600 in 2011. However, by 2014 the number dropped back to 114.

The 2010-2011 increase in transience reflected the significant upheaval families faced with damaged homes and changes to employment patterns and social connections. From 2012 onwards this upheaval has reduced and numbers now reflect standard patterns of pre-quake transience.

Over 97 per cent of students remained enrolled in the same school each year between 2008 and 2014, with the exception of 2011 in which, due to the earthquakes, only 93 per cent remained enrolled in the same school.

Figure 6: Number of students who re-enrol at a different school in greater Christchurch each year





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## Find out more

Find out more about the Ministry of Education's education renewal plans:

[www.shapingeducation.minedu.govt.nz](http://www.shapingeducation.minedu.govt.nz)

Find out more about education statistics:

[www.educationcounts.govt.nz](http://www.educationcounts.govt.nz)

Find out more about *Right Service Right Time*, an innovative approach to ensure the wellbeing of children and families: [www.rightservice.org.nz](http://www.rightservice.org.nz)

Find out more about CPIT free trades training: [www.cpit.ac.nz/study-options/our-study-interest-areas/trades](http://www.cpit.ac.nz/study-options/our-study-interest-areas/trades)

Find out more about the Ministry of Women's Affairs research on using women's labour in the Canterbury recovery: [www.mwa.govt.nz](http://www.mwa.govt.nz)

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## Technical notes

### ECE participation:

**Data source:** Ministry of Education administrative data

**Data frequency:** Yearly to June and yearly to each quarter

**Data complete until:** June 2014 and December 2014

**Notes:** The measure is institution-based, so the geographic assignment is based on where children are in childcare, not where they normally reside. Christchurch city, Selwyn and Waimakariri refer to the territorial authority boundaries.

Data presented are yearly to June, and yearly to each quarter. ECE prior participation rates are affected by seasonal variations.

### Student absences

**Data source:** Ministry of Education's Attendance in New Zealand Schools Survey

**Data frequency:** Yearly in 2004, 2006, 2009, 2011, 2012 and 2013

**Notes:** Rates for the Christchurch area in 2011 should be interpreted with caution. These data were collected during the week in June 2011 when there were significant aftershocks and schools may have been closed. Schools had the option to report the week before or after, depending on whether they kept electronic or paper records.

### NEET (youth not in education, employment or training)

**Data source:** Household Labour Force Survey (HLFS), Statistics NZ

**Data frequency:** Quarterly

**Data complete until:** March 2015

**Notes:** The HLFS interviews approximately 32,000 people or 16,000 private households in New Zealand each quarter. Each person is interviewed for eight quarters (two years) so that changes in labour market can be measured. Interviews are carried out each week of the quarter so that the data are an average for that quarter. The working-age population consists of usually resident, non-institutionalised, civilian population of New Zealand aged 15 years or over.

The labour force consists of members of the working age population who, during the survey reference week, were classified as 'employed' or 'unemployed'.

Those not in the labour force comprise any person in the working-age population who is neither employed nor unemployed. They mainly consist of people who:



- are retired
- are not actively seeking work
- attend educational institutions
- are permanently unable to work due to physical or mental disabilities
- were temporarily unavailable for work in the survey reference week
- have personal or family responsibilities such as unpaid housework or childcare.

NEET includes both those people who are unemployed (part of the labour force), and those who are not in the labour force, and at the same time, not in education and training.

Greater Christchurch is comprised of Christchurch City Council, Selwyn District Council and Waimakariri District Council and is below survey design level. Data are indicative only and should be interpreted cautiously. Data for greater Christchurch during 2011 are subject to slightly higher sampling error than normal owing to interruption of surveying.

The HLFS is a sample survey and therefore subject to sampling error. Estimates based on populations fewer than 1,000 are suppressed as they are subject to sampling errors too high for most practical purposes. Estimates of numbers have been rounded to the nearest hundred.

#### Tertiary enrolments

**Data source:** Ministry of Education administrative data

**Data frequency:** Yearly

**Data complete until:** 2014

**Notes:** Numbers are head counts, not equivalent full-time students, and include New Zealand and international students. The numbers include Christchurch campus enrolments for institutions headquartered elsewhere (eg, Wellington Institute of Technology, Southland Institute of Technology, University of Otago), and exclude non-Christchurch enrolments of Christchurch-based providers (eg, the Telford campus of Lincoln University). Telford Rural Polytechnic merged with Lincoln University in 2011.

Students who were enrolled in more than one sub-sector have been counted in each sub-sector. Consequently, the sum of the sub-sectors may not add to the total number of students. Students who were enrolled in more than one territorial local authority have been counted in each authority. Consequently, the sum of the students in all territorial local authorities may not add to the total number of students.

Total figures include students from universities, polytechnics, Te Wānanga o Aotearoa and private training establishments.

#### Student engagement

**Data source:** Ministry of Education Stand-downs and Suspensions database and the Ministry of Education July school roll returns

**Data frequency:** Yearly in July

**Data complete until:** 2013

**Notes:** The numerator for the rates in this indicator was from the Ministry of Education Stand-downs and Suspensions database, and the denominator for the rates was from Ministry of Education July school roll returns. Only state and state integrated schools are included in the data.

The age-standardised rate of intervention per 1,000 students eligible for that intervention is the number of observed interventions divided by the number of expected interventions multiplied by the latest national rate per 1,000. By age-standardising, rates from different areas can be compared more accurately by controlling for the effect of differing age distributions in those different areas. All of the age-standardised rates are standardised against the current year national rate so that the data are comparable across years.



All students are eligible for suspension and stand-downs. Only students up to the age of 16 years are eligible for exclusions. Only students 16 years and older are eligible for expulsion.

The data have been aggregated for all of New Zealand, and separately for those territorial local authorities that constitute greater Christchurch (Christchurch City Council, Selwyn District Council and Waimakariri District Council).

The engagement data are defined as:

Stand downs – the removal of a student from school for a specified period

Suspension – the removal of a student from school until the Board of Trustees decides the outcome

Exclusion – a student under 16 years old is permanently removed from school and has to enrol elsewhere

Expulsion – a student 16 years old or over is permanently removed from the school

#### **Student transience (number of moves within greater Christchurch)**

**Data source:** Ministry of Education school enrolment data

**Data frequency:** Yearly in March

**Data complete until:** 2014

**Notes:** The data include students who were enrolled in schools in greater Christchurch (Christchurch City Council, Selwyn District Council and Waimakariri District Council) throughout the entire school year.



## Endnotes

- 1 [www.educationcounts.govt.nz/indicators/main/student-engagement-participation/1935](http://www.educationcounts.govt.nz/indicators/main/student-engagement-participation/1935)
- 2 Ministry of Education. (2012). *Shaping education: directions for education renewal in greater Christchurch*.
- 3 Ministry of Education. (in press). *Monitoring the recovery: post-compulsory education in Christchurch*.
- 4 [www.shapingeducation.govt.nz](http://www.shapingeducation.govt.nz)
- 5 Planned to be completed by the end of 2022.
- 6 Christchurch Schools rebuild programme update 6 <http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/PropertyToolBox/CSR/CSRNews/Issue6.aspx>
- 7 [www.stuff.co.nz/the-press/news/9242483/18-9m-pumped-into-CPIT-for-trades](http://www.stuff.co.nz/the-press/news/9242483/18-9m-pumped-into-CPIT-for-trades)
- 8 [www.mbie.govt.nz/news-and-media/news-from-around-mbie/tertiary-education-strategy-2014-19-released](http://www.mbie.govt.nz/news-and-media/news-from-around-mbie/tertiary-education-strategy-2014-19-released)
- 9 Due to the earthquakes, figures for Christchurch may not represent 'typical' rates for the region. The survey of school rolls was scheduled to take place during the week of June 2011 that was subject to substantial aftershocks. Schools had the option of reporting the week earlier or later instead. Note schools were surveyed for absence rates in 2009, but the data are not available at the territorial authority level for that year.
- 10 This denominator differs from that used for Figure 4.

# Educational achievement: NCEA Level 2 pass rate

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is NCEA achievement important?

A formal school qualification, such as the National Certificate of Educational Achievement (NCEA), is a measure of the extent to which young adults have completed a basic prerequisite for higher education and training and many entry-level jobs.

People who achieve higher educational qualifications tend to earn more, which allows them to maintain better health, participate more in community life and live in better-quality housing. In addition, their children tend to go further in their own education.

An educated workforce is also critical to a region's future economic success. Cities with higher education levels grow jobs and population faster and are more resilient to economic downturns than cities with lower education levels.<sup>1</sup>

NCEA Level 2 is considered the minimum qualification needed to continue with further education or join the workforce. One of the Government's priorities is to increase the proportion of 18-year-olds with NCEA Level 2 or an equivalent qualification so that they can contribute fully to the economy.

Since NCEA was introduced, NCEA Level 2 pass rates for Christchurch students have been higher than the national average. Selwyn district students have also achieved at a high level over time. Results in the Waimakariri district have generally been similar to the national average.

## How was NCEA achievement impacted by the earthquakes?

In 2011 the New Zealand Qualifications Authority developed a special derived grades procedure for students in greater Christchurch to address concerns that school closures and site sharing may have impaired learning and to mitigate any such impact.

Many greater Christchurch schools, including a large number who were site sharing, achieved better results in 2011 than in 2010. This finding is consistent with the trend towards improving results in the area since the introduction of NCEA. While the special grades procedure may have contributed to some extent, principals have observed that students and staff generally demonstrated significant determination in challenging times during 2011.

## What is happening now?

As part of the Better Public Services programme the Government has set a target that 85 per cent of 18-year-olds will gain NCEA Level 2 or an equivalent qualification by 2017.<sup>2</sup>

The Ministry of Education is leading the greater Christchurch Education Renewal Recovery Programme, which aims to build on the best of existing practice, while supporting the development of new, more effective approaches to teaching and learning.<sup>3</sup> One of the key objectives of this programme is that learners achieve a solid academic base, gaining at least NCEA Level 2.





The Ministry of Education’s Youth Guarantee initiative creates clear pathways from school to work and tertiary study. A range of programmes including Vocational Pathways and Secondary–Tertiary Programmes (such as trades and service academies and fees-free places) provide young people with opportunities to achieve NCEA Level 2 and engage in higher education and vocational training.



**NCEA Level 2 or higher pass rates for 16-year-old students have consistently improved on the pre-earthquake pass rates with the overall pass rate for greater Christchurch growing from 66 per cent in 2009 to 75 per cent in 2014.**

### What are the indicators telling us?

NCEA achievements can be measured in different ways to present different pictures of how students are performing in the schooling system.

- The ‘16-year-old data’ focus is only on the 16-year-old cohort who attained NCEA Level 2 or a higher qualification, providing a clear picture of examination success.
- ‘School leavers’ data show the highest qualification of people who have left the schooling system, indicating how well prepared students are for further education or employment.

Figure 1 shows that NCEA Level 2 or higher pass rates for 16-year-old students have consistently improved on the pre-earthquake pass rates with the overall pass rate for greater Christchurch growing from 66 per cent in 2009 to 75 per cent in 2014 (compared with 62 per cent to 72.5 per cent nationally).

In Christchurch city, pass rates increased from 66 per cent in 2009 to 75 per cent in 2014. In 2014 the Waimakariri district pass rate was 74 per cent and Selwyn district students achieved a pass rate of 80 per cent.

These findings indicate that NCEA achievement for this cohort of students was high despite the earthquakes.

Figure 1: Proportion of 16-year-old students who attained NCEA Level 2 or a higher qualification

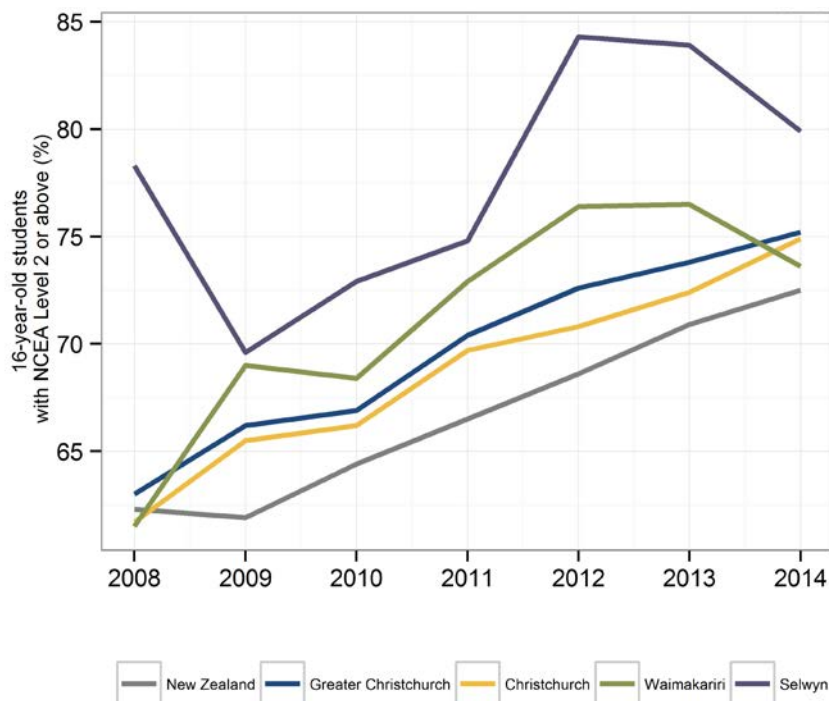




Figure 2 shows that school leavers in greater Christchurch achieved NCEA Level 2 or above at an increasingly higher rate in 2010 (72 per cent) and 2011 (75 per cent) despite significant challenges caused by the earthquakes. While the level dropped back slightly in 2012 to 74 per cent, it rose again to 77 per cent in 2013 and remains higher than the pre-earthquake rate (70 per cent in 2009). National figures have shown a steady increase since 2009.

Figure 2: Proportion of school leavers who achieved NCEA Level 2 or a higher qualification

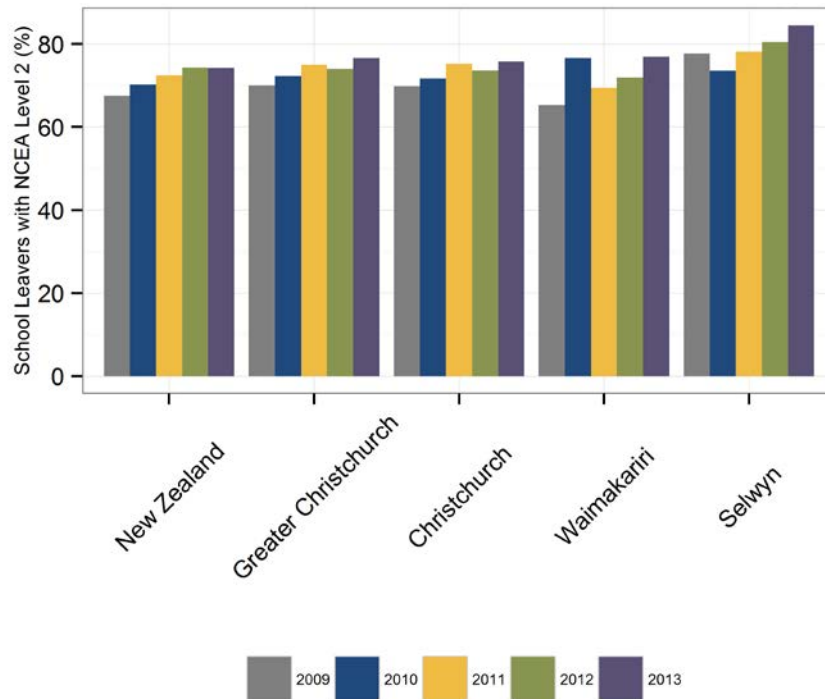




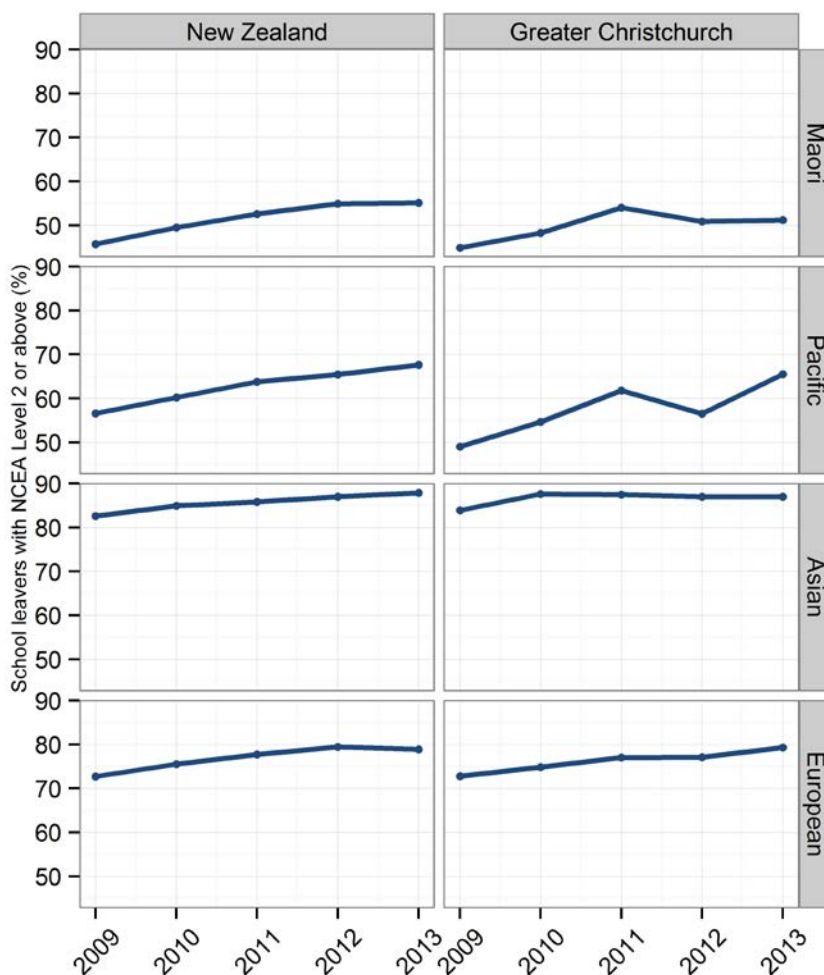


Figure 3 presents by ethnicity, the proportion of school leavers who attained NCEA Level 2 or higher. In particular, it highlights the disparity between the achievement of Māori and Pacific students, compared with other ethnicities, both locally and New Zealand wide.

Between 2009 and 2013, school leaver achievement rates for European and Asian students in greater Christchurch grew from 73 to 79 per cent and 84 to 87 per cent respectively. This pattern is generally consistent with national trends.

Notably, school leaver achievement for both Māori and Pacific students in greater Christchurch increased between 2009 and 2011, from 45 to 54 per cent and 49 to 62 per cent respectively, but decreased in 2012 (to 51 per cent and 57 per cent). 2013 saw a significant improvement in Pacific student achievement (up to 66 per cent) with no change for Māori students (51 per cent). In contrast, during the same period Māori and Pacific students' achievement across New Zealand consistently improved. This difference may reflect other wellbeing-related issues experienced by these groups in greater Christchurch during the earthquake period.

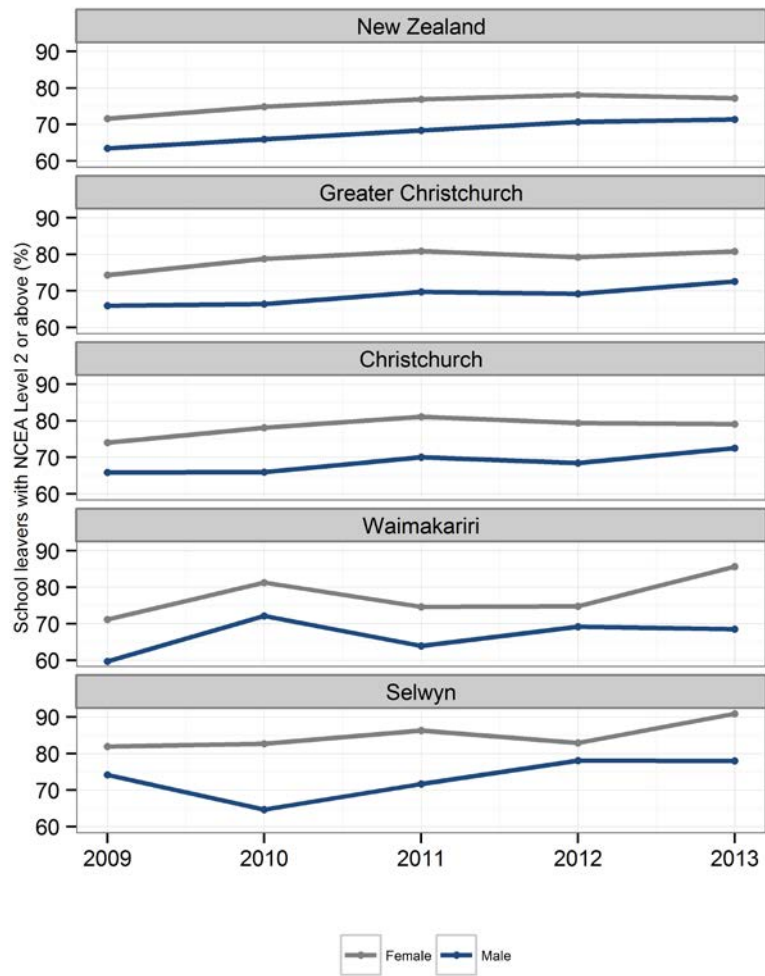
Figure 3: Proportion by ethnicity of school leavers who attained NCEA Level 2 or a higher qualification





As shown in Figure 4, the proportion of school leavers gaining NCEA Level 2 or above has consistently been higher for female students than for male students. Some of the variation in rates in Waimakariri and Selwyn districts is likely due to the smaller number of students involved, which makes the data less reliable.

Figure 4: Proportion by gender of school leavers who attained NCEA Level 2 or a higher qualification





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about NCEA from the New Zealand Qualifications Authority:  
[www.nzqa.govt.nz/qualifications-standards/qualifications/ncea](http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea)

Find out more about the Youth Guarantee programme:  
<http://youthguarantee.net.nz>

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## Technical notes

**Data sources:** Ministry of Education database of New Zealand Qualifications Authority  
NCEA results

**Data frequency:** Yearly in September and June

**Data complete until:** 2013 (School leavers) and 2014 (16-year-olds)

**Notes:** International students and students with gender unknown are excluded from the overall data and data by gender.

Specific schooling year-level data have been discontinued; therefore we have moved to target 16-year-olds (as at 1 May) to align with students at curriculum Year 12 (NCEA Level 2). This also tends to be more accurate as schooling year level can be a more variable measure.

Another option that was considered was to use the Better Public Services measure which relates to a national indicator set by the Government and specifically targets 18-year-olds with NCEA Level 2. Analysing this on a regional basis is problematic as data relates to the school a student last attended whereas, for this age group, movement is common for further tertiary study. To avoid this problem we have considered those students who are 16 years of age with NCEA Level 2 or above.

When comparing 16-year-olds with NCEA Level 2 or above with school leavers, results need to be interpreted with caution as cohorts tend to be more variable across specific year groups, especially at a regional level. School leaver data capture a mixed age cohort, generally making them a more robust measure.

Total students have been used as the denominator (rather than candidates or the July roll). Total students are defined as domestic, normally resident students that have been enrolled in any New Zealand school for more than 20 days after 1 March.

The definition of candidates has changed from 'students who have gained at least one credit in a year' to 'students who have been enrolled to participate in at least one standard during the year' – regardless of the result.

NCEA attainment data for 16-year-olds are provisional for 2014 (as at 5 February 2015).

Greater Christchurch includes Christchurch city and Waimakariri and Selwyn districts.



## Endnotes

- 1 Simon, C.J. and Nardinelli, C. (1996). The talk of the town: Human capital, information and the growth of English cities. *Explorations in Economic History* 33(3): 384–413.  
David, M. (2004). Education levels drive down city growth, cited in A. Plyer and E. Ortiz (2011). The New Orleans Index at Six. Greater New Orleans Community Data Centre.
- 2 Better Public Services [www.ssc.govt.nz/better-public-services](http://www.ssc.govt.nz/better-public-services)
- 3 Ministry of Education. (2012). *Shaping education: directions for education renewal in greater Christchurch*. Wellington.

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is employment important?

Employment has a direct impact on wellbeing. It affects the economic wellbeing and the quality of life of an individual and their family and it also has significant impacts on social and emotional wellbeing.

Most researchers agree that being employed is the most important way for a person to get enough income to meet their material needs and to fully participate in their community.<sup>1</sup> It is also central to an individual's identity and their role in society.<sup>2</sup>

Studies show unemployed people have higher mortality rates, a higher risk of mental health issues and a higher rate of criminal activity.<sup>3</sup> Longitudinal studies show that unemployment has a direct effect on health over and above the effects of socioeconomic status, poverty and prior ill-health.<sup>4</sup> When people move from unemployment to employment, they gain in material wellbeing, physical and mental health, and socioeconomic status.<sup>5</sup>

It is particularly important that young people are able to find employment when they finish their education and training. Young people are particularly vulnerable in the job market because they generally do not yet have the experience and skills to compete with older workers.

Increasing employment rates in the greater Christchurch region will be central to the recovery of the community and the economy.

## How was employment impacted by the earthquakes?

The February 2011 earthquake had immediate economic consequences across greater Christchurch and the whole of the South Island. Most severely affected were the tourism sector, small businesses and service industries such as retail, hospitality, international education and aged care.

Businesses in the central business district cordon could not trade from, or even access, their premises. Smaller suburban centres in older parts of town such as Sydenham were disproportionately affected as damage from unreinforced masonry buildings closed roads and pavements, making it harder for pedestrians to reach them. Some of the large shopping malls could not open due to damage, and economic activity was disrupted completely or forced to shift to different parts of town.

On 28 February 2011 the Government set up the Earthquake Support Subsidy so that businesses could continue to pay their employees when they were unable to operate or were losing significant trade. A similar package called Job Loss Cover assisted the self-employed. Because of these payments, a significant number of businesses were able to remain viable.<sup>6</sup> In addition, these measures prevented the population flight that might have occurred if people had not been able to access weekly wages during this emergency response period.

Primarily as a result of these measures, fewer people moved onto the unemployment benefit than might be expected in the period after the earthquakes. Since then the labour market has picked up as many businesses relocated to new premises and began trading again. Others started trading online.



## What is happening now?

The work involved in rebuilding and repairing domestic dwellings and commercial buildings is expected to fuel economic growth in the Canterbury region for a number of years. This growth is increasing employment in the region.

Between the March 2014 and March 2015 quarters, the number of people employed in Canterbury rose by 3.7 per cent (an increase of 11,800 people), compared with a national increase of 3.2 per cent. In March 2015 the employment rate in Canterbury was 70.7 per cent, compared with 65.7 per cent nationally. The unemployment rate was 3.1 per cent, compared with 6.1 per cent nationally.

Looking ahead, an estimated 5,000 additional construction workers will be required at the peak of the rebuild in December 2016. The current skills shortage list for Canterbury includes construction project managers, surveyors, engineers and construction tradespeople including carpenters, plumbers, electricians, joiners, painters, concreters and plasterers. Additional employees are also required in non-construction occupations that support the rebuild, such as accountants, lawyers, hospitality and retail workers.

The Ministry of Business, Innovation and Employment's Jobs Online Index shows a 7.4 per cent increase in skilled vacancies between March 2014 and March 2015 in Canterbury, compared with a 5.8 per cent increase for all of New Zealand.<sup>7</sup>

According to the latest Census of Population and Dwellings, construction has replaced manufacturing as the largest industry in greater Christchurch. In 2013, 1 in 8 adults (25,764 people) in greater Christchurch worked in the construction industry. This is an increase of 59.3 per cent (9,594 people) since 2006.<sup>8</sup> Other industries to experience growth include health care and social assistance (up 13.4 per cent), professional, scientific and technical services (up 14.8 per cent) and public administration and safety (up 29.7 per cent).<sup>9</sup>

As before the earthquakes, most construction workers are male; however, females now account for 14.5 per cent (3,735 people) of workers in this industry, an increase from 13.1 per cent (2,112 people) in 2006.<sup>10</sup>

New Zealand-born workers (81.1 per cent) comprised the majority of construction workers in 2013, followed by those born in the United Kingdom and Ireland (9.4 per cent) and Asia (2.4 per cent). In 2014 Canterbury employed 27 per cent of all those who entered New Zealand under the Essential Skills worker category, compared with 14 per cent in 2010.<sup>11</sup>

In recognition of the need for large numbers of additional workers in the rebuild, Immigration New Zealand streamlined some of the visa processes to improve labour market flexibility in Canterbury.<sup>12</sup> From July 2015 to December 2016 these changes will:

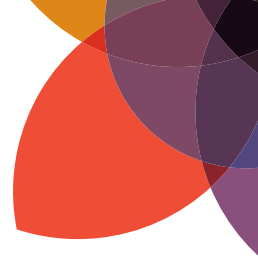
- extend the Essential Skills visa from one year to three years for lower skilled occupations
- allow visa holders to change employers (within the same occupation) more easily
- introduce an accreditation scheme for recruiters of migrant workers for Canterbury.

Canterbury continues to be one of the fastest-growing regions. The economy is estimated to have grown by 7.5 per cent during 2012 while the national rate was 2.5 per cent.<sup>13</sup> In 2013 growth was estimated at 5.6 per cent, compared with 4.4 per cent nationally. In 2014 growth remained strong at 4.4 per cent, compared with 3.6 per cent nationally.<sup>14</sup>

Between 2009 and 2014, Canterbury's economy grew by 30.9 per cent, the highest of all regions and above the national average of 22.4 per cent.<sup>15</sup> The strongest employment growth was in the construction industry (up 24 per cent) and the retail trade, accommodation and food services industry group (up 15 per cent).

In 2011 the Government invested \$42 million in trades training through Skills for Canterbury, which included up to 3,000 more construction-related training places in polytechnics in order to capitalise on rebuild opportunities. In November 2012 the Government committed an extra \$28 million to maintain the expanded training pipeline for tradespeople with 10,000 new apprenticeships and a further 300 places through the He Toki ki te Rika Māori trades training initiative.

The Tertiary Education Strategy (for 2014–19) released in March 2014 sets out the Government's long-term strategic direction for the tertiary education system and highlights 'delivering skills for industry' as one of its key priorities.<sup>16</sup>



Between July 2014 and June 2015, beneficiaries living outside the Christchurch area<sup>17</sup> were able to apply for a special, one-off \$3,000 payment to help them relocate to a confirmed, full-time job offer in Canterbury. By January 2015, 1,031 beneficiaries had moved to greater Christchurch.<sup>18</sup> The majority moved into construction, manufacturing, transport, postal and warehousing. The payment was open to all ages but particularly targeted young people aged 18–24 years, who made up a third of those who took up the offer.

Workplace stress (ie workplace relocation and workload increasing as a result of the earthquakes) is having a negative impact on a decreasing number of people. In 2012, 27 per cent of CERA Wellbeing Survey respondents identified it as a stressor, down to only 8 per cent by April 2015.

Initiatives like the Public Sector Organisational Resilience Team have worked across government departments to share information and plans to promote workforce resilience through the response and recovery phases. Private sector organisations have also offered their staff support and assistance in acknowledgement of the wider stressors on workforce wellbeing. In mid-2015 the Canterbury Employers' Chamber of Commerce is initiating a positive messaging campaign to facilitate the positive settlement of new migrant rebuild workers and their families arriving in greater Christchurch.

In 2012 16 per cent of CERA Wellbeing Survey respondents were concerned about the safety of their workplace, but had reduced to 4 per cent by April 2015. While concerns about workplace safety remain as the rise in construction work increases the risk of work-related injuries, innovative safety programmes have been put in place to reduce accidents and injury.<sup>19</sup>

One example is the Canterbury Rebuild Safety Charter which is an agreement on health and safety between government and companies leading the rebuild. The Charter sets out a consistent approach to health and safety by raising standards across worksites and has signatories from project management offices, major construction firms including group builders, key insurers, recruitment companies and local and central government.

Another example is the collaboration between the Canterbury District Health Board, the Mental Health Education & Resource Centre, the Accident Compensation Corporation and construction industry businesses such as Hawkins, Arrow International, Naylor Love, Fletcher Construction and Corbel Constructions focusing on changing the culture of alcohol and drug use in the construction industry.

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## What are the indicators telling us?

### Beneficiaries obtaining work

This report uses two measures of beneficiaries obtaining employment, which use data from the Ministry of Social Development.

- The proportion of the total population of beneficiaries who cancel their benefit because they have obtained work.
- The number of cancellations of a benefit due to obtaining work.

Note that not all unemployed people seek or are eligible for a benefit.

Prior to the February earthquakes the proportion of beneficiaries leaving a benefit for work monthly was consistently higher nationally than in Canterbury.

Figure 1 shows that the proportion in Canterbury decreased to 1.2 per cent of beneficiaries leaving a benefit for work in the month after the February 2011 earthquake. This was the lowest proportion since December 2008.

Since then, there have been marked increases. 3.8 per cent left a benefit for work in May 2011, compared with 2.6 per cent across New Zealand. The Canterbury rate has generally continued to remain above pre-earthquake levels. In January 2015 2 per cent of beneficiaries left a benefit for work in Canterbury, which mirrored the national rate.



Figure 1: Proportion of beneficiaries leaving a benefit for employment

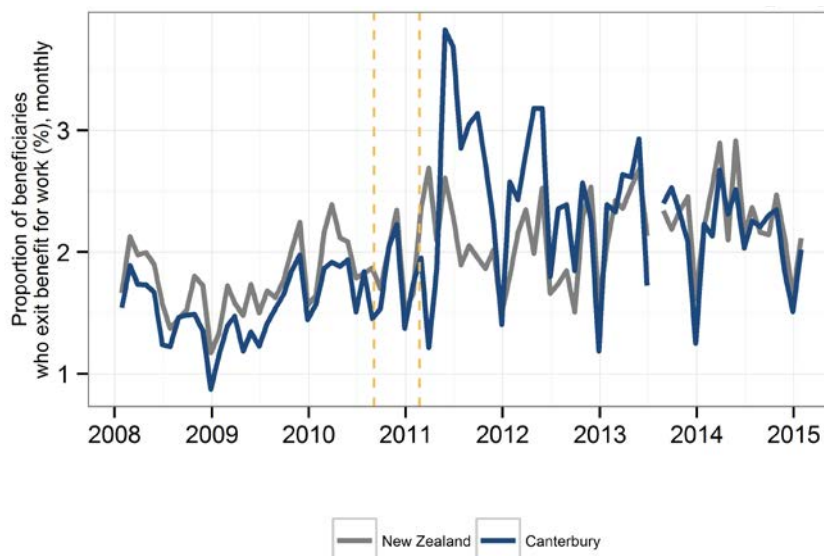


Figure 2 shows that at the end of 2012, approximately 500 people were leaving a benefit for work each month in Canterbury.

Figure 2: Number of beneficiaries leaving a benefit for employment

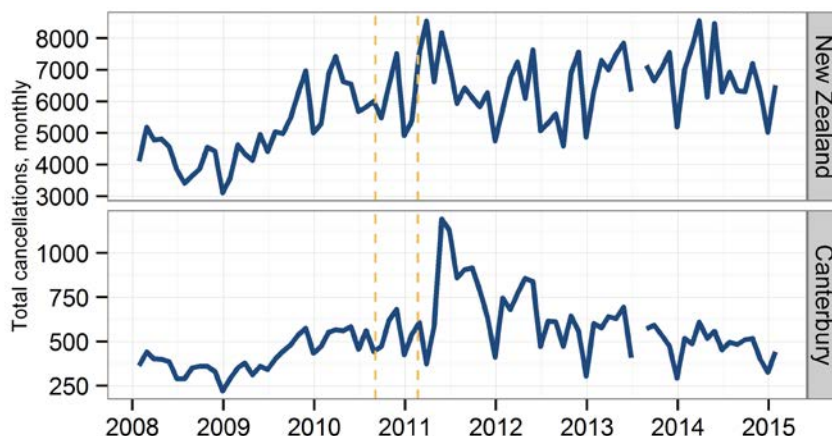


Figure 3 shows that since the earthquakes, more male beneficiaries have entered into employment. Numbers peaked in May 2011 with 1,192 people leaving benefits for employment in Canterbury. Of these, 740 (62 per cent) were male and 452 (38 per cent) were female. This compares with 58 per cent male and 42 per cent female nationally during the same month.

This gender imbalance has now narrowed in Canterbury, where in January 2015 53 per cent of those leaving a benefit for employment were male and 47 per cent were female. Nationally 55 per were male and 45 per cent were female.

The gender imbalance is changing as the rebuild generates wider economic growth and employment opportunities. However, one reason for this disparity, regardless of labour market opportunities, is the issue of childcare and the need for part-time employment options for the primary caregiver.





Figure 3: Number of beneficiaries leaving a benefit for employment, by gender

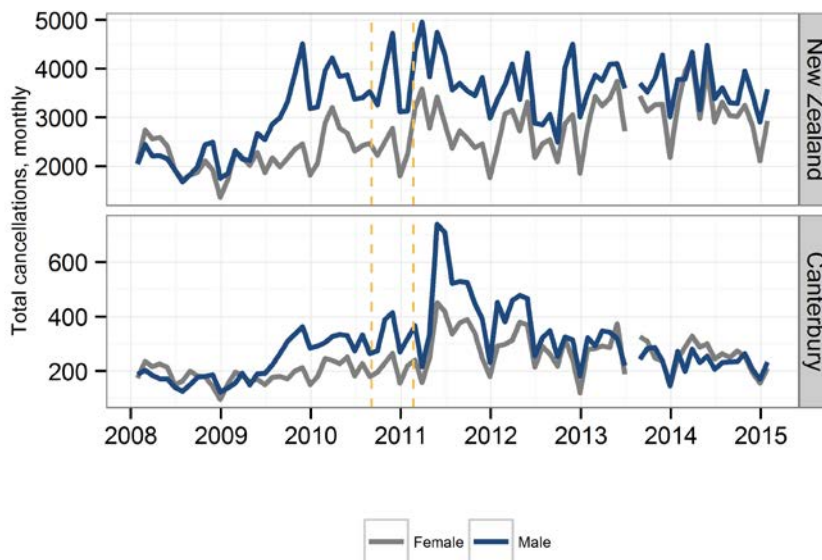
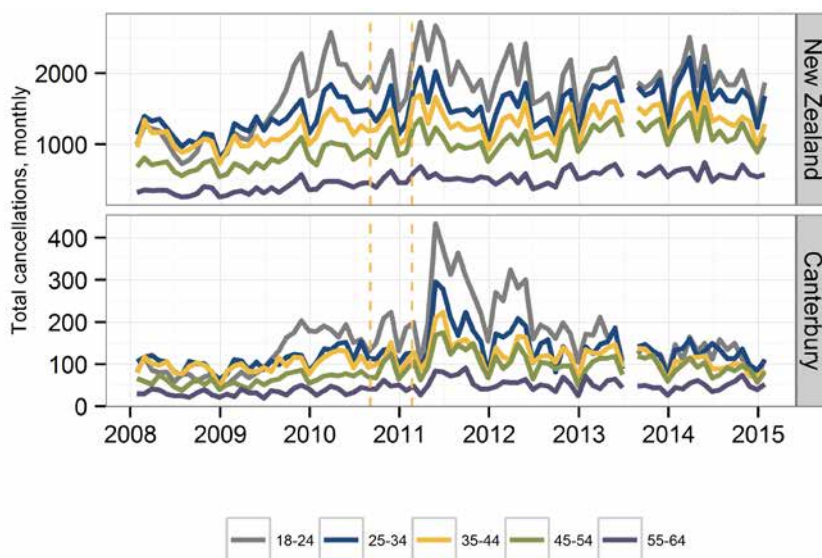


Figure 4 shows that immediately after the earthquakes, employment opportunities were strong for young people. During the peak in May 2011 when 1,192 people left a benefit for employment in Canterbury, 434 were aged 18–24 and 295 were aged 25–34 years. Together these age groups made up 61 per cent, which was slightly higher than the national proportion (57 per cent).

By January 2015 the number of people aged 18–34 years leaving a benefit for employment has eased back in Canterbury (50 per cent) and across New Zealand (54 per cent).

Figure 4: Number of beneficiaries leaving a benefit for employment, by age





## Rates of employment, unemployment and participation

The unemployment rate is the number of unemployed expressed as a percentage of the labour force.

The employment rate is the number of those employed for more than an hour a week expressed as a percentage of the working-age population.

The labour force participation rate is the total number of people classified as employed or unemployed expressed as a percentage of the working-age population.<sup>20</sup>



**Between the pre-earthquake period and March 2015 the unemployment rate dropped by 35 per cent in greater Christchurch (to 3.2 per cent) compared with a 5 per cent increase across New Zealand (to 6.1 per cent).**

**Over the same period, the unemployment rate for young people aged 15-24 dropped by 42 per cent, compared with a 2 per cent increase across New Zealand.**

## How is greater Christchurch doing?

### Unemployment<sup>21</sup>

Figure 5 shows that prior to the earthquakes, the unemployment rate in greater Christchurch was tracking upwards but typically remained lower than the national rate. Since 2011 it has lowered significantly, peaking at 6.7 per cent in June 2012 and dropping to 3.1 per cent by the June 2014 quarter. It has remained around this level since.

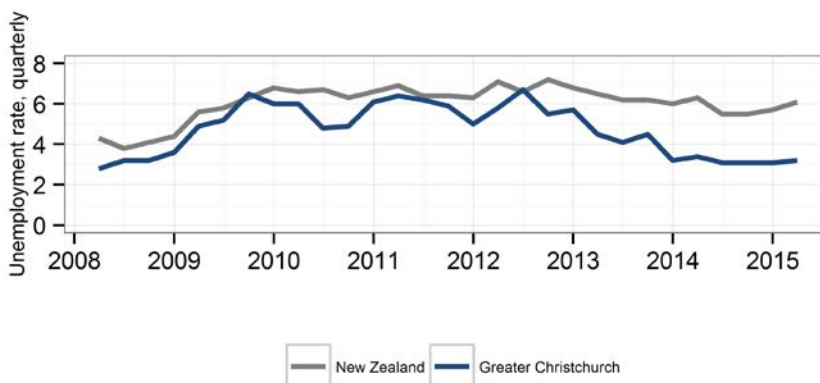
Between the pre-earthquake period (two years to March 2010) and the year to March 2015 the unemployment rate dropped by 35 per cent in greater Christchurch (to 3.2 per cent) compared with a 5 per cent increase across New Zealand (to 6.1 per cent).

Over the same period, the unemployment rate for young people aged 15-24 dropped by 42 per cent, compared with a 2 per cent increase across New Zealand.

In March 2015, the unemployment rate for young people aged 15–19 years in greater Christchurch, was 16.4 per cent, compared with a pre-earthquake (March 2010) rate of 27.1 per cent and a national rate of 21.4 per cent. In the same month, the unemployment rate for young people aged 20–24 years in greater Christchurch was 3.3 per cent, compared with a pre-earthquake rate of 6.2 per cent (March 2010) and a national rate of 11.8 per cent.

This data indicates that young people are gaining employment opportunities from the rebuild and recovery.

Figure 5: Unemployment rate



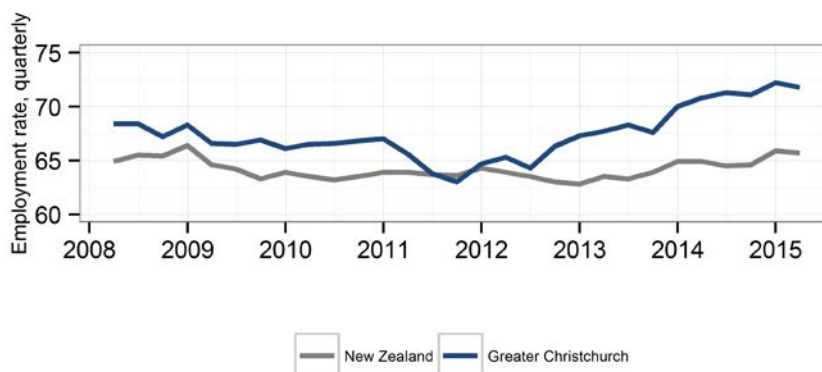


**The March 2015 employment rate of 71.8 per cent is 5.9 percentage points higher than the national rate (65.9 per cent) but may ease as we approach the peak of the rebuild.**

### Employment rate<sup>22</sup>

After a sharp decline following the earthquakes, the employment rate for greater Christchurch has since trended upwards, surpassing the national rate and moving well above pre-earthquake levels. Figure 6 shows it fell from 66.8 per cent in September 2010 to 63 per cent in September 2011 before recovering to 67.6 per cent in September 2013 and continuing to climb. The March 2015 employment rate of 71.8 per cent is 5.9 percentage points higher than the national rate (65.9 per cent) but may ease as we approach the peak of the rebuild.

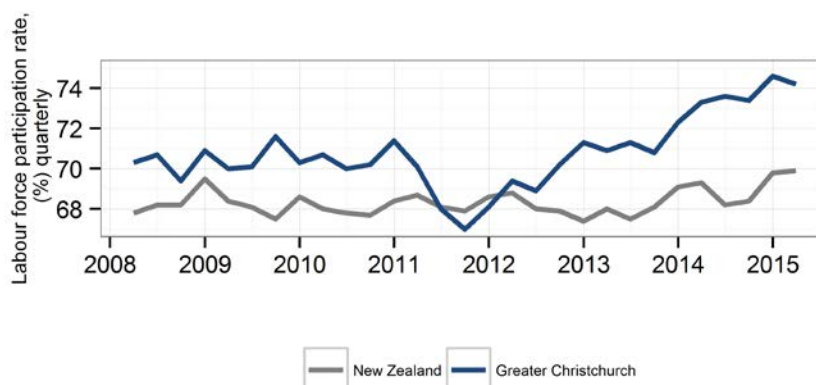
Figure 6: Employment rate



### Labour force participation rate<sup>23</sup>

Figure 7 shows that the proportion of the greater Christchurch population participating in the labour force decreased significantly in the period after the February 2011 earthquake but subsequently tracked upwards and is now above pre-quake levels. The proportion dropped to 67 per cent in September 2011 but returned to pre-quake levels of 70.2 per cent in the September 2012 quarter and reached 74.2 per cent in March 2015 (compared with 69.9 per cent across New Zealand).

Figure 7: Labour force participation rate

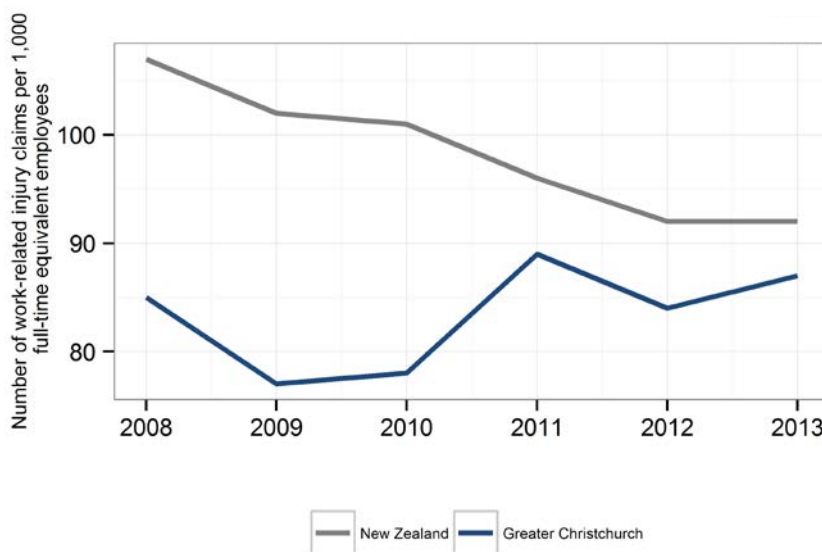




**Work-related injuries**

Figure 8 shows that nationally the incidence rate of work-related injury claims has steadily decreased between 2008 and 2012. Since then it has remained stable at 92 accidents per 1,000 full-time positions per annum. In comparison, the pattern in greater Christchurch has been more variable, moving from a pre-earthquake rate of approximately 78 accidents per 1,000 to 89 per 1,000 in 2011 and 87 per 1,000 in 2013. This indicator will need to be carefully monitored during the rebuild as the construction industry typically has a high incidence rate of injury.<sup>24</sup> Employers and recruitment agencies in Christchurch have a strong focus on training in workplace safety.

*Figure 8: Number of work-related injury claims per 1,000 full-time equivalent employees*



**Summary**

Overall the residents of greater Christchurch have seen the benefits of the rebuild with low unemployment, high employment and high labour force participation rates. Young people have benefited significantly from the training and employment opportunities created by the rebuild.

Just over 1,000 beneficiaries also moved off benefits and relocated to employment in Canterbury to help with the rebuild. Workers continue to come to Canterbury from overseas with the Philippines, Great Britain and Ireland providing the largest numbers of construction workers in the December 2014 quarter.



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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more from CERA about the Canterbury economic indicators:  
[cera.govt.nz/economic-indicators](http://cera.govt.nz/economic-indicators)

Find out more about the Canterbury Skills and Employment Hub:  
[www.opportunitycanterbury.org.nz](http://www.opportunitycanterbury.org.nz)

Find out more about jobs in the rebuild:  
[www.jobseeker.co.nz/Rebuild-Opportunities-Canterbury-jobs](http://www.jobseeker.co.nz/Rebuild-Opportunities-Canterbury-jobs)

Find out more about jobs for young people: [www.facebook.com/BBCanty](http://www.facebook.com/BBCanty)

Find out more about jobs for disabled people: [www.dol.govt.nz/er/pay/exemptions/Employment%20Supports%20for%20People%20with%20Disabilities.pdf](http://www.dol.govt.nz/er/pay/exemptions/Employment%20Supports%20for%20People%20with%20Disabilities.pdf)

Find out more about economic development in Christchurch city: [www.cdc.org.nz](http://www.cdc.org.nz)

Find out more about economic development in the Waimakariri district:  
[www.northcanterbury.co.nz/business/ENCInfo](http://www.northcanterbury.co.nz/business/ENCInfo)

Find out more about economic development in the Selwyn district:  
[www.selwyn.govt.nz/services/economic-development](http://www.selwyn.govt.nz/services/economic-development)

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## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### Beneficiaries obtaining work

**Data source:** Ministry of Social Development's (MSD) database

**Data frequency:** Monthly

**Data complete until:** January 2015

**Notes:** Until 15 July 2013, cancellations and clients are calculated from the total number of working-age benefits of the following types: 1) Domestic Purposes Benefit (DPB) and DPB-related benefits, which include DPB-Caring for Sick or Infirm, DPB-Sole Parent, DPB-Woman Alone and Emergency Maintenance Allowance; 2) Invalid Benefit; 3) Sickness Benefit and Sickness Benefit Hardship; and 4) Unemployment Benefit and Unemployment Benefit Hardship. Cancellations in these benefit types were counted if they were cancelled for the reason 'Obtained work'.

From 15 July 2013, benefit categories have changed. For more information on benefit changes, see: [www.workandincome.govt.nz/individuals/benefit-changes](http://www.workandincome.govt.nz/individuals/benefit-changes) The Canterbury Work and Income region presented here excludes the Ashburton service area.



Note that the eligibility requirements for the Unemployment Benefit are different from the definition of unemployed in the Household Labour Force Survey (HLFS). See MSD for information about Unemployment Benefit eligibility requirements: [www.statistical-report-2010.msd.govt.nz/main+benefits/unemployment+benefits/eligibility+%96+unemployment+benefits](http://www.statistical-report-2010.msd.govt.nz/main+benefits/unemployment+benefits/eligibility+%96+unemployment+benefits).

Note that these benefit data may be affected by earthquakes as some service centres had interrupted services following the February 2011 earthquakes. These data are not adjusted for external factors affecting employment (eg, government policy or recession).

Data for the month of July 2013 have been excluded from figures 1, 2, 3 and 4. This is due to benefit changes in mid-July, which would mean that benefit categories would be understated if they were included during that month.

All data used relates to the 'working age' – being those aged 18 to 64 years.

### **Employment, unemployment and labour force participation rate**

**Data source:** Household Labour Force Survey (HLFS), Statistics New Zealand

**Data frequency:** Quarterly

**Data complete until:** March 2015

**Notes:** The HLFS interviews approximately 32,000 people or 16,000 private households in New Zealand. Each person is interviewed for eight quarters (two years) so that changes in labour market can be measured. Interviews are carried out each week of the quarter so that the data are an average for that quarter.

Data has been revised and reweighted to reflect Census 2013 estimates.

The greater Christchurch area includes Christchurch City, Waimakariri District and Selwyn District Councils and is below survey design level. Data are indicative only and should be interpreted cautiously.

Data for greater Christchurch during 2011 are subject to slightly higher sampling error than normal owing to interruption of surveying.

The HLFS is a sample survey and therefore subject to sampling error. Estimates based on populations fewer than 1,000 are suppressed as they are subject to sampling errors too high for most practical purposes. Estimates of numbers have been rounded to the nearest hundred.

'Unemployed' refers to all people in the working-age population who during their reference week were without a paid job and were available for work and had either actively sought work in the past four weeks, or had a new job to start within four weeks. A person whose only job search method in the previous four weeks has been to look at job advertisements in newspapers is not considered to be actively seeking work.

The 'unemployment rate' is the number of unemployed people expressed as a percentage of the labour force.

'Employed' refers to HLFS respondents who, during the survey reference week, had: 1) worked for one hour or more, for pay or profit, in the context of an employee–employer relationship or self-employment; 2) worked without pay for one hour or more in work that contributed directly to the operation of a farm, business or professional practice owned or operated by a relative; or 3) had a job but were not at work due to a) own illness or injury, b) personal or family responsibilities, c) bad weather or mechanical breakdown, d) direct involvement in an industrial dispute, or e) leave or holiday.

The 'employment rate' refers to the employed, as a percentage of the working-age population.

The 'labour force' refers to members of the working-aged population who, during the survey reference week, were classified as 'employed' or 'unemployed'.

The 'labour force participation rate' refers to the total labour force expressed as a percentage of the working-age population.



### Work-related injury claims

**Data source:** Injury statistics - Work-related claims, Statistics New Zealand

**Data frequency:** Yearly

**Data complete until:** 2013

**Notes:** Injury Statistics – Work-related Claims measures claims accepted by the Accident Compensation Corporation (ACC) for work-related injuries. The statistics are based on one claim for each person for each injury event. Only accepted claims are included.

Full-time equivalent employee information from the Household Labour Force Survey is used to calculate the number of work-related injury claims per 1,000 FTEs. Full-time equivalent employees (FTEs) is a standard measure used in labour force statistics, for example, to calculate average weekly earnings. FTEs are calculated as the number of full-time employees plus half the number of part-time employees.

The data in this information release are not a definitive count of all work-related injuries. This is because not all work-related injuries result in a claim to ACC. All claims are included under the calendar year when the injury occurred. The 2013 data are provisional and subject to change. This is because claims for injuries that occurred in 2013 can still be updated and filed. Final work related injury figures will be released in October 2015.



## Endnotes

- 1 Milligan, S., Fabian, A., Coope, P. and Errington, C. (2006). *Family wellbeing indicators from the 1981–2006 New Zealand Censuses*. Statistics NZ, University of Auckland, University of Otago.
- 2 Waddel, G. and Burton, A.K. (2006). *Is working good for your health and wellbeing?* Department of Work and Pensions, UK Government.
- 3 Keefe, V. et al. (2002). Serious health events following involuntary job loss in New Zealand meat processing workers. *Journal of Epidemiology* 31: 1155–61.  
  
Blakely, T. et al. (2003). Unemployment and suicide: evidence for a causal association? *Journal of Epidemiological Community Health* 57: 594–6001.  
  
Ferguson, D., Poulter, R., Horwood, J., Milne, B. and Swain-Campbell, N. (2003). *Comorbidity and coincidence in the Christchurch and Dunedin longitudinal studies*. Report for the Ministry of Social Development, the Department of Labour and Treasury. Christchurch: University of Otago.  
  
All cited in Waddel et al. (2011). *Christchurch city health profile*, p 55.
- 4 Junaker, R. (1991). Unemployment and mortality in England and Wales: a preliminary analysis. *Oxford Economics Papers*, 43: 305–20.  
  
