AGENDA – PUBLIC

Canterbury District Health Board
Te Poari Hauora o Waitaha

CANTERBURY DISTRICT HEALTH BOARD MEETING
To be held in the Board Room, Level 1, 32 Oxford Terrace, Christchurch
Thursday, 19 September 2019 commencing at 9.00am

	Karakia		9.00am
	Apologies		
1.	Conflict of Interest Register		
2.	Confirmation of Minutes – 15 August 2019		
3.	Carried Forward / Action List Items		
4.	Patient Story		
5.	Chair's Update (Oral)	Dr John Wood	9.05-9.10am
6.	Acting Chief Executive's Update	Mary Gordon	9.10-9.45am
7.	Environmentally Sustainable Health Care: Position Statement	Evon Currie	9.45-9.55am
8.	Finance Report	Justine White	9.55-10.05am
9.	Advice to Board: CPH&DSAC – 29 August 2019 - Draft Minutes	Dr Anna Crighton Tracey Chambers	10.05-10.10am
10.	Resolution to Exclude the Public		10.10am
ESTIMATED FINISH TIME – PUBLIC MEETING			**10.10am**

NEXT MEETING: Thursday, 17 October 2019 at 9.00am

ATTENDANCE

Canterbury District Health Board
Te Poari Hauora ō Waitaha

CANTERBURY DISTRICT HEALTH BOARD MEMBERS

Dr John Wood (Chair)
Ta Mark Solomon (Deputy Chair)
Barry Bragg
Sally Buck
Tracey Chambers
Dr Anna Crighton
Andrew Dickerson
Jo Kane
Aaron Keown
Chris Mene
David Morrell

Executive Support

David Meates – *Chief Executive*
Evon Currie – *General Manager, Community & Public Health*
Michael Frampton – *Chief People Officer*
Mary Gordon – *Executive Director of Nursing*
Carolyn Gullery – *Executive Director Planning, Funding & Decision Support*
Jacqui Lunday-Johnstone – *Executive Director of Allied Health, Scientific & Technical*
Hector Matthews – *Executive Director Maori & Pacific Health*
Sue Nightingale – *Chief Medical Officer*
Karalyn Van Deursen – *Executive Director of Communications*
Stella Ward – *Chief Digital Officer*
Justine White – *Executive Director Finance & Corporate Services*

Anna Craw – *Board Secretariat*
Kay Jenkins – *Executive Assistant, Governance Support*

BOARD ATTENDANCE SCHEDULE – 2019

Canterbury District Health Board
Te Poari Hauora ō Waitaha

NAME	21/02/19	21/03/19	18/04/19	16/05/19	20/06/19	18/07/19	15/08/19	19/09/19	17/10/19	21/11/19
Dr John Wood (Chair)	√	√	√	√	√	√	√			
Ta Mark Solomon (Deputy Chair)	√	√	√	√	√	√	√			
Barry Bragg	√	√	√	√	√	√	#			
Sally Buck	√	^	√	√	√	√	√			
Tracey Chambers	√	#	#	^	^	^	^			
Dr Anna Crighton	√	√	~	~	√	√	√			
Andrew Dickerson	√	√	#	^	√	√	√			
Jo Kane	√	√	√	√	√	#	√			
Aaron Keown	√	√	√	^	√	√	^			
Chris Mene	√	√	√	√	√	√	√			
David Morrell	√	#	√	√	√	√	^			

√ Attended
x Absent
Absent with apology
^ Attended part of meeting
~ Leave of absence
* Appointed effective
** No longer on the Committee effective

CONFLICTS OF INTEREST REGISTER CANTERBURY DISTRICT HEALTH BOARD (*CDHB*)

Canterbury District Health Board
Te Poari Hauora ō Waitaha

(As disclosed on appointment to the Board/Committee and updated from time-to-time, as necessary)

Dr John Wood **Chair CDHB**	**Advisory Board NZ/US Council** – Member The New Zealand United States Council was established in 2001. It is a non-partisan organisation, funded by business and the Government, and committed to fostering and developing a strong and mutually beneficial relationship between New Zealand and the United States. The Advisory Board supports the day to day work of the Council by providing strategic and operational advice to both the Executive Board and the Executive Director. **Chief Crown Treaty Negotiator for Ngai Tuhoe** Settlement negotiated. Deed signed and ratified. Legislation enacted. **Chief Crown Treaty Negotiator for Ngati Rangi** Settlement negotiated. Deed signed and ratified. Legislation awaiting enactment. **Chief Crown Treaty Negotiator, Tongariro National Park** Engagement with Iwi collective begins July 2018. **Chief Crown Treaty Negotiator for the Whanganui River** Settlement negotiated. Deed signed and ratified. Legislation enacted. **Chief Crown Negotiator & Advisor, Mt Egmont National Park Negotiations** High level agreement in principle reached. Aiming for deed of settlement end of 2019. **School of Social and Political Sciences, University of Canterbury** – Adjunct Professor Teach into graduate and post graduate programmes in political science, trade policy and diplomacy – pro bono appointment. **Te Arawhiti, Office for Maori Crown Relations** **Member Chief Crown Negotiators Forum** Te Arawhiti, are responsible for monitoring and enhancing relations between Maori and the Crown, negotiating the settlement of historical Treaty of Waitangi claims, and the administration of the Marine and Coastal Area (Takutai Moana) Act 2011. They also advise and help claimant groups so they are ready to enter negotiations. **Te Urewera Governance Board** –Member The Te Urewera Act replaces the Te Urewera National Parks Act for the governance and management of Te Urewera. The purpose of the Act is to establish and preserve in perpetuity a legal identity and protected status for Te Urewera for its intrinsic worth, its distinctive natural and cultural values, the integrity of those values, and for its national importance. Inaugural term as a Crown appointment, re-appointed as a Ngai Tuhoe nominee.
Ta Mark Solomon **Deputy Chair CDHB**	**Claims Resolution Consultation – Senior Maori Leaders Group** – Member This is an Advisory Board to MSD looking at the claims process of those held under State care.

	Deep South NSC (National Science Challenge) Governance Board – Member The objective of Deep South NSC is set by Cabinet, and is to understand the role of the Antarctic and Southern Ocean in determining our climate and our future environment. Building on this objective, the mission was developed to guide our vision, research priorities and activities. **Governance Board (General Partnership Limited) Te Putahitanga o Te Waipounamu** – Chair Te Putahitanga o Te Waipounamu is a commissioning entity that works on behalf of the iwi in the South Island to support and enable whanau to create sustained social impact by developing and investing in ideas and initiatives to improve outcomes for Māori, underpinned by whānau-centred principles and strategies, these include emergency preparedness and disaster recovery. Te Pūtahitanga o Te Waipounamu also invests in Navigator roles to support and build whānau capability. **Greater Christchurch Partnership Group** – Member This is a central partnership set up to coordinate our city's approach to key issues. It provides a strong, joined up way of working and ensures agencies are travelling in the same direction (so they do not duplicate or negate each other's work). **He Toki ki te Rika / ki te Mahi** – Patron He Toki ki te Rika is the next evolution of Māori Trade Training re-established after the earthquakes to ensure Maori people can play a distinguished role in the Canterbury rebuild. The scheme aims to grow the next generation of Māori leadership in trades by building Māori capability in the building and infrastructure industries in Canterbury. **Interim Te Ropu** – Member An Interim Ropu has been established to work in partnership with the Crown, Ministers, and the joint venture to help develop and shape initial work on a national strategy to prevent and reduce family violence, sexual violence and violence within whānau. The interim Te Rōpū has been appointed by the Minister of Māori Development and the Lead Minister in consultation with the Minister of Māori/Crown Relations. It comprises up to ten members who bring appropriate skills and expertise and who can reflect communities, rangatahi and whānau, urban and regional Māori and wāhine Māori. The group will help inform the terms of reference of the permanent Te Rōpū, with advice due by April 2019. **Maori Carbon Foundation Limited** – Chairman The Maori Carbon Foundation has been established to deliver environmental, social and economic benefits through the planting of permanent carbon forestry, to Maori and New Zealand landowners throughout the country. **Ngāti Ruanui Holdings Corporation Limited** – Director Ngati Ruanui Holdings is the Investment and Economic Development Arm of Ngati Ruanui established to maximise profits in accordance with Te Runanga directions in Taranaki. **NZCF Carbon Planting Advisory Limited** – Director NZCF Carbon Planting Advisory Limited is a company that carries out the obligations in respect of planting and upskilling relating to the Maori Carbon Foundation Limited. **Oaro M Incorporation** – Member 'Oaro M' Incorporation was established in 1968. Over the past 46 years successive

	Boards have managed and maintained the whenua, located at 'Oaro M', Kaikōura, on behalf of its shareholders. Over time shareholders have requested the Board consider establishing an education grant in order to assist whānau with their educational aspirations. **Police Commissioners Māori Focus Forum** – Member The Commissioner of Police has a group of senior kaumatua and kuia who meet with him regularly to discuss issues of mutual interest and concern. Known as the Commissioner's Māori Focus Forum, the group helps guide policing strategy in regard to Māori and provides advice on issues of the moment. The Māori Focus Forum developed The Turning of the Tide with help from Police. The forum plays a governance role and helps oversee the strategy's implementation. **Pure Advantage** – Trustee Pure Advantage is comprised of business leaders who believe the private sector has an important role to play in creating a greener, wealthier New Zealand. It is a not-for-profit organisation that investigates and promotes opportunities for green growth. **QuakeCoRE** – Board Member QuakeCoRE is transforming the earthquake resilience of communities and societies through innovative world-class research, human capability development, and deep national and international collaborations. They are a Centre of Research Excellence (CoRE) funded by the New Zealand Tertiary Education Commission. **Rangitane Holdings Limited & Rangitane Investments Limited** - Chair The Rangitāne Group has these two commercial entities which serve to develop the commercial potential of Rangitāne's settlement assets. A Board of Directors oversee the governance of the commercial entities, and are responsible for managing Crown lease properties and exploring commercial development opportunities to support the delivery of benefits to Rangitāne members. **SEED NZ Charitable Trust** – Chair and Trustee SEED is a company that works with community groups developing strategic plans. **Sustainable Seas NSC (National Science Challenge) Governance Board** – Member This is an independent Board that reports to the NIWA Board and operates under the Terms and Conditions specified in the Challenge Collaborative Agreement. The Board is responsible for appointing the Director, Science Leadership Team, Kāhui Māori, and Stakeholder Panel for projects within the Sustainable Seas NSC. The Board is also responsible for approving projects within the Research and Business Plan and for allocating funding. **Taranaki Capital Partners Limited** – Director Not for profit company looking after share portfolios for Nga Rauru & Ngati Ruanui. **Te Ohu Kai Moana** – Director Te Ohu Kai Moana is an organisation that works to advance Maori interests in the marine environment, including customary commercial fisheries, aquaculture and providing policy and fisheries management advice and recommendations to iwi and the wider Maori community. **Te Ohu Kai Moana Portfolio Management Services Limited** – Director Sub-committee of Te Ohu Kai Moana

	Te Ohu Kai Moana Trustee Limited – Director & Trustee Charitable Trust of Te Ohu Kai Moana. **Te Putea Whakatupu Trustee Limited** – Shareholder Standalone Trust affiliated to Te Ohu Kai Moana. **Te Wai Maori Trustee Limited** – Shareholder Standalone Trust affiliated to Te Ohu Kai Moana. **Te Waka o Maui** – Independent Representative Te Waka o Maui is a Post Settlement Governance Entity.
Barry Bragg	**Air Rescue Services Limited** - Director Subsidiary of the Canterbury West Coast Air Rescue Trust. Has gaming licenses with specified purpose of fundraising for air rescue services. **Canterbury West Coast Air Rescue Trust** – Trustee The Trust has a services agreement with Garden City Helicopters for the provision of air rescue and air ambulance services. Garden City Helicopters has a long-term air ambulance contract with the CDHB. **CRL Energy Limited** – Director CRL Energy Limited provides air quality testing and asbestos sampling and analysis services; methamphetamine contamination testing; dust; gas and noise workplace monitoring services in New Zealand. There is the potential for future work with the CDHB. **Farrell Construction Limited** - Chairman Farrell's Construction Limited is a commercial and light commercial construction company based in Christchurch. **New Zealand Flying Doctor Service Trust** – Trustee The Trust has a services agreement with Garden City Helicopters for the provision of air ambulance services. Garden City Helicopters has a long-term air ambulance contract with the CDHB. **Ngai Tahu Farming** – Chairman Farming interests in North Canterbury and Queenstown Lakes District and Forestry interests in Canterbury, West Coast and Otago regions. **Stevenson Group Limited** – Deputy Chairman Property interests in Auckland and mining interests on the West Coast. **Taurus Management Limited** – Director Property syndication company based in Christchurch
Sally Buck	**Christchurch City Council (*CCC*)** – Community Board Member Chair of the Central/Linwood/Heathcote Community Board which has delegated responsibilities from the CCC. **Registered Resource Management Act Commissioner** From time to time, sit on Resource Management Act panels for the CCC. Specific interests will be declared at the time. **Rose Historic Chapel Trust** – Member Charitable voluntary body managing the operation of the Rose Historic Chapel, a CCC owned facility.

Tracey Chambers	**Chambers Public Relations Limited** – Director/Shareholder Chambers Limited has clients and former clients that may mean a conflict or potential conflict arises. These will be discussed at the appropriate time if they arise. (NB: in resignation process)
Dr Anna Crighton	**Christchurch Heritage Limited** - Chair - Governance of Christchurch Heritage **Christchurch Heritage Trust** – Chair - Governance of Christchurch Heritage **Heritage New Zealand –** Honorary Life Member CDHB owns buildings that may be considered to have historical significance. **The Art Registry Company Limited** - Shareholder **Theatre Royal Charitable Foundation** – Director
Andrew Dickerson	**Canterbury Health Care of the Elderly Education Trust** - Chair Promotes and supports teaching and research in the care of older people. Recipients of financial assistance for research, education or training could include employees of the CDHB. **Canterbury Medical Research Foundation** - Member Provides financial assistance for medical research in Canterbury. Recipients of financial assistance for research, education or training could include employees of the CDHB. **Heritage NZ -** Member Heritage NZ's mission is to promote the identification, protection, preservation and conservation of the historical and cultural heritage of New Zealand. It identifies, records and acts in respect of significant ancestral sites and buildings. CDHB owns buildings that may be considered to have historical significance and Heritage NZ has already been involved with CDHB buildings. **Maia Health Foundation -** Trustee Is a charitable trust established to support health care in the CDHB area. Current projects include fundraising for a rooftop helipad and enhancements to the children's wards at Christchurch Hospital. **NZ Association of Gerontology** - Member Professional association that promotes the interests of older people and an understanding of ageing.
Jo Kane	**Christchurch Resettlement Services** - Member Christchurch Resettlement Services provides a range of services to people from refugee and migrant backgrounds. It works alongside refugee communities in delivering services that aim to achieve positive resettlement outcomes. **HurriKane Consulting** – Project Management Partner/Consultant A private consultancy in management, communication and project management. Any conflicts of interest that arise will be disclosed/advised. **Latimer Community Housing Trust** – Project Manager Delivers social housing in Christchurch for the vulnerable and elderly in the community. **NZ Royal Humane Society** – Director Provides an awards system for acts of bravery in New Zealand. It is not anticipated any conflicts of interest will arise.

Aaron Keown	**Christchurch City Council** – Councillor and Community Board Member Elected member and of the Fendalton/Waimairi/Harewood Community Board. **Grouse Entertainment Limited** – Director/Shareholder
Chris Mene	**Canterbury Clinical Network** – Child & Youth Workstream Member **Core Education** – Director Has an interest in the interface between education and health. **Muslim Community Reference Group** – Independent Facilitator Advising Royal Commission of Inquiry into the Attack on Christchurch Mosques on 15 March 2019 (the Royal Commission). **Wayne Francis Charitable Trust** - Board Member The Wayne Francis Charitable Trust is a philanthropic family organisation committed to making a positive and lasting contribution to the community. The Youth focussed Trust funds cancer research which embodies some of the Trust's fundamental objectives – prevention, long-term change, and actions that strive to benefit the lives of many.
David Morrell	**British Honorary Consul** Interest relates to supporting British nationals and relatives who may be hospitalised arising from injury related accidents, or use other services of CDHB, including Mental Health Services. A conflict of interest may also arise from time to time in respect to Coroners' inquest hearings involving British nationals. In addition, the British Foreign and Commonwealth Office (*FCO*) may expect Honorary Consuls to become involved in trade initiatives from time to time. **Canon Emeritus - Christchurch Cathedral** The Cathedral congregation runs a food programme in association with CDHB staff. **Earthquake Commission** Niece is a Policy Advisor on the public inquiry into the Earthquake Commission. **Friends of the Chapel** - Member **Great Christchurch Buildings Trust** – Trustee The Trust seeks the restoration of key Christchurch heritage buildings, particularly Christchurch Cathedral, and is also involved in facilitating the building of social housing. **Heritage NZ –** Subscribing Member Heritage NZ's mission is to promote the identification, protection, preservation and conservation of the cultural heritage of New Zealand. It identifies, records and acts in respect of significant ancestral sites and buildings. CDHB owns buildings that may be considered to have heritage significance. **Hospital Lady Visitors Association** - Wife is a member of this, but no potential conflict of interest is expected. Should one arise it will be declared at the time. **Nurses Memorial Chapel Trust** – Member (CDHB Appointee) Trust responsible for Memorial Chapel on the Christchurch Hospital site. Note the chapel is now owned by the Christchurch City Council.

MINUTES

Canterbury District Health Board
Te Poari Hauora ō Waitaha

DRAFT
MINUTES OF THE CANTERBURY DISTRICT HEALTH BOARD MEETING
held at 32 Oxford Terrace, Christchurch
on Thursday 15 August 2019 commencing at 9.30am

BOARD MEMBERS
Dr John Wood (Chair); Ta Mark Solomon (Deputy Chair); Sally Buck; Tracey Chambers; Dr Anna Crighton; Andrew Dickerson; Jo Kane; Aaron Keown; Chris Mene; and David Morrell.

CROWN MONITOR
Dr Lester Levy.

APOLOGIES
An apology was received and accepted from Barry Bragg.

EXECUTIVE SUPPORT
David Meates (Chief Executive); Mary Gordon (Executive Director of Nursing); Paul Lamb (People & Capability); Carolyn Gullery (Executive Director, Planning Funding & Decision Support); Jacqui Lunday-Johnstone (Executive Director, Allied Health, Scientific & Technical); Hector Matthews (Executive Director, Maori & Pacific Health); Karalyn van Deursen (Executive Director, Communications); Stella Ward (Chief Digital Officer); Justine White (Executive Director, Finance & Corporate Services); Anna Craw (Board Secretariat); and Kay Jenkins (Executive Assistant, Governance Support).

APOLOGIES
Dr Sue Nightingale (Chief Medical Officer).

Hector Matthews opened the meeting with Karakia. Mr Matthews acknowledged the passing of George Tikao and Pere Tainui.

1. INTEREST REGISTER

Additions/Alterations to the Interest Register
Dr Wood advised that he is no longer a member of the University of Canterbury Council.

There were no other additions/alternations to the Interest Register.

Declarations of Interest for Items on Today's Agenda
There were no declarations of interest for items on today's agenda.

Perceived Conflicts of Interest
There were no perceived conflicts of interest.

2. CONFIRMATION OF MINUTES OF THE PREVIOUS MEETINGS

Resolution (44/19)
(Moved: Ta Mark Solomon/seconded: David Morrell – carried)

"That the minutes of the meeting of the Canterbury District Health Board held at 32 Oxford Terrace, Christchurch, on 18 July 2019 be approved and adopted as a true and correct record."

3. CARRIED FORWARD/ACTION LIST ITEMS

The carried forward items were noted.

4. MANA AKE VIDEO

The video was viewed. David Meates, Chief Executive, provided the Board with some updated statistics around the project.

5. CHAIR'S UPDATE

Dr John Wood, Chair, thanked the Board for being flexible with the starting time for the meeting.

Dr Wood advised that it has been a busy month. He had attended a Crown Entities National Workshop, where 130 Chairs & CEOs from Crown Entities were present. He also attended a National DHB Chairs & CEOs meeting at which the Minister of Health addressed attendees. The Minister's message was about long term sustainability in the health sector and he referred to his second Letter of Expectations, which was previously circulated to Board members.

Dr Wood commented that it had been an enjoyable experience at Rangiora on Tuesday for the blessing of the extension to the Health Hub. He believed that the Rangiora community will be well served.

The update was noted.

6. CHIEF EXECUTIVE'S UPDATE

Mr Meates took his report as read. He spoke regarding the following:

- The quarter 3 health targets have now been released and Canterbury has continued to deliver with Faster Cancer Treatment, Raising Healthy Kids and Immunisation.
- The last 8–9 weeks has had a massive impact on the organisation with over 995 hospital admissions and 20 deaths associated with influenza. The hospital has been largely a "General Medicine" hospital with safari ward rounds.
- In regard to the Maui Collective (Te Matau a Māui), this began tentatively in 2017 to enable collaboration and shared support between providers. The opportunity to work collaboratively has been very successful.
- There is an ongoing change with the rethinking of rehabilitation with Burwood moving everyone out of beds and having targets and goals to achieve.
- Older Persons Health has formally removed any form of mechanical restraint which also reflects the benefit of modern facilities.
- Capacity for spinal surgery has been particularly challenging with Canterbury undertaking around 60% of spinal work nationally. Two new spinal surgeons will commence with the DHB in September and February.
- Mental Health continues to be a challenging area with workforce, recruitment and environmental issues.

A query was made regarding mental health wait lists and crisis intervention. The September report will include information regarding this.

Discussion took place regarding the removal of the panels on the northwest corner of Christchurch Hospital and it was noted that all of these have been removed.

A query was made regarding the final impact on electives. It was noted that financially we got all of the electives funding, and all of our data and information was in the system before the end of the financial year.

Discussion took place regarding the move date for the Hagley Facility. It was noted that there will not be a single move date, with complex testing of new radiology services and a number of operations will be undertaken as part of the familiarisation and testing.

In regard to the helicopter pad, it was noted that from October to November a range of different landings and testing will take place with full use early next year.

In regard to parking, Mr Meates advised that a group from Otakaro, University of Otago, Ara and the CDHB is working on a parking strategy for the whole area. This technical group reports back later in the year.

Resolution (45/19)
(Moved: Ta Mark Solomon/seconded: Tracey Chambers – carried)

"That the Board:

i. notes the Chief Executive's Update".

7. FINANCE REPORT

Justine White, Executive Director, Finance & Corporate Services, presented the Finance Report which was taken as read. The report stated that the consolidated Canterbury DHB financial result for the month of June 2019 was a net operating expense of $12.8M, which was $0.1M favourable against the draft annual plan net operating expense of $12.9M. This result included a $3.1M impairment of the NZHPL FPIM programme. It was noted that there would have been a favourable variance of $3.2M for the month without this impairment.

Ms White advised that the current provisional year end result is still subject to audit.

Resolution (46/19)
(Moved: Jo Kane/seconded: Sally Buck – carried)

"That the Board:

i. notes the financial result and related matters for the period ended 30 June 2019;
ii. notes the underlying drivers for the YTD variance as outlined in the executive summary of this report;
iii. notes the draft unaudited full year result for 2018/19 is a $25M surplus after asset revaluations, and impairments of the NZHPL Finance, Procurement and Information Management (*FPIM*) programme, but before any provision for the Holidays Act compliance; and
iv. notes the key risks to the draft result that are outlined below, and the anticipated potential outcome of these risks, where they are able to be quantified."

8. AUDIT NEW ZEALAND FRAUD RISK ASSESSMENT

Ms White presented this paper, which sought support for the completed Client Fraud questionnaire.

Resolution (47/19)
(Moved: Ta Mark Solomon/seconded: David Morrell – carried)

"That the Board, as recommended by the Quality, Finance, Audit & Risk Committee:

i. notes and approves the Client Fraud Questionnaire completed at the request of Audit New Zealand; and
ii. approves submission of the Client Fraud Questionnaire to Audit New Zealand."

9. 2020 MEETING SCHEDULE

Ms White presented the proposed 2020 meeting schedule, which asked for the support of this Board to allow planning for next year to continue. It was noted that the final schedule will have to be approved by the incoming Board at the December meeting.

Resolution (48/19)
(Moved: Dr Anna Crighton/seconded: Tracey Chambers – carried)

"That the Board:

i. confirms support for the proposed schedule of meetings for 2020 (Appendix 1);
ii. notes that in terms of the Canterbury DHB Standing Orders (Clause 1.6.1) a formal resolution will be required from the incoming Board in December 2020 to adopt a meeting schedule for 2020;
iii. notes that for planning purposes, the assumption has been made that the Community and Public Health Advisory Committee (*CPHAC*) and Disability Support Advisory Committee (*DSAC*) will continue as one committee (the Community & Public Health and Disability Support Advisory Committee (*CPH&DSAC*)) through 2020, however, should they revert back to two separate committees following review by the incoming Board, CPHAC and DSAC meetings will take place on the scheduled CPH&DSAC dates, with CPHAC meetings starting at 9:00am and DSAC meetings starting at 1.00pm; and
iv. reconfirms the delegation of authority to the Chief Executive, in consultation with the Chair of the Board and/or relevant Committee Chairperson, to alter the date, time or venue of a meeting, or cancel a meeting, should circumstances require this."

10. OUR SPACE 2018-2048:GREATER CHRISTCHURCH PARTNERSHIP SETTLEMENT PATTERN UPDATE

Evon Currie, General Manager, Population Health, presented this update. It was noted that CDHB is a partner in the Greater Christchurch Partnership Group and that NZTA, DPMC, ECAN and the three Councils have endorsed this. It was also noted that not only did the CDHB have input at the preparation stage of this document, we also provided a submission.

Resolution (49/19)
(Moved: Ta Mark Solomon/seconded: Tracey Chambers – carried)

"That the Board:

i. supports the recommendations of the Hearings Panel for Our Space 2018-2048: Greater Christchurch Settlement Pattern Update Whakahāngai O Te Hōrapa Nohoanga, noting that support will also be sought from Te Rūnanga o Ngāi Tahu, New Zealand Transport Agency, Regenerate Christchurch and the Department of the Prime Minister and Cabinet in a manner that is appropriate within the context of their respective governance arrangements; and
ii. supports the final version of Our Space 2018-2048: Greater Christchurch Settlement Pattern Update Whakahāngai O Te Hōrapa Nohoanga, as recommended by the Hearings Panel in Appendix 2, as the joint future development strategy for Greater Christchurch, noting that support will also be sought from Te Rūnanga o Ngāi Tahu, New Zealand Transport Agency, Regenerate Christchurch and the Department of the Prime Minister and Cabinet in a manner that is appropriate in the context of their respective governance arrangements."

