CANTERBURY HEALTH SYSTEM

System Level Measures Improvement Plan

2019-20



INTRODUCTION

The Canterbury Health System places a high priority on implementing the System Level Measures Framework to support change and system improvement. The connections and trust developed through our alliancing approach not only contributes to delivering on Actions to Improve Performace within the System Level Measures but contributes to our health system having the ability to work effectively together in unprecedented times of need. This was demonstrated on March 15, 2019 when our community was exposed to another extreme and traumatic event, when two Christchurch mosques were the target of a terrorist attack. Our response was exemplary with a community response supporting the acute hospital trauma response, 12 acute operating theatres ran non-stop for 24 hours, and staff worked overtime to treat and support the victims and their families. General practice and primary mental health teams collaborated to provide free and streamlined support, and Mana Ake provided a platform to reach into school communities to distribute information and to provide immediate guidance, determine need, and respond accordingly.

We are pleased to report we have comprehensively progressed the *Actions to Improve Performance* detailed in Canterbury's 2018/19 Improvement Plan and the System Level Measures continue to track favourably. The alliancing approach to healthcare in Canterbury is well established and embedded in developing system improvement, evidenced by the direct collaboration with over 60 people from across the Canterbury health system in the development of this plan. The System Level Measures Framework naturally falls into supporting key activities occurring to reduce modifiable determinants that influence inequitable health outcomes and access to health services.

Annual re-development of the System Level Measures Framework is enabled through the Service Level Alliances and Workstreams in which relevant stakeholders including our clinical teams from across the system, collaborate to lead changes in the way services are delivered. This alliance approach enables connections across the system to result in identification of actions to improve and track performance towards achieving better health outcomes for the community.

With the System Level Measures Framework now established within Canterbury's way of working, over the next 12 months a greater focus will be strengthening our focus on achieving equitable outcomes for all population groups. During the year an equity lens will be placed on contributory measures through work to understand the variance in ethnicity capture. This framework provides a way to prioritise, resource and evaluate services based on equitable targets. Our aim is to grow and strengthen this approach year on year.

Key changes in our 2019/20 Improvement Plan include updating the Actions to Improve Performance, and refining some contributory measures within Amenable Mortality, and resetting the System Level Measures milestones. A focus for selecting new Amenable Mortality contributory measures was to consider ethnic variation in the causes of amenable deaths. We are pleased to continue demonstrating Canterbury Health System's commitment to improving the health outcomes of our population through our collective identification of priorities, redesign of services and implementation of transformation changes in the way health care is delivered through this Plan.



MESSAGE FROM SIR JOHN HANSEN

ALLIANCE LEADERSHIP TEAM CHAIR | CANTERBURY CLINICAL NETWORK

Canterbury continues to provide more integrated care provided as close to home as possible, which is a testament to all those working within the health system either behind the scenes or face-to-face with patients and their whānau.

Our continued commitment to working collectively across the health system focuses on improving access to health services based around what's best for our community, and demonstrating our contribution to collectively agreed system outcomes.

Our health system continues to face a number of challenges, and at the forefront of those is the challenge of ensuring equitable outcomes for the most vulnerable members of our community, and those with the most need. This year our alliance leadership, service level alliances, workstreams and service development groups are thinking deeply about how best to achieve equity of access and outcomes for those that experience inequity and as part of our commitment and responsibility to Te Tiriti o Waitangi.

As part of this, we've strived for an improvement plan that considers equity at the forefront of everything we do. This sees us shift focus in some key areas including updating of our contributory measures to consider ethnic variations in the causes of amenable deaths.

I thank you all for your hard work and dedication to achieve milestones that enable system improvement for the community.

David Meates Chief Executive Officer Canterbury DHB

Peter Townsend Chair Pegasus Health Charitable Ltd

Dr Lorna Martin Chair Rural Canterbury PHO

Dr Angus Chambers Chair Christchurch PHO

INTEGRATING THE SYSTEM LEVEL MEASURES FRAMEWORK INTO OUR HEALTH SYSTEM

Canterbury's way of working brings together expert groups, including Service Level Alliances, Workstreams, and workgroups within the Canterbury Clinical Network Alliance with the aim of leading change in health services that improve the health outcomes of our population. Typically these groups include urban and rural clinicians who participate in the services, people that bring consumer, Māori, Pacific and rural perspectives, and management from the relevant organisations.

An expert group has been identified to lead each of the System Level Measures contributory and system measures and associated activity. A table illustrating which expert group(s) are leading each of the contributory measures is included in Appendix One. Also shown in this table are the expert groups that link with and/or support this activity. A System Outcomes Steering Group involving clinical leaders from across the system, public health experts, quality improvement staff, analysts and planners is in place to guide Canterbury's ongoing development of the System Level Measures framework. Figure 1. Illustrates the roles of this Steering Group and various expert groups.



Figure 1: Summary of the role of the System Outcomes Steering Group and the expert groups leading each contributory measure.

KEY ACHIEVEMENTS

Significant progress has been made towards the *Actions to Improve Performance* identified in Canterbury's 2018/19 Improvement Plan. A snapshot of some key achievements are highlighted below.

Ambulatory Sensitive Hospitalisation (ASH) Rate for 0-4 Year Olds

Projects have been developed throughout the year with the aim to reduce ASH rates. One project involves the development of a process to refer children attending ED and/or Children's Acute Assessment to a Whānau Ora navigator. The other project set for a trial over winter 2019 is to offer free care at After Hours for Māori and Pasifika children if there is no space at their enrolled general practice.

Acute Hospital Bed Days

Work has occurred across the system impacting upon acute hospital bed days. Highlights include:

- Increased focus on delivery of services that align with Pasifika view of health. To support this work the DHB and Pasifika Futures jointly appointed a Pasifika Portfolio Manager.
- StrokeViewer software tool was developed to incorporate community data to provide an overview of the journey for Stroke and Other Cerebrovascular patients' in-hospital stay and rehabilitation on discharge.
- Education within primary care completed to encourage team work and address inappropriate polypharmacy that leads to admissions.
- New rural models of care to improve service and sustainability were developed. This includes the development
 of a collaborative after hours arrangement across five practices and St John in Hurunui.

Patient Experience of Care

Pilots to increase the reach of patient experience surveys were completed in Outpatients and Paediatrics wards. The success of these pilots has resulted in the survey continuing to be offered for these patients in 2019/20. Additionally the inpatient patient experience survey sample size was successfully increased, with a recommendation made to send the inpatient survey to all eligible inpatients.

Amenable Mortality

The Population Health and Access Service Level Alliance and Canterbury Clinical Network won the Improved Health and Equity for All Populations category at The People's Choice Awards for developing the Motivational Conversations programme that increased interpersonal communication skills between patients and primary health care providers. This module is now offered on an on-going basis and involves the three PHOs. As this is now business as usual it has been removed from the SLM Improvement Plan as a contributory measure.

Youth Access to Health Services

The Oral Health Service Development Group is now ready to develop the next stage of improving youth access to dental services. This has resulted in the development of a new contributory measure to deliver the service identified as needed by youth consulted with during 2018/19.

Babies Living in Smokefree Homes

The number of pregnant women enrolling with smoking cessation services and remaining smokefree at the four week follow-up is remaining fairly static. During 2019/20 we will be strengthening the pathway and incentive for pregnant women to attend a smoking cessation consultation through linking this to our Sudden Unexpected Death in Infancy (SUDI) safe sleep programme.