Mathers, C., and Schofield, D. (1998). The health consequences of unemployment: the evidence. *Medical Journal of Australia* 168: 178–82.
- 5 Waddel et al. (2011). *Christchurch city health profile*.
- 6 Labour and Immigration Research Centre, Department of Labour. (2011). *A changing landscape: the impact of the earthquakes on Christchurch workplaces*. Retrieved from [www.dol.govt.nz/research](http://www.dol.govt.nz/research)
- 7 Jobs Online Index. <http://www.dol.govt.nz/publications/jol/reports/jol-mar-14/>
- 8 Statistics New Zealand (2014). 2013 Census QuickStats about greater Christchurch, p 26. Retrieved from [www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx](http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx)
- 9 See endnote 7.
- 10 See endnote 7.
- 11 Migrations trends and key indicators December 2014 <http://www.dol.govt.nz/research/migration/monthly-migration-trends/14dec/migration-trends-key-indicators-dec-2014.pdf>
- 12 Immigration changes to support the rebuild: <http://www.immigration.govt.nz/migrant/general/generalinformation/news/streamlinedvisaprocessesfortheCanterburyrebuildfromJuly2015.htm>
- 13 ANZ Regional Trends (February 2013). Retrieved from <http://www.anz.co.nz/commercial-institutional/economic-markets-research/regional-trends/>
- 14 ANZ Regional Trends (February 2015). <http://www.anz.co.nz/about-us/economic-markets-research/regional-trends>
- 15 Canterbury Job-matching report <http://www.dol.govt.nz/publications/research/canterbury-rebuild/canterbury-job-matching-dec-2014.pdf>
- 16 [www.mbie.govt.nz/news-and-media/news-from-around-mbie/tertiary-education-strategy-2014-19-released](http://www.mbie.govt.nz/news-and-media/news-from-around-mbie/tertiary-education-strategy-2014-19-released)
- 17 'Christchurch area' refers to the areas covered by the Ashburton, Hurunui, Selwyn and Waimakariri District councils and Christchurch City Council.
- 18 3 k to Christchurch initiative <http://www.workandincome.govt.nz/individuals/a-z-benefits/3k-to-christchurch/general-questions.html>
- 19 Safety is first <http://www.rebuildchristchurch.co.nz/blog/2014/7/safety-is-front-and-centre-for-christchurch-rebuild>
- 20 See technical notes relating to the Household Labour Force Survey (Statistics New Zealand).
- 21 This rate is not seasonally adjusted.





- 22 See note 21.
- 23 See note 21.
- 24 Statistics New Zealand: internal communication 21 May 2014.



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

### Why is household income important?

Having sufficient household income contributes substantially to a family's wellbeing. With an adequate income, a household can get essential and non-essential items such as quality housing, food, health services and transport and members of a household can participate in their community through social and recreational activities.

Where parents have sufficient income, the children in a household are more likely to experience wellbeing in virtually every dimension that social scientists measure.<sup>1</sup> Where there is insufficient income, children are more likely to experience negative outcomes such as lower educational achievement, poorer health, poorer economic status in their adult life and behavioural problems.

Rises in household income have wider economic benefits through helping the economy to grow and increasing a country's tax base.

### How was household income impacted by the earthquakes?

The earthquakes caused significant damage to the economy.

A quarter of the respondents in the 2012 CERA Wellbeing Survey experienced potential or actual loss of employment or income as a result of the earthquakes.<sup>2</sup> More about impacts on employment can be found in the Employment Outcomes indicator section.

In addition, 45 per cent of respondents reported moderate or major negative impacts of 'additional financial burdens (eg, replacing damaged items, additional housing costs, and supporting family members)' as a result of the earthquakes.<sup>3</sup>

On the other hand, almost one quarter (24 per cent) of residents have experienced positive business and employment opportunities as a result of the earthquakes and one in seven (18 per cent) have experienced income-related benefits.

### What is happening now?

The rebuild is fuelling economic growth in the region. In turn, this growth is likely to increase household incomes. Canterbury remains one of the top performing regions with annual growth of 4.4 per cent for the year ended December 2014, compared with 3.6 per cent across New Zealand.

However, growth rates are slowing as the initial impetus of the rebuild levels out. There is also heavy demand for housing from displaced residents and workers coming to the city for the rebuild. This demand is driving up house prices and rents, which could potentially reduce median equivalised weekly income after housing costs.

According to the April 2015 CERA Wellbeing Survey, 10 per cent of residents said that additional financial burdens as a result of the earthquakes continue to negatively impact on their everyday lives.





**Greater Christchurch has had a 24 per cent increase in median weekly household income between the pre-earthquake period and 2014 compared with a 14 per cent increase across New Zealand.**

## What are the indicators telling us?

This report measures household income in two ways.

- Median and 20th percentile equivalised gross weekly household income.
- Median weekly household income net of housing costs for renters and home owners.

### Median and 20th percentile equivalised gross weekly household income

Median gross household income is the dollar amount that divides all households into two equal groups based on their income. Half the households have an income above that amount, and half the households have an income below that amount.

The 20th percentile for household income is the dollar amount that divides households into the 20 per cent of households that have an income below this amount and the 80 per cent that have an income higher than this amount.

Household income has been 'equivalised' which means the dollar amounts have been adjusted based on the age and number of children in the household.

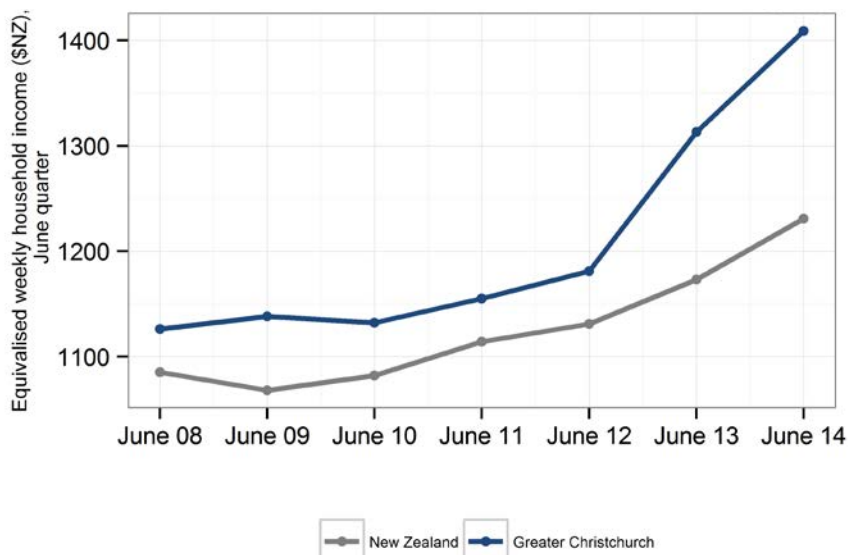
Figure 1 shows that the median equivalised gross weekly household income has increased for greater Christchurch and New Zealand overall from 2008 to 2014.

Greater Christchurch has had a 24 per cent increase in median weekly household income between the pre-earthquake period (of 2008 to 2010) and 2014 compared with a 14 per cent increase across New Zealand.

By 2014 median weekly income in greater Christchurch was \$178 higher than the New Zealand median.

Between 2008 and 2014, the majority of the increase for greater Christchurch (\$228 of a total \$283) occurred between 2012 and 2014. Nationally income increased by only \$100 per week over this period.

Figure 1: Median equivalised gross weekly household income



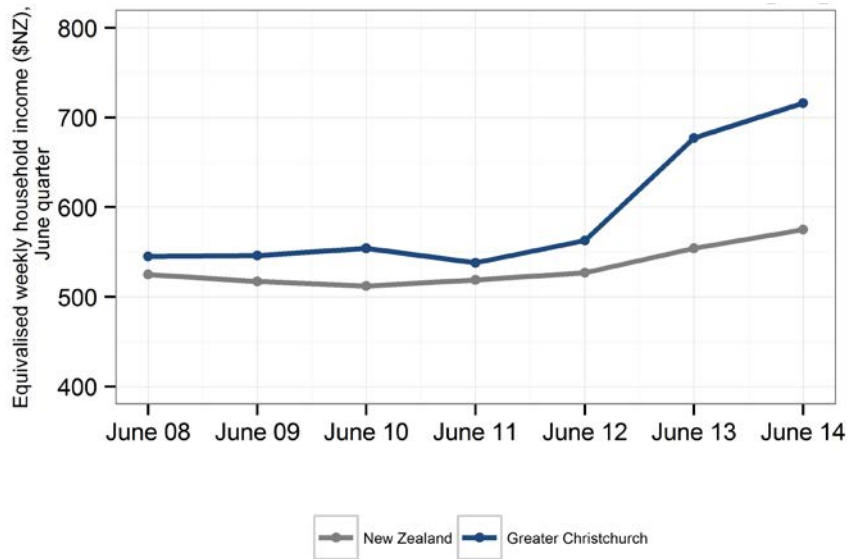


**The 20th percentile for equivalised gross weekly household income increased by 31 per cent in greater Christchurch, from \$545 in 2008 to \$716 in 2014. This compares with a 9 per cent increase across New Zealand, from \$525 to \$575.**

Figure 2 shows that the 20th percentile for equivalised gross weekly household income increased by 31 per cent in greater Christchurch, from \$545 in 2008 to \$716 in 2014. This compares with a 9 per cent increase across New Zealand, from \$525 to \$575.

Greater Christchurch's greatest annual increase of 20 per cent occurred between 2012 and 2013 (from \$563 to \$677) compared with 5 per cent nationally (from \$527 to \$554).

Figure 2: 20th percentile equivalised gross weekly household income





**Median weekly household income net of housing costs**

This is the median amount that households have in gross weekly income after housing costs have been deducted. Home owners have higher median weekly household incomes than those who rent, both in greater Christchurch and in New Zealand as a whole.

Note that the findings in this section (Figures 3, 4 and 5) relate to a small sample and should be treated with caution.

Figure 3 shows the median equivalised weekly household income net of housing costs for greater Christchurch home owners has varied a lot between 2008 and 2014, including a large dip in 2011 and 2014. Overall, it increased by 16 per cent (from \$973 to \$1,127), compared with an increase of 20 per cent across New Zealand.

*Figure 3: Median equivalised weekly household income net of housing costs for home owners*

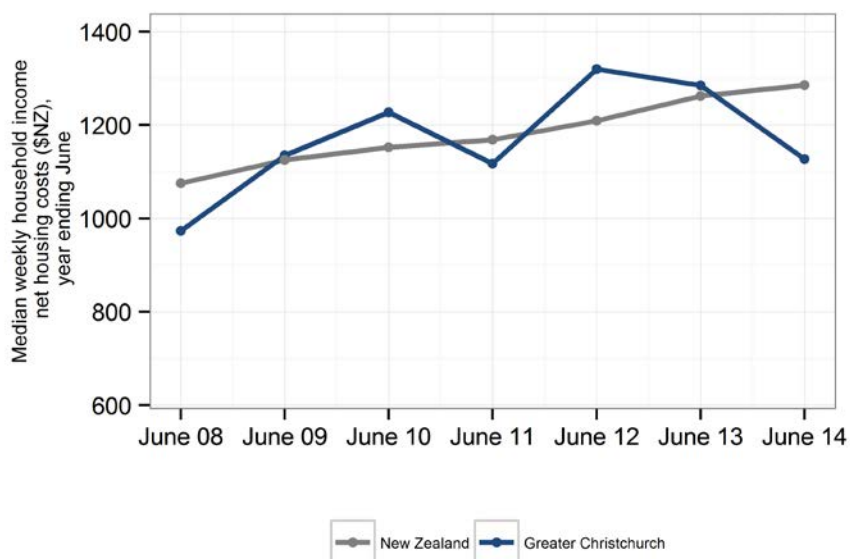




Figure 4 shows that median equivalised household income for renters also dipped in mid-2011 but has recovered since. Overall, there was a 64 per cent increase in median equivalised weekly household income net of housing costs for renters between 2008 and 2014 in greater Christchurch, compared with 21 per cent nationally.

Figure 4: Median equivalised gross weekly household income net of housing costs for renters

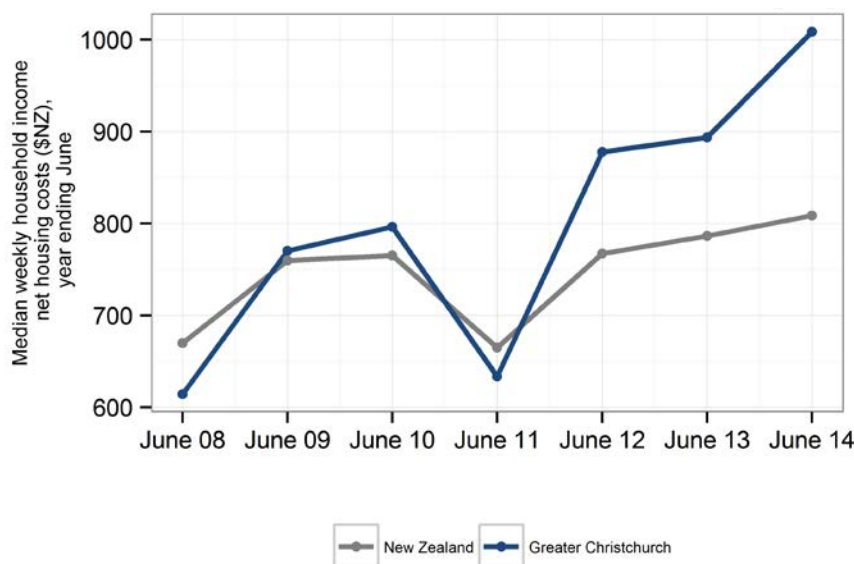
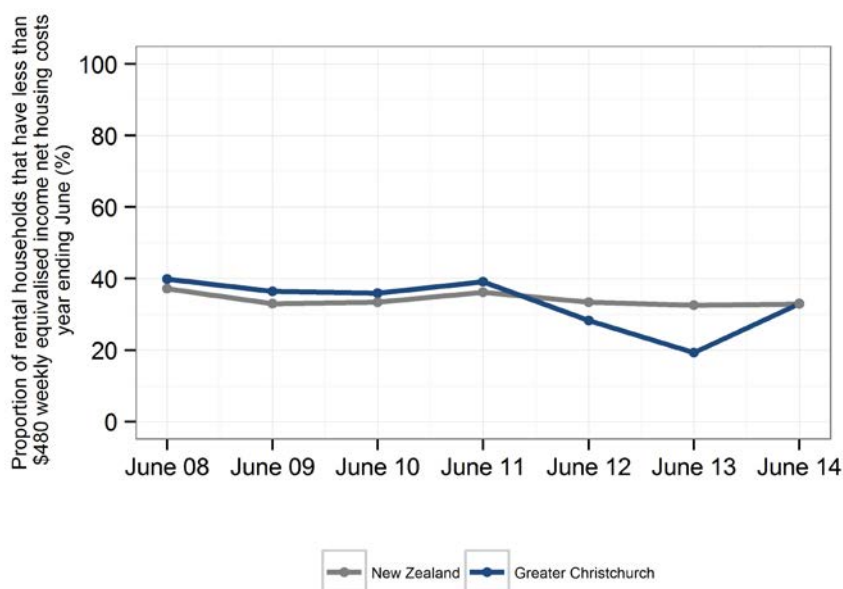


Figure 5 shows that low income earners living in rental accommodation have also experienced income increases at a higher rate than their housing costs and there are now fewer greater Christchurch households who have less than \$480 per week after rental housing costs than there were before the earthquakes.

The proportion dropped from 39 per cent in 2011 to 19 per cent in 2013. Nationally there was little change during this period. In 2014 there was an increase for greater Christchurch to 33 per cent, in line with the national trend.

Figure 5: Proportion of renting households that have less than \$480 of gross weekly household income net housing costs





## Summary

Taken together, the indicators of household income presented in this report show that incomes have been increasing at roughly the same rate as for the rest of New Zealand, with the exception of 2013, when incomes appear to have increased notably in greater Christchurch. When income after housing expenses (particularly renters) is taken into account, residual income has generally increased faster in greater Christchurch than in the rest of New Zealand.

## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the Canterbury economic indicators: [www.cdc.org.nz](http://www.cdc.org.nz) and <http://cera.govt.nz/economic-indicators>

Find out more about the standard of living in Christchurch city: <http://www.ccc.govt.nz/cityleisure/statsfacts/statistics/economicstandardofliving.aspx>

## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey).

### Median and 20th percentile gross weekly household income

**Data source:** New Zealand Income Survey (NZIS), Statistics New Zealand

**Data frequency:** Annually during the June quarter

**Data complete until:** June 2014 quarter

**Notes:** The NZIS is run annually during the June quarter as a supplement to the Household Labour Force Survey (HLFS). In the HLFS, approximately 15,000 private households (approximately 29,000 individuals) in New Zealand are interviewed.

Data from the NZIS have not yet been re-based to reflect Census 2013 estimates.

Equivalisation is of gross weekly household income using the Revised Jensen Scale. Adult and child definitions are consistent with Household Economic Survey treatment (see below).

Households composed exclusively of people outside the ages 18–64 years are excluded.

Dollar values presented are nominal, which means they represent the currency value each year they are reported, but they have not been adjusted for inflation. Therefore the value (or 'purchasing power') of one dollar may change from year to year.

Greater Christchurch is the aggregation of Christchurch City, Waimakariri District and Selwyn District Councils and is below survey design level. Data are indicative only and should be interpreted cautiously.



Data for greater Christchurch in 2011 are subject to slightly higher sampling error than normal owing to interruption of surveying.

### Weekly household income net housing costs

<b>Data source:</b>	Household Economic Survey (HES) and HES (Income), Statistics New Zealand
<b>Data frequency:</b>	Yearly. HES results are 2007, 2010 and 2013, and HES (Income) results are 2008, 2009, 2011, 2012 and 2014
<b>Data complete until:</b>	June 2014

**Notes:** The HES is conducted every three years, and collects information on household expenditure and income, as well as a wide range of demographic information. A shorter version of the survey, HES (Income), is collected in the two years between the full HES.

Data from the HES (Income) have not yet been re-based to reflect Census 2013 estimates

Greater Christchurch is the aggregation of Christchurch City, Waimakariri District and Selwyn District Councils and is below survey design level. Data are indicative only and should be interpreted cautiously.

Households that are 'Not owned' cover dwellings where the household does not own the dwelling, and either pays rent or lives there rent-free. 'Owned' households cover dwellings that are held (or not held) in a family trust, regardless of whether mortgage payments are made or not made for the dwelling.

Household income is from total regular and recurring income sources, and is gross (before tax) income. Weekly household income net of housing cost is defined as Gross Household Income less Housing Cost. Differences between HES and HES (Income) mean that caution should be used when comparing the results.

Dollar values presented are nominal, which means they represent the currency value each year they are reported, and so have not been adjusted for inflation. Therefore the value (or 'purchasing power') of one dollar may change from year to year.

Housing costs include mortgage principal repayments, mortgage interest payments, mortgage application fees, rent payments, other payments associated with renting (eg, bonds paid in the last 12 months), property rates payments (both regional and local government), and payments associated with building-related insurance.





## Endnotes

- 1 Meyer, S. (2002). *The influence of parental incomes on children's wellbeing*. Ministry of Social Development, p 65.
- 2 For information on the CERA Wellbeing Survey, refer to the technical notes.
- 3 For 26 per cent of respondents, additional financial burdens have 'moderately' or 'majorly' negatively impacted their everyday life.

# Housing affordability and availability

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why are housing affordability and availability important?

Access to housing is a basic human need. There is also growing recognition that good-quality, affordable housing is essential to strong communities.

Affordable housing is usually defined as housing (rented or owned) that costs no more than 30 per cent of a household's gross income.<sup>1</sup>

Affordability and availability are closely linked. Where housing supply is low and demand for houses is high, the market increases prices. People with limited income may find it more difficult to obtain affordable housing.

Changes in relative levels of affordability also affect the demand for different kinds of housing. For example, if home ownership becomes less affordable, more households will rent.

Poor-quality or overcrowded housing can affect people's mental and physical health.<sup>2</sup> In particular, housing that is cold, damp and mouldy significantly worsens the health of older people, small children and people who already have health problems.<sup>3</sup> Adequate housing is particularly important for children as poor-quality accommodation can limit their educational attainment.<sup>4</sup>

## How were housing affordability and availability impacted by the earthquakes?

As a result of the earthquakes, there were an estimated 167,500 properties in greater Christchurch with a dwelling damage claim.<sup>5</sup> Of these properties, 24,200 were seriously damaged (over the \$100,000 EQC cap) and 8,061 were classified as residential red zone. Over half the respondents (51 per cent) in the 2012 CERA Wellbeing Survey reported having to 'live day to day in a damaged home' and 22 per cent said this had a negative impact on their everyday life.

Housing New Zealand (HNZC) and Christchurch City Council (CCC) provide social housing to people with a serious housing need.

Prior to the earthquakes, HNZC had 6,127 housing units in greater Christchurch, which housed approximately 18,000 people. 95 per cent of HNZC's housing units were damaged in the earthquakes with 550 deemed uninhabitable, including 215 in the residential red zone (188 in Christchurch and 27 in Kaiapoi).<sup>6</sup>

Prior to the earthquakes, CCC had 2,649 housing units in Christchurch. 97 per cent of CCC's housing units were damaged in the earthquakes with 366 deemed uninhabitable, including 113 in the residential red zone.<sup>7</sup>

Detailed engineering evaluations have been completed on all housing units to determine whether they were structurally able to withstand any earthquakes in the future. Unoccupied units have been prioritised for evaluation and repair/rebuild as a way of increasing the supply of units available for rent.

After each of the major earthquakes, the immediate response of both organisations was to establish the wellbeing of tenants and ensure properties had access to essential services. Urgent repairs were made and, where necessary, tenants were re-housed.





International evidence indicates that the quantity of low-cost, private rental accommodation reduces after a disaster.<sup>8</sup> This is partly due to the loss of properties that are not rebuilt and the higher rents that landlords can charge for a house that has been repaired to a higher standard.

According to tenancy bonds data, in the year to January 2011 there were 9,954 bonds lodged with weekly rents below \$300 in greater Christchurch, but in the year to January 2015 this number fell to 3,378.<sup>9</sup> This suggests there has been a 66 per cent reduction in the supply of low-cost private rental stock.

In addition to private rental housing, some niche forms of housing were particularly affected. For example, at least 250 beds in boarding houses, bedsits and low-cost, one-bedroom units in the east of the inner city were lost.<sup>10</sup> These dwellings predominantly housed vulnerable single men with social and mental health issues.

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## What is happening now?

### Housing and wellbeing

There is evidence that earthquake-related housing and insurance issues can act as 'secondary stressors' that have a direct impact on individual and community resilience. Secondary stressors are circumstances, events or policies that are indirectly related to the primary stressor (the earthquakes).<sup>11</sup> Secondary stressors typically persist longer and can delay people's recovery. International experience shows that delays in insurance and housing recovery are secondary stressors, as is living in temporary accommodation.<sup>12</sup>

In the April 2015 CERA Wellbeing Survey, 13 per cent of respondents reported that dealing with insurance issues had a negative impact on their everyday life, an improvement from 37 per cent in September 2012. A third of respondents continued to report that they were satisfied with the communication and information received from the Earthquake Commission (EQC) (33 per cent compared with 27 per cent in 2012) and private insurers (37 per cent compared with 31 per cent in 2012). Twelve per cent said 'decisions about house damage, repairs and relocation' were still having a strong negative impact on their everyday lives, compared with 29 per cent in 2012.

Housing and insurance-related issues continue to have significant impacts on the wellbeing of those with on-going repair and rebuild issues, but there has been progress in resolving earthquake-related dwelling claims. By the end of the first quarter of 2015, 134,910 of the approximately 143,500 property claims under the EQC cap had been settled, and 14,590 of the 24,200 over-cap claims lodged with private insurers. This is a total of 149,500 properties, representing 89 per cent of the approximately 167,500 properties with earthquake dwelling claims in greater Christchurch.

'Let's Find & Fix' was a community-led initiative launched in April 2014, which aimed to identify earthquake-damaged homes that need temporary repairs to keep them safe, secure and weather-tight. This campaign, initiated by Canterbury Communities' Earthquake Recovery Network (CanCERN), was supported by CERA, Red Cross, Community Energy Action, EQC and Insurance Council of New Zealand members. At the conclusion of the initiative in January 2015, 400 homes had received temporary repairs.

### Housing affordability and availability

Since the earthquakes, three significant market pressures have impacted on housing affordability and availability, particularly in the rental market.

- Permanent relocation of households from the residential red zone and other homes that cannot be repaired or rebuilt.
- Displaced households requiring temporary accommodation while their homes are repaired or rebuilt.
- The arrival of the labour force that is assisting with the rebuild.



CERA and the Ministry of Business, Innovation and Employment (MBIE) are jointly delivering the Housing Recovery Programme. This programme considers the market's response to the housing issues arising from the recovery and coordinates central and local government housing activities. Activity is well under way to support the current and future needs for affordable and available housing. This work includes:

- enabling and supporting the provision of short- and medium-term solutions to meet the need for temporary accommodation for displaced residents
- supporting the delivery of social and affordable housing and its impact on vulnerable populations
- changing or developing regulations to encourage an increase in the supply of housing.

### **Short- and medium-term solutions for temporary accommodation**

After the February 2011 earthquake, the exact number of people needing urgent accommodation was unknown. MBIE commissioned 350 campervans to provide temporary shelter for displaced residents and HNZC established an 0800 service to match displaced residents with unused private homes or holiday homes. However, uptake of these services was relatively low as people opted to stay with friends and family. By August 2011 the Government established its first temporary village for displaced residents in Kaiapoi, followed by Linwood Park, Rawhiti Domain and Rangers Park. These villages are for home owners and renters whose homes are uninhabitable and who need accommodation while their home is repaired or rebuilt. Between July 2011 and May 2015, 872 households had stayed in the 124 housing units in these villages. The median stay was 42 nights for repairs and 234 nights for rebuilds.

The Government also recognised that for some homeowners, insurance cover could expire before they would be able to return to a rebuilt or repaired home. In response, Temporary Accommodation Assistance was introduced to assist with rent, board or motel stays so that displaced home owners did not need to cover two sets of accommodation costs. In total, 2,929 households have received this financial support since 2011 at a total cost of over \$50 million. As at 4 May 2015, 645 households were receiving it, a total of \$176,773 weekly.

The Earthquake Support Coordination Service was established to support displaced individuals and families directly affected by the earthquakes. This service provides information and connects people with the services they may need. By 4 May 2015, 9,761 individuals and families had used this service.

All of the services listed above are provided through the Canterbury Earthquake Temporary Accommodation Service, which is operated jointly by MBIE and the Ministry of Social Development. In 2014 the Government announced funding that will see the continuation of the support services offered and in Budget 2015 the Government announced that it will extend the financial support offered through the Temporary Accommodation Allowance until December 2017.

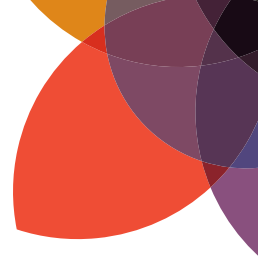
### **Social and affordable housing**

The earthquakes had a significant impact on social and affordable housing demand and supply. Supply of low-cost housing fell after the earthquakes, particularly within the rental market and social housing sector, while demand for low-cost accommodation increased. MBIE's March 2013 Housing Pressures Report documented these changes and the subsequent increasing trend in overcrowding, homelessness and demand for NGO services.<sup>13</sup>

By December 2012, HNZC had repaired and tenanted 212 vacant earthquake-damaged homes. In April 2013, it reached a \$320 million settlement with insurers over 5,559 homes damaged in the Canterbury earthquakes, which has enabled it to develop its repair and rebuild programme.

HNZC announced that by the end of December 2015, up to 5,000 of its earthquake-damaged properties would be repaired. In addition, up to 700 new houses would be built to replace housing lost due to the earthquakes, including red-zoned housing.

By May 2015, 4,080 houses had been repaired and 191 new warm dry homes had been built across the city. A further 509 high-quality new homes in established communities were being built or were contracted to be built by 17 build partners, designed to meet the current and future needs of tenants.<sup>14</sup>



The Government's Social Housing Fund is providing \$21 million over three years (2013–2015) to support non-government provision of new social and affordable housing in Canterbury, matched by \$10 million from the Canterbury Community Trust. Funding was announced in October 2013 for three housing projects which will deliver a total of 51 homes at an investment of \$13 million. Further funding was announced in March 2014 for five community housing providers to receive \$14 million to build a further 75 units in Christchurch.

New social housing reforms have been passed by the Government. The way services are delivered has changed, with multiple agencies now taking responsibility for social housing provision. These changes came into effect on 14 April 2014.<sup>15</sup>

In 2014 the Government also announced a Housing Accord with the CCC to boost the supply of temporary and affordable housing, improve supply and quality of social housing, and remove regulatory barriers to the development of more residential housing.

By June 2018, CCC aims to have at least 2,366 open units.

### **Regulations to encourage an increase in the housing supply**

Land has been freed up to enable rapid rebuilding, with thousands of sections rezoned since the earthquakes. The number of building consents for new dwellings is rising at a higher rate than the New Zealand average.<sup>16</sup> Between September 2010 and March 2015 consents have been issued for more than \$2.7 billion of earthquake-related building in Canterbury, including consents for 3,188 new dwellings.<sup>17</sup>

Regulatory changes have been made to District Plans to streamline the design and consenting process so that a range of temporary accommodation can be developed for the migrant workforce.

In November 2012 the Minister for Canterbury Earthquake Recovery directed Environment Canterbury to prepare a Land Use Recovery Plan (LURP) for greater Christchurch with support from Christchurch City Council, Selwyn and Waimakariri District Councils, Te Rūnanga o Ngāi Tahu, New Zealand Transport Agency and CERA.

The LURP responds to the impacts of the earthquakes on residential and business land use, and provides a framework for rebuilding and future development. It puts land use policies and rules in place to assist in the rebuilding and recovery of communities (including housing and businesses) that have been disrupted by the earthquakes. The LURP took effect on 6 December 2013.<sup>18</sup>

By December 2014 most of the actions in the LURP had been completed or were under way. These included changes to the Canterbury Regional Policy Statement, Waimakariri and Selwyn District Plans to facilitate recovery. A number of statutory actions also provide direction to the Christchurch Replacement District Plan process currently under way.

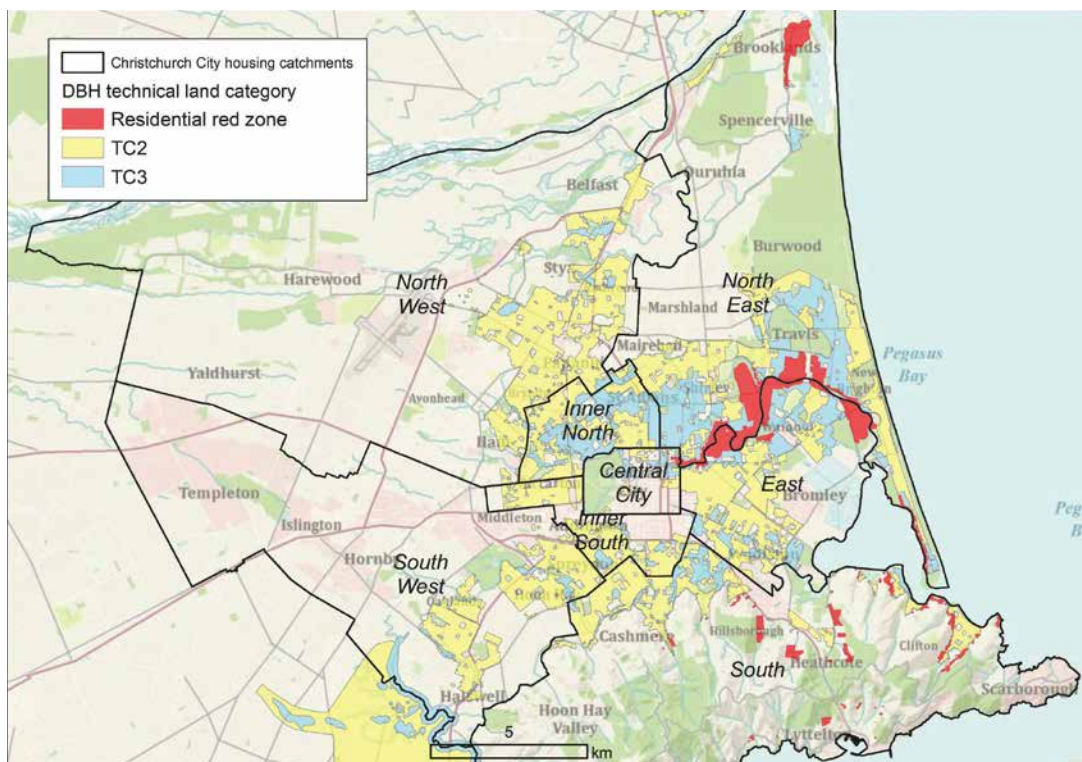
The LURP identified greenfield land adjacent to existing urban areas for potentially 40,000 residential sections. To date around 28,500 residential sections have been zoned, through plan changes, from rural land to residential. Of these around 13,000 sections are subject to or have received subdivision consent. The greatest areas of new housing have been in Selwyn and Waimakariri districts. Housing affordability and intensification within urban areas remains an issue despite the LURP enabling provision for broader housing choices. However, social housing supply has been supported by the HNZC being able to use rules introduced by the LURP to replace and build new housing stock. As at February 2015 the new rules had provided for the consenting of 164 HNZC houses.<sup>19</sup>



## What are the indicators telling us?

The following indicators for housing are, where possible, broken down into the eight geographic areas of Christchurch city shown in map 1 below, as well as Selwyn and Waimakariri districts, which together form the greater Christchurch area. Please refer to Map 1 when reading this section.

Map 1: Geographic areas of Christchurch city



### Houses and sections

Trends in affordability and availability within the house and section market are being measured using the following indicators.

- Mean sale price for houses as an indicator of affordability, which can also reflect changes in availability.
- Number of houses and number of sections sold each month in greater Christchurch as indicators of changes in demand and supply.

Figure 1 shows that monthly mean house sale prices remained largely stable before and immediately after the earthquakes for most of greater Christchurch. However, pressures have subsequently pushed up prices throughout greater Christchurch.

Taking a longer view, Table 1 shows that some areas within greater Christchurch have had significant increases in mean house sale prices. Between August 2010 and August 2014, prices have risen most notably in the North West, Inner North and Inner South of the city. There have been slower increases across the East, North East and South. Selwyn and Waimakariri districts have experienced consistent price increases.

Looking at the change in house sale prices between August 2010 and August 2014, mean prices rose 55 per cent in the North West, 52 per cent in the Inner North and 41 per cent in the Inner South. Overall, the mean house price increased by 32 per cent across Christchurch city, 28 per cent in Selwyn district and 30 per cent in Waimakariri district.



Figure 1: Mean house sale price for area and New Zealand

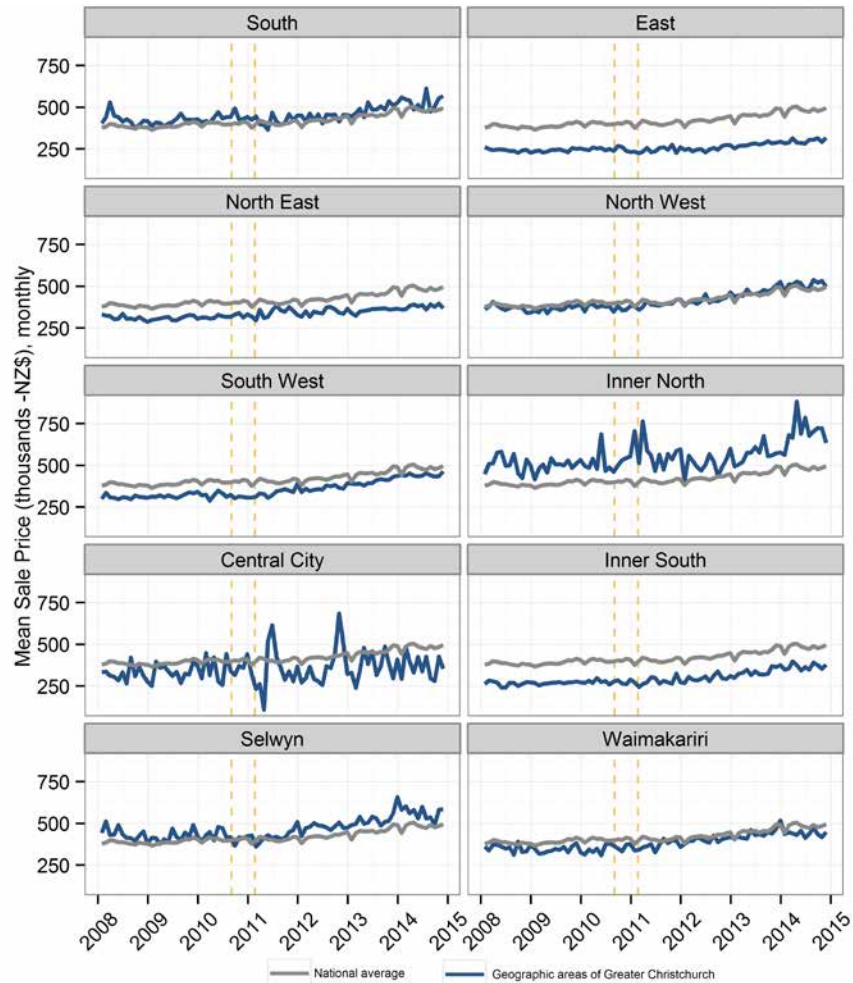


Table 1: Change in mean house prices from August 2010 to August 2014

Area	August 2010	August 2014	% change
South	\$441,000	\$474,000	7
East	\$238,000	\$306,000	29
North East	\$317,000	\$392,000	24
North West	\$348,000	\$539,000	55
South West	\$323,000	\$442,000	37
Inner North	\$461,000	\$703,000	52
Central City*	\$341,000	\$297,000	-13*
Inner South	\$277,000	\$391,000	41
Christchurch city (total)	\$351,000	\$462,000	32
Selwyn district	\$418,000	\$536,000	28
Waimakariri district	\$366,000	\$474,000	30
National	\$398,000	\$491,000	23

\* Low sample size means this area is measured with significant measurement error.



**Comparing the pre-earthquake period with 2014, mean house prices in greater Christchurch increased by 34 per cent compared with a 25 per cent increase across New Zealand.**

Looking at a longer pre-earthquake average of the year to November 2009 compared with the year to November 2014, mean house prices in greater Christchurch increased by 34 per cent compared with a 25 per cent increase across New Zealand.

Figure 2 shows the number of monthly house sales in Waimakariri district increased considerably after the February 2011 earthquake, peaking at 471 sales in September 2011. House sales also grew in Selwyn district, reaching a peak of 261 in March 2014.

House sale figures aggregated annually for the years to August show a similar pattern.

Sales in Waimakariri increased significantly from 2,835 in 2010 to 4,653 in 2012. Sales slowed in 2013 and dropped back to 3,099 in 2014.

Sales in Selwyn also increased significantly from 1,656 in 2010 to 2,325 in 2012. Sales continued to grow in 2013 to 2,379 before decreasing to 2,256 in 2014.

In comparison, sales in Christchurch declined from 22,119 in 2010 to 13,851 in 2011 (down 37 per cent). Sales picked up in 2012 (to 20,787) and 2013 (to 22,695) before falling in 2014 (to 21,954).

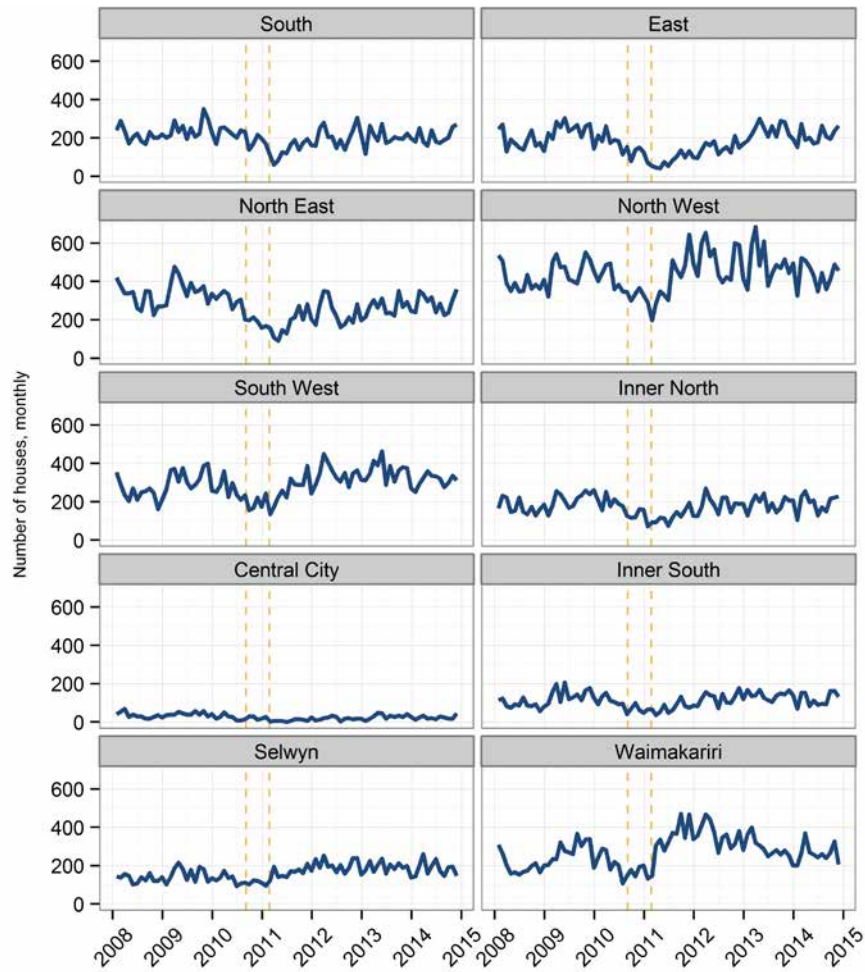
Across the geographic areas within greater Christchurch, a pattern emerges of a market that had declining sales in the pre-earthquake period followed by a growth in sales in 2012. This pattern was particularly noticeable in the North West and South West of the city and Waimakariri district. The South, East and North East have recorded gradual increases over the years since 2011, but remain below the pre-earthquake levels. However, the rate of increase appears to have levelled off in a number of areas since 2012. (Figure 2)

When viewed together, Figures 1 and 2 indicate that while house sales increased in 2011, there was sufficient supply in most areas. However, high demand in North West, Inner North and Inner South of Christchurch increased mean prices markedly in those areas between 2010 and 2014. Despite a more subdued market in the South and a decrease in the Central City (partly due to low sales), overall mean house prices in greater Christchurch have increased at a faster rate than those across New Zealand.<sup>20</sup>





Figure 2: Number of houses sold



Monthly section sales in greater Christchurch increased considerably following the major earthquakes. In more recent years, numbers have continued to fluctuate above pre-earthquake levels but the rate of growth has now slowed significantly.



Figure 3 shows a spike in monthly section sales in the winter months of 2011 across greater Christchurch. This timing coincides with the Government's first set of land zone announcements on 23 June 2011 and indicates that newly classified red zone residents may have driven this spike in section sales.

At an annual level (for the year to March), section sales appear to have eased after a period of rapid growth.

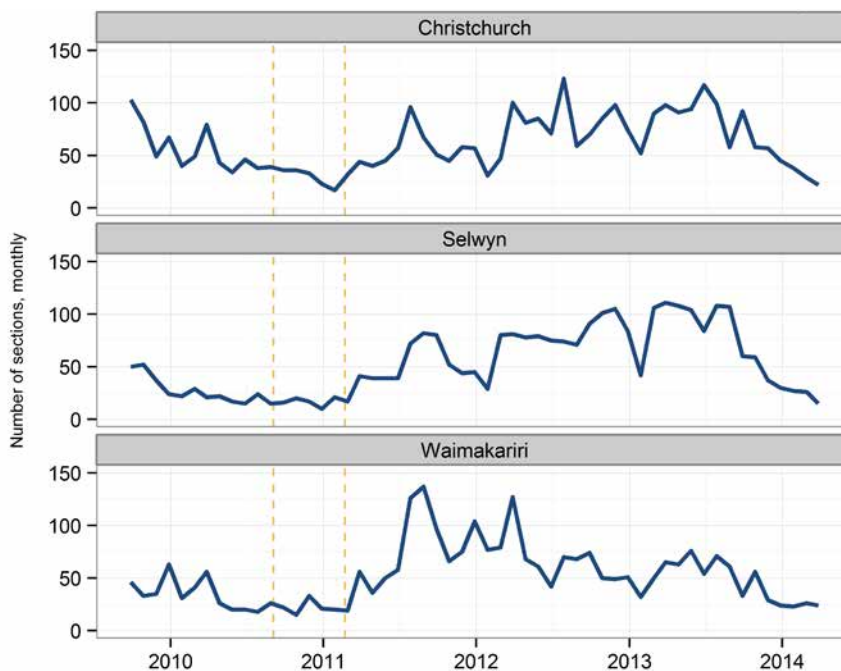
Between 2011 and 2012 the number of sections sold in Selwyn increased by 190 per cent (from 235 sections to 682). Sales rose another 49 per cent to 1,017 sections in 2013 before dropping to 765 in 2014.

Between 2011 and 2012 the number of sections sold in Waimakariri increased by 249 per cent (from 296 sections to 1,032). Sales decreased in 2013 and dropped to 540 in 2014.

Between 2011 and 2012 the number of sections sold in Christchurch city increased by 65 per cent (from 421 to 694). Sales rose another 42 per cent to 986 sections in 2013 before dropping to 800 in 2014.

A large number of section sales are important for the recovery, in part because this indicates that residents are choosing to remain in greater Christchurch. Additionally, building new homes on these sections will stimulate the local economy and will grow the supply of houses, which is positive for future affordability and availability of housing. In spite of the decreasing trend in numbers of sections being sold, strong residential building consent numbers in greater Christchurch indicates good rebuild activity taking place on existing land as well as new sections.

Figure 3: Number of sections sold





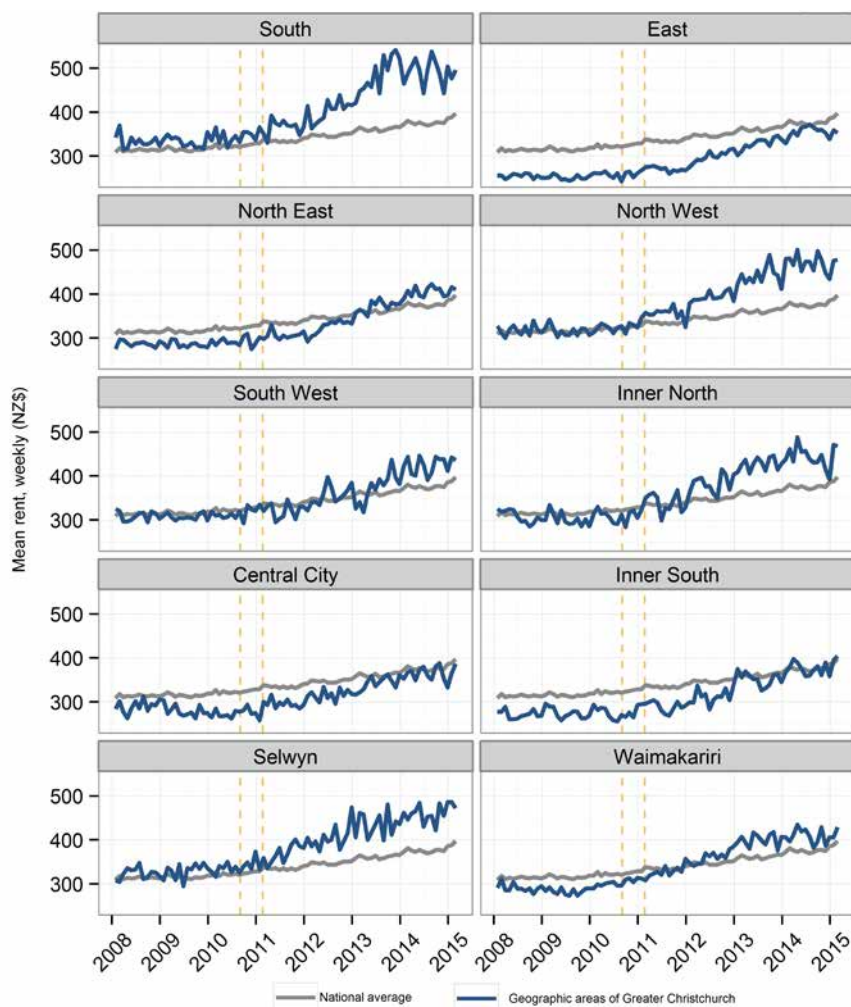
### Rental market

The affordability and availability of rental housing are measured using the following indicators.

- Mean (average) weekly rent for new tenancies each month as an indicator of changes in affordability.
- The total number of bonds lodged for rental properties in Christchurch that cost under \$300 per week as an indicator of affordability and the availability of low-cost rental properties.
- The number of new rentals listed with Trade Me in Christchurch city each week as an indicator of availability.

Figure 4 shows that mean weekly rent for new tenancies has increased substantially following the earthquakes throughout greater Christchurch.

Figure 4: Mean weekly rent





**Comparing the pre-earthquake period with 2015, mean weekly rent in greater Christchurch increased by 44 per cent compared with a 20 per cent increase across New Zealand.**

**As at January 2015, mean private weekly rents across the wider Canterbury region were continuing to increase and remain higher than the national average, although the rate of increase is slowing.**

Table 2 shows the change in mean weekly rent between August 2010 and August 2014 in Christchurch city increased 44 per cent, which equates to an extra \$128 per week on average.

Table 2 also shows that the biggest percentage increases have occurred in the South (62 per cent), the East (50 per cent) and the North East of Christchurch (49 per cent). The East, which suffered considerable damage due to the earthquakes, still has proportionately lower mean rents at \$365 per week, despite a mean increase of \$122 per week. However, the lowest mean rent is now paid in Central City at \$351 per week (up 26 per cent). Figure 4 demonstrates that the East and Central City are the only areas with weekly mean rent below the national mean of \$372 per week.

Comparing the pre-earthquake period of the two years to February 2010 with the year to February 2015, mean weekly rent in greater Christchurch increased by 44 per cent compared with a 20 per cent increase across New Zealand.

As at January 2015, mean private weekly rents across the wider Canterbury region were continuing to increase and remain higher than the national average, although the rate of increase is slowing.<sup>21</sup>

Mean weekly rent has increased across homes of all sizes, but especially for those with more bedrooms. Anecdotally, demand for houses with more bedrooms is being driven by employers seeking accommodation for incoming workers and families being displaced due to the residential rebuild.

*Table 2: Change in mean weekly rent from August 2010 to August 2014*

Area	August 2010	August 2014	% change
South	\$332	\$538	62
East	\$243	\$365	50
North East	\$284	\$423	49
North West	\$327	\$454	39
South West	\$320	\$407	27
Inner North	\$312	\$431	38
Central City	\$278	\$351	26
Inner South	\$270	\$373	38
Christchurch city (total)	\$292	\$420	44
Selwyn district	\$326	\$455	40
Waimakariri district	\$296	\$382	29
National	\$321	\$372	16

Looking at a longer pre-earthquake average of the two years to February 2010 compared with the year to February 2015, mean weekly rent in greater Christchurch increased by 44 per cent compared with a 20 per cent increase across New Zealand.

In that same period, low income households have been particularly affected by a 69 per cent reduction in available low-cost rental accommodation (costing less than \$300 a week to rent).



**Low income households have been particularly affected by a 69 per cent reduction in available low-cost rental accommodation (costing less than \$300 a week to rent) between the pre-earthquake period of the two years to February 2010 and the year to February 2015.**

Figure 5 shows that the proportion of bonds for low-cost rentals (less than \$300 per week) lodged per month within greater Christchurch remained relatively steady in the three years before the September 2010 earthquake (averaging 51-52 per cent of all bonds lodged). However, it demonstrates that after the earthquakes there has been a significant decrease in the proportion of low-cost rentals to a low of 16 per cent in January 2015.

The drop in the proportion of low-cost properties available for rent is likely due to poorer-quality housing being damaged in the earthquakes and landlords increasingly charging higher prices following earthquake repairs and as demand for rentals grows. However, costs are also impacted by increased demand for rental properties and growing property costs including for insurance and rates.

Figure 5: Percentage of rental bonds lodged monthly with weekly rent below \$300





Figure 6 shows the percentage of rental bonds lodged by weekly rental price band.

In January 2010, 84 per cent of rentals in greater Christchurch cost less than \$400 per week. (50 per cent cost less than \$300 per week and 34 per cent cost between \$300-399.)

By 2012 73 per cent of rentals in greater Christchurch cost less than \$400 per week and by January 2015 this had dropped to just 41 per cent of the market (16 per cent costing less than \$300 and 25 per cent costing between \$300-399).

During 2014, the proportion of rental bonds over \$400 per week exceeded those under \$300 for the first time, a trend which has continued. This makes it very difficult for those on low or fixed incomes to find affordable accommodation.

Figure 6: Percentage of rental bonds lodged monthly by weekly rent level

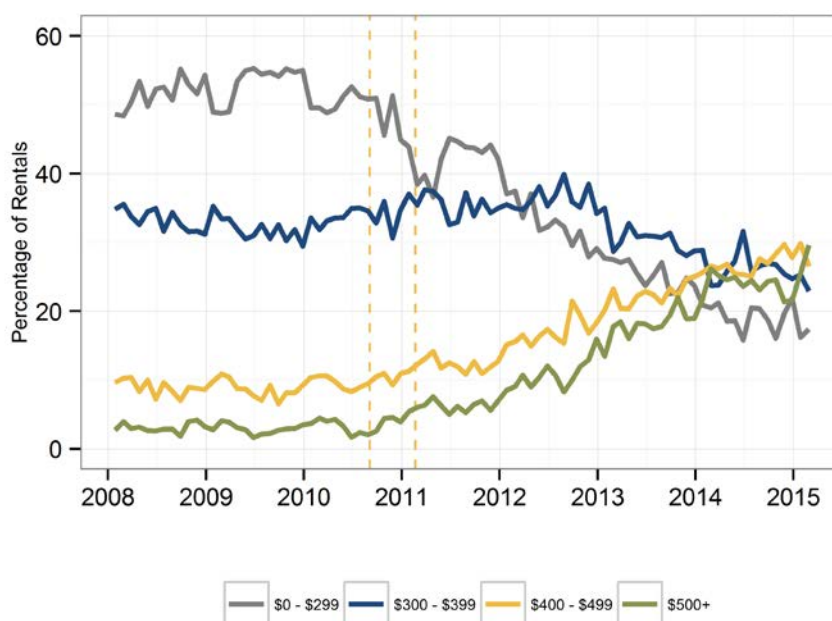
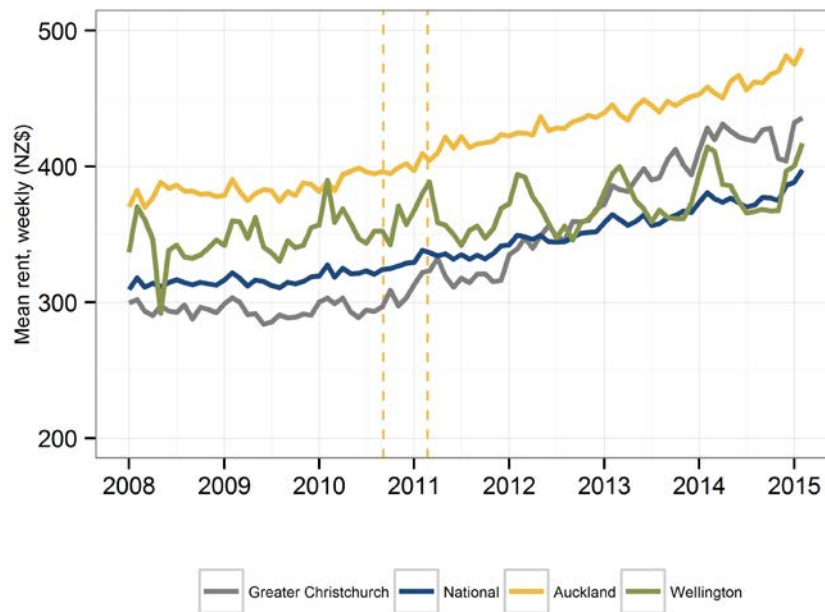




Figure 7 shows that before the earthquakes greater Christchurch had mean weekly rent levels below the national rate and the other main centres. However, since mid-2012 mean rent in greater Christchurch has tracked above the national rate and is now higher than Wellington and is second to Auckland.