11. ADVICE TO BOARD

Andrew Dickerson, Chair, Hospital Advisory Committee (*HAC*), provided the Board with an update from Committee meeting held on 1 August 2019.

Resolution (50/19)
(Moved: Andrew Dickerson/seconded: Sally Buck – carried)

"That the Board:

i. notes the draft minutes from HAC's public meeting on 1 August 2019."

12. RESOLUTION TO EXCLUDE THE PUBLIC

Resolution (51/19)
(Moved: Dr John Wood/seconded: Chris Mene – carried)

"That the Board:

i. resolves that the public be excluded from the following part of the proceedings of this meeting, namely items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and the information items contained in the report;
ii. notes that the general subject of each matter to be considered while the public is excluded and the reason for passing this resolution in relation to each matter and the specific grounds under Schedule 3, Clause 32 of the Act in respect to these items are as follows:

	GENERAL SUBJECT OF EACH MATTER TO BE CONSIDERED	GROUND(S) FOR THE PASSING OF THIS RESOLUTION	REFERENCE – OFFICIAL INFORMATION ACT 1982 (Section 9)
1.	Confirmation of minutes of the public excluded meeting on 18 July 2019	For the reasons set out in the previous Board agenda.	
2.	Chair & Chief Executive - Update on Emerging Issues – Oral Reports	Protect the privacy of natural persons. To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	S9(2)(a) s9(2)(j)
3.	Hagley Migration Update	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
4.	Final Draft Annual Plan Update	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
5.	Long Term Investment Plan	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
6.	NZ Health Partnerships – Statement of Performance Expectations 2019/20	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
7.	Going Concern Assessment	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)

8.	Provision of Cleaning Services	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
9.	Care Capacity Demand Management	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
10.	NZ Health Innovation Hub – Update & Governance Arrangements	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
11.	Akaroa Family Health Centre	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
12.	Ministry of Health – National Measles & Rubella Laboratory Service Contract	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
13.	Abbott Laboratories NZ Ltd – Equipment, Reagents, Consumables & Services Contract	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
14.	People Report	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
15.	Chief Digital Officer Report	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
16.	Legal Report	Protect the privacy of natural persons. To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations). Maintain legal professional privilege.	S9(2)(a) s9(2)(j) s9(2)(h)
17.	Advice to Board: • HAC Draft Minutes *1 August 2019* • QFARC Draft Minutes *30 July 2019*	For the reasons set out in the previous Committee agendas.	

iii. notes that this resolution is made in reliance on the Act, Schedule 3, Clause 32 and that the public conduct of the whole or the relevant part of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under any of sections 6, 7 or 9 (except section 9(2)(g)(i)) of the Official Information Act 1982."

The Public meeting concluded at 11.15am.

Dr John Wood, Chairman

Date of approval

CARRIED FORWARD/ACTION ITEMS

Canterbury District Health Board
Te Poari Hauora ō Waitaha

CANTERBURY DISTRICT HEALTH BOARD
CARRIED FORWARD ITEMS AS AT 19 SEPTEMBER 2019

DATE	ISSUE	REFERRED TO	STATUS
15 Aug 2019	SMHS – wait times for crisis intervention	Toni Gutschlag	Today's Agenda – Item 6

CHAIR'S UPDATE

Canterbury District Health Board
Te Poari Hauora ō Waitaha

NOTES ONLY PAGE

ACTING CHIEF EXECUTIVE'S UPDATE

Canterbury District Health Board
Te Poari Hauora o Waitaha

TO: **Chair and Members**
Canterbury District Health Board

SOURCE: **Acting Chief Executive**

DATE: **19 September 2019**

Report Status – For:	Decision ☐	Noting ☑	Information ☐

1. ORIGIN OF THE REPORT

This report is a standing agenda item, providing the latest update and overview of key organisational activities and progress from the Acting Chief Executive to the Board of the Canterbury DHB.

2. RECOMMENDATION

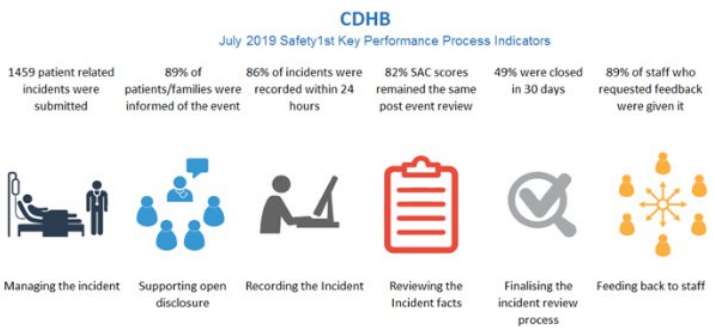
That the Board:

i. notes the Acting Chief Executive's update.

3. DISCUSSION

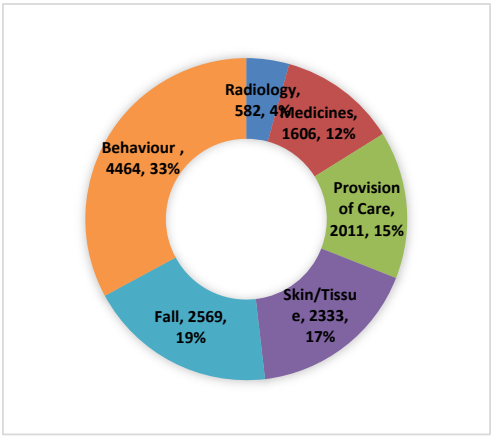
PUTTING THE PERSON FIRST – PATIENT SAFETY, QUALITY AND IMPROVEMENT

- **Quality Improvement Showcase**: Planning for the Quality Improvement Showcase for first week of December is progressing with staff from across the Canterbury Health System having been invited to present posters and share improvement initiatives in the Showcase. Posters are to be aligned to the Canterbury DHB Process for Improvement and while this year the posters will not have the competition aspect of previous awards, a fun activity will be planned to encourage staff engagement.
- **Incident Management:** In July 2019 1459 patient related incidents were submitted. Key indicators are in place to monitor the incident management process.

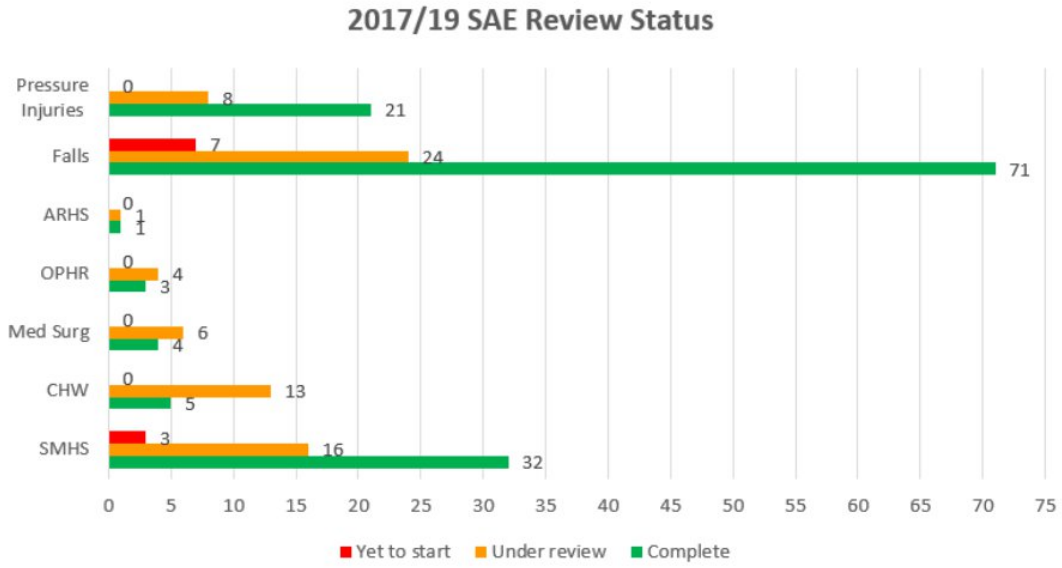


- Specialist Mental Health Services are testing the new split close process for incidents (investigation and sign off). The process will enable more visibility of each stage in teams.

- CDHB has a strong incident reporting culture, as evidenced by 17,671 incidents reported in the last financial year. Of these 14,655 were clinical. With the ratio of reported clinical Severity Assessment Code (SAC) 1-2 rated incidents compared to SAC 3-4 clinical Harm to no harm events to serious harm events 142.3:1. The top 6 categories of specific incident types for the last financial year are depicted in figure 1.

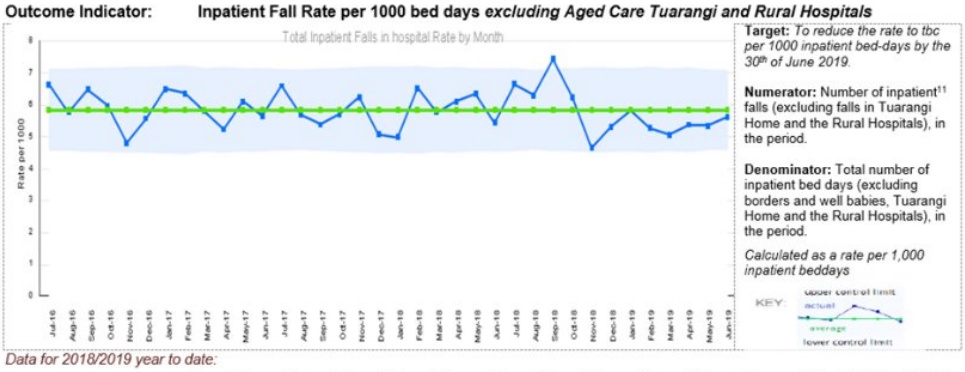


- The annual national report *learning from adverse events* for the period 1 July 2018 to 30 June 2019 is planned for release at the end of November. A total 77 serious adverse events will be reported, 47 were inpatient falls and 14 were hospital-acquired pressure injuries (excludes suspected suicide).
- All Canterbury DHB serious adverse events (SAC 1 and 2 events) are reviewed. Solid progress has been made on the 17-19 years, with an increase of SAC 2 events being completed, allowing for contemporary system improvement recommendations.



- **Falls Prevention Management:** The Falls Prevention Programme (in-hospital) has been in place since 2014. It is led by the Canterbury DHB Fall Prevention Steering Group and connected to the Divisions' Fall Prevention Groups through its membership. A comprehensive work programme is in place coordinating implementation of sustainable improvements. As a result of efforts there has been:
  - A statistically significant sustained reduction in the number of falls (in-hospital) each month (now below 200).
- Each fall has the potential to be a serious adverse event (fracture or head injury).
  - A statistically significant sustained reduction in injury rate. A total of 508 injuries were reported for the 2018/19 year; 47 SAC 1 or 2 (a fracture or cerebral bleed) and 461 were SAC 3 (e.g. significant skin damage - tearing, bruising, sprains etc). The effects of psychological harm that lead to loss of confidence and reluctance to mobilise are not measured.

Outcome Indicator: **Inpatient Fall Rate per 1000 bed days *excluding Aged Care Tuarangi and Rural Hospitals***



Target: *To reduce the rate to tbc per 1000 inpatient bed-days by the 30th of June 2019.*

Numerator: Number of inpatient[11] falls (excluding falls in Tuarangi Home and the Rural Hospitals), in the period.

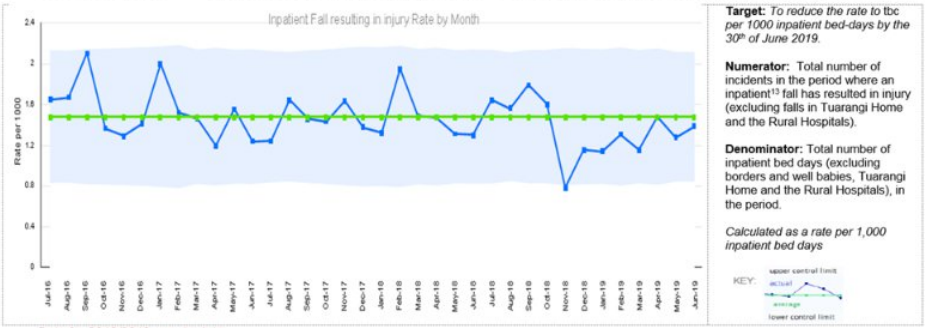
Denominator: Total number of inpatient bed days (excluding borders and well babies, Tuarangi Home and the Rural Hospitals), in the period.

Calculated as a rate per 1,000 inpatient beddays

Data for 2018/2019 year to date:

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD	2017/18	2016/17
Total Inpatient Falls in hospital															
Numerator	206	210	232	194	137	161	179	153	158	160	176	186	2,152	2,112	2,116
Denominator	30,997	33,293	31,202	31,115	29,395	30,212	30,682	28,994	31,164	29,769	32,855	33,118	372,796	362,366	358,163
Rate per 1000	6.65	6.31	7.44	6.23	4.66	5.33	5.83	5.28	5.07	5.37	5.36	5.62	5.77	5.83	5.91

Outcome Indicator: **Inpatient Falls resulting in injury rate per 1000 bed days *excluding Tuarangi and Rural Hospitals***



Target: *To reduce the rate to tbc per 1000 inpatient bed-days by the 30th of June 2019.*

Numerator: Total number of incidents in the period where an inpatient[13] fall has resulted in injury (excluding falls in Tuarangi Home and the Rural Hospitals).

Denominator: Total number of inpatient bed days (excluding borders and well babies, Tuarangi Home and the Rural Hospitals), in the period.

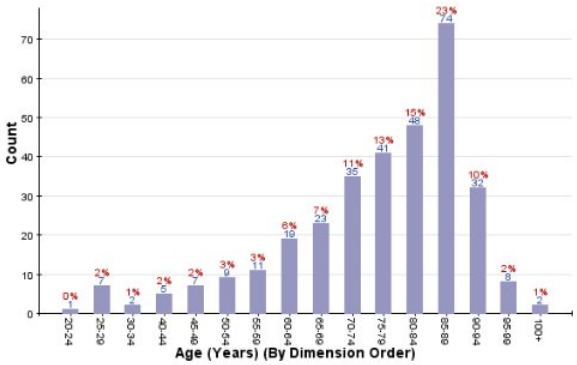
Calculated as a rate per 1,000 inpatient bed days

Data for 2018/2019 year to date:

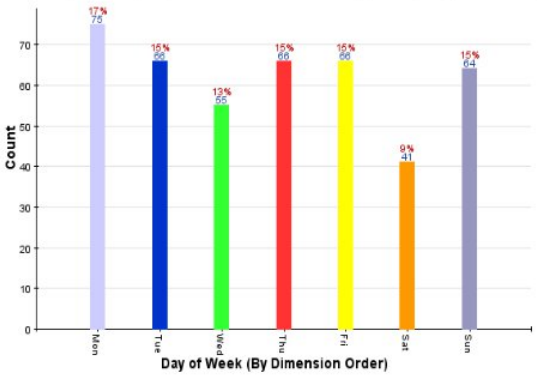
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	YTD	2017/18	2016/17
Inpatient Fall resulting in injury															
Numerator	51	52	56	50	23	35	35	38	36	44	42	46	508	532	552
Denominator	30,997	33,293	31,202	31,115	29,395	30,212	30,682	28,994	31,164	29,769	32,855	33,118	372,796	362,366	358,163
Rate per 1000	1.65	1.56	1.79	1.61	0.78	1.16	1.14	1.31	1.16	1.48	1.28	1.39	1.36	1.47	1.54

- SFN is now receiving the fall incident data from Safety1st. An exploratory preliminary analysis has been undertaken with the Decision Support broader dataset for each to look at falls in General Medicine patients. Some examples of the combination of the datasets are included below.

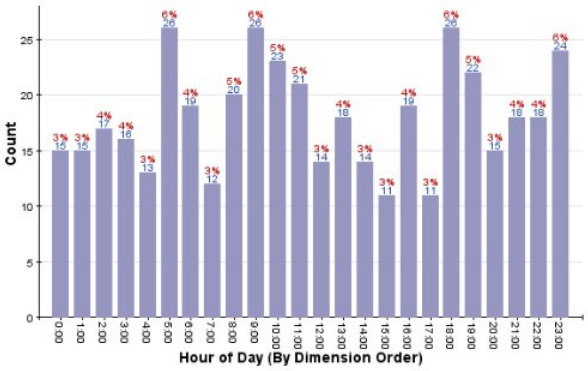
Fall Count (eventdate) : General Medicine * Age (Years) : (By Month(Jan) (last 12 months))



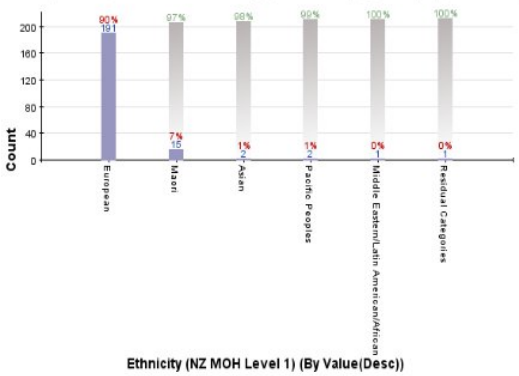
Fall Count (eventdate) : Day of Week * General Medicine : (By Month(Jan) (last 12 months))

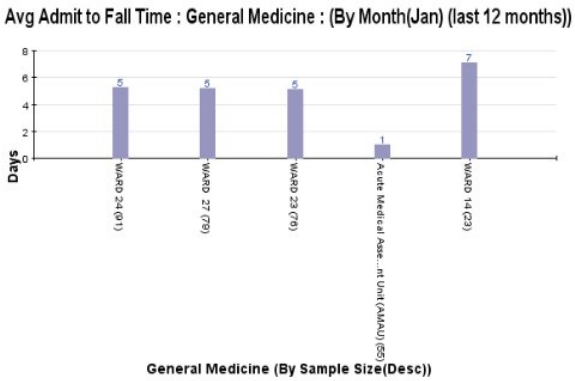


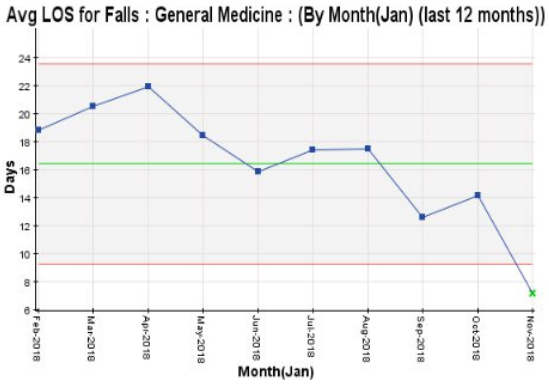
Fall Count (eventdate) : Hour of Day * General Medicine : (By Month(Jan) (last 12 months))



Fall Count (eventdate) : General Medicine * Ethnicity (NZ MOH Level 1) : (By Month(Jan) (last 12 months))







Stay First Primary Diagnosis ICD-10-AM	Value
I00-I99 Diseases of the circulatory system (ST.A)	114
S00-T98 Injury, poisoning and other external causes (ST.A)	87
J00-J99 Diseases of the respiratory system (ST.A)	51
K00-K93 Diseases of the digestive system (ST.A)	48
C00-D48 Neoplasms (ST.A)	47
G00-G99 Diseases of the nervous system (ST.A)	37
R00-R99 Symptoms, signs and findings not elsewhere classified (ST.A)	36
M00-M99 Diseases of the musculoskeletal system and connective tissue (ST.A)	29
F00-F99 Mental and behavioural disorders (ST.A)	25
N00-N99 Diseases of the genitourinary system (ST.A)	25
A00-B99 Certain infectious and parasitic diseases (ST.A)	22
E00-E90 Endocrine, nutritional and metabolic diseases (ST.A)	19
L00-L99 Diseases of the skin and subcutaneous tissue (ST.A)	13
Z00-Z99 Factors influencing health status and contact with health services (ST.A)	7
D50-D89 Diseases of the blood, blood-forming organs and immune system (ST.A)	5
H00-H59 Diseases of the eye and adnexa (ST.A)	4
H60-H95 Diseases of the ear and mastoid process (ST.A)	1
Total	***570***

- **Patient Experience Portal:** The inpatient and outpatients patient experience survey results are now made available via the Seeing Your System Portal on the intranet allowing services to view timely consumer feedback as part of their monitoring processes. Feedback on services is anonymous and feedback is verbatim.

Christchurch Campus

- **Family Escalation:** Patients and whānau often recognise subtle signs of patient deterioration even when vital signs are normal. Failures to adequately respond to concerns raised by patients and whānau are commonly highlighted in adverse event reports from the Health and Disability Commissioner associated with clinical deterioration.

- As part of the national deteriorating programme led by the Health Quality and Safety Commission, a process known as Kōrero Mai (Talk to Me) has been piloted within Ward 22

(a children's ward) and the Paediatric Progressive Care and High Dependency Unit since February that empowers parents to raise concerns with a nurse, seeking a medical review. If they feel that a satisfactory response is not forthcoming they can use an 0800 number which initiates a review via the Intensive Care outreach team for a second opinion.

- No 0800 calls have been received by the Intensive Care outreach team since going live. Over 43 parents/ whānau have been surveyed concerning their knowledge and perceptions of the system highlighting that the communication processes in place to notify them regarding the steps to escalate care were not working reliably. The process is being fine-tuned, including the creation of a video for whānau to watch with the aim of explaining the steps to take to escalate care when they feel their child is becoming more acutely unwell.
- Parents spoken to see the system as a positive step and are reassured by its presence. One family would have used the number if they had known about it.
- The pilot has now become business as usual for Ward 22 and the Paediatric Progressive Care and High Dependency Unit and will spread to the Children's Haematology/Oncology Unit in October. Over the coming months, parallel work will commence soon to explore the implementation of Kōrero Mai (Talk to Me) within adult in-patient services.

Older Persons Health & Rehabilitation (OPH&R)

- **Burwood NADIA Trial:** The NADIA application was built by Webtools Health Ltd in June 2018 and used to conduct Releasing Time to Care 'Bedside Board' audits across Kaikoura, Burwood, Christchurch and Ashburton facilities. The application also generated reports for management.
- In March 2019, a decision was taken to trial the application at Burwood Hospital on a defined number of audits, checklists and surveys to ascertain its suitability for further deployment. In August, the Steering Group completed, and NADIA Governance group reviewed the Project Charter prior to its dissemination to managerial stakeholders identified within OPH&R and the wider Canterbury DHB. The project implementation in on track to 'go live' in September with a structured approach to test the application with four defined end user groups, including completing the first round of Audits. The aim of using this is to support visible and data driven conversations in how we focus care in those inpatient environments. We can use this to improve outcomes for patients by seeing trends related to falls, pressure injuries and how much patient contact is occurring which then supports better outcomes.

MAORI AND PASIFIKA HEALTH

- **Tangata Atumotu Trust:** One of our Pasifika providers Tangata Atumotu Trust (TAT) has had a number of highlights in recent weeks and months:
  - Losana Korovulavula started as a 0.4 FTE health promoter with TAT in June. Losana brings extensive experience in health promotion with roles that include HIV Aids prevention for the UN in the Pacific and at Healthy Families locally. Losana has extensive connections within the Pacific community in Christchurch that includes a position on the Canterbury Pacific Church Network. With Losana on board, TAT has stepped up its role with Tutupu, the collaborative health promotion programme in church-based settings that also includes other providers such as Vaka Tautua, Etu Pasifika, and Pegasus Health.
  - Fiji Flavour was launched in June to provide exercise classes for the Fijian community. The group attracts chiefly mums and daughters. Once a month, TAT nursing staff will attend for check-ups. This group is the provider's initial foray into services targeting the

Fijian community. It is hoped to improve access and to attract clients to the mobile nursing service as a result.

- Christchurch City Council's Community Resilience funding, has enabled TAT to expand the Matua programme to provide vegetable bags in both Siva Samoa and Fiji Flavour. Working together with Pegasus Health and Appetite for Life, they aim to eventually showcase simple healthy meals during Siva Samoa lunches, then send their matua home with the recipe and key ingredients to replicate the meal.
- TAT have had a Pasifika Intern join for the Semester. Justin is a third year UC student studying public health. Justin will create an in-house library of health education resources to support our mobile nursing programme during his time with the provider.
- Newly registered nurse, Suli, completes his NETP placement in September and will go on to become a permanent staff member from that date, spreading his skills across nursing and health promotion.
- TAT were invited by Lincoln University to celebrate Cook Island language week on campus with them. Approximately 20 of matua crafted ei katu (Cook Island floral headware) as a display in the main cafeteria then shared lunch put on by the Pasifika/Māori team at the university.
- TAT continues to engage and build relationships with mainstream providers with the aim of improving their cultural responsiveness to Pasifika.

- The new model of care being implemented by our partners **Pacifika Futures** is bedding in well with significant progress in implementing a whanua ora approach to mental wellbeing. This approach is well aligned to the Mental Health and Addictions Inquiry, He Ara Oranga. This wrap around model is likely to become a prototype for future developments.

- **Kia ora Hauora:** Kia Ora, the Māori workforce development programme delivered by our provider Mokowhiti celebrated ten years of its work placement programme in August. Mokowhiti has provided a report and overview of this milestone which is attached to this report as **Appendix 1**.

- **Ngā Ratonga Hauora Māori:** Our Māori health team at Christchurch has long been known by the name Ngā Ratonga Hauora Māori (literally Māori Health Services). They have however received feedback for many years from patients, whānau and staff that the name is too long and they are frequently just referred to as Hauora Māori. Effective 23 September, the team will be known as Hauora Māori. It is hoped this will make it easier, particularly for Māori patients and whānau to find them and utilise their services.

Older Persons Health & Rehabilitation (OPH&R)

- There are significant inequities in the oral health of our five-year-olds: in 2018 50% of Māori and 39% of Pasifika were caries-free compared to 71% of others, and while this is an improvement on the 41% Māori, 32% Pasifika and 69% Others for 2014 the gaps have not closed. Like many other avoidable childhood diseases there are no simple solutions however quality data is a requirement for monitoring both the extent of the problem and any changes subsequent to service improvements. To improve the quality of data Community Dental started checking the ethnicity of children in August. Planned oral health interventions focus on improving the level of use of fluoride toothpaste and early diagnosis for dental caries, both in early childhood settings. Following on from the development of the Menemene Mai toolkit for Early Childhood Education Community Dental is now working on an action plan for supporting daily toothbrushing in Early Childhood Education centres.

