MidCentral District Health Board
Te Pae Hauora o Ruahine o Tararua

THINKHauora
Connecting Communities for Wellbeing

System Level Measures Improvement Plan 2021/22

MidCentral District Health Board | Te Pae Hauora o Ruahine o Tararua

June 2021

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Introduction

System-wide quality improvement is a key focus of the System Level Measures Framework that was introduced in 2016, by implementing locally agreed contributory measures for six nation-wide system level measures that are expected to contribute toward achieving the following goals:

- *preventing and detecting disease early*
- *a healthy start for infants*
- *keeping children out of hospital*
- *young people are healthy, safe and supported*
- *using health resources effectively*
- *ensuring patient centred care*

District Health Boards (DHBs), Primary Health Organisations (PHOs) and district Alliance Leadership Teams (ALTs) are expected to drive implementation of the System Level Measures (SLMs), supported by an Improvement Plan developed with and agreed by the DHB, PHO and the ALT each year. Each annual SLM Improvement Plan is to be submitted for review and approval by the Ministry of Health. It is linked to the PHO Services Agreement, which outlines the performance payment system to be applied.

This System Level Measures Improvement Plan for 2021/22 builds on the work of the previous three years, and sets out the agreed improvement milestones for each of the following SLMs:

- Amenable mortality rate
- Babies living in smoke-free homes
- Ambulatory sensitive hospitalisation rate (ages 0 – 4 years)
- Access to and utilisation of youth appropriate health services (one of five domains)
- Acute hospital bed days per capita
- Patient experience of care

The System Level Measures are nationally defined and are reported as part of the DHB Non-Financial Monitoring Framework and Performance Measures Framework for 2021/22. The SLM Improvement Plan, which details the contributory measures and improvement activities for the year is a standalone document and appended to the DHB's Annual Plan. Progress toward the goals and milestones are reported each quarter.

Development of MidCentral's System Level Measures Improvement Plan

Development of the SLM Improvement Plan was incorporated as part of the annual planning process. As such, the THINK Hauora (previously known as Central PHO), the Operations and/or Clinical Executive for relevant DHB service Clusters took the lead in developing the contributory measures and improvement actions for the relevant SLM. Engagement with key partners, individuals and groups to develop and/or confirm the contributory measures and targets for each (where not already determined nationally) was undertaken as part of the planning process. The DHB and THINK Hauora have agreed on the contributory measures for each of the SLMs that are included in this plan and have been endorsed by the Alliance Leadership Team. The priorities and intentions of the SLM Improvement Plan have been discussed with General Practice Teams and others in respect of how they relate to the incentivised payment scheme.

The contributory measures were selected on the following basis:

- work programmes, including activities derived from the Annual Plan and quality improvement plans, that are expected to have an impact on the selected performance measure (including an equity focus)
- consideration of the suite of potential contributory measures for each SLM as suggested by the Ministry of Health
- availability of data that is reliable and consistent, data elements accurately reflect the intended measure with clear definitions and methodology, and can be readily reported
- relevance and priority to the DHB's Strategy

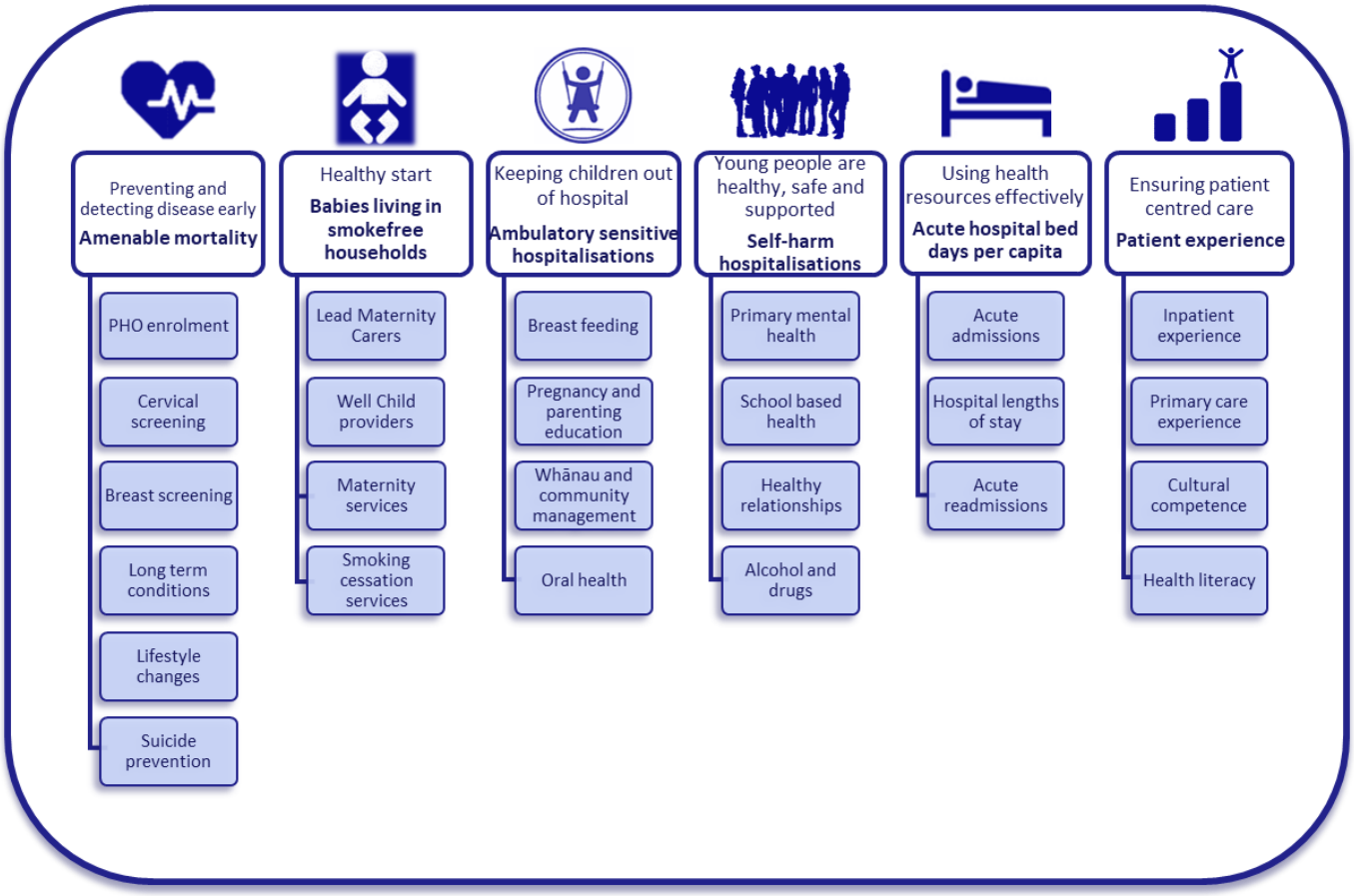
- population needs aligned to the system level measures, consideration of measures based on equity gaps, intervention logic and lessons learned from COVID-19.

Many of the contributory measures, actions and milestones selected have been purposefully linked to the annual planning process, particularly with respect to addressing health inequities for Māori across our district, and are aligned to the quality improvement and clinical governance agenda of the DHB and PHO. Continued effort to improve the quality of data and performance results is reported, monitored and investigated over time.

The improvement objectives and contributory measures for the 2021/22 year, have been based on the latest available trend data for our district, are considered relevant to the health needs of our local community and the priorities of the DHB, with an emphasis on improving equity in health outcomes.