Figure 7: Mean weekly rent for Auckland, Wellington, greater Christchurch and National



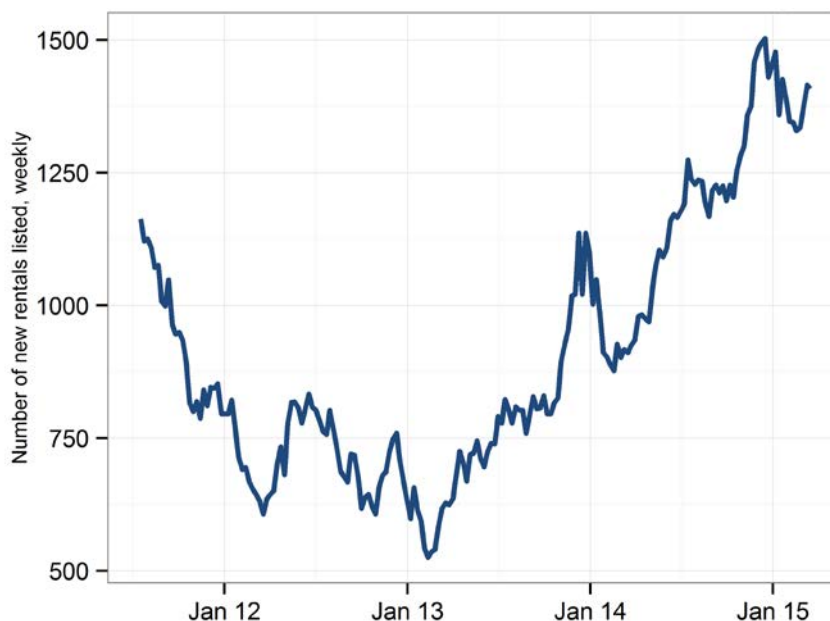
**As at December 2014, average Christchurch city rent has increased from pre-earthquake levels by 38 per cent compared with an increase of 21 per cent for Auckland over the same period.**

As at December 2014, average Christchurch city rent has increased from pre-earthquake levels by 38 per cent compared with an increase of 21 per cent for Auckland over the same period.<sup>22</sup>



Figure 8 shows the number of rental listings on Trade Me for Christchurch fell between August 2011 and February 2013. In August 2011 there was a weekly average of 1,078 properties listed but this fell to 536 by February 2013. Listings have subsequently shown a pattern of increase, recovering to a weekly average of 1,398 in March 2015, which likely reflects the gradual inclusion of earthquake-repaired housing in the rental market.

Figure 8: Number of rental listings on Trade Me



### Social housing

Social housing impacts are measured in two ways in this report.

- Habitability rates for CCC and HNZC social housing units.
- Social housing waiting lists.

Following the earthquakes, a large number of social housing units were damaged and became 'uninhabitable', reducing the supply. Since April 2011, detailed engineering evaluations have found structural problems in additional units and some have become uninhabitable.





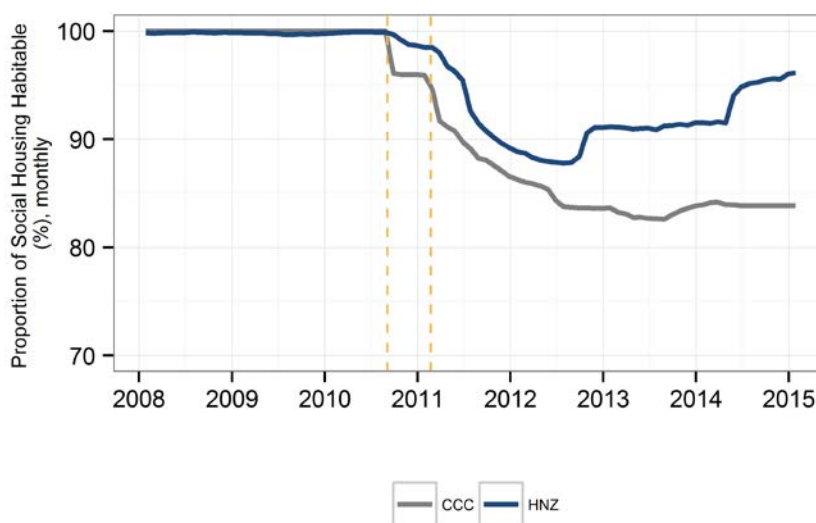
Figure 9 shows that the percentage of habitable CCC and HNZC housing units decreased after the September 2010 earthquake and continued to decrease as detailed engineering evaluations progressed.

The proportion of habitable CCC housing units reached a low of 83 per cent in August 2013 before levelling off at 84 per cent in February 2014, where it has remained since.

The proportion of habitable HNZC housing units followed a similar pattern and reached a low of 88 per cent habitability in July 2012. By October 2012 over 90 per cent of HNZC units were repaired and became habitable and at May 2015 98 per cent were habitable.

The significant improvement in HNZC habitability occurred due to its planned programme to repair up to 5,000 houses by December 2015. So far over 4,000 houses have been repaired.

Figure 9: Proportion of habitable HNZC and CCC housing units





From April 2014 the Ministry of Social Development has been responsible for managing applications for social housing. Categories A and B are applicants with the most urgent housing needs.<sup>23</sup>

Figure 10 shows that while the HNZC waiting list decreased over the first half of 2012, assisted by the repair of a number of units, it generally grew from mid-2012 to a peak of 572 in June 2014, before dropping back slightly by December 2014.

The CCC's waiting list increased over 2012 and early 2013 but eased back from late 2013 to December 2014.

Figure 10: CCC and HNZC/MSD (categories A and B only) waiting lists<sup>24</sup>





### Temporary accommodation assistance

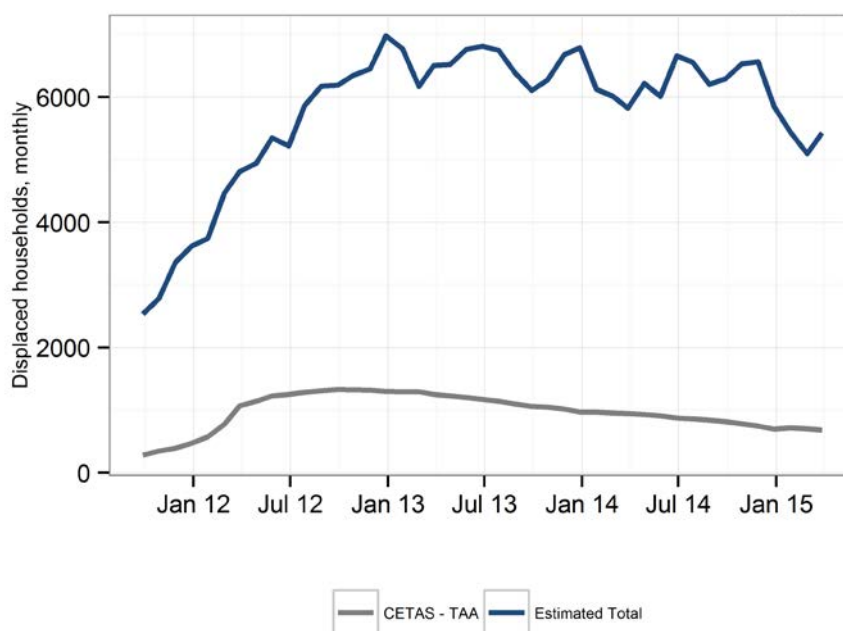
Most insurance policies cover Temporary Accommodation Claims (TAC) for a fixed period of time (typically a year). After this, home owners who are still unable to return home can apply for Temporary Accommodation Assistance (TAA) from the Canterbury Earthquake Temporary Accommodation Service (CETAS).

Figure 11 shows the number of households who are displaced from their usual residence due to the repair or rebuild of their earthquake-damaged home. The data is based on the number of completed repairs by EQC, over-cap settlements by private insurance companies and estimates of how many households have been displaced long-term due to their house becoming uninhabitable after the earthquakes. It includes households who receive TAC paid by insurers or TAA from the Government and estimates those that do not have any assistance.

Figure 11 shows that displaced residents peaked in December 2012, when 6,800 households received payments for temporary accommodation (approximately 18,000 people). Latest estimates indicate a decreasing trend as EQC are scheduled to finish their repairs by mid-2015. Due to the complexity of some settlements, a relatively small number of households are expected to continue to require temporary accommodation into 2018.

The number of households receiving TAA increased every month during the first year that the programme was established, peaking in September 2012 with 1,334 households registered for assistance. This demand subsequently decreased to 684 households in March 2015.

Figure 11: Estimated number of households who are displaced due to residential repair or rebuild





### Housing costs relative to income

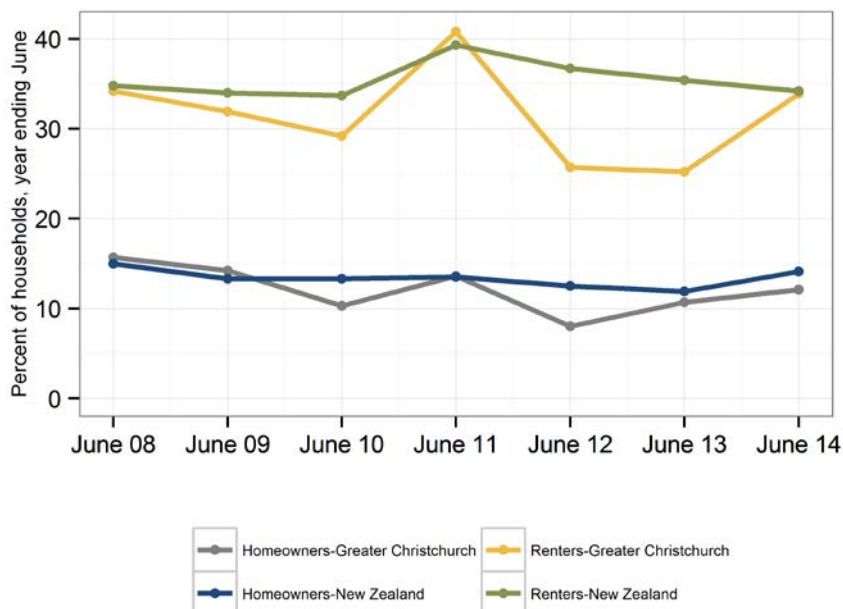
Housing affordability is usually defined as housing that is of reasonable quality and does not cost so much that households cannot afford other basic needs (ie, no more than 30 per cent of household gross income).

Figure 12 indicates that the proportion of those in greater Christchurch spending more than 30 per cent of their household income on housing decreased from 34 per cent of renters in the year ending June 2008 to 25 per cent in 2013 (after a peak of more than 40 per cent in 2011). However, in 2014 it increased back to 34 per cent (the same as the national rate).

Over the same time, the percentage of home owners who spend more than 30 per cent of their household income on housing decreased from 16 per cent in 2008 to 11 per cent in the year ending June 2013. This proportion increased slightly to 12 per cent by June 2014 but remained slightly below the national rate of 14 per cent.

These findings relate to a small sample and should be treated with caution.

Figure 12: Percentage of households who spend more than 30 per cent of their household income on housing





## Summary

House sales had been decreasing in greater Christchurch in the two years prior to the earthquakes, in line with a general market downturn nationally. Following the February 2011 earthquake, there was strong growth in both sales and prices for parts of greater Christchurch. This trend has continued and is likely to do so for some time, in line with population growth and the housing of rebuild workers. Building consents in greater Christchurch continue to rise, up 31.8 per cent between 2013 and 2014. Mean house prices in greater Christchurch also continued to rise, but the rate of increase has slowed.

Rents in greater Christchurch have also risen significantly, impacted by both high numbers of workers coming into the city and residents seeking temporary accommodation while repairs are completed. Mean weekly rent in greater Christchurch is currently above the national level and second only to Auckland.

The city's social housing capacity has improved slightly in recent years, particularly due to HNZA's progress with repairs and rebuilds. However, the proportion of low-cost private rental housing available has decreased significantly post-earthquakes.

It is expected that supply and demand for housing in Christchurch is likely to be matched in about 2017. However it is likely that supply of low-cost rental housing for particular sub-populations such as young people and those previously dependent on boarding houses will not be replaced. While both prices and rents may continue to fluctuate in the short-term, over the medium-term both are likely to fall. <sup>25</sup>



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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the Land Use Recovery Plan: [www.developingchoices.org.nz](http://www.developingchoices.org.nz) and <http://cera.govt.nz/recovery-strategy/built-environment/land-use-recovery-plan>

Find out more about changes to social housing provision: [www.msd.govt.nz](http://www.msd.govt.nz) and [www.hnzc.co.nz](http://www.hnzc.co.nz)

Find out more about a new client-focused social housing website: [www.housing.msd.govt.nz](http://www.housing.msd.govt.nz),

Find out more about the key housing indicators for Canterbury from the Ministry of Business, Innovation and Employment (Building and Housing Group): [www.building.govt.nz/key-indicator-reports-archive](http://www.building.govt.nz/key-indicator-reports-archive)

Find out more about the Canterbury Earthquake Temporary Accommodation Service, including temporary villages and Temporary Accommodation Assistance: [www.quakeaccommodation.govt.nz](http://www.quakeaccommodation.govt.nz)

Find out more about Housing New Zealand's Earthquake Recovery Programme: [www.hnzc.co.nz/cehp](http://www.hnzc.co.nz/cehp)

Find out more about the Earthquake Commission: [www.eqc.govt.nz](http://www.eqc.govt.nz)

Find out more about the Insurance Council of New Zealand: [www.icnz.org.nz](http://www.icnz.org.nz)

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## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### House and section sales

**Data source:** Quotable Value (QV) Residential Property Monthly Price Movement Dataset

**Data frequency:** Monthly

**Data complete until:** November 2014(house sales) and March 2014(section sales)

**Notes:** Houses include all properties with a land use description defined by QV as 'bach', 'multi-unit', 'multi-use within lifestyle', 'multi-use within residential', 'residential', 'single unit – lifestyle', 'single unit excluding bach'

The method of extraction for those properties classified as "residential" has been revised from previous versions of the Canterbury Wellbeing Index. General trends remain similar, but the new filter method is considered a better reflection of residential sales.

Data for section sales is not available post March 2014.



Median house sale prices and weekly rents are not monitored as sale prices and rent values tend to cluster at specific dollar amounts. This is a problem because, unlike an average, a median has to be an actual number taken from the data. This means that median values can have larger variation over time, instead of moving smoothly. For example, there can be long periods when there is no or little change, followed by sharp jumps up or down.

#### Rental market

**Data source:** Tenancy Bonds database, MBIE

**Data frequency:** Monthly

**Data complete until:** February 2015

**Notes:** Seasonality may exist in the rental and housing market. Rentals may be especially affected by the university term. Data are for new tenancy bonds registered per month.

**Data source:** Trade Me data, CETAS

**Data frequency:** Weekly

**Data complete until:** 16 March 2015

**Notes:** Seasonality may exist in the rental and housing market. Rentals may be especially affected by the university terms.

Includes all listings not listed as 'section'.

Trade Me data refer to all rental listings within Christchurch city, which makes up approximately 90 per cent of greater Christchurch's rental market.

#### Social housing capacity and waiting lists

**Data source:** Christchurch City Council and Housing New Zealand

**Data frequency:** Monthly (MSD waitlist data – quarterly)

**Data complete until:** January 2015 (HNZC and CCC – habitable housing) and December 2014 (HNZC/MSD and CCC – waitlist)

**Notes:** Occupancy rates are calculated by dividing total habitable units by total occupied/let units.

Housing New Zealand habitability rate = (number of let properties at month end + number of vacant properties at month end) / Total properties.

Social housing criteria: <http://housing.msd.govt.nz/housing-options/social-housing/index.html>

Housing New Zealand data are for waitlist categories A and B only.

CCC habitability rate = (Total Vacancies at month end + Total Occupied at month end) / Total housing units. Waiting list eligibility criteria: <http://resources.ccc.govt.nz/files/CityHousingApplicationForm-docs.pdf>

On 14 April 2014, the social housing assessment and waitlist was transferred from HNZC to MSD. MSD publish the social housing waitlist each quarter.

#### Temporary accommodation

**Data source:** Canterbury Earthquake Temporary Accommodation Service (CETAS) administrative records and CERA's Quarterly Insurer and PMO Survey

**Data frequency:** Quarterly (CERA Insurer Survey), Monthly (CETAS) both are displayed monthly.

**Data complete until:** March 2015

**Notes:** CETAS data shown represent current claims/assistance on one day each month and therefore should not be interpreted as an exact representation of the current claim levels over the entire month. Figures displayed are those current, not the total who have applied. CETAS Temporary



Accommodation Assistance started on 21 February 2011, was stopped on 22 February 2011 due to the earthquake, and became operational again in April 2011

Data from the CERA Insurer Survey collates data from nine of the largest insurers operating within greater Christchurch.

Data relate to households with current accommodation assistance/claims rather than individuals.

### **Housing costs relative to income**

**Data source:** Household Economic Survey (HES) and Household Economic Survey (Income), Statistics NZ

**Data frequency:** Years ending June 2008–2014

**Data complete until:** June 2014

**Notes:** The HES is conducted every three years, and collects information on household expenditure and income, as well as a wide range of demographic information. A shorter version of the survey, HES (Income), is collected in the two years between the full HES.

Differences between HES and HES (Income) mean that caution should be used when comparing results over time.

Greater Christchurch is the aggregation of Christchurch City, Waimakariri District and Selwyn District Councils and is below survey design level. Data are indicative only and should be interpreted cautiously.

Households that are 'Not owned' cover dwellings where the household does not own the dwelling, and either pays rent or lives there rent-free. 'Owned' households cover dwellings that are held (or not held) in a family trust, regardless of whether mortgage payments are made or not made for the dwelling.

Household income is from total regular and recurring income sources, and is gross (before tax) income.

Housing costs include mortgage principal repayments, mortgage interest payments, mortgage application fees, rent payments, other payments associated with renting (eg, bonds paid in the last 12 months), property rates payments (both regional and local government), and payments associated with building-related insurance.

The percentage spent on housing is calculated by dividing household income by housing costs.

Note that households with higher income can afford to pay more than 30 per cent of their income on housing costs and may choose to do so without reducing their ability to afford other basic needs.





## Endnotes

- 1 Ministry of Social Development. (2012). *Social report*. Retrieved from <http://socialreport.msd.govt.nz/economic-standard-living/housing-affordability.html>  
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- 2 Affordable Housing National Research Consortium. (2001). *Affordable housing in Australia: pressing need, effective solution*. Canberra: AHNRC.
- 3 Howden-Chapman, P. (2008). Effects of improved home heating on asthma in community dwelling children: randomised controlled trial. *British Medical Journal* 337:a1411.  
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- 4 Mitchell, I. and O'Malley, S. (2004). How affordable is housing in New Zealand and what strategies are available to reduce housing stress? Paper presented to Social Policy, Research and Evaluation Conference, 25–26 November.
- 5 CERA quarterly insurance survey for quarter ending 31 March 2015
- 6 Housing New Zealand Corporation earthquake recovery programme  
<http://www.hnzc.co.nz/canterbury-earthquake-recovery-programme/>
- 7 In addition to HNZC and CCC, it is estimated that there are an additional 704 beds provided by non-governmental organisations in Christchurch. Ministry of Business, Innovation and Employment. (2013). *Housing pressures in Christchurch: a summary of the evidence*. Ministry of Business, Innovation and Employment.
- 8 Zhang, Y. and Peacock, W.G. (2010). Planning for housing recovery? *Journal of the American Planning Association* 76(1): 5–24.  
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- 9 MBIE, unpublished data.
- 10 Te Whare Roimata analysis of red stickered housing, inner city east zone (May 2011 and March 2012), cited in Canterbury Anglican Diocese Social and Environmental Issues Unit. (2012). *Inner city east recovery: Low income/social housing*.
- 11 UK Department of Health. (2009). *NHS emergency planning guidance: planning for the psychosocial and mental health care of people affected by major incidents and disasters: Interim national strategic guidance*. London: Department of Health.
- 12 Lock, S., Rubin, G.L., Murray, V., et al. (2012). Secondary stressors and extreme events and disasters: a systematic review of primary research from 2010–2011. *PLoS Current*. doi: 10.1371/currents.dis.a9b76fed1b2dd5c5bfcfc13c87a2f24f
- 13 Ministry of Business, Innovation and Employment. (2013). *Housing pressures in Christchurch: a summary of the evidence*. Ministry of Business, Innovation and Employment. Retrieved from [www.dbh.govt.nz/UserFiles/File/Publications/Sector/pdf/christchurch-housing-report.pdf](http://www.dbh.govt.nz/UserFiles/File/Publications/Sector/pdf/christchurch-housing-report.pdf)
- 14 Housing New Zealand Corporation. (2014). *Briefing to the Incoming Minister*. Retrieved from <http://www.hnzc.co.nz/our-publications/briefing-to-the-incoming-minister>
- 15 For more information, see [www.mbie.govt.nz](http://www.mbie.govt.nz)



- 16 Statistics New Zealand. Infoshare. Since 2008–10, the number of new residential building consents has risen 160 per cent in Waimakariri district, 12 per cent in Christchurch city and 79 per cent in Selwyn district in the year to December 2012. This compares with 5 per cent for New Zealand on average.
- 17 Building consents issued (Statistics New Zealand) March 2015 [http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/Construction/BuildingConsentsIssued\\_HOTPMar15.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/Construction/BuildingConsentsIssued_HOTPMar15.aspx)
- 18 <http://cera.govt.nz/recovery-strategy/built-environment/land-use-recovery-plan>
- 19 Land Use Recovery Monitoring report December 2014  
<http://www.ecan.govt.nz/publications/Plans/lurp-monitoring-report.pdf>
- 20 Ministry of Business, Innovation and Employment (2013, August). Key Canterbury indicators. Retrieved from [www.dbh.govt.nz/UserFiles/File/Sector%20info/key-indicator-reports/2013/kir-canterbury-august-2013.pdf%20](http://www.dbh.govt.nz/UserFiles/File/Sector%20info/key-indicator-reports/2013/kir-canterbury-august-2013.pdf%20)
- 21 Annual rent increase to March 2014 was 12 per cent for Canterbury compared with 4 per cent for New Zealand (source MBIE).
- 22 MBIE Housing Accord Monitoring report December 2014 <http://www.mbie.govt.nz/what-we-do/housing/pdf-document-library/christchurch-housing-accord.pdf>
- 23 Ministry of Business, Innovation and Employment. (2013). *Housing pressures in Christchurch: a summary of the evidence*. Ministry of Business, Innovation and Employment.
- 24 Note that CCC data are missing for 2011 due to internal disruptions as staff were displaced from their offices. Missing data from 2012 are due to staffing issues. Data trends between these periods should be viewed with caution and are represented in the graph by a dotted line.
- 25 MBIE Housing and Construction quarterly (March 2015) <http://www.building.govt.nz/UserFiles/File/Sector%20info/nzhc/2014/nz-housing-quarterly-march-2015.pdf>

# Keeping well and having access to health services

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why are keeping well and having access to services important?

Good health is crucial to the wellbeing of individuals, their families and their communities. The health system aims to maximise both the length and quality of life.

By keeping healthy, people are more able to lead rich and rewarding lives within their families and their communities. People who are less healthy may find it more difficult to participate in sports and recreation, or arts and cultural activities, or simply to complete the tasks of daily living. They may also struggle to socialise with their family, friends and community.

Health is determined by a number of environmental and social factors. For example, living in poor-quality housing, having a low income or being unemployed, and having few educational qualifications significantly lessen people's health and wellbeing.<sup>1</sup> Poor-quality housing that is cold, damp and mouldy significantly worsens the health of older people, young children and people who already have health problems.<sup>2</sup>

Our health system aims to maintain the health of the population, identify any disease or health condition as soon as possible and provide timely access to health care services. Early access helps to restore health; for example, through surgery, or helps people with a long-term condition to continue to function as well as possible. If geographical, cultural and other barriers to care are reduced, people gain help from health services in a more timely manner.

### Acute medical admissions

In an acute medical admission, a person is admitted to a hospital because they require urgent specialist attention, which may be for any of a wide range of medical conditions.<sup>3</sup> Acute medical admissions make up a third of all hospital admissions in New Zealand. If the rate of acute medical admissions increases, it could indicate the underlying health status of the population is declining. Alternatively it could mean that people are not accessing or engaging with community services, especially their general practitioner (GP), who is the point of first contact with the health system for most people.<sup>4</sup>

### Influenza-like illness

Influenza (flu) is a significant public health issue. Ten to twenty per cent of New Zealanders are infected every year.<sup>5</sup> While most recover at home, some are admitted to hospital because their condition becomes serious. Influenza can be fatal for a small number of people, most of whom already have health problems. As well as affecting wellbeing, influenza has a financial impact on workplaces, and can place a heavy load on primary care and hospital services during winter epidemics.

In the immediate post-earthquake period people have been more likely to be living in damaged, overcrowded homes that are damp and cold, which may make people more susceptible to influenza. If the incidence of influenza rises, acute medical admissions for cardiac and respiratory conditions, particularly in the elderly and children, are also likely to increase. However, as residential rebuild and repair continues, the overall state of housing stock in greater Christchurch is likely to be healthier than before the earthquakes.





### Access to primary health care

Primary health care services, such as general practices and medical centres, are the main means for many New Zealanders to take care of their health needs. People need to be able to access primary health services on time to get treatment for a health condition before it becomes more severe. In the 2013/14 New Zealand Health Survey, 82.4 per cent of Canterbury respondents had visited a GP in the past 12 months compared with 78.5 per cent nationally.

### Childhood immunisation rates

Childhood immunisation provides protection from a range of serious illnesses, including measles, mumps, rubella, diphtheria and whooping cough.

Childhood immunisation rates are a good indicator of access to primary care, as these immunisations are undertaken in general practices. If there are barriers to seeing GPs, such as cost or transportation, then it is likely that immunisations rates will decrease.

The Government targets for immunisation required that 85 per cent of two-year-olds were immunised by July 2010, 90 per cent by July 2011 and 95 per cent by July 2012.<sup>6</sup> This has been a successful approach, with two-year-olds immunisation coverage rates across New Zealand rising from 67 per cent in 2007 to 88 per cent in December 2010.<sup>7</sup>

In 2012 the Government's target changed to focus on eight-month-olds, requiring district health boards to ensure that 85 per cent were immunised by July 2013, 90 per cent by July 2014 and 95 per cent by December 2014.<sup>8</sup>

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## How were keeping well and having access to health services impacted by the earthquakes?

The September 2010 earthquake triggered an immediate rise in heart attacks, with increased admissions to cardiac services in the days following the earthquake. The February 2011 earthquake did not lead to a significant increase in heart attack admissions, which may be because those who would have been predisposed to a heart attack in February had experienced it earlier as a result of the September quake.

However, the February earthquake had a major impact on hospital services, with a loss of over 100 beds in general medicine and 635 beds in aged residential care.<sup>9</sup> Over 250 elderly rest home residents were evacuated to other regions because their rest homes were no longer habitable. This group was repatriated by December 2011, although approximately 60 residents chose to continue to live outside Canterbury.

The February earthquake also had a profound impact on the primary care and community provider infrastructure and its capacity to provide health care. However, most services were soon back up and running again.

Some community members have suggested that liquefaction silt may have an effect on respiratory illness rates although there is little evidence to support this belief.<sup>10</sup> A report from the Institute of Environmental Science & Research (ESR) concluded that health impacts of liquefaction are unknown.<sup>11</sup>



## What is happening now?

Under the *Recovery Strategy for Greater Christchurch: Mahere Haumanutanga o Waitaha*, agencies within the Canterbury health system are responsible for delivering the Canterbury District Health Board (CDHB) Transition Programme. This programme is creating services that are more able to support people to stay well. In this way, the health system's ability to manage demand for health services and keep people well is being enhanced

Immediately after the February 2011 earthquake, support was provided to vulnerable populations and providers. Services to support people at risk of acute admission to hospitals were extended and new programmes were developed to support people in their own homes following discharge from hospital. The Government's influenza immunisation programme was extended in Canterbury to include under 18-year-olds in addition to the usual national target groups: people aged 65 years and over, pregnant women, and people under 65 years with a long-term health condition. CDHB extended free influenza vaccination for children under 18 years until 2014 to keep young people well and because of the housing situation and pressure on hospital beds.

The rate of respondents reporting excellent, very good, or good self-rated health in the New Zealand Health Survey remained unchanged in Canterbury since the earthquakes (90.8 per cent in 2006/07 and 2013/14).



**The number of acute general medical admissions has resumed a pre-earthquake pattern of increasing over time after dropping immediately after the February earthquake.**

## What are the indicators telling us?

### Acute medical admissions

The measure used in this report is the number of acute general medical admissions.

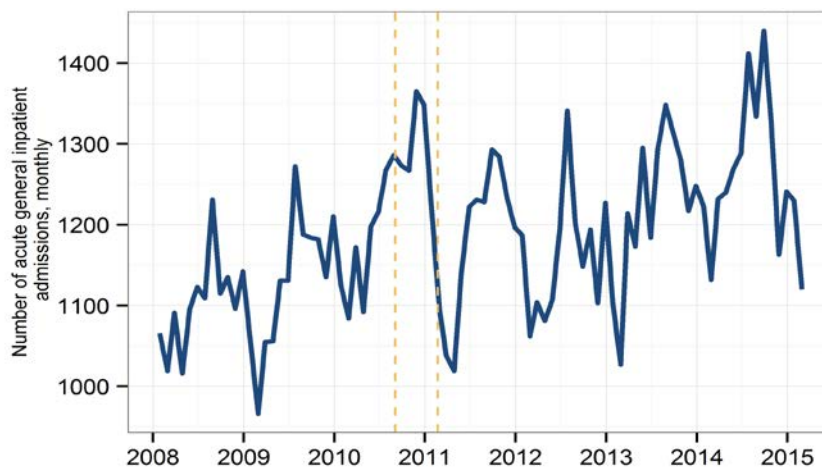
The number of acute general medical admissions has resumed a pre-earthquake pattern of increasing over time after dropping immediately after the February earthquake. Acute admissions grew 14 per cent in the year to February 2015 compared to the average number of admissions for the two years to February 2010.

Figure 1 shows that acute medical admissions have been increasing over time and have a seasonal pattern of increases in the winter months. In previous years, demand tended to trail off in September; however, there was a second peak in November 2010, which may indicate that the September 2010 earthquake caused some additional demand. Conversely, demand fell after the February 2011 earthquake. This may have been due to changes in people's behaviours and an increase in community-based services.

Seasonal winter admission patterns have remained in line with pre-earthquakes trends with the exception of winter 2014 in which a higher number of admissions for suspected influenza contributed to demand.



Figure 1: Number of acute general medical admissions



Congestive heart failure, respiratory admissions for children and cancer admissions had been monitored in previous versions of the Canterbury Wellbeing Index, however there was no discernible change in the patterns of admission for any of these indicators post-earthquakes.

**Influenza-like illness (rates)**

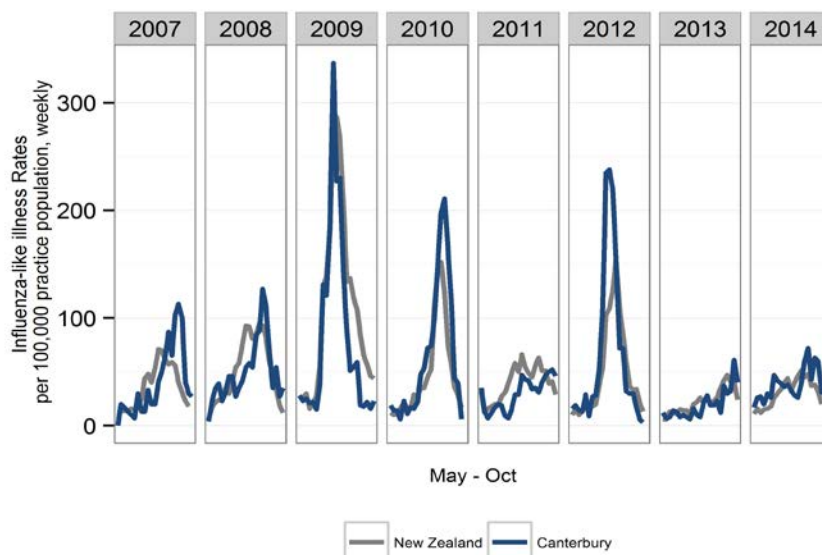
This is the rate of influenza-like illness per 100,000 people enrolled in general practices.

Influenza-like illness rates are determined by a number of factors including the virulence of the influenza strains that are circulating in any given year and the proportion of the population that has received the influenza vaccination.

In 2011 New Zealand experienced a low incidence of influenza compared with previous years. During that year (May to October), Canterbury had even lower rates than New Zealand overall.

However, as shown in Figure 2, the 2012 season was more severe. The rates in Canterbury were more than double those of New Zealand during the July peak and were the highest reported by any region. In 2013 and 2014, rates dropped notably in both Canterbury and nationally. Influenza incidence is unpredictable; vaccination and good personal hygiene are the best methods of prevention.

Figure 2: Weekly influenza-like illness rate





### Influenza (vaccinations)

In this report, influenza vaccinations are measured as the proportion of the population enrolled in general practices aged 65 years and over who receive an influenza vaccine each year.

Vaccination is the most effective means of protecting against influenza.<sup>12</sup> The yearly 65+ vaccination rate for influenza in the Canterbury area has remained relatively stable over time, ranging from 71 to 75 per cent between 2008 and 2014. In 2011, the rate dropped to 71 per cent although this was still higher than the national rate of 66 per cent. This may indicate that people in Canterbury were less likely to seek a vaccination in 2011 due to the general impacts of the earthquakes and the mildness of that winter. By 2013 the rate had returned to pre-earthquake levels, increasing to 75 per cent.

### Access to general practice services

The two measures used in this report are:

- barriers to health care
- childhood immunisation rates.

Table 1 presents data from the New Zealand Health Survey which indicates that in the years after the earthquakes there has been variability in reported unmet need for primary health care. By 2013/14, 29.9 per cent of greater Christchurch respondents reported that this was an issue compared with 27.7 per cent nationally.

Respondents were asked about their experiences of getting an appointment at their usual medical centre within 24 hours in the past 12 months. Pre-earthquake data from 2006/07 found that 15.9 per cent of respondents were unable to get an appointment at their usual medical centre within 24 hours. In 2013/14 this was relatively stable at 16.1 per cent (similar to the 16.4 per cent nationally).

The proportion of residents not seeking GP services due to cost increased slightly during the post-earthquake period. In contrast, fewer residents found the cost of after-hours health services a barrier to their health care and a few more found prescription costs to be a barrier. The prescription cost increased from \$3 to \$5 per item in early 2013.

*Table 1: Summary of barriers to health care for adults in the past 12 months from the New Zealand Health Survey*

Indicator	CDHB area %		
	2011/12	2012/13	2013/14
Experienced unmet need for primary health care	27.6	22.3	29.9
Unable to get appointment at usual medical centre within 24	14.9	7.8	16.1
Unmet need for GP services due to cost	15.0	14.6	17.8
Unmet need for after-hours service due to cost	8.7	6.6	5.8
Unfilled prescriptions due to cost	5.9	5.1	8.2

Note: Results reported are unadjusted prevalence (%) data for adults 15 years and over



**Pre-earthquake data from 2006/07 found that 15.9 per cent of respondents were unable to get an appointment at their usual medical centre within 24 hours. In 2013/14 this was relatively stable at 16.1 per cent (similar to the 16.4 per cent nationally).**



Childhood immunisation rates are measured in two ways in this report:

- two-year-old immunisation rates (Government target July 2010 – July 2012)
- eight-month-old immunisation rates (Government target July 2013 – December 2014).

Figure 3 shows the immunisation rates for two-year-olds dipped in the two quarters after the February 2011 earthquake in Canterbury. This may indicate that general practice access was difficult in that period.<sup>13</sup> Since September 2012 the immunisation rates for both 8 month olds and 2 year olds have generally tracked upwards, with Canterbury meeting the 95 per cent target for 2 year olds in December 2014 ahead of the New Zealand average. Canterbury is tracking against the national average in progress to meeting the target for eight month olds.

Figure 3: Immunisation rates for two-year-olds and eight-month-olds







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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the links between health and housing in New Zealand:  
[www.healthyhousing.org.nz](http://www.healthyhousing.org.nz)

Find out more about how to keep healthy:  
[www.cdhb.health.nz/Your-Health/Healthy-Well/Pages/default.aspx](http://www.cdhb.health.nz/Your-Health/Healthy-Well/Pages/default.aspx)

Find out more about accessing health services in Canterbury: <https://www.cdhb.health.nz/Your-Health/Pages/default.aspx>

Find out more about the Canterbury District Health Board Transition Programme:  
[http://www.cdhb.health.nz/About-CDHB/corporate-publications/Documents/transition\\_2012\\_plan.pdf](http://www.cdhb.health.nz/About-CDHB/corporate-publications/Documents/transition_2012_plan.pdf)

Find out more about the ESR report on PM10 and Christchurch liquefaction silt:  
[www.esr.cri.nz](http://www.esr.cri.nz)

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## Technical notes

### Acute medical admissions

**Data source:** Canterbury District Health Board

**Data frequency:** Monthly

**Data complete until:** February 2015

**Notes:** Acute medical admissions are defined as acute general inpatient admissions where the health specialty is general medicine.

### Influenza-like illness (rates)

**Data source:** Community and Public Health, CDHB

**Data frequency:** Weekly

**Data complete until:** October 2014

**Notes:** The rate presented is the influenza-like illness (ILI) rate per 100,000 practice population. ILI is measured weekly starting in week 18 (approximately the first week of May) through to week 40 (approximately the first week of October).

ILI surveillance is a voluntary national surveillance programme conducted in every district health board annually by sentinel medical practices. General practitioners identify all ILI patients who attend their practices from weeks 18–40 inclusive during the influenza season.

### Influenza (vaccinations)

**Data source:** Canterbury District Health Board

**Data frequency:** Yearly

**Data complete until:** 2014

**Notes:** The vaccination rate is the number of people over 65 years who are vaccinated each year divided by the enrolled population for the target group. The assumptions are not provided and enrolled population does not match DHB records.

The Primary Health Organisations Performance Programme has been the source of national data. Data are quarterly and the fourth (December) quarter has been used in reporting to align with CDHB data. National data for 2014 aligns with the June quarter as the programme finished on 30 June 2014.



### **New Zealand Health Survey: Access to general practice services and self-rated health**

**Data source:** Ministry of Health

**Data frequency:** Data collected 2006/07, 2011/12, 2012/13 and 2013/14

**Data complete until:** 2012/14

**Notes:** The New Zealand Health Survey has a multi-stage, stratified, probability-proportional-to-size sampling design. The survey is designed to yield an annual sample size of approximately 13,000 adults and 4,500 children.

A dual frame approach has been used where participants are selected from an area-based sample and a list-based Electoral Roll sample. The aim of this approach is to increase the sample sizes for Māori, Pacific and Asian ethnic groups.

Interviews are conducted in participants' homes, with the interviewer typing responses directly into a laptop computer using 'Survey System' computer-assisted personal interview software. Showcards with predetermined response categories are used to assist respondents, where appropriate.

The 2011/12 survey was the first time the New Zealand Health Survey asked directly about most of the unmet need indicators. Respondents were asked if they were 'Unable to get an appointment at usual medical centre within 24 hours in the past 12 months' in 2006/07, 2011/12, 2012/13 and 2013/14.

The Canterbury region was defined as the Canterbury District Health Board area.

The results reported are age-standardised prevalence (%) data for adults aged 15 years and over.

### **Immunisations**

**Data source:** Canterbury District Health Board and Ministry of Health

**Data frequency:** Quarterly

**Data complete until:** December 2014

**Notes:** Immunisation data come from the National Immunisation Register from the Ministry of Health. The data represent the proportion of children who have completed their age-appropriate immunisations by the time they turned the milestone age (eight months or two years). Data are reported quarterly.



## Endnotes

- 1 Howden-Chapman, P. et al. (2004). *Retrofitting houses with insulation to reduce health inequalities*. Retrieved from: <http://www.healthyhousing.org.nz/wp-content/uploads/2010/01/Insulation-proofs.pdf>
- 2 Howden-Chapman, P. (2008). Effects of improved home heating on asthma in community dwelling children: randomised controlled trial. *British Medical Journal* 337:a1411.  
Howden-Chapman, P. (2007). Effect of insulating existing homes on health inequalities. *British Medical Journal* 10.1136/BMJ.39070.573032.80.
- 3 Note the literature does not appear to agree upon a single definition: [www.bgs.org.uk/index.php?option=com\\_content&view=article&id=44:pggacutecare&catid=12:goodpractice&Itemid=106/](http://www.bgs.org.uk/index.php?option=com_content&view=article&id=44:pggacutecare&catid=12:goodpractice&Itemid=106/)
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- 12 [www.bpac.org.nz/BPJ/2014/March/influenza-vaccination.aspx](http://www.bpac.org.nz/BPJ/2014/March/influenza-vaccination.aspx)
- 13 Part of this dip may be accounted for by a change in the Government target – as an additional vaccination was added to the schedule.



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

### Why is mental wellbeing important?

Mental wellbeing is a positive state where people are emotionally healthy, are able to live full and creative lives, and can deal with life's challenges. Mental wellbeing can also be defined as flourishing, where people are engaged with life, and have a sense of meaning and purpose.

Mental wellbeing can positively affect most dimensions of people's lives: family and friendships, employment, education, physical health and life expectancy.<sup>1</sup>

People who are mentally well are more productive in the workforce, do better in education and are able to function better cognitively. They are also more likely to live longer, are less likely to engage in adverse behaviours like smoking, hazardous drinking, drug use and risky sexual behaviour, and they are less likely to be obese.<sup>2</sup>

One in four people will experience a mental health problem at some point in their life. At any given time, one in every six adults is experiencing mental ill health.<sup>3</sup>

Experts agree that disasters have a negative impact on people's mental wellbeing, particularly at the severe end of the spectrum.<sup>4</sup> The World Health Organization estimates that after a disaster, severe mental health disorders increase from 2–3 per cent to 3–4 per cent of the population, and mild to moderate mental disorders can double from 10 per cent to 20 per cent.<sup>5</sup> However, experts agree that over time, those experiencing mild psychological reactions will be able to cope and recover if they receive basic support.<sup>6</sup>

In May 2011 Chief Science Advisor Professor Sir Peter Gluckman indicated that 5-10 per cent of people may need some help, and up to 5 per cent of the population may continue to have on-going significant psychological ill health requiring professional help as a result of the earthquakes.<sup>7</sup>

Recovery from the psychosocial effects of disaster includes how individuals and communities feel and relate to each other. The recovery process can be very protracted, taking 5-10 years or even longer.<sup>8</sup>

International experience suggests that post-disaster stressors, such as delayed decisions about property and insurance, are some of the most significant factors that increase the risk of mental ill health and hold back recovery. Primary stressors are defined as stressors that are directly related to the disaster; for example, injuries sustained or aftershocks. Secondary stressors are circumstances, events or policies that are indirectly related or 'non-inherent and consequential' to the earthquakes.<sup>9</sup> Examples are housing difficulties; problems with insurance; and loss of social networks.<sup>10</sup>

The mental wellbeing of some population groups may be particularly vulnerable after a disaster. These groups include people who already had mental health issues and those who lack the social supports necessary to help them cope. Other vulnerable people are those who had no previous difficulties, but who have experienced significant loss as a result of the earthquakes. This may include loss of a loved one, personal injury, loss of property, or financial problems. Recovery is improved where affected people perceive that social supports are available and they are able to access these supports.<sup>11</sup>





## How was mental wellbeing impacted by the earthquakes?

The earthquakes have deeply affected the residents of greater Christchurch. The loss of life, injury, damage to homes and businesses, and the stress associated with the earthquakes and aftershocks are experiences that many people have never had before, and never wish to have again.

Psychological recovery was interrupted by the sequence of aftershocks during 2011 and 2012 which meant that people had to continually respond to new events.<sup>12</sup>

Levels of general distress in the population were high immediately after the earthquakes. Health and welfare services reported high demand for assistance with general stress symptoms, hyper-vigilance and anxiety. For some people, these symptoms continued for a long time.

By the middle of 2012, services were reporting that people's mental wellbeing was less affected by aftershocks. However, a growing number of people were reporting that secondary stressors such as uncertainty around decisions relating to their insurance and the repair or rebuild of their homes were causing stress and anxiety.<sup>13</sup>

Table 1 shows key findings from the 2012 CERA Wellbeing Survey, which asked a number of questions about secondary stressors associated with the earthquakes.<sup>14</sup> In 2012 the largest secondary stressor was 'distress or anxiety associated with on-going aftershocks'. The survey also found that secondary stressors around insurance and repairs as well as loss of leisure facilities had also impacted the majority of the population.

*Table 1: Most common negative outcomes of the earthquakes, as reported in 2012*

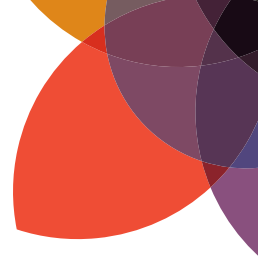
Negative outcome	% who had experienced outcome	% who reported moderate or major negative impact
Loss of other recreational, cultural and leisure time facilities (cafes, restaurants, libraries etc)	69	34
Distress or anxiety associated with on-going aftershocks	66	42
Dealing with EQC/insurance issues in relation to personal property and/or house	65	37
Making decisions about house damage, repairs and relocation	54	29

While there were some obvious challenges to mental wellbeing due to the earthquakes, people also experienced many positives.

Table 2 shows the four most common positive outcomes, which include 'renewed appreciation of life', 'pride in ability to cope' and 'heightened sense of community'. Research has shown that bonds with family and friends can become stronger, and that people become more knowledgeable about themselves, wiser and more compassionate and find new perspectives on life after facing adversity.<sup>15</sup>

*Table 2: Most common positive outcomes of the earthquakes, as reported in 2012*

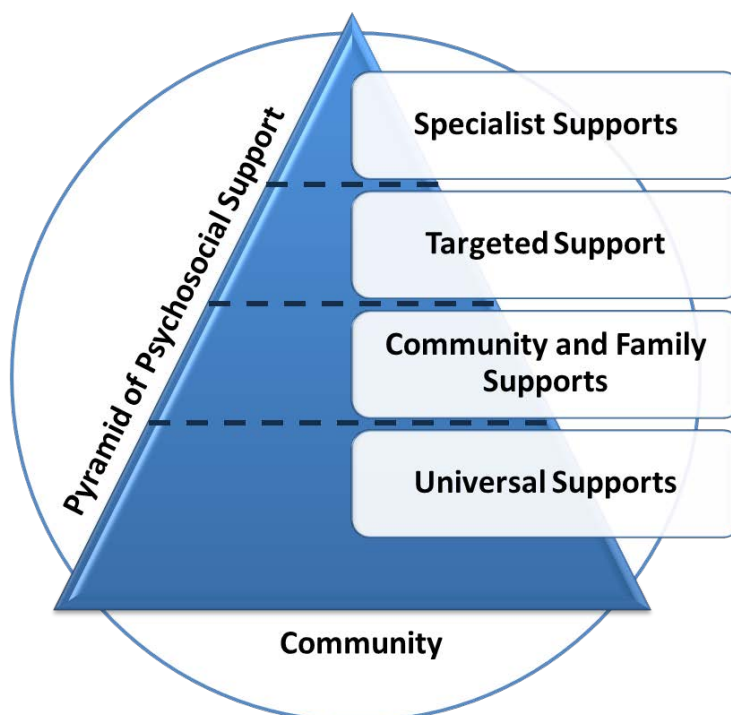
Positive outcome	% who had experienced outcome	% who reported moderate or major positive impact
Pride in ability to cope under difficult circumstances	76	41
Family's increased resilience	69	36
Renewed appreciation of life	68	45
Heightened sense of community	67	34



## What is happening now?

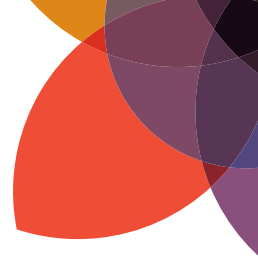
Since September 2010, government and non-government social service agencies have worked together to develop a layered system of wellbeing support for people experiencing distress, based on the Psychosocial Intervention Pyramid (Figure 1). Many of these services and supports are focused on early intervention, to ensure that people can get help and support that will prevent them from developing more severe mental health conditions. This stepped approach is illustrated in the following pyramid; services, support and information are then outlined below.

Figure 1: Psychosocial Intervention Pyramid



Across the pyramid a number of community and family services are in place to help people access information and the health and social services they need.

- The 0800 Canterbury Support Line, established immediately after the September 2010 earthquake, provides callers with advice and referral to timely and appropriate support.
- Counselling services have been provided at no cost to residents affected by the earthquakes. The main provider until May 2015 was Relationships Aotearoa (formerly Relationship Services). This service is now being transitioned to other providers.
- The Earthquake Support Coordination Service is available for people who require more support. This service includes 34.4 full-time equivalent staff including Kaitoko workers who support vulnerable and at-risk whānau. They provide practical information and support to people displaced from their homes or who have on-going issues relating to the earthquakes.
- Earthquake Assistance Centres in Avondale and Kaiapoi have provided information and assistance for home owners. The Avondale Centre was closed in December 2013 after providing residents with a total of 13,582 face-to-face appointments with specialists since it was set up in August 2011. The Kaiapoi Centre continues to support the local community and by December 2014 had seen a total of 4,828 people.
- The 'All Right?' social marketing campaign was launched in February 2013 to assist people who are struggling and to provide tools and support to improve their wellbeing.<sup>16</sup>



- The Canterbury District Health Board (CDHB) developed new mental health services and expanded many existing services in response to earthquake related needs.
- Many agencies and businesses including CDHB have introduced a range of wellbeing and support initiatives for their staff.
- The Ministry of Education developed several programmes to respond to the earthquake-related needs of students and teachers.
- The Ministry of Social Development and the Red Cross funded training to help support community leaders, frontline staff, professional health and social service staff working with affected clients and communities.
- Extended general practitioner (GP) consultations have been put in place to deal with complex cases including people with mental and physical health effects.
- Brief intervention counsellors have provided up to five sessions of treatment for individual patients.
- The CDHB has, in conjunction with the Ministries of Health and Education, developed a local health and education joint action plan to address emerging mental health issues for youth/school-age people in Canterbury following the earthquakes.<sup>17</sup>
- The Red Cross is focusing on supporting school children of all ages (and their families) in Canterbury who experienced earthquake-related anxiety or behavioural problems. The New Zealand Red Cross 2011 Earthquake Commission has allocated \$2.3 million to increase youth work and social work in Canterbury schools until 2016. The Youth Workers in Schools Grant (\$1.2 million) funds 33 extra youth workers and extra hours for current youth workers in 33 earthquake-affected intermediate and secondary schools. The service is provided by 24-7 YouthWork. The Social Workers in Schools Grant (\$1.1 million) will provide six social workers for earthquake-affected primary and intermediate students who are considered high need, high risk and high priority.<sup>18</sup>
- Dr Rob Gordon, an Australian specialist in disaster psychology, has visited Christchurch several times to give talks to a wide range of groups and organisations on recovering from a disaster. This has provided opportunities for communities to better understand the psychology of recovery.<sup>19</sup>
- The Residential Advisory Service was established on 16 May 2013 to help address rebuild-related stressors for property owners with insurance and other repair or rebuilding challenges. The service provides independent assistance to help residential property owners understand and progress the repair and rebuild. By April 2015, this service had received 9,732 contacts from residential property owners and of these, 2,352 have met with an independent advisor and 585 have been referred to other agencies or organisations better matching their individual needs.
- The In the Know Hub was set up at Eastgate Mall in April 2015 with earthquake recovery agencies and support services able to advise on progressing home repair and rebuild processes.<sup>20</sup>
- A support package for parents brings together information and services to help parents of children manage the challenges of dealing with change and uncertainty of rebuilding and repairs.

The 0800 Canterbury Support Line, counselling services and the Earthquake Support Coordination Service were funded for three years from 1 July 2010 to 30 June 2014 through the Government's Canterbury Earthquake Recovery Fund. The Government announced new operating funding of \$13.5 million in 2014 which will see the continuation of these services, based on need, for four years (from 1 July 2014 to 30 June 2018).

### Looking forward

In February 2014 Cabinet approved the *Community in Mind Strategy* – a psychosocial strategy for greater Christchurch. The Strategy was released in June 2014 with the associated Programme of Action launched in May 2015.

The Strategy is intended to guide agencies and community groups in developing, targeting and coordinating their programmes and activities for the psychosocial recovery of greater Christchurch over the next five years. It has three strategic components:



1. **platform for community** – strengthening and supporting communities to drive their own recovery
2. **communication and engagement** – ensuring coordination of recovery information and facilitating engagement opportunities
3. **innovative services** – promoting the development and delivery of innovative services, supports and information to assist psychosocial recovery.

The Programme of Action sets out the activities that will improve community and individual resilience, deliver positive outcomes and support people to shape and lead their own recovery.

CERA's role is to ensure the Programme of Action supports the Strategy and to implement a monitoring and reporting framework to assess progress.

Key partners are the three territorial authorities in greater Christchurch, CDHB, Ministry of Education, Ministry of Social Development, Ministry of Health (MOH), Ministry of Pacific Island Affairs, Te Puni Kōkiri, Red Cross NZ, representatives from the non-governmental organisation (NGO) sector, and a wide range of community organisations.



**Quality of life has tracked up slowly following a low of 73 per cent in September 2013, with 79 per cent of greater Christchurch residents (77 per cent for Christchurch city) rating their quality of life positively by April 2015.**

## What are the indicators telling us?

### Overall quality of life

Prior to the earthquakes, quality of life in Christchurch city was monitored using the Quality of Life Survey.<sup>21</sup> Similar to the figures for other New Zealand cities, 90 to 95 per cent of city residents indicated that their quality of life was good or extremely good prior to the earthquakes.<sup>22</sup> Since 2012, quality of life in greater Christchurch has been measured using the CERA Wellbeing surveys which show that overall quality of life declined after the earthquakes. While it has recovered since, it remains below the 2010 level.

Figure 2 shows that in April 2012, 74 per cent of greater Christchurch residents and 72 per cent of Christchurch city residents reported a high quality of life, compared with 80 per cent for other New Zealand cities.<sup>23</sup> While this decrease in overall quality of life occurred both in greater Christchurch and across New Zealand cities, the decrease was more significant in greater Christchurch. This data suggests that while an earthquake effect is apparent, other factors may have also impacted on this measure.

Quality of life has tracked up slowly following a low of 73 per cent in September 2013, with 79 per cent of greater Christchurch residents (77 per cent for Christchurch city) rating their quality of life positively by April 2015. Just 5 per cent indicated that their quality of life was poor, which is slightly lower than previous results.

Those more likely to rate their overall quality of life positively in April 2015 were from higher income households (i.e., \$60,000-\$100,000 or more than \$100,000) (85 per cent and 90 per cent) or those who hadn't needed to make an insurance claim (87 per cent). In comparison, those less likely to rate their overall quality of life positively were; aged 50-64 years old (72 per cent), from households with income between \$30,001 to \$60,000 (71 per cent), renters (71 per cent) or those living in temporary housing (66 per cent).

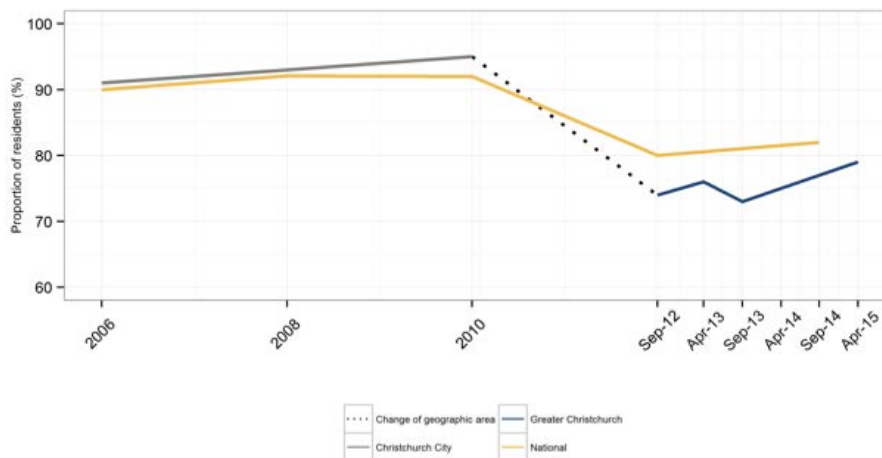
According to the 2013 CERA Youth Wellbeing Survey, 81 per cent of 12–24 year olds said their quality of life was extremely good (25 per cent) or good (56 per cent). Just 5 per cent indicated that their quality of life was poor.

Young people who were unemployed (74 per cent) and/or living with a long-term health condition or disability (54 per cent) were more likely to report having a lower quality of life.





Figure 2: Overall quality of life reported as good or extremely good



### Change in quality of life

The September 2012 CERA Wellbeing Survey also asked respondents if their quality of life had changed since the earthquakes. Over half (54 per cent) reported that their quality of life had ‘decreased significantly’ (10 per cent) or ‘decreased to some extent’ (44 per cent). Encouragingly by April 2015, fewer people reported deterioration in their quality of life. Just under one-sixth (16 per cent) indicated that their quality of life had decreased in the previous 12 months.