MAKING IT BETTER - SYSTEM IMPROVEMENT

Older Persons Health & Rehabilitation (OPH&R)

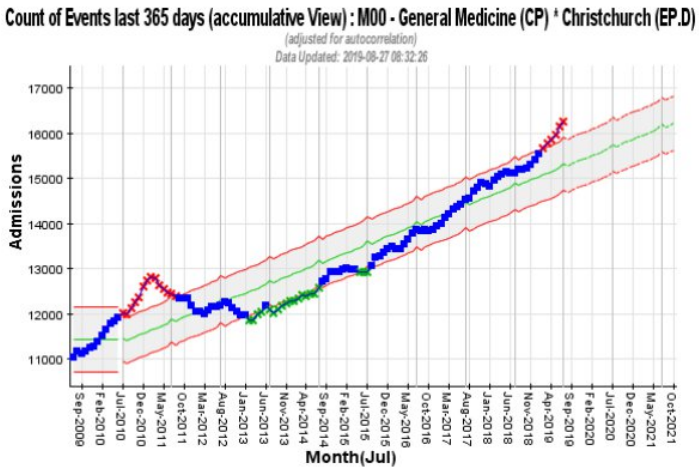
- OPH&R has been working hard at establishing robust systems to enhance digital healthcare for their staff, patients and whanau. Through 2018 they went through a process of establishing a new Divisional wide Technology focussed group of key staff: Older Persons Health and Rehabilitation Technology Group.
- **Older Persons Health and Rehabilitation - Technology Group h**as representation from: Medical, Nursing, Allied Health, Dental, Quality, Administration, Community services, Leadership, Projects and representative from Information Services Group/ IT team.
- **Their vision is**: *For Older Persons Health and Rehabilitation to have increased streamlining of technology. To have a collective group that can be referenced and advocate for wider system engagement, representation with CDHB and other relevant vendors/ services to bring an OPH&R perspective to innovatively enhance service improvements/ delivery.*
- **Examples of current work in the active component ongoing in Older Persons Health and Rehabilitation:**
  - **Digital Literacy/ Staff Upskilling**: We have created a local technology upskilling framework for all 1600+ staff. Utilised National and International forums and links to pool resources and approaches by identifying key themes/ training areas of need for local contact. We are able to prioritise activity to support our patient flow through changed technology. Staff presenting at HiNZ (Health Informatics New Zealand) Conference in Nov 2019 to showcase the outcomes for our approach to shared care plan.
  - Resources have been shared with ISG, Health Essentials for Leadership and Management (HELM) and Max teams for their wider application and use. Framework includes:

IMPROVING FLOW IN OUR HOSPITALS

Christchurch Campus

- **Ongoing increases in Christchurch Hospital occupancy:** Occupancy in Medical/Surgical wards at Christchurch Hospital was at an all-time high between 1 July and 31 July 2019 with occupancy being above the bed footprint for periods frequently over the month. This was managed by strong discharging and in-day 'swing' management of beds. This meant on some days there were more inpatients than the number of beds we have with gap being managed by 'finding' space in day areas and the Emergency Department, while beds were freed-up in during the day by discharging. This month had the highest ever bed occupancy recorded and a record of 709 medical and surgical inpatients on 9 July at 12 noon.
- One contributor to this is an ongoing increase in the number of people cared for by in General Medicine as shown in the graph below. Occupancy within General Medicine was over the bed footprint of 123 beds for every hour of July. There were 213 General Medicine

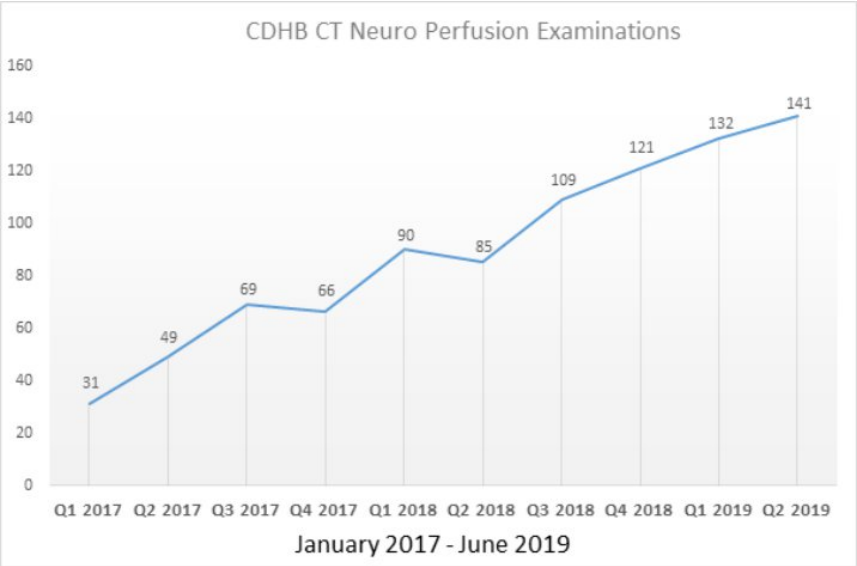
patients in beds at the highest point with over 200 occupied beds for 30 hours during this month. This has impacted considerably on efficiency within the hospital due to be General Medicine patients being distributed across almost all wards. In addition, General Medicine patients have been kept in the Emergency Department due to lack of options. It is great credit to our staff that they were able to be flexible and make our services work when system failure was a likely outcome.



- Providing the ongoing increases in care required by our population would not be possible without the improved ways of working developed within the Canterbury Health System over past years. Without continued focus on ensuring that care is provided in the community where-ever possible, ensuring that patients are provided with the care they need to return home quickly through effective multi-disciplinary ways of working in hospital and provision of support at home and outplacing and outsourcing a significant proportion of our planned surgery we would surely have failed to provide for the healthcare needs of our people.
- **Maternity Assessment Unit:** Women with low-risk pregnancies often present at Christchurch Women's Hospital before their due date because they are concerned about some aspect of their pregnancy. This embeds the notion that hospital is the best place to be if you are approaching your due date. This may be true for women with complications or an unwell baby, but community-based options including home birth or birth in a community birthing unit will provide better outcomes and a more positive birthing experience for healthy women and babies. Attending hospital utilises specialist care capacity that is sometimes stretched and that can compromise care that can be provided to those who really need specialist input.
- A new Maternity Assessment Unit has been opened in Parkside, Christchurch Hospital as a dedicated one-stop shop for women who have concerns during the second half of their pregnancy. Creation of this unit is part of the Canterbury Maternity Strategy that aims to ensure pregnant women receive the right care in the right place and at the right time. The model in place is midwife/Lead Maternity Carer led and involves an initial assessment, leading to a collaborative individualised care plan which may include being seen by an obstetrician or coming back for more monitoring. It is anticipated that many women will head back home with a plan for care in the community. This model provides an opportunity to ensure that women and their whānau are provided with reassurance and advice and gives confidence that women will be provided with the ongoing support they need. Women attending the unit will have a much shorter wait time than can be achieved on the Birthing Suite.
- **Providing faster care following heart attack:** There is clear evidence that the sooner patients experiencing a heart attack have their blocked vessels cleared by intervention in a

Cardiac Catheter Laboratory the better their recovery is. The regularly used guideline indicator of success is the proportion of patients who are in the Catheter Lab with a balloon inflated within 90 minutes of arrival in the Emergency Department.

- At the beginning of July 2018 a system, called Lifenet, was put in place which allows St John Ambulance to transmit ECGs directly to staff in the Emergency Department and Cardiology. The team working on implementing this system included people from the Emergency Department, Cardiology and the Information Services Group. Along with this a 0800 number has been put in place for the Southern Region to act as a single point of contact for St. John staff from Nelson, Christchurch or Dunedin to call about patients having a heart attack. The implementation of these two measures has enabled us to quickly identify patients that need urgent intervention in the Cardiac Catheter Laboratory and mobilise the required staff. Often the team is able to be gathered and ready for the patient by the time they arrive at hospital.
- The proportion of patients with a ST elevation myocardial infarct whose ED to balloon time is less than 90 minutes has increased from 59% to 69% in the last 12 months (99/168 in 2017/18 and 132/192 in 2018/19.
- **Acute Stroke Imaging Service:** There has been a continual increase in demand for an acute stroke service throughout the South Island. Under a Neurology and Radiology initiative, Telestroke has begun rolling out throughout regional Hospitals in the South Island. This allows Canterbury DHB Neurologists to provide advice to other DHBs on the immediate management of patients presenting with stroke. If a patient is diagnosed with a major cerebral thrombus, thrombolysis and an endovascular clot retrieval procedure in Christchurch can be offered as a treatment option to these patients around the South Island. Radiology is a key component to the Telestroke service and the quick imaging and diagnosis of cerebral clots prior to subsequent clot retrieval procedures creates life changing positive outcomes for the South Island population. The imaging pathway model for the regional services is to ensure South Island coverage of Radiology acute stroke imaging, whilst covering locations of high priority and population of patients.
- The Christchurch Computed Tomography department has contributed to the rapid assessment and diagnosis of patients presenting to the hospital under the acute stroke pathway. The team has worked closely with Neurology senior medical officers and resident medical officers to reduce the time between presentation in the emergency department to the computed tomography table to under 18 minutes. Other refinements include patients being assessed and attending the imaging department on an ambulance trolley, quick assessment in the emergency department by a Neurology Registrar, the stroke nurse preparing the patient with appropriate intravenous access, and clear communication between departments so that there is always an appropriate scanner available.



Graph showing the increased volume of Computed Tomography perfusion scans performed in Christchurch.

- Work supporting the initiation of regional acute stroke imaging pathways include:
  - Investigating which sites are able to perform CT perfusion imaging to identify salvageable brain tissue if a clot is removed.
  - Setting up the information technology connection from regional sites to the perfusion analysis desktop at Canterbury DHB.
  - Developing regional acute stroke imaging pathway
  - Education for the regional ambulance service to quickly identify potential acute stroke patients and initiate the emergency pathway.
  - Ensuring Computed Tomography Medical Imaging Technologists in regional sites are thoroughly trained to perform perfusion scans and understand perfusion maps.
  - Ensuring sufficient cover and competency for the Interventional Radiology Clot Retrieval roster.
- This range of activity is serving to support improved outcomes for people from around the South Island who experience strokes.
- **Emergency Department - Front of House model:** Long waits in ED are linked to overcrowding, poor patient experience, longer hospital stays and poorer outcomes for patients. Enhanced performance contributes to improved patient outcomes, improves public confidence and trust in our health services and reduces load on other parts of the system. Ongoing growth in demand for Emergency Department care combined with limited physical capacity in our hospitals has led to patients spending longer in the department with large numbers of people in the department waiting for definitive care. Treatment and monitoring are regularly provided outside of designated bed areas – with patients being cared for in emergency department corridors.
- Between June and October 2019, a new "Front of House" approach is being utilised on the busiest days of the week. A senior medical officer, nurse and a clinical nurse specialist work together to ensure front-loading of investigation and treatment of patients that are waiting to be seen. Patients have early decisions made about treatment required, and their likely need for admission. Some patients are treated and discharged home or referred for outpatient care. Others are referred immediately to an inpatient specialty or admitted directly into hospital. A smaller number are fed back into the emergency department for further ongoing care.

- We aim to protect Emergency Department bed capacity, reduce inpatient admissions, and reduce the length of stay for all of our emergency patients. From a patient and staff perspective, there has been excellent feedback. Patients are being seen earlier, and have investigations and treatment initiated. This is an effective use of their wait time, compared with the usual pathway, where wait time adds little or no value before the patient's journey starts in an ED bed/bay.
- Results show that on the days the front of house model is working 70% of triage 3 and 4 patients receive medical officer triage within 30 minutes compared with approximately 40% on other days. An average of 27 patients are seen by this team each day with approximately two thirds (66%) being discharged immediately or referred to specialist teams without needing further care in the Emergency Department.
- There has been an increase in volumes of patients presenting to the ED in 2019 compared with 2018. The Front of House model has contributed significantly to a reduction in length of stay and inpatient admissions on the days that it is functioning.
- Front of House Days vs Non-Front of House Days June/July 2019
  - Average number of patients per day: 294 vs 269
  - Average wait time: reduced by 10%
  - Average length of stay: reduced by 5%
  - Inpatient admissions: reduced by 7%
  - Average number of patient hours saved: 33 per day
- **Priority Placement Policy: Patients with Hypertriglyceridaemia Induced Pancreatitis:** Acute pancreatitis induced by high triglyceride levels is an acute, life threatening condition that requires specialised care to ensure the best possible outcome is experienced. Until recently there had not been a formal policy about where patients with this condition should be nursed. This has meant that on occasion patients have been nursed in areas unfamiliar with the specialised needs and interventions required for this group of patients, leading to delay in provision of plasmapheresis, inappropriate type of insulin infusion and delays in notification to the relevant specialist care teams. The Clinical Nurse Specialist working group including Lipid Disorders, General Surgery and Surgical Progressive Care Unit have developed the Hypertriglyceridaemia Induced Pancreatitis Nursing Management Protocol. The protocol is published on the Hospital Health Pathways "Acute Pancreatitis" page.
- This means that patients are now immediately placed within areas with specialised nursing knowledge resulting in faster initiation of appropriate treatments and timely notification to the specialised teams involved in treatment of this patient group to ensure provision of additional support and advice.

REDUCING THE TIME PEOPLE SPEND WAITING

Christchurch Campus

- **Faster Cancer Treatment Targets: 62 Day Target:** In the three months of May, June and July 2019, of the 122 records submitted by Canterbury District Health Board 17 patients missed the 62 days target, 14 did so through patient choice or clinical reasons and are therefore excluded from consideration. With 3 of the 108 included patients missing the 62 days target our compliance rate was over 97%, meeting the 90% target.
- **31 Day Performance Measure:** Of 337 records towards the 31-day measure 293 (87%) eligible patients received their first treatment within 31 days from a decision to treat, meeting

the 85% target. Of the 44 patients who missed the 31 days target 15 did so through patient choice or clinical considerations.

- **New Phototherapy Machine Increases Treatment Capacity:** Ultraviolet B has been used for many years to treat skin conditions as it helps suppress the immune imbalance that drives inflammation. A new phototherapy machine has been installed in the Dermatology Department in Christchurch Outpatients which will allow more Ultraviolet light B treatment courses to be delivered to patients with skin conditions such as psoriasis, vitiligo, and other light responsive disease.
- Previously having only a single narrow-band UVB machine allowed for around 34 patients a week to be treated. However, with a second machine there is now capacity for treating around 54 patients a week, a 60% increase. This increase in machine capacity, along with an improved ability to quickly provide support to General Practitioners (due to the e-Referrals system, as previously reported) and hard work by the team are enabling the team to manage approximately 200 referrals to Dermatology per month with near to zero declines. This is a significant improvement on last year.
- **Technologist Led Computed Tomography Colonography service:** Radiology has been providing a Computed Tomography Medical Imaging Technologist lead Computed Tomography Colonography service. The technologists have been participating in a Radiology developed training program to become competent in performing colon insufflation and reviewing images to ensure optimal quality examinations are being performed.
- This supports Canterbury DHB's preparation towards entering the National Bowel Screening program by diverting demand for colonoscopy for other patient cohorts to CT Colonography. Changing the workflow by increasing the tasks carried out by technologists has allowed continued provision of a high quality and efficient service to the community. Another benefit is to relieve Radiology Registrars from this duty which allows the Registrars to concentrate on reporting and other specialised procedures.
- **Bereavement Project - After-death care:** Support offered to whānau of patients who die in the acute setting is insufficient across the Canterbury health system. Literature shows that providing timely and effective support to whānau at the time of the death of a loved one can reduce acute mental health presentations to ED and reduce concerns and any sense of dissatisfaction in care by demonstrating compassion.
- A bereavement working group was established and working with three pilot sites (Oncology Ward, Stroke/Medical Ward and Ashburton) and the Māori Health team has developed a range of cards to be sent to family members by a staff member known to the whānau a few days after the death of a patient. Information on normal grief and bereavement supports was provided as an insert. 45 cards were sent out and contact made successfully with 28 recipients to gauge their effect. Families have reported feeling touched and supported, noting that they felt really cared for. Some people found the grief insert useful, some kept it for others while some found it not relevant. Phone calls from the bereavement team were appreciated.
- **Children's Outreach Nursing Service Weight Clinic:** During 2018 it was noted that the weight room in the Children's Outpatient Department was too small to accommodate a wheelchair and a hoist along with the chair scales. Parents were often taking their children to the paediatric wards at Christchurch Hospital, to Orthopaedic Outpatients at Burwood Hospital, to Montreal House or even to their local vet (not on Child Health advice) to be weighed to meet recommendations from paediatricians and dietitians.
- A solution was developed involving provision of a Children's Outreach Nursing Service weight clinic at Montreal House. It was held in the school holidays, initially in July 2018, to make it easier for children and their whānau to attend. This venue provides great parking

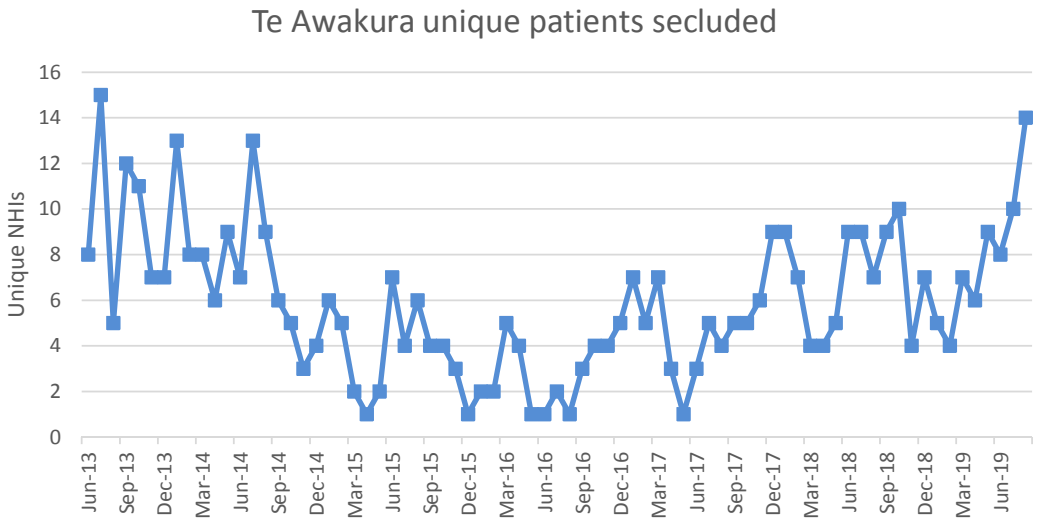
and physical accessibility. Parents and care givers have taken really positively to this option with some parents making contact with the Children's Outreach Nursing Service prior to each school holidays to arrange a booking, before the service has started offering bookings for the next school holidays. The room used at Montreal house is large, enabling safe operation of the hoist, so as well as providing the other stated benefits to children and their whānau this environment enables weighing to occur while avoiding injury to children and staff.

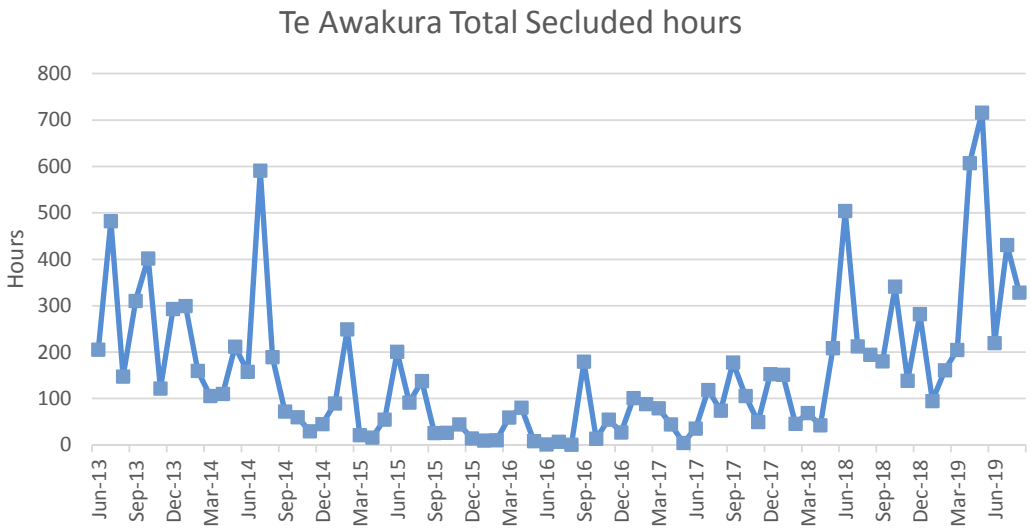
Older Persons Health & Rehabilitation

- **Rethinking Rehab – Burwood:** Use of Volunteers within our service is continuing. Enhancing the patient experience and supporting those identified as at risk from falls. This also supports top of scope work, other outcomes we are seeing include:
  - Goal setting – making better use of the patient's day
  - Orientation for patients to the ward environment
- On the wards they have developed schedules and walking plans for the patients alongside better use of the shared spaces. Ward C2 recorded that over a week they were able to have 22 of their patients up for all their meals, including breakfast.
- **Patient Flow – Older Persons Mental Health (OPMH):** Commenced work to improve flow to OPMH wards from Christchurch Hospital to maintain higher occupancy on wards AG and BG. Regular meetings with Clinical Nurse Specialists OPH and OPMH to allow transfer for patients with delirium to the appropriate ward. The outcomes of this approach will be right care by right team in the right place.
- **Shared Care Planning:** OPH&R have contributed to the development and quality process to establish the SI wide Personalised Care Plan with CCN and Orion Health. Approx. 100 Community teams' staff are in the process of onboarding which will continue to support the roll out to streamlined approach for use, feeding into the Canterbury wide Quality group for this work and the SI Steering Group.
- Staff like
  - the visibility of information shared.
  - the agreed goals that can be provided to the patients,
  - the ability to see who is involved in care between DHB staff, general practice teams and community providers in an easier format.
- Learnings are influencing national conversations with Health Information Standards Organisation (HISO) and Clinical Informatics Leadership Network (CiLN). Staff are presenting on this at the National HiNZ conference in November. Over 1500 plans have been created in Canterbury for these complex patients. Work is ongoing to monitor quality assurance of the shared goals and new ways of working.
- **Telehealth/ Videoconferencing:** A divisional working group reviews, supports and prioritises work in this space. It is already BAU for some services in our area, mostly for meetings and peer support. Ongoing work includes revision of facility and hardware designs to incorporate this into practice, planning and learnings towards digital upskilling frameworks. Work currently targeting outpatients and community visits directly with patients at home.
- Example from one patients' therapy: Christchurch to Methven; 763km and 1120 min of staff time saved using telehealth for x2 senior therapy staff. Patient happy with outcome and to be seen by telehealth again. Without this technology this patient would not have received community stroke care or would have greater reliance on travel.

Specialist Mental Health Services (SMHS)

- **Demand for Specialist Mental Health Services**: We continue to closely monitor use of SMHS. The occupancy rate within the adult acute inpatient service was 97% in August 2019, the readmission rate in July 2019 was 18.7%, length of stay averaged 43 days in August 2019, with 41 people having been in the acute inpatient unit for longer than 15 days. Alongside this, there are a number of consumers based in Seager and Tupuna that have no current discharge destination from hospital, having failed community placements due to complex and significant presentations.
- Complexity, acuity and the supply of accommodation options are significant drivers for the occupancy and discharge rates, combined with an inpatient building that limits our ability to care for acutely unwell people in a contemporary way. Te Ao Marama which opened early April 2019, is providing an alternative to an acute inpatient admission and we are undertaking further analysis to understand the current issues relating to flow through inpatient services.
- Our staff are doing an incredible job in very challenging circumstances, compounded by current, significant staffing challenges. SMHS is currently experiencing a shortage of registered nurses with a vacancy level of approximately 58FTE. These challenges are being monitored and managed daily, alternative and additional staffing options are being explored, and wellbeing of staff remains a key focus.
- **Least restrictive practice:** Staff remain committed to least restrictive practice. In August 2019, 14 people experienced seclusion for a total of 328 hours. High occupancy and acuity with presentations that include alcohol and other drugs and unique presentations has impacted on the use of seclusion.

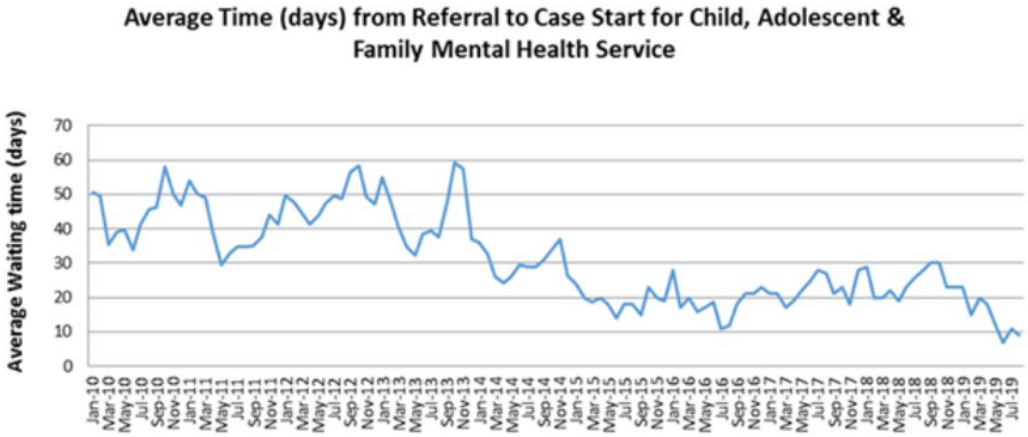


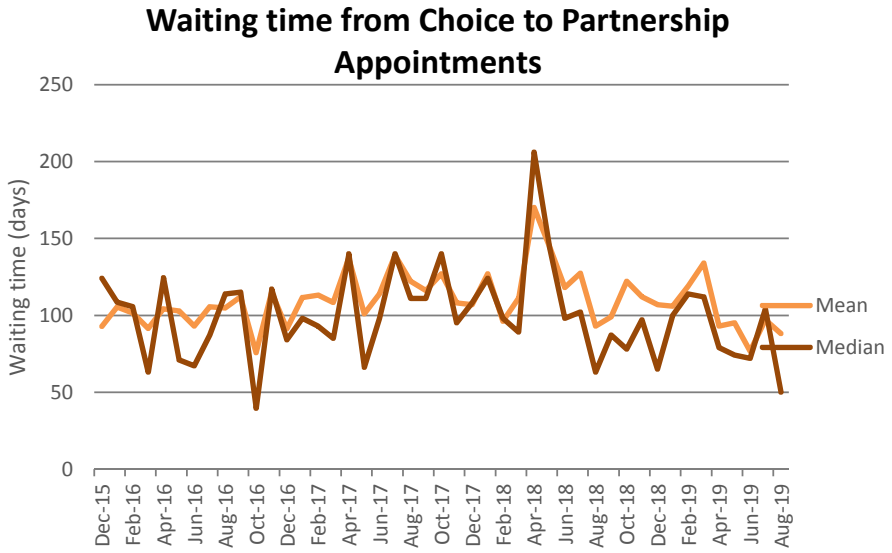


- **Adult Community Services** continue to monitor and manage demand within the community. Homecare Medical have been contracted to provide an afterhours telephone triage service. Established in May 2019, the service operates between the hours of 16.30 and midnight, using Registered Mental Health Nurses to respond to caller needs and provide the best pathway of support which may include a community NGO response or an urgent referral through to the SMHS Crisis Resolution service. This has enabled clinical time to be released within Crisis Resolution to focus on providing more enhanced follow up care for consumers.

