Canterbury Health System
IMPROVEMENT PLAN

System Level Measures Framework 2016-17
Introduction

The creation of the System Level Measures and their contributory measures provides the Canterbury Health System with a wonderful opportunity to address key health outcomes for our population and focus on our local priorities. This Improvement Plan has been developed in response to the Ministry of Health’s requirements for implementing the System Level Measures Framework, as detailed in the PHO Services Agreement\(^1\) and District Health Board Annual Planning Expectations. The System Level Measures are nationally defined and monitored. The Canterbury Health System locally sets and agrees its milestones and contributory measures to contribute to the national outcomes, and as indicators of our priority areas. Each System Level Measure milestone and contributory measure in the Improvement Plan is based on analysis of local trends and is considered appropriate to the needs and priorities of our population.

The plan demonstrates Canterbury Health System’s commitment to improving the health outcomes of our population and our quality of service delivery. During this first year of implementing the System Level Measures, Canterbury’s focus includes expanding our understanding of the drivers of these measures. This will inform our ongoing identification of future priorities, measures and actions implemented within the Framework.

The Canterbury Clinical Network (CCN) led the development of this Improvement Plan, bringing together partners from across the system into the discussion and co-design. CCN’s clinically-led workstreams and service level alliances, alongside a number of specialist work groups, will be the vehicles for driving improvement against these measures. A steering group of clinical leaders has been established to oversee, monitor and guide Canterbury’s current and future delivery on the System Level Measures Framework within the context of Canterbury’s own Outcomes Framework.

Message from Sir John Hansen

Alliance Leadership Team Chair | Canterbury Clinical Network

Canterbury’s vision is a truly integrated health system that keeps people well in their own homes, by ensuring the right care and support is provided, at the right time and by the right person. The Canterbury Health System Outcomes Framework demonstrates our approach to achieving this vision. The Ministry’s move to a System Level Measures Framework aligns with how we have worked in Canterbury for many years. It presents an important opportunity to determine key measures in our reporting to the Ministry that reflect Canterbury’s unique local needs and priorities. We are committed to evolving this Improvement Plan to ensure that what we are working towards and measuring continues to strive towards transforming our health system to be best for the people of Canterbury. I thank all those involved to date and who will be involved going forward.

David Meates
Chief Executive Officer
Canterbury DHB

Prof. Les Toop
Chair
Pegasus Health Charitable Ltd

Dr Lorna Martin
Chair
Rural Canterbury PHO

Dr Angus Chambers
Chair
Christchurch PHO

\(^1\) PHO Services Agreement Version 4 from 1 July 2016
HOW WE DECIDED ON OUR CONTRIBUTORY MEASURES

Our process

Leaders from across the Canterbury Health System mapped out a process for implementing the System Level Measures Framework. At a subsequent workshop, local data relating to each of the System Level Measures were reviewed, allowing debate around appropriate contributory measures. The selection of our contributory measures was guided by:

- The contributory measures’ influence on the System Level Measure;
- Local priorities;
- The contributory measures’ amenability to change; and
- The accuracy and availability of data.

With a commitment to ongoing improvement, if a measure was identified as a priority, but data were not available, the measure was flagged for future development.

A number of contributory measures required further analysis to better understand the underlying drivers, and this also guided the clinical leaders with establishing baselines for the System Level Measures.

Improvement requires the System Level Measures to be an embedded part of the Canterbury Health System and wider Outcomes Framework. Clinically-led workstreams, service level alliances and specialist groups have been engaged in reviewing the data, determining the activity that will support improvement in the contributory measures and advising on the key metric to be used to monitor performance. Ongoing engagement with the clinical groups that influence contributory measures will be maintained.