MidCentral District Health Board | Te Pae Hauora o Ruahine o Tararua

An Overview of the System Level Measures and Contributory Measures



1 Amenable mortality

Preventing premature deaths and detecting disease early

Overview of System Level Measure

Rationale – Why is this important?

About half the deaths under 75 years of age in New Zealand are classified as amenable according to the current code list. That is, they are 'untimely, unnecessary' deaths from causes amenable to health care.

The term 'amenable mortality' refers to potentially preventable deaths that might have been prevented if health services had been delivered more effectively or if patients had accessed services earlier (either in primary care or in hospital). Amenable mortality includes deaths from some types of infection and cancer, maternal, perinatal and infant conditions/complications, injuries, and a range of chronic disorders. As with the rest of New Zealand, coronary disease continues to be the most predominant cause of premature death, and, in 2015 in MidCentral's district, this was followed by cancers, chronic disorders and injuries.

What does the data say for MidCentral's population?

- The amenable mortality rates per 100,000 of MidCentral's total and non-Māori / non-Pacific populations were significantly higher than the rates for New Zealand over the 2011 – 2015 period.
- The amenable rate at 188.4 per 100,000 Māori population was significantly higher than the rate for non-Māori/non-Pacific (93.4) and total populations (106.7) in MidCentral's district.

Refer to background data at Appendix 2.

Key improvement areas – Where do we want a difference?

- Improving enrolment in Primary Health Organisations
- Reducing equity gaps in cervical screening coverage
- Reducing equity gaps in breast screening coverage
- Reducing equity gaps in tobacco smoking rates for Māori
- Improving management of long-term conditions
- Increasing opportunities for early detection of cancers
- Reducing risks of suicide

SYSTEM LEVEL MEASURE: AMENABLE MORTALITY RATE PER 100,000 POPULATION (AGES 0-74 YEARS)

Goal: Reduced premature deaths from potentially preventable health conditions, focused on reducing rate ratio between Māori and Non-Māori populations

Reduce total amenable mortality rate by approximately two percent per year over five years (2016-2020 data) to ≤174.5 per Māori 100,000 population (0-74 years) by 30 June 2025

2021/22 Milestones: Cervical and breast screening coverage rates increase over 12 months ending 30 June 2022 by at least 10 percentage points each for Māori and Pacific women

Best practice Cardiovascular disease risk management programme for identified high risk enrolled population implemented from 01 July 2022

Key Improvement Areas

Objectives	Target groups	Key actions	Contributory Measures
Improve PHO enrolment rates	Māori – all ages	Use data to identify unenrolled population and follow up through the enrolment co-ordinator	PHO enrolment rates for Māori
		Create and report effectiveness of multiple access pathways to enrolment	
Reduce equity gap in cervical screening coverage	Māori, Pacific, Asian and under-screened women aged 25-69 years	Implement revised priorities from the district wide cervical screening action plan for 2021/22 Locally, MDHB and THNK Hauora are continuing to implement incentives-based programme for women of target population, including the availability of home visits and developing new initiatives to increase the number of Māori health workers to take smears	Cervical screening coverage rates for eligible populations Number and rates of first screenings for Māori and Asian women
Reduce equity gap in breast screening coverage	Māori, Pacific and Asian women aged 50 – 69 years	Implement priority actions for 2021/22 in the BSCC Equity and Improvement Plan, in line with new national service specifications	Breast screening coverage rates for Māori, Pacific and Asian women Number and rates of first screenings for Māori and Pacific women
		Provide data to GPTs identifying unenrolled priority women and invite to screening (breast and cervical)	
Reduce tobacco smoking rates	Māori women aged 18 – 30 years Current smokers aged 15 – 74 years enrolled with PHO	Provide data at least monthly to GPTs/IFHCs to identify, contact and recall patients and maintain currency in records for smoking status, brief advice and referrals	Proportion of PHO enrolled patients who smoke and have been offered help to quit smoking by a health practitioner in the last 15 months
		Implement outcomes of TOAM refresh	Proportion of referred smokers who accept smoking cessation support services

		Implement year one of the 'Vape to quit' programme for Māori, Pacific and hapū mama provided by community pharmacies/TOAM	Number of individuals registered and completing the 'Vape to Quit' programme and their smoking status at time of completion and at three months post completion.

Reduce suicide risk	Young people Community populations, including rurally isolated	Deliver suicide prevention training, mental health and wellbeing education programme and resource kits to primary health care practitioners, community groups and schools - focused in Tararua and Horowhenua districts	Attendees report increased awareness, knowledge and confidence in detecting and managing people at risk of suicide
Improve management of long-term conditions	All enrolled adults with high CVD risk Māori, Pacific and Indian/Asian men aged 30+ years Enrolled patients with long term mental illness	Provide GPTs/IFHCs with enrolled population profiles and feedback undertaking cardiovascular and diabetes screening for Māori men aged 30 – 45 years	Proportion of enrolled population with a risk score of >15% who have been dispensed appropriate therapy Proportion of people with risk score >15% who have had a clinical review within the last 12 months
		Target referrals to funded Long Term Conditions (self-management) programme for enrolled patients with cardiac conditions and profiled as 'high risk'	Proportion of Māori, Pacific and Other enrolled population with CVD who have completed a LTC focused self-management programme in the last 12 months
		Identify and follow up clients with a long-term mental illness who have not been seen for a physical health check by their General Practice Team within the last 12 months	Proportion of identified consumers who have had an annual health/wellness check completed by a General Practitioner/Nurse Practitioner

2 Babies living in smoke-free households

A healthy start

Overview of System Level Measure

Rationale – Why is this important?

A reduction in the prevalence of smoking in women who are intending pregnancy or who are pregnant is a priority. Maternal smoking is associated with a range of poor neonatal and child health outcomes, such as Sudden Unexpected Death in Infancy (SUDI) and low birth weight, as is exposure to second-hand cigarette smoke in the environment in which an infant lives. Evidence suggests that children are more likely to become smokers if they grow up in a smoking household.

This measure aims to reduce the rate of infant exposure to cigarette smoke by focusing attention beyond maternal smoking to the home and family/whānau environment. It emphasises the need to focus on the collective environment that an infant will be exposed to – from pregnancy, to birth, to the home environment within which they will initially be raised. The measure aligns with the first core contact which is when the handover from maternity to Well Child Tamariki Ora (WCTO) providers and general practitioners occurs.

Previous research has shown that Māori women aged between 18 and 24 years stand out as a group of particular concern, with 42.7% of this group reporting regular (daily) smoking, compared with 8.6% of non-Māori women of the same age. Young Māori women who are regular smokers are three times more likely to live in a household where there are other smokers compared with those who do not smoke. Therefore, focus needs to be on reducing equity gaps for Māori.

This measure promotes the roles which collectively, infant and child service providers play in the infant's life and the many opportunities for smoking interventions to occur. The patient benefit in this measure is a smoke-free outcome for the baby's home and therefore no exposure of baby to cigarette smoke. This includes benefit for whoever is smoking in the house becoming an ex-smoker.

This System Level Measure also links to the 'First 1,000 Days' strategy (from conception to around two years of age) – a healthy start to the baby's life.

What does the data say for MidCentral's population?