Population groups more likely to report deterioration in their quality of life were residents with unresolved insurance claims (33 per cent), those living with a physical health condition or disability (28 per cent), people living in temporary housing (26 per cent) and households with an income of less than \$30,000 (24 per cent).

Overall, respondents from Christchurch city rated their current quality of life, over the previous 12 months, slightly less positively than those in Selwyn and Waimakariri districts.

### Impacts of the earthquake on stress and emotional wellbeing

There has been an overall increase in reported stress in greater Christchurch since the earthquakes, reflecting the significant impacts of the earthquakes on residents’ wellbeing, although the rate now appears to be levelling off. At the same time there has been an increase in levels of stress across the country which again indicates that wider non-earthquake factors have had an impact on this measure.

According to Figure 3, in the pre-earthquake period, 8 per cent of residents in Christchurch city reported a high level of stress during 2010 compared with an average of 9 per cent across New Zealand cities.<sup>24</sup> In September 2012, the CERA Wellbeing Survey showed that stress levels had grown considerably: 23 per cent of greater Christchurch respondents (Christchurch city: 24 per cent) indicated that they had experienced stress ‘always’ or ‘most of the time’ in the previous year that had a negative effect on them. By April 2015, 19 per cent of both greater Christchurch and Christchurch city respondents reported high levels of stress.

The groups reporting disproportionately higher levels of stress than the rest of the population were; people with unresolved insurance claims (35 per cent), people with a health condition or disability (31 per cent), and those aged 25–34 years old (25 per cent).

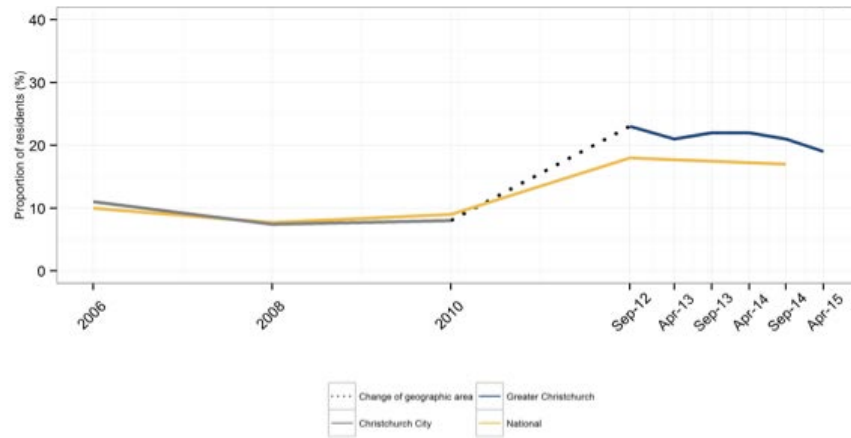
When asked about their levels of stress during the last 12 months, 27 per cent of young people aged 12–24 years who responded to the 2013 CERA Youth Wellbeing Survey indicated they experienced stress always or most of the time. Stress levels were lower for young people living in the Selwyn district (21 per cent) compared with those in Christchurch city and the Waimakariri district (both 27 per cent). Stress levels were higher for young people with a long-term health condition or disability and the unemployed.



**There has been an overall increase in reported stress in greater Christchurch since the earthquakes, reflecting the significant impacts of the earthquakes on residents’ wellbeing, although the rate now appears to be levelling off.**



Figure 3: Proportion of respondents reporting high levels of stress

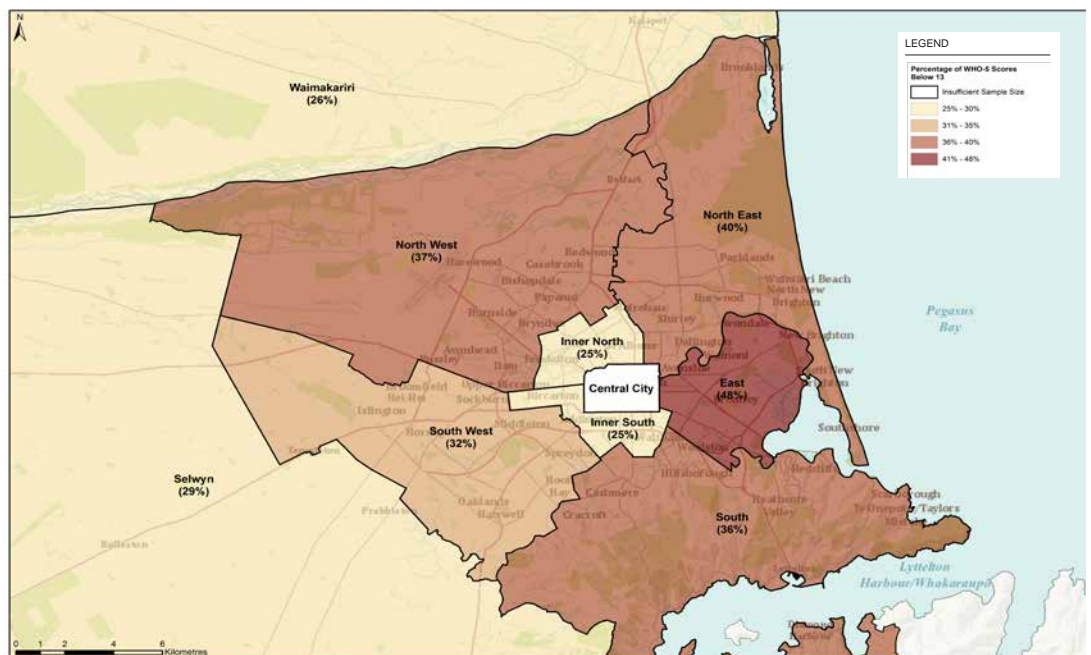


**In April 2015 some population groups were more likely to have low WHO-5 scores: specifically people with a health condition or disability, people living in low income households, renters and people with unresolved insurance issues**

The WHO-5 index is a self-identified rating of emotional wellbeing with a score of less than 13 indicating poor wellbeing. In April 2015 some population groups were more likely to have low WHO-5 scores: specifically people with a health condition or disability, people living in low income households, renters and people with unresolved insurance issues.

Map 1 shows that there is also a variation in the proportion of the population in geographic areas with a WHO-5 score less than 13 in greater Christchurch. People in parts of the region are experiencing much lower wellbeing. For example, almost half the respondents in the North East and similar proportions in the North West and South also had low wellbeing scores. In contrast, just 25 per cent of people in the Inner North and Inner South had low scores of wellbeing.

Map 1: Per cent of the population with a WHO-5 score less than 13 by geographic area, April 2015





Looking across the stress and emotional wellbeing measures it is clear that population groups experiencing a slower recovery are those with pre-existing vulnerabilities (people with a health condition or disability, from a low income household, and renters) and 'new vulnerable' (those with unresolved insurance issues and people living in the most damaged parts of the city).



The four most prevalent issues continuing to have a negative impact on the daily lives of residents are: being in a damaged environment; loss of access to recreational, cultural and leisure facilities; transport-related pressures; and dealing with EQC/ insurance issues.

Looking across the stress and emotional wellbeing measures it is clear that population groups experiencing a slower recovery are those with pre-existing vulnerabilities (people with a health condition or disability, from a low income household, and renters) and 'new vulnerable' (those with unresolved insurance issues and people living in the most damaged parts of the city).

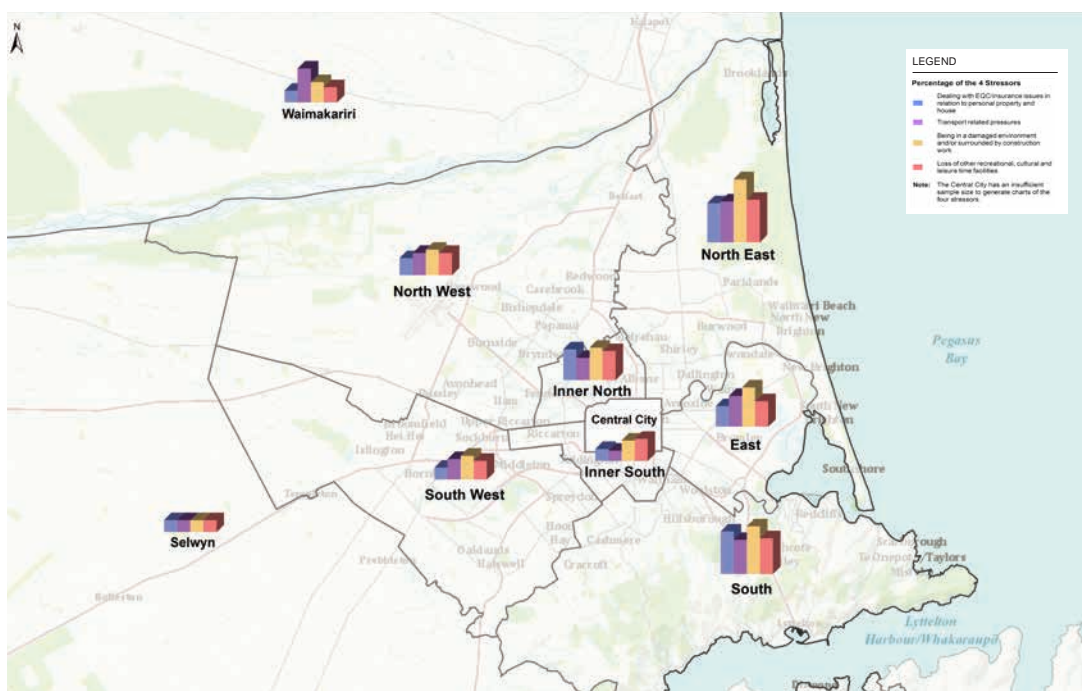
The April 2015 CERA Wellbeing Survey indicates that some secondary stressors continue to impact on the wellbeing of residents. Table 3 shows that the four most prevalent issues continuing to have a negative impact on the daily lives of residents are: being in a damaged environment; loss of access to recreational, cultural and leisure facilities; transport-related pressures; and dealing with EQC/ insurance issues. Residents with unresolved insurance issues are disproportionately affected by these stressors with the exception of transport-related pressures.

Table 3: Most common negative issues, as reported in April 2015.

Issue continues to have a moderate or major negative impact on everyday lives	Sept 2012 (%)	April 2013 (%)	Sept 2013 (%)	April 2014 (%)	Sept 2014 (%)	April 2015 (%)
Being in a damaged environment and/or surrounded by construction work	30	21	20	24	19	19
Loss of recreational, cultural and leisure time facilities	34	21	17	20	17	15
Transport related pressures	20	17	14	22	15	15
Dealing with EQC/insurance issues in relation to personal property and house	37	26	23	21	15	13

As can be seen in Map 2, there are large geographic differences between the impacts of these secondary stressors on people living in different parts of greater Christchurch. People living in the North East, South, East, and Inner North have generally experienced higher levels of the top four stressors. Waimakariri respondents have also recorded higher levels of stress around transport related pressures.

Map 2: Impact of most common negative issues by geographic area, April 2015





### Divorce statistics

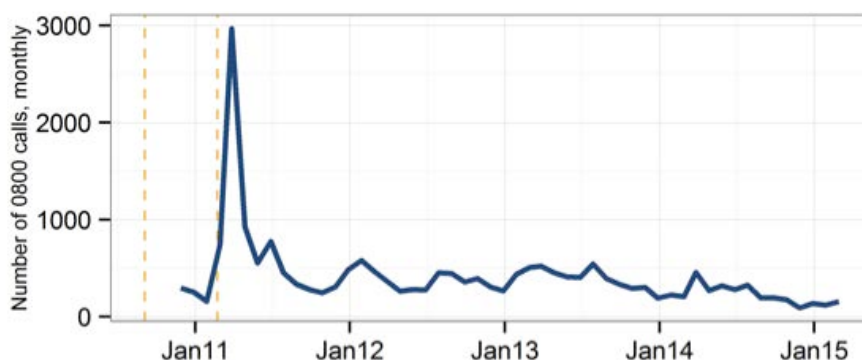
Divorce statistics have not shown a significantly increasing pattern despite anecdotal reports that the earthquakes have led to a high number of relationship breakdowns.

According to the 2013 Census there has been a slight change in the proportion of residents who have become divorced (dissolved marriages and dissolved civil unions) in recent years. In 2006 the divorce rate was 8 per cent growing slightly to 8.2 per cent by 2013. Separations (still legally married or in a civil union but permanently separated) actually decreased from 3.8 to 3.6 per cent during this period. It is important to note that divorce is granted after a minimum of two years of separation. Therefore divorces initiated after the September 2010 earthquake would only become visible in divorce statistics from September 2012.

### Access to earthquake support services

The 0800 Canterbury Support Line is a government-funded service providing information about a range of services and supports to callers affected by the earthquakes and subsequent recovery. Figure 4 shows there was a spike in calls to the 0800 Canterbury Support Line immediately after the February 2011 earthquake. A smaller increase in calls in February 2012 may have been due to the anniversary of the 2011 earthquake and the increase in August 2012 may have followed land zoning announcements. Between September 2010 and February 2015, more than 21,000 residents have sought assistance through this service.

Figure 4: Calls to the 0800 Canterbury Support Line



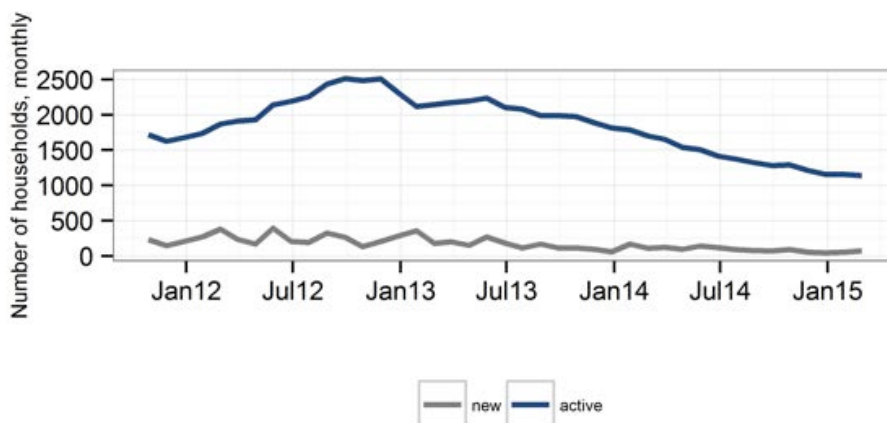
As at April 2015, Relationships Aotearoa and contracted counsellors delivered approximately 70,000 no-cost counselling sessions to residents.<sup>25</sup> Since September 2010, approximately 32,000 people have been supported by this service, with an average of 144 new clients entering each month in the year ended April 2015. Clients have presented for many reasons, including chronic stress related to secondary stressors around housing and insurance.



**The Earthquake Support Coordination Service was established to provide information and practical support for those whose homes and lives have been affected by the Canterbury earthquakes. Between 60 and almost 400 new households have enrolled with the service each month since October 2011.**

The Earthquake Support Coordination Service was established to provide information and practical support for those whose homes and lives have been affected by the Canterbury earthquakes.<sup>26</sup> Figure 5 shows that between 60 and almost 400 new households have enrolled with the service each month since October 2011. The number of active households peaked at 2,511 in September 2012 and has since gradually declined. Overall, 9,637 households have been supported by the service as at February 2015, and of those 1,139 households remain registered.

Figure 5: Households registered with Earthquake Support Coordination Service

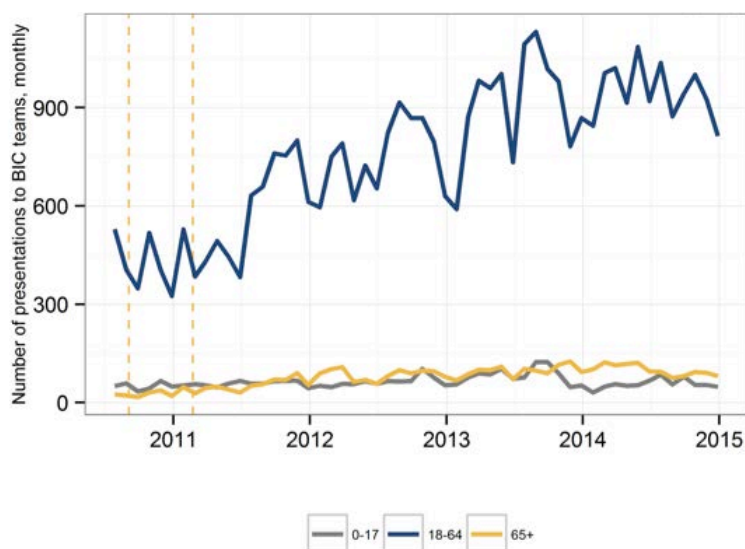


**Access to brief intervention counselling in general practice**

Brief intervention counselling provides people with mild to moderate mental health issues up to five sessions of free psychological intervention from their general practice team, with the possibility of onward referral to a related community agency.<sup>27</sup>

Figure 6 shows there has been an increase in the number of people seeking brief intervention counselling services in the CDHB region monthly from July 2011 with the service employing additional staff to meet increased demand from the earthquakes. Attendances peaked at over 1,300 per month in August 2013 which was nearly triple the rate in August 2010 (486 presentations). The most recent information for December 2014 showed a total of 942 people attended a session that month, which remains almost double the pre-earthquake rate. It is important to note that access to this service from mid-2014 is limited to people with higher needs, therefore fewer people are being seen but with more intensive support.

Figure 6: Number of attendances for brief intervention counselling by age





**Overall, the total number of clients accessing mental health services increased by 37 per cent between the pre-earthquake period of the eight months to August 2010 and the post-earthquake period, of the eight months to August 2014.**

**The bulk of this increase occurred from mid-2012 onwards indicating that for many, post-earthquake secondary stressors such as managing repairs and rebuilds, living in a damaged environment, and the loss of facilities, services and supports have impacted on wellbeing.**

### **Total number of clients accessing existing CDHB mental health services**

Figure 7 shows the total number of clients accessing mental health services in the CDHB region and provides a breakdown by access to specialist mental health services, NGOs and primary mental health. These services all existed before the earthquakes. Note: No national data is available for comparison across these services.

Total demand did not increase significantly in the period immediately after the earthquakes, which may suggest that the increase in community cohesion or the provision of support services at a community level reduced demand for more specialised mental health services. However there was a 34 per cent increase in demand between 2012 and 2013. Demand decreased by 6 per cent between 2013 and 2014.

Overall, the total number of clients accessing mental health services increased by 37 per cent between the pre-earthquake period of the eight months to August 2010 and the post-earthquake period, of the eight months to August 2014. The bulk of this increase occurred from mid-2012 onwards indicating that for many, post-earthquake secondary stressors such as managing repairs and rebuilds, living in a damaged environment, and the loss of facilities, services and supports have impacted on wellbeing.

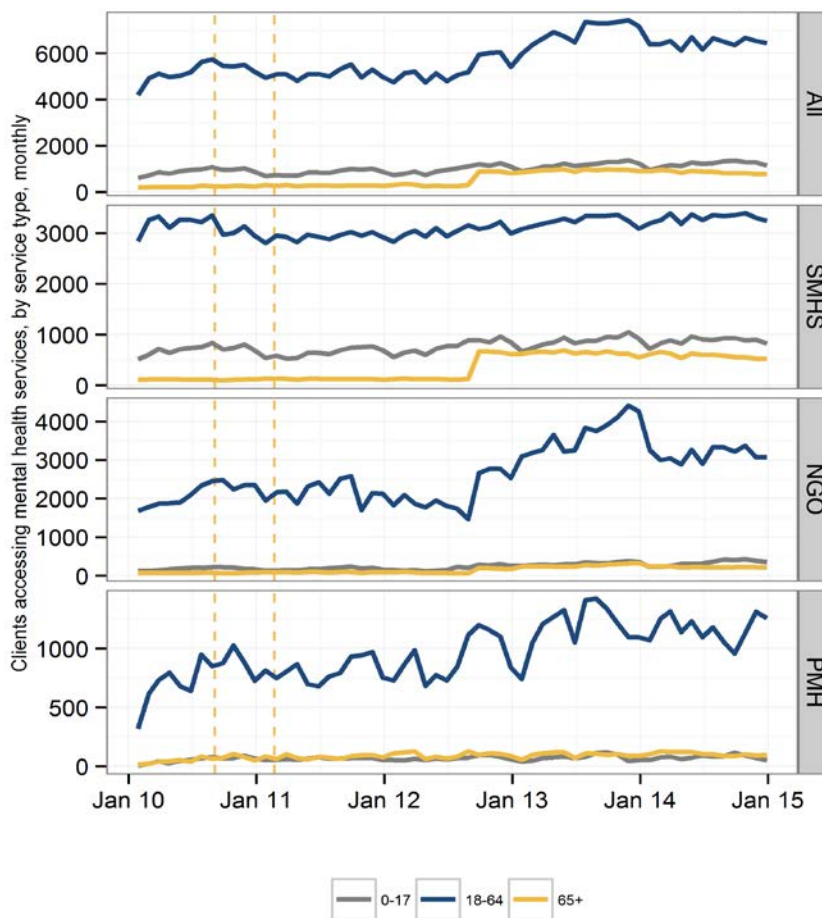
Looking across the services, all have experienced increases however some of these relate to changes in service capacity and provision as well as data collection. Primary mental health service access is 56 per cent higher between the year ending December 2010 and 2014, with most of this increase happening in 2013 and 2014. The numbers accessing NGO services have also increased by 56 per cent over the same period, with people aged 18-64 contributing the most to this increase particularly in 2013 and 2014. Specialist mental health services have seen an increase of a fifth since 2010 with over 65 year olds contributing the majority of this increase. The number of young people (0-17) accessing specialist mental health services has increased by almost a quarter over the past four years.

It is important to note that some demand-driven services have been increasing faster than the overall access rates. For example there was a 25 per cent increase in access to the Psychiatric Emergency Service (PES) in the year to March 2013, followed by another 13 per cent increase in 2014 and a smaller increase of 3 per cent in 2015. PES is significant as it captures the highly acute cases.

CDHB reports that in the 2015 year demand for outpatient services continues to trend upwards. In particular the Child and Youth Community Mental Health service is seeing a continuation of increased demand that started in mid-2012. CDHB is also seeing continued growth in Adult Community Mental Health and Adult Psychiatric Emergency Services. Clinicians report that patients are presenting with increasingly complex issues.



Figure 7: Total number of clients accessing mental health services, by service type and age



### Health of the Nation Outcome Scales

Acute and more severe mental health concerns are addressed through specialist mental health services. The Health of the Nation Outcome Scales (HoNOS) are the national clinical outcome collection tool mandated by the Ministry of Health to measure the mental health status of mental health service users. HoNOS is administered and rated by clinicians.

HoNOS includes twelve items which are used to assess wider issues impacting on the mental and social wellbeing of adults.<sup>28</sup> Each item provides a measure in one of the following categories: behaviour, impairment, delusions/hallucinations, depression and social problems. A score of 0–4 is assigned to each item according to the severity of symptoms (0 indicating no problem and 4 indicating a severe problem).<sup>29</sup>

This dataset enables comparison with other district health boards (DHBs) by assessing whether mental health clients in greater Christchurch have disproportionately more clinical symptoms and poorer functioning as a result of the earthquakes and recovery.

Trends in the HoNOS dataset for clients using community outpatient mental health services at admission are measured using the following indicators

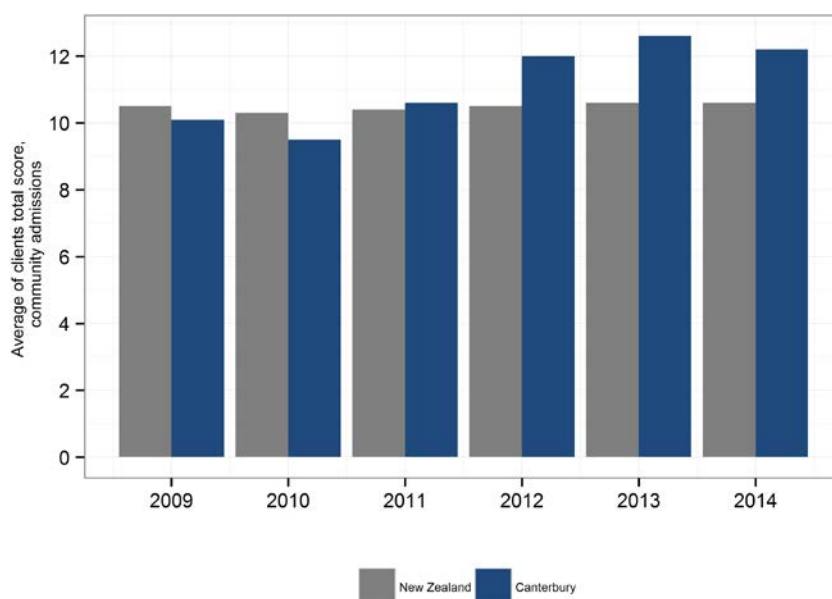
- The total score across all 12 HoNOS items as a high level indicator of symptoms and functioning
- The Index of Severity across the first 10 HoNOS items as an indicator of the severity of clients conditions
- Individual scores for items for depression and social problems



Figures 8 – 10 demonstrate percentage increases across these three measures in Canterbury community mental health services in contrast with static national scores indicating that there has been an earthquake and recovery impact. Assessments comparing inpatient scores do not show the same effect, suggesting that people with more severe mental health issues may be less impacted. A similar assessment tool for children and young people also indicates a lower impact.

Figure 8 illustrates that total scores for those assessed in community mental health services have been disproportionately higher in Canterbury since 2011 immediately following the earthquakes of September 2010 and February 2011. Higher HoNOS scores indicate higher levels of symptoms, distress and dysfunction associated with mental health difficulties, while lower scores indicate fewer symptoms.

*Figure 8: Average total HoNOS score for clients assessing community mental health services, by area*







**Since 2011 clients using mental community health services in Canterbury are more likely to be exhibiting severe symptoms than those in other DHBs. In 2014, 48 per cent of those accessing mental health services had severe symptoms compared with 36 per cent nationally.**

Figure 9 shows that since 2011 clients using mental community health services in Canterbury are more likely to be exhibiting severe symptoms than those in other DHBs. In 2014, 48 per cent of those accessing mental health services had severe symptoms compared with 36 per cent nationally.

In the pre-earthquake year of 2009, 35 per cent of clients accessing health services showed severe symptoms for both Canterbury and New Zealand. Across all years New Zealand has had more clients than Canterbury with no problems, or problems that require no formal action (sub clinical).

Figure 9: Distribution of Index of Severity for clients accessing community health services, by area

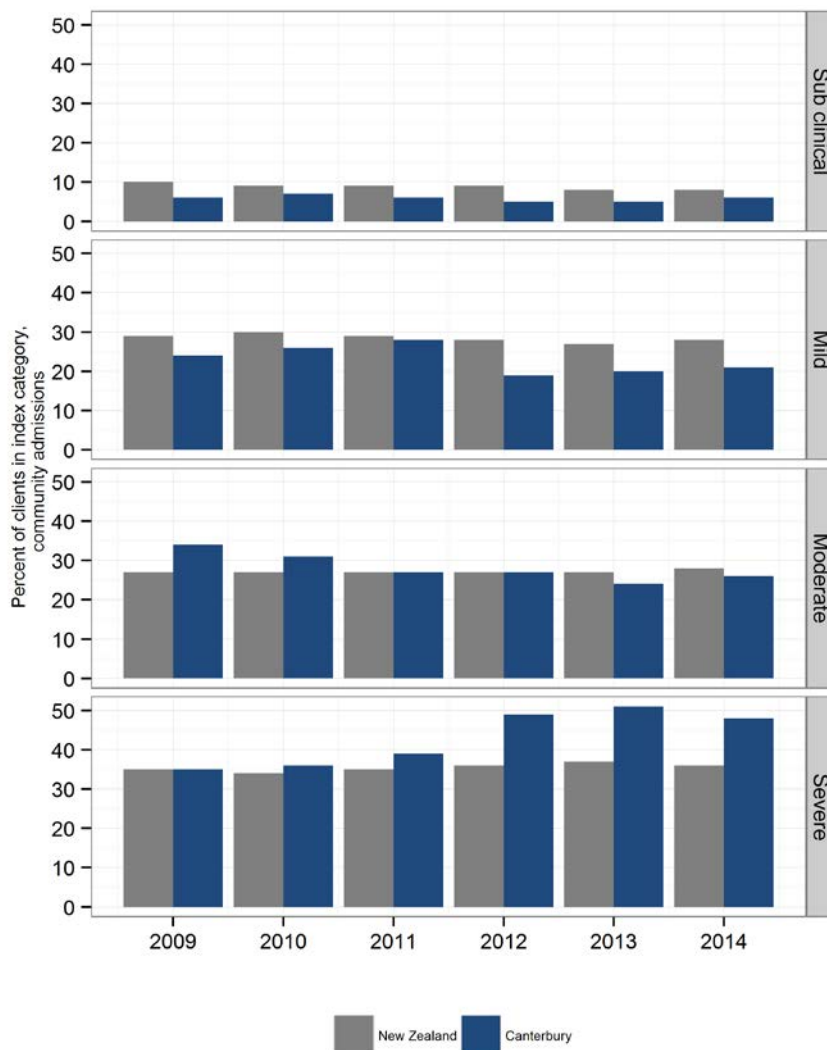




Figure 10 shows that since 2011, the proportion of Canterbury clients assessed with depression and social problems has been higher than across other DHBs.

In 2014, items showing the largest differences were problems with occupations and activities (9 per cent points higher than New Zealand) and problems with living conditions, activities of daily living and non-accidental self-injury (all 8 per cent points higher).

This represents an increase in disparity since 2009, when problems with occupations and activities were 4 per cent points higher than the national percentage, problems with living conditions and depressed mood were 1 per cent higher, and problems with non-accidental self-injury 0.5 per cent point higher.

These findings indicate that wider recovery stressors relating to the repair and rebuild of, as well as the day to day stressors of living in, a damaged environment with loss of meetings spaces and damaged roads have impacted on the mental wellbeing of those accessing community-based mental health services.

Depression problems include:

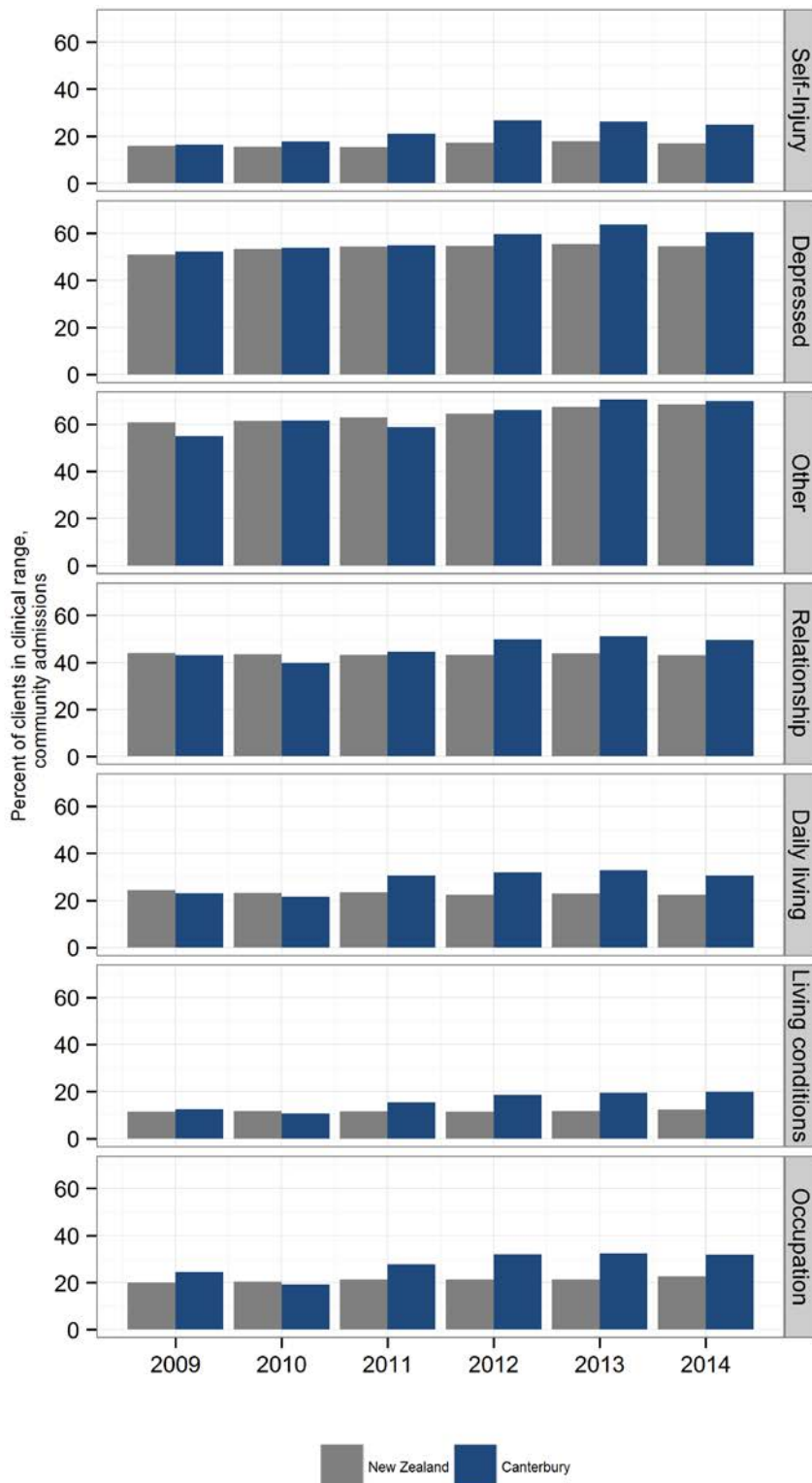
- non-accidental self-injury (self-injury)
- problems with depressed mood (depressed)
- other mental and behavioural problems (other).<sup>30</sup>

Social problems include:

- problems with relationships (relationship)
- problems with activities of daily living (daily living)
- problems with living conditions (living conditions)
- problems with occupations and activities (occupation).



Figure 10: Per cent of clients in the clinical range accessing community health services, by item and area.





### Dispensing of pharmaceuticals for mental health

This is measured using a proxy of the number of anti-depressants and anxiety medication units dispensed.

Antidepressants are used to treat a range of mental health issues. Figure 11 shows that the number of anti-depressants dispensed in the CDHB region declined in the three months to the end of March 2011, the period of the most devastating earthquakes. This represents a decrease of 7 per cent compared with the three months to the end of December 2010. It is not possible to determine whether this drop in units demonstrates a decline in need, people not filling prescriptions, whether prescriptions were filled in other parts of New Zealand, or if people were too busy with other concerns to go to a GP.

Overall the rate of dispensing of antidepressants has steadily increased since April 2011 with the rate in February 2015 one per cent higher than February 2014 and eight per cent higher than February 2011. These rates of increase have slowed compared with pre-earthquake increases.

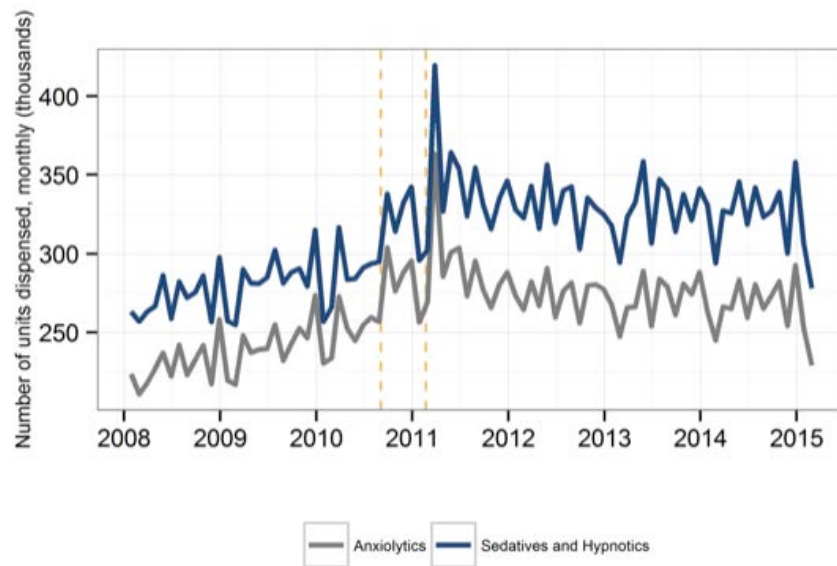
Figure 11: Number of anti-depressant units dispensed

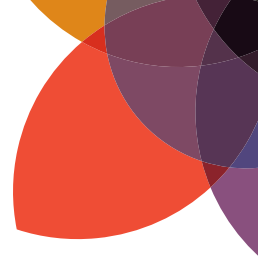




Figure 12 shows that the number of anti-anxiety medications (anxiolytics, sedatives and hypnotics) dispensed in the CDHB region increased immediately after the February 2011 earthquake. Levels peaked in March 2011 when 363,246 units of anxiolytics and 419,623 units of sedatives and hypnotics were dispensed. This represented an increase of 33 and 32 per cent respectively compared with a year earlier (March 2010). These medications are usually prescribed in response to acute stress and sleep difficulties. Since then the number of units dispensed has generally been decreasing, in contrast to an increasing trend before the earthquakes. By February 2015 rates were approximately two-thirds those dispensed in March 2011, and around 15 per cent less than the levels prescribed in February 2011.

Figure 12: Number of anti-anxiety units dispensed





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the support and assistance you can receive:  
[www.cera.govt.nz/support-and-assistance](http://www.cera.govt.nz/support-and-assistance)

Find out more about building community resilience:  
<http://www.familyservices.govt.nz/working-with-us/programmes-services/connected-services/supporting-canterbury/resources-reports.html>

Ring the Canterbury Support Line on: 0800 777 846

Be connected to an Earthquake Support Coordinator: 0800 673 227

Be connected to a Kaitoko Whānau Earthquake Support Worker on: 0800 KAI TAHU or  
0800 524 8248

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## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### 'Quality of life' and 'Experienced stress that has had a negative effect'

**Data source:** The Quality of Life Survey (2006, 2008, 2010 Christchurch city and New Zealand data, and 2012, 2014 New Zealand data); CERA Wellbeing Survey (2012, 2013, 2014 and 2015 greater Christchurch data)

**Data complete until:** October 2014 and April 2015

**Notes:** The Quality of Life Survey is a national survey run every two years. Computer-assisted telephone interviews were conducted with New Zealand residents aged 15 years and older. Residents were selected randomly from the Electoral Roll. The Christchurch sample size is 496 for 2010. For 2010, fieldwork was conducted between 19 November 2010 and 2 March 2011. All interviewing in Christchurch was undertaken before the 22 February 2011 earthquake (and after the first large quake in September 2010).

The questions were asked in the same fashion in the Quality of Life surveys and the CERA Wellbeing Survey.

The results of the Quality of Life Survey include residents of Christchurch only, while the CERA Wellbeing Survey also includes residents of Waimakariri and Selwyn. The 'national' total in 2012 and 2014 is the combined results of the six Quality of Life Project cities of Auckland, Porirua, Hutt, Wellington, Christchurch and Dunedin.

The 'national' total in 2010 is the combined results of the eight Quality of Life Project cities of Auckland, Hamilton, Tauranga, Porirua, Hutt, Wellington, Christchurch and Dunedin.

Prior to 2010, a further two cities were involved and the 'national' average included a number of people resident outside the main Quality of Life Project cities.



#### Divorce and separation statistics

**Data source:** Statistics New Zealand, Census of Population and Dwellings

**Data frequency:** 5 yearly (7 years for the 2013 Census)

**Data complete until:** 2013

**Notes:** The 2011 Census was not held on 8 March 2011 as planned, due to the Christchurch earthquake on 22 February 2011. At that time the 2011 Census could not have been successfully completed given the national state of emergency and the probable impact on Census results.<sup>31</sup>

The 2013 Census was held on 5 March 2013 and results were available from late 2013.

See [www.stats.govt.nz/Census/2013-census/info-about-the-census.aspx](http://www.stats.govt.nz/Census/2013-census/info-about-the-census.aspx)

#### Dissolution applications

**Data source:** Ministry of Justice

**Data frequency:** Yearly

**Data complete until:** December 2013

**Notes:** Data relates to applications filed at Christchurch or Rangiora. Divorce rates are not available.

#### The 0800 Canterbury Support Line

**Data source:** Family and Community Services Southern, Ministry of Social Development

**Data frequency:** Monthly

**Data complete until:** February 2015

**Notes:** Calls are logged as low, medium or high priority by staff. Calls are also categorised by reason for call.

#### Earthquake Support Coordination Service

**Data source:** Canterbury Earthquake Temporary Accommodation Service

**Data frequency:** Monthly

**Data complete until:** February 2015

**Notes:** Data from February 2011 to September 2011 were not available for graphing as they were previously collated monthly.

#### Brief intervention counselling services

**Data source:** Canterbury District Health Board

**Data frequency:** Monthly

**Data complete until:** December 2014

**Notes:** The BIC service provides up to five sessions of free psychological intervention for clients and, in some cases, also refers clients to other community agencies, such as Presbyterian Support and the Stop Trust, for ongoing support. Clients are referred to the BIC service through their general practice teams.

#### Mental health referrals to pre-existing services

**Data source:** Canterbury District Health Board

**Data frequency:** Monthly



**Data complete until:** December 2014

**Notes:** The data represent all referrals received from all sources, and referrals seen. Referrals seen are those referrals that proceeded to be seen for assessment/treatment (one day or more) for one or more contacts and include mental health earthquake-related services.

Note: there have been some data integrity issues that have affected capturing of NGO data.

### Psychiatric Emergency Services

**Data source:** Canterbury District Health Board

**Data frequency:** Monthly

**Data complete until:** March 2015

**Notes:** Data represents unique clients from east, west, north and south community teams.

### Health of the nation outcomes scales

**Data source:** Te Pou

**Data frequency:** Yearly

**Data complete until:** 2014

**Notes:** Data was sourced from Ministry of Health Programme for the Integration of Mental Health Data (PRIMHD) extracted, 7 April 2015.

Only service uses in mental health and alcohol and drug services that have HoNOS collected are included. Not all service uses have a collection. The CDHB case mix of service users can be different to that of New Zealand.

The total score used is the sum of all valid 12 HoNOS items. Higher total scores tend to indicate higher levels of symptoms, distress and dysfunction associated to mental health difficulties. Lower scores tend to indicate that there are fewer symptoms. It is important to note that summing a person's total score can overlook situations where clients had severe symptoms on a few items and no problems on the rest.

In Canterbury community collection numbers were 2,331 in 2014, 2,635 in 2013, 2,449 in 2012, 1,646 in 2011, 1,189 in 2010 and 1,247 in 2009.

Index of severity categories:

- The sub – clinical category has no HoNOS scores greater than two (mild problem)
- The mild category has all scores less than three (moderate problem) and at least on item greater than one (minor problem)
- The moderate category has only one item which is a moderate or severe problem
- The severe category has at least two items which are a moderate or severe problem

### Mental health pharmaceuticals

**Data source:** Pharms Data Mart via Canterbury District Health Board

**Data frequency:** Monthly

**Data complete until:** February 2015

**Notes:** The data presented are for units within prescriptions that are filled by patients. This does not measure the number of people that are actually taking prescribed medications. Further, some people do not fill prescriptions due to cost (8.2 per cent in 2013/14 in the CDHB region – according to the New Zealand Health Survey) and these people may be disproportionately represented in those requiring mental health pharmaceuticals.

Paxam (Clonazepam) is a drug primarily used to treat epilepsy. This has changed therapeutic groups and now is classified as an anxiolytic.





## Endnotes

- 1 UK Government. (2010). *Confident communities, brighter futures: a framework for developing wellbeing*. Department of Health and New Horizons.
- 2 UK Government. (2010). *Confident communities, brighter futures: a framework for developing wellbeing*. Department of Health and New Horizons.
- 3 Wells, J., Oakley Browne, M., Scott, K. et al. (2006). Prevalence, interference with life and severity of 12 month DSM-IV disorders in Te Rau Hinengaro: New Zealand Mental Health Survey. *Australian and New Zealand Journal of Psychiatry* 40: 845–54.  
  
UK Government. (2010). *Confident communities, brighter futures: a framework for developing wellbeing*. Department of Health and New Horizons.
- 4 Bidwell, S. (2011). *Long term planning for recovery after disasters: ensuring health in all policies (HiAP)*. Community and Public Health for Healthy Christchurch, pp 4–5.
- 5 Adapted from Van Ommeren, M. (2006). Inter-Agency Standing Committee (IASC) guidance on mental health and psychological support in emergency settings. Paper presented at Public Health Pre-deployment Training, 28 November 2006: Chavannes de Bogis, Switzerland.
- 6 Bidwell, S. (2011). *Long term planning for recovery after disasters: ensuring health in all policies (HiAP)*. Community and Public Health for Healthy Christchurch. Version 1.  
  
Galea, S., Nandi, A. and Vlahov, D. (2005). The epidemiology of post-traumatic stress disorder after disasters. *Epidemiologic Reviews* 27: 78–91.  
  
Lock, S., Rubin, G.L., Murray, V. et al. (2012). Secondary stressors and extreme events and disasters: a systematic review of primary research from 2010-2011. *PLoS Current*. doi: 10.1371/currents.dis.a9b76fed1b2dd5c5bfcc13c87a2f24f
- 7 Gluckman, P. (2011). *The psychological consequences of the Canterbury earthquakes*. Retrieved from [www.pmcsa.org.nz/wp-content/uploads/Christchurch-Earthquake-Briefing-Psychosocial-Effects-10May11.pdf](http://www.pmcsa.org.nz/wp-content/uploads/Christchurch-Earthquake-Briefing-Psychosocial-Effects-10May11.pdf)
- 8 Chathapuram S. Ramanathan, Subhabrata Dutta (2013) Page 172 Governance, Development, and Social Work, published by Routledge Publishers, 17 September 2013 (Taylor and Francis Group) London, UK
- 9 Department of Health. (2009). *NHS emergency planning guidance: planning for the psychosocial and mental health care of people affected by major incidents and disasters: Interim national strategic guidance*. London: Department of Health.
- 10 Lock, S., Rubin, G.L., Murray, V., et al. (2012). Secondary stressors and extreme events and disasters: a systematic review of primary research from 2010-2011. *PLoS Current*. doi: 10.1371/currents.dis.a9b76fed1b2dd5c5bfcc13c87a2f24f
- 11 Lock, S., Rubin, G.L., Murray, V. et al. (2012). Secondary stressors and extreme events and disasters: a systematic review of primary research from 2010-2011. *PLoS Current*. 2012 October 29. doi: 10.1371/currents.dis.a9b76fed1b2dd5c5bfcc13c87a2f24f
- 12 Geonet. (2012). *Aftershocks*. Retrieved from [www.geonet.org.nz/canterbury-quakes/aftershocks](http://www.geonet.org.nz/canterbury-quakes/aftershocks)
- 13 Information from Canterbury Earthquake Recovery Authority.
- 14 For information on the CERA Wellbeing Survey, refer to the technical notes.
- 15 Joseph, F. (2011). *What doesn't kill Us: the new psychology of posttraumatic growth*. Basic Books.
- 16 All Right? is a Healthy Christchurch project that is being led by the Mental Health Foundation and the Canterbury District Health Board.
- 17 Briefing paper in relation to the Minister's visit to Christchurch, 14 November 2012, Canterbury District Health Board.
- 18 Retrieved from <https://www.redcross.org.nz/what-we-do/in-new-zealand/stories/extra-support-for-canterbury-schoolchildren>



- 19 Dr Gordon has identified six tips for coping with the ongoing effects of a disaster.  
See <https://www.redcross.org.nz/what-we-do/in-new-zealand/helping-in-canterbury>
- 20 In the Know hub <http://cera.govt.nz/news/2015/in-the-know-hub-now-open-20-april-2015>
- 21 See [www.qualityoflifeproject.govt.nz/survey.htm](http://www.qualityoflifeproject.govt.nz/survey.htm)
- 22 The Quality of Life Survey (2006, 2008, 2010, 2012 Christchurch city and New Zealand data)
- 23 Note that data from previous years are not directly comparable with the 2012 results as they were obtained using a different methodology. However, the results of the two surveys can be compared in a very general sense.
- 24 See notes 21 and 22.
- 25 Note that at June 2015 this data was being assessed by liquidators.
- 26 [www.familyservices.govt.nz](http://www.familyservices.govt.nz)
- 27 [www.cdhb.health.nz](http://www.cdhb.health.nz)
- 28 The twelve HoNOS items are:
  1. Overactive, aggressive, disruptive or agitated behaviour
  2. Non-accidental self-injury
  3. Problem drinking or drug-taking
  4. Cognitive problems
  5. Physical illness or disability problems
  6. Problems associated with hallucinations and delusions
  7. Problems with depressed mood
  8. Other mental and behavioural problems
  9. Problems with relationships
  10. Problems with activities of daily living
  11. Problems with living conditions
  12. Problems with occupations and activities
- 29 Items with scores 0 (no problem) or 1 (minor problem) require no formal action and are not clinically significant. Items with scores greater or equal to 2 (mild to severe problems) warrants recording in the clinical file, these scores are clinically significant and may be incorporated into a care plan.
- 30 'Other' is a large category which includes problems associated to stress, anxiety, eating and sleeping.
- 31 See [www.stats.govt.nz/Census.aspx](http://www.stats.govt.nz/Census.aspx)

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why are risk factors important and how were they impacted by the earthquakes?

Risk factors and the behaviours behind them put people, and at times their families and communities, at risk of harm or poor health.

### Problem gambling

Around 2.5 per cent of New Zealand adults are at risk of problems from their own gambling.<sup>1</sup>

Problem gambling affects not only the gamblers themselves but also the people around them. Evidence indicates that between 5 and 10 other people are affected to varying degrees by the behaviour of each serious problem gambler.<sup>2</sup>

Many of the consequences of problem gambling are financial. A 2010 study estimated that 8 per cent of adults had experienced someone in their wider household going without something they needed or a bill being unpaid in the previous 12 months because of gambling.<sup>3</sup> Problem gambling can lead to social isolation, depression, suicide, relationship breakdown, lowered work productivity, job loss, bankruptcy and crime (including family violence and fraud).<sup>4</sup>

Before the earthquakes, Christchurch had 114 venues operating 1,767 gaming machines. Earthquake damage reduced the number of functioning premises.<sup>5</sup> The February 2011 earthquake closed nine venues in the central business district, 15 venues in the eastern suburbs, and the Christchurch Casino.<sup>6</sup>

No venues closed in the western suburbs. Analysis of gambling spending indicates that displaced users of damaged premises shifted their use of gaming machines to functional premises in the western suburbs.<sup>7</sup>

In Kaiapoi, the September 2010 earthquake closed three of the four licensed gambling venues.

### Air quality

Home heating is the main cause of air pollution in urban centres in winter and people's heating decisions can present health risks to others. When solid fuels burn, they emit particulate matter into the air. The main pollutant of concern is PM<sub>10</sub> (including PM<sub>2.5</sub>) which is particulate matter less than 10 microns in diameter (less than 2.5 microns in the case of PM<sub>2.5</sub>). These particles can irritate eyes, throats and lungs and result in health problems.

In mid-2012, the Canterbury District Health Board (CDHB) released a position statement acknowledging the considerable international evidence that air pollution causes excess morbidity and mortality, particularly through increases in the incidence of respiratory and cardiovascular illness. These effects are particularly concerning for the elderly and infants, people with asthma and other respiratory diseases, and sufferers of other chronic diseases, such as heart disease.

The World Health Organization has established a health-based guideline of 50 micrograms of PM<sub>10</sub> per cubic metre of air (µg/m<sup>3</sup>) averaged over a 24-hour period. Days when this guideline is exceeded are referred to as high pollution days. The Government's National Environmental Standards for Air Quality have set national targets that polluted airsheds around New Zealand must meet. Christchurch and Kaiapoi must reduce the number of high pollution days to meet a target of three days a year by September 2016 and one day a year from September 2020. Rangiora must meet a target of one day a year from September 2016.





Christchurch ratepayers have made a significant investment in cleaning up the air over the last 10 years. Before the earthquakes, the number of annual high pollution days in Christchurch fell from 60 to 16. Although considerable gains have been made, there is still some way to go to achieve the National Environmental Standards for Air Quality.

There is a great deal of uncertainty about how the earthquakes affected air quality. Although thousands of chimneys fell down, many were for unused open fires and therefore do not represent a gain for air quality. Concerns about future power outages as a result of the earthquakes led many households to continue using woodburners or put woodburners back into homes.

In August 2012 the Institute of Environmental Science & Research (ESR) released a report on the health and other impacts of liquefaction silt following the Canterbury earthquakes.<sup>8</sup> This report concluded that PM<sub>10</sub> from liquefaction silt has different physical and chemical properties to existing PM<sub>10</sub> in Canterbury, and resulting health impacts are unknown. The report recommends that silt should be removed as soon as possible if further liquefaction occurs.

The Earthquake Commission (EQC) Winter Heating Programme was established after the earthquakes. It offers people with damaged chimneys the choice of replacing their old log burners or open fires with new, clean, efficient heating system with the cost being covered through their claim to EQC. In the first year after the February earthquake there were almost 13,000 clean heating repairs and replacements. By 30 January 2015, 19,172 repairs or replacements of heating appliances had been completed (10,666 heat pumps and 8,506 fires), and this programme is ongoing.<sup>9</sup>

#### Warm homes

Many New Zealand homes do not meet World Health Organization recommendations for an indoor temperature of 18 degrees Celsius (and up to 21°C for the very young and the very old).<sup>10</sup> A random sample of 400 New Zealand homes also found evidence that cold<sup>11</sup>, damp homes have negative health effects, especially for older people, children and people with a health condition or disability. The benefits of improved home insulation and more efficient heating include reduced health risks and lower heating costs.<sup>12</sup> In response to these issues, the Government introduced the Warm Up New Zealand: Heat Smart programme in 2009, which ran until June 2014, and the Warm Up New Zealand: Healthy Homes programme which began in September 2013.

The Energy Efficiency and Conservation Authority (EECA) administered the Warm Up New Zealand: Heat Smart programme and provided \$347 million over five years for insulation retrofits and clean, efficient heating grants into 241,000 homes. The Government is investing a further \$100 million over the three years from July 2013 as part of its new Warm Up New Zealand: Healthy Homes insulation programme. This programme aims to insulate 46,000 low-income households by June 2016.

Thousands of homes lost their primary heat source in the earthquakes. In addition, roof leaks, blocked drains or ventilation blockage due to earthquake damage to homes may have caused dampness and mould. Earthquake-damaged houses may become more draughty and harder to heat.

#### Smoking rates

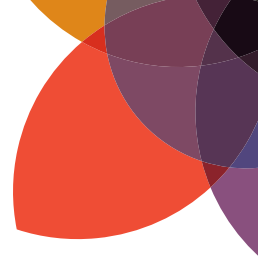
Tobacco smoking kills 5,000 New Zealanders a year. Although prevalence has reduced over time, 17.2 per cent of New Zealanders smoke at least monthly.<sup>13</sup> The 2013 Census showed that 14.2 per cent of the greater Christchurch population aged 15 years and over smoked, compared with 15.1 per cent of the New Zealand population.

Smoking is a risk factor in six of the eight leading causes of death worldwide.<sup>14</sup> In New Zealand the main causes of smoking-related death are cancer, vascular diseases and respiratory diseases. About 50 per cent of regular smokers will be killed by their smoking. For Māori, the mortality rate is 10 per cent higher than for non-Māori.<sup>15</sup> Across New Zealand, smoking prevalence for Māori (40.6 per cent) is more than double the rate for non-Māori (13.9 per cent) according to the 2013/14 New Zealand Health Survey.

Internationally, rates of smoking have tended to increase after a natural disaster.<sup>16</sup> However GP reported smoking data for Canterbury shows only a slight increase in smoking in 2011. This subsequently tracked downwards.



**By 30 January 2015,  
19,172 repairs or  
replacements of  
heating appliances  
had been completed  
(10,666 heat pumps  
and 8,506 fires),**



## Obesity

Obesity is defined as an excessively high amount of body fat in relation to lean body mass. Eating a healthy diet and getting regular physical activity can help maintain a healthy body size.

Obesity is associated with an increased risk of a number of health conditions, including type 2 diabetes, ischaemic heart disease, high blood pressure, cancers, arthritis (especially osteoarthritis) and stroke.