Providing all stakeholders with visibility of progress against the measures, and establishing the System Level Measures Steering Group will support Canterbury’s success in implementing this framework.
Canterbury’s System Level Measures Framework

The diagram below demonstrates Canterbury’s System Level Measures Framework. In the centre are the System Level Measures and circling those are the locally-selected contributory measures. Further detail on each contributory measure is provided below.
How it all fits together

The Canterbury Health System has tracked performance of our increasingly integrated and patient-centred approach through the Canterbury Health System Outcomes Framework since 2013. The System Level Measures and contributory measures detailed in this Improvement Plan and which will evolve going forward, will be integrated into the existing Canterbury’s Outcomes Framework to demonstrate their alignment with Canterbury’s approach. The measures identified in this document have been highlighted on Canterbury’s Outcomes Framework to illustrate this alignment.
System level measure:

**AMBULATORY SENSITIVE HOSPITALISATION RATE FOR 0-4 YEAR OLDS**

**Canterbury’s Experience**

At March 2016 Canterbury’s ambulatory sensitive hospitalisation (ASH) rate for 0-4 year olds of 5,972 per 100,000 is below the national average for the total population\(^2\). Over the three years for which data have been provided, this rate is trending downwards. In contrast, Canterbury’s 0-4 year old ASH rate for the Pacific population of 11,544 per 100,000 is higher than the total population rate; however Canterbury’s 0-4 year old ASH rate for the Māori population is lower than Canterbury’s Total population rate. Viewing Canterbury’s data by medical conditions illustrates:

- The Upper and Ear Nose and Throat (ENT) Respiratory Infections category is the largest contributor to Canterbury’s ASH rate of 2,035 per 100,000 Population.
- Canterbury’s 0-4 year old ASH rates for Upper and ENT Respiratory Infections and Lower Respiratory Infections are higher than the national average.

**Milestone**

The Canterbury Health System’s agreed milestone is to maintain Canterbury’s total population ASH rate for 0-4 year olds while further analysis on the selected contributory measures is undertaken with particular emphasis on the Pacific ASH rate.

**Selected Contributory Measures**

<table>
<thead>
<tr>
<th>ASH RATE FOR RESPIRATORY ILLNESSES</th>
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<tbody>
<tr>
<td><strong>Outcome sought:</strong></td>
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<tr>
<td><strong>Rationale for selection:</strong></td>
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**Measure description:**

The rate of 0-4 year olds admitted with a code of Upper Respiratory and ENT Infections.

- **Numerator:** The number of ASH admissions for 0-4 year olds coded with Upper and ENT Respiratory Infections.
- **Denominator:** The number of 0-4 year olds.
- **Data source:** Ministry of Health data released quarterly.

**ORAL HEALTH**

- **Outcome sought:** An increase in the number of children who are caries free at five years of age.
- **Rationale for selection:** Dental conditions are the third largest contributor to Canterbury’s ASH rate for 0-4 year olds with a rate of 844 per 100,000. In addition, there is local variance between population groups in both caries free and enrolment in the dental service. This measure has been selected from a number of oral health / child health indicators, including the enrolment of children in the wider health services i.e. General Practice, New Born Hearing Screening and Well Child Tamariki Ora (WCTO).

\(^2\) Data Source: Ministry of Health ASH Report to March 2016
Measure description: The percentage of children caries free at five years of age.
Numerator: At the first examination after the child has turned five years, but before their sixth birthday, the total number of children who are caries free (decay or filling free).
Denominator: The total number of children who have been examined in the five-year-old age group, in the year to which the reporting relates.
Data Source: School and Community Oral Health Services

NEWBORN ENROLMENT
Outcome sought: Increase the number of new borns enrolled in general practice.
Rationale for selection: Early enrolment in General Practice and the wider health services (including WCTO and the Oral Health Service) is a foundation for accessing health care. There is variance in the new born enrolment coverage between population groups, most noticeably in the Pacific population.

Measure description: The percentage of new borns enrolled with a PHO within three months.
Numerator: Number of infants under three months enrolled with a PHO.
Denominator: Number of births reported to the National Immunisation Register. Note this includes all babies born in Canterbury, some of which are not from our region.

INCREASED ACCURACY OF ETHNICITY CAPTURE
Outcome sought: Increase the accuracy of ethnicity capture of new borns enrolled in general practice.
Rationale for selection: The collection of robust quality data enables the monitoring of access rates, and results by ethnicity; this in turn supports improved health planning, design and delivery of services aimed at reducing health inequalities. Any inaccurate capture of ethnicity at birth follows the new born’s registration into other services.
Measure description: This measure requires further analysis to identify the contributors of the inaccurate ethnicity capture, the subsequent actions required, and the key metric for monitoring change. In the interim, the new borns enrolled in a PHO within three months by ethnicity, will be monitored.