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 are integrated into our existing Outcomes Framework to demonstrate their alignment with Canterbury's approach. The measures identified in this document have been highlighted below within Canterbury's Outcomes Framework to illustrate this alignment.



Canterbury Health System Outcomes Framework

System level measure:

AMBULATORY SENSITIVE HOSPITALISATION RATE FOR 0-4 YEAR OLDS

CANTERBURY'S EXPERIENCE

Our priority is to reduce the ethnic variation in the ambulatory sensitive hospitalisation (ASH) rate between the Pacific and Total populations.

At September 2018 Canterbury's ASH rate for 0-4 year olds of 6,142 per 100,000 population is below the national average for the Total population¹. When viewed over the previous four years, it has increased slightly over the previous year.

Canterbury's 0-4 year old ASH rate for the Pacific population of 11,582 per 100,000 is higher than



the Total population rate; however Canterbury's 0-4 year old ASH rate for the Māori population of 5,369 per 100,000 is lower than Canterbury's Total population rate. Viewing Canterbury's data by medical conditions illustrates:

- The Upper Respiratory and Ear Nose and Throat (ENT) Infections category is the largest contributor to Canterbury's ASH rate, at 2,101 per 100,000 Population.
- Canterbury's 0-4 year old ASH rates for Upper Respiratory and ENT Infections and Lower Respiratory Infections are higher than the national average.

In 2018/19 work was undertaken to reduce barriers experienced by some whānau in accessing health services that contribute to the ethnic variation in Canterbury's 0-4 year old ASH rate. This includes review of 2018 Emergency Department (ED) data to identify the number of ASH admissions that would be suitable for referral to a Whānau Ora navigator, and under development is a trial to offer free care at After Hours for Māori and Pasifika children if there is no space at their enrolled general practice.

We also continue to build upon and grow the LinKIDS child health coordination service. This is an initiative developed in Canterbury. It is focussed on connecting children with health services, and ensuring children receive services in a timely manner. It has three main focuses:

- Connecting children to health services by enrolling infants in health services at birth, and ensuring that children who move to Canterbury are also connected with these services.
- Supporting families who are not engaging with health services including missed immunisation, oral health or B4SC service, and timely Rheumatic Fever treatment.
- Referral pathway to services such as Young Parents Support Service.

¹ The National Minimum Data Set of ASH Rate for 0-4 year olds to December 2017 using the New Zealand Standard Population informed Canterbury's analysis and establishment of the 2018/19 milestones.

MILESTONE

Canterbury's internal target is to reduce the Pacific inequity in ASH rates, however the relatively small number of admissions and resulting inherent variation limits the viability of setting a numerical milestone. In addition, analysis of the leading conditions contributing to the ASH rate confirms that influenza, gastro-enteritis outbreaks and dental elective volumes have a significant influence on the yearly variation in ASH rate for 0-4 year olds across all populations. Acknowledging these challenges, the average ratio between the Total and Pacific populations (Total rate:Pacific) has been selected as the soundest approach to setting a milestone².

The small actual numbers involved with the Pacific ASH rate mean there is potential for large fluctuations from quarter to quarter, for example, the addition of just 10 admissions changes the rate by 5% and increases the ratio by 0.1. To reduce the effect of fluctuations due to the small Pacific population in Canterbury the milestone has been calculated based on a four-year average.

The four year average for previous years has been 1:2.08 and 1:2.02. At this rate of reduction the four year average in September 2019 will be 1:2.00. Over 2019/20 Canterbury will track and aim to reduce the average ratio (Total rate:Pacific) over four years, to achieve a ratio of 1:2.00, or less, by 30 June 2020³.

	12 mo. to Sep 2014	12 mo. to Sep 2015	12 mo. to Sep 2016	12 mo. to Sep 2017	12 mo. to Sep 2018	Forecast 12 mo. to Sep 2019 (forecast based on previous years)
Pacific Rate	2.33	1.96	2.10	1.94	2.07	1.90
4-year average				2.08	2.02	2.00

CONTRIBUTORY MEASURES

ASH RATE – VARIATION BETWEEN POPULATIONS

Outcome sought: Understand the variation that exists between the Canterbury Total and Canterbury Pacific populations, with a focus on the ASH admissions for 0-4 year olds coded with Upper and ENT Respiratory Infections.

Rationale for selection: A variation in the ASH rate for 0-4 year olds exists between the two population groups. This is evident in the Diagnosis Related Group (DRG) category Upper and ENT Respiratory Infections which is the single largest contributor to the ASH rate for 0-4 year olds and is above the national average. While the September 2014 ratio between the Total and Pacific population of 1:2.34 has decreased to 1:1.57 in September 2018, true progress will be achieved through monitoring our progress over an extended period of time to account for inherent variation.

² Target setting for ASH rates is difficult due to the uncertainty around projecting future rates, based on the inherent variability of events in a relatively small population. For the 12 months to September 2014, the ASH rate for Pacific 0 to 4 year olds was 14,225 per 100,000 population, with a calculated 95% confidence interval of 12,707 to 15,744; for the Total population the rate was 6,583, and the 95% confidence interval was 6,300 to 6,865. For the purposes of projecting a future target, based on these data, the ratio of Pacific to Total ASH rates may lie between 1.85 (using the lowest extent of the 95% confidence interval for Pacific and the highest for Total population) and 2.50 (using the highest extent of the 95% confidence interval for Pacific and the ratios therefore need to be interpreted with caution and looked at over a longer reporting period.

³ The September 2018 dataset was used to generate the milestone.

Measure description:

The rate of 0-4 year olds admitted with a code of Upper Respiratory and ENT Infections and the gap that exists between the ASH rate for 0-4 year olds in Canterbury's Pacific and Total populations. *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 fourth largest contributor to Canterbury's ASH rate for 0-4 year olds with a rate of 532 per 100,000 at September 2018. In addition, there is local variance between population groups in both caries free and enrolment in the Community 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. It should be noted that Canterbury currently does not add fluoride to its water supply, unlike many other North Island metropolitan areas.

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:* Community Dental Service.



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 and design and delivery of services aimed at reducing health inequities. 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 illustrated below, will be monitored.



INCREASED NEWBORN ENROLMENT

Outcome sought: An increase in the number of new borns enrolled in general practice.

Rationale for selection: Early enrolment in general practice and the wider health services (including Well Child Tamariki Ora and the Community Dental Service) is a foundation for patients accessing health care. There is variability in the new born enrolment coverage, 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 the register includes all babies born in Canterbury, some of whom are not from our region.

Contributory Measure	Actions to Improve Performance	Responsibility
ASH Rate	 Provide general practices with data of their enrolled 0-4 year olds who are admitted to hospital with an ASH event. Develop and implement a scheme where children can be seen for free at After Hours during the day if their own practice does not have an appointment available. Develop and implement a process to refer children admitted with respiratory conditions for a healthy home check – reducing damp, smokefree etc. Investigate the feasibility of implementing a targeted pertussis and influenza vaccination programme for pregnant women, and influenza vaccination for 0-4 year olds with chronic respiratory conditions, with a focus on Māori and Pacific. 	A project group within the Child and Youth Workstream
Oral Health	Work with community dental services to develop a recall system targeted at need and identified risk.Develop a programme that strengthens caregivers of children aged 0-2 years understanding of oral health.	Oral Health Service Development Group
New Born Enrolment	 Implement the process to ensure children not enrolled in general practice are supported to be enrolled. 	Immunisation Service Level Alliance and PHOs
Increased Accuracy of Ethnicity Capture	 Continue training all midwives with a focus on new and community midwives on the 2017 Ethnicity Data Protocols to increase the accuracy of ethnicity recorded in Maternity Hospital Specialist Services. 	Immunisation Manager and PHOs, Māori and Pacific Reference Groups

ACTIONS TO IMPROVE PERFORMANCE: ASH RATE FOR 0-4 YEAR OLDS

System level measure:

ACUTE HOSPITAL BED DAYS

CANTERBURY'S EXPERIENCE ⁴

Our priority is to further reduce the acute hospital bed day rate for the Total population, while optimising hospitalisation for all ethnic groups.