The latest results from the New Zealand Health Survey show that in 2013/14 almost three in ten adult New Zealanders were obese. There has been no significant change in the rate since 2011/12, but more data is required to confirm whether this represents a slowing in the growth of obesity rates

It has been suggested that levels of obesity may increase because disasters trigger a survival instinct which may cause people to consume more calories.<sup>17</sup> A research study of Canterbury women found that before the earthquakes eating habits were fairly stable. Following the February 2011 earthquake, emotional eaters who reported high levels of post-earthquake distress started reporting increased overeating.<sup>18</sup>

## Hazardous drinking

Alcohol is the most commonly used recreational drug in New Zealand with 16.1 per cent of adult New Zealanders reporting drinking alcohol at a level that was hazardous to their health in 2013/14. Alcohol is a cause of over 60 different health conditions and, for almost all conditions, heavier alcohol use means higher risk of disease or injury.<sup>19</sup> Estimates indicate between 600 and 1,000 people die from alcohol-related causes each year.<sup>20</sup>

Alcohol also contributes to death and injury through traffic accidents, drowning, suicide, assault and domestic violence.<sup>21</sup> Up to 35 per cent of injury-based emergency department presentations are estimated to be alcohol-related, rising to up to 70 per cent during the weekend.<sup>22</sup> New Zealand Police estimates that approximately one-third of all apprehensions involve alcohol.<sup>23</sup>

Many studies suggest that disasters can lead to increased alcohol use and abuse.<sup>24</sup> In greater Christchurch there are anecdotal reports of increased alcohol use immediately after the earthquakes. Women's Refuge reported an increased rate of hazardous drinking leading to domestic violence in the year following the earthquakes.<sup>25</sup>

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## What is happening now?

### Problem gambling

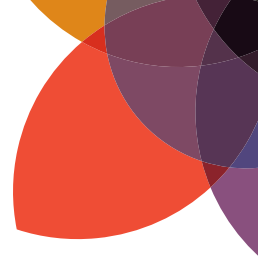
At December 2014, 90 venues in Christchurch city were operating with 1,288 gaming machines which remains lower than before the earthquakes. Just under 8 per cent of all gaming machines in New Zealand are located in Christchurch and the city typically accounts for around 10 per cent of national gaming machine proceeds.<sup>26</sup>

The Multi Venue Exclusion programme has been introduced to Canterbury. Under this programme, people who have recognised that their gambling has become a problem can choose to exclude themselves from several venues at once without having to visit each venue separately to do so.

### Air quality

Significant progress is now being made in addressing air quality with one of the lowest concentration years for PM<sub>10</sub> reported at the St Albans monitoring station in 2014.

In 2014 Environment Canterbury released a discussion document on a review of the Canterbury Air Plan and in early 2015 a proposed plan was publically notified. This proposed plan addresses air quality issues associated with home heating, industry, outdoor burning, odour and dust. In relation to home heating the plan provides for wood burning into the future through requiring a combination of both better burning and better burners.<sup>27</sup> As part of the Air Plan review, Environment Canterbury in conjunction with Community and Public Health finalised a health impact assessment for wood burning households. This provided further insight into which part of the community were vulnerable in relation to heating issues and where assistance should be focused and informed policy development. A key recommendation from this study was that a cross-organisational approach was required to assist these households.



During winter 2014, Environment Canterbury continued to relax the implementation of the Air Plan restrictions on the use of open fires and old wood burners for people living in earthquake or flood damaged homes. This ensured that residents remained warm while waiting for a home repair or rebuild. The winter fire ban on open fires and older log burners still applied to people whose homes were not compromised by earthquakes or flooding.<sup>28</sup> There was also consideration given to those needing to use older burners who were in financial hardship.

### **Warm homes**

A change to the Earthquake Commission's rules around the Canterbury earthquake repairs process has allowed customers the opportunity to install insulation in areas exposed during earthquake repairs, even if the insulation work is not earthquake related. Home owners are responsible for organising and paying for any insulation that has not been installed in the house already. The initiative has been collaboration between the Earthquake Commission's Canterbury Home Repair Programme and EECA.

The Build Back Smarter project has also meant homeowners are able to get a prioritised plan for making their homes warmer, drier, healthier and more efficient during the rebuild process.

The Warm Up New Zealand: Healthy Homes programme offers free ceiling and underfloor insulation to low income households with occupants at risk from illnesses linked to cold, damp housing. This includes low income households with children under 17 and elderly residents over the age of 65. EECA partners with service providers, third-party funders and health and social agencies to ensure that eligible low income households are identified and their houses are insulated for free. By April 2015, insulation had been installed in 3,428 homes in greater Christchurch.

This work is on top of the five-year Warm Up New Zealand: Heat Smart programme (which ended in June 2014) installing insulation in more than 22,000 rented and owned homes in addition to the installation of 8,965 clean and efficient heaters.

Environment Canterbury is also continuing to work with partners such as Community Energy Action to support low income households with free home energy checks and where needed financial assistance for replacing older wood burners with more efficient technology. Three ultra-low emission wood burners have also been made available to the market and these are available for installation in all homes, even new homes in Christchurch, Rangiora and Kaiapoi.

'Let's Find & Fix' was a community-led initiative launched in April 2014, which aimed to identify earthquake-damaged homes that need temporary repairs to keep them safe, secure and weather tight. This campaign, initiated by Canterbury Communities' Earthquake Recovery Network (CanCERN), was supported by CERA, Red Cross, Community Energy Action, EQC and Insurance Council of New Zealand members. At the conclusion of the initiative in January 2015, 400 homes had been repaired.

### **Smoking rates**

CDHB and Smokefree Canterbury have a range of initiatives to support people to quit smoking and the agencies also work with schools in disadvantaged areas. Health services have focused on identifying patients who smoke, providing them with advice to stop and referring them to cessation services. Enrolments in the general practice-based cessation programme have increased significantly.<sup>29</sup>

### **Hazardous drinking**

The Christchurch City Council has developed a local alcohol policy (LAP) with tougher rules on where and when alcohol can be sold in Christchurch. The LAP is a provision of the Sale and Supply of Alcohol Act 2012. It will enable the council to regulate opening hours for licensed premises, control location and one-way door restrictions in late-night bars and clubs. The draft LAP was out for consultation between May and July 2013.

In October 2013, the council committee reviewing the LAP concluded deliberations on the 4,060 submissions it received and recommended that the incoming Christchurch City Council publicly notify the provisional LAP sometime after 18 December 2013 as allowed under the Sale and Supply of Alcohol Act 2012.<sup>30</sup> The LAP is currently awaiting notification by Christchurch City Council.



## What are the indicators telling us?

### Problem gambling help seeking

We are measuring this in two ways:

- the number of new callers recorded in the Gambling Helpline database
- the number of clients seeking help from face-to-face problem gambling intervention services funded by the Ministry of Health.

There appears to have been a minor earthquake impact on new client calls to the Gambling Helpline from greater Christchurch residents, with numbers increasing slightly (2 per cent) between 2010 and 2011 after a general pattern of decline in line with the national trend. After 2011, new client calls for greater Christchurch declined at a faster rate than for New Zealand as a whole, with a 62 per cent drop between 2011 and 2013 compared with a 19 per cent reduction nationally. Although greater Christchurch recorded an increase in new clients for 2014 in contrast to the continuing decline in New Zealand as a whole, numbers remain well under half the pre-earthquake level.

Figure 1: Number of new clients that have contacted Gambling Helpline

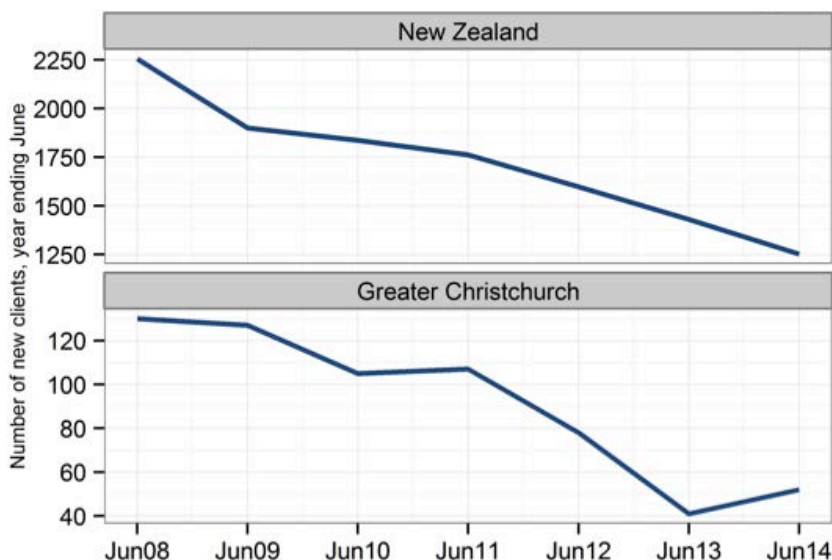
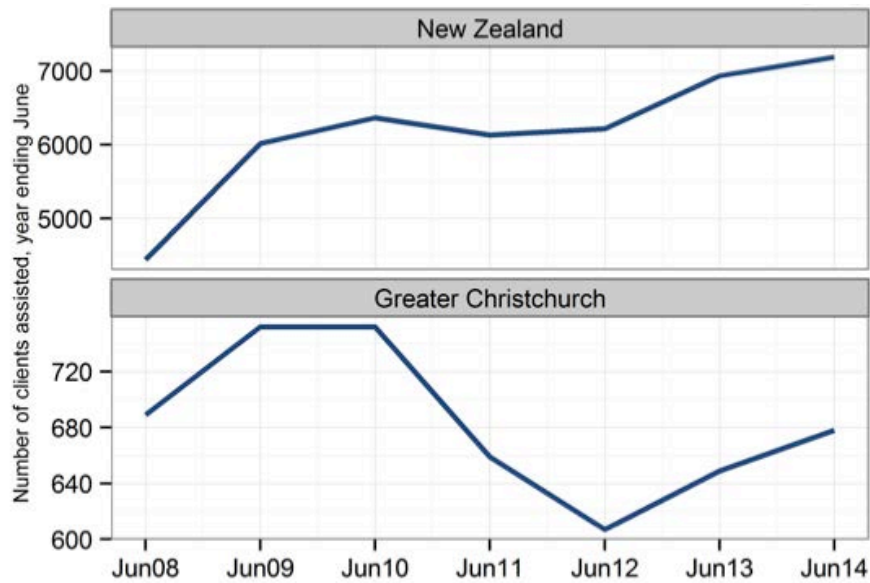




Figure 2 shows the number of people accessing face-to-face problem gambling services decreased significantly between June 2010 and June 2012 in greater Christchurch, while it remained relatively steady nationally. In contrast, between June 2013 and 2014 there was a marked increase both in greater Christchurch and nationally.

Figure 2: Number of problem gamblers assisted by an intervention service







**Air quality breaches in Christchurch city decreased slightly in 2014 but are still slightly higher than the average number of breaches for the pre-earthquake period from 2008 to 2010.**

**Air quality breaches**

Air quality breaches are measured as the number of days the particulate level exceeds the daily level for particulate matter (PM<sub>10</sub> of 50 µg/m<sup>3</sup>) each year.

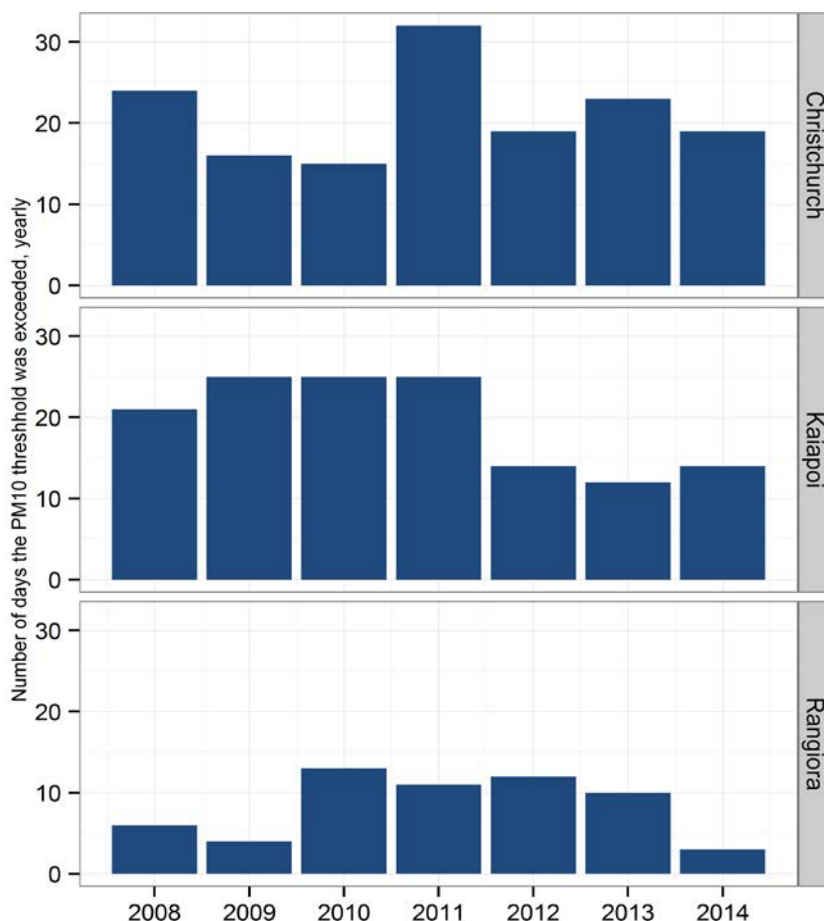
Air quality breaches in Christchurch city decreased slightly in 2014 but are still slightly higher than the average number of breaches for the pre-earthquake period from 2008 to 2010.

Figure 3 shows the number of high pollution days each year. The number of days that exceed the standard vary annually and are affected by the weather. Typically high pollution days occur on still, cold winter nights when households burn wood for heating.

Environment Canterbury reported that 17 of the 32 high-pollution days recorded in Christchurch during 2011 were influenced by liquefaction silt and dust on roads. It was during this time that strong winds blew dry liquefaction silt around. Traffic also moved silt and finely ground gravel on roads into the air, which increased the number of days of air quality breaches in Christchurch during 2011.

In 2014 there were 19 high pollution days in Christchurch. This was fewer than the 23 breaches recorded in 2013 but was higher than the number of exceedance days recorded prior to the earthquakes in 2009 (16 breaches). In 2014, 14 high pollution days were recorded in Kaiapoi and a low of 3 high pollution days were recorded in Rangiora.

Figure 3: Number of days of air quality breaches each year





**Warm homes**

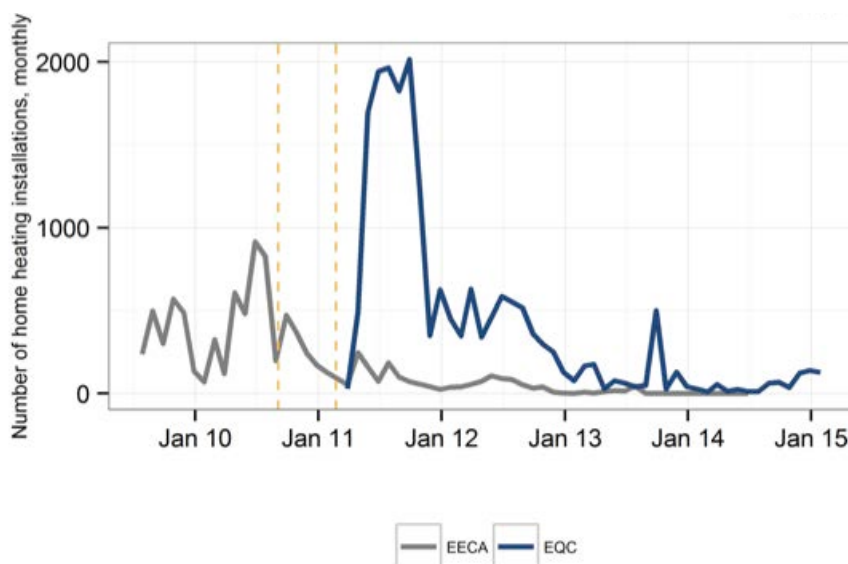
Figure 4 shows clean heating installations in both rental and owner-occupied homes in greater Christchurch by EQC and EECA (Warm Up New Zealand: Heat Smart programme).

The EQC Winter Heating programme spiked in September 2011, with 2,016 installations completed after the February earthquake. Since then, installations have continued at a lower rate. Between March 2011 and January 2015, EQC installed 19,172 clean heating appliances in greater Christchurch.

As part of the Warm Up New Zealand: Heat Smart programme, EECA installed heating appliances in 8,965 greater Christchurch homes between January 2010 and the closure of this programme in June 2014 (and insulation in over 22,000 homes).

The Warm Up New Zealand: Healthy Homes programme has been offering free ceiling and underfloor insulation to high-risk households.<sup>31</sup> The number of installations has increased since the start of the new programme reaching a maximum of 293 installations per month in September 2014. A total of 3,428 insulations have been installed in the 22 months of this programme.

*Figure 4: Winter heating installations (clean heating appliances only) by EECA (Warm Up New Zealand: Heat Smart programme) and EQC in greater Christchurch*





### Smoking rates

We are measuring this in three ways:

- youth smoking – measured as the proportion of the Year 10 population who smoke every day
- adult smoking – the proportion of the adult population presenting to their general practitioner (GP) who are current smokers
- adult smoking – the proportion of the adult population who are current smokers from the New Zealand Health Survey.

Figure 5 shows that the proportion of Canterbury Year 10 students (aged 14 or 15 years) who smoke every day has generally declined over time, consistent with national trends. The Canterbury rates of daily smoking decreased from 3.8 per cent to 3.1 per cent between 2011 and 2012. Rates did pick up slightly to 3.2 per cent in 2013 but decreased significantly again in 2014 to 2.3 per cent, and remain well below pre-earthquake levels.

Similarly, results from the New Zealand Health Survey show that the proportion of Canterbury young people aged 15–24 years who currently smoke has declined from 18.6 per cent in 2006/07 to 15.2 per cent in 2013/14.

Figure 5: Proportion of the Year 10 population who are daily smokers

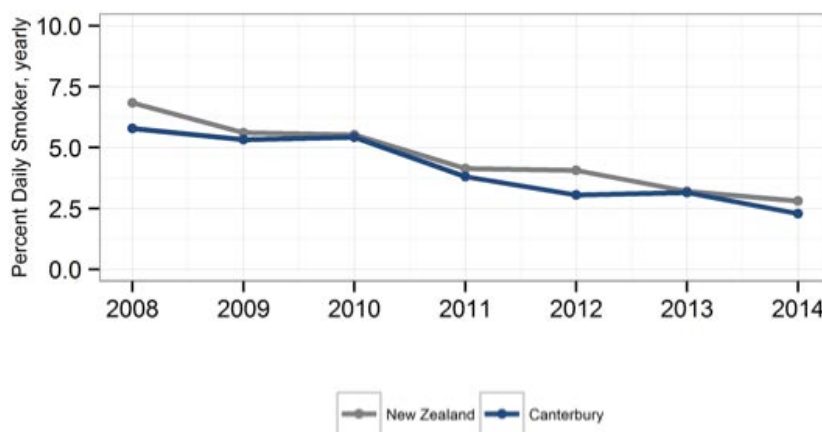
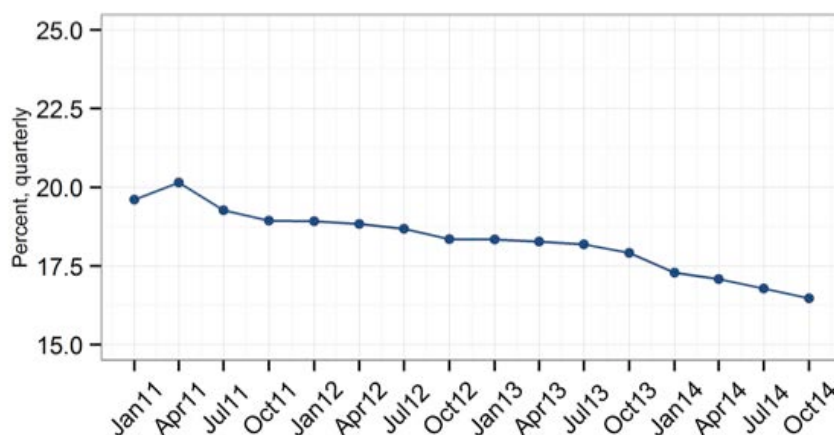


Figure 6 shows that the proportion of the adult population in Canterbury who reported to their GP that they ‘are current smokers’ increased slightly after the February 2011 earthquakes to just over 20 per cent by April 2011. The proportion has since dropped to 16.5 per cent in October 2014.

Figure 6: Proportion of adult population who are current smokers (GP reported data)





**The adult smoking rate in the Canterbury region dropped by 23 per cent between 2006/07 and 2013/14 compared with a 14 per cent decrease across New Zealand.**



**New Zealand Health Survey data found that self-reported rates of hazardous drinking in Canterbury decreased by 46 per cent between the pre-earthquake period of 2006/07 (18.8 per cent of respondents) and 2013/14 (10.2 per cent of respondents) compared with an 11 per cent decrease across New Zealand.**

This decline in GP-reported adult smoking is consistent with results from the New Zealand Health Survey. The New Zealand Health Survey found that Canterbury region's adult smoking rate decreased from 18.4 per cent in 2006/07 to 14.1 per cent in 2013/14 (compared with 17.2 per cent across New Zealand). The adult smoking rate in the Canterbury region dropped by 23 per cent between 2006/07 and 2013/14 compared with a 14 per cent decrease across New Zealand.<sup>32</sup>

**Obesity**

Figure 7 shows that overall obesity has increased between 2006/07 and 2013/14 in Canterbury in line with national trends (from 24.3 per cent to 30.1 per cent) and New Zealand (26.5 per cent to 29.9 per cent).<sup>33</sup>

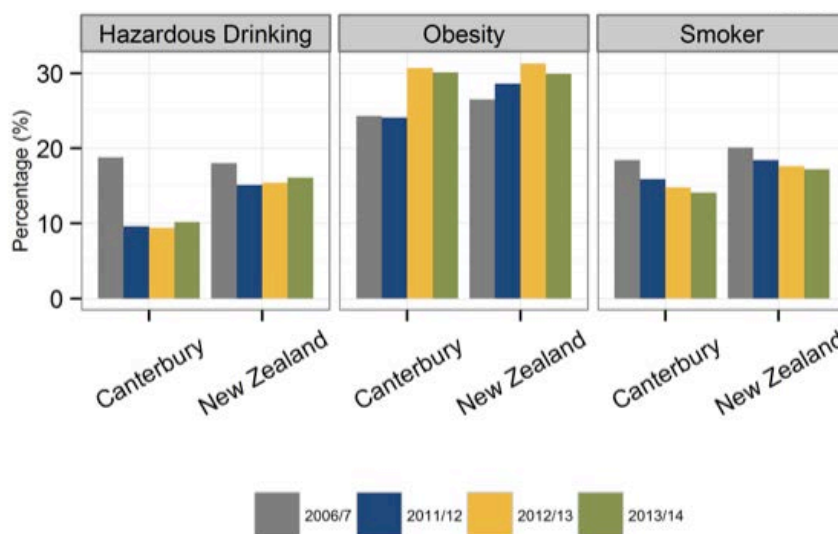
**Hazardous drinking**

The results for hazardous drinking in Figure 7 and Table 1 are of note, given anecdotal reports of increased alcohol abuse since the earthquakes.

New Zealand Health Survey data found that self-reported rates of hazardous drinking in Canterbury decreased by 46 per cent between the pre-earthquake period of 2006/07 (18.8 per cent of respondents) and 2013/14 (10.2 per cent of respondents) compared with an 11 per cent decrease across New Zealand.

Although the reasons for this decrease are not clear, the results are encouraging from a public health perspective, as a decrease is important for long-term health.<sup>34</sup>

*Figure 7: Proportion of Canterbury (CDHB) and New Zealand residents who are current smokers, obese, or hazardous drinkers<sup>35</sup>*



*Table 1: Proportion of Canterbury (CDHB) residents (15+ years) who are current smokers, obese, or hazardous drinkers from the New Zealand Health Survey<sup>36</sup>*

Demographics	Current smoking (%)				Obesity (%)				Hazardous drinking (%)			
	2006/7	2011/12	2012/13	2013/14	2006/7	2011/12	2012/13	2013/14	2006/7	2011/12	2012/13	2013/14
Population rate CDHB area	18.4	15.9	14.8	14.1	24.3	24.1	30.7	30.1	18.8	9.6	9.4	10.2



## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the Let's Find & Fix campaign:  
[www.rebuildchristchurch.co.nz/blog/2014/4/let-s-find-and-fix](http://www.rebuildchristchurch.co.nz/blog/2014/4/let-s-find-and-fix)

Ring the Gambling Helpline on 0800 654 655 or visit the website:  
[www.gamblinghelpline.co.nz](http://www.gamblinghelpline.co.nz)

Find out more about problem gambling, including how to seek help in Canterbury and other parts of New Zealand, from the Health Promotion Agency's Choice Not Chance website:  
[www.choicenotchance.org.nz](http://www.choicenotchance.org.nz)

Find out more about actions to eliminate disease and death caused by tobacco from ASH New Zealand: [www.ash.org.nz](http://www.ash.org.nz)

Ring the smoking Quitline on 0800 778 778 or visit the website: [www.quit.org.nz](http://www.quit.org.nz)

Find out more about the National Environmental Standards for Air Quality from the Ministry for the Environment: [www.mfe.govt.nz/laws/standards/air-quality](http://www.mfe.govt.nz/laws/standards/air-quality)

Find out more about air quality in greater Christchurch, including air quality rules and policy, from Environment Canterbury: [www.ecan.govt.nz/our-responsibilities/air/pages/default.aspx](http://www.ecan.govt.nz/our-responsibilities/air/pages/default.aspx)

Find out more about the Warm Up New Zealand: Healthy Homes programme:  
[www.eeca.govt.nz/eeca-programmes-and-funding/programmes/homes/insulation-programme](http://www.eeca.govt.nz/eeca-programmes-and-funding/programmes/homes/insulation-programme)

Find out more about the ESR report on PM<sub>10</sub> and Christchurch liquefaction silt: [www.esr.cri.nz](http://www.esr.cri.nz)

Find out more about the effect of alcohol on health:  
<http://www.alcohol.org.nz/alcohol-its-effects>

Find out more about the Christchurch City Council's local alcohol policy: <http://www.ccc.govt.nz/the-council/policies-reports-strategies/policies/groups/alcohol/alcohol-policy.aspx>

Find out more about Energy Efficiency Conservation Authority information resources:  
[www.energywise.govt.nz/](http://www.energywise.govt.nz/) and [www.eecabusiness.govt.nz/](http://www.eecabusiness.govt.nz/)

## Technical notes

### Problem gambling prevalence

**Data source:** Ministry of Health administrative data

**Data frequency:** Year ending June

**Data complete until:** June 2014

**Notes:** Gambling Helpline data represent clients who are first time callers

The intervention client data represent the number of clients who have received problem gambling treatment services and who have identified to the service provider a primary problem gambling mode causing them significant harm.

A direct comparison between the July 2004 to June 2008 data and the July 2008 to June 2012 data has limitations because 1) new service specifications for problem gambling intervention service providers were implemented from January 2008 and 2) equivalent intervention services provided by the Gambling Helpline have been included in the data since November 2008.



### Air quality breaches

**Data source:** Environment Canterbury air quality monitoring data  
**Data frequency:** Data collected daily and reported annually in this report  
**Data complete until:** December 2014

**Notes:** Environment Canterbury monitors air quality for three airsheds in the greater Christchurch area: Rangiora, Kaiapoi, and Christchurch city. PM<sub>10</sub> in Christchurch city is measured at two locations: St Albans and Woolston. Data for Christchurch city come from the maximum reading from the two locations in the city. The data reported are the 24-hour average PM<sub>10</sub> concentrations from midnight in µg/m<sup>3</sup>.

The critical value for an exceedance is 50 µg/m<sup>3</sup>, so the daily concentration has to be greater than 50 µg/m<sup>3</sup>. Environment Canterbury reports there is uncertainty in measuring the PM<sub>10</sub> concentrations (+/- 2 µg/m<sup>3</sup>), so it reports PM<sub>10</sub> concentrations in whole numbers. We have used the same method as Environment Canterbury and count the day as an exceedance if the PM<sub>10</sub> concentration is greater than or equal to 50.5 µg/m<sup>3</sup>.

### EECA Warm Up New Zealand: Heat Smart programme retrofits

**Data source:** Energy Efficiency and Conservation Authority  
**Data frequency:** Data collected monthly  
**Data complete until:** June 2014

**Notes:** A retrofit is where a home has had a subsidised heating or insulation retrofit contracted by EECA. Data show the number of houses that had subsidised heating retrofits only.

The EECA data do not include repairs and replacements undertaken by the EQC winter heat programme.

Greater Christchurch is the aggregation of Christchurch city and Waimakariri and Selwyn districts.

### EECA Warm Up New Zealand: Healthy Homes programme

**Data source:** Energy Efficiency and Conservation Authority  
**Data frequency:** Data collected monthly  
**Data complete until:** April 2015

Warm Up New Zealand: Healthy Homes is a three-year (2013/14 to 2015/16) government insulation programme delivering warmer, drier and healthier homes. The programme is targeted at households (including renters) that have a Community Services Card and are at high health risk.

Apportionment changes have been made at a Territory Authority level to better align with EECA's monthly reporting.

Data is now collected from a reporting database, rather than a live database. If a claim has an error it can be returned to the claimant for correction in which case it will shift into a new month as far as the live database is concerned. The reporting database on the other hand is a snapshot taken at the beginning of each month and so captures when any given claim was first made. This has the effect of shifting some claims forward a month when comparing them with the live database.

Greater Christchurch is the aggregation of Christchurch city and Waimakariri and Selwyn districts



### EQC winter heating installations

**Data source:** Earthquake Commission  
**Data frequency:** Data collected weekly but reported monthly  
**Data complete:** March 2011 to 30 January 2015

**Notes:** Chimney Replacement Programme. If a home owner's chimney was damaged significantly by the earthquakes, they could choose to have it rebuilt or to take part in the Chimney Replacement Programme. To be eligible, the house owner must have a claim with EQC and be referred to Fletcher EQR.

The Chimney Replacement Programme was set up following the September 2010 earthquake. It has since been rolled into the Canterbury Home Repair Programme run by EQC and Fletcher EQR. It offers people whose chimneys were damaged the choice of replacing their old log burner or open fire with a new, clean, efficient heating system, with the cost being covered under their EQC claim.

EQC data was cleansed and partly re-categorised to ensure that data is accurate and includes up to date information on the breakdowns between completion of substantive repair works and other works, such as emergency works, clean heat works and other forms of non-substantive specialist works.

### Smoking rates for youth from the Year 10 ASH Snapshot Survey

**Data source:** ASH New Zealand  
**Data frequency:** Data collected annually  
**Data complete until:** 2014

**Notes:** The Year 10 ASH Snapshot Survey has been used to monitor student smoking since 1999. The ASH survey samples approximately half of the schools in New Zealand with Year 10 students annually, and reports results for students who were 14 or 15 years of age at the time of the survey. The indicators are based on the results that are estimates for the whole population based on the Year 10 sample.

The survey normally takes place in Term 3. In 2011 it was changed to Term 2. In 2011, Term 2 went from 2 May to 15 July. In 2010, Term 3 ran from 1 August to 7 October.

Daily smokers are those students who reported that they smoke 'at least once a day' when asked, "How often do you smoke now?".

The Canterbury area refers to the Canterbury District Health Board boundaries.

### PHO smoking rates for adults

**Data source:** CDHB PHO data  
**Data frequency:** Data collected quarterly  
**Data complete until:** October 2014

**Notes:** This is measured as the proportion of the adult population (15–74 years) who are current smokers in the Canterbury District Health Board area. The data are provided by Canterbury GPs. This information is required by the Ministry of Health and the proportion of the population who have been asked this question has steadily increased. The smoking rate is based on all patients with a current smoker status recorded. Currently in the CDHB area over 90 per cent of the adult population has a smoking status recorded.



## New Zealand Health Survey: Results for smoking, obesity and hazardous alcohol use

**Data source:** Ministry of Health

**Data frequency:** Data collected 2006/07, 2011/12, 2012/13 and 2013/14

**Data complete until:** 2013/14

**Notes:** The New Zealand Health Survey has a multi-stage, stratified, probability-proportional-to-size sampling design. The survey is designed to yield an annual sample size of approximately 13,000 adults and 4,500 children.

A dual frame approach has been used where participants are selected from an area-based sample and a list-based Electoral Roll sample. The aim of this approach is to increase the sample sizes for Māori, Pacific and Asian ethnic groups.

Interviews are conducted in participants' homes, with the interviewer typing responses directly into a laptop computer using 'Survey System' computer-assisted personal interview software. Showcards with predetermined response categories are used to assist respondents, where appropriate.

**Current smoker**, based on the World Health Organization definition, is someone who has smoked more than 100 cigarettes in their lifetime and is currently smoking at least once a month.

**Obesity** is defined as a body mass index (BMI) of 30 or more. Survey interviewers measured respondents' height and weight, from which BMI could be calculated. BMI is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of their height in metres (kg/m<sup>2</sup>). According to the World Health Organization:<sup>37</sup>

- a BMI greater than or equal to 25 is overweight
- a BMI greater than or equal to 30 is obesity.

BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. However, it should be considered a rough guide because it may not correspond to the same degree of fatness in different individuals and ethnicities.

**Hazardous drinking** is defined as a score of 8 or more on the 10-question Alcohol Use Disorders Test (AUDIT),<sup>38</sup> which includes questions about alcohol use, alcohol-related problems and abnormal drinking behaviour. Hazardous drinking refers to an established drinking pattern that carries a risk of harming the drinker's physical or mental health, or having harmful social effects on the drinker or others.

This score indicates a potentially hazardous drinking pattern with high risk of future damage to physical and/or mental health due to drinking alcohol, but may not yet have resulted in significant adverse effects.<sup>39</sup>





## Endnotes

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JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

### Why are offending patterns important?

Offending and people's fear of offending affect the wellbeing of individuals and communities. People who hold fears for their personal security can have a lower quality of life and a decreased sense of wellbeing, and may find it difficult to participate fully in their community.<sup>1</sup>

Similarly where offending in a community is perceived to increase or actually does increase, the community may become less appealing for new residents and/or for people who go there for recreation or shopping.<sup>2</sup> In contrast, communities with low levels of offending attract greater investment from the private sector, which in turn creates more employment opportunities and a higher quality of life as the community is more stable and healthier.<sup>3</sup>

Offending patterns are associated with poverty, exclusion and low quality of life. Conditions that make offending more likely are high levels of unemployment, low incomes, low educational achievement, and difficult early family circumstances including abuse and neglect.<sup>4</sup>

In addition to preventing people from starting a life of offending, significant social and economic resources are invested in reducing re-offending. Experts agree that crime is linked to unemployment, low earnings and job instability and that gaining stable employment is 'an important step away from offending'.<sup>5</sup>

The path to employment is smoother where the released prisoner has overcome any substance abuse issues, has found stable housing and has significant support to reintegrate into the community.<sup>6</sup> It is also beneficial if they receive training before they are released so that they have skills required in the labour market, and if local employers are prepared to employ ex-prisoners.<sup>7</sup>

It is anticipated that employment opportunities created by the repair and rebuild of greater Christchurch may help to lower the rates of offending and re-offending.

### How were offending patterns impacted by the earthquakes?

As would be expected, the number of calls to emergency services in the immediate aftermath of the September 2010 and February 2011 earthquakes was high. These calls largely related to earthquake needs rather than criminal activity. Fewer calls were received after the 6.3 aftershock in June 2011.

In the aftermath of some disasters such as Hurricane Katrina in New Orleans, violence and property crime spiked immediately and later fell to a lower rate than before the disaster.<sup>8</sup> However, the context in New Orleans before the disaster was quite different from that in greater Christchurch. It is more typical for crime rates to drop after disasters and return to usual levels within six months to a year.<sup>9</sup>

In greater Christchurch, the New Zealand Police (the Police) recorded a significant fall in total crime in the year following the September 2010 earthquake. Expressed as a rate per 10,000 of population, total recorded crime for the three years before the earthquake was 1,073 offences per 10,000. The rate for the year after the September 2010 earthquake dropped to 876 offences per 10,000 people.<sup>10</sup>





There are likely to be many reasons for the reduction in criminal behaviour. For example, after the earthquakes many people moved away from greater Christchurch and the communities that remained became more connected. In addition, after the February 2011 earthquake, the central business district, historically a high crime location, was closed and extra police and military personnel from around New Zealand and other countries provided a reassuring presence to the community.

With the central business district closed, some of the criminal activities that are usually associated with centres of nightlife moved to other areas such as the entertainment hubs of Riccarton and Merivale.

Overall, burglary rates fell in a similar way to the rate for crime overall. However, the number of burglaries rose sharply in the month after the February 2011 earthquake, possibly because damaged and unoccupied homes made burglaries easier.<sup>11</sup>

Researchers have found that immediately after other disasters, family violence rates have increased.<sup>12</sup> Police data however suggest that in the immediate post-earthquake period greater Christchurch may not have followed this pattern.

Total family violence offences reported did increase in the month of the September 2010 earthquake (434 compared with 291 in September 2009). However, no increase was apparent immediately after the February 2011 earthquake and comparatively low levels of offences were reported in each of the four months following.<sup>13</sup> Yet these figures may not be an accurate record of offending: it is possible that reporting was lower due to other pressures caused by the earthquake. It is estimated that even in 'normal times' only 18 per cent of family violence events nationally are reported to the Police.<sup>14</sup>

Women's refuge providers support the view that rates of reporting may have been affected by the earthquakes. Their experience was that victims were less able to seek help due to many stressors, including damaged homes, lost employment and more frequent risk behaviours such as hazardous drinking.<sup>15</sup> Anecdotally, social services report that cases became more complex with the addition of earthquake-related stress.<sup>16</sup>

Like many other sectors, the justice sector experienced significant damage to infrastructure in the earthquakes. After losing its facilities, the Ministry of Justice opened a criminal court at Ngā Hau e Whā National Marae which operated until May 2013. Social agencies based at the marae reported that this created stronger links with the community and across agencies.

Currently under construction to be completed in 2017, the Christchurch Justice and Emergency Services Precinct bring together all justice and emergency services in one purpose-built, world-class precinct. The precinct will help provide better public services and support agencies in their work to reduce crime and re-offending.<sup>17</sup>

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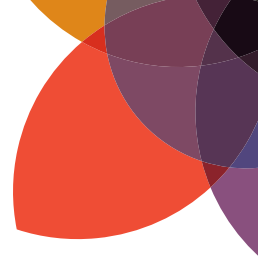
## What is happening now?

Total crime patterns in greater Christchurch are unique and it appears they have deviated from the trends evident after disasters overseas. Total assault and property-related crime has decreased significantly since the start of the earthquakes in September 2010 and as of December 2014 was 12 per cent below pre-earthquake levels.

While these reductions in crime are positive news, the rebuild of greater Christchurch creates more opportunities for offending, such as fraud. However to date, fraud rates have remained below national levels each year post-earthquakes, with the exception of the 2012 year.

The Police report that challenges facing people in the community such as housing pressures, growth in internal and external migrants, and changing alcohol and drug use patterns, have also provided a more challenging policing environment.

In response to increased dwelling assaults, the Police have developed a number of initiatives. The Canterbury Family Violence Collaborative includes over 40 organisations and agencies working to improve and enhance the response to family violence. Between 2012 and 2014 the 'Police Safety Order' collaboration by Police, Stopping Violence Services and refuges offered direct support and safety advice for people who are identified as being at risk of committing violence within their family. The Police have also set up Operation Bright Hope<sup>18</sup> where police pro-actively work with families and refuges in order to strengthen understanding and prevention of family violence incidents.



The Government has directed social agencies working across the justice sector to focus on four priorities under the Drivers of Crime programme (launched in 2009). That is, they are to improve parenting support for at-risk families, address conduct and behavioural problems in childhood, reduce harmful alcohol use, and manage low-level repeat offenders.<sup>19</sup> Under the Prevention First strategy, the Police are focusing on a goal of reducing total reported crime by 20 per cent by 2018. This target was increased at the end of 2014 as the original target of a 15 per cent reduction by 2017 was exceeded.

In addition to these goals the Department of Corrections (Corrections) is working to assist more offenders to find employment when they are released from prison. Among other forms of education, prisoners who meet certain criteria can participate in Trade and Technical National Certificates approved by the New Zealand Qualifications Authority, as well as in industry training qualifications. Under the Better Public Services results action plan, the Government has set a target of reducing re-offending by 25 per cent by June 2017.

The repair and rebuild offers significant opportunities for employment and in response Corrections is providing rebuild-related training to offenders<sup>20</sup>, in areas such as light engineering, painting and decorating, timber joinery, food processing and grounds maintenance. Canterbury prisons have restructured their industry training courses to align with rebuild activity enabling prisoners and community offenders to contribute to the community in a meaningful way while gaining highly employable trade skills.<sup>21</sup>

The Rolleston Construction Yard project is a partnership between Housing New Zealand (HNZ) and Corrections to provide community and prison offenders with qualifications and skills for employment, as they rejuvenate public housing stock and contribute to the Canterbury rebuild.

Eleven houses have been re-clad, re-wired, re-plumbed, insulated, re-plastered and re-painted, with new or modernised bathrooms, toilets and kitchens and new floor coverings. Corrections are on track to refurbish between 23–31 houses by August 2015 and HNZ will then relocate the completed houses onto HNZ sites. Through this initiative, prisoners are learning employable trade skills, including painting, plastering, carpentry, and timber joinery. Instructors on the site are also trained in literacy and numeracy and this is embedded into their trade training.

Offenders on community work sentences have also been making a useful contribution to the rebuild by carrying out proactive property maintenance, removing graffiti, and harvesting in the residential red zone. Between April and October 2013, in a collaborative project between CERA and Corrections, work parties cleared and maintained land and gathered produce from the earthquake-damaged residential red zone. The harvested goods were then given to the City Mission for distribution through food parcels.

The Police and NZ Defence Forces have also undertaken a number of training exercises in the residential red zone between 2013 and 2015.



**There has been a 12 per cent reduction in total assaults and property offences between the two years to December 2009 and the 2014 year. Nationally there has been an 8 per cent reduction over the same period.**

## What are the indicators telling us?

### Offences usually reported to the Police

This is measured using the following offence types in this report:

- Assault-related: 1) Assaults in public places, 2) Assaults in dwellings, 3) Serious assaults resulting in injury
- Property-related: 1) Burglary, 2) Vehicles stolen, 3) Robbery.

This report breaks the data down for assaults and property-related offences. However, when taken together there has been a 12 per cent reduction in total assaults and property offences between the two years to December 2009 and the 2014 year. Nationally there has been an 8 per cent reduction over the same period.



**Overall in greater Christchurch there has been a 20 per cent increase in dwelling assaults between the two years to December 2009 and the 2014 year. Nationally there has been a 4 per cent increase over the same period.**

### Assault-related offences

Reported assault-related offences declined in 2011 and have fluctuated since. Overall, total assaults in the twelve months to December 2014 were similar to the average number recorded in the pre-earthquake period.

Figure 1 shows that assaults in public places dropped by nearly a third in 2011 compared with pre-earthquake levels of 2009. Serious assaults resulting in injury also dropped 11 per cent over this period. This decrease was likely due to the reduction of licensed premises in the centre of Christchurch in 2011. At 2015 figures for both assaults in public places and assaults resulting in injury remain below pre-earthquake levels.

Figure 1: Number of assault-related offences by year

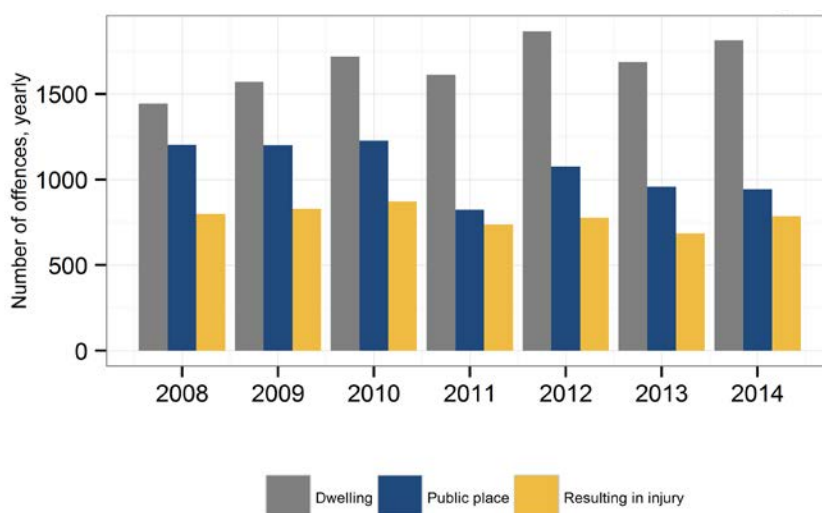
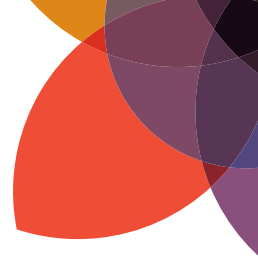


Figure 1 also shows that assaults in dwellings have shown a different pattern.

Overall in greater Christchurch there has been a 20 per cent increase in dwelling assaults between the two years to December 2009 and the 2014 year. Nationally there has been a 4 per cent increase over the same period.

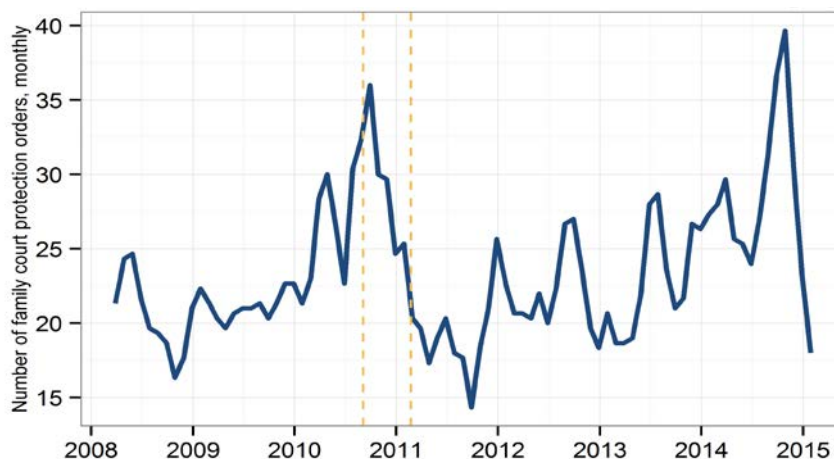


Another measure of family violence is the number of court-ordered final protection orders issued.

Figure 2 shows a decrease in the number of final protection orders issued immediately after the earthquakes in 2011. While the number of final protection orders has fluctuated since it remains below pre-earthquake levels.

Figure 2 shows a decrease in the number of final protection orders issued immediately after the earthquakes in 2011. While the number of final protection orders has fluctuated since it remains below pre-earthquake levels.

Figure 2: Three-month rolling average of the number of final protection orders

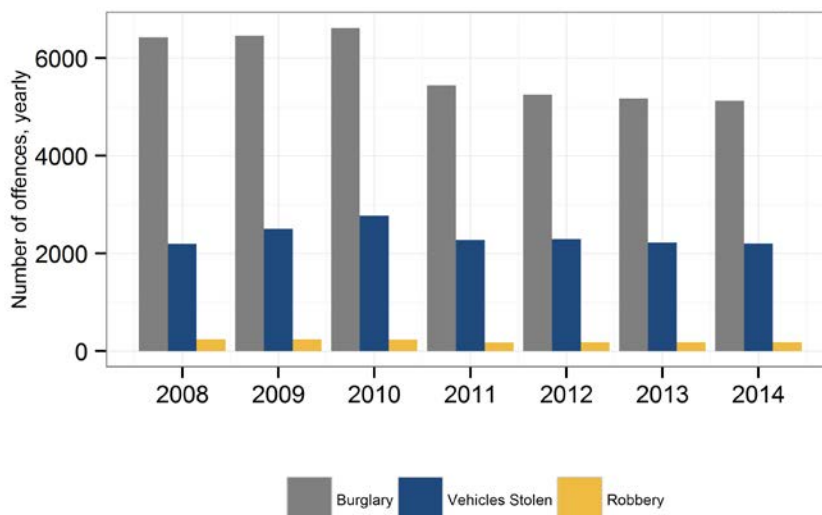


### Property-related offences

Figure 3 shows that the number of burglaries, robberies, and stolen vehicles generally decreased after the earthquakes and burglaries remain well below pre-earthquake levels.<sup>22</sup>

Overall, property related offences in greater Christchurch declined by 17 per cent in the twelve months to December 2014 compared to the average number recorded in the pre-earthquake period comprising the two years to December 2009.

Figure 3: Number of property-related offences by year





**The number of apprehensions for assault-related offences reported to Police increased in 2014 after significant decreases between 2010 and 2013. However numbers remain 14 per cent lower than the pre-earthquake period of 2008 and 2009.**

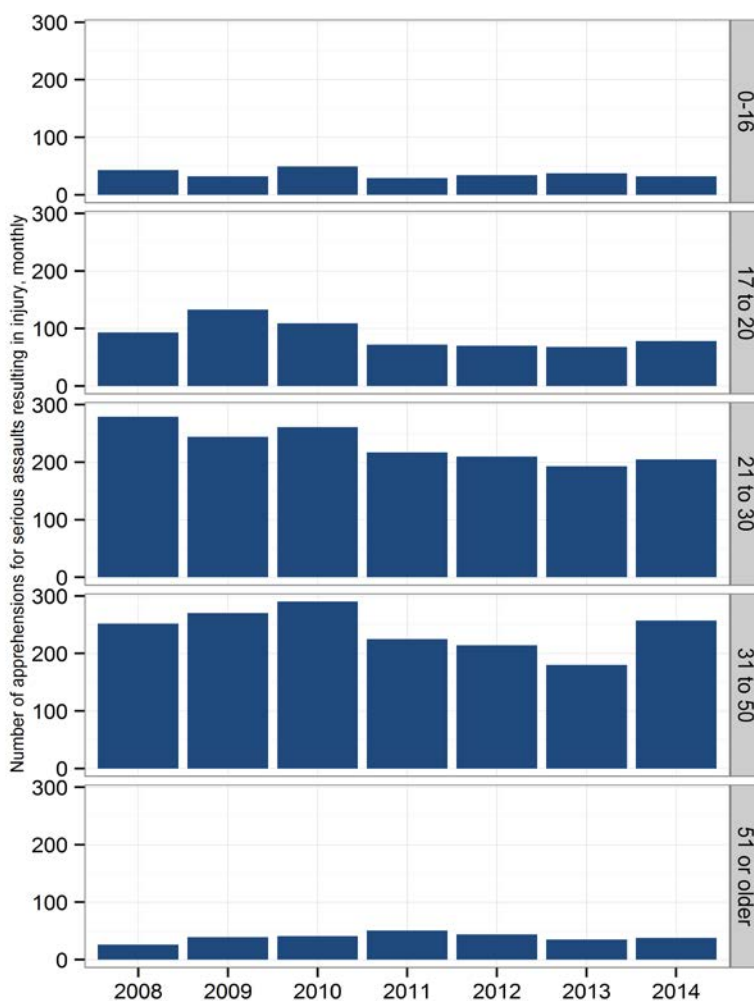
### Apprehensions for offences usually reported to Police

This is measured using the number of apprehensions for serious assaults resulting in injury reported to Police.

The number of apprehensions for assault-related offences reported to Police increased in 2014 after significant decreases between 2010 and 2013. However numbers remain 14 per cent lower than the pre-earthquake period of 2008 and 2009.

Figure 4 shows that there was a decline in apprehensions for serious assaults resulting in injury across most age ranges between 2010 and 2013. In contrast in 2014 there were increases in most age groups, most notably in the 31–50 years age group although this still remains below pre-earthquake levels.

Figure 4: Number of apprehensions for serious assaults resulting in injury, by age



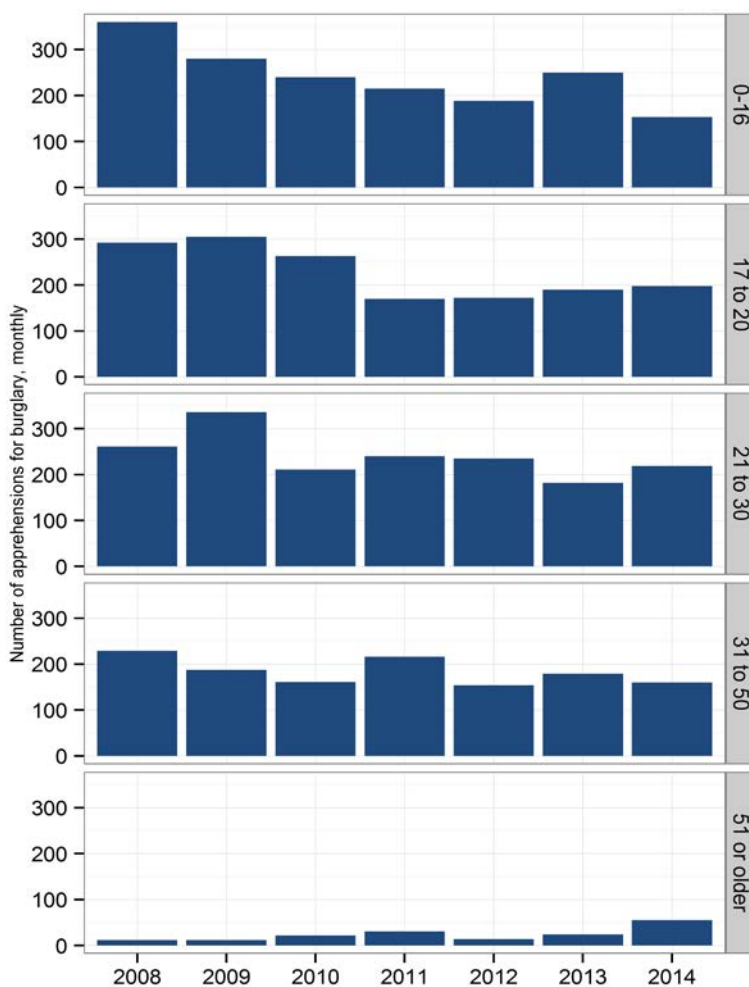




Apprehensions for burglary in Canterbury remain well below pre-earthquake apprehensions, at 31 per cent lower than the average for the 2008 and 2009 years. However, Figure 5 shows that apprehensions for burglary have shown slight increases in 2013 and 2014.

There was an increase in apprehensions in the youth (0–16) age group for 2013 (from 188 to 250 apprehensions), but this dropped back to 153 for 2014. All age groups apart from over 51 years old (the smallest category with 55 apprehensions), show large drops in apprehensions for 2014 when compared with the two years pre-earthquakes.

Figure 5: Number of apprehensions for burglary by age





### Re-offending rates

This is measured using the prisoner re-imprisonment rate and community offender reconviction rate from the Recidivism Index. From 2011 onwards the Recidivism Index yields figures for Canterbury specifically.

Figure 6 shows that in 2011, 27.4 per cent of male prisoners in Canterbury were re-imprisoned within a year of their release but this rate has increased to 29.2 per cent in 2014.

The reason behind this increase may due to extra vigilance by the Christchurch police to follow up recidivism by known offenders. Nationally the rate dropped from 27.1 to 26.1 per cent between 2011 and 2014.