Other Measures Considered for Inclusion
The following measures were discussed and not included as contributory measures in year one for a variety of reasons. These important areas will continue to be a focus of attention under a business as usual (BAU) approach (e.g. immunisation).
- Healthy birthweight
- Breastfeeding rate
- Obesity referral rate
- B4 School Checks
- Emergency Department attendances
- Immunisation rate
System level measure:

**ACUTE HOSPITAL BED DAYS**

Canterbury’s Experience

At March 2016 Canterbury DHB’s Age Standardised Acute Bed Day rate of 384 per 1,000 population is 7.8% lower than the New Zealand Total rate of 414 per 1,000. Viewed by ethnicity, Canterbury’s Standardised Acute Bed Day rates for the Other population (395 per 1,000) and Pacific population (400 per 1,000) are higher than Canterbury’s Total Acute Bed Day rate; while the Māori population Acute Bed Day rate is lower at 271 per 1,000 population. The Rehabilitation Diagnosis Related Group (DRG) cluster is by far the highest contribution to the Standardised Acute Bed Days at 55 per 1,000 population.

Milestone

The Canterbury Health System’s agreed milestone for June 2017 is 397 Acute Bed Days per 1,000 population. This has been generated using a rolling average from the previous three years; this approach aims to accommodate variabilities in the bed day rate from external factors such as the influenza season severity.

Contributory Measures

**REDUCED LENGTH OF STAY FOR ACUTE ADMISSIONS**

*Outcome sought:* To reduce the number of occupied bed days following an acute admission while ensuring the patient receives clinically appropriate care during their hospital stay and after discharge, to avoid a readmission.

*Rationale for selection:* Canterbury’s investment in primary care and work on condition specific pathways has supported a reduction in the acute phase of hospital stays. It is proposed that further opportunities exist to optimise the hospital length of stay, noting that any change will require a system wide response.

*Measure description:* The number of beds occupied for greater than 14 days following an acute admission. Note patients coded as Mental Health and Maternity are excluded. While a number of measures will be monitored locally as indicators of the length of stay for acute admissions, this measure is considered a key metric for monitoring change.

*Data source:* Local data generated through Signals from Noise (SFN).

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3 Data used to inform Canterbury’s analysis was preliminary information provided by the Ministry of Health on Acute Bed days per 1,000 Population by DHB using Age Standardisation to Population: Census 2013 Usual Resident Population
REDUCED ACUTE READMISSIONS

Outcome sought: That people receive effective (and safe) treatment in our hospitals, as well as appropriate support and care on discharge.

Rationale for selection: The readmission rate is a marker of the quality of care being provided and the level of integration between service providers. This measure is also a good balancing metric for the reduced length of stay for acute admissions.

Measure description: Acute readmission to hospital after 28 days.

Numerator: Canterbury’s average number of acute readmission stays in hospital after 28 days for a medical or surgical admission.

Data source: Local Data generated through SFN.

REDUCTION IN FALLS

Outcome sought: A reduction in the number of acute admissions to hospital following a fall for those aged 65 and over.

Rationale for selection: Fractures of femurs continue to be the highest primary code for patients admitted acutely and recorded in the Rehabilitation DRG, with other fractures (Lower Leg, Lumbar Spine, Shoulder and Arm) also in the top 10 contributing primary codes. Given Canterbury’s ageing population, reducing the rate of falls will reduce the demand on acute services and help people to stay well and independent in their own homes whilst maintaining quality of life.

Measure description: Canterbury’s average percentage decrease in the forecast trend from the pre-intervention baseline for the number of acute admissions for those aged 65 years and over to hospital following a fall. Data source: Local Data generated through SFN.

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Top 10 Grouped First Primary ICD Codes for Z60 Rehabilitation Patients 25/09/2016.
POLYPHARMACY

Outcome sought: A reduction or prevention of the risks associated with polypharmacy.

Rationale for selection: Given Canterbury’s ageing population, the appropriate prescribing and dispensing of medications for people aged 65 years and over will support improved health outcomes for the elderly. This measure is also an indicator of integration across general practice, community pharmacy, and hospital care.

Measure description: The rate of people dispensed with 11+ long term medications.