Averaged over the three years to December 2018, Canterbury DHB's Age Standardised Acute Bed Day rate of 293 per 1,000 population was 5% lower than the New Zealand Total rate of 308 per 1,000. Viewed by ethnicity⁵, averaged over the three years Canterbury's Standardised Acute Bed Day rates for the Māori population (321 per 1,000) and Pacific population (448 per 1,000) are higher than Canterbury's Total Acute Bed Day rate; while the Other population rate is the same at 293 per 1,000 population.



Māori and Pacific perspectives are an embedded part of Canterbury's Alliance; membership across expert groups and Reference Groups offer guidance in all aspects of service design and redesign.

Over 2018/19 work continued to implement innovative approaches to the funding and the delivery of health services that align with a Pasifika view of health. To support this work, a Pasifika Portfolio Manager was jointly appointed by the DHB and Pasifika Futures.

Viewing Canterbury's data by medical conditions illustrates that the Stroke and Other Cerebrovascular Disorders category remains the largest contributor to Canterbury's Acute Bed Day rate at 21 per 1,000 population, and is higher than the national average of 17 per 1,000. In 2018/19 a software tool StrokeViewer was developed to incorporate community data to provide an overview of the journey for Stroke and Other Cerebrovascular patients' in-hospital stay and rehabilitation on discharge. During 2019/20 the focus will continue on improving flow through acute and rehab services.

During 2018/19 the Polypharmacy working group continued to facilitate improvement across the system by convening small group education within primary care. This education involved clinicians from across services (nursing, general practice and pharmacy) learning together and has enabled teamwork between professions to address inappropriate polypharmacy that leads to admission. Also underway is the development of a pathway for referring falls patients for a Medication Therapy Assessment (MTA). While there has been secondary care

⁴ The National Minimum Data Set Acute Hospital Bed Days to December 2018 (using Age Standardisation to the WHO 2000 Standard Population) was used to inform Canterbury's analysis and establishment of the 2019/20 Milestones.

⁵ The National Minimum Data Set Acute Hospital Bed Days to December 2018 (age standardised using WHO 2000 Population Standard) by prioritised ethnic groups

representation on the Polypharmacy group, need for a larger secondary care team has been recognised, to work on improvement specific to secondary care. During 2019/20 we will work towards a combined approach for the broader and secondary care polypharmacy groups where appropriate.

Over the last three years a number of Canterbury's rural communities have developed new models of care that identify opportunities for service improvements while ensuring the sustainability of rural health services. In 2018/19 the implementation of the Hurunui and Oxford Models of Care resulted in a collaborative after-hours arrangement across five general practices and St John being established in the Hurunui region, protocols for local observation services being developed, and support provided to general practice for stabilising patients while awaiting their transportation to hospital. In 2019/20 this work will continue and include further work on a restorative community service. By assisting people to access these services locally, these initiatives will contribute to optimising Canterbury's Acute Bed Day rate.

Our Acute Demand Programme contributes to a reduction in acute hospital bed days through various initiatives, these include, but are not limited to:

- Packages of care funding for general practice by providing non-specific funding for 3-5 days with the express
 purpose of keeping patients out of hospital where possible. This funding allows for long consultations, repeat
 visits and in-practice observation.
- Acute nursing to support patients both in clinic and at home, primarily supporting those with skin and soft tissue infections, discharge support in the home including heart failure/frailty monitoring and respiratory conditions.
- In hospital liaison that identifies patients suitable for supported discharge from all hospital wards and ED.
- An observation unit at the 24 Hour Surgery that takes patients from general practice and the 24 Hour Surgery. Average admission times are 4-6 hours, but up to 24 hours is possible.
- Pegasus Health Acute Demand Nursing Team support for heart failure patients in the transition from hospital to home. This team provides daily home visits with medication review, nursing assessment and medication titration for up to seven days.

Another initiative of the Acute Demand Programme was to provide different approaches to support people with COPD during flare-ups by using community and ambulance services more effectively. One outcome of this has been to reduce the number of admissions and time spent in hospital, reducing occupied bed days for COPD from an average of 13.7% in the three years to 2012, to an average of 9.3% over 2016 to 2018. Over the six years of the COPD initiative there have been nearly 900 fewer admissions, 1,200 fewer ambulance arrivals at ED after hours, 10,000 fewer bed days and 300 fewer acute readmissions compared with what would be expected if system changes were not made.

Likewise the community falls prevention programme for those aged 75+ continues to contribute to a reduction in acute bed days. In the six years of the programme running there have been approximately 2,600 fewer ED attendances, 800 fewer fractured neck of femur (NOF), 51,000 fewer NOF bed days and 300 fewer deaths at 180 days compared to if the programme was not implemented.

MILESTONE

Despite Canterbury's Acute Bed Day rate being significantly below the national average, further reducing this rate is a high priority for Canterbury to manage its population within a constrained bed supply that will continue, even after the new Acute Services Building opens in 2019/20. Higher than projected population growth is anticipated to place pressure on Canterbury's inpatient capacity with system-wide efforts underway to manage the demand on hospital services.

In this context, work to reduce the ethnic variation in the Acute Bed Day rates is being progressed alongside a focus (and setting of a milestone) on Canterbury's Total Acute Bed Days rate. Canterbury considered setting a milestone based on the ethnic variation between the Māori, Pacific and total population, however it is unclear what ethnic

variation is appropriate. Striving for equivalent acute bed day rates across all ethnicities may lead to Māori and Pacific populations who have a higher burden of disease not receiving optimal access to acute hospital care. In seeking equitable health outcomes Canterbury will work towards appropriate hospitalisation for all ethnicities.

Finally, in the process of establishing an achievable milestone for 2019/20, further analysis of Canterbury generated data on Acute Bed Days was undertaken including consideration of the admitting medical conditions and how amenable they were to change. Grouping the Acute Bed Days into those amenable to change (Medical, Surgical and Rehabilitation admissions) and non-amenable (Mental Health and Maternity admissions) highlighted that a realistic milestone would be based on 85% of the total Acute Bed Days. While this approach could not be replicated using the National Service Framework Library data set, these local calculations continue to inform the setting of Canterbury's milestone.

The Canterbury Health System's agreed milestone for June 2020 is to reduce the Acute Bed Days rate to 280 per 1,000 population or less.⁶ This has been generated using Canterbury's Acute Bed Days average over the three years to December 2018. It is noted that within this longer-term trend, the Acute Bed Days rate will be influenced by external factors such as the severity of the influenza season.

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 patients receive 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 an overall reduction in the acute phase of hospital stays. At September 2018 Canterbury's standardised average length of stay of 2.37 bed days is below the New Zealand average stay of 2.49 bed days.⁷

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).