Figure 6: Rate of re-imprisonment, men only

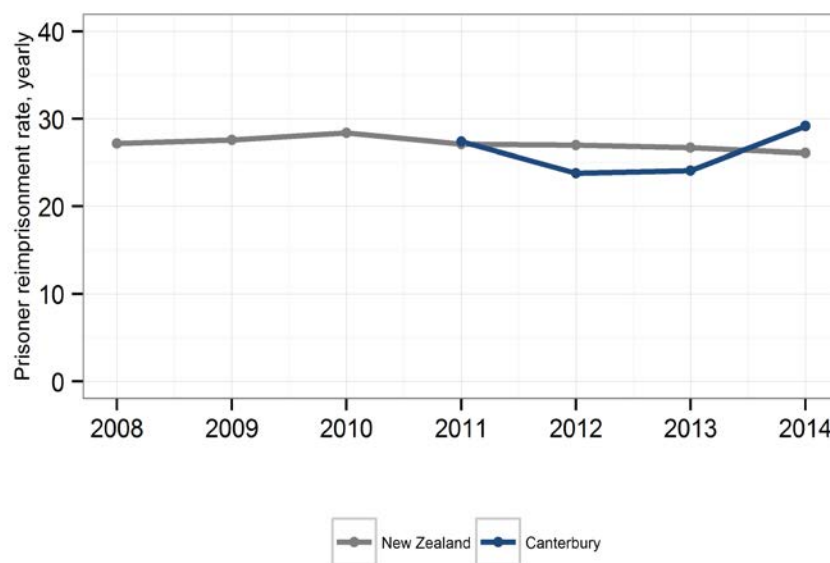


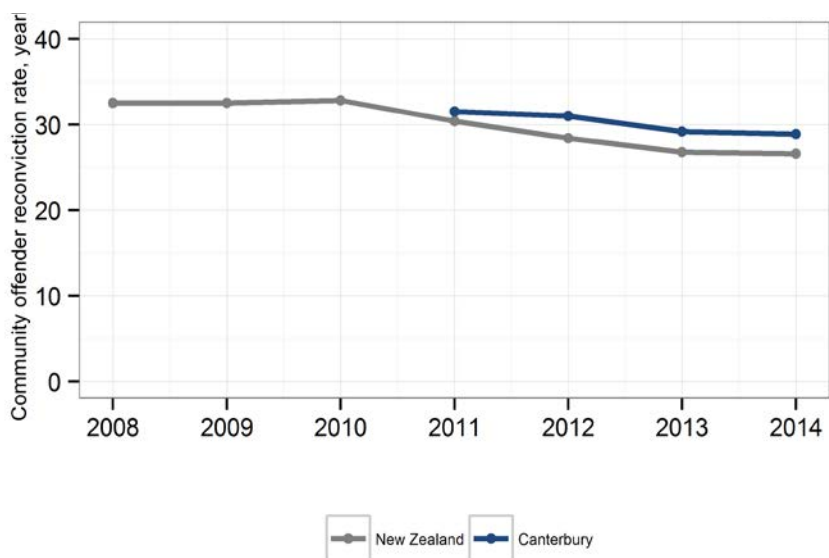


Figure 7 outlines the rate of reconviction for people on community-based sentences (for example community work, home detention, and intensive and extended supervision).

In 2011, 31.5 per cent of community offenders in Canterbury were reconvicted within a year of their community sentence ending. This dropped slightly to 28.9 per cent in 2014.

Nationwide, the community offender reconviction rate also decreased from 30.4 per cent for 2011 to 26.6 per cent in 2014.

*Figure 7: Rate of community offender reconviction, men and women*





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the Department of Corrections' offender training and employment programmes: [www.corrections.govt.nz/working\\_with\\_offenders/community\\_sentences/employment\\_and\\_support\\_programmes.html](http://www.corrections.govt.nz/working_with_offenders/community_sentences/employment_and_support_programmes.html)

Find out more about New Zealand Police monthly statistics for the Canterbury region: [www.police.govt.nz/service/monthly-statistics](http://www.police.govt.nz/service/monthly-statistics)

Find out more about the Campaign for Action on Family Violence: [www.areyouok.org.nz](http://www.areyouok.org.nz)

Find out more about Police Safety Orders: [www.police.govt.nz/advice/family-violence/police-safety-orders](http://www.police.govt.nz/advice/family-violence/police-safety-orders)

Find out more about counselling offered by the Ministry of Justice: [www.justice.govt.nz/courts/family-court/what-family-court-does/counselling](http://www.justice.govt.nz/courts/family-court/what-family-court-does/counselling)

Find out more about taking out a protection order: <http://www.justice.govt.nz/family-justice/about-us/documents/publications/brochure-and-pamphlets/about-protection-orders/protection-orders>

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## Technical notes

### Offences usually reported to the Police

**Data source:** New Zealand Police monthly statistical indicators

**Frequency:** Monthly

**Data complete until:** December 2014

**Notes:** Yearly figures presented are aggregated from monthly statistical indicators.

These monthly statistics are "provisional and drawn from a dynamic operational database. They are subject to change as new information is continually recorded." The monthly provisional statistics are counted differently from the official statistics for recorded offences that are published each April and October. These figures should therefore not be compared with official statistics. For official statistics, see Statistics New Zealand crime and justice statistics: [www.stats.govt.nz/crime](http://www.stats.govt.nz/crime)

The monthly offence statistics presented here have been aggregated for the three Police districts closest to greater Christchurch: Southern Canterbury, Northern Canterbury, and Christchurch Central. This area is referred to as the Canterbury Metro area. A map of New Zealand Police districts is available from: <http://www.police.govt.nz/about-us/structure/districts>

Note: These police indicators were released for the final time on 1 April 2015. They will not be updated in future. New official statistics published by police still cover the key crime types reported in this section, and are likely to have better frequency, timeliness, and scope.

**Serious assaults resulting in injury:** This is a new category for reporting crime statistics in New Zealand and reflects a category in the Australian Standard Offence Classification (ASOC), which New Zealand adopted in July 2010. Offences reported here include 'grievous assault', 'aggravated assault', 'male assaults female', 'assaults child' and other serious assaults that resulted in physical injury. This category excludes common assaults and other assaults that did not result in injury. Serious assaults resulting in physical injury can occur in public places or dwellings. In such instances, the assault will be included in two indicators in this report.

**Public place assaults:** The number of recorded assaults that occurred in public places. This includes both serious and minor assaults. This indicator focuses on the type of location where the assault occurred.



**Dwelling assaults:** The number of assaults recorded that occurred in dwellings. This indicator includes both serious and minor assaults. This indicator focuses on the type of location where the assault occurred. Most assaults in New Zealand occur in either public places or dwellings. Dwelling assaults often occur in situations where family violence is a factor. Note that the New Zealand Police is changing the way it collects family violence statistics, but that many family violence incidents occur in dwellings. [www.police.govt.nz/news/release/31365.html](http://www.police.govt.nz/news/release/31365.html)

**Robbery:** The number of robbery offences recorded by Police. A robbery is a theft from a person that is accompanied by violence or threats of violence. Robbery offences have been included because they are serious offences that tend to be of public interest.

**Burglary:** The number of burglary offences recorded by Police. Unlike robbery, burglary does not necessarily involve violence or threats of violence. It does involve entering an enclosed space with the intention of committing an offence. Burglary offences have been reported here because they are serious offences that tend to be of public interest. Police has a strong focus on preventing and responding to burglaries. Burglaries include both household and business related offences.

**Vehicles stolen:** The number of offences Police recorded for theft or unlawful taking of a motor vehicle. This includes instances where a vehicle is taken for a joy ride and later recovered, as well as instances where vehicles are taken permanently. Such offences have been included because they are of public interest. Police has a strong focus on preventing and responding to these offences.

#### Protection orders

**Data source:** Ministry of Justice. Final Protection Orders Granted under the Domestic Violence or Sentencing Acts

**Frequency:** Monthly

**Data complete until:** January 2015

Protection Orders are either 'Temporary Protection Orders' lasting three months or 'Final Protection Orders' which are permanent until discharged.

**Notes:** Prior to October 2009, Family Court proceedings related to applicants living in the Rangiora catchment area were filed and dealt with at Christchurch.

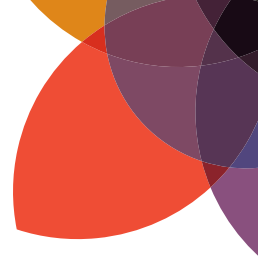
For privacy reasons, individual months with fewer than three orders have been excluded.

Final protection orders include orders made in the Family Court under the Domestic Violence Act 1995 and in the Criminal Court under the Sentencing Act 2002. The latter changes came into force July 2010. The change in July 2010 meant that more powers to make protection orders now exist than previously. However the number of protection orders made under the Sentencing Act (the new powers) in Christchurch is very small: 4 in 2010 (July–Dec), 5 in 2011 (Jan–Dec) and 11 in 2012 (Jan–Oct).

Rangiora District Court closed on 13 March 2014.

Order types include:

- S14 Final Protection Order
- S7 On Notice Protection Order
- S123B Sentencing Act Protection Order



### Pre-court counselling

**Data source:** Ministry of Justice Applications for section 9 counselling under the Family Proceedings Act 1980 and section 65 counselling under the Care of Children Act 2004 as at 14 February 2014

**Frequency:** Monthly

**Data complete until:** 30 March 2014

**Notes:** Filed in Christchurch or Rangiora (until 13 March 2014) between 1 January 2012 and 30 March 2014.

The Family Court arranges free counselling (for up to three hours) for couples who are having problems with their relationship, or who are separating and need help reaching agreement on issues such as arrangements for the care of their children. Counselling is also available for parents and guardians of a child if they are unable to reach agreement on an important issue concerning the child.

The provision of this service ceased on 30 March 2014. The Family Court continues to provide group education courses to help separating parents make good choices for the care of their children.

Rangiora District Court closed on 13 March 2014.

### Apprehensions for offences usually reported to Police

**Data source:** Statistics NZ apprehensions statistics for the most recent 24 months (calendar year)

**Frequency:** Yearly

**Data complete until:** December 2014

**Notes:** Apprehensions for two offence types are shown. These were chosen because there are comparable apprehensions data.

Note the **apprehensions and offences data sets are not directly comparable** because: 1) one is based on official statistics and one is based on monthly Police indicators which are counted differently; and 2) exact offence types included in each data set may vary.

The monthly offence statistics presented here have been aggregated for the three Police districts closest to greater Christchurch: Southern Canterbury, Northern Canterbury, and Christchurch Central. This area is referred to as the Canterbury Metro area. A map of NZ Police districts is available from Statistics NZ: [http://www.stats.govt.nz/tools\\_and\\_services/nzdotstat/tables-by-subject/new-zealand-recorded-crime-tables/maps.aspx](http://www.stats.govt.nz/tools_and_services/nzdotstat/tables-by-subject/new-zealand-recorded-crime-tables/maps.aspx)

### Re-offending rates

**Data source:** Department of Corrections Recidivism Index

**Frequency:** Yearly

**Data complete until:** 2014

**Notes:** Rates are simple percentages, where the number re-imprisoned/reconvicted is the numerator, and total releases/new starts are the denominator. Rates are raw percentages, which means no adjustment for risk was made.

The re-imprisonment sample includes all prisoners released from Christchurch Men's Prison and Rolleston Prison. A small number of released prisoners may live outside of Christchurch and surrounding localities. Reconviction figures are for all offenders (male and female) managed on community sentences in the Christchurch Community Probation Service area. The follow-up period is 12 months from each individual offender's date of release or date of community sentence new start. For 2011 figures, offenders were released from prison or had new starts on community sentences between 1 April 2009 and 31 March 2010.



**Community-based sentences include:**

Community Work – unpaid work for non-profit organisations

Home Detention Sentences – offender to remain at an approved residence at all times under electronic monitoring and close supervision by a probation officer (sentence range 14 days to 1 year)

Supervision – rehabilitative community-based sentence (sentence range 6 months – 1 year)

Community Detention – community-based sentence with electronically-monitored curfew (sentence range up to 6 months)

Intensive Supervision – rehabilitative community-based sentence (sentence range 6 months to 2 years)

Extended Supervision – managing child sex offenders in the community (sentence range up to 10 years).



## Endnotes

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- 20 Reducing re-offending [http://www.corrections.govt.nz/\\_data/assets/pdf\\_file/0008/767924/Annual\\_Report\\_2013-14\\_Part\\_A.pdf](http://www.corrections.govt.nz/_data/assets/pdf_file/0008/767924/Annual_Report_2013-14_Part_A.pdf)
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JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is reducing child abuse and neglect important?

Significant international evidence emphasises that it is important to have a safe, secure and attached childhood. Eighty per cent of a child's brain function develops in the first three years of life. If a child experiences repeated abuse or neglect, this harms their development, progression and functioning.<sup>1</sup> Unsafe childhood experiences are also clearly linked to poor adult mental health, substance abuse, and poor education and employment outcomes.<sup>2</sup>

Children who do not have positive childhood experiences have poorer outcomes as adults. If young people have had contact with Child, Youth and Family (CYF) as a child, they are five times more likely to have a criminal sentence by age 19 or 20 years than a young person who has had no contact with CYF.<sup>3</sup>

Child abuse and neglect add significant costs to the economy. One estimate is that the costs each year amount to a bill of up to \$2 billion over the long term.<sup>4</sup>

The Government's vision for children is that every child thrives, belongs and achieves. It is focused on early intervention and improved access to services such as early childhood education, health services, and care and protection services for those who need a statutory response.<sup>5</sup>

There is no clear international evidence as to whether child maltreatment increases following an earthquake.<sup>6</sup>

It is therefore important that we continue to monitor rates of abuse or neglect throughout the recovery period. Children must also continue to have easy access to early childhood education and health services.

## How were child abuse and neglect impacted by the earthquakes?

After the February 2011 earthquake, CYF observed higher levels of stress and frustration among some client families, particularly those who lost employment as a result of the earthquakes. The wellbeing of some parents who already had mental health conditions deteriorated. Some increases in the use of alcohol and in substance abuse were also observed.

## What is happening now?

In March 2012 the Government announced a number of targets for the public services, including the reduction of assaults on children. Specifically, the Government aims to halt the 10-year rise in children for whom physical abuse has been substantiated by CYF and to reduce current numbers by 5 per cent by 2017.<sup>7</sup> Actions were developed through the White Paper for Vulnerable Children and the Children's Action Plan, released by the Government on 11 October 2012.

July 2014 saw the passing of the Vulnerable Children Act which forms a significant part of comprehensive measures to protect and improve the wellbeing of vulnerable children and strengthen our child protection system. This responded to the White Paper and was based on nearly 10,000 submissions.

The Vulnerable Children Act proposes major changes to support the Government's priorities for improving the well-being of vulnerable children and to ensure that children's agencies work together to improve the wellbeing of vulnerable children.





The White Paper for Vulnerable Children and the Children’s Action Plan proposed changes to:

- screen children for vulnerability more effectively
- fully assess the needs of vulnerable children
- help front-line workers and communities to communicate concerns about children
- focus services more clearly on results.<sup>8</sup>

Actions already underway include the introduction of social workers to more low-decile primary schools, and changes to the Family Start programme to increase the focus on child abuse detection and prevention. In addition, an ‘education assist’ package is making it easier for teachers to communicate their concerns with CYF.<sup>9</sup>

It is recognised that raising people’s awareness could increase reporting of child assaults, which in the short term could increase the rate of proven physical abuse.

### What are the indicators telling us?

Child abuse and neglect are measured in two ways in this report:

- the number of notifications to CYF where further action is required (child investigations)
- the number of these notifications that lead to substantiated (proven) findings of abuse and/or neglect.

Child investigations are counted through notifications requiring further action which may be generated by concerns about child abuse, or the behaviour or mental wellbeing of a child or young person.

Figure 1 shows that in the pre-earthquake period of 2008 to 2011 there was a steadily increasing trend of notifications to CYF requiring further action in both Canterbury and across New Zealand.

Recent trends since late 2013 show a decreasing pattern in the number of notifications for Canterbury and New Zealand, both declining 13 per cent in the 2014 year. However, numbers for Canterbury are still above the pre-earthquake period.

When comparing the pre-earthquake period of the two years to June 2010 to the 12 months to June 2014 child investigations in Canterbury (notifications requiring further action which are generated by concerns about child abuse, or the behaviour of a child or young person) increased by 11 per cent compared with a 3 per cent increase across New Zealand.



**Comparing the pre-earthquake period to the 12 months to June 2014 child investigations in Canterbury increased by 11 per cent compared with a 3 per cent increase across New Zealand.**

**However, recent trends since late 2013 show a decreasing pattern in the number of notifications for Canterbury and New Zealand, both declining 13 per cent in the 2014 year.**

Figure 1: Three-month rolling average for number of CYF notifications requiring further action

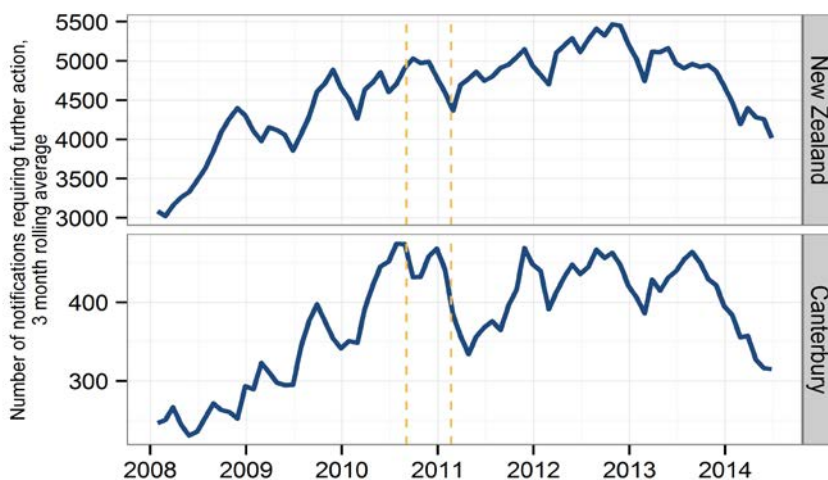
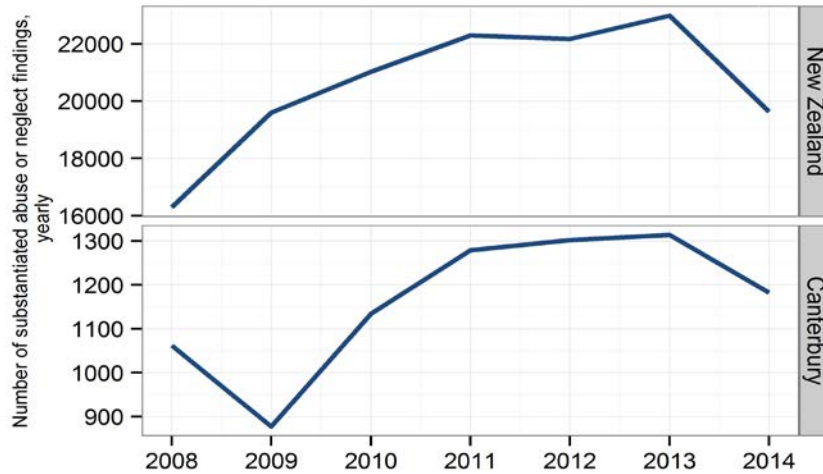




Figure 2 shows a pattern of increasing substantiated findings of child abuse or neglect in Canterbury to 2013, following a dip in 2009. In 2014, there was a significant decline of 10 per cent, mirroring the national pattern. However, numbers for Canterbury still remain above pre-earthquake levels.

Figure 2: Number of substantiated findings of child abuse or neglect yearly





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out how to report child abuse and neglect: [www.cyf.govt.nz/about-us/contact-us](http://www.cyf.govt.nz/about-us/contact-us)

Find out more about Better Public Services targets: [www.msd.govt.nz/about-msd-and-our-work/work-programmes/better-public-services/index.html](http://www.msd.govt.nz/about-msd-and-our-work/work-programmes/better-public-services/index.html)

Find out more about the Government's White Paper on Vulnerable Children and Children's Action Plan: [www.childrensactionplan.govt.nz](http://www.childrensactionplan.govt.nz)

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## Technical notes

**Data source:** Child, Youth and Family (CYF) administrative data

**Data frequency:** Monthly

**Data complete until:** June 2014

**Notes:** The Christchurch area is defined as that serviced by five CYF sites, Christchurch East, Christchurch West, Papanui, Sydenham and Rangiora.

Numbers represent notifications requiring further action and substantiated findings, not clients. Some clients may have more than one notification requiring further action or substantiated findings in the period.

When further action is required following a notification, there are two types of response: a formal investigation and/or a child and family assessment.

The data presented for notifications requiring further action are three-month rolling averages, with data presented as the final of three months. That means that data for August 2010 are the average of June, July and August 2010. The effect is to smooth some of the month-to-month variability. Because a data point represents the end of the three-month period, the data points for three months after each dashed line representing an earthquake partially reflect an earthquake-affected collection period.

Data presented for substantiated findings of abuse are aggregated yearly, due to low numbers in the Canterbury region. The year is July to June.



## Endnotes

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# People participate in and attend the arts



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is it important for people to be involved in the arts?

People attend and participate in the arts for pleasure, creative expression, personal growth and learning. Through participation in the arts, people are able to establish social ties and connect with their own and other cultures.

When individuals gain such advantages, the wider public also benefits. For example, cultures have greater empathy and understanding towards each other and communities are more able to express and create common values and identity.<sup>1</sup>

In addition, the arts promote broad social, cultural and economic goals, such as economic growth and better academic performance.<sup>2</sup>

New Zealanders support the arts strongly. In a 2014 survey, carried out by Creative New Zealand, 78 per cent of respondents agreed that arts help define who we are as New Zealanders and 74 per cent agreed that the arts contribute positively to our economy. They agreed that their community would be poorer without the arts (69 per cent) and supported public funding of the arts (74 per cent).<sup>3</sup>

Research in 2014 also found that 99 per cent of adults in Christchurch had been to at least one cultural event or place within the previous three years.<sup>4</sup> This proportion is slightly higher than the national average of 98 per cent.

## How did the earthquakes affect the arts?

The earthquakes were devastating for the arts infrastructure of greater Christchurch.

All areas of visual arts at professional and community levels were affected. The Christchurch Art Gallery remains closed and individual artists have lost studio and exhibition spaces.<sup>5</sup> The earthquakes damaged some art collections, such as those held in the Central City Library and the University of Canterbury. Many collections were either left without a permanent home or their building was damaged and closed indefinitely. Dealer galleries also closed or moved, reducing the ability of artists to generate income and exhibit works.

Earthquakes disrupted, damaged or destroyed performing arts facilities including the Town Hall and Isaac Theatre Royal. Rehearsal spaces and community venues were lost and those that remained were oversubscribed. Key performing arts organisations and events, such as the Court Theatre, Christchurch Symphony Orchestra, kapa haka and the Christchurch Arts Festival were disrupted. The contemporary popular music scene was also affected with the loss of live music venues such as pubs, the Octagon restaurant and churches that previously hosted the annual Acoustic Church Tours.

In the Arts Centre, where many artists had studios and galleries, 22 of 23 buildings were closed because they required substantial repairs. The estimated repair, rebuild and restoration cost of the Arts Centre is \$290 million<sup>6</sup> and is expected to be completed in 2019.

Despite these challenges, 90 per cent of Christchurch residents agree that arts and culture have a vital role to play in rebuilding the city.<sup>7</sup>





## What is happening now?

The recovery of the arts and cultural sectors is generally being driven by arts community organisations and practitioners, with support from funding agencies such as Creative New Zealand, territorial authorities and the Canterbury Community Trust. For example, between September 2010 and April 2015, Creative New Zealand provided over \$3.35 million in grants to artists, practitioners and organisations through its Earthquake Recovery Grants Fund.<sup>8</sup>

### The Arts and Culture Recovery Plan

In December 2014 the Ministry for Culture and Heritage released the Arts and Culture Recovery Programme for greater Christchurch.<sup>9</sup> The programme sets out a vision for the arts and cultural sector and strategies for achieving that vision. It details what has been achieved to date as well as current and planned projects for arts and cultural recovery.

The Christchurch City Council and CERA are co-leading the anchor project to develop a Performing Arts Precinct within central Christchurch. The new precinct is planned to provide permanent homes for the Court Theatre, the Christchurch Symphony Orchestra and the Music Centre of Christchurch (now renamed The Piano: Centre for Music and the Arts) as well as accommodation for a range of other cultural and community activities. Construction work on The Piano's new facility, including a new 350-seat concert hall, commenced in March 2015.

A community consultation process has been undertaken as part of the development of plans for the Canterbury Earthquake Memorial to ensure that the voices and ideas of the affected families and community are captured in the memorial design process.<sup>10</sup> The May 2015 selection of the successful Memorial Wall design followed extensive consultation with and input from the community.<sup>11</sup>

### Community-led recovery of the arts and culture sectors

In the April 2015 CERA Wellbeing Survey, 37 per cent of respondents reported they have had the opportunity to experience public events and spaces (eg memorial events and initiatives such as Gap Filler project and Re:START Mall). This experience is having a strong positive impact on the lives of 18 per cent. Those living in Christchurch city (20 per cent) were more likely to feel there had been a moderate or major positive impact on their everyday lives from the opportunities to experience public events and spaces than were residents in Selwyn (12 per cent) and Waimakariri districts (10 per cent).

The April 2015 CERA Wellbeing Survey also showed that 20 per cent of residents were positively impacted by more opportunities for individual creative expression. For 9 per cent, this is having a moderate or major positive impact on their everyday lives. This finding is consistent with previous surveys.

In the early recovery period a number of temporary premises were opened to ensure that the arts and cultural sector could continue to operate. Examples included:

- The Canterbury Cultural Collection Recovery Centre at the Air Force Museum, Wigram opened in 2012 to temporarily house collections and allow organisations to work on them. While this was primarily aimed at heritage collections, the centre has also supported arts-based collections such as the Christchurch City Choir's music collection.
- In December 2011, the Court Theatre re-opened in temporary premises, where it is providing a full range of performances.

Through the recovery, innovative transitional arts spaces have been developed through the leadership of the arts and culture community and many of these initiatives have provided the residents of greater Christchurch with opportunities to enjoy the arts in new and unique settings. Examples include:

- Gap Filler, Greening the Rubble and Life in Vacant Spaces continue to offer innovative initiatives in vacant and temporary sites within Christchurch. These organisations support creative people and groups to bring interactive artworks into the city ensuring that it remains an exciting and ever-changing art scape for visitors and locals to visit.





- The Pallet Pavilion (established in 2012) was a transitional community venue in the central city used to host markets, concerts and events. Organisers successfully used crowd-sourced funding to remain open until early 2014.
- RAD Bikes (Recycle a Dunger) opened in the central city on Labour Weekend 2013 as a Gap Filler project set up in collaboration with Inner City East Cycles. It is a volunteer-run community bike shed where anyone can build or repair bicycles and/or help restore bikes to give away. From March 2015 it has become the RAD Bikes Charitable Trust.
- Art Box was created by the Christchurch Polytechnic Institute of Technology (CPIT) in February 2013 to provide visual, installation and performance artists with an innovative and different venue to present their work. Over 31 exhibitions have been held, giving Christchurch artists the opportunity to showcase and sell their work. It is estimated that nearly 30,000 people have visited the Art Box since it opened.
- Art Box makes up part of the new Boxed Quarter along with BeatBox, run by the Christchurch Music Industry Trust to provide studio and rehearsal spaces for Christchurch musicians. CPIT has announced that these current boxes will be relocated from the Boxed Quarter in August 2015 and are currently examining possible new locations for the boxes to ensure that public access continues.
- The Christchurch Art Gallery continues to curate its 'Outer Spaces' programme, which exhibits new works of art in the central city and suburban areas. Art Beat continued its successful multi-arts programme of performance, music and exhibitions run over summer 2013 in the Re:START Mall.
- Street art has been harnessed to help regenerate areas hit hard by the earthquakes with the RISE street art festival and the From the Ground Up project creating around 30 large street artworks in the city centre and Sydenham. Similar innovative community-led projects are under way in the suburbs, such as the New Brighton Mural Madness project which is now in its second year.
- The SCAPE 8 Public Art Christchurch Biennial is a contemporary art event which mixes new artworks with existing legacy works as well as education and public event programmes. Running between October and mid-November 2015, SCAPE 8 artworks will be located around central Christchurch and linked via a public art walkway. All aspects of SCAPE 8 are free to view.

A number of festivals and events have continued to be held in greater Christchurch ensuring that people's ability to participate in the arts and cultural sectors has been maintained and to support the economic recovery:

- In winter 2013 the Winter Chill series of events for young people aged 12 to 24 years was coordinated by CERA and funded by the Ministry of Youth Development and Fletcher Building. More than 50 events were developed by young people for young people with a large number focused on arts and cultural activities including gallery exhibitions, concerts and community art projects.
- Christchurch residents were once again entertained in January 2015 by street and stage performers during the 10-day World Buskers Festival held in North Hagley Park and in venues around the inner city.
- In March 2015 another highlight for the city was Te Matatini's National Festival, a four-day event hosted by the Waitaha Cultural Council, CCC and Ngāi Tahu. The festival attracted huge audiences and media coverage throughout the world.
- Between November 2014 and January 2015, the Christchurch Stands Tall public arts project installed 99 fibreglass giraffes reaching 2.5 metres high on the streets, parks and public spaces of greater Christchurch. This installation by Wild in Art was to celebrate the city rising up and standing tall following the earthquakes. Artists, well-known and undiscovered, young and old, were invited to submit their designs with the best designs selected by sponsors. Schools also decorated 50 small giraffes. At the end of the exhibition, the giraffes were auctioned and the profits shared between local charities.



More recently permanent premises have been repaired and rebuilt to enable the recovery and regeneration of the arts and cultural sectors. Examples include:

- The Isaac Theatre Royal reopened in November 2014 after an extensive rebuild and restoration costing \$40 million. Due to the complex and elaborate construction methods requiring a rebuild from façade to proscenium arch this was one of the most intricate building projects undertaken to date in the recovery. The repair of this premier performing arts venue was a significant milestone in the recovery of the city and region, especially in the performing arts sector.
- In January 2015 the Waimakariri District Council opened a new purpose-designed service centre and library with museum and art gallery space, replacing the former Kaiapoi Service Centre, library and museum. In March 2015 the Rangiora Town Hall was also opened and has been earthquake strengthened and extended to become a performing arts centre with a refurbished auditorium.
- Restoration work on the Arts Centre is proceeding. The registry and old gymnasium buildings have been completed and tenanted – the old gymnasium by the Free Theatre, an experimental theatre company. The University of Canterbury Schools of Music and Classics have recently signed leases to move in to the Arts Centre in the coming year, along with the famous Logie collection of antiquities.
- With help from Creative New Zealand and the Christchurch City Council, the Canterbury Society of Sonic Artists Inc. has established the Auricle Sonic Arts Gallery to support the future development of sonic arts in the city. The Auricle has a monthly exhibition and regular performances featuring local, national and international sonic artists in its octophonic gallery.

Memory projects are important for helping earthquake survivors move forward and for honouring the lives of those who died. Online projects include CEISMIC and Quake Stories. Archives, museums and libraries are also collecting material on the earthquakes.

The innovation of the arts and cultural sectors in leading the recovery of the sector and in prioritising transitional activities within the central city has had a significant impact on the wellbeing of residents through the recovery.



## What are the indicators telling us?

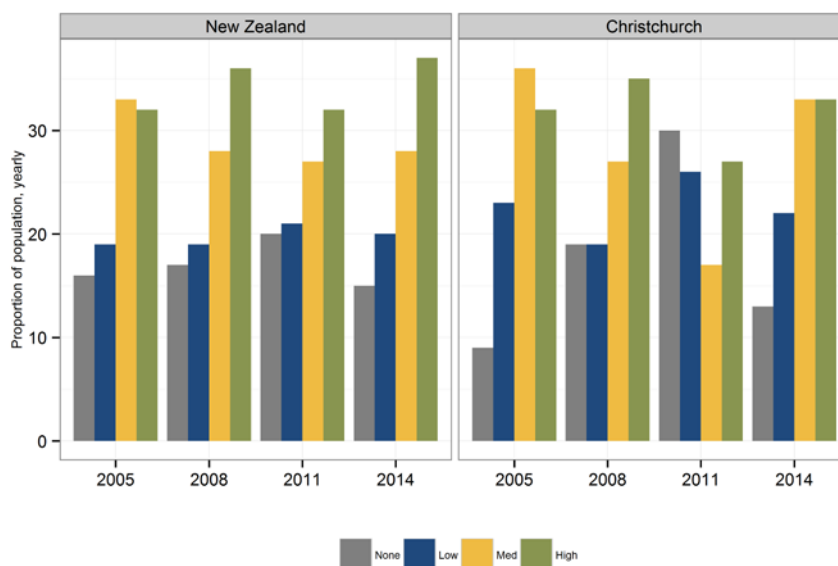
People's involvement in the arts is measured as the proportion of all people who:

- attend arts events
- participate in arts events.

Figure 1 shows that the proportion of the Christchurch population who did not attend arts events in the previous year increased significantly from 2008 to 2011 (from 19 per cent to 30 per cent of the population).

This decreased attendance in 2011 is likely due to the loss of many art spaces and places, and the impacts of the earthquakes on people both personally and financially. In contrast, by 2014 there was a positive change with just 13 per cent of the population not attending arts events in the previous year (compared with 15 per cent across New Zealand), the lowest proportion since 2005. Two thirds of the population attended arts events a 'medium' or 'high' number of times. This improved attendance likely reflects the increased range of arts events and opportunities in the city appealing to a wide range of people.

Figure 1: Proportion of all people (aged 15 years and over) who attend arts events



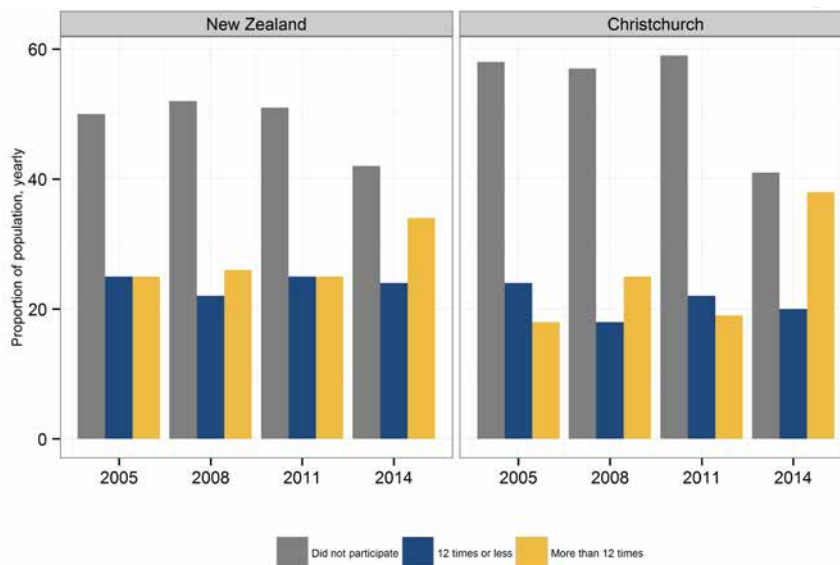


**By 2014 38 per cent of the Christchurch population participated in 12 or more arts events compared with the national average of 34 per cent.**

Figure 2 shows that the proportion of the Christchurch population who did not participate in arts events increased to 59 per cent in 2011 compared with 57 per cent in 2008. Again this trend has since improved, and by 2014 only 41 per cent did not participate in arts events.

By 2014 38 per cent of the Christchurch population participated in 12 or more arts events compared with the national average of 34 per cent. Again this increase reflects the breadth of opportunities available.

Figure 2: Proportion of all people (aged 15 years and over) who participate in arts events





## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the New Zealanders and the Arts Survey: [www.creativenz.govt.nz/en/arts-development-and-resources/research-and-arts-sector-resources/audience-atlas-new-zealand-report-2011](http://www.creativenz.govt.nz/en/arts-development-and-resources/research-and-arts-sector-resources/audience-atlas-new-zealand-report-2011)

Find out more about Creative New Zealand's Earthquake Recovery Grants: [www.creativenz.govt.nz/en/getting-funded/find-funding-opportunities/christchurch-earthquake-recovery-grant-141612171217038/general-info](http://www.creativenz.govt.nz/en/getting-funded/find-funding-opportunities/christchurch-earthquake-recovery-grant-141612171217038/general-info)

Find out more about Christchurch Arts Festival: [www.artsfestival.co.nz/](http://www.artsfestival.co.nz/)

Find out more about Gap Filler: [www.gapfiller.org.nz](http://www.gapfiller.org.nz)

Find out more about the Free Theatre: [www.freetheatre.org.nz](http://www.freetheatre.org.nz)

Find out more about Art Beat: [www.artsvoice.org.nz/art-beat/](http://www.artsvoice.org.nz/art-beat/)

Find out more about the Auricle Gallery: <http://auricle.org.nz/>

Find out more about BeatBox: <http://christchurchmusic.org.nz/beatbox>

Find out more about ArtBox: <http://www.cpit.ac.nz/industry-and-research/industry-and-partnerships/capabilities-and-technologies-for-industry/artbox>

Find out more about The SCAPE 8 Public Art Christchurch Biennial: <http://www.scapepublicart.org.nz/scape-8/>

Find out more about CEISMIC: [www.ceismic.org.nz](http://www.ceismic.org.nz)

Find out more about Quake Stories: [www.quakestories.govt.nz](http://www.quakestories.govt.nz)

Find out more about the Court Theatre: [www.courttheatre.org.nz](http://www.courttheatre.org.nz)

Find out more about the Christchurch Art Gallery: [www.christchurchartgallery.org.nz](http://www.christchurchartgallery.org.nz)

Find out more about the Christchurch Central Recovery Plan: [www.ccdi.govt.nz](http://www.ccdi.govt.nz)

Find out more about the programme to rebuild and restore the Christchurch Arts Centre: [www.artscentre.org.nz/rebuild---restore.html](http://www.artscentre.org.nz/rebuild---restore.html)

## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015.

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)



### Attending and participating in arts events

**Data source:** New Zealanders and the Arts Survey, Creative New Zealand

**Data frequency:** 2005, 2008, 2011 and 2014

**Data complete until:** 2014

**Notes:** Christchurch boundary defined by the local Christchurch telephone calling area. Because this survey is a sample survey, results are subject to sampling error.

#### Definitions:

The arts are defined as:

- **visual arts:** painting; photography; sculpture; web-based/digital art; ceramic-making; film-making
- **performing arts (theatre, dance, music):** ballet or contemporary dance performances; theatre; concerts; singing or musical performances or events; circuses
- **literature:** writers' workshops or literary events; writing poetry, fiction or non-fiction
- **Māori arts:** art or craft; workshops, including carving, weaving or singing; kapa haka or other Māori dance or music activities
- **Pacific arts:** weaving and other Pacific handicrafts; workshops; carving; traditional dance; choir or other musical activities.

#### Attendance includes going to:

- art galleries (including online galleries), exhibitions and film festivals
- performances in theatre, contemporary dance, ballet, music concerts and circuses
- poetry or book readings, and literary festivals or events
- cultural performances and festivals and celebrations of Māori or Pacific arts.

Low attendance: did not attend anything or attended three or fewer events in the past 12 months

Medium attendance: attended more than three events and up to 10 events in the past 12 months

High attendance: attended more than 10 events in the past 12 months

**Participation** includes the active involvement of individuals, groups and/or communities in the making or presentation of art. It applies to professional, emerging and non-professional artists, including those involved in cultural and recreational activities.



## Endnotes

- 1 McCarthy, K., Ondaatje, E., Zakaras, L. and Brooks, A. (2005). *Gifts of the muse: reframing the debate about the benefits of the arts*, MG-218-WF.
- 2 See note 1.
- 3 Creative New Zealand. (2014). *New Zealanders and the arts: attitudes, attendance and participation in 2014*. Retrieved from <http://www.creativenz.govt.nz/en/arts-development-and-resources/research-and-arts-sector-resources/new-zealanders-and-the-arts-2014>
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- 6 The Arts Centre (April, 2013). Issue 1.
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- 8 For the most recent Earthquake Recovery Grants, see [www.creativenz.govt.nz/en/results-of-our-work/who-got-funded/funding-rounds/emergency-recovery-grants-november-2013-february-2014](http://www.creativenz.govt.nz/en/results-of-our-work/who-got-funded/funding-rounds/emergency-recovery-grants-november-2013-february-2014)
- 9 Ministry of Culture and Heritage Recovery Programme  
<http://www.mch.govt.nz/files/Heritage%20Recovery%20Programme%20%28D-0588813%29.PDF>
- 10 [www.ccd.govt.nz](http://www.ccd.govt.nz)
- 11 Earthquake Memorial Wall  
<https://ccdu.govt.nz/our-progress/announcements/wall-design-chosen-for-earthquake-memorial-13-may-2015>
- 12 For information on the CERA Wellbeing Survey, refer to the technical notes.
- 13 Christchurch stands Tall  
<http://christchurch-stands-tall.co.nz/about/>
- 14 Isaac Theatre Royal  
<http://isaactheatroyal.co.nz/our-history/2011-earthquake/>
- 15 See <http://www.artscentre.org.nz/rebuild---restore.html>



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

### Why is participating in sport important?

When people participate in sport, there are significant benefits for themselves, their communities and the economy.

Evidence suggests that people who participate in sports and recreation are more productive employees, enjoy better health and have a better quality of life.<sup>1</sup> When people are more productive and healthier, society benefits and savings are made in the health system.

The sport and recreation sectors contributed an estimated \$352.9 million to the GDP of Christchurch in the 2008/09 year, or 1.6 per cent of regional GDP.<sup>2</sup> In both 2006 and 2013 just under 4,500 people were employed in these sectors in the city.<sup>3</sup>

The people of greater Christchurch appear to appreciate the advantages that sports offer. A 2011 report showed over 94 per cent of adults and 96 per cent of young people in the Canterbury–West Coast region participate in at least one sport or recreation activity over a year.<sup>4</sup>

### How did the earthquakes affect sports participation?

The earthquakes caused critical losses in the sport and recreation infrastructure. Some highly-valued facilities and spaces were closed indefinitely including QEII, Centennial Pool, AMI Stadium and a number of mountain biking and walking tracks in the Port Hills.<sup>5</sup>

Sports have been affected in different ways. For example, rowing lost the flat water space at Kerr's Reach, hockey lost access to artificial turfs and athletics lost access to an all-weather track. Other sports such as basketball and netball had to operate across a reduced number of venues.

Almost half (47 per cent) of the respondents in the 2012 CERA Wellbeing Survey experienced the loss of usual access to the natural environment due to the earthquakes. Just under half the respondents (44 per cent) said they had experienced the loss of indoor sports and active recreation facilities, while 37 per cent had experienced the loss of outdoor sports and active recreation facilities.







## What is happening now?

The Sport and Recreation Earthquake Leadership Group (chaired by Sport Canterbury) is leading the Sport and Recreation Recovery Programme. This programme is working to recover the sport and recreation infrastructure so that participation remains high and caters for the immediate and long-term needs of the community. Part of this work has been the development of a long-term plan (*Spaces, Places and People*) focusing on both formal and informal sports and recreation participation. This online plan was launched in May 2014 and sets out a long-term vision for the sports and recreation sector and guides decision-making through the recovery.<sup>6</sup>

The three priorities in the *Spaces, Places and People* plan, the Ngā Puna Wai Sports Hub, the Metro Sports Facility and the Hagley Park Cricket Oval indicate that the future for sport and recreation in greater Christchurch is promising.

Progress of sports recovery was demonstrated by New Zealand hosting the FIFA Under-20 World Cup between May and June 2015 and the completion of the Hagley Park Cricket Oval in September 2014 in time for the opening ceremony of the ICC Cricket World Cup. The opening of Te Whareora wellbeing and sports facility at Christchurch Polytechnic in March 2015 and the approval to proceed with the Ngā Puna Wai Southwest Sports Hub will also boost the sport and recreation landscape.<sup>7</sup>

Sport Canterbury is also working with regional sport organisations to further develop their capability to deliver sport and recreation in the current environment and into the future. Sport Canterbury with the support of Sport New Zealand has moved to support leadership of regional sports associations through the Sport Canterbury Leadership programme for current or future leaders. This is the beginning of Sport Canterbury's workforce development initiative to support the capability of the sport sector.

As part of its recovery programme, Sport Canterbury has led 13 events ranging from small localised events to large community-driven events, including the Pegasus Fun Run in October 2014 which attracted 1,500 participants.

School-based sport programmes such as competitions and activity hubs for site-sharing schools have been supported in the worst-affected areas. Three temporary pools have been established in east Christchurch and Kaiapoi to increase capacity for those learning to swim. Other sporting events specifically organised for children and young people include the Mud Run (1,200 participants from 30 schools), Tough Kid (mini Mud Run for primary schools with 2,200 participants across Christchurch and Selwyn) and Top Team (a mobile event delivered in schools with over 14,000 young people taking part over the year).

Despite infrastructure losses, Canterbury has benefited from efficient repairs to sporting facilities including the Christchurch School of Gymnastics, Hagley Park netball courts, Cowles Stadium, the tennis courts at Wilding Park and the rowing sheds at Kerr's Reach. In addition, a number of other new facilities have been opened and are now in full use. These include a new hockey turf at Nunweek Park, a refurbished Kaiapoi Aquatics Centre and the Apollo High Performance Centre at Jellie Park.

The Apollo Projects Centre is a government-funded \$3.5 million purpose-built high performance training facility which opened in May 2013. The new centre includes a full-size netball court which is being used by the Canterbury Tactix for training, a high performance strength and conditioning gym, and a 40m long running straight where video analysis and electronic speed timing can be carried out. The building is owned by Sport New Zealand but has been built on land provided by Christchurch City Council within the Jellie Park Recreation and Sport Centre complex

High performance rugby also has a new home in the 100 day upgrade of AMI Stadium by March 2012 to seat 18,000. The Crusaders are based there indefinitely and the stadium has also hosted All Blacks tests and the FIFA Under-20 World Cup Football matches in June 2015.

These successes have helped to move sports participation back to pre-earthquake levels.



**Latest figures indicate that overall sports participation is now above pre-earthquake levels. In 2008, regional sport organisations in Canterbury had 123,360 members compared with 127,371 in 2014.**

## What are the indicators telling us?

Sports participation is measured as the number of people who are members of clubs or school teams affiliated to the Canterbury regional sports body.

Prior to 2011, a number of sports have missing data which makes plotting trends over time problematic. Organisations that did not have complete data prior to 2011 have been excluded.<sup>8</sup>

Figure 1 shows that total membership numbers of regional sports organisations in Canterbury declined by about 3,300 people (3 per cent) over the 2011 and 2012 period. However, latest figures indicate that overall sports participation is now above pre-earthquake levels, having increased by more than 4,500 members (4 per cent) during 2013 and almost 1,000 (1 per cent) in 2014. In 2008, regional sport organisations in Canterbury had 123,360 members compared with 127,371 in 2014.

According to Sport New Zealand's Young People's Survey,<sup>9</sup> in 2011/2012 many school children (years 1–13) in greater Christchurch remained involved in sport and recreation despite the challenges of the on-going earthquakes. Schools played an important role in providing sport and active recreation opportunities during this period, with 50 per cent of school children reporting that they belonged to a school sports team. Just over 57 per cent said they belonged to a sports club outside of school.

In addition, 55 per cent of children spent three hours or more each week taking part in training, practice or competitions and 64 per cent reported spending three hours or more per week taking part in sport or active recreation when 'mucking around'.

Generally, males had greater involvement in sport both inside and outside school and spent more time participating.

Figure 1: Total memberships for Canterbury regional sports organisations

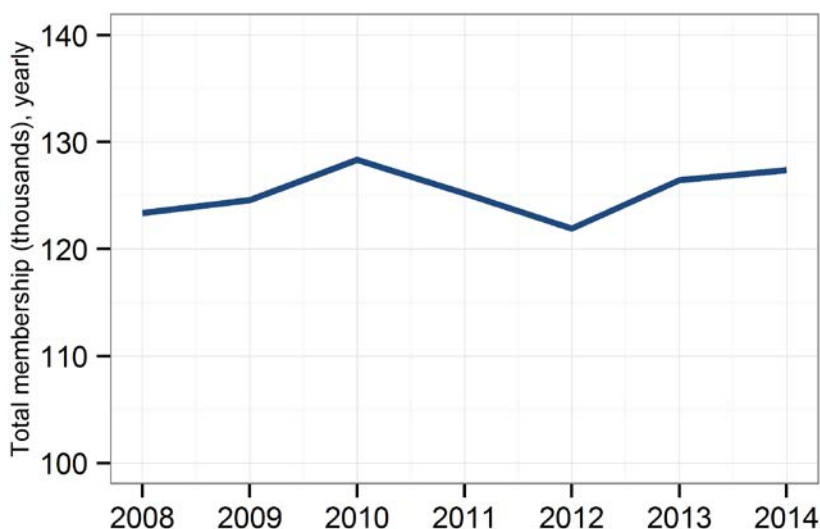
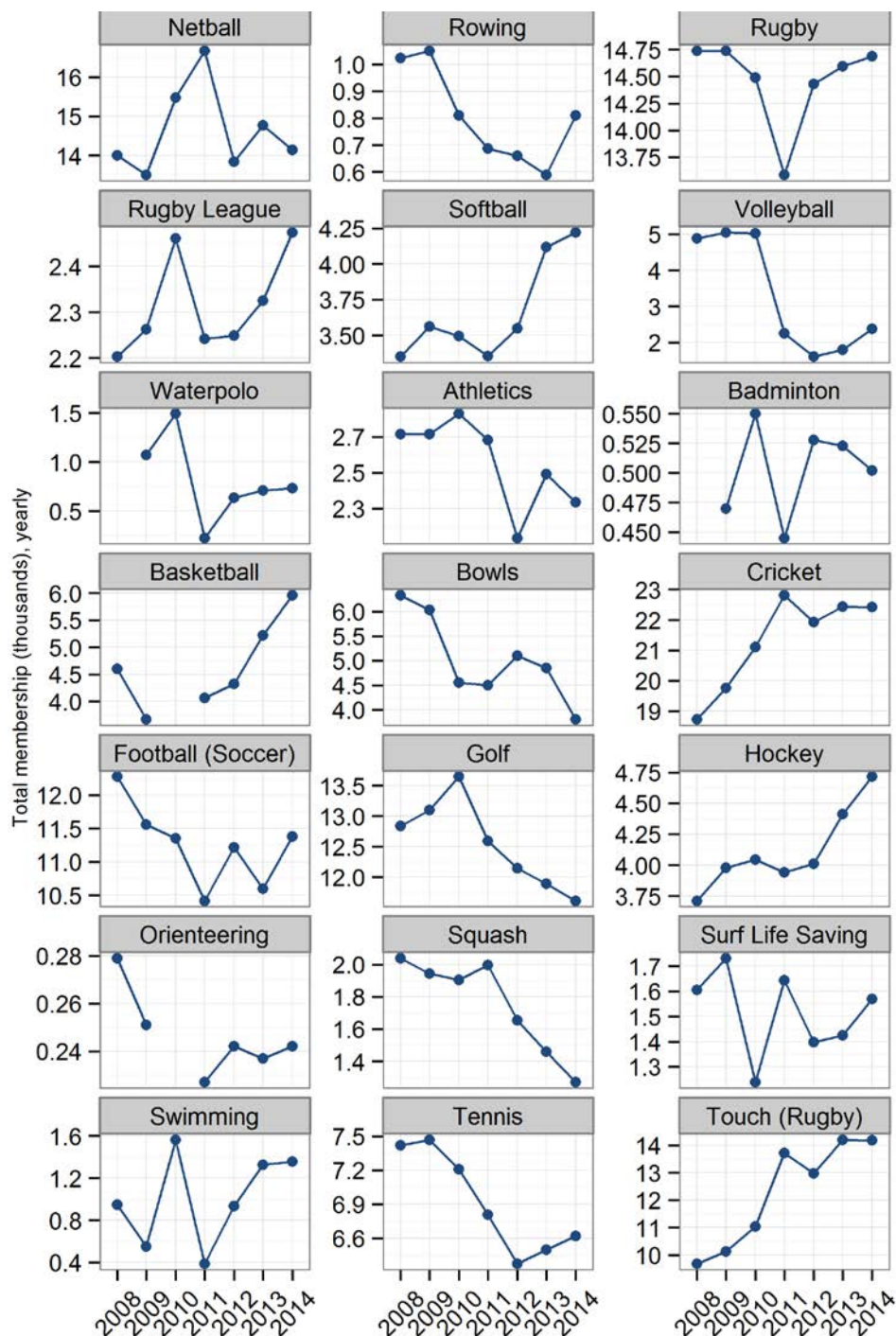




Figure 2 shows the membership patterns within individual sports in recent years. In the years following the major earthquakes, sport organisations' membership numbers fell for a number of sports including swimming, squash, tennis, rugby, volleyball and water polo. The loss of swimming pools and specialised facilities such as tennis and squash courts, volleyball courts and bowling greens is likely to have caused this decrease. In contrast, 2014 figures show that 15 of the 21 regional sport organisations have higher or similar membership numbers than the previous year, reflecting the on-going repair of existing sports facilities and the construction of new facilities as the recovery progresses. Of particular note are increases in memberships for rowing, volleyball, hockey, basketball and football over 2013-2014.

Figure 2: Total memberships by specific regional sports organisations





The latest 2015 CERA Wellbeing Survey in Table 1 shows that over time the loss of indoor and outdoor sport and active recreation facilities has had a diminishing impact on residents' daily lives. In 2012, the loss of indoor facilities had a moderate or major negative impact on 24 per cent of residents but this figure dropped to 12 per cent in April 2015. Similarly, the loss of outdoor facilities was a continuing negative issue for only 11 per cent of residents in April 2015, compared with 20 per cent in September 2012.

Those living in the Selwyn and Waimakariri districts were less likely to say the loss of indoor and outdoor recreation facilities is still impacting negatively on their everyday lives. City wide, this issue is of least concern to residents aged 75 years or over.

In comparison, the CERA Youth Wellbeing Survey carried out in late 2013 showed that the loss of recreational places and spaces is having a greater negative impact on young people aged 12–24 years in the wider Christchurch region. Of this age group, 63 per cent had experienced loss of sport and recreation facilities such as swimming pools and sports fields. For 18 per cent, this was still having a moderate or major negative impact on their wellbeing.

Additionally, Table 2 shows that the loss of sport and recreation facilities was the second highest issue impacting young people. This was felt most strongly among those living in Christchurch city, where 22 per cent reported a moderate or major negative impact compared with 12 per cent in Waimakariri district and 9 per cent in Selwyn district.

*Table 1: Proportion of respondents that indicated an issue continues to have a moderate or major negative impact on their everyday lives, over time (CERA Wellbeing Surveys)*

Issue	Extent that issue has had a moderate or major negative impact on everyday lives of residents (living in greater Christchurch)					
	September 2012 (%)	April 2013 (%)	September 2013 (%)	April 2014 (%)	September 2014 (%)	April 2015 (%)
Loss of indoor sport and recreation facilities	24	16	13	17	14	12
Loss of outdoor sport and recreation facilities	20	12	10	13	11	11

*Table 2: Proportion of respondents aged 12-24 years that indicated an issue continues to have a moderate or major negative impact on their everyday lives in 2013 (top issues) by territorial authority (CERA Youth Wellbeing Survey)*

Issue	Extent that issue has had a moderate or major negative impact on young people's lives in 2013 (top stressors)			
	Greater Christchurch (%)	Christchurch city (%)	Selwyn district (%)	Waimakariri district (%)
Loss of other places you used to go (cafes, restaurants, libraries, places of worship, marae, arts and cultural centres)	25	29	13	20
Loss of sport and recreation facilities (eg, swimming pools, sports fields)	18	22	9	12



## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about sport in Canterbury: [www.sportcanterbury.org.nz](http://www.sportcanterbury.org.nz)

Find out more about Sport New Zealand: [www.sportnz.org.nz](http://www.sportnz.org.nz)

Find out more about Christchurch City Council recreation and sport: [www.ccc.govt.nz/cityleisure/recreationsport/index.aspx](http://www.ccc.govt.nz/cityleisure/recreationsport/index.aspx)

Find out more about Waimakariri District Council leisure and recreation [www.waimakariri.govt.nz/leisure\\_recreation/pools.aspx](http://www.waimakariri.govt.nz/leisure_recreation/pools.aspx)

Find out more about Selwyn District Council facilities and parks: [www.selwyn.govt.nz/facilities-and-parks](http://www.selwyn.govt.nz/facilities-and-parks)

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## Technical notes

### Sports information

**Data source:** Sport Canterbury, drawn from the larger regional sports organisations. Note that other sports operate in the region but do not provide regional data to Sport Canterbury.

**Data frequency:** Annual

**Data complete until:** 2014

**Notes:** Regional sports organisations have different catchment regions and started reporting to Sport Canterbury in different years. See the table below. Some sports measure membership differently. The numbers are based on how that sport calculates its playing membership numbers. Data for Arawa Canoe, Canterbury Triathlon, Canterbury Yachting and GymSports are not included in Figure 1 or Figure 2 because only limited data were available.



Regional sports organisation	Region(s) covered	Years data provided
Arawa Canoe		2012–14
Athletics Canterbury	South Canterbury, Mid Canterbury, West Coast and Canterbury	2008–14
Badminton Canterbury	Canterbury	2009–14
Canterbury Basketball	Christchurch and Selwyn territorial authority regions	2008–09, 2011–14
Bowls Canterbury	Canterbury	2008–14
Canterbury Cricket	South Canterbury, Mid Canterbury, West Coast and Canterbury	2008–14
Mainland Football	Mid Canterbury, West Coast and Canterbury	2008–14
Canterbury Golf	Canterbury	2008–14
GymSports	South Canterbury, Mid Canterbury, West Coast and Canterbury	2011–14
Canterbury Hockey	Canterbury	2008–14
Canterbury Netball	South Canterbury, Mid Canterbury, West Coast and Canterbury	2008–14
Peninsula and Plains Orienteering	Canterbury	2008–09, 2011–14
Canterbury Rowing		2008–14
Canterbury Rugby	Canterbury	2008–14
Canterbury Rugby League	South Canterbury, Mid Canterbury and Canterbury	2008–14
Canterbury Softball	Canterbury	2008–14
Squash Canterbury	West Coast and Canterbury	2008–14
Surf Life Saving		2008–14
Swimming Canterbury	West Coast and Canterbury	2008–14
Tennis Canterbury	Mid Canterbury, West Coast and Canterbury	2008–14
Touch Canterbury	Canterbury	2008–14
Canterbury Triathlon		2012–14
Canterbury Volleyball	Canterbury	2008–14
Canterbury Waterpolo	Canterbury	2009–14
Canterbury Yachting	Canterbury	2011–12, 2014

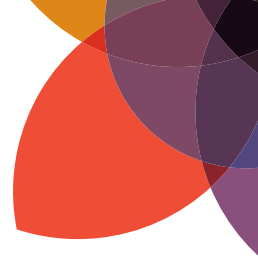
### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015.