Numerator: The count of patients aged 65 years and over that have been dispensed 11 or more distinct chemicals in two consecutive quarters.

Denominator: The count of the DHB population that are aged 65 years and over.


Other Measures Considered for Inclusion

These measures were discussed and not included as contributory measures in year one for a variety of reasons. These important areas will continue to be foci under a business as usual (BAU) approach.

- Influenza vaccination levels for people aged 65 and over
- Hospital admission rate
- Frequent attenders at the Emergency Department
- Did Not Attend rates at Outpatients
- Medicines prescription to pick up rate
- Referral to community based rehabilitation rates
System level measure:

PATIENT EXPERIENCE OF CARE

Canterbury’s Experience

In-Hospital Patient Experience Survey
Canterbury’s results from the four domain overall questions are consistently at or above the New Zealand average results. The 16 questions within the four domains offer more variation; further analysis and targeted responses will be progressed during this current Improvement Plan.

Primary Care Patient Experience Survey
The Primary Care Patient Experience Survey has been piloted in 32 practices with a total of 1,800 responses generated from the three quarters, January to September 2016. The results to date indicate an average score of 8.2 out of 10 in the four domains, with a range from 7.6 to 8.6. As Canterbury is currently one of the large contributors to the New Zealand pilot, there is limited value in comparing local results with national performance.

Milestone
The Canterbury Health System’s agreed milestone for June 2017 is to maintain the in-hospital patient results based on the average score from the previous eight quarters in the domain results; see figure 1 below.

<table>
<thead>
<tr>
<th>Domain – Overall Question</th>
<th>Canterbury Average (Q3 2014 – Q2 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>8.5</td>
</tr>
<tr>
<td>Coordination</td>
<td>8.5</td>
</tr>
<tr>
<td>Partnership</td>
<td>8.6</td>
</tr>
<tr>
<td>Physical And Emotional Well-being</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Figure 1 Canterbury DHB Adult Inpatient Survey Results (Q3 2014 – Q2 2016) Health and Quality Safety Commission

Note, a number of factors influenced the setting of this milestone including:
- The timeliness of the National Enrolment Services and Patient Experience Survey rollout;
- The time required to influence change in the Patient Experience Survey’s Overall Measure; and
- The limited variability of the In-Hospital Overall Question response.

Contributory Measures

IN-HOSPITAL SURVEY COMPLETION RATE
Outcome sought: An increase in the number of adults completing the inpatient survey.
Rationale for selection: Canterbury’s in-hospital response rate has historically been lower than the national rate. The Canterbury DHB’s Consumer Council and Quality and Safety teams have identified an opportunity to increase the in-hospital response rate, with the capture of patients’ email addresses identified as an action to improve this measure. Further analysis of the underlying question responses and investigation of the free-text themes will be progressed this year and will inform the selection of measures and supporting actions in 2017/18.
**Measure description:** The number of adult inpatients that complete the survey.

**Numerator:** The number of hospitalised patients aged 15 years and over that provided feedback via the adult in-patient survey.

**Denominator:** The number of hospitalised patients aged 15 years and over who are surveyed.

**Data source:** The Health and Quality Safety Commission.

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**PRIMARY CARE PATIENT EXPERIENCE SURVEY**

**Outcome sought:** An increase in the number of general practices obtaining feedback from patients via the Primary Care Patient Experience Survey.

**Rationale for selection:** Canterbury’s current results are generated from the 36 practices involved in the pilot. As the National Enrolment Service is implemented, PHOs will assist practices to obtain feedback from their enrolled populations. While activity in this first year of the System Level Measures Framework focuses on general practice’s engagement with the survey, it is anticipated that the focus will shift to the primary care survey response rate in subsequent years.

**Note:** Achievement of this contributory measure is dependent on the implementation of the National Enrolment Service.

**Measure description:** Canterbury general practices participating in obtaining feedback from patients via the Primary Care Patient Experience Survey.

**Numerator:** The number of general practices in Canterbury participating in obtaining feedback from patients via the primary care patient experience survey.

**Denominator:** The number of GP practices in Canterbury.

**Data Source:** Reported quarterly by the PHOs.

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**Other Measures Considered for Inclusion**

The following measures were considered and not included as contributory measures in year one for a variety of reasons. It is noted that these measures will be considered for year two.