⁶ Milestone set using the National Minimum Data Set Acute Hospital Bed Days to December 2018 (age standardised using WHO 2000 Population Standard) by prioritised ethnic groups. The previous three years (December 2016-18) Total rate was averaged to develop the milestone for June 2020.

⁷ National Minimum Data Set Inpatient Average Length of Stay (OS3) at September 2018 (standardised on age, sex, ethnicity, rurality, deprivation, acuity, primary diagnosis, secondary diagnoses, comorbidity/complexity, operations, external cause codes)

MONITOR 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: Measures of readmission rates are important balancing metrics for the reduced length of stay for acute admissions. Monitoring the rates at different times post-discharge provides a more comprehensive picture of factors contributing to readmissions, and better informs the response required.

The selection of both the 3 day and 28 day readmission rates as contributory measures provide appropriate balancing metrics. The contributors to the readmission rates are multifaceted. Based on current knowledge, it is proposed that an acute readmission to hospital within 3 days may be an indicator of a 'failed discharge'. Any increase in this rate would suggest further exploration into discharge timing, planning and its implementation, and patient readiness was required. While an increase in the 28 day readmission rate could be driven by an additional number of factors; with further investigation into contributors such as patients' access to services, the disease process, the integration and coordination of primary care and community services required.

Measure description: Monitor Canterbury's acute readmission to hospital within 3 days.

Numerator: Canterbury's average number of acute readmission stays in hospital within 3 days for a medical or surgical admission.

Data source: Local data generated through SFN.

Measure description: Monitor Canterbury's acute readmission to hospital within 28 days.

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

Data source: Local data generated through SFN.





REDUCTION IN FALLS

Considerations for this measure: In October 2018 Christchurch Hospital Campus and Ashburton Hospital successfully went live with SI PICS (for all services except maternity which is scheduled for early 2019). SI PICS works in conjunction with the existing South Island-wide clinical portal Health Connect South and is a step closer to the vision of a fully integrated electronic patient record. With more than one million patient records transferred into the new patient management system we have experienced some unexpected challenges with data quality. One of the key issues being faced is that during the migration to SI PICS a number of irregularities

were exposed from the previous legacy systems, including historic workarounds to meet Ministry data requirements.

As part of the move from PMS Homer to SI PICs, a new Emergency Department patient management system was introduced called ED at a Glance (EDaaG). The EDaaG system changed the way falls are being recorded at ED which has impacted on the reporting of results for the falls presentations. Work is under way to understand the impact of this difference.

The sudden decrease from October 2018 in the graph on the next page is due to irregularities in the way results are being reported.

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

Rationaleforselection:HipandFemurProcedures,HipReplacements, and Humerus, Tibia,Fibula and Ankle Procedures, are inthetopfifteenDRGclusters⁸contributing toCanterbury'sAcuteBedDaysrate.A high proportion ofpatientsenteringrehabilitation



(which is generally a longer component of a patient's overall stay) have a primary code of femur, humerus and other fractures. Given Canterbury's ageing population, reducing the harm from falls will reduce the fracture related demand on acute services and help people to stay well and independent in their own homes, whilst maintaining quality of life.

Measure description: A decrease in the number of acute admissions against a forecasted pre-intervention trend of the number of acute admissions to hospital following a fall for those aged 65 years and over. *Data source:* Local data generated through SFN.

POLYPHARMACY

Outcome sought: Prevention of, or a reduction in, the risks associated with polypharmacy.

Rationale for selection: The appropriate prescribing and dispensing of medications for people aged 65 years and over will support improved health outcomes for older people, which is important for the Canterbury Health System given its aging population. This measure is also an indicator of integration across general practice, community pharmacy, and hospital care.

Note: It is acknowledged that while any medication therapy assessment will determine the appropriateness of medications; it may not impact the number of medications being taken. The number of polypharmacy audits completed and referrals for medication therapy assessments will be monitored locally alongside the rate of people aged 65 years and over on 11+ medications.

⁸ Top 15 Grouped by the Highest Case Weighted Hospital Event within each Acute Stay at March 2018 (WHO 2000 Population Standard).

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

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

Denominator: The count of the DHB population that is aged 65 years and over. *Data source:* The Health Quality and Safety Commission (HQSC) Atlas of Variation.



Contributory **Actions to Improve Performance** Responsibility Measure Use data collected from StrokeViewer to develop an early Adult Rehabilitation Reduced Length of Stay Steering Group. supported discharge model for stroke patients. Participate in national benchmarking for community stroke rehabilitation services using Ambulatory AROC data. Monitor Acute Continue to monitor the number of readmissions as a **Urgent Care Service** Readmissions Level Alliance balancing metric alongside the implementation of changes in patient pathways and length of stays. Maintain access of people aged 75+ in Canterbury to the Falls The Falls and Fracture Minimise Harm from Falls SLA Prevention Programme following a fractured neck of femur. Improve access to, and attendance at Community Based Strength and Balance classes in Canterbury. Polypharmacy Further develop general practices capability to view their An expert project group convened by the Clinical enrolled patients on multiple medications, including by **Quality Education Team** ethnicity. and the Pharmacy Promote audit and review capability of patients on multiple Service Level Alliance. medications to general practices. Monitor polypharmacy patterns in Canterbury including by age band and ethnicity. Complete implementation of the process for patient referral from the Falls Prevention Programme for a medication review, and vice versa. Provide information to the public on Choosing Wisely for medicines with their doctor and pharmacist through increasing general practice and community pharmacy knowledge of Choosing Wisely. System Level Build partnerships to support Pasifika Futures Limited to Canterbury DHB, PHOs and Pasifika Reference Measure implement primary healthcare services that improve Group Canterbury Pasifika health.

ACTIONS TO IMPROVE PERFORMANCE: ACUTE BED DAYS RATE

	 Implement innovative approaches to the funding and delivery of health services for Pasifika peoples through work with Pasifika Futures Limited. 	
System Level Measure	 Implement agreed principles of restorative home-based care in Hurunui and Oxford for rural people to support discharge and/or restored function following a period of illness. Confirm protocols, entry criteria and clinical responsibility, and handover to enable the trialling of an observation service in a rural location. 	Rural Health Workstream

PATIENT EXPERIENCE OF CARE

CANTERBURY'S EXPERIENCE

Our priority for Patient Experience of Care is to facilitate optimal use of information from the in-hospital and primary care patient experience surveys to drive quality improvement.

In-Hospital Patient Experience Survey

Canterbury's results from the four domain overall questions are consistently at or above the New Zealand average results⁹.

Domain – Overall Question	Canterbury weighted average score out of 10 for Q1 2017 – Q4 2018	NZ weighted average score out of 10 for Q1 2017 – Q4 2018
Communication	8.4	8.4
Coordination	8.5	8.4
Partnership	8.6	8.5
Physical & Emotional Well-being	8.7	8.7

Canterbury DHB Adult In-Hospital Survey Results (Q1 2017 – Q4 2018), Health and Quality Safety Commission

Over the last 12 months, work has been undertaken to increase the sample size and quantity of feedback contributing to Canterbury's results. A trial was run sending the survey to 1,000 patients fortnightly. The success of this trial has resulted in the recommendation that the survey is now sent to all patients who qualify.

Outpatient Patient Experience Survey

During 2018 an outpatient survey was implemented as a trial in Ashburton, Burwood and Christchurch Women's Hospitals. After successful implementation in these areas, the outpatient survey is expected to be available for Christchurch Hospital outpatients during 2019-20.