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)



### Data on impact of loss of indoor and outdoor space

- In September 2012, residents considered the extent their everyday lives *had been impacted* by an issue as a result of the earthquakes.
- In following surveys, residents considered the extent to which their everyday lives *were still being impacted* by each issue as a result of the earthquakes.
- Area for all surveys relates to greater Christchurch.
- The percentage shown is the sum of both 'moderate negative impact' and 'major negative impact'.

### CERA Youth Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Two yearly (2013 and another planned for late 2015)

**Data complete until:** 2013

**Notes:** The aim of the CERA Youth Wellbeing Survey 2013 is to measure the progress of earthquake recovery by collecting data on the self-reported wellbeing of those aged 12–24 years.

CERA worked with the Ministry of Education, Canterbury District Health Board, the Ministry of Youth Development, Christchurch City Council, Waimakariri District Council, Selwyn District Council, Ngāi Tahu, the Natural Hazards Research Platform and The Collaborative for Research and Training in Youth Health and Development to develop and implement the Youth Wellbeing Survey.

Survey questions were adapted from the CERA Wellbeing Survey and were tested with panels of young people to ensure that the wording and content were relevant.

The Youth Wellbeing Survey was open between 23 September and 13 December 2013 for responses from young people aged 12–24 years, living in greater Christchurch.

### Methodology

An online survey aiming to generate a sample of young people in greater Christchurch that was as large and diverse as possible was undertaken between September and December 2013. Advertising through greater Christchurch youth networks and targeted promotional activities were the main recruitment strategies. Some hard copy responses from targeted groups of young people were also received.

The survey period included high school and university exams, and meant efforts to attract responses from different age groups needed to take the timing of study leave and exams into account.

Recruitment during this period may also have had some impact on the responses given by students who may have been experiencing greater stress than usual due to exam pressure.



## Endnotes

- 1 Dalziel, P. (2011). *The economic and social value of sport and recreation to New Zealand*, Research Report No. 322.
- 2 SPARC. (2011). *The economic value of sport and recreation to the Canterbury–West Coast region*. Wellington: SPARC.
- 3 Census 2006 data quoted in SPARC. (2011). *The economic value of sport and recreation to the Canterbury–West Coast region*. Wellington: SPARC.
- 4 SPARC. (2011). *The economic value of sport and recreation to the Canterbury–West Coast region*. Wellington: SPARC. Note the data for young people are from the combined 1997, 1998 and 2000 New Zealand Sport and Physical Activity surveys. The data for adults are drawn from SPARC's 2007/08 Active NZ Survey. See <http://www.srknowledge.org.nz/researchproject/the-economic-value-of-sport-and-recreation-to-the-regions/>
- 5 Global Leisure Group. (2011). *Places and spaces for sport and recreation in greater Christchurch*, Final issues and options paper, unpublished.
- 6 See Sports Recovery Action Plan: [www.sportcanterbury.org.nz/spacesplacespeople/?utm\\_source=Leadership20Group&utm\\_medium=email&utm\\_campaign=Youre20Invited](http://www.sportcanterbury.org.nz/spacesplacespeople/?utm_source=Leadership20Group&utm_medium=email&utm_campaign=Youre20Invited)
- 7 CPIT Te Whareora Sports and Wellbeing Centre  
[https://www.cpit.ac.nz/news-and-events/news/cpit-opens-\\$15.9m-sports-and-wellbeing-centre](https://www.cpit.ac.nz/news-and-events/news/cpit-opens-$15.9m-sports-and-wellbeing-centre)
- 8 Canterbury Yachting (approximately 1,500 members) submitted no membership data for 2008–2010 or 2013 and GymSports (approximately 9,000 members) submitted no membership data for 2008–10, meaning total numbers would be artificially inflated by approximately 10,500 for 2011–12 if these data were included in the total calculated for Figure 1. Arawa Canoe (approximately 370 members) and Canterbury Triathlon (approximately 270 members) have also not been included in the total calculation for Figure 1 as they have no membership data for 2008–2011. For Canterbury Basketball and Peninsula and Plains Orienteering, which had missing data for 2010, the average of 2009 and 2011 data was substituted for 2010 in the calculation of total sports membership in Figure 1.
- 9 Sport New Zealand. (2011). Young People's Survey.

**Note:** Data are from Sport New Zealand's Young People's Survey which is a nationwide, school-based survey. The Christchurch schools that were unable to participate in 2011 (from August to September) due to the earthquakes were given the chance to participate in Term 3, 2012 (many did). Results were then combined with the original 2011 data set. National data and associated documentation have been updated (not publicly released as at May 2014).

See the national report excluding updated greater Christchurch data: [www.srknowledge.org.nz/researchseries/sport-new-zealands-young-peoples-survey-series](http://www.srknowledge.org.nz/researchseries/sport-new-zealands-young-peoples-survey-series) and also see the main methodology report [www.srknowledge.org.nz/research-completed/methodology-report-for-the-2011-young-peoples-survey](http://www.srknowledge.org.nz/research-completed/methodology-report-for-the-2011-young-peoples-survey)



# Households are prepared for Civil Defence emergencies

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is being prepared important?

Being resilient after a disaster is a responsibility that individuals, households, businesses, communities and governments share.

Individuals and households are expected to take responsibility for preparing for, responding to and recovering from disasters. Authorities recommend that households are prepared to look after themselves for at least three days or more after an emergency.<sup>1</sup>

Preparedness is considered a good indicator of community resilience.<sup>2</sup> If people actively plan and prepare for protecting life and property, based on their awareness of the specific threats in their area, they can help their family and the wider community to re-establish stability after the event.<sup>3</sup>

Researchers have found that people are more likely to be prepared if they believe that the next emergency is likely to occur within 12 months. Those who believe there will not be an emergency for several years are much less likely to be prepared.<sup>4</sup>

## How did the earthquakes affect households' level of preparation?

Between 4 September 2010 and 7 June 2012 the residents of greater Christchurch experienced 41 earthquakes of magnitude 5.0 or over, including four over magnitude 6.0.<sup>5</sup>

Residents experienced power outages, loss of sewer systems, closed shops and services and damaged roads and public transport systems. In addition to significant support offered by government and non-government agencies, communities, households and individuals banded together to share resources, survive and even thrive in these difficult times.

It would therefore be expected that households in greater Christchurch would be more prepared after these earthquakes.

The *Review of the Civil Defence Emergency Management response to the 22 February Christchurch earthquake* found that "The resilience of the Christchurch community was demonstrated by the way so many households were able to care for themselves and also by the way in which community organisations stepped up and looked after their neighbourhoods".<sup>6</sup>

However, the review also noted that international experience has shown repeatedly that lower-income families struggling to survive from day to day do not have the ability to store food in advance or have the supplies recommended for survival.<sup>7</sup>





## What is happening now?

Preparedness is being promoted through a range of measures targeting individuals, communities and businesses.

A number of national campaigns have encouraged households to be prepared for an emergency. Part of the Earthquake Commission's role is to educate New Zealanders about being prepared in case of a natural disaster. Its 'Fix. Fasten. Don't Forget' preparedness campaign aims to motivate people to make necessary changes in their homes (such as securing chimneys, tall furniture and hot water cylinders) to help protect people, homes and contents if an earthquake happens.<sup>8</sup> This campaign was delivered differently within Canterbury in recognition that information requirements in this region differ from the rest of New Zealand.

In 2015 the annual Civil Defence 'Get Ready Get Thru' campaign is focusing on the Great New Zealand ShakeOut, the national 'drop, cover, hold drill', which will take place on 15 October 2015. It aims to sign up 1.5 million people to participate nationally.<sup>9</sup>

The 'Piece of Cake' campaign was a collaborative project between Christchurch City Council, the Council's Civil Defence Emergency Management, CERA, All Right?, Te Raranga interchurch network and The Neighbourhood Project, encouraging neighbours to get to know one another over a piece of cake on weekends in March 2014 and March 2015.

In partnership with the Canterbury Employers' Chamber of Commerce, Christchurch City Council's Civil Defence Emergency Management has been promoting the Resilient Business website. Launched in 2013, the website provides tools to make it simpler for businesses to maintain continuity through a crisis or emergency by adopting effective resilience strategies appropriately tailored to the size of their business.<sup>10</sup>

## What are the indicators telling us?

The extent to which households are prepared for an emergency is measured as the proportion of people who said their household has either:

- all the items needed for basic preparation (a three-day supply of food and water and a household emergency plan)
- all the items needed for better preparation (basic preparation, plus a torch, portable radio, spare batteries, first aid kit and essential medicines as well as food and water for three days and a household emergency plan)
- none of the items needed for basic preparation.

Figures 1 and 2 show that Canterbury residents have become better prepared for a civil emergency over time, however in 2014 there was a slight decrease in preparedness.

In 2008, basic and better levels of preparedness in Canterbury were comparable with the national average. However, following the 2010 and 2011 earthquakes,<sup>11</sup> the proportion of people who said their household was prepared for a civil emergency increased notably both locally and across the country. In Canterbury, the proportion of people who said their household had basic preparation increased from 13 per cent in 2008 to 40 per cent in 2012, but dropped to 32 per cent by 2014. Nationally over the same period, the proportion of people who had the items needed for basic preparation increased from 14 per cent in 2008 to 22 per cent in both 2012 and 2014.

In Canterbury, the proportion of people with an emergency plan increased from 24 per cent in 2008 to 50 per cent in 2012 and 47 per cent in 2014. Nationally this figure increased from 24 per cent to 33 per cent in 2012 and remained at this level for 2014.

Cantabrians are 56 per cent more likely to be prepared in 2014 than they were in the pre-earthquake period of 2008 to 2010, compared with a 40 per cent increase across New Zealand.



Cantabrians are 56 per cent more likely to be prepared in 2015 than they were in the pre-earthquake period, compared with a 40 per cent increase across New Zealand.

Figure 1: Proportion of people who said their household has all the items needed for basic preparation

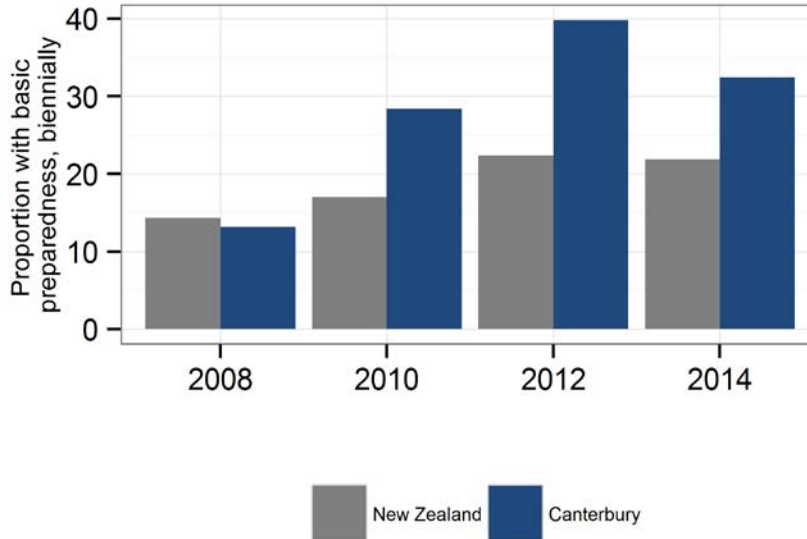
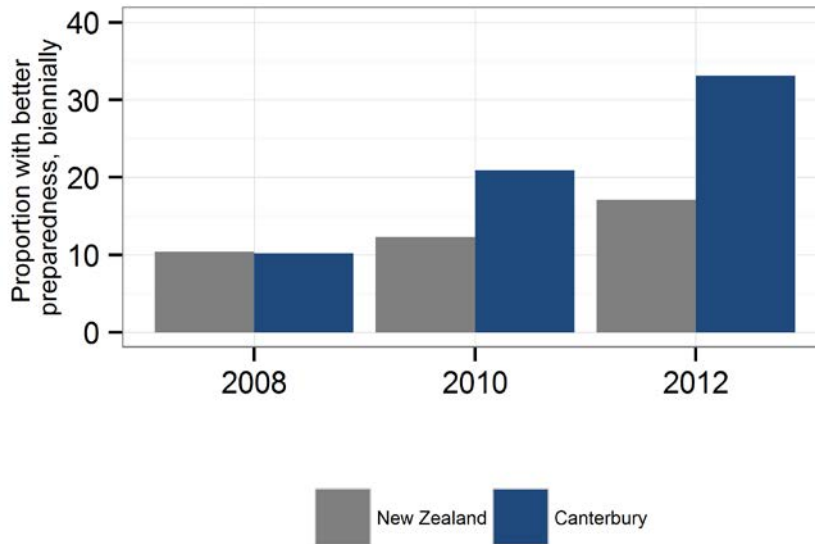


Figure 2: Proportion of people who said their household has all the items needed for better preparation\*

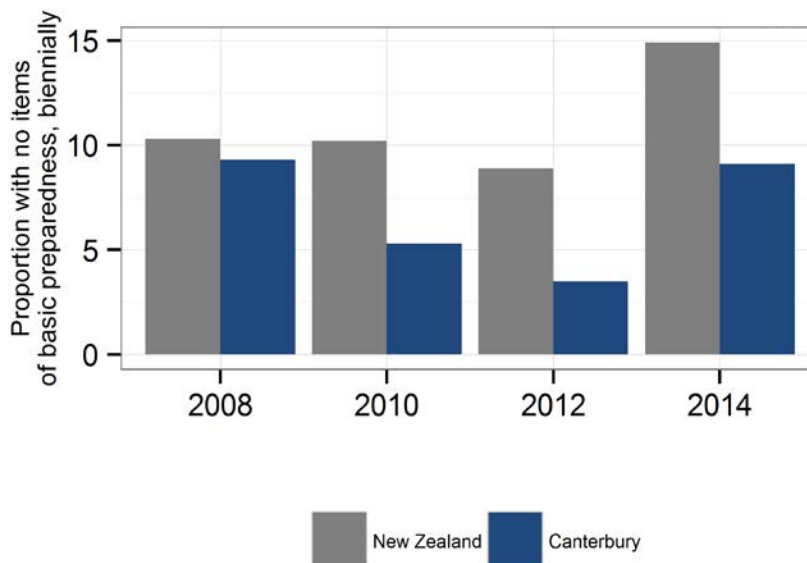


\* Note: better preparation was not asked in 2014.



Figure 3 shows that the proportion of Canterbury residents who said their household has none of the items needed for basic preparation fell from 9 per cent in 2008 to 4 per cent in 2012, but increased back to 9 per cent in 2014. Based on information from 2010, households with none of the basic preparations tend to be renters (rather than owner-occupiers) and tend not to hold contents insurance.<sup>12</sup>

*Figure 3: Proportion of people who said their household has none of the items needed for basic preparation*





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about the New Zealand General Social Survey's findings on household preparedness: [www.stats.govt.nz/browse\\_for\\_stats/people\\_and\\_communities/Households/natural-disaster-how-prepared-nzers.aspx](http://www.stats.govt.nz/browse_for_stats/people_and_communities/Households/natural-disaster-how-prepared-nzers.aspx)

Find out more about how to prepare your home and your business for disasters: <http://www.civildefence.govt.nz/get-ready/>

Find out more about Civil Defence Emergency Management Group: [www.cdemcanterbury.govt.nz/Emergency-Status/](http://www.cdemcanterbury.govt.nz/Emergency-Status/)

Find out more about how to be a Civil Defence volunteer in Waimakariri district: [www.waimakariri.govt.nz/civil\\_defence\\_home/volunteer-teams.aspx](http://www.waimakariri.govt.nz/civil_defence_home/volunteer-teams.aspx)

Find out more about how to be a Civil Defence volunteer in Selwyn district: [www.selwyn.govt.nz/services/civil-defence/community-response-volunteers](http://www.selwyn.govt.nz/services/civil-defence/community-response-volunteers)

Find out more about how to be a Civil Defence volunteer in Christchurch city: [www.ccc.govt.nz/homeliving/civildefence/volunteering/index.aspx](http://www.ccc.govt.nz/homeliving/civildefence/volunteering/index.aspx)

Find out more about the Earthquake Commission's Fix. Fasten. Don't Forget campaign: [www.eqc.govt.nz/fixfasten](http://www.eqc.govt.nz/fixfasten)

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## Technical notes

### Household preparedness

**Data source:** New Zealand General Social Survey, Statistics NZ (NZGSS)

**Data frequency:** 2008, 2010, 2012 and 2014

**Note:** The criteria for basic preparation are a three-day supply of food and water, and a household emergency plan.

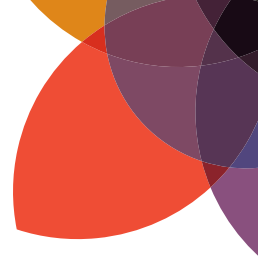
The criteria for better preparation (asked until 2012) are a torch, a portable radio, spare batteries, first aid kit and essential medicines, as well as food and water for three days and a household emergency plan.

A few respondents refused to answer the question, or did not know whether their households had an item; they were classified as not having the items.

The NZGSS samples part of the population, so data are estimates only.

Residual responses ('don't know' or 'refuse') have been excluded from the denominator in this analysis. Person weights have been applied in this analysis so figures represent the proportion of people who said their household was prepared for an emergency.

In two previous reports, both the *New Zealand General Social Survey 2008 Fact Sheet: Natural disaster preparation at home* and *How prepared are New Zealanders for a natural disaster?* (2012) residual responses were included in the denominator but treated as a 'no' and household weights were applied to the analysis.



### **Emergency plan (2008, 2010, 2012 and 2014 NZGSS)**

A household emergency plan documents a household's preparation for natural disasters which may disrupt the ability of household members to communicate with each other and could affect essential services. It includes the following:

- where to shelter in an earthquake, flood or storm
- how and where to meet during and after a disaster
- the best place to store emergency survival items and who is responsible for checking essential items
- what items will be needed in a getaway kit and where it will be kept
- how to turn off the water, gas and electricity in the home or business
- how to contact local civil defence organisations for assistance during an emergency.



## Endnotes

- 1 <http://www.getthru.govt.nz/how-to-get-ready/emergency-survival-items/>
- 2 Paton, D., Ronan, K., Johnston, D., Smith, L. and Johnston, M. (2003). *Responding to earthquake hazards: promoting household resilience and preparedness*. Paper presented at the Pacific Conference on Earthquake Engineering.
- 3 Gurwitch, R.H., Pfefferbaum, B., Montgomery, J.M., Klomp, R. W. and Reissman, D.B. (2007). *Building community resilience for children and families*. Oklahoma City: Terrorism and Disaster Center at the University of Oklahoma Health Sciences Center.
- 4 Paton, D., Smith, L.M. and Johnston, D. (2005). When good intentions turn bad: promoting natural hazards preparedness. *Australian Journal of Emergency Management* 20: 25–30.
- 5 [www.geonet.org.nz/](http://www.geonet.org.nz/)  
Note: Between 4 September 2010 and 18 February 2014, the Canterbury region (including greater Christchurch) experienced 55 earthquakes ranging from magnitude 5 to 7 and above. There was a total of 4,199 earthquakes in the region during this period.
- 6 McLean, I., Oughton, D., Ellis, S., Wakelin, B. and Rubin, C.B. (2012). *Review of the Civil Defence Emergency Management response to the 22 February Christchurch earthquake*, p 175.
- 7 Mileti, D. (1999). *Disasters by design: a reassessment of natural hazards in the United States*. Joseph Henry Press.
- 8 Information from [www.eqc.govt.nz](http://www.eqc.govt.nz)
- 9 ShakeOut <http://shakeout.govt.nz/>
- 10 Information provided by Christchurch City Council.
- 11 Note that data for 2010 were collected both before and after the September 2010 earthquake, so the increase may have been higher if data had been collected only after the event or after the February 2011 earthquake.
- 12 Statistics New Zealand. (2012) *How prepared are New Zealanders for natural disaster? Results from the 2010 General Social Survey*. Wellington.

JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is social connectedness important?

Social connectedness refers to the relationships people have with others and the benefits these relationships can bring to the individual as well as to society.<sup>1</sup> High levels of social connectedness are thought to promote better health and psychological wellbeing.<sup>2</sup> People who feel socially connected also contribute towards building communities and society. They help to create 'social capital' – the networks that help society to function effectively. Social connectedness is particularly important in building communities that can withstand adversity, whether caused by economic, social or environmental shocks.<sup>3</sup>

Social connectedness includes relationships with family, friends, colleagues and neighbours, as well as connections people make through paid work, sport and other leisure activities, voluntary work or community service.

Disasters are more likely to adversely affect social connectedness in groups that were vulnerable and had lower social connectedness before the earthquakes, such as people with ill health or disabilities.<sup>4</sup>

Providing adequate access to the built environment allows disabled people to be included in the economic and social life of the community, to make social connections and to contribute to society.<sup>5</sup>

## Volunteering

One strong indicator of high social connectedness is the degree to which community members volunteer. Over a million New Zealanders are involved in voluntary work. As volunteers they make a huge contribution to sports, recreation, arts, culture and heritage, emergency and social services, health, education, conservation and the environment.<sup>6</sup>

Volunteering creates stronger communities by building social connections and networks of reciprocity and trust. Volunteers foster and maintain cultural identity through events and activities. They also maintain and improve our natural environment and provide services to families and those most vulnerable in communities.

Volunteering has a positive impact on the economy. Through their work, volunteers learn new skills that they can use in paid employment.

There are over 97,000 non-profit organisations in New Zealand. Ninety per cent of these rely entirely on voluntary labour.<sup>7</sup>

## Graffiti and noise complaints

If communities become less socially connected, signs of urban decay can grow. Post-disaster evidence of urban decay can include increased levels of graffiti or increasing social disruption. Monitoring and managing these incidents can help to rebuild social connectedness within the community.







## How was social connectedness impacted by the earthquakes?

The community immediately responded to the earthquakes with spontaneous volunteering. People pitched in and did whatever was necessary and possible to assist each other.

Noteworthy acts of altruism occurred in the hours after the earthquakes. Passers-by pulled people from rubble and saved animals from damaged buildings. Teachers and bus drivers looked after groups of school children for hours before their parents were able to reach them.

In the days and weeks afterwards people shared meals with neighbours, created community food kitchens, supplied water to elderly residents, towed strangers' cars from holes in the roads and teamed up to deconstruct damaged chimneys.

Response agencies such as the Red Cross, the Salvation Army and churches immediately started organising volunteers to knock on doors to assess the wellbeing of residents and to ensure their immediate needs were met. New volunteering groups formed organically, such as the Student Volunteer Army and Fanny Army who mobilised university students and the rural community respectively to clear liquefaction and undertake many other services.

Networks of professionals such as lawyers, accountants and health professionals offered their time and expertise for free to assist affected people. Residents' groups such as Canterbury Communities' Earthquake Recovery Network (CanCERN) and Addington Action formed to support their communities.

In other parts of the country, individuals, groups, churches and businesses also mobilised and established supply chains of items such as warm clothing, heaters and household items to distribute to affected people. Iwi representatives from around New Zealand arrived to volunteer their skills and provide support to Ngāi Tahu and other Māori communities.

People remaining in damaged areas developed new bonds with neighbours in similar predicaments. However, social connectedness was also weakened as people left their communities due to damage or concerns about aftershocks. In the 2012 CERA Wellbeing Survey, 26 per cent of respondents reported having to move house permanently or temporarily 'because of the earthquakes'.<sup>8</sup>

Whole communities were uprooted and some people felt their social networks had developed 'holes' due to people leaving.<sup>9</sup> Children's social networks were disturbed with some travelling to schools in other parts of town. Some people, particularly in the hard-hit eastern suburbs, had their lives and social connections severely disrupted.<sup>10</sup>

Many facilities where people used to meet and connect were damaged or closed down. In the 2012 CERA Wellbeing Survey, 69 per cent of respondents reported the loss of recreational, cultural and leisure time facilities (cafes, restaurants, libraries, marae, arts and cultural centres).

## What is happening now?

The Department of Internal Affairs, which oversees the distribution of lottery funds, the Community Organisation Grants Scheme and other funding programmes, continues to support volunteering through its funding and advisory role. This includes contributing funding to Volunteering Canterbury.

Many informal and formal volunteering initiatives continue to provide assistance within greater Christchurch. Groups such as Habitat for Humanity are repairing and relocating damaged homes. The Red Cross outreach volunteers are present at a number of community hubs to provide a listening ear or information about Red Cross programmes and services. Red Cross volunteers also check on affected residents in the most vulnerable areas of greater Christchurch, as do a number of residents' groups and faith-based groups.

Christchurch Community Response (CCR) Team, a church-based partnership with many organisations including the Ministry of Social Development and Christchurch City Council visited over 43,000 homes across the city to help connect isolated individuals with appropriate support services. CCR continues to work its way across the city, gathering volunteers from each suburb it visits.

Creative groups such as Gap Filler, Greening the Rubble and Life in Vacant Spaces have created temporary creative projects in vacant spaces which enhance the physical environment through creating areas which people can reconnect in.



The Christchurch City Council's Graffiti Team coordinates over 1,000 community volunteers who have contributed to a reduction in graffiti vandalism throughout the city over 2014. This collective community effort aims to help the community feel safe and assured. By showing that graffiti will not be tolerated the people's sense of pride in their community is enhanced. The Graffiti Team works with many organisations and schools promoting, educating and encouraging the community to become more involved, which in turn helps promote social connectedness. In addition the Christchurch City Council through its various funding pools continues to support approximately 1,536,807 volunteer hours across the city. It also continues to run its very successful Neighbourhood Week which encourages social connections through supporting neighbours to hold local events. 141 events were held in Neighbourhood Week 2014.

CERA and the Council have played a role in facilitating a range of initiatives that encourage existing connections and enable new ones to be created across the community.

- Partnering with the Christchurch Earthquake Appeal Trust (CEAT) and the Methodist and Anglican churches to deliver the Summer of Fun series of free events targeting families (more than 40 events in 2012/13, more than 66 events in 2013/14 and more than 66 events in 2014/15).
- Partnering with Ministry of Youth Development, supported by Fletcher Building to deliver Winter Chill 2014 with 52 events and activities targeting young people (12-24 years).
- Partnering with CEAT and the YMCA to create a community events trailer which community groups can hire at no cost.
- Supporting Rotary to develop the Rotary Neighbourhood Project Fund which provides small grants to assist community groups to host small neighbourhood and larger community events.
- Supporting Te Raranga interchurch network to deliver the 'Piece of Cake' initiative which encouraged neighbours to get to know each other by sharing cake and conversation over the weekend of 29 and 30 March 2014 and again on 28 and 29 March 2015.
- Local community conversations and visioning exercises with new and emerging communities.
- Working to improve accessibility through the rebuild by implementing Barrier Free Audits and accessibility checks as part of the building consent process in construction of the major projects in the city rebuild and ensuring all anchor projects are accessible.
- 'Let's Find & Fix' was a community-led initiative launched in April 2014 which aimed to identify earthquake-damaged homes that need temporary repairs to keep them safe, secure and weather-tight. This campaign was initiated by Canterbury Communities' Earthquake Recovery Network (CanCERN) and supported by CERA, Red Cross, Community Energy Action, EQC and Insurance Council of New Zealand members. At the conclusion of the initiative in January 2015, 400 homes had been repaired.

According to the April 2015 CERA Wellbeing Survey, 8 per cent of respondents reported that the loss of facilities where people meet and connect is still having a negative impact on their wellbeing. However these impacts are diminishing as the repair and rebuild of facilities continues. By April 2015 the loss of indoor sport and active recreation facilities negatively impacted only 12 per cent compared with 24 per cent in September 2012. The loss of outdoor sport and active recreation facilities continued to impact 11 per cent compared with 20 per cent in 2012. The proportion of people indicating that the loss of other recreational, cultural and leisure time facilities continued to have a negative impact reduced to 15 per cent April 2015 compared with 34 per cent in September 2012.



## What are the indicators telling us?

### Sense of community

In this report, sense of community is measured in the following ways.

- Sense of community with others in neighbourhood
- Having anyone you could turn to for help during a difficult time (such as during a serious illness, after an injury or when needing emotional support).

Prior to the earthquakes, Christchurch city residents reported lower levels of a sense of community (57 per cent) than the national average (60 per cent). However, after the major earthquakes it was slightly higher than across New Zealand. The 2012 CERA Wellbeing Survey showed that in the year following the February earthquakes, over half of residents in greater Christchurch (55 per cent) agreed that they felt a strong sense of community with others in their neighbourhood compared with 53 per cent across New Zealand (see Figure 1)<sup>11</sup>. This may have been because the earthquakes had engendered a greater spirit of social connectedness during a time of uncertainty and upheaval for many.

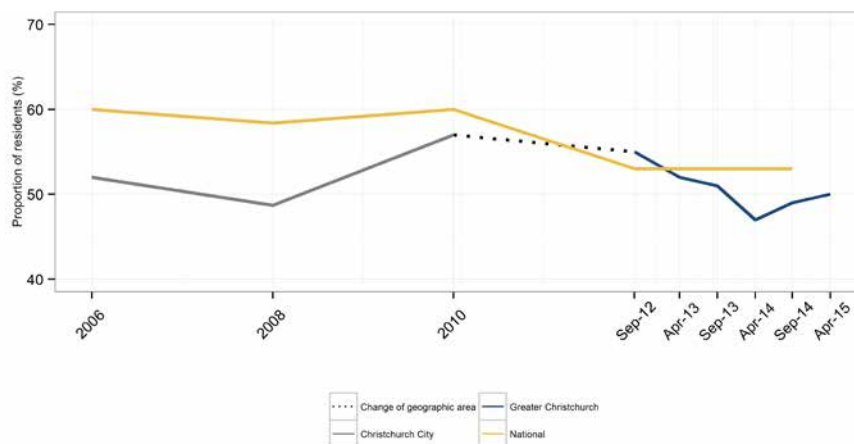
Figure 1 shows that since 2012, the proportion feeling a strong sense of community has dropped to 50 per cent (as at April 2015). Across the New Zealand cities, 53 per cent of people felt a sense of community in 2014.

Levels of connectedness have been slowly decreasing in New Zealand cities. However, despite significant population movement as a result of the earthquakes, people in greater Christchurch reported a smaller decrease in neighbourhood connectedness between the pre-earthquake period of 2008 to 2010 and April 2015 (a 5 per cent decrease) than that reported across other New Zealand cities (10 per cent).



**People in greater Christchurch reported a smaller decrease in neighbourhood connectedness between the pre-earthquake period and April 2015 (a 5 per cent decrease) than that reported across other New Zealand cities (10 per cent).**

Figure 1: Percentage of residents who felt a sense of community (see technical notes relating to geographic boundaries)



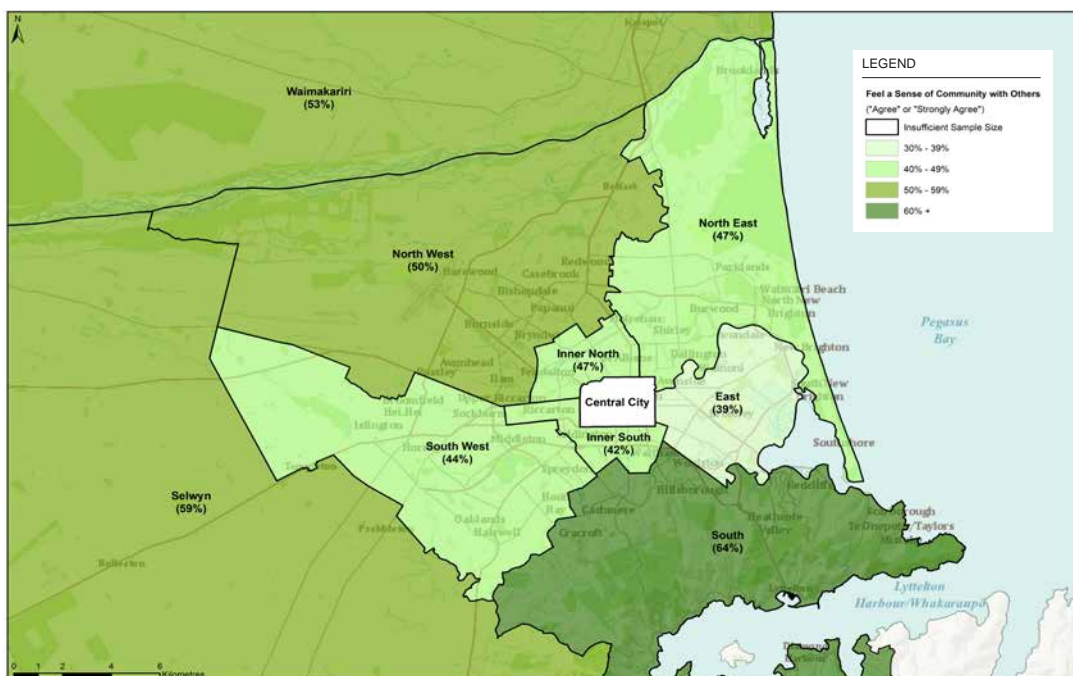


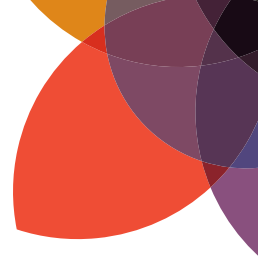
Map 1 shows the proportion within each geographic area reporting that they felt a strong sense of community with others in their neighbourhood in the April 2015 CERA Wellbeing survey. Only 39 per cent of those living in the East reported a sense of community, compared with 64 per cent in the South.

Residents of Selwyn and Waimakariri districts continue to feel a stronger sense of community than people living in Christchurch city.

According to the 2013 CERA Youth Wellbeing Survey of 12–24 year olds, 57 per cent agreed that they feel a sense of community with others in their neighbourhood. Those most likely to feel this way were those aged 12–15 years (64 per cent) and those at school (62 per cent). In contrast, the unemployed (38 per cent), young people living with a long-term health condition or disability and young people aged 19–24 years were less likely to feel a sense of community.

*Map 1: Proportion of people who agree that they feel a sense of community with others in their neighbourhood CERA Wellbeing Survey April 2015*





In April 2015, the group most likely to agree they feel a sense of community with others in their neighbourhood were those aged 35-39 years (56 per cent), aged 75 years or over (64 per cent), those who have either not needed to make an insurance claim on their dwelling (62 per cent) or those who have accepted an offer from their insurer (57 per cent).

Those less likely to report a sense of community were people living in rental accommodation (32 per cent) and young adults aged 18-24 years (27 per cent) or 25-34 years (25 per cent). Those who have not moved house since the earthquake also report a high sense of community (53 per cent compared with 46 per cent for those who have moved).

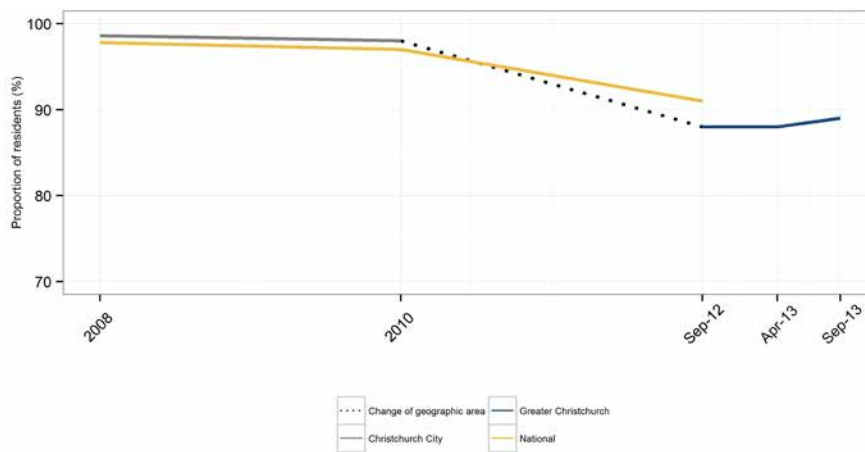
Figure 2 shows the percentage of residents who agreed that they had someone to turn to for help during a difficult time. For greater Christchurch, this percentage decreased from 98 per cent in 2010 to 88 per cent in 2012.

Fewer respondents to the 2013 CERA Youth Wellbeing Survey said that they had someone to turn to for help (81 per cent) compared with the general population responding to the CERA Wellbeing Survey. Māori (76 per cent) and people of Pacific, Asian and Indian ethnicities (74 per cent) were less likely to have this support.

The earthquakes have produced their own set of challenges for people with a disability. However, this appears to be having less of a negative impact over time. Twelve per cent of respondents to the 2012 CERA Wellbeing Survey reported that 'dealing with barriers around disabilities as a result of the earthquakes' was having a negative impact on their wellbeing but by April 2015 this had halved to 6 per cent. Some of the barriers may be due to damage to footpaths and roads in greater Christchurch, physical access to building and the closure and/or relocation of services into new premises.

In comparison, 4 per cent of young people who participated in the 2013 CERA Youth Wellbeing Survey have experienced negative impacts of dealing with a disability since the earthquakes.

*Figure 2: Proportion of residents reporting they had someone they could turn to for help during a difficult time<sup>13</sup>*



In the 2012 CERA Wellbeing Survey 24 per cent of residents reported positive benefits from feeling a stronger personal commitment to Christchurch city or to Selwyn or Waimakariri districts as a result of the earthquakes. While this positive has diminished over time, 20 per cent of respondents in April 2015 still reported that it was having a positive impact on their wellbeing.



### Other community indicators

Other indicators which indicate changes in levels of community connectedness include:

- volunteering rate
- graffiti complaints
- noise complaints.

### Volunteering

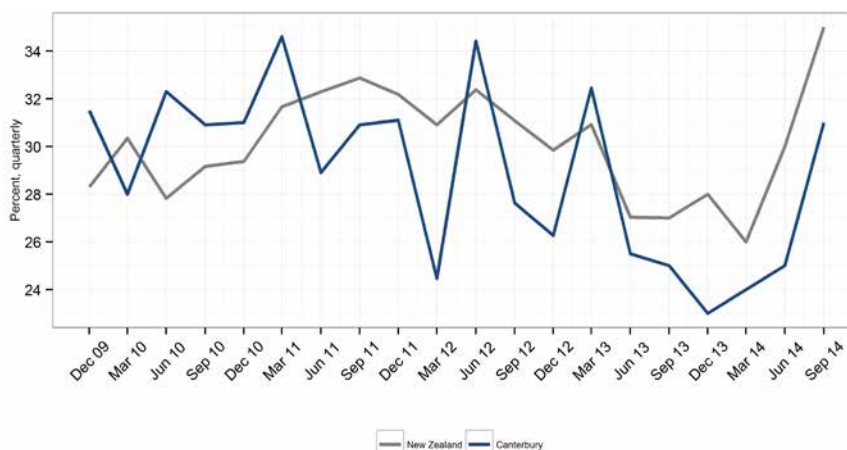
Data in Figure 3 shows rates of formal volunteering. When comparing the rates between Canterbury and New Zealand, it must be remembered that a lot of informal volunteering in Canterbury since the earthquakes is not captured by this measure.

The volunteering rate in Canterbury increased in the period immediately following the February 2011 earthquake to 35 per cent in March 2011, from 28 per cent in March 2010. The rate has since fluctuated and despite increasing again to 34 per cent in June 2012, it has generally remained below the New Zealand rate. Since December 2009, 30 per cent of the population (on average) have spent time volunteering in New Zealand compared to 29 per cent in Canterbury. By late 2014 the Canterbury rate was similar to that before the earthquakes.

After the February 2011 earthquake people in Canterbury also volunteered more hours on average than before. However, time spent volunteering has generally remained below the New Zealand average since June 2011. This reduction may reflect levels of fatigue in the population and the impact of other stressors on individuals' lives.

Census data for 2013 show that the proportion of greater Christchurch people 15 years and over who spent time helping or other voluntary work through any organisation, group or marae (13 per cent) is very similar to that across New Zealand (14 per cent). This rate has remained stable between the 2006 Census and the 2013 Census.<sup>14</sup>

Figure 3: Volunteering rate





**Graffiti complaints**

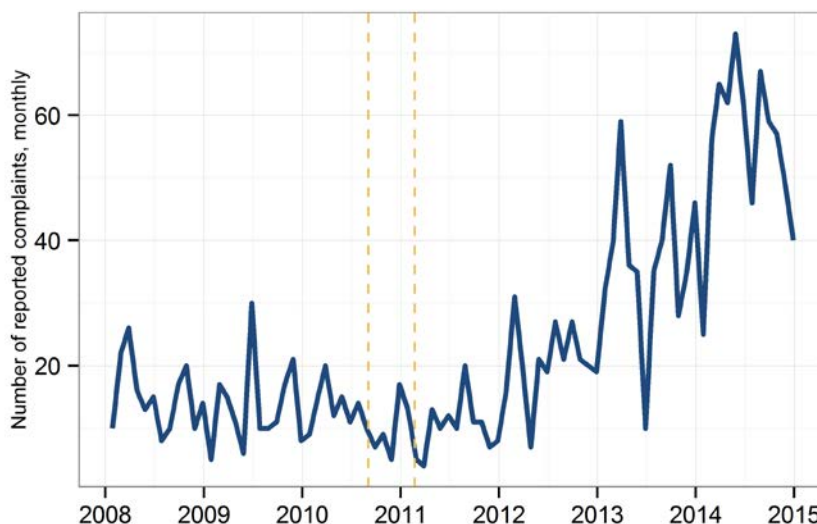
Numbers of graffiti-related complaints to Christchurch City Council have fluctuated in recent years but are returning to pre-earthquake levels following an increase in 2012. Complaints declined by 6 per cent between 2010 (8,080) and 2011 (7,619) and then increased by 37 per cent to 10,438 in 2012. In 2014 numbers had reduced to 8,936.

**Noise complaints**

Total noise complaints reported to Christchurch City Council peaked at 14,152 complaints in 2010 and have subsequently declined by 15 per cent to 12,422 complaints in 2014.

Typically, noise from radios, stereos and televisions are the major source of complaints. However, Figure 4 shows that construction noise complaints have increased considerably as the rebuild has picked up pace and these are now the third most common type of complaint. Figure 4 shows the number of construction noise complaints have more than quadrupled between 2010 and 2015.

*Figure 4: Noise complaints due to construction*





## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about volunteering post-earthquakes across New Zealand:  
[www.volunteernow.org.nz/article/14](http://www.volunteernow.org.nz/article/14)

Find out more about the Strengthening Communities Fund:  
[www.ccc.govt.nz/cityleisure/communityfunding/communitygrants/index.aspx](http://www.ccc.govt.nz/cityleisure/communityfunding/communitygrants/index.aspx)

Find out more about Volunteering Canterbury:  
[www.facebook.com/pages/Volunteering-Canterbury/76308735321](https://www.facebook.com/pages/Volunteering-Canterbury/76308735321)

Find out more about the Community Organisation Grants Scheme:  
[www.communitymatters.govt.nz/Funding-and-grants---Crown-Funds---Community-Organisation-Grants-Scheme---Local-Priorities](http://www.communitymatters.govt.nz/Funding-and-grants---Crown-Funds---Community-Organisation-Grants-Scheme---Local-Priorities)

Find out more about Red Cross assistance programmes and volunteering for the Red Cross:  
[www.redcross.org.nz/what-we-do/in-new-zealand/helping-in-canterbury/](http://www.redcross.org.nz/what-we-do/in-new-zealand/helping-in-canterbury/)

Find out more about Salvation Army assistance programmes and services and volunteering for the Salvation Army: [www.salvationarmy.org.nz/need-assistance/welfare](http://www.salvationarmy.org.nz/need-assistance/welfare)





## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015.

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### Sense of community

**Data source:** The Quality of Life Survey (2006, 2008, 2010 Christchurch city and New Zealand data, and 2012, 2014 New Zealand data); CERA Wellbeing Survey (2012, 2013, 2014 and 2015 greater Christchurch data)

**Data complete until:** October 2012 and 2014

**Notes:** The Quality of Life Survey is a national survey run every two years. Computer assisted telephone interviews were conducted with New Zealand residents aged 15 years and older. Respondents were selected randomly from the Electoral Roll. The Christchurch sample size is 496 for 2010. For 2010, fieldwork was conducted between 19 November 2010 and 2 March 2011. All interviewing in Christchurch was undertaken before the 22 February 2011 earthquake (and after the first large quake in September 2010).

Data from previous years are not directly comparable with the 2012 result as they were obtained using a different methodology and a different survey. However, the results of the two surveys can be compared in a very general sense.

The questions were asked in the same fashion in the Quality of Life surveys and the CERA Wellbeing Survey. The question, "If you were faced with a serious illness or injury, or needed emotional support during a difficult time, is there anyone you could turn to for help?" was not asked in 2006.

The results of the Quality of Life Survey include residents of Christchurch city only, while the CERA Wellbeing Survey also includes residents of Waimakariri and Selwyn districts.

The 'national' total in 2012 and 2014 is the combined results of the six Quality of Life Project cities of Auckland, Porirua, Hutt, Wellington, Christchurch and Dunedin.

The 'national' total in 2010 is the combined results of the eight Quality of Life Project cities of Auckland, Hamilton, Tauranga, Porirua, Hutt, Wellington, Christchurch and Dunedin.

Prior to 2010, a further two cities were involved and the 'national' average included a number of people resident outside the main Quality of Life Project cities.



### Volunteering

**Data source:** Nielson CMI Survey via Department of Internal Affairs

**Data frequency:** Quarterly

**Data complete until:** September 2014

**Notes:** This indicator is based on survey questions from the Nielson CMI Survey. This survey only collects data on formal volunteering (ie, that done for/through an organisation). A negligible amount of informal volunteering (helping neighbours etc) is also captured. Results are provided for the population aged 10 years and older, which is the standard measure used by the Department of Internal Affairs for volunteering data.

The rate of volunteering used is the number of people aged 10 years and older who have formally volunteered for a group or organisation in the last three months, as a proportion of all people aged 10 years or older.

The 22 February 2011 earthquake fell in the middle of the March 2011 quarter survey period. The March 2011 quarter results should be considered indicative only due to data quality issues, especially in the Canterbury region.

Note September 2014 data is the last data recorded in this data series.

### Graffiti complaints

**Data source:** Christchurch City Council

**Data frequency:** Data collected monthly and aggregated annually in this report

**Data complete until:** December 2014

### Noise complaints

**Data source:** Christchurch City Council

**Data frequency:** Data collected monthly and aggregated annually in this report

**Data complete until:** December 2014



## Endnotes

- 1 [www.socialreport.msd.govt.nz/social-connectedness/](http://www.socialreport.msd.govt.nz/social-connectedness/)
- 2 Ministry of Social Development. (2005). *The social report 2005*  
[www.socialreport.msd.govt.nz/documents/2005/sr05-social-connectedness.pdf](http://www.socialreport.msd.govt.nz/documents/2005/sr05-social-connectedness.pdf)  
Giordano, G.N., and Lindstorm, M. (2010). The impact of changes in different aspects of social capital and material conditions on self-rated health over time: a longitudinal cohort study. *Social Science and Medicine* 70(5), 700–710. In Christchurch City Health Profile. Retrieved from: [www.healthychristchurch.org.nz/media/27507/socialconnectedness.pdf](http://www.healthychristchurch.org.nz/media/27507/socialconnectedness.pdf)
- 3 Cork, S. (2009). *Brighter prospects: Enhancing the resilience of Australia*. Weston, ACT: Australia 21. Retrieved from: [www.healthychristchurch.org.nz/media/27507/socialconnectedness.pdf](http://www.healthychristchurch.org.nz/media/27507/socialconnectedness.pdf)
- 4 <https://www.hrc.co.nz/files/2114/2427/8929/HRC-Earthquake-Report-2013-final-for-web.pdf>
- 5 Human Rights Commission. (2012). *Better design for everyone: disabled people's rights and the built environment*. HRC: Auckland
- 6 [www.dia.govt.nz/diawebsite.nsf/Files/About\\_volunteering\\_NZ/\\$file/About\\_volunteering\\_NZ.pdf](http://www.dia.govt.nz/diawebsite.nsf/Files/About_volunteering_NZ/$file/About_volunteering_NZ.pdf)  
Also see [www.volunteerwellington.org.nz/pdf/volweekfactsheet.pdf](http://www.volunteerwellington.org.nz/pdf/volweekfactsheet.pdf)
- 7 [http://ndhadeliver.natlib.govt.nz/ArcAggregator/frameView/IE17576103/http://www.ocvs.govt.nz/http://www.stats.govt.nz/browse\\_for\\_stats/people\\_and\\_communities/Households/Non-ProfitInstitutionsSatelliteAccount\\_HOTP2005.aspx](http://ndhadeliver.natlib.govt.nz/ArcAggregator/frameView/IE17576103/http://www.ocvs.govt.nz/http://www.stats.govt.nz/browse_for_stats/people_and_communities/Households/Non-ProfitInstitutionsSatelliteAccount_HOTP2005.aspx)
- 8 For information on the CERA Wellbeing Survey, refer to the technical notes.
- 9 Torstonson, S. (2011). *Supporting community resilience in post-quake Christchurch*. Retrieved from: <http://ccoss.org.nz/wordpress/wp-content/uploads/Supporting-Community-Recovery-Final-Report-July-2011.pdf>
- 10 Christchurch City Health Profile. Retrieved from: <http://www.healthychristchurch.org.nz/media/27507/socialconnectedness.pdf>
- 11 National data is sourced from the Quality of life Survey <http://www.qualityoflifeproject.govt.nz/>
- 12 The question read: "Which of the following have you experienced as a result of the earthquakes? ... dealing with barriers around disabilities (own or other people's) whether existing or earthquake related".
- 13 Data since the April 2014 CERA Wellbeing Survey has been excluded from this analysis due to a change of question format
- 14 <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-work-unpaid.aspx>



JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

### Why is civil participation important?

Civil participation in public decision-making gives people a way of contributing to the communities they live in. This contribution is an important aspect of people's wellbeing.

Participation can bring an ability to influence decisions, as well as opportunities to connect with others in the community and to learn and understand what is going on. It can also build a sense of being valued by community leaders and others in the community.<sup>1</sup> Experts agree that having a say in the rebuild helps people's recovery.<sup>2</sup>

Electoral participation is one way of measuring how much people feel engaged in, and responsible for, their community. If people believe strongly in their ability to be heard and to make a difference, they tend to enrol and to vote in elections.<sup>3</sup>

Higher voter turnout rates also suggest that the population has confidence in government and believes that the government is responsive to the views of citizens.<sup>4</sup>

General elections are held at least every three years, with the most recent held in September 2014. Local government elections are also held every three years, most recently in October 2013.

There appears to be little research on the impact of natural disasters on voter turnout, but it is generally agreed that disasters are likely to reduce voter participation.<sup>5</sup> For example, voter turnout overall decreased after Hurricane Katrina in New Orleans. However, the impact of the disaster was not straightforward: in some more heavily flooded areas, turnout actually increased while it fell in some of the less flooded areas.<sup>6</sup>

### How was civil participation impacted by the earthquakes?

The 2010 local government elections were held just one month after the September 2010 earthquake. Postal ballots were due by 9 October 2010.

The Christchurch City Council ran a campaign to raise voter awareness. Advertisements were placed on buses, in malls and in doctors' surgeries, and radio advertising and interviews were undertaken. As noted in Figure 1 this campaign appeared successful as voter turnout in the city increased by 10 per cent between 2007 and 2010.

The 2011 general election was held nine months after the February 2011 earthquake and just five months after the major June 2011 aftershocks. In recognition that the earthquakes had caused significant infrastructure and communications obstacles, the Electoral Commission heavily promoted advance voting in Christchurch.<sup>7</sup> Advance mobile services were provided via campervans which stopped at pre-advertised sites on the paths of local bus routes.





As a result, a survey of voter and non-voter experiences found that 80 per cent of Christchurch residents were aware of advance voting options, in contrast to 63 per cent of residents nationally.<sup>8</sup> Advance voting in the badly damaged electorates of Christchurch East and Christchurch Central (19 per cent in each case) was higher than the national average of 15 per cent.<sup>9</sup>

This same survey found that Christchurch residents typically knew more about aspects of the general election process and the associated referendum than New Zealanders as a whole.<sup>10</sup>

In the 2014 general election, voter turnout across New Zealand as a percentage of those eligible to vote increased 4 per cent to 77 per cent, almost equalling the levels of 2008 and 2005 after a dip in 2011. Voter turnout in Christchurch returned to very similar levels as 2008, with the exception of Christchurch East, Wigram and Ilam electorates.

Declining voter turnout is a long-term global trend.<sup>11</sup>

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## What is happening now?

### Public engagement

Public engagement in decision-making relating to the recovery of greater Christchurch is a key element of the *Recovery Strategy for Greater Christchurch: Mahere Haumanutanga o Waitaha*. CERA facilitates this involvement through its Community Engagement Strategy.

As part of this strategy, CERA developed engagement guidelines to help identify opportunities for the public to be involved in various aspects of recovery. Public engagement can include scoping, problem solving, and identifying issues and considerations, and can ultimately impact on the long-term sustainability and success of initiatives, policies and activities.

In line with these guidelines, CERA is communicating and engaging with individuals, families and communities to ensure they are supported to shape their own recovery. Providing information in a timely and targeted manner can be of huge benefit to communities. It is essential that the information reaches the intended audience in a way that is easily understood and helps people to respond in a way that is appropriate for their situation.<sup>12</sup>

There have been increasing opportunities for communities to get involved with shaping the future of Greater Christchurch. 'Canvas – your thinking for the red zone' engagement was held in Waimakariri from 30 July 2014 and ran for six weeks until 12 September. During that time, nearly 600 people contributed their vision, from which more than 2,750 ideas and values were identified for the future use of the Waimakariri red zones. Themes drawn from this included people's desire to see the natural environment restored so that community activities and new community facilities could be developed on the land. They also wanted a place to remember the earthquakes and what happened to the land.

The Visionarium (Future Christchurch), located in Re:START, has provided more than 50,000 people the opportunity to see what has occurred to date in the recovery and rebuild in both the suburban areas and the central city. It also provides visual demonstrations of what is proposed as the rebuild continues to encourage public feedback and ideas.

The 'Ideas to Remember' engagement informed the development of an earthquake memorial to honour the lives of those who died in Canterbury's earthquakes and acknowledge the shared trauma experienced by the people of Canterbury. More than 330 design ideas from 37 countries were received.

The submissions were shortlisted to six by an evaluation panel made up of arts professionals, experts in architecture and landscape architecture and a participant on behalf of the bereaved families.

The shortlisted designs were shared with bereaved families, the seriously injured and those who survived the major building collapses. Their feedback was a very important part of the development of the designs.

The final six of these were shortlisted and feedback was sought from the public with more than 2,000 comments received.

Recovery plans such as the Natural Environment Recovery Plans and the Land Use Recovery Plan, which set the strategic direction for recovery and regeneration have sought public input as has the Victoria Square design and the District Plan review.



## Electoral participation

In 2013, the parliamentary electorate names and boundaries for the 2014 and 2017 general elections were reviewed by the Representation Commission to ensure that the number of people in each electorate reflect changes in the population following the 2013 Census of Population and Dwellings and to ensure that electorate names remain relevant.

Major boundary changes in the Christchurch area were proposed because of significant population movement away from the Christchurch East, Christchurch Central and Port Hills electorates. The Waimakariri, Wigram and Selwyn electorates had increased beyond the permitted population limit.

The proposed boundaries were then notified to the general public and to members of Parliament, as well as being put forward for public discussion for appropriate modification or adjustment. In April 2014 the Representation Commission finalised the electorate names and boundaries, which are available on the Electoral Commission's website.<sup>13</sup>

The next general election is scheduled to be held no later than 18 November 2017, and the next local government election is scheduled for 2016.

## What are the indicators telling us?

This report measures civil participation in five ways.

- Confidence in earthquake recovery decision-making.
- Satisfaction with earthquake recovery communications and information.
- Satisfaction with opportunities to influence earthquake recovery decisions.
- Voter turnout in local elections for councillors.
- Voter turnout in general elections.