- Based on the new definition (applied from January 2019), less than half (46.7%) of the registered babies up to age 56 days live in a smoke-free household.
- A particularly low rate (26.7%) is seen among MidCentral's Māori households with new babies, which is consistent with the higher prevalence of smoking by Māori, including hapū mama.
- The difference in the equity gap between Māori and Total babies living in smoke-free households is slightly larger in MidCentral's district compared to the NZ equity gap.

Refer to background data at Appendix 2.

Key improvement areas – Where do we want a difference?

- Improving on-time clinical handover between Lead Maternity Carer (LMC) and WCTO provider
- Improving integrity of data collected by Well Child Tamariki Ora providers
- Improving timeliness and increasing newborn enrolment with General Practice Teams
- Increasing referrals to smoking cessation support services
- Reducing inequity in rates between Māori and non-Māori babies living in smokefree homes

SYSTEM LEVEL MEASURE: BABIES LIVING IN SMOKE-FREE HOUSEHOLDS

Goal: Reduced exposure to second-hand tobacco smoking

2021/22 Milestone: Increase the proportion of Māori babies at six weeks post-natal that are living in smoke-free households to ≥50% by end of June 2022

Key Improvement Areas

Objectives	Target groups	Key actions	Contributory Measures
Improve clinical handover from LMC to WCTO provider	LMCs WCTO providers GP Teams Māori whānau	Maintain implementation and monitor the *"Effective Transfer of Care"* programme (WCTO quality initiative)	Clinical referral rates from LMC to WCTO and GP Teams
		Promote use of SMS messaging to prompt response to receipt of referral	
Improve integrity of data collected by Well Child Tamariki Ora providers	WCTO providers/Māori whānau Data management services	Assist iwi Māori providers contracted to provide WCTO services to maximise use of their data (including recording of smokefree households within the contact timeframe)	Rates of error, and "not stated" or "unknown" status fields in data set per provider
		Provide annual forum to collectively review and ensure consistency and accuracy of data capture from all providers and any other updates for managing data	Participation rates in annual forum
Improve timeliness of and increase newborn enrolment rate with GPTs	Newborn Enrolment Coordinator Maternity services Māori whānau	Review systems and processes with Women's Health Unit regarding discharge and newborn enrolment forms	Number of Newborn Enrolment forms received by Newborn Enrolment Coordinator within 10 days of each baby's birth
Increase uptake of smoking cessation support and treatment	Māori whānau Women, Children and Youth cluster Public health service	Boost uptake of referral system for patients, parents and their whānau who have any contact with maternity, gynaecology or child health services to access quit smoking services	Number and rate of referrals to Quit Smoking services

(Also refer to reducing tobacco smoking actions in the section on amenable mortality)

3 Ambulatory sensitive hospitalisations: 0 – 4 years of age

Keeping children out of hospital

Overview of System Level Measure

Rationale – Why is this important?

Ambulatory sensitive hospitalisations (ASH) are mostly acute admissions that are considered potentially reducible through prophylactic or therapeutic interventions delivered in a primary care setting. In New Zealand children, ASH accounts for approximately 30 percent of all acute and arranged medical and surgical discharges in that age group each year. However, determining the reasons for high or low ASH rates is complex, as it is in part a whole-of-system measure.

It has been suggested that admission rates can serve as proxy markers for primary care access and quality, with high admission rates indicating difficulty in accessing care in a timely fashion, poor care coordination or continuity of care, or structural constraints such as limited supply of primary care workers.

ASH rates are also determined by other factors, such as hospital emergency departments and admission policies, health literacy and overall socio-economic determinants of health. A composite ASH measure is preferred because it gathers up more conditions and aligns with the intention of using measures that operate at a system level rather than ones that focus on a specific condition or service.

ASH highlights the burden of disease in childhood with a strong emphasis on health equity. There is high variance among priority populations and according to social gradient. Reducing ASH rates requires well integrated, preventive, diagnostic management systems and a well-skilled and resourced workforce.

Ambulatory sensitive hospitalisations also link to the acute hospital bed days System Level Measure.

What does the data say for MidCentral's population?

- Ambulatory sensitive hospitalisation (ASH) rates for 0-4-year olds in MidCentral's district show a steady reduction over the last five years for both Māori and non-Māori children.
- The rates for both groups have remained below the national average although the rate per 100,000 Māori children remains higher than the non-Māori rate in MidCentral's district.
- Respiratory conditions (including infections) continue to be the predominant cause for ambulatory sensitive hospitalisations, together with dental caries and some skin conditions

Refer to background data at Appendix 2.

Key improvement areas – Where do we want a difference?

- Reducing equity gap between Māori and non-Māori rates of breastfeeding during infancy
- Increasing exposure to pregnancy and parenting education, information and support
- Improving whānau and community management of specified ambulatory sensitive conditions: with a particular focus on Māori and high needs children with asthma and respiratory infections or dental conditions

SYSTEM LEVEL MEASURE: AMBULATORY SENSITIVE HOSPITALISATION RATE PER 100,000 POPULATION (AGES 0 – 4 YEARS)

Goal: improved access to primary and community based early detection and intervention health and social services for children and their whānau

2021/22 Milestone: Reduce number of ambulatory sensitive hospitalisation events for Māori children by at least 5 percent, to total less than 250 over the 12 months ending June 2022

Key Improvement Areas

Objectives	Target groups	Key actions	Contributory Measures
Reduce equity gap between Māori and non-Māori breastfeeding rates	Mothers, babies and their whānau	Implement the district wide breastfeeding strategy focusing on Māori whānau to increase the number of Māori babies who are exclusively or fully breastfeeding	Rates of exclusive and fully (combined) breastfeeding at 6 weeks and 3 months for total population and for Māori population
Increase exposure to pregnancy and parenting education, information and support	First time parents	Extend capacity of the DHB funded '*Bumps to Babies'* parenting programme for first time parents and their whānau	Participation rate of Māori in 'Babies and Beyond" programme
Improve whānau and community management of respiratory and skin conditions (including infections)	Māori children aged 0 – 16 with asthma/wheeze	Complete targeted collective impact project to identify and address respiratory infections, asthma/wheeze and skin conditions in children with high ASH presentations [Action on Deep dive audit across all ASH conditions of 300 clinical records (last 6 months of 2020)	Ambulatory sensitive hospitalisations numbers and rates by Māori and non-Māori children for respiratory infections, asthma and skin conditions Number of Māori and high needs children seen in Child Health community clinics
		Work with whānau ora collectives to ensure identified Māori children with asthma/wheeze have a current action plan in place and are regularly engaged with a PHC provider	
Reduce hospital admissions for dental conditions	Māori, Pacific and high dep (Quintile 5) children aged 0 – 4 years	Review effectiveness of Child Health Screening Tool (including 'lift the lip') and its use as a referral trigger to oral health service	Percentage of enrolled 0 – 4-year olds who have had a Child Health Screen by GPT Percentage of enrolled 0-4-year olds who are referred via the child health screening tool
		Continue to implement recovery plan to increase enrolment in the Community Child and Adolescent Oral Health Service and increase on time examinations	Percentage of Māori children aged 0 – 4 years who have been examined according to their planned recall period

4 Access to and utilisation of youth appropriate health services - Mental health and wellbeing

Young people are healthy, safe and supported

Overview of System Level Measure

Rationale – Why is this important?

Young people have their own specific health needs as they transition from childhood to adulthood. Most young people in New Zealand successfully transition to adulthood but some do not, mainly due to a complex interplay of individual, family and community stressors and circumstances, or 'risk factors'. Evidence shows that young people are not in the habit of seeking the services or advice of a registered health practitioner when unwell. Generally, they cope with illness with advice from friends and whānau as they see fit.