- **Wait Times for Crisis Intervention:** People in crisis access Specialist Mental Health Services in a number of different ways, dependent upon their particular circumstances and the time of day that they present. People can phone Single Point of Entry in hours, or Homecare Medical afterhours or someone (including GPs) can make contact with services on their behalf. Calls are triaged and then passed through to the Crisis Resolution service when appropriate. People can also self-present to outpatient services at Hillmorton Hospital or the Emergency Department. As with all emergency type services, there is an initial triage process that will determine how quickly an individual needs to be seen. This is based on the individuals presenting acuity and identified risk factors, and the needs of other people waiting to be seen. Acute and urgent requests are triaged immediately and interventions will reflect the identified urgency. Actual wait times for 'crisis intervention' are not consistently captured within the Specialist Mental Health Services electronic patient management system, however the expected pathway is that acute requests are responded to within the same day, with those at extreme risk of imminent harm seen within two hours and those at high risk or high distress seen within eight hours.

- **Child, Adolescent and Family (CAF):** Wait times for Child, Adolescent and Family services remain a concern. National targets require 80% of young people to be seen within 21 days and 95% within 56 days. Our results for August 2019 show 65.87% of children and adolescents were seen within 21 days and 82.6% within 56 days. Child, Adolescent & Family Services had 397 new case starts in August 2019. There are ongoing challenges with reducing the wait times while high numbers of referrals (averaging 84 per week) are being made to the service.





- The reduction in time from referral to case start is a reflection of a change in process within the CAF Access team. A proportion of children and young people attending a Choice (triage) appointment did not meet the service criteria for treatment. The new process includes comprehensive information gathering, phone triage, and timely re-direction of children and young people. This has resulted in increased clinician time for providing treatment. An increased proportion of children and young people now go directly to a Partnership appointment (full assessment).
- **The School Based Mental Health Team (SBMHT)** is currently engaged with 176 schools across the region. They are working in a number of secondary schools and continue to consult and work with Kaimahi from the Mana Ake programme. SBMHT staff met with Mana Ake Team leaders on 20th August to discuss interface and liaison between the teams and continues to work closely with Mana Ake and other services to provide ongoing support for Canterbury schools affected by the 15 March 2019 attacks.

Ashburton Health Services

- Ashburton Campus has completed pathway development to standardise the process for access to Urgent Respite care and address key concerns raised by primary care through the Ashburton Service Level Alliance (ASLA). Information has been distributed to all primary

care practices, and GP representation from the ASLA workgroup and SMO representation from the Ashburton hospital followed up with further discussion at the monthly General Practice meetings. The clarified process and information reduces the number of referrals and associated workload where information is not fully provided. Alongside this we have refocused the distribution work across the NASC team to ensure clear visibility of those with the longest wait are contacted and assessed at the earliest opportunity. A 'board review' is held twice a week led by the Charge Nurse Manager community to maintain focus on waitlist flow and service delivery. We have reduced our wait time for NASC assessment from six weeks to two weeks through this process. We continue to work with all specialist services providing clinics within the Ashburton facility to ensure they are expanding the cohort and maximising the clinic opportunity to address wait times. The one service – multiple site approach is maturing with services starting to engage in opportunities to identify nurse led clinics and other models of service delivery.

- The inaugural Rural Hospital Summit was recently held in Wellington, hosting rural health representation from 21 rural hospitals covering the full geographic area of NZ. The cohort demonstrated the diversity of rural health care models ranging from fully community owned hospitals operating in not for profit, not for loss principle through to DHB resourced hospitals providing satellite facilities with a range of surgical, medical and diagnostic services. Clinical, research and management representation from Ashburton Hospital, Ashburton Rural Health Academic Centre and Kaikoura Health provided a strong representation of the diversity and developments in rural health service models led through Canterbury District Health Board alongside our colleagues from West Coast DHB.
- Whilst diverse in structure and service models, key themes on the existing and emerging challenges in health care delivery and critical partnership with local communities was unanimous, a strong collective voice was present throughout the workshop discussions. The timely release of the New Zealand Health and Disability Review interim report provided opportunity for the collective group to discuss the information and early recommendations. Complementing this Anna Clark, Deputy Director-General, Health Workforce, Ministry of Health provided an update on the Rural Health Initiatives proposed from MOH rural health summit held in May this year. This presentation confirmed the four areas of focus as:
  - Technology (digital first by patient preference)
  - Inter-professional learning including rural learning hubs
  - Scaling up effective local innovations
  - Developing the future rural health workforce
- The discussion progressed on to the opportunity and potential with the three other initiatives focused on the rural workforce that are currently in development:
  - Scoping of three inter-professional rural learning hubs
  - Expansion of the interdisciplinary undergraduate rural immersion training programme into a third programme site in the South Island
  - Four nurse practitioner placements in rural settings
- Key themes emerging for the rural hospitals throughout the summit included:
  - Challenges to acute care delivery across the country, the traditional model of primary care providing after hours is not sustainable with a number of facilities being the only provider acute after-hours care within their area.
  - Recognition that hospital led service delivery of after-hours rural hospitals requires appropriate funding and model development, the hospitals represented provide a mix of free after hours care through to all after hours care has set fees.

- Transport and inequity of transport solutions for time critical and other patient transfers, alongside the potential for developments of local service delivery to reduce the burden on this limited resource.
- Development of a rural generalist workforce was consistent message. The success of the Rural Hospital Medical Specialist (RHMs) is well recognised but the pipeline is not providing enough workforce for the level of vacancies across the country. Alongside this the urgency to progress with priority training pathways for the rural generalist and rural specialist workforce for nursing was reiterated through the workshop. A key presentation in the workshop was provided by Dr Garry Nixon, Director, Rural Postgraduate Programme (DSM); Senior Lecturer Otago University. This provided the foundation discussion the summit, outlining the research and discussions that have informed the development of rural health practice in New Zealand and Australia and the direction forward. The proposal for a National Inter-professional School of Rural Health was outlined and endorsed throughout the discussions and feedback to Deputy Director General. This proposal has been published in the New Zealand Medical Journal.
- Governance and leadership throughout DHB and Ministry recognising the importance of ensuring rural health and rural sustainability remain a priority. 'By rural for rural' was a key message to address concerns of the potential of centralised developments for rural services and models of care. The developments in Australia with the National Rural Health Commissioner was applauded, the key message for both workforce development frame works and leadership is align with this model for NZ success.

- The summit concluded with the recommendation to merge together the NZ Rural Hospital Network and NZ Rural General Practice Network, with emerging consolidation of service delivery and models of care in these areas and common issues faced.

- The developments in Ashburton were recognised as key successes. A presentation was provided by Dr Sampsa Kiuru on the change in medical model to Rural Hospital Medical Specialists (RHMS) in Ashburton, and potential this model has for other areas. The Rural Health Academic Centre Ashburton (RHACA) developments in both research and rural health care training are providing a strong platform for expanding developments in the national forum. There are 16 research papers in progress through RHACA currently with two fully published papers, a third in progression to publication in the New Zealand Medical Journal currently.

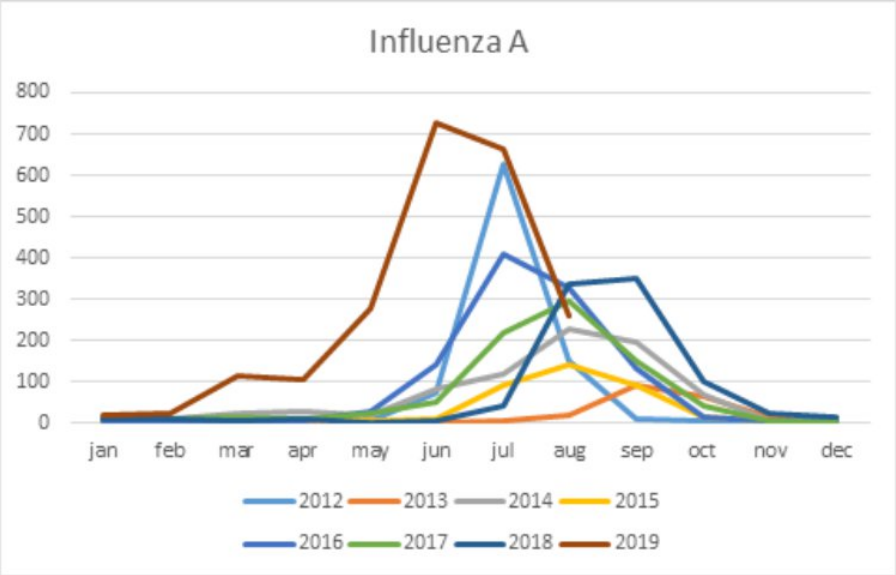
- A third RiSC course will be held in October at Ashburton Hospital simulation centre bringing rural health teams from across New Zealand to our facility. RiSC is a course run by the University of Otago Rural Postgraduate Programme designed specifically for inter professional rural hospital teams in New Zealand. It is an immersive 3 day course that focuses on emergency and trauma care using highly realistic skills and simulations. The arrival of "baby sim" this month enables the simulation team to expand into providing paediatric life support (PLS) training. Alongside formal training, we are able to provide fortnightly simulation and teaching for our local workforce and trainee positions led by our medical and nursing faulty.

- Our development of a rural workforce has expanded with the confirmation that Ashburton Hospital in partnership with Otago University will be an additional node to the Rural Medical Immersion programme (RMIP) in 2020. This programme will enable four undergraduate medical students to be placed in Ashburton, the placement is a combination of training within the hospital and primary care setting. The ability to secure this development is founded on teaching and research and partnerships we have developed over the recent years as RHACA has evolved, building our key vision "if you train – you retain" and our commitment to develop a rural health workforce for the future.

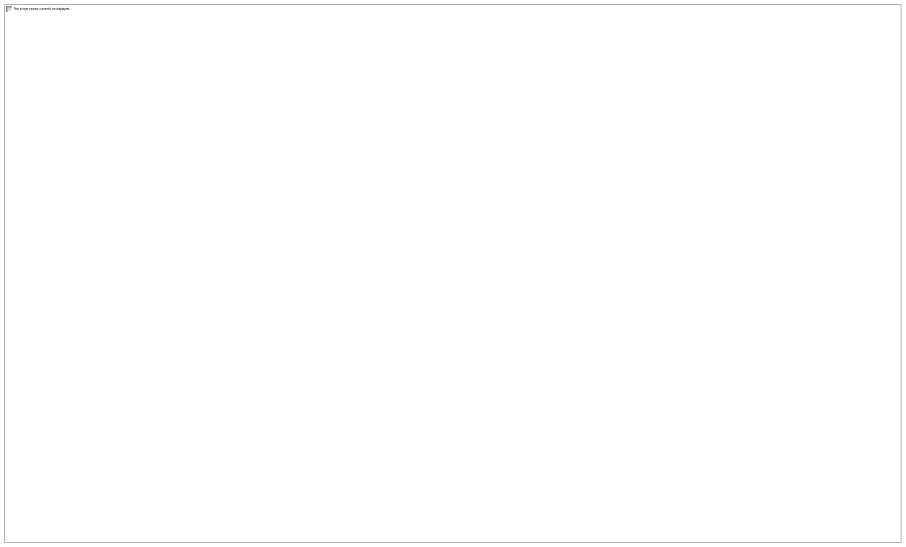
IMPACT OF INFLUENZA

Laboratory Services

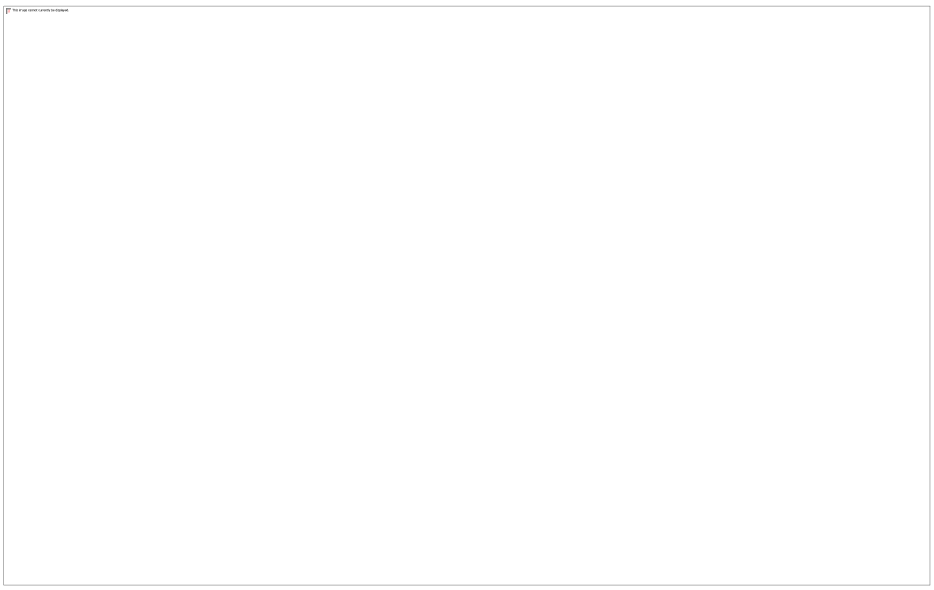
- **Respiratory virus testing**: As the incidence of influenza and the number of influenza test requests have further declined over the past 2 weeks with positivity rates fast approaching baseline levels we are advising that we will be stopping the availability of our rapid influenza A/B & RSV test as from Thursday 5th of September 2019.
- **Influenza in Canterbury:** Influenza A activity in Canterbury was characterised by an unusually early season this year (with a predominance of the H3N2 subtype) compared to a late influenza season seen last year (with a predominance of the H1N1pdm09 subtype). The numbers of positive influenza A samples peaked at the end of June/beginning of July and then started to decrease rapidly. A similar pattern with an unusual early start of the flu season and a drop in numbers at the end of June/beginning of July could also be seen in labs across Australia.



- Influenza B activity in July was approximately the same level as in June and then dropped-off in August.

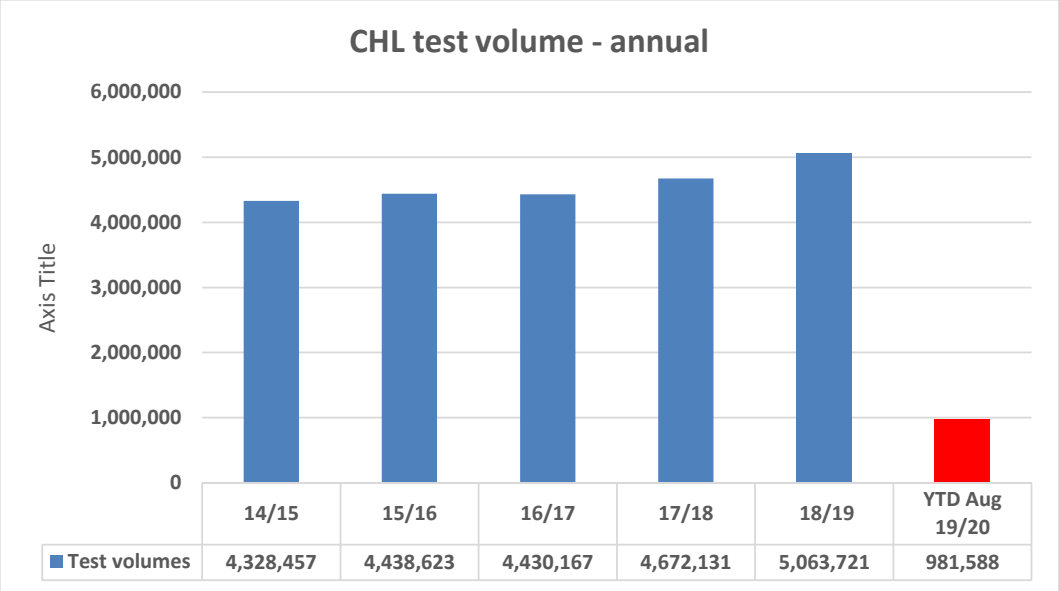


- RSV activity is still elevated. The higher total numbers seen this year could partially be attributed to the rapid FluA/B & RSV test that was offered 24/7 during the winter season.

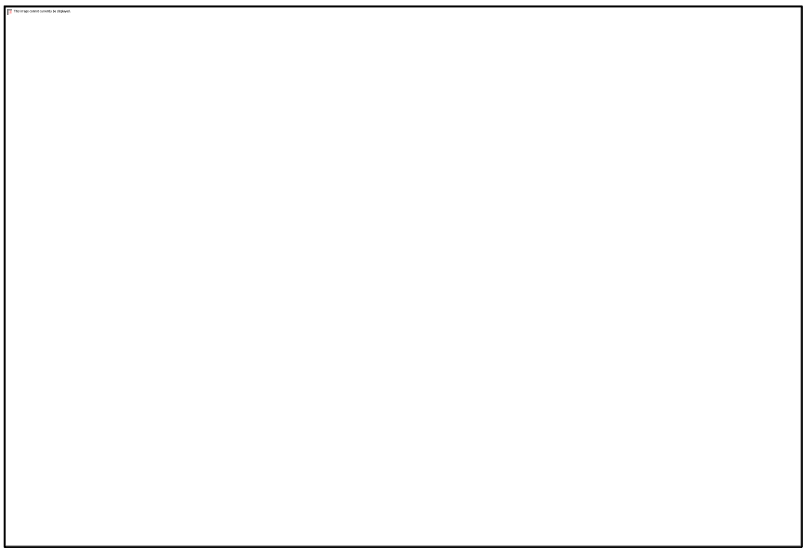


- **Measles in Canterbury:** After identifying 2 measles cases in Christchurch in July with epidemiological link to the Auckland outbreak, we haven't seen any additional measles case in Canterbury in August. However, several measles cases with epidemiological link to the Auckland outbreak have been reported in Queenstown since the 21st of August. The total number of confirmed measles cases for 2019 has reached more than 930 cases as of 30th of August. The National Measles and Rubella Lab at CHL had to respond to several requests from the Ministry of Health to provide measles data for their response to OIAs and WPQs.
- **Facilities**: Activity is concluding in the repurposing of the vacated space in the portacoms (old eye outpatient facility) for a temporary relocati**on of laboratory support staff.** Planning for the Stairwell 4 replacement can now commence with decant space becoming available for those services that will need to relocate for these repairs.
- **Laboratory activity volumes:**

	Annual volumes					
F/Y	14/15	15/16	16/17	17/18	18/19	YTD Aug 19/20
Test volumes	4,328,457	4,438,623	4,430,167	4,672,131	5,063,721	981,588
Percent change		2.55%	-0.19%	5.46%	8.38%	



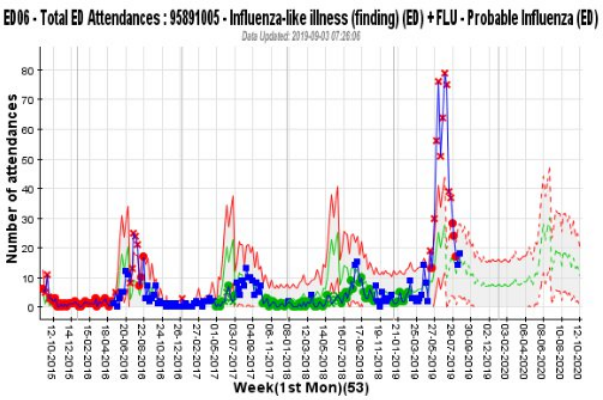
Acute Demand Management



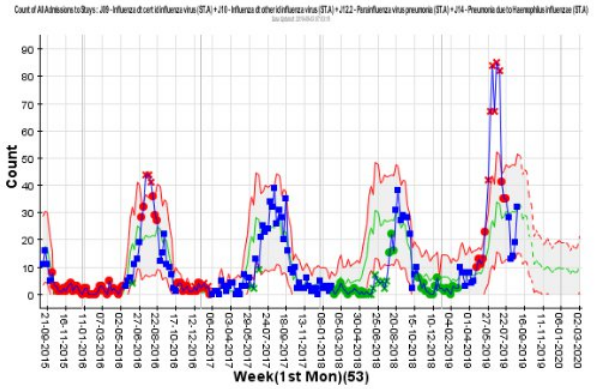
- There has been significant winter pressure across the health system evident through high occupancy for ED and medical/surgical beds. Older Person's Rehab is operating at full capacity to cope with the winter peak and our urgent care partners report high volumes. The high volumes of influenza across the system has eased with no sign to date of a second peak (which has historically occurred in August), however we remain vigilant. Strong discharging over recent days has seen a relative decrease in occupancy after record levels have meant

Christchurch hospital had occupancy well above its bed footprint. The demand has been met by converting spaces such as ED into temporary inpatient wards.

ED attendance for influenza-like illness



Admissions for influenza



- Our Acute Demand Management Service continues to support high volumes in the community implementing a range of services to support people in their own homes and communities. In 2018/19 there was an all-time high of over 35,000 referrals. Over 500 people have received assessment and planning in general practice which has been funded for general practice to support regular acute health system users. We will analyse the impact of this new approach over the next two months.

INTEGRATING THE CANTERBURY HEALTH SYSTEM

Child and Youth Health

- **Child Development Funding:** The Ministry of Health has announced new funding for the provision of Child Development Services (for children with developmental delays). This will provide an addition $35m (nationally) over the next four years. The Government's expectation is that this will enable a significant increase in the number of staff available to support children and families. The Ministry intends to distribute this funding in a way that addresses the historic inequity in funding across New Zealand. In 2019/20, $2.6m has been made available to the South Island. District Health Boards and NGOs within each Region have been asked to produce a region-wide proposal for delivering consistent and equitable services. A South Island combined working group will be established under the umbrella of the South Island Child Health Service Level Alliance to produce this proposal.

- **Child and Youth Wellbeing Strategy:** The Department of the Prime Minister and Cabinet (DPMC) has released the Child and Youth Wellbeing Strategy. The Strategy aims to transform the way in which Ministers and agencies work together to improve the wellbeing of children and young people across the country. The strategy also sets the vision, principles and outcomes for child and youth wellbeing.

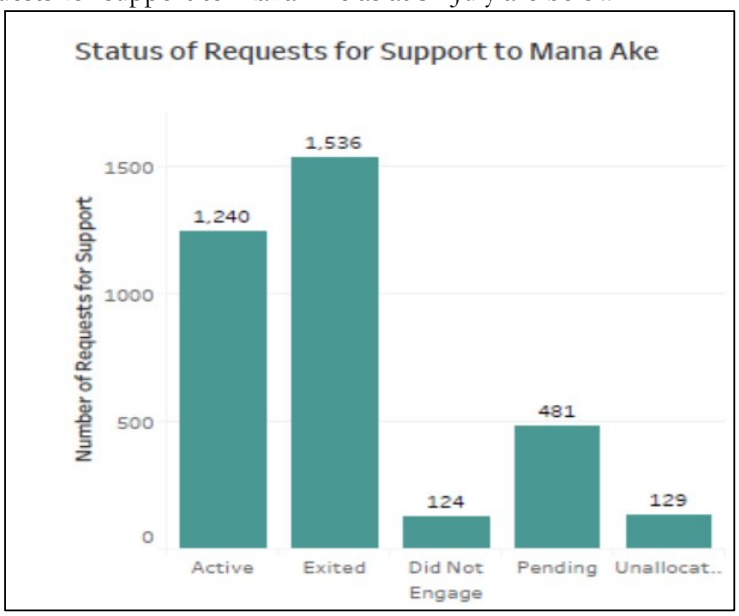
Older Person's Health

- **Funded Family Care:** The Government have announced a legislative change that will impact Funded Family Care in 2020. The change reinforces the social contract that people will take care of their own family members by prohibiting payment for providing support services except explicitly under a Funded Family care policy, and limits options for people to challenge the decision such as making a Human Rights Commission complaint. Implications for Canterbury around this change are likely to be limited, our contracted Home Based Support providers offer Funded Family Care, where people are employed to provide home based support services for family members which would otherwise be provided services by a support worker, but this has been taken up by fewer than thirty people. This arrangement is put in place where there are specific cultural or linguistic needs, or where care from a stranger is not acceptable to an individual and the family carers are paid at Pay Equity rates. There is some administrative burden on our providers in on-boarding these people (around contracting, and health and safety requirements).
- **Aged Residential Care recruitment:** Aged Residential Care providers report they are currently experiencing some difficulties recruiting nursing staff to their facilities. There may be a number of factors contributing to this, including the effect of the NZNO Nursing MECA (which does not apply to ARC facilities). Nationally, Aged Related Residential Care (ARRC) rates have increased to account for Pay Equity and also for increased expectations in terms of nursing salaries, and we have also seen Registered Nurse (Aged Care) added to the long term skill shortage list (allowing for easier paths to residence for Aged Care workers from abroad. We will continue to monitor this situation going forward.
- **Māori Health Action Plan:** Members of the Planning and Funding Older People's Health team attended a wānanga seeking input on the draft Māori Health Action Plan which will implement He Korowai Oranga 2020-2025. The report on Stage One of the Health Services and Outcomes Kaupapa Inquiry (Wai2575) provides a challenge to the Ministry of Health, as steward and kaitiaki of the health and disability system, to address systemic inequity around health outcomes, and subsequently, to DHBs to demonstrate leadership in driving change. Themes from this hui with implications for older people's health include enabling Māori to make decisions on matters affecting their health and wellbeing, and moving from cultural competency to cultural safety, which focuses on addressing privilege, discrimination and racism. This is a shift that may potentially have an impact on the delivery of all services for older people: while Canterbury DHB requires cultural competency in all its contracted service specifications, the extent to which kaupapa Māori is understood and implemented by providers can be variable – there is room for improvement in terms of equity outcomes across all our services.