Paediatric In-Hospital Patient Experience Survey

The South Island Alliance and the Paediatric Society of New Zealand trialled an interactive application (app) featuring an animated frog (Fabio) to encourage children and young people from six to 16 years to provide feedback regarding their inpatient hospital experience in the Paediatric wards. Children and parents were invited to provide feedback during their stay with a kiosk available 24 hours a day. The app also features an email facility where a survey link is sent to parents after their child is discharged. The app has yielded on average more monthly feedback than the traditional suggestions, compliments and complaints boxes. The trial will continue during 2019.

Primary Care Patient Experience Survey

Canterbury's results from the four domains are at or above the New Zealand average results for the 12 months of 2018.

⁹National Adult Inpatient Experience Results for Patients Treated in November 2018.

Domain – Overall Question	Canterbury average score out of 10 for 2018	NZ average score out of 10 for 2018
Communication	8.4	8.4
Coordination	8.4	8.5
Partnership	7.6	7.6
Physical & Emotional Well-being	7.8	7.8

Canterbury Patient Experience Survey Results (Jan - Dec 2018), Health and Quality Safety Commission

In December 2018, 85 (74%) of Canterbury's 115 general practices obtained feedback from their patients using the Patient Experience Survey, up from 71 (62%) of 115 practices in February 2018. Canterbury's response rates to the survey aligns with national levels of response

Over the next 12 months our priority will be to improve understanding of questions within the survey to enable local response to low scoring areas to occur. Alongside this we will continue to increase the number of general practices accessing feedback from their patients using the Patient Experience Survey.

MILESTONE

In-Hospital Patient Experience Survey

Construction of new facilities is nearing completion with migration of some services to new buildings underway, and to continue throughout the year. These changes are likely to impact on patients' experience of care, maintaining the inpatient survey results at 30 June 2020 will locally be considered a significant achievement.

Primary Care Patient Experience Survey

In 2018/19 the number of general practices using the Patient Experience Survey to access feedback from the enrolled population continued to increase (55% in December 2017 to 74% in December 2018). In 2019/20 Canterbury will continue to embed the use of the data collected to inform and drive quality improvement.

Quality improvement relies on making data analyses available to people providing care: translating data into information that creates a platform upon which people can act. It is difficult to set a numerical measure that indicates progress on using data to drive quality improvement. Canterbury has selected a milestone to improve the score for sub-questions relating to medications in the Communication domain:

- Were you told what to do if you experienced side effects? Improvement in average 12 month¹⁰ score from 6.8/10 to 6.9/10 or more.
- Were the possible side effects of the medication explained in a way you could understand? Improvement in average 12 month score from 7.5/10 to 7.6/10 or more.
- Were you told what could happen if you didn't take the medication, in a way you could understand? Improvement in average 12 month score from 7.5/10 to 7.6/10 or more.

 $^{^{10}}$ The 12 month period of 01/01/2018 to 31/12/2018 was used to calculate the average score for the sub-questions.

It is acknowledged that the influences on patient experience are complex. It will take sustained efforts to improve this and is likely to take more than the year of the improvement plan. The ongoing programme of work will be focussed on quality improvement through education and administration.

CONTRIBUTORY MEASURES

IN-HOSPITAL SURVEY RESPONSE RATE

Outcome sought: An increase in the proportion of adults completing the in-hospital survey.

Rationale for selection: Canterbury's Survey response rate was historically lower than the national rate. Improvements over 2016 reflect the increased focus on capturing patients' email addresses, allowing communication of the survey to them. During 2017 Canterbury merged fortnightly survey data collected locally with the quarterly national collection to increase the number of respondents contributing to the results. While this initially improved the In-Hospital Survey response rate, during 2018 a process to systematically capture patients' email addresses as business as usual was implemented. It is anticipated that this will improve response rates over the long term, however a new patient management system is yet to have patient email address information migrated into it. While this is unlikely to affect response rate, it may initially impact the survey sample size.

Measure description: The proportion of adult inpatients who complete the survey.

Numerator: The number of hospitalised patients aged 15 years and over who 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, Quality and Safety Commission.



IN-HOSPITAL ENGAGEMENT OF FAMILY / WHĀNAU IN PATIENT CARE

Outcome sought: Patients experience increased engagement between hospital staff and their family/whānau in discussions about their care.

Rationale for selection: Canterbury's In-Hospital Survey result in this supporting question has historically been lower than the national rate. The Always Events project is providing a framework for Canterbury to explore various stakeholder perspectives of patient care, and through this understand and address the contributors to this result. We are now in the second phase of the Always Events improvement project and this work will continue over 2019/20.

Measure description: To better understand what influences the score on the In Hospital Survey result for the supporting question "Did the hospital staff include your family/whānau or someone close to you in discussions about your care?"

Numerator: The sum of the weighted average scores out of ten for this question response. *Denominator:* The number of responders that answered this question.

Data source: The Health, Quality and Safety Commission.



PRIMARY CARE PATIENT EXPERIENCE SURVEY IMPLEMENTATION

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

Rationale for selection: PHOs continue to have an important role in working with general practices to increase the number obtaining feedback from their enrolled populations. In 2019/20 Canterbury will continue to focus on general practice's engagement with the survey. Alongside this, the Primary Care Patient Experience Survey will focus upon building understanding of sub-questions relating to Care Plans to enable the development of actions to improve patient experience in this area.

Measure description: The proportion of 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 general practices in Canterbury.

Data Source: Reported quarterly by the PHOs.

In-Hospital

care.

engagement of

family /whānau in



Contributory Measure		Actions to Improve Performance	Responsibility
In-Hospital Survey	•	Implement a process to survey all in-patients of	DHB Quality & Safety
Completion Rate		Christchurch Hospital who meet survey criteria.	staff

contact person.

Contribute to the working group developing email as a preferred communication method via Health Connect

Continue with Phase Two of the national Always Events

Clarify the role of the patient's nominated

ACTIONS TO IMPROVE PERFORMANCE: PATIENT EXPERIENCE OF CARE

South.

pilot including work to:

DHB Quality & Safety

staff

Primary Care Patient	 Develop education tools for staff, patients and families. Test the process in one area and evaluate. Post evaluation test in three further areas. Work with general practice to increase the proportion 	PHO Quality & Safety
Experience Survey Implementation	 obtaining feedback from the Patient Experience Survey. Assist general practice teams to interpret and use Patient Experience Survey results as part of their ongoing quality improvement. 	staff
Response Rate	 Monitor the Primary Care Patient Experience Survey response rate by different population cohorts. Monitor data in relation to Primary Care survey respondents by age bands and ethnicity to identify population cohorts that are underrepresented. Identify and collaborate with working partners to promote the Primary Care survey with population cohorts that are underrepresented. 	DHB and PHO Quality & Safety Project Group staff
In-Hospital & Primary Care Patient	 Identify a common theme across the In-Hospital and Primary Care surveys and progress a local targeted 	DHB and PHO Quality & Safety Project
Experience Survey	response.	Group staff
Improvement in Patient Experience through increased utilisation of patient feedback.	 Use information from the In-Hospital and/or the Primary Care Patient Experience Survey to inform the work of alliance groups in leading changes to the development and delivery of health services. Build understanding of sub-questions to enable the development of actions to improve patient experience in this area. 	DHB and PHO Quality & Safety Project Group
Quality Improvement through an increase in domain question scores.	 Further embed utilisation of the Patient Experience Survey information in Canterbury's education programme and/or other education opportunities. Share good practise via a case study to highlight the use of survey results in change of general practice. Promote the Patient Experience Survey (primary and inpatient) in public publications (eg. Online, Well Now magazine). 	DHB and PHO Quality & Safety Project Group staff

System level measure: AMENABLE MORTALITY

CANTERBURY'S EXPERIENCE



Our priority is to continue to decrease the amenable mortality rate.