This measure focuses on young people accessing primary and preventive health care services. Research shows that young people whose healthcare needs are unmet can lead to increased risk for poor health as adults and overall poor life outcomes through disengagement and isolation from society and riskier behaviours in terms of drug and alcohol abuse and criminal activities. Early interventions which target younger populations may potentially be an effective strategy for improving adult health and reducing future healthcare costs.

The System Level Measure (SLM) for young people consists of five domains reflecting the complexity and breadth of issues impacting the health and wellbeing of young people. MidCentral's Alliance Leadership Team has selected *Mental health and wellbeing* as the key domain locally. The national indicator for this measure is *intentional self-harm hospitalisations for under 25-year olds.*

This was a developmental measure in the 2017/18 year, and moved to a substantive SLM, with the selected contributory measures, from July 2018.

Our improvement activities to reduce self-harm hospitalisations by young people are based on the following principles:

Young people thrive in education
Young people have social capital
Young people value their health

What does the data say for MidCentral's population?

- The hospitalisation rates for young people following self-harm (intentional or undetermined) in MidCentral's district have been higher than the national rates – particularly for those aged 15 – 19 years.
- The self-harm hospitalisation rate for MidCentral's young Māori have usually been lower than the national rate for Māori, but both have been steadily increasing.
- Females account for around three quarters of the total intentional self-harm hospitalisations, most of whom were non-Māori and non-Pacific young people.

Refer to background data at Appendix 2.

Key improvement areas – Where do we want a difference?

- Improving access to primary mental health and addiction services
- Improving early assessment and follow up
- Supporting health and wellness in schools
- Reducing uptake of alcohol and other drugs

SYSTEM LEVEL MEASURE: ACCESS TO AND UTILISATION OF YOUTH APPROPRIATE HEALTH SERVICES – DOMAIN: MENTAL HEALTH AND WELLBEING

Goal: Increased access to health and social services that support young people to stay safe and experience improved sense of wellbeing

2021/22 Milestone: Reduce rate of intentional self-harm hospitalisations by young people in our district to ≤50 per 10,000 population by June 2022

Key Improvement Areas

Objectives	Objectives	Objectives	Contributory Measures
Improve access to primary mental health and addiction services	All young people aged 10-24 years Māori and Pasifika aged 12-19 years	As part of year 1 implementation of the district-wide Primary Mental Health Service for Youth, work with iwi and Kaupapa Māori providers to develop programmes specific to Māori and Pasifika aged 12-19yrs	Participation rates by Māori and Pacific young people in Wellbeing Programmes over the year Average number of 12 – 19-year olds seen by primary mental health services sustained Proportion of referrals to Primary Mental Health services that are for young people aged 12 – 19 years who identify as Māori
		Offer e-therapy and on-line resource options to complement face to face brief interventions for the youth population	
		Develop multi-sectoral collaborative approach to improving youth mental health through aligned RFPs within the district	Percentage of 0 – 19-year-old Māori and non-Māori population accessing mental health and addiction services
Improve early assessment and follow up of self-harm presentations to ED	Young people aged 10-24 years presenting to ED with self-harm	Strengthen referral pathways to Child and Adolescent Mental Health Services	Percentage of people presenting to ED with intentional self- harm and referred from ACT/Liaison service seen by CAMHS within 48 hours of receipt
		Establish a clinical educator role based in ED to strengthen training about trauma informed care for people presenting at ED with a mental health crisis	Rate of repeat ED attendances for intentional self-harm by individuals within the year
		Establish a senior clinical practitioner role (mental health and addictions) within the ED team to support early clinical assessment, treatment and support	

Support health and wellness in schools	Intermediate and Secondary school (teachers, counsellors, students) Community groups Māori students	Deliver range of Health Promotion and School Based Health Service programmes for students aimed at raising awareness of mental health and wellbeing, identifying risk behaviours and building resilience	Percentage of total SBHS interventions at eligible secondary schools that were for mental health
		Evaluate success of the new school based mental health and wellbeing programme for Māori and Pacific youth delivered by NGO iwi Māori provider over the year (June 2022)	Positive self-evaluation of the service by participants at exit from programme
Minimise potential for harm from alcohol and other drug use by young people	Secondary school(s) All young people	Undertake a pilot project led by the Public Health Unit's health promoting staff and at least one school in the use of school-based technology applications to discourage uptake of alcohol and other drugs by young people	Evidence of successful pilot and potential for roll out to other schools (December 2021)
		Support NGO AOD service providers to improve capacity and reduce waiting times for their service	Percentage of 0 – 19-year-old clients seen by NGO AOD service providers within 3 weeks of non-urgent referral

(Also refer to DHB's refreshed Suicide Prevention action plan, 2020 - 2025)

5 Acute hospital bed days per capita

Using health resources effectively

Overview of System Level Measure

Rationale – Why is this important?

Acute hospital bed days per capita is a measure of the use of acute services in secondary care that could be improved by effective management in primary care, transition between the community and hospital settings, discharge planning, community support services and good communication between healthcare providers. This includes access to diagnostics services.

This measure can be used to manage the demand for acute inpatient services on the health system. The intent of the measure is to reflect integration between community, primary, and secondary care and it supports the strategic goal of maximising the use of health resources for planned care rather than acute care.

The measure is supported by a suite of locally selected contributory measures to strengthen the ability to detect and understand factors that drive acute demand. This combination of measures avoids the risk of a single high-level measure which gives no indication of where improvements could be made. It also creates opportunities for inter-provider communication and promotes data transparency and knowledge sharing.

What does the data say for MidCentral's population?

- MidCentral's age-standardised and actual acute bed day rates per 1,000 population, have reduced over this last year and were not too dissimilar from the national rates
- There were more acute admissions but an overall reduction in the average length of stay for acute events compared to the previous year. However, there was also a small increase in the acute readmission rate over this period.
- People aged 85 years or older (about 2.3 percent of the total estimated population) accounted for just over 16 percent of the total acute bed days utilised over the year
- Just under a third of the total acute bed days were utilised by people with one of thirteen diagnostic related groups, including respiratory infections, stroke, hip and femur procedures, heart failure, neonates, limb injuries, chronic obstructive respiratory disease to bowel procedures, cellulitis, digestive system conditions and kidney/urinary tract infection

Refer to background data at Appendix 2.

Key improvement areas – Where do we want a difference?