Mental Health

- **Primary and Community:** A co-design workshop was held on 6 September to consider what Canterbury and West Coast DHBs need to expand choice and access to mental health service in line with the national direction in response to the Mental Health and Addictions Inquiry, He Ara Oranga. The Ministry of Health has signaled they are initiating a procurement process for integrated models of service delivery across primary, community, and secondary services. The workshop informed the Canterbury and West Coast response to this.

- **Alcohol and Drug:** A regional workshop is planned for 24 September to review the alcohol and drug model of care currently in place regionally, the aim of the workshop is to identify regional priorities going forward and evaluate the effectiveness of services since the model of care was agreed. The Ministry of Health will be involved in the workshop and are signalling they are interested in making resources available to boost NGO funding for sustainability and also new initiatives that increase equitable access to treatment.
- **Mosque Attacks:** To the end of July there have been 1,139 free GP consults provided to people impacted by the Mosque shootings. The Resilience Hub (www.resilient.org.nz) has had 5,075 users to 26 August with the majority from Christchurch and activity tapering off over the last month. Mental health services are preparing group based treatments for people who may now emerge with enduring symptoms of trauma. Upskilling including cultural responsiveness is being provided across primary, community, and secondary services.
- **Mana Ake – Stronger for Tomorrow:** Mana Ake is supporting the wider response to the Mosque Attacks. A locally agreed trauma pathway for children and young people aged 0-18 years is now live on Leading Lights. Mana Ake kaimahi (workers) are working directly with 20 children in response to the Mosque attacks. These children fall into three categories – family/whanau directly impacted, children of first responders, and children negatively impacted by the lockdowns and/or by viewing the video.
- Total requests for support to Mana Ake as at 31 July are below[1]:



- In many clusters, kaiarahi (team leaders) are actively working with school leaders to agree systems and processes to prioritise and manage demand. The fact that most teams now are working at capacity has triggered more proactive conversations about how the Mana Ake resource is used and prioritised across schools.
- A focus on Mana Ake data for children who identify as Māori was presented in July to the Mana Ake Service Level Alliance. The data indicates that requests for support are reflective of the proportion of Māori students in all but a few clusters. We are targeting liaison with those clusters to share the data and ensure the right supports are being offered to engage whānau and tamariki in those areas. The Project team is working with the provider network

[1] *Pending status indicates that requests have been allocated to kaimahi who are actively seeking Informed Consent. Unallocated status indicates that the request has not yet been allocated to a kamaihi.*

and Māori kaimahi to develop group programmes that support tamariki to engage through culturally focused interventions. Work is also underway to develop a culturally mindful practice framework to be implemented across the Provider Network, of 13 NGO providers.

Primary Care

- **Refresh of the Transalpine Health Disability Action Plan 2016-2026:** Contained within the Transalpine Health Disability Action Plan is the commitment to the disability community that while the overarching objectives are for 10 years from 2016 to 2026, the priority actions will be refreshed through consultation with the community every two years. Engagement with the community through a questionnaire and a forum hosted by the Disabled Persons Assembly did not identify substantial change to the existing priority actions in 2018. In 2019 the Disability Steering Group recommended that a different approach was undertaken. This approach included six forums held across Canterbury and the West Coast in the first 2 weeks of August. The forums were facilitated by a disability leader with lived experience, feedback was received via email which closed on 16 August. Māori and Pacific input is being specifically sought in addition to that received from the forums.

- Themes from the feedback to date have been collated and presented to the Disability Steering Group and the plan will now be refreshed to incorporate the themes. Notable feedback includes a desire for greater emphasis on primary care services (specifically increased availability of patient portals in General Practice) and more control of the services they receive through electronic shared plans such as the Personalised Care Plan and Acute Plan.

- Simultaneously the membership of the Disability Steering Group is being refreshed consistent with the Disability Action Plan. Seven community members are being sought along with a new chair. The call for nominations commenced in the week of 2 September. The refreshed plan and new members are planned to be presented, endorsed and in place by the first Disability Steering Group meeting in January 2020.

- **Te Ara Whakapuāwai Puāwai - Improving access to General Practice for People on Release from Prison:** From May 2018, General Practices have been able to offer people on release from prison up to 3 free consultations in the first 3 months. This includes extended consults and casual appointments for the first appointment as many people will not be enrolled initially. The provision is aimed at increasing enrolment for this usually hard to reach cohort. Following 15 months of delivery the programme has delivered fr consultations to 322 individuals, of these 138 are newly enrolled into General Practice, 42% (135) are Māori, 80% are male, and 45% of the total are aged between 25 and 34 years. A programme that is reaching young Māori men must be viewed as a significant accomplishment. In recognition of the programme's contribution to improving equity for Māori, Te Reo Komiti have given this progamme the name Te Ara Whakapuāwai. 'Ara' means pathway to 'puāwai' which is to flower, blossom and reach maturity.

- **Rangiora Health Hub IFHC Opportunity:** As previously agreed by the Board, parties interested in leasing land at the Rangiora Health Hub to build and operate an integrated family health centre (IFHC) have been invited to register their interest by 13 September. Responses will be assessed and further-developed proposals requested from those parties meeting the assessment criteria. Ministerial approval is required before a lease can be confirmed.

- **Community Pharmacy:** DHBs have concluded the first National Annual Agreement Review with pharmacy representatives, and are now offering pharmacies a variation to their Integrated Community Pharmacy Service Agreement which would, from October:
  - Require prior notice by the pharmacy to the DHB when relocating its premises, and require the DHBs consent if it has a policy on population access to pharmacy services;

- Strengthen the DHBs ability, following an audit of pharmacy service provision and claiming, to require the pharmacy to undertake remedial action;
- Provide for the DHB and pharmacy to develop and implement a plan to promote equity of health outcomes; and
- Increase pharmacy service funding by 2% at an estimated additional cost to the DHB of $1.1 million per annum.

- Canterbury's 130 pharmacies have until Tuesday 17 September to accept this variation offer.
- Canterbury Community Pharmacy Group and Specialist Mental Health Services (SMHS) are developing a new model for the shared care of people in the community receiving Opioid Substitution Treatment. This model is intended to give patients and their pharmacists more discretion to optimise treatment, while easing the prescribing burden on SMHS staff through using a secure digital medicines charting system. It will be trialled with three pharmacies and further developed.

Promotion of Healthy Environments & Lifestyles

- ***All Right?*** **social marketing campaign update:** The *All Right?* campaign team has received the results of the annual evaluation facilitated by Opinions Market Research Ltd. This research is designed to evaluate the effectiveness of the campaign in 2019. It also assessed the need for wellbeing messages in greater Christchurch. 478 Christchurch residents aged 15 and over took part in this research from May – July 2019. The sample is representative of the Census 2013 population in terms of age, gender and location.
- The survey findings suggest that awareness of the *All Right?* campaign continues to build with 88% of those surveyed being aware of the campaign, an increase from 82% in the last twelve months. The campaign appears to have increased wellbeing literacy in Canterbury with 77% of respondents saying that the messages make them more aware of the importance of looking after their wellbeing.
- The findings suggest that the more messages people see, the greater the impact. On average, respondents reported having seen more than nine *All Right?* campaigns. Of those who had seen 11 or more, 86% said that the messages had made them think about how they were feeling, and 62% reported that they had done activities or things as a result of what they had seen or heard from the campaign.
- In answer to a question about the value of the *All Right?* campaign, 90% of respondents reported that they believe *All Right?* is valuable for the Christchurch community, and 80% that it would be valuable for all New Zealanders. 50% of respondents reported that they believe the *All Right?* campaign helps with 'life in general'.
- The campaign also appears to have helped people respond to the impact of the mosque shootings, with 64% of respondents reporting they had been aware of the post-attack campaign, He Waka Eke Noa. Of these respondents, 41% indicated that the messages had helped them in the aftermath of the shootings.
- This evaluation indicates that the *All Right?* campaign is helpful in assisting our community in dealing with life's ups and downs, as well as in supporting them through the response and recovery phase post-disaster.
- **Recent Measles Cases:** There have been no further measles cases confirmed in Christchurch since the two recent cases notified in July. The initial Christchurch case, an 11 month-old baby, was infected in Auckland. Her household and health care contacts were followed up by Community and Public Health staff and susceptible contacts were asked to remain in quarantine for their potential incubation period.

- The second case, a 25 year-old family member of the initial case but from a different household, had been identified as a susceptible contact, and had remained in quarantine throughout her infectious period as requested. The usual measles incubation period for contacts of both these cases has now passed, and although a number of suspected cases have been notified, none has tested positive for measles. Community and Public Health's outbreak response team has now stood down.
- The Auckland outbreak that our cases were a part of is ongoing, with over 821 cases as at 4 September. There is an ongoing risk for further cases in Canterbury associated with the Auckland outbreak, or with travel to a number of overseas countries currently experiencing measles outbreaks, and health professionals are encouraged to continue notifying cases of measles on suspicion.
- Contact follow up involved a GP surgery and ED staff and patients at the hospital with a total of 98 contacts being individually followed up and isolation being required for 36 who were susceptible due to their vaccination status. During the period of isolation, CPH had regular welfare contact with the families and medical attention if needed. There was excellent cooperation from two primary care providers who assisted with serology and MMR vaccinations.
- **Community and Public Health's Health in All Policies (HiAP) Team hosted in Bendigo, Victoria**

The work of Community and Public Health's Health in All Policies team has attracted interest from Healthy Greater Bendigo and Healthy Heart of Victoria. Having found the HiAP webpages on C&PH's website, the Bendigo-based team saw the work of C&PH's HiAP team as aligning well with their local approach and community-focused aspirations. Informed through the HiAP newsletter and impressed by the tools developed here in Christchurch, the Bendigo-based team invited Anna Stevenson and Sandy Brinsdon to speak at their recent conference, 'Wellbeing in Every Decision'.

Healthy Heart of Victoria is a co-designed, regionally owned model, aimed at improving health outcomes across the Loddon Campaspe region in Victoria. The Healthy Heart of Victoria initiative has three components that support each other to achieve real change in preventable health outcomes.

- As part of the visit to Bendigo, we delivered C&PH's well evaluated and established programme, **Broadly Speaking**. The course was attended by a wide variety of participants across many sectors, including the Mayor of Bendigo. Engagement levels were high and the discussion was rich and relevant. Participant evaluations identified the Broadly Speaking Programme as being very valuable, and applicable to a setting beyond New Zealand - this is testament to the strength of the program, and its delivery which is well established in the Canterbury DHB and wider Canterbury health and community sectors.

- **Mosquito Interceptions:** We were notified of three mosquito interceptions in August at transitional facilities and Christchurch Airport. The number of interceptions has been increasing - we have been notified about 9 this year, compared to a total of 7 for all of 2018. It has been challenging managing staff resourcing as a result of the increased numbers of

interceptions, whilst also maintaining our Business as Usual duties. Due to Health and Safety requirements, we have also needed to change the way in which we transport the necessary gas cylinders, which has made the work more time consuming.

- The mosquitos found in August included a Culex tritaeniorhynchus (a species known to vector Japanese Encephalitis), a Culex pervigilans (a New Zealand native species) and a species which has never identified in New Zealand before, a Culex culiciomyia (not known to vector disease). Community and Public Health is currently planning for joint training with the Ministry for Primary Industries to improve our mosquito interception responses.

SUPPORTING OUR TRANSFORMATION

Effective Information Systems

- **Projects, including facilities and redevelopment**
  - **Hagley Building:** Network and wireless installation is complete with some minor tuning to wireless coverage in progress. Cellular coverage surveys are complete, and we have scheduled meetings with the Telecommunication Companies to review their remediation proposals.
- **Digital Transformation**
  - **Windows 10 / PC Replacement Programme:** *Deployment to future proof our computer environment, including enhancements in security, speed and performance*. Approximately 400 devices at Burwood Hospital have been upgraded. A small number were deferred because of timing or application compatibility and the Technical Team is currently working through these exceptions.
  - Deployment at Ashburton Hospital has commenced as we look to increase our daily rate to meet our deadline of early 2020.
  - **Outpatients Scheduling Tool:** *ServiceNow based tool for scheduling patient, clinicians, clinics and rooms. Initial focus is Christchurch Outpatients building, but subsequent deployments planned for Burwood and Ashburton Outpatients.* Go Live for Christchurch Outpatients is planned for mid-September. Planning is also underway for deployment at Burwood and Ashburton Hospitals.
  - **End of Bed Chart (Clinical Cockpit):** *Project to collate information from a number of systems on a hand-held device, including MedChart, Patientrack and Éclair results.* Integration with Health Connect South and MedChart has been successfully demonstrated to stakeholders.
  - **Cortex:** *Digital progress notes across Nursing, Allied Health and Doctors which will be accessible from point-of-care devices (iPads) so that the care team has immediate access to accurate information about our patients.* Haematology, Vascular, Stroke and Neurosciences have gone live. General Medicine has decided to go ahead with Cortex following their trial and planning is underway.
  - **Health Connect South (HCS):** Two further HCS releases have been deployed to Production. This included onboarding additional services to Clinical Referrals and applying Assign & Notify which has received positive feedback. Key business functionality and drive improvements across the business remain a priority.
  - **South Island Patient Information Care System (SIPICS):** Our priority focus continues to be on data quality improvement initiatives and overall performance of the system. We are working closely with partners Orion Health and the South Island region to diagnose and resolve any outstanding issues. Preparation for implementation of Release 19.2 has commenced which will improve follow-up workflow and work-flow validation between patient administration events, and enhance coding and printing.

- **Hybrid Cloud Transformation Programme:** *Canterbury DHB is embarking on a cloud transformation program to better take advantage of emerging technologies to drive innovation and deliver greater value.* The first application, InterRAI has successfully been migrated into Azure. This application is hosted by Canterbury DHB for 16 out of 20 DHBs.

IMPROVING AND INTEGRATING RURAL HEALTH SERVICES

- Through the Canterbury Clinical Network the Canterbury DHB has been engaging with communities and local providers in several rural areas to improve and integrate rural health services:

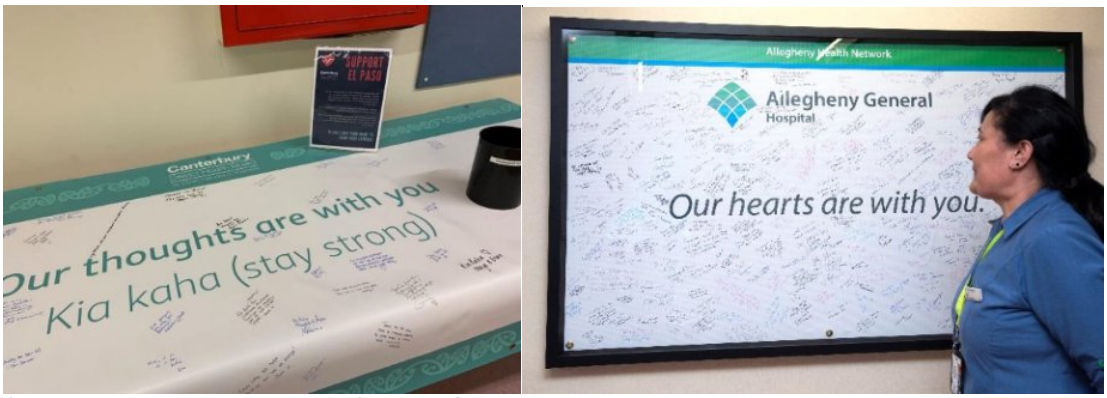
Akaroa	All Akaroa Health services are now operating from the new Akaroa Health Centre, the official opening held on 7 September.
Hurunui	Amberley Medical Centre and Hanmer Springs Health Centre continue to work with St John volunteers in making available emergency and urgent care after-hours for the Hurunui. Access to this care is more limited in Cheviot, Hawarden and Waikari – we are looking at options to improve access with local providers. We are awaiting feedback from local practices on draft terms of reference for a project to explore how closer integration between them could strengthen primary healthcare services for their communities.
Oxford	The Oxford and Surrounding Area Health Services Development Group is continuing to oversee service improvements endorsed by the Board earlier this year, such as installing telehealth at Oxford Hospital and improving access to restorative care for people following hospital treatment.

- Rural hospitals and residential care facilities could provide overnight observation for unwell people referred by their general practice team, avoiding for some a transfer to Christchurch Hospital. A protocol is being developed to facilitate general practice led observation services.

COMMUNICATION AND STAKEHOLDER ENGAGEMENT

Communications and Engagement

- The Communications Team have been contributing to the contingency planning for multiple strikes by DHB staff who are members of the APEX Union – including hospital psychologists and hospital pharmacists and medical imaging technologists.
- **Sending support to El Paso:** This month we created banners to send to the two main hospitals that received victims of the recent mass shooting in El Paso, and coordinated opportunities for staff to sign across multiple sites. In the aftermath of the mosque shootings we received a signed banner of support from Allegheny Hospital, which was a receiving hospital for victims of a mass shooting in Pittsburgh. They had received a banner of support from a hospital that had dealt with a similar tragedy and this sad baton passing between hospitals dates back to the Columbine shootings. The banners will be sent to El Paso with letters from David Meates.



On the left is the banner being signed by Canterbury DHB staff and on the right the banner we received after the mosque attacks on display at the Great Escape Café, Christchurch Hospital

- **Canterbury DHB website:** Use of www.cdhb.health.nz has now surpassed one million page views since being re-launched in October 2018. With over 80,000 uses by people each month our website is an essential service for many people interacting with the health system. To acknowledge our one million views milestone here are ten facts about our website:

  1. Monday and Tuesday are our busiest days with additional traffic from people reading our CEO Update Newsletter
  2. Over 60% of pages viewed are from people recorded as being in Christchurch
  3. CEO Update is by far our most downloaded document, this is followed by the Christchurch Hospital Map, which is downloaded about 400 times a month
  4. We have received more than 3000 enquiries about health services using our online contact forms
  5. Our pages load pretty quickly, on average it takes 4 seconds for a page to load, that's half of the global average page load time of 8 seconds
  6. Apple users are our largest mobile audience, with over half of mobile users using an iPad or iPhone. The Apple iPhone 7 was the most used mobile device over this time.
  7. One of our busiest pages is for staff, with over 90,000 staff accessing their email, max, service desk and other services via the staff section of our public website
  8. Since October we've received more than 33,000 visits from people coming from Facebook. Our top website referrers are Ministry of Health, Facebook, Christchurch City Council and Healthinfo
  9. We have almost 500 news articles published in our Health News section
  10. After New Zealand our top views by country, in descending order are: USA, Australia, UK, India, Canada, Philippines, Malaysia, Saudi Arabia, Singapore, Ireland, China, Germany, South Africa, Pakistan, Hong Kong, UAE, Indonesia, Thailand, Japan, Egypt, South Korea, Netherlands

- ***WellNow* Canterbury magazine:** The Communications Team has been working with the Quality and Patient Safety Team on writing stories for the next *WellNow* Canterbury magazine. The distribution to Canterbury mailboxes is scheduled to begin during the final week of October.

Media

- August provided a large variety of media enquiries, with no one topic dominating the requests we received. We continued to respond to enquiries relating to the flu season and amount of influenza-like illness in the community. We have also responded to multiple requests for

information about nursing vacancies within our Specialist Mental Health Services as part of the overall nursing shortage being experienced in different parts of the country. Some of the other topics of media interest included:

- Measles vaccination rates in Canterbury
- Uptake of flu vaccinations by our staff
- Project SEARCH at Burwood Hospital
- Hospital capacity this winter
- Strike action taken by DHB-employed Pharmacists who are members of APEX Union
- The one-day closure of a Canterbury School due to a gastro outbreak
- New linear accelerators for cancer treatment in Canterbury
- Adverse Drug Reactions (ADR) admissions
- 2018/19 suicide statistics released by the Coroner's Office
- The master planning process of the Christchurch Hospital Campus
- Progress on a new car parking building for Christchurch Hospital
- The Psychologists' strike and the DHB psychologist workforce
- Passive fire protection systems in our facilities
- Gynaecological surgery delays and wait times
- The new Christchurch Hospital, Hagley building

- Becky Hickmott, Nurse Manager – Workforce Development was interviewed by Sara Carberry of HealthCentral (an online health news source by NZ Herald) about the Manawa building and our collaboration with Ara to develop the nursing workforce.

- Joan Taylor, Director of Nursing for the Specialist Mental Health Services was interviewed by Kai Tiaki Nursing New Zealand (the New Zealand Nursing Organisation's monthly journal) on the mental health issues arising in the community following the 15 March mosque attacks.

- Director of Midwifery Norma Campbell was interviewed by The Project about home births and some recent research showing the benefits for mothers and babies.

- Community and Public Health Emergency Preparedness Coordinator Hamish Sandison was interviewed by 1 News about a Heatwave Seminar and what organisations in Canterbury were doing to prepare for future heatwaves.

- Our one live radio interview for Canterbury Mornings with Chris Lynch featured Geoff and Marina from KURI chatting about the work their therapy dogs do every week in Burwood Hospital. Geoff discussed how the dogs are used to progress patient recovery at Burwood and the benefits therapy dogs have for patients.

Our People (CEO Update Stories)

- Canterbury DHB has recently formed a Nursing Research Alliance (NRA) Steering Committee with representation from Canterbury DHB, Ara Institute of Canterbury, University of Otago and University of Canterbury. The purpose of the committee is to develop and oversee a research programme aimed at enhancing healthcare delivery through innovative nursing research that develops nursing knowledge, evaluates the effectiveness of nursing practice and translates this knowledge into better healthcare outcomes for patients/clients and their families/whānau. The NRA aims to advance healthcare outcomes of our patients through nursing practice which is underpinned and driven by scientifically rigorous research evidence. This includes regularly showcasing and sharing the nursing research completed by Canterbury DHB registered nurses.

- Having treatment for an abscess at Christchurch Hospital will soon be routinely simpler and faster after the creation and trial of a new Day-case Abscess Pathway. Those needing surgical treatment for simple abscesses will typically attend a short clinic-style assessment at hospital followed by a return visit the next morning for the procedure, returning home a few hours later. At present only 10% of abscess patients are treated and discharged the same day. Further testing and development is in progress and the project team hope to launch the pathway when services move to the new Christchurch Hospital Hagley building. Patients are happy to spend less time in hospital, and reducing length of stay and maximising efficient use of our bed base is a key objective.

- After 38 years at Canterbury DHB, Medical Specialist Mona Schousboe has retired. Mona was Clinical Director of the Microbiology Department from 1985 to 2005 and has been an integral member of the Canterbury DHB Infection Prevention and Control Service, serving as its Clinical Director since 1985. Mona has an extensive publication list (35) and has presented many posters and presentations at international conferences.

- A group of knitted teddy bears picnicked in the Nurse's Memorial Chapel gardens recently accompanied by grateful human companions. The several hundred teddies made quite a visual spectacle for those attending and passing by. The collection of bears came about after hospital chaplains put out the call for much needed donations. The bears are mainly given to babies in the Neonatal Intensive Care Unit, knitted mostly by people in church related groups. However this winter the number donated dwindled. There was there a large response from staff and other groups and the call out caught the attention of The Breeze radio station which championed the cause.

- The 2019 Countdown Kids Hospital Appeal which raises money for new equipment at hospitals and primary health services around the country has kicked off for another year. The appeal has been going since 2007 and about $1.3 million has been donated to Canterbury DHB's Child Health Division during that time. Māia Health Foundation CEO Michael Flatman says Countdown's support makes a huge difference, supplementing the great work done by staff with some great equipment. Each year thousands of Countdown and district health board staff rally their communities to support the appeal and people participate by making a donation or engaging in activities and raffles.

Facilities Redevelopment- Communication

- **Christchurch Hospital Hagley:** The "Let's Get Ready To Move" communications for the migration/operational transition to the building continues with:
  - Monthly videos for staff that are also shared on café TV screens. These videos remain monthly until 10 weeks before move day when they will become weekly.
  - Weekly briefings in the CEO update that are also shared via ward communications books, and the Hagley Operational Transition team and its networks. These are also distributed through wider networks, including unions and medical officers.
  - Facebook updates and a new email address for staff queries.
  - Posters and banners for staff noticeboards, screensavers and email signatures for staff.
  - Planning is underway for a series of significant events in relation to the opening of Christchurch Hospital, Hagley.
    - A blessing will be held on Wednesday 2 October
    - A staff open day will be held on Friday 4 October
    - A public open day will be held on Sunday 6 October

- Regular meetings are ongoing with the Hagley Operational Transition team, including service specific meetings to find out communication needs for particular services.

- Standard and 360-degree photography of near-completed wards in Hagley is ongoing. This will be used for staff orientation, enabling staff to see their new workspaces without having to visit during the construction phase. A Virtual Reality tour is in development. A 360 degree tour complete with building map so staff can identify photos with ward areas is being updated as more images become available.
- The online healthLearn orientation module for the new building is complete and undergoing the last of user testing. It is expected to go live at the beginning of October.
- The Communications Team is helping produce maps for transit routes for patient and staff migration and assisting with wayfinding strategies for patients, staff and visitors. Posters, bifold brochures and DLE handouts for the lead-up to the move are in development. These will be updated and refreshed for the day of the move and will be available in old wards following the move.
- **Burwood Spinal Unit:** As the Burwood Spinal Unit prepares to return to its refurbished ward, Communications is assisting with the development and creation of notifications for patients and families, posters and flyers for the Unit and the general Burwood populace, and other collateral as required. At the time of writing a blessing and stakeholder and staff open house is being planned for 6 September.
- **Rangiora Health Hub:** Staff and users attended a Blessing for the new Outpatients extension on 13 August. Clinics started operating out of the new building on 21 August.
- **Akaroa Health Hub:** At time of writing Communications is working with the Akaroa Community Health Trust and Akaroa Health Limited on planning for the official opening of the health centre, which is scheduled to take place on Saturday 7 September.
- **Christchurch Campus:** Communications is providing regular staff updates on work around the Christchurch campus and surrounding area, including the bus super stop.