Canterbury's Amenable Mortality age standardised rate for under 75-year-olds is trending downwards. While it remains lower than the total New Zealand rate, the gap between the Canterbury and national rates has narrowed in recent years¹¹. The national data provided by ethnicity indicates that both Māori and non-Māori non-Pacific populations in Canterbury have rates lower than the New Zealand rates in 2015¹². When data are aggregated for 2011 to 2015 the Māori (163 vs. 202) and Pacific (185 vs 190) amenable mortality rates are lower than the national rates, but the rate non-Māori non-Pacific (81 vs 77) population is higher. In the same data Canterbury has the fifth lowest Māori amenable mortality rate among 18 DHBs and the sixth lowest Pacific rate among 11 DHBs.

The ratio of the Māori to the non-Māori non-Pacific rates has historically been lower in Canterbury than nationally, however the national rate will possibly be lower than Canterbury within the next year. Refreshing some of our Amenable Mortality contributory measures, with a focus on measures that are inequitable for Māori is expected to improve amenable mortality for Māori in Canterbury over time.

A review of the longitudinal Amenable Mortality data by cause of death identifies that a number of medical conditions contributing to Canterbury's Amenable Mortality Rate could be responsive to interventions that increase physical activity, improve nutrition and reduce smoking.



¹¹ National Minimum Data Set Amenable Mortality – Final Data to March 2015

¹² A standardised rate per 100,000 for Canterbury Pacific people is unable to be determined due to the small number of Canterbury Pacific people recorded in this cohort.

During 2018/19 analysis was undertaken on the ethnicity, rate, age of death, and magnitude of trend, within each potentially amenable condition. Findings from this analysis has been used to inform the selection of new contributory measures and actions for 2019/20 where the aim is to reduce inequities.

MILESTONE

The Canterbury Health System's agreed milestone is to maintain the current downward trend over time in the overall Amenable Mortality Rate. Applying this approach results in a milestone for the Amenable Mortality Rate at 30 June 2020 of 83 per 100,000 population. Additionally we aim to reduce the ratio between Māori and non-Māori non-Pacific to be lower than the 2015 ratio of 2.38.

CONTRIBUTORY MEASURES

The contributory measures selected include a focus on achieving equitable outcomes across ethnic groups. These measures and the underlying actions are seen as being fundamental to reducing the impact of high and inequitable rates of cancer morbidity and mortality among Māori. In addition, two measures of smoking prevalence are added as indicators of Canterbury's progress towards being Smokefree in 2025.

INDICATORS OF HEALTH PROMOTING LIFESTYLE

Outcome sought: An increase in factors that protect health and reduction in risk factors in our population. *Rationale for selection:* A range of services are available to support our population in taking up healthier behaviours. Increasing referrals to these services is an indicator of our health system assisting patients to navigate and access this support.

Measure description: Two measures; Green Prescription referrals and enrolments in Te Hā – Waitaha / Stop Smoking Canterbury service, have been selected as indicators of people accessing a wider range of lifestyle support services.

Data source: Provider data collected locally





Measure description: Te Hā – Waitaha Stop Smoking Services provides the majority of smoking cessation services in Canterbury. In 2019/20 it is expected that only one of Canterbury's PHOs will continue to provide their enrolled population with access to their own comprehensive smoking cessation support. To monitor all smoking cessation activity across Canterbury, enrolments in the PHO smoking cessation services are combined with the Te Hā – Waitaha activity.

Data source: Provider data collected locally.



MEASURE OF REGULAR SMOKERS IN CANTERBURY

Rationale for selection: Smoking is a major contributor to amenable mortality as a risk factor for many including cancers, cardiovascular disease, stroke, chronic obstructive pulmonary disease, complications of the perinatal period and sudden unexpected death in infancy. Reducing smoking through interventions in the health system can therefore contribute to reduction in amenable mortality. Two indicators of the proportion of Canterbury's population that are smokers are included below.

Outcome sought: A decrease in regular smokers to 5% prevalence in 2025.

Measure description:

The proportion of the Canterbury population who are regular smokers.

Numerator:

For each ethnic group, regular smokers are people who actively smoke one or more manufactured or hand–rolled tobacco cigarettes per day.

Denominator:

Census usually resident population, by ethnicity. *Data source:*

Statistics New Zealand Census 1996, 2006, 2013 data, with projections of the reduction in regular smokers needed for the proportion of regular smokers to be 5% for all ethnic groups by 2025.



Measure description: The proportion of the PHO enrolled population aged between 15 – 74 years of age that are recorded as a current smoker.

Numerator: The number of the PHO enrolled population aged between 15 – 74 years of age recorded as current smokers.

Denominator: The number of the PHO enrolled population aged between 15 – 74 years of age. *Data source:* Ministry of Health.

Note: This measure only captures people who are enrolled in a PHO. As PHO enrolment for Māori is lower (around 80-85% in recent quarters) than other ethnic groups (around 94-97%) this measure may under or over-represent current smokers who identify as Māori.



IMPROVED PHYSICAL HEALTH FOR PEOPLE EXPERIENCING MENTAL HEALTH AND/OR ADDICTION ISSUES

Rationale for selection: People experiencing mental health and/or addiction issues tend to have worse physical health outcomes and reduced life expectancy overall than their peers. Equally Well¹³ is a programme of collaborative action to address poor physical health outcomes and reduced life expectancy of people experiencing mental health and/or addiction issues. The delivery of Equally Well Consults in 2018-19 enabled people with mental health problems to access wellbeing support through their general practice. In Canterbury, the Equally Well Committee has collated a list of physical health programmes offered for people experiencing mental health and/or addiction issues.¹⁴ The resource is intended for use by the sector to assist at-risk people access the appropriate supports they need to help improve physical health and wellbeing.

Equally Well is an indicator of the additional mental health services being implemented in Canterbury to provide at-risk people with timely access to the right care.

IMPROVED ACCESS TO CERVICAL CANCER SCREENING

Rationale for selection: Cancer morbidity and mortality for Māori is high compared with other population groups. Access to health services, including screening programmes, have the potential to reduce cancer mortality. Improving access to cervical cancer screening, with a focus on Māori, Pacific and Asian women will assist with the earlier detection of cancer to improve later outcomes.

Outcome sought: Increase in proportion of eligible Māori, Pacific and Asian women who have had a



¹³ https://www.tepou.co.nz/initiatives/equally-well-physical-health/37

¹⁴ http://www.comcare.org.nz/wp-content/uploads/2017/01/Equally-Well-Physical-Health-Programmes.pdf

cervical cancer screening test in the previous three years.

Measure description: The quarterly number of eligible women screened in the previous three years divided by the population of eligible women, by ethnicity.

Data Source: Data reported to the National Screening Unit quarterly.

ENHANCING SUICIDE PREVENTION

Rationale for selection: Suicide in Canterbury is a high cause of amenable mortality. Suicide within Canterbury is inequitable with Māori accounting for 13% of 2010-2015 deaths. In Canterbury cross-sectorial groups are coming together to work towards enhancing suicide prevention.