- Minimising repeat avoidable hospitalisations for people living with long term conditions
- Increasing primary health care access and options for acute care
- Promoting Health Care Home model in General Practices
- Improving timely care and patient flow throughout the hospital
- Strengthening coordination and transitions of care for older people with frailty

(Also see ambulatory sensitive hospitalisations – 0-4-year-old population)

SYSTEM LEVEL MEASURE: STANDARDISED ACUTE BED DAYS PER 1,000 POPULATION (ALL AGES)

Goal: Increased use of health resources for planned care rather than acute care in hospital

2021/22 Milestone: Actual acute bed day rate is retained at ≤450 per 1,000 estimated population (DHB of Domicile); approximately equivalent to ≤81,500 total bed days by end June 2022

Key Improvement Areas

Objectives	Target groups	Key actions	Contributory Measures
Reduce acute inpatient admissions	Adult Māori – Long term conditions Enrolled population	Disseminate consistent messaging on acute health services to public/community utilising refreshed DHB/THINK Hauora communication strategy	Quarterly updates on progress against agreed implementation plan
		Promote telephone assessment and treatment (clinical triage), alternative options to face-to-face care, and on the day appointment availability for triaged patients	Proportion of practices maintaining telehealth solutions (phone, email and/or video) for at least 12 months from June 2020
		Implement cloud-based shared care plan for district-wide use	Number of trans-disciplinary team members contributing to shared care plans
		Increase regularity of joint patient care planning processes, such as case reviews, multidisciplinary team and patient meetings, between primary health care practitioners and secondary specialists	Standardised ambulatory sensitive hospitalisations for the 45 – 64-year-old Māori population with a respiratory, cardiac condition and/or diabetes
	ED presentations (including older adults)	Implement outcome from the review of the 12-month ED/POAC redirection programme	Number of individuals presenting to ED who have been redirected to a community based POAC programme
Reduce average length of stay (ALOS) for acute admissions	Older people General Medicine	Implement in-hospital component of the "Rationalising Acute Demand" programme, meeting milestones of plan	Acute average length of stay
			ALOS in Medical services specialty (including OPAL unit)
		Re-establish function of Transitory Care Unit to assist with timely discharge of eligible patients	Percentage of inpatient medical and surgical discharges per week completed by noon

Reduce acute readmissions	All Patients with long term respiratory conditions Older people aged 75+ ED	Evaluate ED COPD pathway to determine potential for programme to include other settings and respiratory conditions	Proportion of enrolled patients in identified cohort who complete key milestones of their individual programme Number of enrolled patients in identified cohort who represent to ED within 28 days of previous presentation
		Examine patient level readmission data by specialty, including ED representations, to establish relevant improvement activity by end December	Percentage of ED representations within 72 hours of previous ED discharge
		Provide Te Kete Korero Population Risk Stratification reports to community clinical pharmacist team and GPTs to identify prescribing variations as well as equity gaps for access to medications	Number of enrolled patients receiving an intervention by a primary community care clinical pharmacist.

6 Patients experience of care

Ensuring person-centred care

Overview of System Level Measure

Rationale – Why is this important?

How people experience health care is a key element of system performance that can be influenced by all parts of the system and the people who provide the care. Improved patient experience of care will reflect better integration of heath care at the service level, better access to information and more timely access to care.

The purpose of these measures is to ensure patients in New Zealand are receiving quality, effective and integrated health services. Evidence suggests that if patients experience good care, they are more engaged with the health system and therefore likely to have better health outcomes.

Patient experience is a vital but complex area. Growing evidence tells us that patient experience is a good indicator of the quality of health services. Better experience, stronger partnerships with consumers, and patient and family-centred care have been linked to improved health, clinical, financial, service and satisfaction outcomes. In the primary health care setting, patient e-portals are secure online sites provided by General Practices where people can access their health information and interact with their general practice. Using a patient e-portal, people can better manage their own health care.

What does the data say for MidCentral's population?

- The national primary care survey was introduced in the 2018 year; the majority of practices were engaged with the survey. There has been an overall response rate of around 15 - 20 percent of the enrolled population invited to participate in the survey; lower for Māori. On this basis, it appears that the questions pertaining to the 'partnership' were rated less favourably overall by respondents. Waiting for an appointment with their current or any other GP received the lowest rating from all respondents. This is somewhat expected given the very low ratio of GPs per population across the district. Improvement actions are focusing on developing sustainable workforce capacity and enabling alternative options to face=to-face contacts through virtual health technology and increasing the spread of the Health Care Home model across practices.
- As a result of focused activities over the last year, the adult inpatient survey results have been showing an improvement in the area of communications with inpatients, although there is room for improvement in communications with outpatients. Of the four survey domains, 'coordination of care' continues to be a key concern for survey respondents, particularly around the provision of enough information in order for patients to feel confident in managing their care after discharge.
- The national patient experience survey tool and methodology for both the hospital adult and primary care surveys changed in 2020 following a change to the contracted service provider by the Health Quality and Safety Commission. The new national survey took effect from August 2020. Q2 2020 data will be used for baseline milestone setting.

Key improvement areas – Where do we want a difference?

- Improving coordination of care and communications with patients and whānau in hospital – addressing discharge planning, patient information and care management post-discharge
- Improving patients' experience in primary health care settings – addressing access and waiting times
- Increasing access to patient e-portal in general practices
- Improving cultural responsiveness
- Improving organisational health literacy

SYSTEM LEVEL MEASURE: PATIENTS EXPERIENCE OF CARE

Goal: Patients encountering our services experience safe, effective, quality patient-centred care

2021/22 Milestones: Improved experience with hospital discharge: ≥60% pf inpatient survey respondents note that they received enough information about how to manage their condition or recovery after leaving hospital

Improved access to primary health care: ≤20% of primary health care survey respondents note that they were unable to get health care from a GP or Nurse when they wanted it in the last 12 months

Key Improvement Areas

Objectives	Target groups	Key actions	Contributory Measures
Improve coordination of care and communications with patients and whānau experiencing hospital-based services	Adult inpatients / hospital-based service consumers	Use themed information to drive improvements in hospital discharge processes with patients, their family/whānau	Ratings from survey respondents to inpatient survey questions on their experiences with hospital discharge (questions 21-25)
		Complete roll-out of agreed Nga Pou o te Oranga audit tool in designated ward/s by end March 2022.	Evidence of improvement initiatives undertaken that were derived from completed audits (Nga Pou o te Oranga audit system)
Improve engagement equity and services with consumers	Consumers Staff	Establish working group, including Consumer Council representation, to support implementation of the new Consumer Engagement Quality and Safety Marker (QSM)	Self-reported rating system in place with first report submitted December 2020 and six-monthly thereafter
		Use the new HQSC QSM "dashboard" and information gleaned from the "SURE" framework to assess level and quality of consumer engagement	
		Facilitate the engagement of Cluster and Enabler groups to utilise the expertise of consumers and seek feedback on the improvement opportunities	Consumer participation evident in-service improvement, development and review processes across services
Improve patients' experience in primary care settings	PHO enrolled population Primary health care consumers	Establish regular case reviews between primary and specialist services for patients determined to have high complexity by Te Kete Korero risk stratification tool	# of patients who have a joint case review with high complexity rating on risk stratification tool
		In partnership with general practice teams review patient experience survey results each quarter and identify and action any overall system improvements	# of system improvements identified and actioned

		Primary care survey to add: Did the [HCP] involve you as much as you wanted to be in making decisions about your treatment and care?	Improved ratings from Patient Experience Survey respondents each quarter Increased patient portal registrations each quarter

Reduce waiting times and improve access to first contact primary health care services / GP(s)	PHO enrolled population Primary health care consumers (targeting priority populations)	Support IFHCs/GPTs to enable provision of alternatives to in-person consultations and maximising use of patient portal	All IFHCs and most other general practices are enabling e-consultations through patient portal by 30 June 2022 Ratings in survey findings and reduced complaints related to accessing on-time GPT services Monitor and report 3rd available appointment in all GP practices
		Review responses to PHC survey question 34 to inform targeted messaging about on-line services and/or patient portal access and use	Proportion of respondents reporting that they have heard of and use GPT on-line service or patient portal by end of fourth survey
Build cultural responsiveness competencies across the DHB	All DHB employed staff	Use themed information from the national inpatient survey to drive improvements in cultural safety practices with patients, their family/whānau	Ratings from survey respondents to inpatient survey questions on their experiences of cultural safety
		Support participation of staff in the Cultural Responsiveness in Practice training and in the DHB supported Treaty of Waitangi training programme	Percentage of CRiP training capacity taken up by DHB employed clinical staff in the last calendar year
			Percentage of Te Tiriti o Waitangi – Equity and Health training capacity taken up by DHB employed staff in the calendar year
		Promote and monitor staff uptake of the on-line disability awareness and responsiveness training programme	Percentage of all frontline staff who have undertaken the on-line training by end June 2022