FACILITIES REPAIR AND REDEVELOPMENT

General Earthquake repairs within Christchurch campus

- **Parkside Panels:** Contractor is on site for removal / restraint of North West corner panels. Consenting strategy discussions with Christchurch City Council have commenced in relation to remaining panels. Intrusive investigations are underway to inform the detail design. Implementation planning is contingent on master plan and decanting plans being developed separately.
- **Clinical Service Block Roof Strengthening Above Nuclear Medicine:** Completion achieved on 22 July 2019. Final defects completed 9th August.
- **Lab Stair 4:** RFP documentation being readied for issue. Programme start date to be in 3rd quarter 2019 following completion of Diabetes building demolition. Relocation of Labs staff and other associated planning continues. Discretionary consent exemption approved by CCC. Change request being compiled to capture budget and scope changes.
- **Riverside L7 Water Tank Relocation:** Handed across to Maintenance & Engineering (*M&E*) for completion. Site Redevelopment Unit (*SRU*) to continue to provide assistance..
- **Riverside Full Height Panel Strengthening:** Design and review complete. Budget pricing received from the quantity surveyor. Business case currently being formulated.
- **Parkside Canopies:** Business case for replacement of shrink wrap has been approved.

Christchurch Women's Hospital

- **Stair 2:** Team have identified a number of potential easy targets for improvement and are currently working through design and engineering prior to formal submission of a business case.
- The balance of fire analysis work is awaiting master plan before works can be programmed to complete strengthening works. Main focus for the last few months has been acceptance of building warrant of fitness with Christchurch City Council and Maintenance and Engineering.
- **Level 4:** Crack injection around core to be undertaken. Parent room, kitchen and toilet areas complete. Difficulties gaining access to area due to patient levels, actively working with staff to look at options to commence the remedial and passive fire protection works.
- **Level 5:** Small amount of work to corridor unable to commence due to operational constraints (NICU). Working with teams to identify a suitable time, but will endeavour to pick this up during Women's Passive fire protection works and post Hagley Christchurch occupation.
- **Level 3:** All areas complete except reception, which is to be done at same time as stair strengthening to minimise disruption.
- Work for levels 3, 4 and 5 is unlikely to occur until after Hagley Christchurch (ASB) occupation.

Other Christchurch Campus Works

- **Passive Fire/Main Campus Fire Engineering:**
  - Passive fire program has been selected as finalist in NZIOB Innovation Awards 2019.
  - Materials database is currently in use and is 99% through annual review.
  - Digitalization of the inspection and maintenance programme system is completed. This will allow for onsite recording of all works and integration to M&E management software.
  - Continue to identify non-compliant areas of other projects open walls / ceilings.
  - Second Stage RFP for installer fixed costs is with Legal for sign off.
  - MBIE visited the test lab and have pledged support for the project and working on a suitable ways to assist the programme moving forward to a wider audience.
  - Risk analysis and recommendation progressing slowly due to delay in releasing the master plan details. Approval to proceed to issue the fire engineering brief to Council and Fire Emergency NZ for comment now received. Quantative Fire Assessment (*QFA*) can now continue.
- **Christchurch Hospital Campus Energy Centre (managed by Ministry of Health (*MoH*)):** Preferred Boiler supplier identified and preliminary design work has been completed. The Budget assessment has necessitated a value engineering exercise to be undertaken.
- **235 Antigua St and Boiler House (Demolition):** No work to be undertaken until new energy centre constructed and commissioned.
- **Parkside Renovation Project to Accommodate Clinical Services, Post ASB (managed by MoH):** Planning ongoing. This project is being managed by the MoH with close stakeholder involvement from the CDHB. Still waiting on formal advice from MoH as to outcome of master planning process.

- **Backup VIE Tank:** Primary VIE tank is operational. Consent documentation being prepared. Work to be undertaken in conjunction with Labs stair 4 works.
- **Antigua St Exit Widening:** Camera traffic count to be undertaken.
- **Avon Switch Gear and Transformer Relocation:** Design complete. Project is being managed by M&E.
- **Otakaro/CCC Coordination.** Liaison with contractor for Bus Super Stop works on Tuam St ongoing.
- **Diabetes Demolition**: Demolition complete. Currently reviewing options for bitumen sealing of site.
- **Co-ordinated Campus Program:** Work is well advanced on a co-ordinated programme to tie together the demolition of Riverside West, the relocation of clean and dirty loading docks, demolition of the Avon generator building, Parkside Panel replacement / repairs, relocation of food services building and clinical support staff requirements in the LGF of The Hagley Christchurch (ASB). This will provide insight into timing, relocation requirements and potential sequencing issues. It is still subject to confirmation of who goes where, and subsequent endorsement, in relation to the MoH led campus master plan.

Canterbury Health Labs

- **Anatomical Pathology (*AP*):** Initial planning on options for repatriating AP from School of Medicine has commenced. Design team has been engaged and briefed, and initial bulk and location options have been developed. This process is linked to the overall master plan for this service. SRU project manager resources will be allocat5ed once there is more clarity on time frames for delivery of this work.
- **Core Lab (High Volume Automation) Upgrade:** Design team has been engaged and briefed. Initial advice provided to the CHL team in support of the equipment RFP process. This work has now been transferred to M&E due to its size and relatively straight forward process.

Burwood Hospital Campus

- **Burwood New Build**: Defects are being addressed as they come to hand. Still awaiting outcome of passive fire elements external testing and revised fire engineering judgement.
- **Burwood Admin Old Main Entrance Block - Older Persons Health (*OPH*) Community Team Relocation:** The feasibility study is now complete and work is to commence shortly on the options for repurposing the old Burwood Administration building to accommodate community teams. A decision on the Artificial Limb Service proposal is required before progressing this work any further.
- **Burwood Mini Health Precinct:** Project delivery options, funding options and lease agreements are currently being detailed. Agreement of scope and financials as well as key stakeholder requirements are currently underway. Quantity Surveyor figures sent to General Manager of Older Persons Health for review. The way forward for this is on hold until a decision on Mini Health / Artificial Limbs facility has been made.
- **Spinal Unit:** Main contractor works expected to finish on 28th August. Passive Frie works delays have added 54 days to the programme. Clinical teams are planning relocation back to the unit for the 12th September.
- **Burwood Birthing/Brain Injury Demolition**: Main demolition completed. Additional site scrapes have been undertaken to mitigate soil contamination. Backfilling has commenced to level up the existing site.

Hillmorton Hospital Campus

- **Hillmorton SMHS:** Preliminary design is progressing. Ground condition testing is underway.
- **Earthquake Works:** No earthquake works currently taking place.
- **Food Services Building:** Business case to be signed off by Beng-Cheng Chan and Terry Walker. With Corporate Finance for decision.
- **Cotter Trust:** On-going occupation being resolved as part of overall site plan requirements. Meeting on site with Cotter Trust representatives undertaken, with proposed new location to be presented after review and sign off by senior management.
- **AT&R:** New High Care Area for AT&R construction contract complete with works commenced on site. Resource consent received and building consent currently with Council. Working on additional requirements for building 1 and 2 and temporary High Care Area for building 3. These include options for additional space in the PSAID area and opportunities for a low stimulus area retrofitted into existing spaces. Business case for temporary works approved. Internal alteration has commenced and is progressing well.
- **Master Planning:** Architect/Health Planners have commenced work with initial meetings being held. Programme of deliverables has been provided with a planned completion currently forecast for the end of October 2019. Currently working with the Mental Health Service and Planning and Funding to understand the metrics and clinical service requirements going forward.

The Princess Margaret Hospital Campus

- No projects at present.

Ashburton Hospital & Rural Campus

- **New Boiler and Boiler House**: Currently being managed by Maintenance & Engineering.

Other Sites/Work

- **Akaroa Health Hub:** Building is complete and tenants have moved in. As Built documentation and defects are being reviewed.
- **Kaikoura Integrated Family Health Centre:** Minor repairs being undertaken by M&E.
- **Rangiora Health Hub:** Construction work on building is compete. Defect inspection and resolution is underway. Grounds and carpark work nearing completion. On programme with occupation set for 21 August 2019.
- **Home Dialysis Training Centre Relocation:** Completed.
- **Seismic Monitoring:** Business case approved for stage 1 Design & Procurement. Case study building assessment underway.
- **Manawa (formerly HREF):** Building has been blessed and is occupied. Currently in defect liability stage.

Project/Programme Key Issues

- Sign off on the direction of the Master Planning process is required to plan the next stage of the POW.
- Delays to the POW continue to add risk outside the current agreed Board time frames. Key high risk areas of Panel replacement are starting, as instructed by CDHB Board.

- Access to NICU to undertake EQ repairs to floors continues to be pushed out due to access constraints. Work in these areas will not be possible until the Hagley Christchurch project is complete and space elsewhere on the campus becomes available.
- Passive fire wall repairs continue to be identified. Repairs to these items are being completed before the areas are being closed up, but the budget for this has not been formalised. On-going repairs of these items, while essential, continue to put pressure on limited budgets and completion time frames. Risk analysis progressing slowly due to delay in releasing the master plan details.
- The passive fire QA process has identified non compliances on newly installed elements in the Burwood Spinal Unit works. These are now being rectified. The contractor responsible for the initial install has been removed from site and a new contractor has been engaged so as to mitigate delivery dates and resolve quality issues for this work.

LIVING WITHIN OUR FINANCIAL MEANS

Live Within our Financial Means

- The consolidated Canterbury DHB financial result for the month of July 2019 was a net operating expense of $9.047M, which was $0.073M favourable against the draft annual plan net operating expense of $9.120M.

	MONTH			YEAR TO DATE		
	Actual	Budget	Variance	Actual	Budget	Variance
	$M	$M	$M	$M	$M	$M
Governance	(0.063)	-	**(0.063)**	(0.063)	-	(0.063)
Funder	(4.895)	(6.921)	**2.025**	(4.895)	(6.921)	2.025
DHB Provider	(4.089)	(2.199)	**(1.890)**	(4.089)	(2.199)	(1.890)
Canterbury DHB Group Result	**(9.047)**	**(9.120)**	**0.073**	**(9.048)**	**(9.120)**	**0.071**

4. APPENDICES

Appendix 1: Kia ora Hauora Work Placement Programme 10th Anniversary

Report prepared by: Mary Gordon, Acting Chief Executive

WORK PLACEMENT PROGRAMME 10TH ANNIVERSARY

This week Kia Ora Hauora is celebrating 10 years of supporting more Māori into the health sector with the anniversary of its Christchurch-based Work Placement Programme in partnership with the Canterbury District Health Board.

"The week-long placement programme is where it all started. It's hard to believe it has been 10 years." says Cazna Luke, Kia Ora Hauora Programme Manager, National Coordination Centre.

"Without the aroha and enduring relationship we share with Ngā Ratonga Hauora Māori staff and the support of the district health board it wouldn't be possible. Together we have been able to develop a programme that is introducing young Māori to exciting career options and helping to transform lives."

The work placement programme was a forerunner to Kia Ora Hauora and designed as a health career work experience opportunity with the aim to promote the diversity of career pathways within the health sector. A successful pilot was held in May 2009 which was nominated as a finalist in the CDHB Quality and Improvements Awards that year. Since then 11 more programmes have been run in Christchurch involving 108 secondary and kura kaupapa students. Kia Ora Hauora has since worked with the West Coast DHB and the Nelson Marlborough DHB to establish programmes in each region which have been running since 2015.

The latest programme got underway on Monday with 14 secondary students welcomed to Christchurch Public Hospital for the start of a busy week of workshops and hands-on activities in and around the hospital and out in the community.

The real success of the Work Placement Programme is measured in the number of secondary students that have been inspired and supported to go on to tertiary education and enter a career in health. "A high percentage of our students that have been through the Work Placement Programme have gone on to study towards a health career. We have Kia Ora Hauora registered members working in Christchurch Public Hospital today that only a few years ago were getting their first experience of the health sector on the programme," says Cazna. One is an operating theatre nurse and another is a Registered Nurse working in paediatrics. Others have gone on to become radiographers, midwives, emergency medical technicians or are medical students working to become doctors.

"These are our whānau and they are making a difference in the health sector; their journeys and their stories make all the hard work worth it," she says. "The numbers of Māori working in health needs to increase in size to meet the needs of the nation's changing population demographic. It's only through achieving equity in the Māori health workforce that we will improve Māori health outcomes. Our job at Kia Ora Hauora is to recruit, retain and revitalise the Māori health workforce and through sustained investment in initiatives like the Work Placement Programme we'll get there."

Kia Ora Hauora is a national Māori health workforce development programme set up by the Ministry of Health which has four regional coordination teams based in Christchurch, Wellington, Rotorua and Auckland. The National Coordination Centre is based in Ōtautahi and is operated under contract by Mokowhiti Consultancy a successful whānau-centric business owned by husband and wife team Lee and Cazna Luke.

ENVIRONMENTALLY SUSTAINABLE HEALTH CARE: POSITION STATEMENT

Canterbury District Health Board
Te Poari Hauora o Waitaha

TO: **Chair and Members**
Canterbury District Health Board

SOURCE: **Community & Public Health**

DATE: **19 September 2019**

Report Status – For:	Decision	☑	Noting	☐	Information	☐

1. ORIGIN OF THE REPORT

The South Island Public Health Partnership has created a Sustainability Position Statement. This Position Statement is being presented to each South Island Board for approval.

2. RECOMMENDATION

That the Board, as recommended by the Community & Public Health and Disability Support Advisory Committee:

i. approves the draft Environmentally Sustainable Health Care: Position Statement.

3. SUMMARY

The purpose of this position statement is to describe the commitment of the Canterbury District Health Board to achieving an environmentally sustainable health system and the actions needed to accomplish this. This position statement builds on the South Island District Health Boards' current environmental sustainability commitments and actions, and sets out our approach to managing environmental impacts, reporting on our sustainability performance, and delivering environmentally sustainable patient-centred health care services – to 2050.

4. DISCUSSION

The position statement and accompanying actions enable South Island District Health Boards to work both collaboratively and independently to ensure an appropriate focus and response to sustainability.

5. APPENDICES

Appendix 1: Draft Environmentally Sustainable Health Care: Position Statement

Report prepared by: South Island Public Health Partnership

Report approved for release by: Evon Currie, General Manager, Community & Public Health

Environmentally Sustainable Health Care: Position Statement

2019

Canterbury District Health Board
Te Poari Hauora ō Waitaha

SOUTH ISLAND ALLIANCE

Contents

POSITION STATEMENT

Purpose

The purpose of this position statement is to describe the commitment of the XXXX District Health Board to achieving an environmentally sustainable health system and the actions needed to accomplish this. This position statement builds on the South Island District Health Boards' current environmental sustainability commitments and actions and sets out our approach to managing environmental impacts, reporting on our sustainability performance, and delivering environmentally sustainable patient-centred health care services – to 2050.

Definition

The World Health Organization (WHO) defines an environmentally sustainable health system as:

> '*A health system that improves, maintains or restores health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations*' (WHO, 2017, p. IV).

Scope

The focus of this position statement and background paper is on human-caused global warming[1] and the resultant global climate change, because human-caused global warming has been identified as *the* most pressing environmental change currently occurring [1-3].

Position

Note: (page numbers) refer to the corresponding sections of the Background Paper

At the 2015 Paris Climate Conference (COP 21), the New Zealand Government affirmed New Zealand's commitment to limiting the increase in global average temperature to well below 2°C above pre-industrial levels (page 10) [4,5]. XXX District Health Board acknowledges New Zealand's commitment to the 2015 Paris agreement and:

1.1. recognises the impending impacts of global climate change on human health as *the* most pressing environmental issue in the immediate future (alongside other aspects of environmental protection such as resource use, waste, and water) (page 10 & 11)

1.2. recognises that significant ill-health effects will result from ongoing unchecked climate change, and other environmental impacts, and as the burden of this harm will likely be carried disproportionately by some population groups, special attention to equity and Treaty of Waitangi issues is required (pages 11–12)

1.3. acknowledges that the health sector has the ability and the responsibility to advocate for public health by communicating the threats and opportunities to the public and policy makers and ensuring that climate change is understood as a central issue for human wellbeing (page 13)

[1] In this Position Statement, the term *global warming* refers to a gradual increase in average global surface temperature (as one of the consequences of anthropogenic emissions) and the term *climate change* describes the resultant amplification of natural climate variability (i.e., the portion of climatic variability that is attributable to human activities).

... continued

1.4. acknowledges that health care systems' contributions to New Zealand's total greenhouse gas emissions are significant, and environmental sustainability within health care involves ensuring the efficient management of all physical, financial, and human resources within the sector, including upstream inputs of goods and services and downstream clinical and non-clinical waste, (pages 14–17) and

1.5. recognises that health systems can benefit directly (e.g., improved efficiency) and indirectly (e.g., via a healthier population) from implementing environmentally sustainable actions as business-as-usual (pages 18–21, & Appendix).

Actions

XXX District Health Board will:

2.1. advocate for health by demonstrating sustainability leadership in the community, and by communicating the threats and opportunities to the public and policy makers to ensure that climate change is understood as a central issue for human wellbeing (page 13)

2.2. develop the system-wide resource capacity and capability to effect change; including the establishment of a South Island network, group, or entity with the means to work collaboratively to develop, embed and promote environmentally sustainable health systems (page 13 & Appendix)

2.3. participate in a regional project to measure the total carbon footprint of the South Island District Health Boards, and identify the main areas that could be improved (emission *hot-spots*). In order to achieve this, the South Island District Health Boards commit to expanding the scope of measurement previously applied under the Carbon Emission Measurement and Reduction Scheme (CEMARS) to include the embedded carbon inherent in procurement, travel, food and catering, and other indirect emissions sources (pages 14–19 & Appendix), and

2.4. develop and implement a local and/or South Island-wide environmental sustainability plan to guide the reduction of the District Health Board's environmental burdens, across the full range of activities, in order to be environmentally sensitive and carbon-neutral by 2050. The plan will include mitigation measures and an adaptation strategy that anticipates service change (pages 19–24).

About this Position Statement

This Statement was developed for the South Island District Health Boards by the Information Team, Community and Public Health, a division of the Canterbury District Health Board, with the guidance of the South Island Public Health Partnership Management Group.

BACKGROUND PAPER

Abstract

The purpose of this Background Paper is to inform the commitment, statements, and actions of the South Island District Health Boards in their efforts to achieve an environmentally sustainable health system. The most rapid environmental change currently occurring, on a global scale, is human-induced global warming and the resultant global climate change [1-3]. Increased emissions of fossil CO_2 since the mid-18th century have amplified the natural greenhouse effect causing the Earth's average surface temperature to rise [1,6,7]. The effects of ongoing global warming and global climate change now threaten to undermine many of the social, economic, and environmental drivers of health and wellbeing that have contributed greatly to human progress [1,3]. Trends in climate change impacts, exposures, and vulnerabilities indicate high levels of risk for the current and future health and wellbeing of all populations in New Zealand [8]. Our failure to reduce emissions and to build adaptive capacity threatens human health and wellbeing and the viability of health infrastructure and services.

Most organisations and businesses still apply a fragmented, reactive approach to climate change mitigation, rather than embedding sustainability as a core principle. However, in the health sector, there are a number of exemplar organisations around the world that have made substantial progress towards sustainable health systems. Many health systems have achieved substantial improvements in resource efficiency in areas such as energy, waste, water, and use of raw materials, along with financial savings, positive environmental impacts, and direct benefits to health.

While some progress has been made, the most recent Intergovernmental Panel on Climate Change report (IPCC, 2018) clearly demonstrates that the increasing rate of global warming is greatly outweighing the scale and urgency of the response, not only in health but across all sectors. The Intergovernmental Panel on Climate Change concludes that *unprecedented* rapid and far-reaching transitions in energy, land use, infrastructure, and industrial systems are required to limit the worst effects of global warming [6]. Within the health sector, substantial investment in sustainable infrastructure and systems will be required to ensure the sustainable, equitable delivery of health services, in the face of increased demand. Future climate-resilient development within health care will require a mix of mitigation and adaptation measures consistent with profound societal and systems transformations [6]. Ambitious mitigation actions are crucial to limiting future warming. Significant adaptation actions will also be needed to manage already inevitable impacts of climate change – by reducing vulnerability and exposure to its harmful effects [6].

This Background Paper provides a brief, practical overview of relevant issues and challenges, and the resultant risks to human health and wellbeing. The Background Paper also outlines current and potential health-sector actions (New Zealand and international) that aim to prevent and/or manage these risks to human health, as well as describing the potential health co-benefits that can accrue from well-designed policies that support climate-resilient development.

Key definitions relevant to this position statement

SUSTAINABILITY

"a dynamic process that guarantees the persistence of natural and human systems in an equitable manner"

Source: The Intergovernmental Panel on Climate Change (IPCC) Working Group II: Impacts, Adaptation and Vulnerability, Annex II, 2014

HEALTH SYSTEM

"all the activities whose primary purpose is to promote, restore or maintain health"

Source: The world health report (2000). Health systems: improving performance. Geneva, World Health Organization, 2000, p.5

HEALTH

"A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity"

Source: World Health Organization (1946): Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference; New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

ENVIRONMENTALLY SUSTAINABLE HEALTH SYSTEM

'A health system that improves, maintains or restores health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations'

The World Health Organization (2017). Environmentally sustainable health systems: a strategic document WHO Regional Office for Europe (p. IV)

Introduction

Background

Global warming[2] and subsequent global climate change are consequences of anthropogenic emissions, mainly from fossil fuel–based power generation and transport, agriculture, and industry, which increase the heat-retaining capacity of the lower atmosphere[3] [9,10] . Global warming is part of a larger set of human-induced global environmental changes which include land degradation, ocean acidification, depletions of the ozone layer, reduced soil fertility and fresh-water resources, and disruptions to biodiversity stocks and ecosystem functioning [9].

The global scale and economic intensity of contemporary human activity are unprecedented [11,12]. Increasingly, interrelated and widespread environmental impacts are resulting from population growth, intensive economic activities, urbanisation, and consumerism [12-14]. These global changes fundamentally influence patterns of human health and health care activities [7,9,12,15-21]. Human-induced global warming has already caused multiple observed changes in climate systems [2,10,22].

Human activities are estimated to have already caused approximately 1.0°C of global warming above pre-industrial levels (likely range of 0.8°C to 1.2°C) [3,6]. Global warming is likely to reach 1.5°C between 2030 and 2050 if emissions continue to increase at the current rate (BOX 1) [6]. Pathways limiting global warming to 1.5°C will require rapid and far-reaching transitions in energy, land use, urban infrastructure, and industrial systems (including transport and buildings) [6]. Limiting global warming to 1.5°C will also require future large-scale deployment of carbon dioxide removal technologies (CDR) [23] and can only be achieved if global CO_2 emissions start to decline well before 2030 [6]. Without these global actions, the world will exceed its carbon budget and may experience high levels of warming (4- 6°C) by 2100 [6]. Warming in the range of 4–6°C will result in many populated areas of the world being unable to support human health and wellbeing.

BOX 1

Why the 1.5°C threshold?

At the 2015 Paris Climate Conference, 195 nations agreed to curb greenhouse gas emissions sufficiently to limit global warming to "well below" 2 degrees Celsius above pre-industrial levels. However, many nations called for the goal of '*pursuing efforts to limit'* global temperature rise to 1.5°C above pre-industrial levels (the 1.5 degrees target having first been proposed within UN Climate Change documents in 2010, or earlier). Subsequently, the 1.5 degrees target has been adopted as the lower temperature value in climate modelling scenarios. Current modelling highlights stark environmental differences between the two warming targets (i.e., 1.5°C vs. 2°C) [22].

However, the 2018 IPCC's analysis now predicts that the 1.5° C temperature threshold will be exceeded around 2050. The IPCC state that "negative emissions" will be required to bring the temperatures back down after overshooting 1.5° C mid-century. However, the technologies required, such as carbon capture and storage, are not yet commercially viable [6,22].

The scale of future risks to human health and wellbeing generally depend on numerous interactions between specific hazards, exposures, and vulnerability. Climate-related risks for natural and human

[2] In this Background Paper, the term *global warming* refers to a gradual increase in average global surface temperature (as one of the consequences of anthropogenic emissions) and the term *climate change* describes the resultant amplification of natural climate variability.

[3] This list only includes emissions, however, deforestation also increases the net carbon dioxide (CO_2) in the atmosphere by reducing the amount of natural carbon dioxide removal.

systems depend largely on the future magnitude and rate of warming, geographic location, levels of development, and ultimately on the choices and implementation of mitigation and adaptation options [10,22]. The effects of climate change are being felt today, and have been described as representing an 'unacceptably high and potentially catastrophic risk to human health' [2, p.1861] which 'threaten[s] to undermine the past 50 years of gains in public health' [1, p.581].

Climate change in New Zealand

The IPCC [Australasia] report concludes that increased atmospheric warming is 'almost certain' for New Zealand as the 21st century progresses [24]. Projected overall changes for New Zealand have been calculated using a regional climate model developed by the National Institute of Water and Atmospheric Research (NIWA) and the New Zealand Ministry for the Environment [8]. The model estimated that mean temperature will increase for New Zealand (relative to the 1986-2005 period) by 1.6°C by 2110. In New Zealand, annual average temperatures have already risen 0.92°C, over the period 1909 to 2015, and coastal sea levels show an average increase of 1.7 mm per year between 1900 and 2013 [25]. Both temperature and sea level are expected to continue to rise.

These changes in average temperature will have large effects on the likelihood and frequency of future extreme weather events [24] and local and regional differences in the type and extent of the consequences are expected [20]. In New Zealand, populations living in different social, economic, and physical conditions will be affected differently by climate changes. Low-income and remote populations are more vulnerable to physical hazards, undernutrition, infectious diseases, and the health consequences of displacement [18]. The list below summarises the health risks that are related to climate change, by category, sourced from both New Zealand specific and global analyses [1,2,6,8,17,18,20,26,27].

Primary health effects/risks include death, injury, and/or loss of public welfare that may result directly from:

- drought
- heat waves
- wildfire
- wind and storms
- heavy rainfall
- flooding
- landslides
- sea level rise
- coastal inundation
- increased ultraviolet radiation
- decreased air quality.

Secondary health effects/risks that are related to changes in biophysically and ecologically based processes and systems include:

- emerging/re-emerging infectious disease
- changes to infectious-disease vectors
- changes to intermediate-host ecology
- increases in toxin-producing organisms
- increases in antimicrobial resistant bacteria
- health effects related to cancer, cardiovascular disease, stroke and nutritional risk factors
- undernutrition related to disruption of food production and water supply (including access to drinking and irrigation water).

Tertiary health effects/risks include:

- social change and population displacement/migration to New Zealand
- social and economic disruptions (diverse health consequences of livelihood loss)
- child development and life-course/adult health
- mental health and stress-related disorders, and neurological diseases and disorders
- health effects related to food security and safety
- effects on occupational health
- consequences of tension and conflict (domestic and international) owing to climate change-related declines in basic resources
- poverty and disadvantage increased effects of aesthetic and cultural impoverishment.