- The number of complaints where there is an unsatisfactory resolution, or a measure around the timeframe until the complaint is resolved.
- Analysis of the combined Qualitative Responses from the in-hospital and primary care Patient Experience Surveys.
- A measure to address the response in the following in-hospital survey question “Do you feel you received enough information from the hospital on how to manage your condition after your discharge?”
- A measure to address the response in the following in-hospital survey question “Did a member of staff tell you about medication side-effects to watch for when you went home?”
System level measure:

AMENABLE MORTALITY

Canterbury’s Experience

Canterbury’s Amenable Mortality age standardised rate per 100,000 for under 75-year-olds is trending downwards, and has been consistently lower than the total New Zealand rate. The national data by ethnicity and medical conditions is provided as a provisional data set for one year, 2013. This suggests that Canterbury’s Māori and Total population rates may be lower than the New Zealand rates, while Canterbury’s Pacific population rate of 199 per 100,000 may be slightly higher than the New Zealand rate of 190 per 100,000.

While the lack of longitudinal data by medical condition and the size of the data set (597 deaths in 2013) is noted, a number of conditions influenced by lifestyle choices were high contributors to Canterbury’s Amenable Mortality results. In particular, Canterbury’s percentage of suicides in the overall Amenable Mortality appears to be higher than the national average. These observations guided our selection of the contributory measures for year one.

Data Source: National Minimum Data Set

Milestone

The Canterbury Health System’s agreed milestone for June 2017 is to maintain the current overall Amenable Mortality Rate. The timeframe involved in influencing change in the Amenable Mortality rate and the current delay in the data capture and reporting were barriers to identifying a more targeted milestone for the Amenable Mortality System Level Measures.

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5 National Minimum Data Set Amenable Mortality – Provisional Data to March 2013
Contributory Measures

A number of the medical conditions contributing to Canterbury’s Amenable Mortality rate are influenced by lifestyle choices including activity levels, nutrition and smoking. The contributory measures selected focus on engaging people in managing their own health through supporting them to make positive lifestyle choices. These measures and the underlying actions are seen as fundamental to reducing the impact of these lifestyle related conditions.

INDICATORS OF HEALTH PROMOTING LIFESTYLE

**Outcome sought:** An increase in our population’s adoption of positive lifestyle choices.

**Rationale for selection:** A range of services are available to support our population with making positive lifestyle choices and self-managing their long-term health. Increasing referrals to these services is an indicator of our health system assisting patients to navigate and access lifestyle / self-management support.

**Measure description:** Two measures – referrals from general practice to specialist smoking cessation providers and Green Prescription referrals – have been selected as indicators of the population’s access to a wider range of lifestyle support services.

Note: All PHOs provide comprehensive smoking cessation services. While specialist smoking cessation support has been available for some time, in 2016-17 a Stop Smoking service for priority populations is being implemented, and is expected to increase access to specialist smoking cessation support.

![Graph showing referrals for Specialist Smoking Cessation Support and Canterbury Green Prescription Referrals](image)

**MOTIVATIONAL CONVERSATION SKILL DEVELOPMENT**

**Rationale for selection:** Primary Care’s ability to apply motivating conversation skills when communicating with their patients will support patients to better manage their own health. Importantly this is also expected to influence the conversion rate from patient referral to participation in specialist lifestyle support such as Green Prescription. While initially this measure is focussed on Primary Care’s skill development, a shift to accessing measures such as ‘referral to participation conversion rate’ for lifestyle support, is anticipated.

**Outcome sought:** An increase in general practice staff’s skills in motivational conversations.

**Measure description:** The attendance by Primary Care staff in the training was agreed as the key indicator. Alongside this attendance measure, the development of a motivational conversations training package and delivery of courses will be monitored.

**Data Source:** Local data reported by the PHO quarterly.

Other Measures Considered for Inclusion

The following measures were considered and not included as contributory measures in year one for a variety of reasons. They will continue to be a focus of attention under a business as usual (BAU) approach.

- Cervical screening
- HPV
- Breast screening
- Alcohol Harm Minimisation
- Mental health
- Advancement of the Population Health group
- Pulmonary and Cardiac Rehabilitation uptake, and referral to participation conversion rate