## Decision-making and communication related to earthquake recovery

Figure 1 shows confidence in overall decision-making relating to the recovery between 2012 and 2015, as recorded in the CERA Wellbeing Survey.

In September 2014 34 per cent of residents expressed confidence in overall decision-making. Another 34 per cent indicated they lacked such confidence. In April 2015 30 per cent of residents expressed confidence, 37 per cent lacked confidence and the remaining 33 per cent were non-committal.

Figure 1: Confidence in earthquake recovery decision-making (CERA Wellbeing Survey)

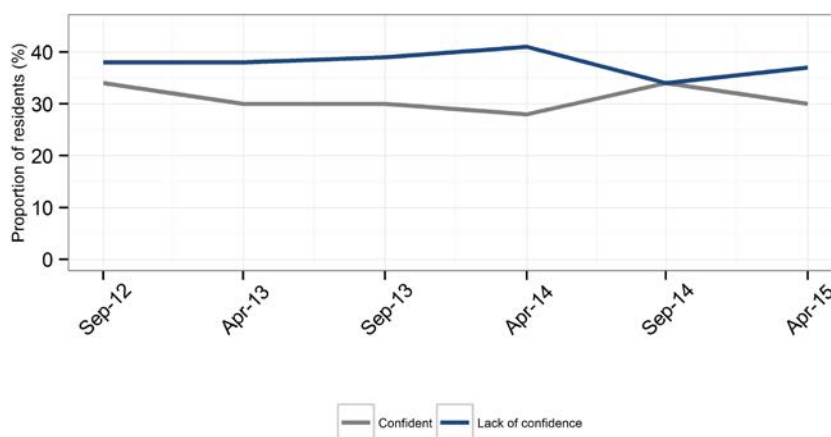
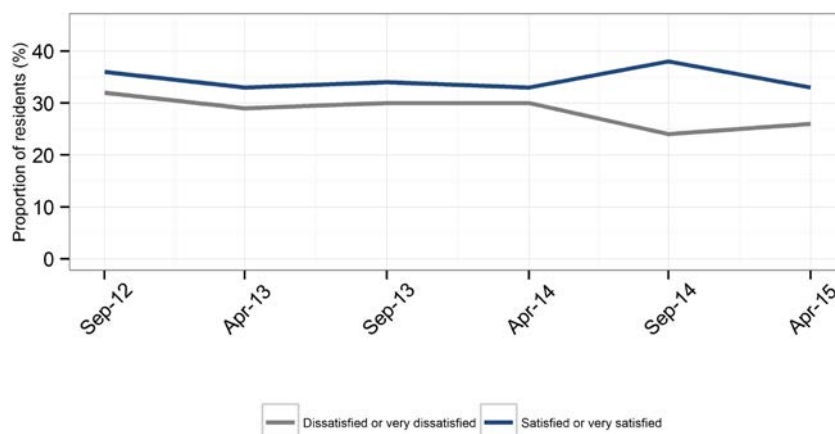




Figure 2 shows respondents' satisfaction with communications and information from recovery agencies. In April 2015 the results from the CERA Wellbeing Survey relating to the overall provision of information across all recovery agencies was not as positive as in September 2014, when this satisfaction had increased. Thirty-three per cent of residents expressed satisfaction with information received about earthquake recovery decisions, 26 per cent were dissatisfied and the remaining 41 per cent did not have a firm view.

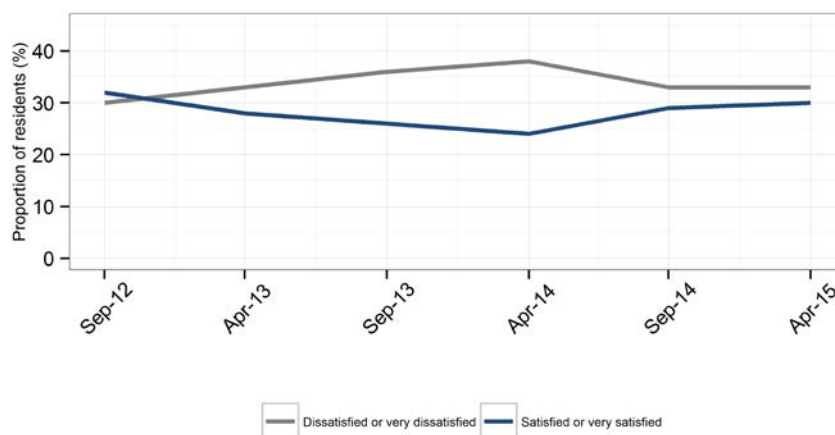
Figure 2: Satisfaction with earthquake recovery communications and information (CERA Wellbeing Survey)



**In April 2015 30 per cent of residents in greater Christchurch reported being satisfied or very satisfied with the opportunities the public has had to influence earthquake recovery decisions. 33 per cent said they were dissatisfied or very dissatisfied.**

Figure 3 shows that in April 2015 30 per cent of residents in greater Christchurch reported being satisfied or very satisfied with the opportunities the public has had to influence earthquake recovery decisions. 33 per cent said they were dissatisfied or very dissatisfied.

Figure 3: Satisfaction with opportunities to influence decisions (CERA Wellbeing Survey)





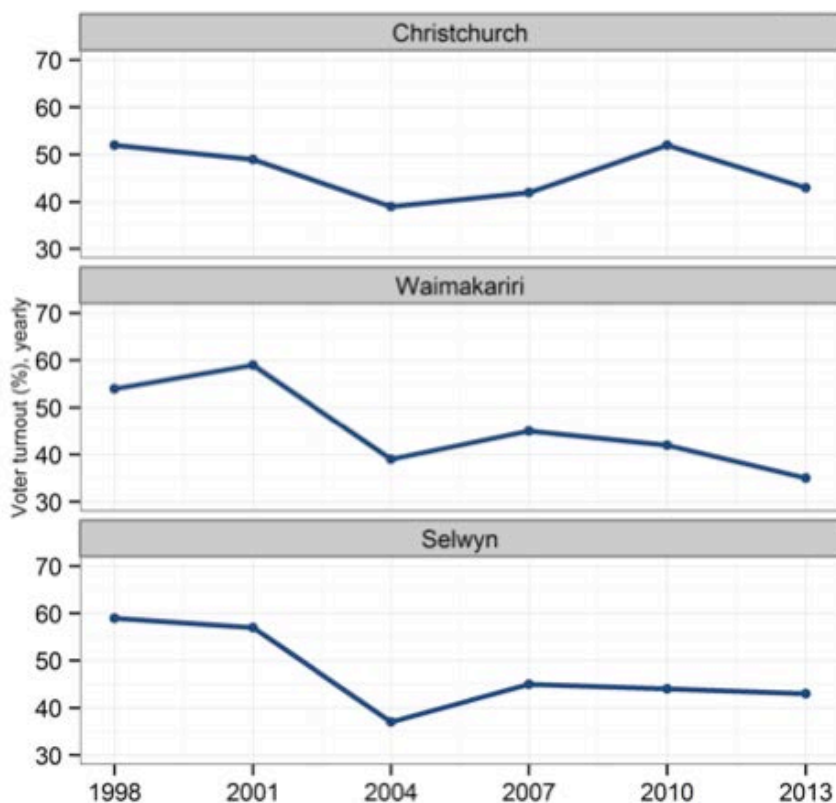
**Local election voter turnout declined between 2010 and 2013 to 43 per cent. This is similar to the national figure of 41 per cent.**

### Local elections

Figure 4 shows that voter turnout for local elections increased in Christchurch city between 2004 and 2010, including after the September 2010 earthquake. Turnout grew from 39 per cent in 2004 to 42 per cent in 2007 and 52 per cent in 2010. However, local election voter turnout declined between 2010 and 2013 to 43 per cent. This is similar to the national figure of 41 per cent.

Voter turnout for local elections declined slightly in Waimakariri and Selwyn districts between the 2007 and 2010 elections. This pattern has continued in 2013.

Figure 4: Voter turnout in local government elections for councillors







**Voter turnout in 2014 has improved in all greater Christchurch electorates, consistent with voting trends in New Zealand overall.**

**General elections**

Figure 5 shows that voter turnout for general elections in greater Christchurch declined from 2005 to 2011 but showed a marked improvement in 2014. Voter turnout in 2014 has improved in all greater Christchurch electorates, consistent with voting trends in New Zealand overall.

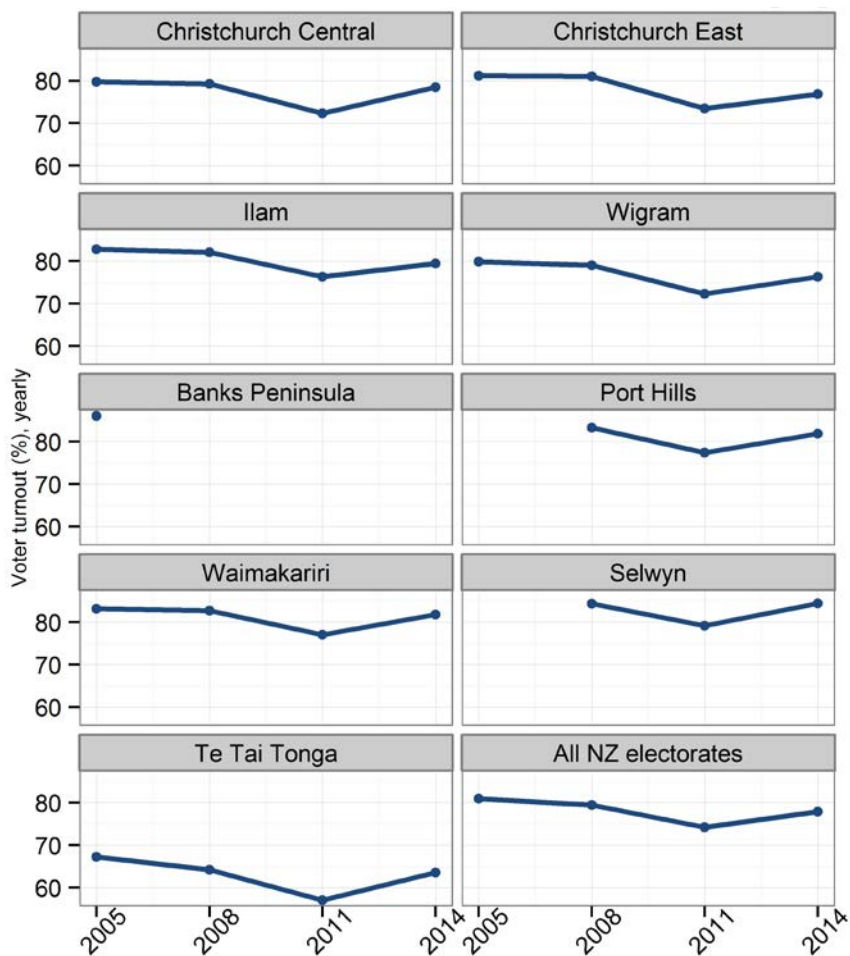
In the 2011 election Christchurch East had the greatest decline, falling by 8 per cent from an 81 per cent turnout in 2008 to a 73 per cent turnout in 2011. This increased to 77 percent in 2014.

In Te Tai Tonga Māori electorate, which covers a wider area than Canterbury alone, turnout fell by 7 per cent from 64 per cent in 2008 to 57 per cent in 2011. This returned to 64 per cent in 2014.

The Wigram turnout fell by 7 per cent from 79 per cent in 2008 to 72 per cent in 2011. This increased to 74 per cent in 2014.

The General Election Report 2014<sup>14</sup> identified some reasons behind why people did not vote. The most common reason given for not voting was 'lack of interest' in voting, which accounted for 27 per cent of non-voters, up from 21 per cent in 2011. Nine per cent of non-voters 'can't be bothered with politics or politicians', 8 per cent 'can't be bothered voting' and 6 per cent think 'it makes no difference who the government is'. Almost a quarter of non-voters didn't vote because of self-stated barriers to voting, including health reasons, religious reasons and other commitments (including work).

Figure 5: Voter turnout in general elections





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more about CERA'S Community Engagement Strategy: <http://cera.govt.nz/sites/default/files/common/cera-community-engagement-strategy.pdf>

Find out more about elections in New Zealand: [www.elections.org.nz](http://www.elections.org.nz)

Find out more about electorate-level turnout information from 1996: [www.electionresults.org.nz](http://www.electionresults.org.nz)

Find out more about electoral boundary changes: [www.elections.org.nz/news-media/changes-proposed-electorate-boundaries-0](http://www.elections.org.nz/news-media/changes-proposed-electorate-boundaries-0) and [www.elections.org.nz/events/electorate-boundary-review](http://www.elections.org.nz/events/electorate-boundary-review) and [www.elections.org.nz/sites/default/files/bulk-upload/documents/proposed\\_electorate\\_districts\\_2013\\_report.pdf](http://www.elections.org.nz/sites/default/files/bulk-upload/documents/proposed_electorate_districts_2013_report.pdf)

Find out more about the New Zealand General Social Survey results on non-voters in the 2008 and 2011 elections: [www.stats.govt.nz/browse\\_for\\_stats/people\\_and\\_communities/Well-being/civic-human-rights/non-voters-2008-2011-gen-elections.aspx](http://www.stats.govt.nz/browse_for_stats/people_and_communities/Well-being/civic-human-rights/non-voters-2008-2011-gen-elections.aspx)

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## Technical notes

### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### Voting information

**Data source:** Electoral Commission. The Local Authority Election Statistics (Department of Internal Affairs)

Local Government New Zealand

**Data frequency:** Each election

**Data complete until:** 2011, 2013 and 2014

**Notes:** Voter turnout is defined as the proportion of all enrolled electors who cast a vote in general elections (Voter turnout = Total votes cast / Electoral population).

Local government elections occur every three years, most recently in 2013. Territorial authority elections for councillors and for mayors have almost identical turnout rates for these electorates. For simplicity, we are reporting only on councillor elections.

Electoral boundary review (general elections)

The parliamentary electorate names and boundaries for the 2014 and 2017 general elections have been reviewed by a statutory body called the Representation Commission.

This will ensure that the number of people in each electorate reflects changes in the population and that electorate names remain relevant.

Statistics New Zealand calculates the number of general and Māori electorates and population size

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for each electorate following the Census. The Representation Commission used these electoral populations and other statutory criteria to decide the electorate boundaries.

The proposed electorate boundaries were released for public comment on 21 November 2013.

The Commission finalised the electorate names and boundaries in April 2014 for the 2014 and 2017 general elections.<sup>15</sup>

### **Non-voters in 2008 and 2011 general elections**

**Data source:** Statistics New Zealand

**Data frequency:** From the 2010 and 2012 NZGSS conducted every 2 years

**Data complete until:** 2012

This report produced in 2012 presents reasons people gave for not voting. It includes selected characteristics of the non-voters, including their age, feelings of income adequacy, labour force status and migrant status.

The report is based on self-reported voting behaviour from the NZGSS and findings can be different from administrative data or voter turnout data available from the Electoral Commission.



## Endnotes

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Benefits of effective community engagement <http://www.communitymatters.govt.nz/Good-Practice-Participate>
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- 11 Niemi, R.G., Wiesberg, H.F. and Kimball, D. (2001). *Controversies in voting behavior*. (5th ed.) Washington DC: CQ Press.
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- 13 Information retrieved from [www.elections.org.nz/news-media/changes-proposed-electorate-boundaries-0](http://www.elections.org.nz/news-media/changes-proposed-electorate-boundaries-0) also see [www.elections.org.nz/](http://www.elections.org.nz/)
- 14 2014 General Election Report  
<http://www.elections.org.nz/events/2014-general-election/election-results-and-reporting/voter-and-non-voter-satisfaction-survey>
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JUNE 2015

**The Canterbury Earthquake Recovery Authority (CERA) is monitoring and reporting on the progress of the recovery. The Canterbury Wellbeing Index tracks the progress of social recovery using indicators to identify emerging social trends and issues.**

## Why is population important?

Changes in the size of the population can have significant impacts on the natural, physical, economic and social environments.

Populations change through births, deaths and migration.

If a population grows, there is greater demand for cultural and recreational services such as libraries, art galleries, sports grounds and swimming pools. The social infrastructure must expand so that everyone has access to important services such as schools, general practices, community halls and emergency services. With more people, demand also intensifies for natural resources such as land and energy, and greater pressure is placed on existing roads, water and waste systems.<sup>1</sup>

Under the right conditions, population growth can help drive economic growth as people consume more goods and services. In turn, higher consumption can create employment and boost the economic wellbeing and quality of life in growing communities. However, for economic activity to increase there must be more supporting infrastructure such as roads, ports and telecommunications infrastructure.

If a population declines, less money circulates in the economy which can lead to businesses failing and people losing their jobs. Services such as hospitals and schools become less viable. In this way, long-term population decline reduces both economic and social wellbeing.

Before the earthquakes, the populations of Christchurch city and Waimakariri and Selwyn districts were growing, and Statistics New Zealand projected that this trend would continue. Since the earthquakes, predictions of population changes in greater Christchurch have had to be adjusted.

Using evidence from previous natural disasters in developed countries, it was expected that, in the first year following the disaster, less than 2.5 per cent of the population would leave the region<sup>2</sup> and that this would be offset by natural population growth and migration into greater Christchurch.<sup>3</sup> A long-term fall in the number of people in the region was considered unlikely.

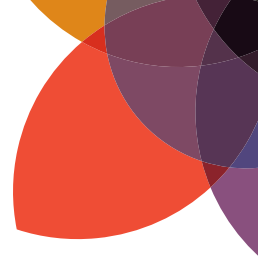
International research suggests that the people who experience the greatest dislocation tend to be those whose homes have been most damaged.<sup>4</sup> In general, socioeconomically vulnerable populations are more likely to bear the burden of a natural disaster, to be displaced and to be displaced for longer.

After disasters, displaced people tend to relocate near their previous homes rather than moving long distances.<sup>5</sup> In this way, they retain links to their former communities and continue to work in their usual place of employment or attend their usual school.

The Census is the most comprehensive source of population data. The 2011 Census was due to be held on 8 March 2011, but was delayed due to the national state of emergency that followed the Canterbury earthquake on 22 February 2011.

The most recent Census was held on 5 March 2013 and results were available from late 2013. Census data in conjunction with other Statistics New Zealand population measures can now be used to track population change.





## How was the population impacted by the earthquakes?

In the immediate aftermath of the February 2011 earthquake there were reports of tens of thousands of people leaving the city. For most people this was a short-term response to an emergency, as families wanted time out from the aftershocks and from the damage to their homes and workplaces. Most people returned over the following days, weeks and months.

According to an analysis of cell phone calls made by Christchurch users, around 55,000 residents may have left the city in the week after the February 2011 earthquake (15 per cent of the population).<sup>6</sup> Most calls were made from Otago, Auckland or Wellington. A month later, records indicate that most people had returned to Christchurch.

New Zealand Post mail redirections showed that 8,632 households relocated in the six weeks after the February 2011 earthquake compared with 2,397 in the six weeks before.<sup>7</sup> The majority (81 per cent) relocated within the Canterbury region, and 67 per cent of Christchurch city residents relocated within the city. Based on Christchurch City Council rates data, it appears that in the first few months people tended to relocate near their former neighbourhood. The median distance between former and current residences was just 3.5 kilometres.

The most common destinations for relocations outside Canterbury were Auckland, Otago and Wellington.

Within Waimakariri district, displaced households tended to relocate primarily within the district or to Christchurch city.

A national survey of 26,000 secondary students carried out in June 2011 asked if students had moved to a different home because of the earthquakes. In Canterbury, 8.2 per cent indicated they had moved, while in the rest of the country, on average, 1.8 per cent indicated they had moved out of Christchurch because of the earthquakes.<sup>8</sup>

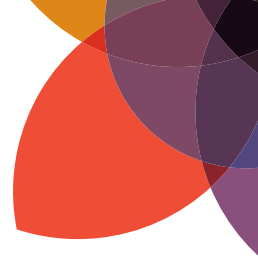
In 2013 the CERA Youth Wellbeing Survey found that 46 per cent of respondents aged 12–24 years had moved from the address they were living at on 4 September 2010 (the date of the first Canterbury earthquake). Of this group, 39 per cent had moved once and 29 per cent had moved twice.

Statistics New Zealand estimated that in the year from June 2010 to June 2011, the population of Christchurch city decreased by 8,900 people (2.4 per cent).<sup>9</sup> Many were likely to have settled in other parts of Canterbury, as the total estimated loss to the Canterbury region was only 5,000 people. Estimates also indicate that between June 2011 and June 2012, Christchurch city's population declined by a further 1.2 per cent to 363,200.<sup>10</sup> This means that between June 2010 and June 2012, Christchurch city's population declined by about 13,500 (3.6 per cent) due to a net migration loss of 16,600 (partly offset by a natural increase of 3,100).

Between June 2010 and June 2011, the number of people leaving New Zealand permanently, or for the long term, increased by 22 per cent (to a total of 80,100).<sup>11</sup> In the year to June 2012 there was a further 9 per cent increase in international migrant departures.<sup>12</sup> One reason for this increase was that more residents of greater Christchurch were leaving because of the earthquakes.

The proportion of children and young people leaving Christchurch city was estimated to be higher than it was for other age groups. This was a result of families with young children leaving the city and the outflow of students choosing not to return to Christchurch to study. In all, 9.6 per cent (9,300) of those aged 0–19 years left the city between June 2010 and June 2012 and the population aged 35–49 years decreased by 5,700 (7 per cent). During the same period, the male population aged 20–34 years increased by 500, while the corresponding female population decreased by 1,700. This reflects a net inflow of young male workers.<sup>13</sup>

Between June 2010 and June 2011, Selwyn district was the fastest-growing territorial authority in New Zealand with a 3.9 per cent increase in its population. Selwyn district remained the fastest-growing territorial authority area in the year to June 2012, when it increased a further 2.9 per cent (1,200). Waimakariri district increased by 2.1 per cent (1,000) in the year to June 2011 and 1.2 per cent (600) in the year to June 2012 (see *What are the indicators telling us?* below for the 2013 population estimate).



## What is happening now?

Population movement across greater Christchurch has been significant. Some of this movement is due to owners of property in the worst affected suburbs accepting the Crown's offer to purchase their property.

In June 2011 the Government announced that, due to the scale of land damage and in order to provide residents with certainty about the future, areas in greater Christchurch would be mapped into land zones, which were identified through geotechnical investigations.

Green zone areas are generally considered to be suitable for residential construction. Green zone land has been divided into three technical categories by the Ministry of Business, Innovation and Employment – TC1 (grey), TC2 (yellow) and TC3 (blue). Ministry of Business, Innovation and Employment guidelines for each technical category describe the foundation systems most likely to be required if there is a need to repair or rebuild foundations. 'Technical category not applicable' applies to properties in urban areas, properties in rural areas or beyond the extent of land damage mapping and properties in parts of the Port Hills and Banks Peninsula. Normal consenting procedures apply to these.

Residential property in the flat land has been zoned red when the land has been so badly damaged by the earthquakes it is unlikely it can be rebuilt on for a prolonged period. The criteria for defining areas as residential red zone are:

- there is significant and extensive area wide land damage
- the success of engineering solutions may be uncertain in terms of design, its success and possible commencement, given the ongoing seismic activity
- any repair would be disruptive and protracted for landowners.

In the Port Hills, properties affected by cliff collapse have been zoned red where they face an immediate risk to life. Properties affected by rock roll have been zoned red where they face an unacceptable risk to life (greater than 1 in 10,000 at 2016 risk levels) and an area wide engineering solution to remediate them has been determined not to be practicable for a number of reasons including uncertainty around timeliness and costs.

Insured red-zone property owners who chose to accept the Crown offer had two options: either the Crown would purchase their property at the 2007 rateable valuation and undertake an assignment of their Earthquake Commission and private insurance claims; or the Crown would purchase their property at the 2007 rateable land valuation and undertake an assignment of the Earthquake Commission land claim only, with the property owner settling their house claim with the Earthquake Commission or their insurer.

As at 25 May 2015 there were 8,061 residential red zone properties (including those on the Port Hills). Of these, 7,441 home owners (92 per cent) had settled with the Crown for the purchase of their properties.

Other population movements are underway as people are temporarily displaced from homes in the green zone that are being repaired or rebuilt. In addition, the workforce for the rebuild has continued to grow, which includes workers arriving from other parts of New Zealand and overseas.

CERA and other agencies have worked to ensure that social services meet the changing needs of the population. Government and non-government agencies are also supporting communities through this resettlement process. Through their work, there is a focus on community resilience, safety and wellbeing and on enhanced quality of life for residents and visitors.

Limited data are available regarding people's intentions to stay in the greater Christchurch region. However, the CERA Wellbeing surveys do provide some insight into how connected residents feel to the region in general and their local community. According to the September 2014 CERA Wellbeing Survey, 35 per cent of the respondents reported a stronger personal commitment to the region as a result of the earthquakes.<sup>14</sup> In addition, 36 per cent of respondents reported a heightened sense of community since the earthquakes. However a quarter of respondents, 25 per cent, indicated that they have continued to experience uncertainty about their future in Canterbury which is having a negative impact on their everyday lives. This uncertainty was most strongly felt in Christchurch city (28 per cent), where 15 per cent of respondents said the impact was moderate or major. This result may reflect the impact of secondary stressors on many residents in the post-earthquake period.



## What are the indicators telling us?

This report examines population using the following indicators.

- Change in estimated resident population.
- Change in the number and proportion of usual residents.
- Change in the number and proportion of occupied and unoccupied private dwellings.
- Population movement to and from greater Christchurch.
- Cultural diversity – change in the ethnic makeup of residents.

### Population estimates

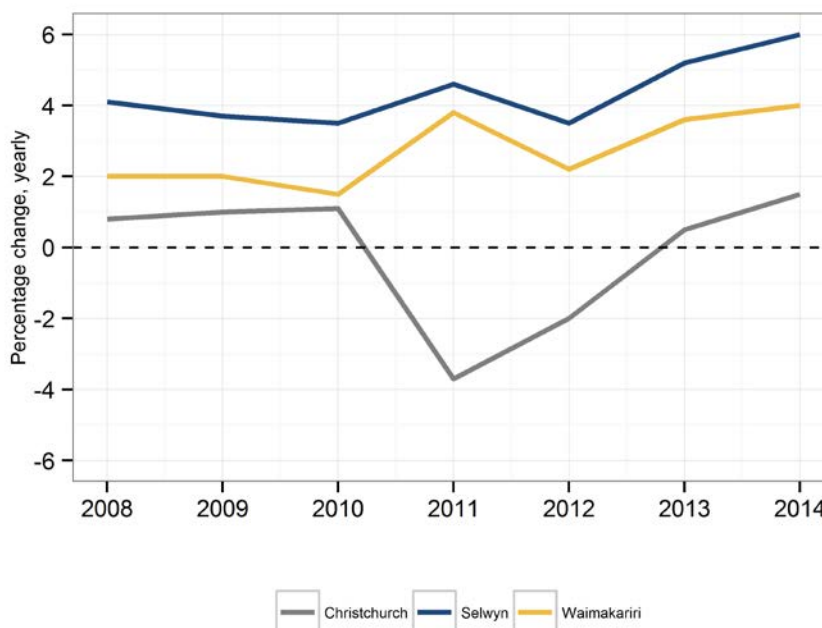
Population estimates produced by Statistics New Zealand measure the estimated annual change in the resident population. It is the best available measure of how many people usually live in an area each year. Estimates for 2014 suggest that Christchurch city's population grew in the years to June 2013 and June 2014 after two years of decline during the period following the earthquakes (see *How was the population impacted by the earthquakes?* above for earlier population estimates).<sup>15</sup>

Figure 1 shows that in the year to June 2014, Christchurch city's population increased by 5,200 (1.5 per cent). This increase was due to a net migration gain of 3,700 and a natural increase of 1,500.<sup>16</sup> In contrast between 2010 and 2012, the population of Christchurch city decreased by about 13,500.<sup>17</sup>

The populations of Waimakariri and Selwyn districts also continued to grow in the year to June 2014, increasing by 4.1 per cent and 5.8 per cent respectively. This population increase in Selwyn district is the largest increase recorded for any territorial authority since the June 2004 year.<sup>18</sup>

For greater Christchurch, the population decreased 14,900 between June 2010 and June 2012, but regained 15,800 between June 2012 and June 2014. In the year ended June 2014, most of the population increase (80 per cent) was from international and internal migration, with 20 per cent due to natural increase.

Figure 1: Population estimates by territorial authority within greater Christchurch







**Overall the region's population grew between 2006 and 2013 despite the series of earthquakes from 2010. In 2013 there were 436,056 people living in greater Christchurch compared with 424,935 at the 2006 Census.**

**The usually-resident population grew by 11,121 or 2.6 per cent during this seven-year period. Nationally the population increased by 5.3 per cent.**



**Selwyn district experienced the highest population increase, growing by 32.6 per cent between 2006 and 2013.**

**Waimakariri district increased by 16.7 per cent and Christchurch city's population dropped by 2 per cent over the same period.**

## Census usually-resident population change

The 2013 Census is the most detailed source of information about people who live in greater Christchurch. It shows that overall the region's population grew between 2006 and 2013 despite the series of earthquakes from 2010. However, the change in population varied within the three territorial authorities that make up greater Christchurch.

In 2013 there were 436,056 people living in greater Christchurch compared with 424,935 at the 2006 Census. Table 1 shows that usually-resident population grew by 11,121 or 2.6 per cent during this seven-year period. Nationally the population increased by 5.3 per cent.

Of the three territorial authorities within greater Christchurch, Selwyn district experienced the highest population increase, growing by 32.6 per cent between 2006 and 2013. Waimakariri district increased by 16.7 per cent and Christchurch city's population dropped by 2 per cent over the same period. However, these overall population changes followed a period of steady growth for all three areas between the previous Census years (2001–2006).

Selwyn district was the fastest-growing territorial authority nationally while Waimakariri district had the third-fastest growth rate.

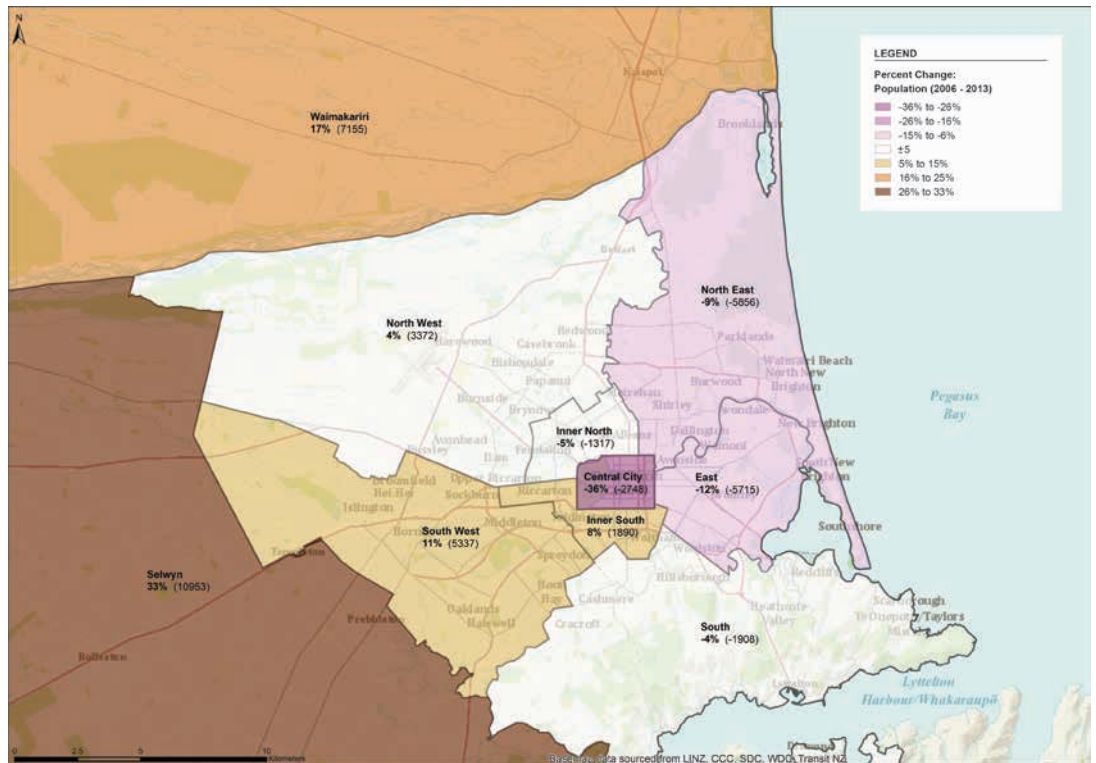
Map 1 shows the population change in the geographic areas which make up greater Christchurch. As mentioned, Waimakariri and Selwyn districts had the greatest percentage population increases in greater Christchurch between 2006 and 2013. Within Christchurch city, the strongest growth was felt in the South West (11 per cent) and Inner South (8 per cent). In contrast, the Central City (-36 per cent), the East (-12 per cent) and North East (-9 per cent) had the greatest declines in population reflecting the considerable earthquake damage in these areas.

*Table 1: Census usually resident population change by territorial authority within greater Christchurch 2001–2013*

Area	Population			Change 2001–2006		Change 2006–2013	
	2001	2006	2013	Number	%	Number	%
Waimakariri district	36,903	42,834	49,989	5,931	16.1	7,155	16.7
Christchurch city	324,081	348,459	341,469	24,378	7.5	-6,990	-2.0
Selwyn district	27,291	33,642	44,595	6,351	23.3	10,953	32.6
Greater Christchurch	388,272	424,935	436,056	36,663	9.4	11,121	2.6



Map 1: Percentage change in population within greater Christchurch 2006-2013





### Change in occupied and unoccupied dwellings (2013 Census)

Table 2 shows that between 2006 and 2013 the number of occupied private dwellings grew by 1.2 per cent in greater Christchurch from 162,207 to 164,229.

The number of dwellings increased substantially in Waimakariri district (17.2 per cent) and in Selwyn district (31.1 per cent), while numbers fell in Christchurch city (–3.2 per cent), reflecting the population movements and clearances of residential red zone properties in recent years. Notably, Selwyn district had the highest percentage increase of occupied private dwellings between 2006 and 2013 in New Zealand.<sup>19</sup>

*Table 2: Occupied private dwellings by territorial authority within greater Christchurch 2006–2013*

Area	Occupied private dwellings			
	Number in 2006	Number in 2013	Change number	Change %
Waimakariri district	15,918	18,651	2,733	17.2
Christchurch city	134,727	130,428	– 4,299	– 3.2
Selwyn district	11,559	15,150	3,591	31.1
Greater Christchurch	162,207	164,229	2,022	1.2

The latest Census also recorded a significant increase in the number of unoccupied dwellings in greater Christchurch. This reflects the large number of dwellings that were deemed uninhabitable, both in and outside the residential red zones, and those homes that had to be vacated for temporary repairs at the time of the 2013 Census. As Table 3 shows, between 2006 and 2013 unoccupied dwellings had increased by 81.1 per cent in greater Christchurch (from 11,568 to 20,949). The greatest increase was in Christchurch city (8,343 or 88.4 per cent).

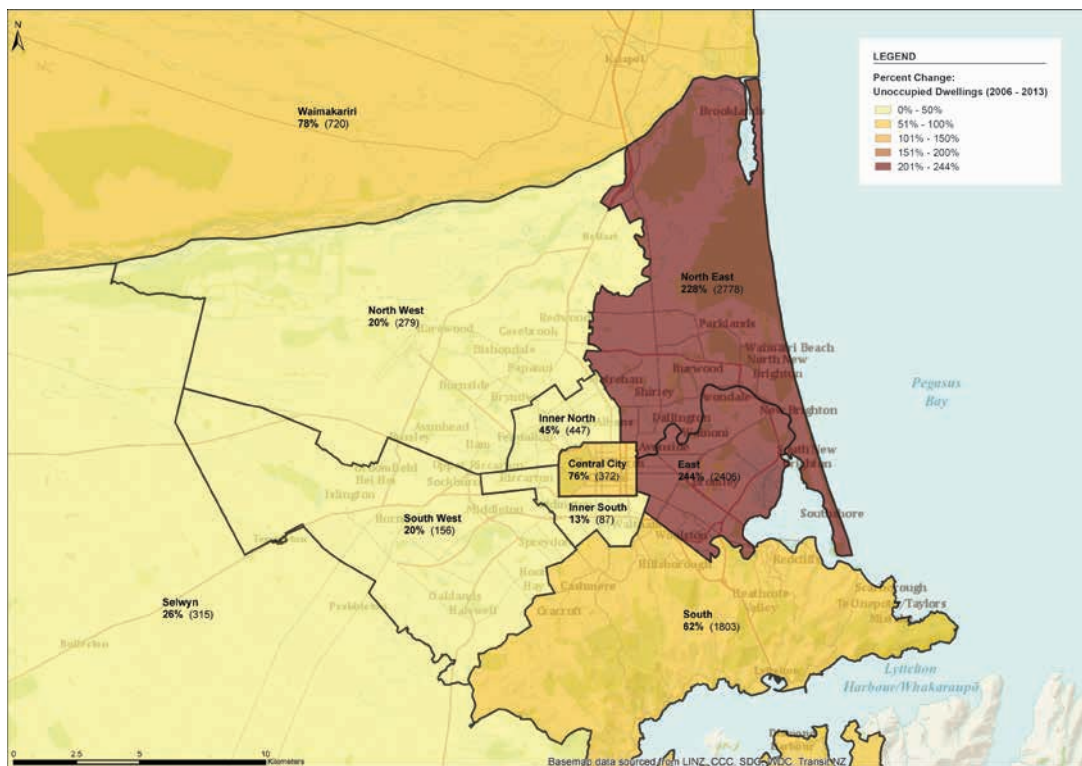
Map 2 shows the change in unoccupied dwellings in greater Christchurch. Overall the greatest percentage increase in unoccupied dwellings occurred in the East (244 per cent) and North East (228 per cent) of Christchurch city.

*Table 3: Unoccupied dwellings by territorial authority within greater Christchurch 2006–2013<sup>20</sup>*

Area	Total unoccupied dwellings		Change 2006–2013	% change for unoccupied dwellings 2006–2013
	2006	2013		
Waimakariri district	927	1,647	720	77.7
Christchurch city	9,441	17,784	8,343	88.4
Selwyn district	1,200	1,515	315	26.3
Greater Christchurch	11,568	20,949	9,381	81.1



Map 2: Percentage change in unoccupied dwellings within greater Christchurch 2006-2013



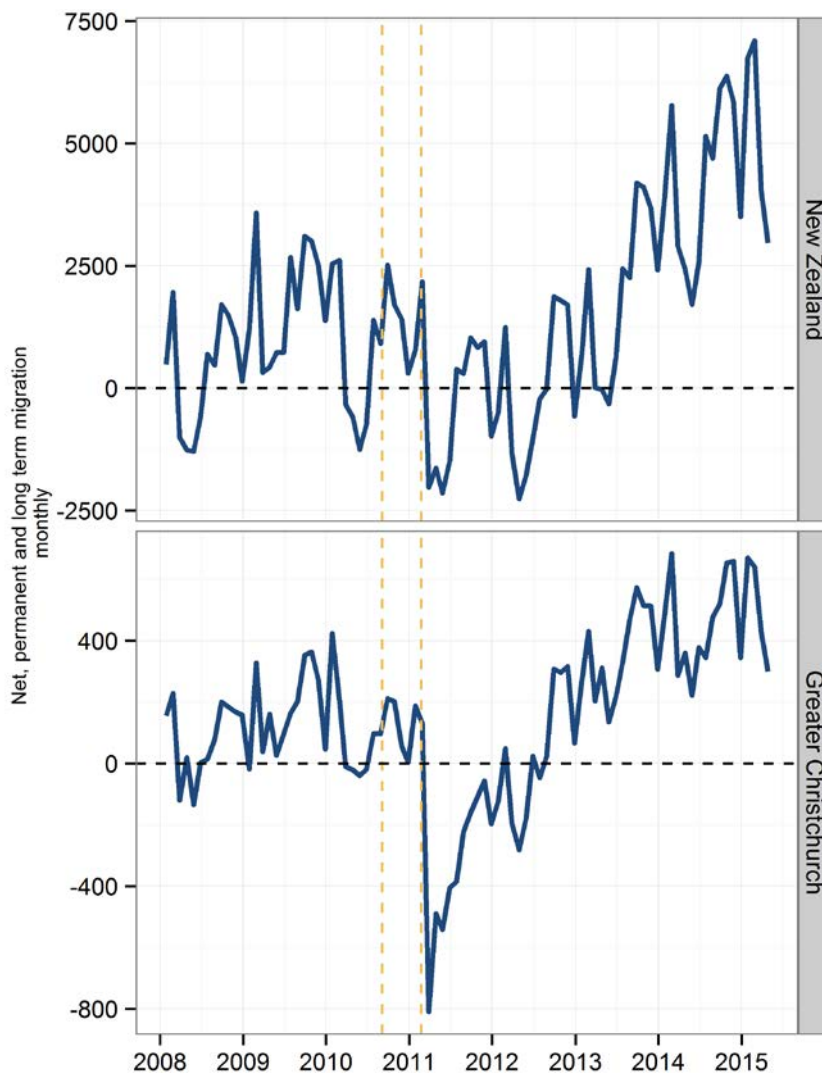
**Population movement to and from greater Christchurch**

As the rebuild progresses, there has been a large inflow of people into greater Christchurch from both within New Zealand and overseas. Arrivals have increased and departures decreased, producing an all-time high of net migration in the June 2014 year of 5,600 people, the second largest net gain of migrants in New Zealand, behind Auckland. This migration has significantly changed the ethnic composition of the population – for example, 29 per cent of migrants from Asia came from the Philippines, compared with an average of 8 per cent between 1996 and 2014.<sup>21</sup> Prior to the earthquakes the main occupations of migrants to Canterbury were school teachers and hospitality and food trade workers. In the years 2011 to 2014 the main occupations of migrants were ‘bricklayers, carpenters and joiners’, and ‘engineering professionals’.



Figure 2 shows that before the earthquakes, net migration for greater Christchurch was quite stable, averaging a monthly inflow of 36 people between 2008 and 2010. In the month following the February earthquake, greater Christchurch had a net outflow of 810 people. Since mid-2012 arrivals have outweighed departures.

Figure 2: Net permanent and long-term migration



Taking an annual view, in the year ended April 2011 greater Christchurch had a net outflow, which was followed by a significant inflow in 2012 when almost two thirds (66 per cent) of New Zealand's migration was attributed to greater Christchurch. In 2013 this dropped to 42 per cent.



Table 4 shows that the main population movements in and out of greater Christchurch occurred between 2008 and 2013. In 2013, 89.2 per cent of those who lived in greater Christchurch in 2008 remained there.<sup>22</sup>

Of those who left greater Christchurch, most moved to Auckland (8,139), Dunedin (3,300) and Wellington (2,754). However, there were also some other key South Island destinations including Ashburton (1,863), Timaru (1,593) and Nelson (1,560).

Auckland was also a contributor to greater Christchurch's population between 2008 and 2013 with 5,454 people moving to greater Christchurch from Auckland. Other main sources of population for greater Christchurch include Dunedin (2,256), Wellington (1,752) and Ashburton (1,674). Notably the migration gains to greater Christchurch from these areas between 2008 and 2013 were less than the gains between 2001 and 2006 Censuses.

*Table 4: Migration of more than 1,000 people to and from territorial authority areas for greater Christchurch<sup>23</sup>*

Moved from greater Christchurch		Moved to greater Christchurch	
Destination territorial authority area of residence at 2013 Census	Number	Source territorial authority area of residence in 2008	Number
Auckland	8,139	Auckland	5,454
Dunedin	3,300	Dunedin	2,256
Wellington	2,754	Wellington	1,752
Ashburton district	1,863	Ashburton district	1,674
Timaru district	1,593	Timaru district	1,569
Nelson	1,560	Marlborough district	1,509
Hurunui district	1,533	Hurunui district	1,167
Marlborough district	1,485	Invercargill	1,116
Tasman district	1,389	Nelson	1,062

### **Cultural diversity**

The population of greater Christchurch is largely European; however, the region is becoming more ethnically diverse. The European group includes people who have migrated to New Zealand from countries such as Australia, the United Kingdom and Europe as well as residents who were born in New Zealand and are descendants of European settlers and migrants.



**85.9 per cent of people living in greater Christchurch in 2013 identified as European, 8.2 per cent were Māori, 2.6 per cent identified with one or more Pacific peoples and 7.9 per cent were Asian.**



**The number of people living in greater Christchurch who had been born overseas increased to 21.1 per cent of the population in 2013 from 19.6 per cent in 2006.**

As Table 5 shows, 85.9 per cent of people living in greater Christchurch in 2013 identified as European, 8.2 per cent were Māori, 2.6 per cent identified with one or more Pacific peoples and 7.9 per cent were Asian.

*Table 5: Ethnic group (grouped total responses)<sup>(1)</sup> by New Zealand-born or overseas-born, for greater Christchurch 2013<sup>2,4</sup>*

Ethnic group	New Zealand-born	Overseas-born	Total stated
European	300,012	54,288	354,303
Māori	33,327	657	33,984
Pacific peoples	6,864	4,017	10,881
Asian	6,825	25,764	32,589
Middle Eastern, Latin American, African	798	2,895	3,693
Other ethnicity <sup>(2)</sup>	7,647	537	8,184
Total stated	325,890	86,592	412,482

The number of people living in greater Christchurch who had been born overseas increased to 21.1 per cent of the population in 2013 from 19.6 per cent in 2006. Across New Zealand 25.2 per cent of the population in 2013 were born overseas, compared with 22.9 per cent in 2006.<sup>25</sup>



Table 6 shows that people from England made up the largest immigrant group in 2013 (24,750), followed by those from Australia (7,077) and the People's Republic of China (6,717).

Table 6 also identifies growth in the migrant workforce population with those arriving after the earthquakes including people from England (2,085), the People's Republic of China (1,320) the Philippines (1,080), India (942), Australia (915) and Ireland (867).

*Table 6: Selected countries of birth by years since arrival in New Zealand for people whose area of usual residence is greater Christchurch<sup>26</sup>*

Country of birth	Total in greater Christchurch (those who did or did not state the number of years living in New Zealand)	Total in greater Christchurch (those who stated the number of years living in New Zealand)	Those living two years or less in New Zealand	
			Number	%
England	24,750	24,279	2,085	8.6
Australia	7,077	6,804	915	13.4
People's Republic of China	6,717	6,423	1,320	20.6
Philippines	3,576	3,468	1,080	31.1
South Africa	3,435	3,378	450	13.3
India	2,634	2,544	942	37.0
Ireland	1,644	1,590	867	54.5

### Summary

There have been significant changes and variation in the population of greater Christchurch after the earthquakes and as the recovery and rebuild has progressed. Initially there was an outflow of people, particularly families with children. However this has now been replaced by an inflow of people, including many additional workers as the rebuild progresses.

There has been significant population growth in the Selwyn and Waimakariri districts with 2014 population growth in Selwyn district being the highest for any territorial authority in the country since 2004. While growth rates in greater Christchurch have been lower than the national average, the region remains on a trajectory of upward population growth.

The ethnic diversity of greater Christchurch is changing as a result of the migrant workforce arrivals with significant numbers of workers arriving from the Philippines, Great Britain and Ireland as well as growth in migrants from the People Republic of China, South Africa and India.

Overall, the population of greater Christchurch increased by 2.6 per cent between 2006 and 2013 and indications are that this pattern of growth is likely to continue.





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## Find out more

Find out more about the Canterbury Wellbeing Index: [www.cera.govt.nz/cwi](http://www.cera.govt.nz/cwi)

Find out more from Statistics New Zealand about estimating population change after the earthquakes: [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/estimating-pop-after-chch-quakes-paper.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/estimating-pop-after-chch-quakes-paper.aspx)

Find out more from Statistics New Zealand about annual population estimates: [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/subnational-population-estimates-info-releases.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/subnational-population-estimates-info-releases.aspx)

Find out more about the land zone decisions: [www.cera.govt.nz](http://www.cera.govt.nz)

Find out what land zone your greater Christchurch property is in: [www.cera.govt.nz](http://www.cera.govt.nz)

Find out more about population movement from GNS Science: [www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/Disasters/pubs/GNS/2012/Misc\\_Series\\_44.pdf](http://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/Disasters/pubs/GNS/2012/Misc_Series_44.pdf)

Find out more about Census information: <http://www.stats.govt.nz/>

Find out more about Statistics New Zealand's 2013 Quickstats about greater Christchurch: [www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx](http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx)

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## Technical notes

### CERA Youth Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Two yearly (2013 and another planned for late 2015)

**Data complete until:** 2013

**Notes:** The aim of the CERA Youth Wellbeing Survey 2013 is to measure the progress of earthquake recovery by collecting data on the self-reported wellbeing of those aged 12–24 years.

CERA worked with the Ministry of Education, Canterbury District Health Board, the Ministry of Youth Development, Christchurch City Council, Waimakariri District Council, Selwyn District Council, Ngāi Tahu, the Natural Hazards Research Platform and The Collaborative for Research and Training in Youth Health and Development to develop and implement the Youth Wellbeing Survey.

Survey questions were adapted from the CERA Wellbeing Survey and were tested with panels of young people to ensure that the wording and content were relevant.

The Youth Wellbeing Survey was open between 23 September and 13 December 2013 for responses from young people aged 12–24 years, living in greater Christchurch.

### Methodology

An online survey aiming to generate a sample of young people in greater Christchurch that was as large and diverse as possible was undertaken between September and December 2013. Advertising through greater Christchurch youth networks and targeted promotional activities were the main recruitment strategies. Some hard copy responses from targeted groups of young people were also received.

The survey period included high school and university exams, and meant efforts to attract responses from different age groups needed to take the timing of study leave and exams into account.

Recruitment during this period may also have had some impact on the responses given by students who may have been experiencing greater stress than usual due to exam pressure.



### CERA Wellbeing Survey

**Data source:** Canterbury Earthquake Recovery Authority

**Data frequency:** Six-monthly September 2012, April 2013, September 2013, April 2014, September 2014 and April 2015.

**Data complete until:** April 2015

**Notes:** The April 2015 CERA Wellbeing Survey is the sixth survey in the series providing information about the residents of greater Christchurch. Respondents were randomly selected from the Electoral Roll. The survey was delivered online and by hard copy from 11 March to 5 May 2015. The response rate was 36 per cent. Weighting was used to correct for imbalances in sample representation. The survey was developed in partnership with Christchurch City Council, Waimakariri District Council, Selwyn District Council, the Canterbury District Health Board, Ngāi Tahu and the Natural Hazards Research Platform. For results from the surveys, see: [www.cera.govt.nz/wellbeing-survey](http://www.cera.govt.nz/wellbeing-survey)

### Subnational population estimates

**Data source:** Statistics New Zealand, Subnational Population Estimates

**Data frequency:** Annual

**Data complete until:** 30 June 2014

**Notes:** Provisional estimates are published in October; final estimates are available in November; estimates are revised after each Census of Population and Dwellings

See [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/subnational-population-estimates-info-releases.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/subnational-population-estimates-info-releases.aspx)

### Population and dwelling counts

**Data source:** Statistics New Zealand, Census of Population and Dwellings

**Data frequency:** 5 yearly (7 years for the 2013 Census)

**Data complete until:** 2013

**Notes:** The 2011 Census was not held on 8 March 2011 as planned, due to the Christchurch earthquake on 22 February 2011. At that time the 2011 Census could not have been successfully completed given the national state of emergency and the probable impact on Census results.<sup>27</sup> The 2013 Census was held on 5 March 2013 and results were available from late 2013.

See [www.stats.govt.nz/Census/2013-census/info-about-the-census.aspx](http://www.stats.govt.nz/Census/2013-census/info-about-the-census.aspx)

### Permanent and long term migration

**Data source:** Statistics New Zealand

**Data frequency:** Monthly

**Data complete until:** April 2015

**Notes:** Permanent and long-term arrivals include overseas migrants who arrive in New Zealand intending to stay for a period of 12 months or more (or permanently), plus New Zealand residents returning after an absence of 12 months or more.

Permanent and long-term departures include New Zealand residents departing for an intended period of 12 months or more (or permanently), plus overseas visitors departing New Zealand after a stay of 12 months or more.

The country of residence for arrivals is the country where a person arriving in New Zealand last lived for 12 months or more (country of last permanent residence).

The country of residence for departures is the country where a person departing New Zealand intends to live for the next 12 months or more (country of next permanent residence).

Net migration is the difference between arrivals and departures.



## Endnotes

- 1 Christchurch City Council. (2003). *Christchurch city social trends report 2003*. Retrieved from [www.resources.ccc.govt.nz/files/SocialTrendsReport2003-docs.pdf](http://www.resources.ccc.govt.nz/files/SocialTrendsReport2003-docs.pdf)
- 2 Love, T. (2011). *Population movement after natural disasters: a literature review and assessment of Christchurch data*. Sapere Research Group. Retrieved from [www.srgexpert.com/publications\\_two.html](http://www.srgexpert.com/publications_two.html)
- 3 See note 2.
- 4 See note 2.
- 5 See note 2.
- 6 Nissen, K. and Potter, D. (2011). Where did people relocate to? Experimental cell phone data analysis of population movements following the 22nd February Christchurch Earthquake. Paper presented at the PANZ Biennial conference, New Zealand's Demographic Futures: Where to from here, University of Auckland, cited in Newall, J., Johnston, D. and Beaven, S. (2012). *Population movements following the 2010–2011 Canterbury earthquakes: summary of research workshops November 2011 and current evidence*. GNS Science Miscellaneous Series 44.
- 7 Thomas, J. (2011). *Preliminary report on household relocation from and within the Canterbury region*. Wellington: Opus Central Laboratories.
- 8 Year 10 ASH Snapshot Survey unpublished data.
- 9 Statistics New Zealand. (2011). *Subnational population estimates: at 30 June 2011*. Retrieved from [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/subnational-population-estimates-info-releases.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/subnational-population-estimates-info-releases.aspx)
- 10 Statistics New Zealand. (2012). *Subnational population estimates: at 30 June 2012*. Retrieved from [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/SubnationalPopulationEstimates\\_HOTPYe30Jun12.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_HOTPYe30Jun12.aspx)
- 11 See note 9.
- 12 Statistics New Zealand. (2012). *Subnational population estimates: at 30 June 2012 – Media release*. Retrieved from [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/SubnationalPopulationEstimates\\_MRYe30Jun12.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_MRYe30Jun12.aspx)
- 13 See note 9.
- 14 For information on the CERA Wellbeing Survey, refer to the technical notes.
- 15 Statistics New Zealand (2013). *Subnational population estimates: at 30 June 2013 (provisional)*. Retrieved from [www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/SubnationalPopulationEstimates\\_HOTPAT30Jun13/Data%20Quality.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_HOTPAT30Jun13/Data%20Quality.aspx)
- 16 Retrieved from Statistics New Zealand [http://www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/SubnationalPopulationEstimates\\_HOTPAT30Jun14.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_HOTPAT30Jun14.aspx)
- 17 See note 16.
- 18 Retrieved from Statistics New Zealand <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch/population-movement.aspx>
- 19 Retrieved from Statistics New Zealand [www.stats.govt.nz/~media/Statistics/Census/2013%20Census/profile-and-summary-reports/quickstats-about-housing/quickstats-housing.pdf](http://www.stats.govt.nz/~media/Statistics/Census/2013%20Census/profile-and-summary-reports/quickstats-about-housing/quickstats-housing.pdf)
- 20 Statistics New Zealand. (2014). *2013 Census QuickStats about greater Christchurch*. Retrieved from [www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx](http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-greater-chch.aspx) and QuickStats excel tables.
- 21 Statistics New Zealand [http://www.stats.govt.nz/browse\\_for\\_stats/population/Migration/international-travel-and-migration-articles/international-migration-canterbury-1996-2014.aspx](http://www.stats.govt.nz/browse_for_stats/population/Migration/international-travel-and-migration-articles/international-migration-canterbury-1996-2014.aspx)
- 22 See note 20.
- 23 See note 20.



- 24 Ethnicity is the ethnic group or groups that people identify with or feel they belong to. Ethnicity is self-identified and people can identify with more than one ethnic group. Ethnicity is different from ancestry, birthplace and nationality.

This table includes all people who stated each ethnic group, whether as their only ethnic group or as one of several. Where a person reported more than one ethnic group, they have been counted in each applicable group. This table also includes responses for a number of small ethnic groups, including those identified as New Zealander.

Retrieved from Statistics New Zealand

[http://www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/SubnationalPopulationEstimates\\_HOTPA30Jun14/Commentary.aspx#can](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_HOTPA30Jun14/Commentary.aspx#can)

- 25 See note 20.  
26 See note 20.  
27 See [www.stats.govt.nz/Census.aspx](http://www.stats.govt.nz/Census.aspx)