Towards environmentally sustainable health care

Approaches to environmental sustainability within private and public organisations have evolved significantly over the past 50 years, from a basic compliance approach to an environmental stewardship approach [18,28,29]. During the era of *compliance* (1970s-2000s), most organisations applied a fragmented, often minimal, reactive approach in order to comply with regulations or to deal with emergencies [30]. For the health sector, the *stewardship* approach involves the efficient management of all physical, financial, and human resources, including upstream inputs of goods and services and downstream clinical and non-clinical waste. Current approaches to stewardship (or sustainable development) in health care anticipate change and are based on the relationships between human health, wellbeing, and the environment. The World Health Organization defines an environmentally sustainable health system as a health system that:

> 'improves, maintains or restores health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations' [29, p. IV].

Through stewardship, innovation can arise from a recognition of the synergies that exist between health and the environment, and of the need to address modifiable upstream determinants of health. This means a strong focus on actively identifying win–win solutions (co-benefits) whereby environmental sustainability actions reinforce core service delivery. Co-benefits provide an important framework for public health action on climate change [18,28,29,31]. The WHO definition of an environmentally sustainable health system also highlights the focus on social equity (BOX 2), the fair access to resources, and the fair distribution of costs and benefits across and between generations. Financial sustainability, environmental sustainability, and improving the quality of care (including equity) can be framed and operationalised as complementary goals.

BOX 2

Equity

The principle of equity is central to issues of environmental sustainability – recognising that many of the impacts of global warming, and some potential impacts of the mitigation actions required, fall disproportionately on the poor and vulnerable [6,38].

Māori health and equity

Climate change will result in different exposures and degrees of impact for different population groups; depending on geographic location, age, ethnicity, health status, socioeconomic circumstances, and other pre-existing vulnerabilities [32,33]. Māori, Pacific people, the elderly, and low-income groups in New Zealand are at greater risk of many of the adverse health impacts of climate change, compared with the general population [34,35].[4] A disproportionately high number of Māori and Pacific people in New Zealand live in deprived circumstances, and deprivation is a significant driver of poor health outcomes [36-38]. Māori may also experience unique impacts related to indigenous relationships with the environment and/or cultural impoverishment [38].

Exposures related to climate change can be expected to exacerbate pre-established and disproportionate burdens and susceptibilities to disease for Māori, across many health conditions

[4] Many equity issues for Māori may also be experienced by Pacific Peoples living in New Zealand and by low income New Zealanders.

[38]. These effects will act most strongly on the more climate-sensitive conditions, such as water/food/vector-borne diseases, direct injuries due to extreme weather events, respiratory diseases, heat stress, and mental health conditions [1,2,20,39]. Further, reduced agricultural production could lead to higher unemployment, and wide-ranging economic and social impacts, including impacts on income distribution, attitudes and health behaviours, and these impacts may be disproportionately severe for Māori [40]. Overall, climate change will increasingly exert an influence on and through the broader social determinants of health in New Zealand and globally, and progress on adaptation will require the health sector to increasingly engage with the multiple sectors outside health, in areas such as trade, agriculture, employment, and education [41,42].

Advocacy

Attention to the related health effects of climate change, and the necessary responses, is growing both in the media and in academic publications [1]. Contributions from within the health professions are increasingly seen as essential in driving sustained progress on reducing emissions, and realising the local and global health benefits of climate action [1]. The need for advocacy in public health is not new. The 1986 Ottawa Charter [43] has long highlighted advocacy as a fundamental strategy for advancing health as a major resource for social, economic and personal development, and an important dimension of quality of life. Most definitions of public health reinforce that public health is future–orientated and depends on 'the organised efforts of society'[5] [44,45]. The World Health Organization continues to highlight the need for the health sector to 'advocate social change as a means for sustainable improvement of population health' [37, p.175]. Moreover, the principle of moral equality[6] provides strong ethical grounds for the health community in particular, to advocate for climate change action on behalf of current and future generations [45]. Advocacy is required to raise attention and sustain support for climate change actions and this requires the development and implementation of a health sector strategy for high-level strategic communication [1,2,37].

[5] Adapted from the 'Acheson Report', the *Report of the Committee of Inquiry into the Future Development of the Public Health Function*. London, 1988.

[6] The principle that no one individual is intrinsically superior to, or worth more than, another.

Mitigation

Carbon accounting

The first step towards system-wide emission reductions for an organisation is to measure its carbon footprint; or the *total* (direct and indirect) greenhouse gas emissions[7] of the organisation occurring over a given time frame or event. Carbon accounting can produce a detailed breakdown or profile of the relative contributions across the different sources of emissions (called scopes) [46-50]. The emission profile can then be used to inform planning and mitigation actions. There are three defined groupings or Scopes of emissions as set out in the *Greenhouse Gas Protocol*, the internationally adopted guidebook on carbon accounting methods [50]. Table 1 provides an example overview of the greenhouse gas Scopes 1, 2 and 3 as applied to a health system in a developed country (in this example, the NHS England, 2015) [51].

Table 1: Summary of Greenhouse Gas Protocol Scopes 1, 2 and 3, applied to a health care system

Scope	Description	Summary	Contribution[A]
1	Scope 1 emissions are the *direct* emissions emitted from the burning of fossil fuels to generate heat and electricity, on-site.[B] Plus the direct emissions from health-organisation owned vehicles such as fleet and patient transport services, other incinerators or combustion processes, and emissions from chemical production where the equipment is owned and operated by the health-organisation/entity. Scope 1 emissions account for approximately 20% of the total CO_2e emissions in this example.	Direct, by-products of combustion (for heat, power, and transport: on-site.	≈20% 
2	Scope 2 emissions are those *indirect* CO_2e emissions attributable to the generation of electricity off-site[C] that is purchased and consumed on-site. Scope 2 emissions account for approximately 20% of the total CO_2e emissions in this example.	Indirect by-products of electricity generation: off-site.	≈20% 
3	Scope 3 emissions are those *indirect* CO_2e emissions attributable to the production of materials used for buildings and health care infrastructure, the procurement of goods and services used in the delivery of health services, and patient, visitor and staff travel.[D] Scope 3 emissions account for approximately 60% of the total CO_2e emissions in this example.	Indirect, everything else: off-site.	≈60% 

[A] The relative contributions from each scope are likely to be country/organisation/time-specific. A country's electricity generation profile will influence the relative contributions (the table should be considered as an example only).
[B] Direct CO_2 emissions from the combustion of biomass (e.g., in a wood-fired boiler) are reported separately.
[C] Scope 2 emissions physically occur at the power station where electricity is generated.
[D] These emissions occur as a consequence of the activities of a health-organisation, but occur from sources not owned or controlled by the health-organisation (e.g., pharmaceuticals and medical devices; transportation of purchased fuels and other goods; employee business travel, employees commuting, transportation of waste, and emissions generated during the production of electricity that is consumed/lost in a transmission and distribution system).

[7] Climate change is largely attributable to emissions of carbon dioxide (CO_2), hence other greenhouse gasses are equivalised to CO_2's warming potential.

The Scopes 1, 2, and 3 cover three fundamental categories of emissions: emissions generated by the production of heat and electricity (on-site), emissions attributable to the generation of grid electricity (off-site), and 'everything else'. These broad categories can be further broken down into numerous sub-categories, such as heating, lighting, travel to-and-from health care sites by patients and visitors, staff commuting and business travel, and notably, embedded carbon emissions associated with the procurement of goods and services used in health care delivery.

Scope 1 and Scope 2 emissions are relatively easy to identify and quantify as they relate to energy consumption activities that occur within an organisation's operational boundary. These energy-related emissions may account for approximately 40% of a health system's total carbon footprint (depending on a country's electricity generation profile or 'percent renewable' and the influence this has on Scope 1 and Scope 2 emissions). Scope 3 emissions have been shown to account for approximately 60% of a developed country's health system's total CO_2e emissions, based on a number of carbon footprinting studies [46,51-54]. In particular, procured pharmaceuticals, single-use medical devices, and medical equipment typically contribute the most within the Scope 3 category [55], as well as non-medical goods (e.g., food) and building/construction [52]. Health systems also procure substantial volumes of services from external contractors, and these procured services also contribute to Scope 3 emissions. The Appendix extends Table 1 and provides a detailed example of the application of carbon accounting principles to an entire health system. International research in the US, Australia and the UK[8] [46,51,56-59] has shown that it is necessary to pursue carbon reductions across all categories, because no one category has the potential for the scale of savings necessary to meet current global emission targets [47,56].

Applying carbon accounting to prioritisation and decision-making processes

As already outlined, the primary purpose of carbon accounting is to produce an emissions profile that is sufficiently detailed to inform planning and decision-making about future mitigation initiatives. The challenge for decision-makers, in this regard, is to effectively prioritise and implement a complementary selection of mitigation initiatives that together result in the most economically-efficient carbon reductions, taking into account the cradle-to-grave [60] environmental costs of service delivery and other practicalities (BOX 3) [12,31,61,62]. In selecting mitigation initiatives (particularly for energy-emissions), it is necessary to take account of interactions and overlaps between initiatives. Interactions concern situations where the potential carbon savings from one initiative are reduced because another technology or approach has already been implemented.

In practice, prioritising abatement measures involves simultaneously considering different initiatives that broadly fit within two main approaches: (1) energy generation/efficiency and (2) non-energy emissions. The energy-generation approach typically involves energy infrastructure projects such as converting coal-fuelled boilers to biomass-fuelled boilers (e.g., wood chip) or installing combined-heat-and-power plants in hospital settings (i.e., targeting Scope 1 emissions). The energy efficiency

[8] Sustainable Development Unit NHS carbon footprint publications relating to 2004, 2007, 2010, 2012, and 2015, are available at: http://www.sdu.nhs.uk/corporate-requirements/measuring-carbon-footprint/nhs-carbon-footprint.aspx

approach focuses on Scope 2 emission reduction projects such as lighting upgrades, insulation, and/or other energy saving initiatives within hospitals and other facilities [48,50]. While fundamentally important, the abatement potential of energy projects is to some extent limited, because their total contribution to a health system's carbon footprint is likely to be less than 30% (see Appendix).

The non-energy initiatives focus on Scope 3 emissions.[9] This broad category of emissions includes all emissions that occur as a consequence of the activities of a health-organisation, but occur from sources not owned or controlled by the health-organisation.

Most health systems in developed countries have yet to start the transition to upstream carbon accounting that substantively includes Scope 3 emissions. To date, most measurement and mitigation projects have been focused on energy-related emissions. However, informative work has been undertaken by the UK National Health Service over the last ten years [47,51,56,57] and by other health systems including the US [58] and more recently Australia [46].

One consistent rule-of-thumb that *has* been demonstrated [12,31,63] is that it is ideal to pursue the most economically-efficient carbon reductions first, to their maximum potential. This principle applies even when upfront capital costs may be relatively high, or when implementation is perceived as difficult, because failing to do so may lead to the overall cost of mitigation and adaptation measures being considerably higher over the longer term [12,31,63]. By applying knowledge of the emission scopes and the best available carbon abatement initiatives, planners and decision-makers can weigh the relevant practical, operational, clinical, and economic factors, alongside current and future projected health burdens, and the cost of any essential social safeguards [64].

BOX 3

Cradle-to-grave analysis of the environmental costs of goods and services

Life Cycle Assessment (LCA) is the 'cradle-to-grave' analysis of the environmental costs associated with a given product or service (covering manufacture, use and disposal) and LCA can be applied to examine the environmental effects of an entire supply chain in health care [60,61]. Impacts are all-inclusive, covering resource consumption, release of greenhouse gases, and generation of solid waste. LCAs use economic input–output carbon accounting methods to provide a comprehensive picture by ensuring that both the direct and indirect effects are captured [67].

[9] Note: Scope 3 is not entirely non-energy because it also includes fuel consumed for staff, patient, and visitor travel, and lifetime emissions from all medical products used by patients in home-care settings.

Procurement emissions: hot-spots, and possible solutions

The hot-spots approach to reducing procurement emissions initially involves identifying those high-carbon aspects of service delivery that are also the most amenable to optimisation. Then, low carbon procurement seeks to work with suppliers, and to procure goods, services, works, and utilities with a reduced carbon footprint, throughout their life cycle. Identifying goods and services that produce high levels of greenhouse gas emissions may also highlight areas where potential cost savings can be made. Low carbon procurement can lead to substantial reductions to the organisation's overall carbon footprint [65] and this is particularly relevant to clinical settings because many of the consumables used, such as pharmaceuticals and anaesthetic gasses, contain particularly high levels of embedded carbon. Low carbon procurement strategies can be applied across all settings, including primary care, hospitals and other facilities, as well as patients' homes [48].

Because detailed information is needed to calculate the environmental impacts of each individual product of service used by a provider, spend-based models and industry averages, using pharmaceutical and medical device guidelines [66], are now available and are often used to calculate an organisation's procurement emissions [47,48,50,65]. For products or services not covered by existing guidelines, a standardised approach to calculating these emissions has been developed, and detailed guidance is available from the *Publicly Available Specification for assessing the life cycle GHG emissions of goods and services* (BOX 4) [67].

BOX 4

The PAS 2050

The PAS 2050 [67] is a publicly available specification providing a method for assessing the life cycle greenhouse gas emissions of goods and services (jointly referred to as "products").

Originally published in 2008, the 2011 revision is now parent to an expanding family of specifications, providing tailored guidance for individual sectors to enable the most effective application of carbon footprinting and supply chain management.

Procurement patterns reflect a health system's decisions about the design of specific care pathways and/or the state of optimisation across existing services [68]. Optimisation strategies can include, for example, investing in prevention early in care pathways, opting for e-solutions that strengthen self-care, and/or delivering care at patients' homes, and all of these approaches can act to influence the size and type of demand for goods and services, and therefore contribute to improved environmental, health, and wellbeing outcomes [68].

Optimisation can initially focus on obvious product substitutions; guided by a substantial body of research that has now identified and short-listed the pharmaceuticals and other procured items that are the most greenhouse intensive. Top-20 lists have been compiled for pharmaceuticals as well as a range of medical items (based on aggregating the ranking for cost, quantity and greenhouse gas estimates). The published lists prioritise items for further investigation and provide a starting point for a systematic approach to reducing procurement emissions. Lower impact product alternatives may be immediately available for full or partial substitution or small changes to a care pathway may enable additional pharmaceutical choices and/or waste reductions [48,49,53]. When lower impact product alternatives are not readily available, working with suppliers to reduce the carbon intensity of the supply chain, via modifications to product specifications, can bring about some of the larger reductions in emissions, over the longer term.

In summary, accounting for and acting on Scope 3 emissions is not without complexity, and there remain significant gaps in the evidence base on procurement, as it relates to health system

sustainability. Further assessments of environmental impacts are needed, both at the level of individual care facilities and at the system level [52]. However, despite these knowledge gaps, a large amount of easily accessible information is now available to inform sustainable procurement planning and action. A useful starting point is to apply cradle-to-grave [69] assessments to a small number of selected business-as-usual care pathways, using product guidelines and product hot-spot lists. Incrementally, this approach can progress to applying environmental and social/ethical criteria to all tendering processes [48,50,67].

Future opportunities within the New Zealand health sector

There is considerable scope to improve environmental sustainability practices within the New Zealand health sector, with large potential for operational cost savings [70-73].[8] However, as yet, there is no legislation, national framework, or mandate to support this work, despite sufficient international expertise [50,67,74]. Nevertheless, noteworthy regional-level work has been undertaken by select District Health Boards via the Carbon Emission Measurement and Reduction Scheme (CEMARS).[10] In these accreditations/assessments, comprehensive data have been collected across Scope 1 and Scope 2 emission inventories to meet or exceed the mandatory reporting standard. However, the reporting standard for Scope 3 emissions allows for considerable discretion, and to date, Scope 3 emissions have not been extensively reported in New Zealand. For example, Table 2 shows the coverage of Scope 3 emissions for Canterbury and Counties Manukau District Health Boards via the CEMARS programme for 2017; compared with the full range of possible Scope 3 items/categories as specified in the Greenhouse Gas Protocol (the international standard with which CEMARS conforms). The table shows that the Scope 3 emissions reported by the two District Health Boards' examples do not include the major categories of pharmaceuticals and medical instruments/devices, commissioned health services from outside system, or food and catering. A standardised and expanded approach to Scope 3 reporting in New Zealand would provide broader, and more in-depth information to guide future health sector emission reduction initiatives [1].

[10] CEMARS® a wholly owned subsidiary of Landcare Research and 100% owned by the New Zealand Government.

Without comprehensive Scope 3 data, service providers lack much of the information needed to be able to understand and effectively manage their future sustainability.

Table 2: Comparison of included Scope 3 emissions for the Canterbury District Health Board CEMARS programme and Counties Manukau CEMARS programme, compared with the full range of Greenhouse Gas Protocol Scope 3 emissions, 2017

The Greenhouse Gas Protocol Scope – 3 emissions*	CEMARS programme	
GHG protocol Scope 3 sources (non-exhaustive) ranked by contribution	Canterbury	Counties Manukau
Pharmaceuticals		
Commissioned health services from outside system		
Medical Instruments/devices		
Food and catering		
Freight transport		
Meter-Dose inhalers		
Air travel - domestic and international		
Transport – private car for work-related transport		
Taxi		
Other staff transport (shuttle bus)		
Staff commuting to and from work		
Construction		
Paper products (office paper)		
Waste products and recycling		
Anaesthetic gases		
Other products		
Other services (e.g. linen services)		
Home use of medical devices (e.g., electricity used to run CPAP machine)		
ITC technologies		
Water and sanitation		

= included = not included

* Scope 3 emissions have been estimated to account for the majority of a health system's total GHG emissions (the balance being energy-related emissions – in one form or another). The exact proportions will differ from country to country based on different energy generation profiles and other factors.

Climate change threats to health also highlight the vital requirement for improved leadership, and population-based planning. Anticipatory action is necessary [75] because the ability to mount responses in any future circumstance might be limited by the degradation of infrastructure and by the economic stressors that climate change brings [15]. Health systems need to maintain a platform for the delivery of clinical services but they also need to provide the foundation for an effective public health response to the many climate-induced threats to health [1,2,15]. Therefore, at national and subnational levels, long-term strategies and investments will continue to be needed to develop the clinical, management, and human capacity of health systems [15].

Whole-of-system planning will be most effective when focused on organisational change – to embed sustainability principles and practices in all policies, operations and technologies, across the health system. As a starting point, planning might be based on WHO best practice guidelines [21]; including a focus on energy efficiency, environmentally sensitive building design, alternative energy generation, transportation (staff, patient and community), and limiting embedded carbon emissions from procured goods and services [49].

Co-benefits

Further opportunities lie in the leveraging of health co-benefits. There is growing recognition that the implementation of low-carbon policies can have substantial near-term health co-benefits through multiple overlapping pathways [31] (see Box 5 for examples). Co-benefits are the positive effects that a carbon reduction policy or measure might have on other objectives. Co-benefits and their related cost savings are often not taken into account in decision making processes[11] [76] but the economic co-benefits of climate change mitigation policies *can* be put forward as a forceful argument for policy makers to take action [76]. Initiatives that effectively leverage co-benefits to reduce greenhouse gas emissions can bring about strong positive welfare effects [31].

Common pathways to health co-benefits include promoting and facilitating low-carbon transport such as walking, cycling, and public transport; which in turn can improve physical activity levels, therefore lowering the incidence of heart disease, cancer, obesity, musculoskeletal disease, Type 2 diabetes, and some mental health conditions. Active transport also reduces air pollution (and hence respiratory disease) and road traffic injuries [77,78]. Electronic health interventions (eHealth) are another group of interventions that can generate important co-benefits. A range of e-health interventions have been shown to reduce carbon emissions *and* improve access to care, reduce demand for care, improve health outcomes, and reduce out-of-pocket expenses through reduced need for patients to travel [79]. Other health benefits can accrue via socioeconomic pathways, for example, the reduction of out-of-pocket health expenses for households can improve the affordability of good nutrition and other health promoting activities [2,31]. Even so, compensatory and/or redistributive measures may be required in some circumstances [40].

Overall, health and equity co-benefits associated with climate change mitigation have the potential to significantly reduce the burdens (costs) on health care systems [1,21,32]. Analyses [80] using data from the Global Burden of Disease Study 2015 [81] show that the health co-benefits of meeting commitments under the Paris Agreement are 'potentially immense', reducing the burden of disease for many of the greatest health challenges today and in the future [1, P.601]. Projected climate change effects will impact human health mainly by exacerbating health problems that already exist (at least until mid-century) [10]. Therefore, mitigation and adaptation mechanisms are likely to be most efficient and cost-effective when they recognise locally relevant scenarios of future change (i.e., continue to work on well-understood historical health problems) and when they seek to exploit co-benefits to maximum effect [10].

[11] Likely because they are not easy to capture and some potential wellbeing impacts and/or cultural value(s) cannot be fully monetarised.

BOX 5

Examples of carbon reduction measures applicable to health systems, the overlapping pathways, and a range of health co-benefits

Mitigation measures

- Develop infrastructure for renewable energy generation, distribution, and use
- Improve the energy-efficiency of buildings/ increase heating and cooling efficiency (includes insulation)
- Reduce emissions associated with procured goods and services
- Decrease distances between service providers and service users
- Decrease air travel
- Promote telecommuting/working remotely, telemedicine, and low-carbon models of care
- Promote active transport
- Use of lower emission vehicles
- Use locally produced fruit and vegetables and less food from animal sources (e.g., within hospital kitchens)

Overlapping pathways

- Reduced costs
- Lower CO_2 emissions
- Improved air quality
- Reduced indoor humidity and more comfortable temperature
- Increased physical activity
- Less noise from transport
- Reduced exposure to motor vehicles
- Less livestock production and associated deforestation and less methane emissions
- Improved nutrition and social capital from locally grown food

Health benefits

- Fewer deaths and injuries from extreme weather events
- Reduced susceptibility to heat-related illnesses due to decrease in heat island effects
- Reduced levels of respiratory illnesses
- Reduced likelihood of heart disease, cancer, obesity, musculoskeletal disease, and Type 2 diabetes
- Reduced motor vehicle injuries and fatalities
- Improved mental health
- Reduced spread of vector-borne diseases to new areas

Adapted from: Frumkin et al. (2008); Iacobucci (2016); Watts, et al. (2015); Younger et al. (2008)

Adaptation

Adaptation in this context means 'adjustment in natural or human systems in response to actual or expected climate stimuli or their effects, which moderates harm or exploits beneficial opportunities' [82, p.1758]. Mitigation will not be sufficient as the need for adaptation is already locked in [6,17]. Therefore, there is a need for the health sector to plan for the inevitable health impacts of climate change in coming decades [22,71]. Adaptation to climate change can reduce existing and near-term risks. However, a number of potential barriers to public health adaptation to climate change have been identified; including, uncertainty about future socioeconomic and climatic conditions as well as a range of financial, institutional, and skills/knowledge gaps within health institutions [83]. These barriers can constrain the recognition of climate change effects and the actions required [83].

Suggested approaches for health sector institutions include; placing a high priority on research aimed at clarifying the potential health impacts of climate change, including scenario-based projections of local-level health impacts, identifying and clarifying the health co-benefits of potential mitigation strategies, and evaluating the cost-effectiveness of potential options [83]. While some of these approaches build on conventional health sector activities, others (for example, local-level scenario-based projections of climate change health impacts) will require health agencies to develop new skills, methods and tools, and broader collaborative relationships within other sectors. These collaborative relationships will become essential as the adaptive capacity of the health sector alone will have a limited impact, partly because the environmental determinants of health are complex and are largely outside the direct influence of the health system [42,64].

There is a strong argument for strengthening public health services' climate change planning and response capability. As one example approach, the US Centers for Disease Control and Prevention (CDC) has proposed a 5-step climate change adaptation framework "Building Resilience Against Climate Effects" (BRACE) to facilitate climate readiness in public health agencies [84]. The BRACE framework steps are:

- forecasting climate impacts and assessing vulnerabilities
- projecting the disease burden
- assessing public health interventions
- developing and implementing a climate and health adaptation plan, and
- evaluating impact and improving the quality of activities [84].

As a further example, Table 3 provides a brief list of potentially relevant climate change actions (selected examples only). These actions build on and extend conventional public health activities. A comprehensive response will involve adapting all of the 'building blocks' broadly common to all health systems, including leadership and governance, health workforce, health information systems, infrastructure, essential medical products and technologies, and service delivery [42]. Within the health sector, substantial investment in sustainable infrastructure and systems will be required to limit the economic and health impacts of climate change and to ensure the sustainable delivery of health services, in the face of increased demand.

Table 3: Examples of climate change adaptation activities relevant to New Zealand health care settings

Secondary prevention *(Adaptation)*

- Tracking of diseases and trends related to climate change.
- Program assessment of various preparedness efforts.
- Research on the local-level health effects of climate change, including innovative techniques such as scenario-based modelling, and research on optimal adaptation strategies.
- Training of health care providers on health aspects of climate change.
- Public health partnerships with industry, other professional groups, and others, to craft and implement solutions.
- Promote written heat response plans to reduce heat-related morbidity and mortality.
- Preparing for and responding to climate change-related public health emergencies, such drought, heat waves, wildfire, wind and storms, heavy rainfall, flooding, landslides, coastal inundation.
- Enforce laws and regulations that protect health and ensure safety (although probably little role for public health).
- Develop a coordinated adaptation plan
- Build capability and capacity in climate change adaptation across public health units/DHBs. Adaptation must be recognised as an essential part of the climate change agenda now (alongside the legislative attention being given to climate change mitigation) because all of New Zealand will be impacted by the changing climate.
- Engage in broader collaboration with other sectors.
- Strengthen all public health programmes.
- Support vulnerable communities.
- Advocacy.

Source: adapted from The Climate Change Adaptation Technical Working Group (2018). Adapting to Climate Change in New Zealand; Frumkin et al. (2008). Climate change: the public health response; and McMichael (2013). Globalization, climate change, and human health [17,31,75].

Conclusion

The health sector is increasingly considering and responding to the health effects of climate change [1]. Future climate-resilient development within health care will require a mix of mitigation and adaptation measures consistent with profound societal and systems transformations [6]. Ambitious mitigation actions are crucial to limiting future warming [6]. Significant adaptation actions will be needed to manage the impacts of climate change over the long term; primarily by reducing vulnerabilities and exposure to its harmful effects. The health system has important roles to play in achieving longer-term sustainable development, including advocacy, building resilience, and enhancing human capacities to adapt, all while paying close attention to equity and wellbeing for all [6].