It is recognised that this measure is impacted by some factors that are not amenable through actions by the wider health system. By choosing to focus on a change in the 10 year average rate this volatility is expected to be reduced.

Outcome sought: Reduce the 10 year average suicide rate in Canterbury, with a particular focus on reducing the rate of Māori suicide.

Measure description: Suicide rate (provisional) reported annually.

Data Source: Local data reported from Ministry of



Justice (provisional suicide) divided by Statistics NZ population data. Note: Provisional data includes suicides with 'undetermined intent' which after coronial review can be removed from final suicide data. Provisional data includes South Canterbury DHB.

Contributory Measure	Actions to Improve Performance	Responsibility
Indicators of Healthy Lifestyle	 Refine Te Hā – Waitaha's focus on priority populations including: Maintaining enrolments and outcomes for our Māori, Pacific and pregnant women at existing high levels; and Collaboration around targeted intervention for culturally and linguistically diverse (CALD) communities through the employment of a Mandarin speaking stop smoking practitioner and increasing access to interpreting services. 	Population Health and Access Service Level Alliance
Regular smokers in Canterbury	 Work with Smokefree Canterbury to further integrate all local smoking cessation services including the PHO delivered smoking cessation and Te Hā - Waitaha services. 	Population Health and Access Service Level Alliance
Improved Physical Health for People Experiencing Mental	 Refine the current approach locally to achieve the Equally Well outcomes of improved physical wellbeing of people who experience mental health problems. 	Mental Health Workstream

ACTIONS TO IMPROVE PERFORMANCE: AMENABLE MORTALITY

Health and/or Addiction Issues		
Improved access to cervical cancer screening	 Establish where there is a shortage of smear takers and explore how to increase coverage to improve access for priority group women (PGW). Explore potential for employer funded cervical smear tests for PGW and other ways to increase access to free screening tests. Collaborate with other services seeing PGW to promote cervical cancer screening. 	Population Health and Access Service Level Alliance
Enhancing suicide prevention	 Develop a cross-sectorial suicide prevention governance committee and action plan. Develop a Canterbury suicide prevention website. 	Mental Health Workstream
All Measures	 Advocate for a healthier environment through work with providers and developers to increase opportunity for both indoor and outdoor physical activity and access to healthy food. 	Population Health and Access Service Level Alliance
Emerging Measure	 Establish a process to influence Māori and Pacific 35-44 year olds in relation to cardiovascular disease risk later in life. 	PHO Education and communications

System level measure:

YOUTH ACCESS TO HEALTH SERVICES

CANTERBURY'S EXPERIENCE

Our clinically-led priority focus on the 'Access to Preventive Services' domain for 2019/20 is to improve adolescent access to dental services.

In 2017 19,012(63%) of the estimated 30,205 adolescents (School Year 9 to 17 years of age) in Canterbury accessed DHB funded dental services¹⁵. This utilisation rate is below the national average and has changed little over the previous ten years.

In 2018/19 Cantebrury has worked to strengthen dental practices receipt of Year 9 referrals via the transfer for care process, and work with the dental practices on their recall processes. In addition, four schools with high

Utilisation of Dental Services by Adolescents Year 9 to 17 years old

rates of Māori and Pacific children are being worked with to host focus groups with their students to enable understanding of factors that impact adolescent engagement with services, and ways to increase access.

During 2019/20 we will use the information collected from the focus groups to develop and deliver an Oral Health Service that is youth friendly and accessible.

While Canterbury's Dental Service measure of youth access and utilisation focused on a specific part of preventive health services, it will be used to generate lessons that could be applied more generally to young people's perception of and willingness to use services.

MILESTONE

The Canterbury Health System's agreed milestone is 63% of the adolescents from Year 9 to 17 years of age utilising the Canterbury DHB funded Dental Service at June 2020.

DELIVER AN ACCESSIBLE YOUTH FRIENDLY ORAL HEALTH SERVICE

CONTRIBUTORY MEASURES

Outcome sought: Increase adolescent utilisation of oral health services by developing a service for youth that is accessible and feels welcoming.

Rationale for selection: Work completed during 2018/19 has led to the next tranche of work which is to review youth oral health services by developing a service that is youth friendly. Utilisation data shows that while adolescents are transferred to dental practices in Year 9, they are not using the services. Understanding what youth





want in an adolescent oral health service will inform how to change the design of this service to encourage equitable access.

Measure description: Adolescents utilisation of the Adolescent Oral Health Service by ethnicity.

Data Source: The Proclaim Payments System data linked to the Combined Dental Agreements.

ACTIONS TO IMPROVE PERFORMANCE: YOUTH ACCESS TO HEALTH SERVICES

Contributory Measure	Actions to Improve Performance	Responsibility
Deliver an accessible youth friendly Oral Health Service.	 Assess the current service model of Adolescent Oral Health Services. Using information gained from the Focus Group, work with youth to identify what they want in an adolescent oral health service. 	Oral Health Service Development Group
System Level Measure	 Continue to explore other indicators that could provide a more comprehensive picture of youth access to preventative services. 	Population Health and Access Service Level Alliance.

System level measure:

BABIES LIVING IN SMOKEFREE HOMES

CANTERBURY'S EXPERIENCE

Our priority is to increase the number of babies living in smokefree homes and to address the ethnic variation between Māori, Pacific and total population.

At June 2018 Canterbury's percentage of Babies Living in Smokefree Homes at 6 weeks postnatal of 61% compares favourably with the national average for the Total population of 54%¹⁶. Viewed by ethnicity¹⁷ Canterbury's results for the Māori population (49%) and Pacific population (42%) are lower than Canterbury's Total population.



The number of pregnant women enrolling with smoking cessation services and remaining smokefree at the four week follow-up is remaining fairly static. During 2019/20 we will be strengthening the pathway and incentive for pregnant women to attend a smoking cessation consultation through linking this to our Sudden Unexpected Death in Infancy (SUDI) safe sleep programme. All pregnant women who attend an initial consult with a stop smoking practitioner will be offered a Pēpi Pod. It is expected that through promoting this service to Lead Maternity Carers that more pregnant women who smoke will be linked with smoking cessation services.

During 2018/19 analysis undertaken on the birthweight of babies born in CDHB facilities between 2007 and 2016 found the mean birth weight of babies from mothers who smoked during pregnancy was lower than those with mothers who did not smoke. Additionally, mothers who smoked were more likely to have preterm babies than mothers who did not smoke. During 2019/20 we will use analysis of our birthing population to identify interventions to reduce low birth weight and premature births among mothers who smoke.

MILESTONE

The November 2018 dataset provided to the DHB covering January to June 2018 was calculated using a revised denominator. This has resulted in results vastly different to datasets available for previous years. The change in the denominator used to calculate the percentage of babies living in smokefree homes means that we are unable to accurately compare progress to previous six-month periods. We have therefore used this dataset as a standalone to develop our 2019/20 milestone. The Ministry of Health advise that as data integrity improves they expect to see an initial reduction in the rate of babies living in smokefree homes.

The ratio of Total Rate:Māori for babies living in smokefree homes is 1:0.81, and Total Rate:Pasifika it is 1:0.70. The Canterbury Health System's agreed milestone for June 2020 is to decrease the equity gap for Māori and Pacific to

¹⁶ The National Minimum Data Set for Babies Living in Smokefree Homes at November 2018. This dataset has been developed using a different denominator than in the past. Due to this, datasets are not able to be compared to track progress towards our 2018/19 Milestone.