Appendix 1: Alliance Leadership Team Agreement

MidCentral DHB and Central Primary Health Organisation (trading as THINK Hauora) have worked in partnership to develop our System Level Measures Improvement Plan utilising our current Alliance infrastructure. An Alliance Leadership Team (ALT) was established in 2010 to govern the Better, Sooner, More Convenient Business Case. In 2013 the ALT membership and scope of activity was extended, and the Alliance Agreement remained subject to annual review. The latest review and update to the Alliance Agreement, including the Terms of Reference, was undertaken in 2020.[1]

The scope of the Alliance includes the following:

- Activities and initiatives associated with the Flexible Funding Pool and locally commissioned services to transform primary health care
- Integration of specialist community health services with Integrated Family Health Centres, general practice teams and other primary health care providers
- Provision of support for primary health care by specialist services
- Achieving integrated activity for the benefit of key population groups, such as:
    - o Children and youth
    - o Older people
    - o Mental health
- DHB funded services provided by the PHO
- The Collaborative Clinical Pathways programme
- The activities of the Cluster Alliance Groups
- Community referred radiology, laboratory and pharmacy services
- Development of Whānau Ora and support for the Whānau Ora programmes
- Development of the health workforce within primary health care
- Ensuring a joined-up approach to quality and quality improvement across the district
- Ensuring a consistent strategic approach to information and communication technology development that meets the needs of our population
- Other activities allocated to the Alliance Leadership Team as agreed between the parties

The Alliance Leadership Team comprises the following:

a) the entire THINK Hauora Trust Board
b) the Chair of THINK Hauora Clinical Board
c) two Whānau Ora Collective representatives
d) representatives including:
    - General Manager, Strategy Planning and Performance, MidCentral DHB
    - Chief Executive of THINK Hauora
    - MidCentral DHB Planning and Integration Lead, Primary Public and Community
    - MidCentral DHB operational and clinical executives
    - MidCentral DHB professional advisors
    - Chief Digital Officer, Central PHO and MidCentral DHB
    - Integrated Family Health Centre Manager/Clinical Director
    - Community and social services' representatives

The scope and nature of the Alliance Leadership Team is expected to evolve over time in response to the district's health needs and the agreed Alliance activities.

1 MidCentral District Alliance Agreement between MidCentral District Health Board and Central Primary Health Organisation Trading as THINK Hauora, Agreement Number: MDHB-11751-02, June 2019

This SLM Improvement Plan has been presented to the THINK Hauora Alliance Leadership Team and the DHB's Operational Leadership Team. It is aligned to the DHB and THINK Hauora Annual Plan actions.

Dr Bruce Stewart
Chair, Alliance Leadership Team and Central PHO (THINK Hauora) Board

Kelly Isles
Director of Strategy, Planning and Performance
MidCentral District Health Board

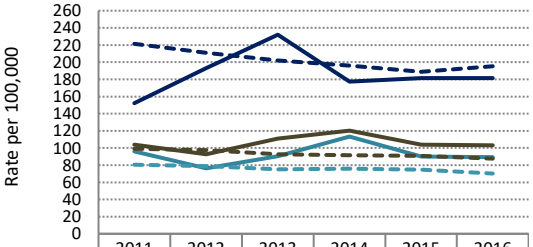
Appendix 2: Background Data

Please note the information in this section is based on 2019 figures, due to the impact of COVID-19 we have not used 2020 information. This was discussed with the Ministry and agreed upon.

SYSTEM LEVEL MEASURE: AMENABLE MORTALITY RATE PER 100,000 POPULATION (AGES 0-74 YEARS)

Summary data analysis

Amenable mortality rate per 100,000 population (0-74 years), age-standardised, 2011-2016



	2011	2012	2013	2014	2015	2016
MidCentral Māori	152.2	193.0	232.0	177.3	181.5	181.5
MidCentral Non Māori, Non Pacific	96.2	76.3	90.4	113.3	90.0	89.2
MidCentral Total	103.9	92.7	110.9	120.2	104.0	103.0
NZ Māori	221.4	211.1	202.0	196.1	188.8	195.1
NZ Non Māori Non Pacific	80.5	78.8	75.2	75.9	74.7	70.2
NZ Total	99.1	97.5	92.8	91.6	90.8	87.6

Rates per 100,000 age standardised to WHO world standard population.
Data source: Ministry of Health, Amenable Mortality, DHB Ethnicity Rates –Years Summary, 2016 (July 2019)

Equity Gap:
Rate ratio - difference of five-year average (2012-2016) between Māori (193.1) and Total (106.2) MidCentral DHB population rates: 1.82

Amenable mortality deaths: Key contributing conditions

Top ten causes / conditions, 2011 - 2016	Total number of deaths - MidCentral					
	2011	2012	2013	2014	2015	2016
Coronary disease	61	69	75	65	58	71
COPD	23	17	16	31	23	34
Suicide	32	21	28	33	21	24
Cerebrovascular disease	18	23	22	27	21	19
Female breast cancer	10	16	14	16	23	13
Prostate cancer	6	8	9	7	5	12
Land transport accidents	13	9	13	19	18	11
Diabetes	7	9	13	14	15	9
Rectal cancer	10	8	8	11	14	9
Melanoma of the skin	11	4	10	11	7	8
Total deaths	**226**	**212**	**252**	**281**	**242**	**253**

Summary: MidCentral's age-standardised amenable mortality rate for its total population is higher than the all NZ rate. Almost two thirds (63.6%) of all amenable deaths of people in MidCentral's district in 2016 were attributed to five conditions or causes – coronary disease, chronic obstructive pulmonary disease (COPD), suicide, cerebrovascular disease and female breast cancer. This position has not changed over the six years (2011 – 2016). The number of deaths from prostate cancer increased markedly in 2016 compared to previous years, while deaths from rectal cancer and female breast cancer decreased.

Of the 253 total deaths in 2016, there were 51 (20%) deaths in the Māori population across this age group; roughly proportionate to the population mix. While lower than the NZ Māori rate, it was still considerably higher than the Non-Māori Non-Pacifc rate. Coronary disease accounted for most (31.4%) of the amenable deaths, followed by COPD, suicide, land transport accidents and cerebrovascular disease. Complications of perinatal period also featured as amenable deaths of Māori.

SYSTEM LEVEL MEASURE: BABIES LIVING IN SMOKE-FREE HOUSEHOLDS

Summary data analysis

Babies living in smokefree homes at 6 weeks post natal *

	Number in smoke-free homes		Number of registered babies		Percentage in smoke-free homes	
	Jan-Jun 2018	Jan-Jun 2019	Jan-Jun 2018	Jan-Jun 2019	Jan-Jun 2018	Jan-Jun 2019
MidCentral Total	530	619	1,136	1,086	**46.7%**	**57.0%**
MidCentral Māori	95	121	356	335	26.7%	36.1%
MidCentral Pacific	28	25	59	45	47.5%	55.6%
MidCentral Other	406	473	715	703	56.8%	67.3%
NZ Total	16,351	16,945	30,366	30,648	**53.8%**	**55.3%**
NZ Māori	2,076	2,541	7,146	7,394	29.1%	34.4%
NZ Pacific	1,389	1,246	3,068	3,135	45.3%	39.7%
NZ Other	12,874	13,148	20,121	20,083	64.0%	65.5%

Data source: Ministry of Health. WCTO dataset and NHI register (December 2019) – DHB of Domicile

* NB: New definition applied from January 2019 (this dataset, retrospectively applied for 2018), so is not comparable to previously reported data

Equity Gaps	**Jan – Jun 18**	**Jan – Jun 19**
DHB Equity Gap (Rate Ratio of Māori and Total)	0.57	0.63
DHB Equity Gap (Rate Ratio of Pacific and Total)	1.02	0.98

Summary: This was a developmental measure introduced in the 2017/18 year that was subject to further refinement in the definition and data elements, with integrity of data collections across WCTO providers a key focus area for improvement in 2018/19. This resulted in a revised definition for the System Level Measure that took effect from January 2019.

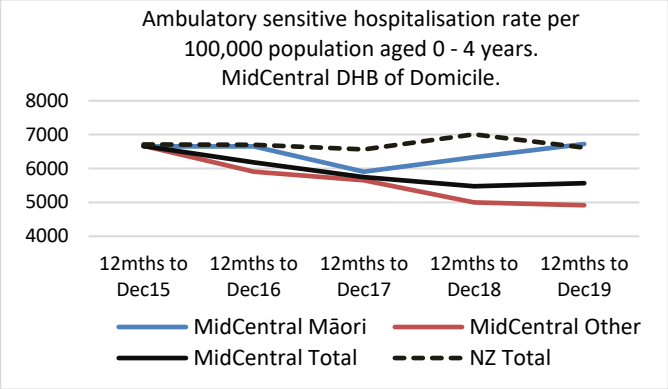
Increased rates across all of MidCentral's population groups relative to the same six-month period of one year ago is apparent; just over half of the babies at around the age of 56 days seen for their first core contact by the Well Child Tamariki Ora providers were living in smokefree homes. MidCentral's rates were slightly better overall than the rates for all New Zealand, but the equity gap between Māori and the non-Māori groups remains significant. The rate for Māori babies (36.1% living in smokefree homes) was significantly lower than non-Māori, although this was an improvement compared to a year ago. Further, the higher the level of deprivation for the areas where the babies were registered as living, the less likely they were to be living in a smokefree home (70% of fewer Māori babies in Quintile 1 area and 31% of more Māori babies in Quintile 5 area[1] were living in smokefree homes).

[1] NZ Deprivation Index: Quintile 1 represents people living in the least deprived 20 percent small area and Quintile 5 represents people living in the most deprived 20 percent small area.

SYSTEM LEVEL MEASURE: AMBULATORY SENSITIVE HOSPITALISATION RATE PER 100,000 POPULATION (AGES 0 – 4 YEARS)

Summary data analysis

Five year trend to 31 December 2019



Number of ambulatory sensitive hospitalisation events and rates per 100,000 population over five years (all conditions) – MidCentral DHB of Domicile:

Count of Events	12 months to 31 December				
	2015	2016	2017	2018	2019
Total	757	695	644	620	631
Māori	266	267	238	257	275
Other	491	428	406	363	356
Rates per 100,000	**2015**	**2016**	**2017**	**2018**	**2019**
Total	6664	6178	5745	5477	5569
Māori	6650	6658	5906	6330	6724
Other	6671	5912	5655	5000	4917

Key contributing clinical conditions:

Top ten ASH conditions for 12 months to 31 December 2019	ASH rate per 100,000		
	Māori	Other	Total
Upper/ENT respiratory infection	1,638	1,671	1,659
Dental	1,369	773	989
Gastroenteritis	856	746	786
Asthma	758	456	565
Lower respiratory infections	660	456	530
Cellulitis	513	193	309
Pneumonia	342	262	291
Dermatitis & eczema	416	166	256
Constipation	49	166	124
Gastro-oesophageal reflux disease (GORD)	98	28	53

Population estimates (Dec2019):
Māori 4,090
Other 7,240
Total 11,330

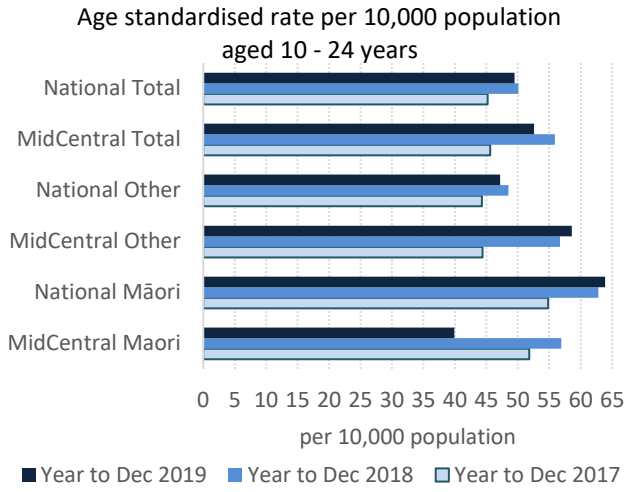
Summary: After an overall downward shift in rates from December 2015, the ASH rate for the 0 – 4 year old total population in MidCentral's district has risen, with a notable increase in the number of hospitalisations of Māori children while there has been a decrease of hospitalisations of Non Māori children over the latest 24 months. This has resulted in a widening of the gap in ASH rates between MidCentral's Māori and non-Māori children. Up until this last 12-month period, all rates remained below the national total population rate for this age group; the rate for MidCentral's Māori (6,724/100,000 population) landing above the national total rate (6,615 per 100,000) over the latest 12 month period. There is also a reduction in the estimated populations for this last period, influencing the higher rates, notwithstanding the additional 11 hospitalisations in total that occurred over the 12 months, 43.6 percent of the total hospitalisations were by Māori children.

The prevailing conditions that contribute to the ambulatory sensitive hospitalisation rates continue to be respiratory infections, dental conditions, gastroenteritis, asthma, and skin conditions. With the exception of upper respiratory/ENT infections, the ASH rates for Māori children resulting from these conditions are significantly higher than for non-Māori children. Socio economic determinants of health in disadvantaged populations coupled with access to first contact health services are likely to contribute to these pervasive ASH rates.

SYSTEM LEVEL MEASURE: ACCESS TO AND UTILISATION OF YOUTH APPROPRIATE HEALTH SERVICES – DOMAIN: MENTAL HEALTH AND WELLBEING

Summary data analysis

Intentional self-harm hospitalisations - MidCentral DHB of Domicile and National rates (3 years to December 2019)



Data source: Ministry of Health – Youth self harm hospitalisations by DHB of Domicile, December 2019 (Note: The number for Pacific people in MidCentral's district are included in the Total population figures)

5 Year Age Bands: Ages 10 – 24 Years MidCentral DHB of Domicile (December 2019)

	Population	Number of Admitted Events	Actual Self Harm Hospitalisation Rates (per 10,000 population)		
Age Group	Year to Dec 2019	Year to Dec 2019	Year to Dec 2017	Year to Dec 2018	Year to Dec 2019
10 to 14	12,190	21	15.0	13.5	17.2
15 to 19	12,170	102	84.0	85.6	83.8
20 to 24	13,100	72	36.4	66.3	55.0
10 to 24	**37,460**	**195**	**45.6**	**55.8**	**52.1**

Data source: Ministry of Health – National Minimum Data Set (NMDS); Estimated NZ resident population with Statistics NZ projections (2013 census base) World Health Organisation Standard population.