¹⁷ The National Minimum Data Set for Babies Living in Smokefree Homes at May 2018 by prioritised ethnic groups.

0.85 and 0.75 respectively, an increase in approximately 15 homes that are smokefree, and to continue to increase the number of infants living in smokefree homes by 30 June 2020.

CONTRIBUTORY MEASURES

PREGNANT WOMEN ACCESSING SPECIALIST SMOKING CESSATION SUPPORT

Outcome sought: An increase in the number of pregnant women and their family/whānau who are smokefree. *Rationale for selection:* Engaging pregnant women and their family/whānau who are smokers in specialist smoking cessation support seeks to reduce infant exposure to harm from smoking through pregnancy, birth and in the home environment. The number of women enrolling in Canterbury's specialist smoking cessation service is an indicator that an effective delivery pathway is in place, including:

- The referring health professional has provided help to quit, has knowledge of the specialist smoking cessation service and how to refer; and
- The provider of the specialist cessation responds in a timely way to the referral.

Measure description: The number of pregnant women enrolling in Te Hā – Waitaha / Stop Smoking Canterbury, by referrer type.

Data source: Reported quarterly from Te Hā – Waitaha.



OUTCOMES OF PREGNANT WOMEN ENGAGING IN SPECIALIST SMOKING CESSATION SUPPORT

Outcome sought: An increase in the number of pregnant women and their family/whānau who are smokefree. *Rationale for selection:* This builds on the previous measure as an indicator of whether women that engage in Canterbury's specialist smoking cessation service become smokefree.

Measure description: The smoking status of the pregnant women enrolled in Te Hā – Waitaha.

Numerator: The proportion of pregnant women who, at the 4-week follow–up, have not had a single puff in the previous 2 weeks; this includes smoking status that is self-reported or carbon monoxide (CO) validated.

Denominator: The number of pregnant women enrolled in Te Hā – Waitaha.

Data source: Reported quarterly from Te Hā – Waitaha.



ACTIONS TO IMPROVE PERFORMANCE: BABIES IN SMOKEFREE HOMES

Measure	Actions to Improve Performance	Responsibility
Pregnant Women accessing smoking cessation	 Strengthen the referral pathways from Lead Maternity Carers to Te Hā – Waitaha by: Working with midwives and LMCs to increase the number of clients motivated towards smokefree care routinely; 	Te Hā – Waitaha Steering Group and the Pregnancy sub-group of Te Hā – Waitaha

	 Develop a stop smoking clinic for pregnant women who smoke, within a community setting. 	
Pregnant Women accessing smoking cessation	 Complete the evaluation of Canterbury's Pregnancy Incentive Stop Smoking Programme and implement any feasible quality improvement steps recommended. 	Te Hā – Waitaha Steering Group and the Pregnancy sub-group of Te Hā – Waitaha
Detailed analysis of infants in smokefree homes data	 Undertake a comprehensive analysis of patient level data including by age and ethnicity, and from the insights gained develop actions to increase the number of babies in smokefree homes. 	Child and Youth Workstream
System Level Measure	 Use analysis of our birthing population to identify interventions to reduce low birth weight and premature births among mothers who smoke. 	System Outcomes Steering Group

APPENDIX ONE: OVERVIEW OF CANTERBURY'S SYSTEM LEVEL MEASURES RESPONSE

OVERVIEW OF SYSTEM LEVEL MEASURES RESPONSE \checkmark = leading delivery on the measure \checkmark = linked / contributing to delivery on the measure Updated March 2019.															•					
	Child & Youth Work Stream	Health of Older Persons Workstream	Community Services SLA	Urgent Care SLA	Pharmacy SLA	Population Health & Access SLA	Mana Ake – Stronger for Tomorrow	Clinical Quality Education	Oral Health Steering Group	Immunisation SLA	Realign / DHB Service Areas	Quality & Safety Expert Group	Project group PHOs / DHB	Pacific Reference Group	Mãori Reference Group	Consumer Council	Mental Health Work stream	Falls & Fractures SLA	Midwives	Rural Health Workstream
ASH rate 0-4 year olds	~																			
ASH rate ethnic variation	✓ Project													Ø	Ø					
Oral Health 0-4 year olds	G								~	G				Ð	G					
New Born Enrolment	G									~			Ð	G	G					
Accuracy of Ethnicity Capture	G									G	G		✓	G	G					
Acute Bed Days		Ø	Ø	✓							Ø									
Reduced Length of Stay		G	Ð	G							~									G
Readmission Rate		G	G	~	G						G									G
Polypharmacy		G			G			✓ Expert group												

	Child & Youth Work Stream	Health of Older Persons Workstream	Community Services SLA	Urgent Care SLA	Pharmacy SLA	Population Health & Access SLA	Mana Ake – Stronger for Tomorrow	Clinical Quality Education	Oral Health Steering Group	Immunisation SLA	Realign / DHB Service Areas	Quality & Safety Expert Group	Project group PHOs / DHB	Pacific Reference	Māori Reference Group	Consumer Council	Mental Health Work stream	Falls & Fractures SLA	Midwives	Rural Health Workstream
Falls Prevention / Reduction in Falls		Ø									G							~		
Pasifika Futures Engagement													G	G)					
Patient Experience of Care													✓ Expert group			Ø		G		
In-Hospital Response Rate											Ø		~			Ø				
In hospital Engagement of Family & Whanau in Patient Care													√			G				
Primary Care implementation of PES								G					•			G				
Monitor / analyse local response rate, Identify common focus area and utilise feedback								Ø					~							

	Child & Youth Work Stream	Health of Older Persons Work Group	Community Services SLA	Urgent Care SLA	Pharmacy SLA	Population Health & Access SLA	Mana Ake – Stronger for Tomorrow	Clinical Quality Education	Oral Health Steering Group	Immunisation SLA	Realign / DHB Service Areas	Quality & Safety Expert Group	Project group PHOs / DHB	Pacific Reference Group	Mãori Reference Group	Consumer Council	Mental Health Workstream	Falls & Fractures SLA	Midwives	Rural Health Workstream
Amenable Mortality						✓											G			
Green Prescription Referrals						~														
Enrolment in Te Hā - Waitaha					G	✓ Te Hā Waitaha Steering Group								G	Ð					
Enrolments in Smoking Cessation provided by PHOs						~								Ð	Ø					
Cervical Cancer Screening						G							√	Ð	G					
Enhancing Suicide Prevention						G	Ø										~			
Youth Access to Health Services									✓								~			
Deliver an accessible youth friendly Oral Health Service.	G					Ø			~					G	Ø					

	Child & Youth Work Stream	Health of Older Persons Work Group	Community Services SLA	Urgent Care SLA	Pharmacy SLA	Population Health & Access SLA	Mana Ake – Stronger for Tomorrow	Clinical Quality Education	Oral Health Steering Group	Immunisation SLA	Realign / DHB Service Areas	Quality & Safety Expert Group	Project group PHOs / DHB	Pacific Reference Group	Māori Reference Group	Consumer Council	Mental Health Workstream	Falls & Fractures SLA	Midwives	Rural Health Workstream
Smokefree Infants						✓ Te Hā Waitaha Steering Group														
Pregnant Women accessing smoking cessation	ଦ					✓					Maternity Services			Ð	Ð				G	
Outcomes of pregnant Women accessing cessation	G					✓					G			Ø	G				Ø	
Detailed analysis of infants in smokefree homes data	Ð					✓							~							