(Number of hospitalisations is a count of hospital admission events, not a count of individuals).

Summary: Young people living in MidCentral's district have higher rates of intentional self harm hospitalisations per 10,000 population aged 10 – 24 years than the national age-standardised rates. While the rates for young Māori are generally lower compared to the national rate for Māori, and, MidCentral's rate showed a significant reduction over the 12 months ending December 2019, the rates for the non-Māori group have been consistently higher, with this latest 12-month period further increasing (age standardised rate was 58.6 per 10,000 'Other' population). Most of the intentional self-harm hospitalisations are in the 15 – 19-year-old age group and are female. The hospitalisation rate of young people living in the deprivation Quintile 5 areas (95 per 10,000) was almost twice that of MidCentral's total rate and about a third higher than the next highest rate of those living in Quintile 2 areas (62.6 per 10,000).

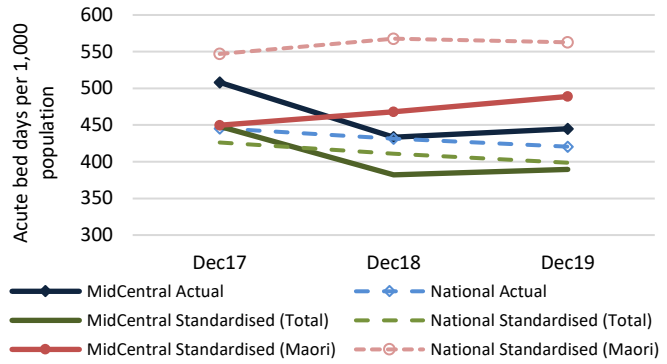
Over the 12 months ending December 2019, there were 195 hospitalisations of 150 young people aged 10 – 24 years – a 5.8 percent (n.12) decrease on the number of hospitalisations over the previous year. Just over 70 percent of the hospitalisations were discharged from short stay events at the Emergency Department – almost all of which at Palmerston North Hospital. Most of the hospitalisations (85%) resulted from poisonings or toxic effects of drugs and other substances.

Repeat (two or more) intentional self harm hospitalisations occurred for 21 (14%) of the individuals within the 12 months ending December 2019; 23% of the total 195 intentional self harm hospitalisations were repeat events. Seven individuals were noted as not being enrolled with a PHO; just over half being non non-Māori non-Pacific young people.

SYSTEM LEVEL MEASURE: STANDARDISED ACUTE BED DAYS PER 1,000 POPULATION (ALL AGES)

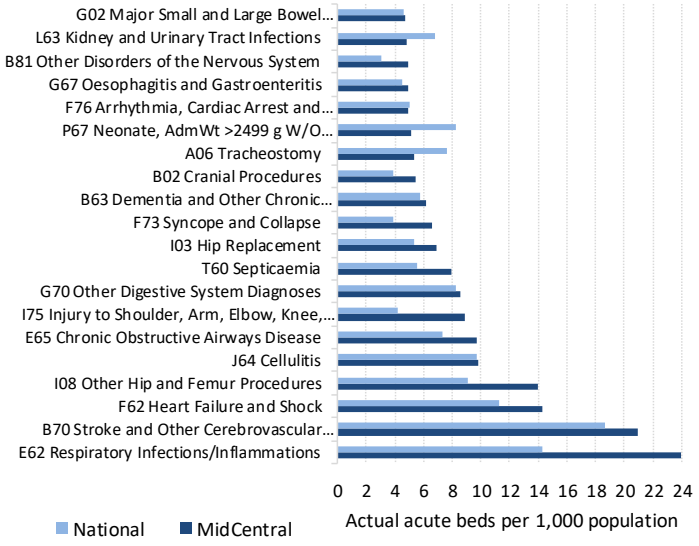
Summary data analysis

Acute hospital bed days per 1,000 population* (age standardised and actual rates) over three years to December 2019 – MidCentral DHB of Domicile



* Population = 2013 Census Usually Resident Population – DHB of domicile. For year to December 2019 Total:183,280, Māori 37,940

Comparison between MidCentral DHB of Domicile and National actual acute bed days per 1,000 population by Top 20 Diagnostic Related Groups for 12 months ending December 2019



MidCentral DHB of Domicile – Age-specific acute bed days per capita rates – December 2019

Age Group	Acute Stays		Acute Bed Days		Actual Acute Bed Days / 1,000 Popn	
	Maori	Total	Maori	Total	Maori	Total
00 to 04	708	1673	1618	3677	395	325
05 to 09	162	504	228	737	53	59
10 to 14	148	476	360	1025	87	84
15 to 19	273	976	478	1668	134	137
20 to 24	433	1497	789	2061	228	157
25 to 29	431	1610	693	2152	258	178
30 to 34	333	1454	643	2610	260	248
35 to 39	229	1010	537	1917	271	191
40 to 44	231	860	493	1772	243	179
45 to 49	211	957	690	2550	347	226
50 to 54	268	1191	886	3717	479	327
55 to 59	313	1450	1289	5028	749	406
60 to 64	267	1458	1152	5787	886	529
65 to 69	245	1697	1049	6668	1060	658
70 to 74	169	1872	728	8500	1070	937
75 to 79	138	1725	720	8302	1799	1314
80 to 84	79	1645	470	9934	2240	2354
85+	70	2218	314	13453	2417	3588
Total	**4708**	**24273**	**13137**	**81560**	**489**	**389**

MidCentral DHB of Domicile – Actual acute bed days per capita rates, by ethnicity group – December 2019

Year	Estimated Popn	Acute Stays	Acute Bed Days	Actual Acute Bed Days per 1,000 Popn		
	Year to December 2019			Year to Dec 2017	Year to Dec 2018	Year to Dec 2019
Māori	37,940	4,708	13,137	317	335	346
Pacific	5,690	741	1,812	370	334	318
Other	139,650	18,824	66,612	565	464	477
Total	**183,280**	**24,273**	**81,560**	**508**	**433**	**445**

Summary: There has been a moderate increase in both the actual and standardised rates of acute bed days utilised by MidCentral's domiciled population over the 12 months ending December 2019; MidCentral's standardised rate remains slightly lower than the National rate for this period, but the actual rate remains higher. The rates for Māori continue to show an increase, accounting for just over 19 percent of the total acute stays (slightly below the proportion of the population) but utilising only about 16 percent of the total acute bed days.

Sixty percent (n.49,350) of MidCentral's total acute bed days utilised over these 12 months fell into one of fifty diagnostic related groups (DRGs); the top ten categories accounted for 28 percent of the total acute bed days, all of which had a bed day rate higher than the national rates for those conditions. Just under half (45%) of the acute bed days utilised for Respiratory infections/inflammations were by people aged 80 years and older (acute bed day rate per 1,000 population aged 85+ years was 106 greater than the national rate for this group and DRG). Four long term conditions – stroke, heart failure, COPD and dementia accounted for 19 percent (n.9,386) of the total acute bed days featuring in the top 10 DRGs.

The most significant increases in acute bed day rates relative to the average rate over the previous two years by Māori occurred in the 15 – 24-year-old, 30 – 39-year-old and the 75 years and older age groups. Diabetes, obstetrics and mental health disorders featured in the younger age group, and cardiac conditions, stroke, dementia and hip replacement featured in the older age group.