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Appendix

International example: the National Health Service (England)

Work completed by the National Health Service (NHS) in England provides perhaps the best international example of the development of an environmentally sustainable health system. In response to the (United Kingdom) Climate Change Act 2008 [85][12] the NHS has made significant progress towards environmental sustainability. A dedicated Sustainable Development Unit (SDU) was established to develop and enact an approach to environmental sustainability across the NHS. Two key achievements of the SDU have been the development of (1) a detailed *carbon footprint* which covers the entire NHS, public health and social care sector and (2) a *marginal abatement cost curve* (MACC) that provides an estimate of the potential of all technological greenhouse gas abatement measures, and their relative cost-effectiveness.

The SDU

The Sustainable Development Unit is a government agency with the sole purpose of embedding the principals of sustainable development across the health and social care system in England. The SDU had undertaken extensive work, through carbon accounting, to inform and facilitate a reduction in the NHS's environmental impact. This approach has incentivised models of care that favour prevention, self-care and 'lean' pathways; which in turn have driven low carbon procurement, energy-efficiency, and other environmentally sustainable practices.

The footprint

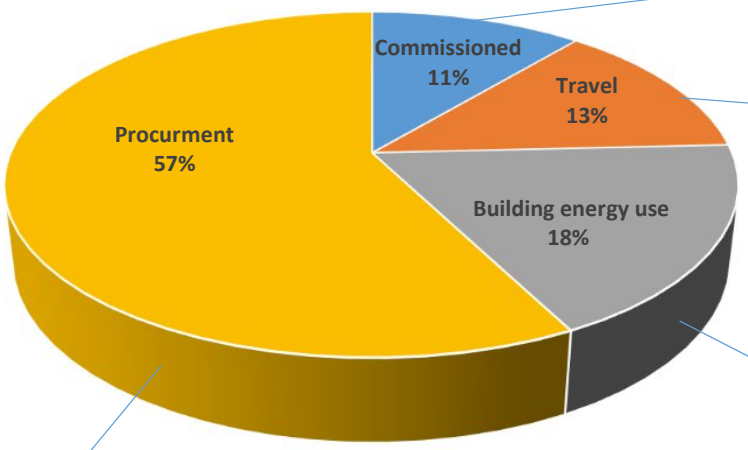
Using the best available carbon accounting methods, a series of updated footprints have been published[13] for 2004, 2007, 2010, 2012, and 2015. The current carbon footprint provides a detailed breakdown of emissions across four broad categories: building energy use and direct emissions, travel, commissioned health and care services from outside the NHS system, and procurement of goods and services. These four main categories are further broken down into 21 sub-categories.

The NHS consumption carbon footprint (Figure 1) clearly shows that the main sources are embedded carbon within procured goods and services, and this category of emissions accounted for approximately 57% of all emissions in 2015. The balance was due to: heating, lighting and providing power for NHS sites (18%); travel to and from NHS sites by patients, visitors, and staff, and business travel (13%); and health services commissioned from outside the NHS (11%) [47]. The NHS's carbon footprint has fallen by 12% between 1990 and 2015, within the context of an 18% increase in inpatient admissions over the same period [57]. The NHS's carbon footprint is predicted to fall by a further 15% by 2020 and 20% by 2050 [47,56].

[12] The Climate Change Act 2008 specifies that the net UK carbon account for all six Kyoto greenhouse gases for the year 2050 is to be at least 80% lower than the 1990 baseline.

[13] Sustainable Development Unit NHS carbon footprint publications, available at: http://www.sdu.nhs.uk/corporate-requirements/measuring-carbon-footprint/nhs-carbon-footprint.aspx

Figure 1: Consumption carbon footprint breakdown by categories for the NHS, in 2015



Commissioned health services		Proportion
Health services		11%

Travel		Proportion
Patient		6%
Visitor		2%
Staff commute		2%
Business		3%
Total travel	Total	13%

Building energy use and direct emissions		Proportion
Electricity		8%
Fossil fuels (Gas, Coal and Oil)		8%
Total building energy	Total	18%

Procurement of goods and services		Proportion
Pharmaceuticals (excluding Meter Dose Inhalers)		11%
Business services		11%
Medical Instruments /equipment		10%
Food and catering		5%
Freight transport		3%
Meter Dose Inhalers		3%
Construction		2%
Manufactured fuels, chemicals and gases		2%
Paper products		2%
Waste products and recycling		2%
Anaesthetic gases		2%
Other manufactured products		2%
Information and communication technologies		2%
Water and sanitation		1%
Total Procurement	Total	57%

Notes

– Metered Dose Inhalers use Hydrofluorocarbons gases as aerosol propellants. The gases used have over 1000 times the impact on global warming compared with the same weight of carbon dioxide gas. The majority of the emissions are released during the 'in use' phase and occur mostly outside health care premises.

– Anaesthetic gases (including Nitrous Oxide) are potent greenhouse gases with between 130 to 2000 times the impact on global warming compared with the same weight of carbon dioxide gas.

Summarised from: Sustainable Development Unit and UK National Health Service data (2016) *Carbon footprint update for the NHS in England 2015*

The Cost Curve

Marginal Abatement Cost (MAC) reflects the cost of one additional unit or ton of pollution that is abated, or not emitted. A marginal abatement cost curve (MACC) is a data visualisation tool that allows the user to compare emission reduction options both in terms of cost-effectiveness and their potential for CO_2 reductions (Figure 2). Marginal abatement cost curves highlight the win-wins where carbon cutting measures can save money and the abatement information also puts into perspective those measures where the investment costs cannot be recouped.

A marginal abatement cost curve can help decision makers to plan and prioritise a number of options into a strategic package of mitigation measures. However, MACCs cannot produce a definitive and generalisable set of initiatives, because local and country-level characteristics vary greatly. In addition, it is necessary to take account of interactions and overlaps between interventions, where the potential carbon savings from one initiative are reduced because another technology has already been installed.

Figure 2: A hypothetical example of a Marginal Abatement Cost Curve (MACC) applied to a health care system (indicative only)

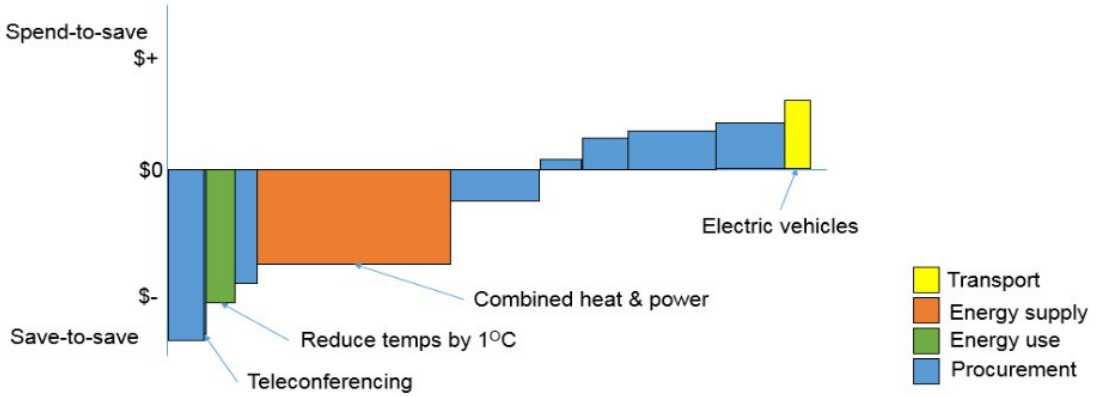


Figure 2 shows a generalised example of a health system's Marginal Abatement Cost Curve (MACC). Each block represents a different technology or intervention. In this example, each technology is colour-coded into four categories: transport, energy supply, energy use and procurement. A block that is projecting downwards indicates that the technology has the potential to generate financial savings (i.e., negative costs indicate a net financial benefit to the health system over the lifecycle of the abatement opportunity) and a block that projects above the zero line indicates that the particular technology is not cost-effective (i.e., positive costs imply that capturing the opportunity would incur incremental costs compared to business-as-usual or 'do nothing'). The relative height or depth of each block represents the degree to which the intervention is cost-saving. The options presented in a MACC are always placed in decreasing order of cost-effectiveness so that the reader can easily identify how options compare with each other on both cost-effectiveness and abatement potential. The horizontal axis (x-axis) shows the annual carbon savings that would result from the full implementation of a particular technology. The cumulative annual savings, shown by the full width of all of the blocks side-by-side on the MACC, gives an indication of the maximum potential for system-wide carbon savings in a particular assessment year. The abatement potential can be compared with the baseline year and/or any future targets set for an organisation.

Source: drawn from the principles and methodology developed by McKinsey & Company and informed by findings from the Marginal Abatement Cost Curve for NHS England (2015).

Marginal abatement cost information can also be displayed in table format. Table 4 shows marginal abatement cost information for the NHS England for 2015 [56]. The table lists a range of energy-efficiency interventions that have been identified as suitable for implementation within health care facilities. The list is presented in descending order of cost-effectiveness (not considering interactions and overlaps between measures). The right-hand column shows the potential CO_2 savings that could be made in one-year if the technology was fully implemented. The table shows that the top-five technologies/interventions are (1) combined-heat-and-power, equal with biomass boiler (2) energy awareness campaigns (3) travel planning (4) lighting controls, and (5) reduce heating by 1 degree Celsius (based on potential CO_2 saving as shown in bold in Table 3). The table also shows that the cost-effectiveness of these examples differs considerably. For example, combined-heat-and-power and biomass boilers offer similar potential CO_2 saving, but combined-heat-and-power is significantly more cost-effective than a biomass boiler conversion (ranked 6th compared with 24th in the example list).

Table 4: List of CO_2 reduction measures related to energy supply and use, not considering interactions and overlaps (non-energy related measures for procurement of pharmaceuticals and medical devices are not shown)

	CO_2 reduction measures (options)	*£/tCO_2	CO_2 savings (tCO_2)
1	Teleconferencing	-2051	6,827
2	Introduce hibernation system for stations	-120	1,255
3	Improve the efficiency of chillers	-110	9,133
4	Voltage optimisation	-110	16,828
5	1 degree C	-110	**32,763**
6	CHP installation	-98	**173,975**
7	Improve lighting controls	-94	**34,286**
8	Variable speed drives	-90	3,083
9	Energy awareness campaign	-89	**90,265**
10	Building management system optimisation	-86	11,521
11	Improve insulation to pipe work, boiler house	-79	10,264
12	Decentralisation of hot water boilers	-77	10,612
13	Improve heating controls	-72	17,219
14	Roof insulation	-71	22,869
15	Improve efficiency of steam or hot water boiler	-71	6,367
16	Wall insulation	-70	24,624
17	Energy efficient lighting	-67	22,290
18	Upgrade garage and workshop heating	-60	214
19	Install high efficiency lighting and controls	-45	3,745
20	Wind turbine	-42	10,722
21	Double insulation window and draught proofing	-27	11,831
22	Improve building insulation levels (U-levels)	-19	951
23	Boiler replacement/optimisation HQ/control	-15	171
24	Biomass boiler	-6	**172,724**
25	Travel planning	1	**81,524**
26	Office electrical equipment improvements	17	15,900
27	Solar hot water	49	0
28	Electric vehicles	49	36,96

* NHS data: presented as published, in British pounds [47]


Canterbury
District Health Board
Te Poari Hauora ō Waitaha


SOUTH ISLAND
ALLIANCE

FINANCE REPORT 31 JULY 2019

Canterbury District Health Board
Te Poari Hauora ō Waitaha

TO: **Chair and Members**
Canterbury District Health Board

SOURCE: **Finance**

DATE: **19 September 2019**

Report Status – For:	Decision ☐	Noting ☑	Information ☐

1. ORIGIN OF THE REPORT

This is a regular report and standing agenda item providing an update on the latest financial results and other relevant financial matters to the Board of the Canterbury DHB. A more detailed report is presented to and reviewed by the Quality, Finance, Audit and Risk Committee monthly, prior to this report being prepared.

2. RECOMMENDATION

That the Board:

i. notes the financial result and related matters for the period ended 31 July 2019.

3. DISCUSSION

Overview of July 2019 Financial Result

The consolidated Canterbury DHB financial result for the month of July 2019 was a net operating expense of $9.047M, which was $0.073M favourable against the draft annual plan net operating expense of $9.120M. The table below provides the breakdown of the July result.

	MONTH			YEAR TO DATE		
	Actual	Budget	Variance	Actual	Budget	Variance
	$M	$M	$M	$M	$M	$M
Hospital & Specialist Service and Corporate	(4.187)	(2.221)	**(1.966)**	(4.187)	(2.221)	(1.966)
Community & Public Health	0.054	0.021	**0.033**	0.054	0.021	0.033
Total In-House Provider excl Subsidiaries	**(4.133)**	**(2.200)**	**(1.933)**	**(4.133)**	**(2.200)**	**(1.933)**
Add: Funder & Governance						
Funder Revenue	149.589	147.017	2.572	149.589	147.017	2.572
External Provider Expense	(65.701)	(65.163)	(0.538)	(65.701)	(65.163)	(0.538)
Internal Provider Expense	(88.782)	(88.775)	(0.007)	(88.782)	(88.775)	(0.007)
Total Funder	**(4.894)**	**(6.921)**	**2.027**	**(4.894)**	**(6.921)**	**2.027**
Governance & Funder Admin	(0.063)	-	(0.063)	(0.063)	-	(0.063)
Total Canterbury DHB (Parent)	**(9.090)**	**(9.121)**	**0.031**	**(9.090)**	**(9.121)**	**0.031**
Add: Subsidiaries						
Brackenridge Estate Ltd	0.032	0.055	**(0.023)**	0.032	0.055	(0.023)
Canterbury Linen Services Ltd	0.012	(0.054)	**0.066**	0.012	(0.054)	0.066
Canterbury DHB Group Surplus / (Deficit)	**(9.047)**	**(9.120)**	**0.073**	**(9.047)**	**(9.120)**	**0.073**

Although the result for the first month of the financial year is on target, there are continued stress points within the DHB that we will need to keep very close control over, particularly

with the new Hagley facility coming on stream in the near future, and the managed transition of outsourced surgery.

Update on 2018 / 19 Year End Audit

The underlying result of a deficit of $109M, before impairments, Holiday Act provision, and asset revaluations, which was $3M favourable to our $112M forecast, is unchanged from previous reports. No major issues from the audit have been identified to date, other than:

- Holidays Act Compliance Provision: the provision, whilst quantified, may be deemed to be so uncertain that it needs to be reported as a contingent liability in note form, rather than a provision.
- Manawa Lease: CDHB has assessed this to be an operating lease. Audit NZ has challenged this assessment, and it is currently with their technical team.
- Unsettled MECA Provisions: Audit NZ has questioned the provisions made when these have yet to be settled, and may request an adjustment similar to last year - CDHB will be resisting any adjustment.
- Trust Funds: the same classification error will be recorded by Audit NZ as done in the last several years.
- Capital Charge Provision: we have no provision for additional capital charge, should the Ministry of Health disallow our request for capital charge to be waived on earthquake funding.

4. KEY FINANCIAL RISKS

Liquidity risk remains, although we are anticipating an equity drawn down early this financial year.

5. APPENDICES

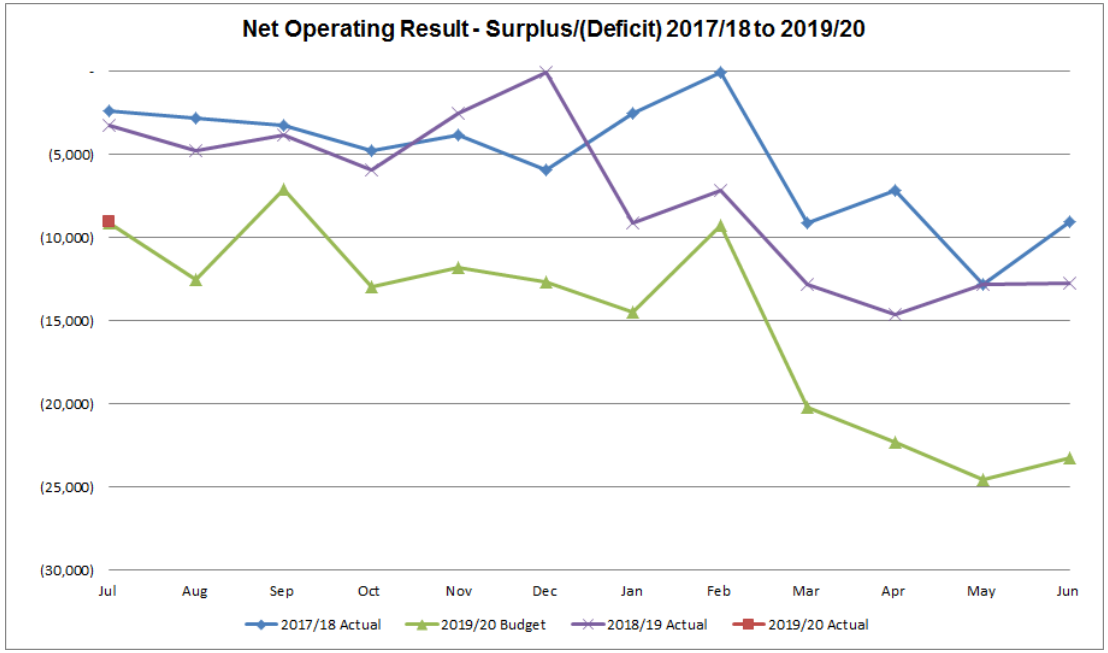
Appendix 1: Financial Result
Appendix 2: Statement of Comprehensive Revenue & Expense
Appendix 3: Statement of Financial Position
Appendix 4: Cashflow

Report prepared by: Justine White, Executive Director, Finance & Corporate Services

APPENDIX 1: FINANCIAL RESULT

FINANCIAL PERFORMANCE OVERVIEW – PERIOD ENDED 31 JULY 2019

	Month Actual $'000	Month Budget $'000	Month Variance $'000		YTD Actual $'000	YTD Budget $'000	YTD Variance $'000	
Surplus/(Deficit)	(9,047)	(9,120)	73	-1% ✓	(9,047)	(9,120)	73	-1% ✓



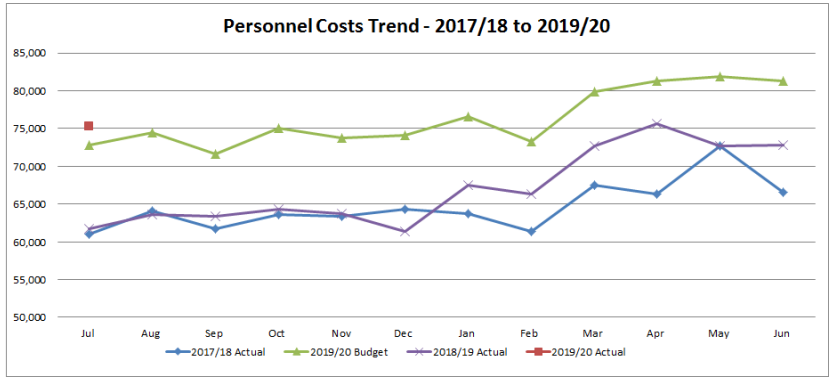
Our 2019/20 Annual Plan submitted is a net operating expense of $180.470M, this includes our anticipated taskforce savings.

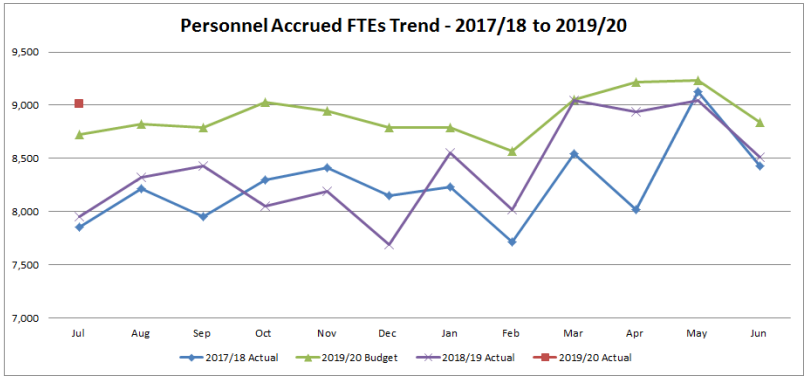
Our July result was on plan for the month, although there are offsetting variances between expenditure lines.

KEY RISKS AND ISSUES

Variances on expenditure lines may not continue to offset, leading to unfavourable net results in future months. We will need to maintain tight fiscal control over all expenditure items to ensure we do not exceed our planned result. This includes achieving the savings from taskforce initiatives. Activity on the Christchurch campus was high, and is driving higher than planned costs, and this high activity has continued through into August. We are anticipating industrial action in August which will have some resultant unplanned financial impact.

PERSONNEL COSTS/PERSONNEL ACCRUED FTE



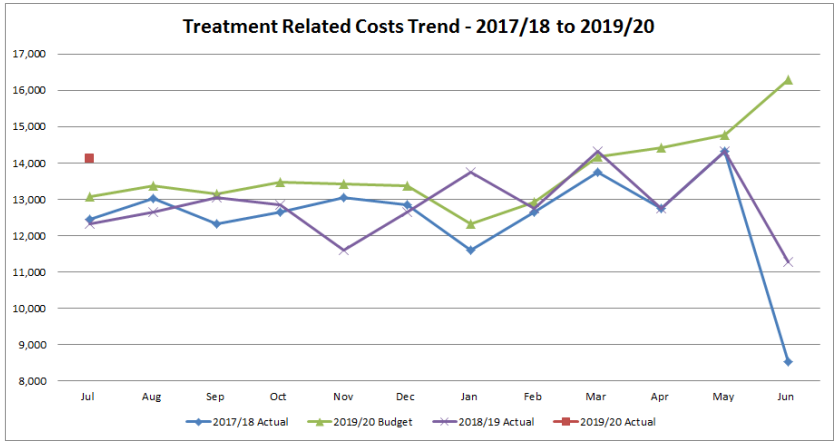


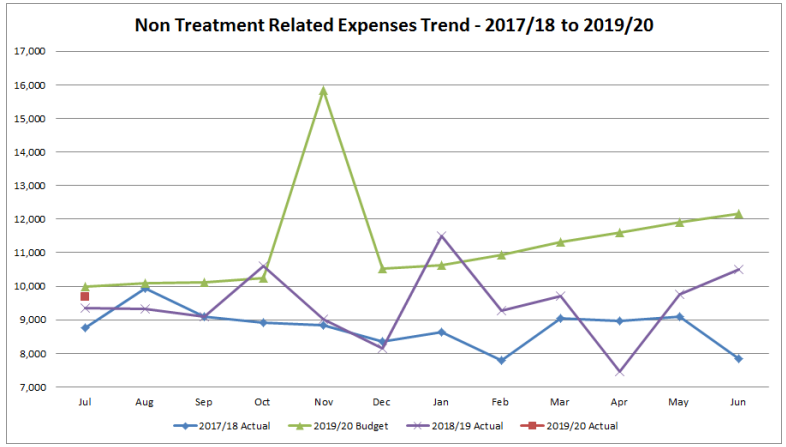
KEY RISKS AND ISSUES

Higher costs associated with higher activity, along with the resourcing required for the new Hagley facility, continue to result in unfavourable variances. The savings initiative workstreams under deliver on the savings targets. Strike action and MECA settlements result in unfavourable variances.

Growth in personnel accrued FTEs will occur in future periods as a result of additional resource required for the new Hagley (ASB) redevelopment and other significant projects.

TREATMENT & OTHER EXPENSES RELATED COSTS





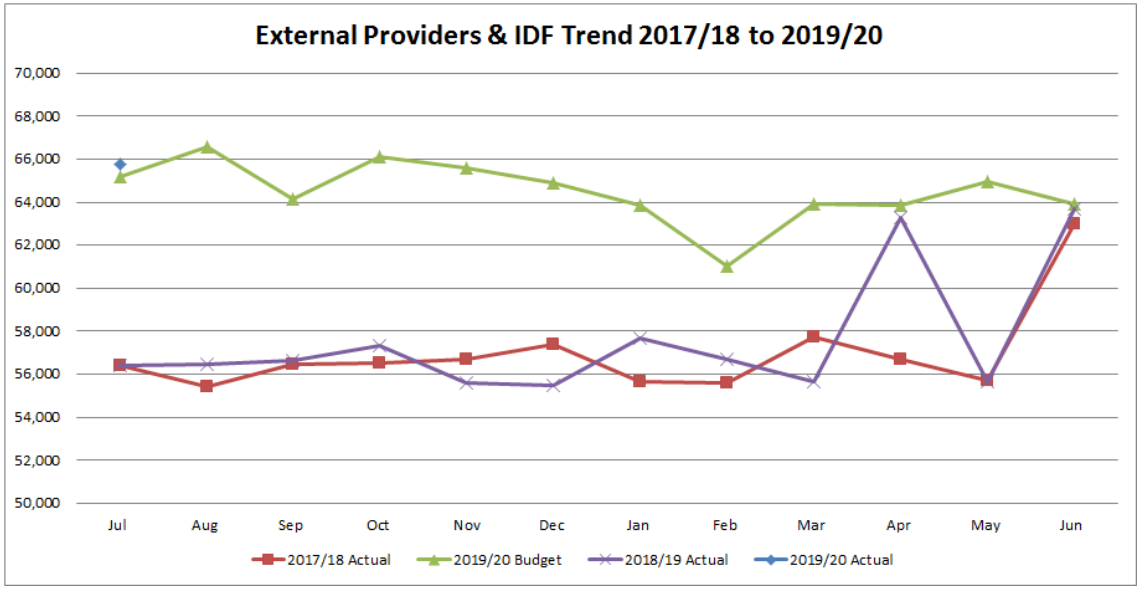
KEY RISKS AND ISSUES

Treatment related costs are influenced by activity volume, as well as complexity of patients.

Additional facility costs continue to be incurred in relation to The Princess Margaret Hospital (TPMH) campus, including security, basic maintenance etc. Some of these additional costs are in relation to a number of mental health services that remain stranded at that site. Although we have Ministerial approval to progress a shift of services to Hillmorton, TPMH is still unlikely to be fully vacated until the 2022/23 financial year.

EXTERNAL PROVIDER COSTS

	Month Actual $'000	Month Budget $'000	Month Variance $'000			YTD Actual $'000	YTD Budget $'000	YTD Variance $'000		
External Provider Costs	65,784	65,163	(621)	-1%	✗	65,784	65,163	(621)	-1%	✗

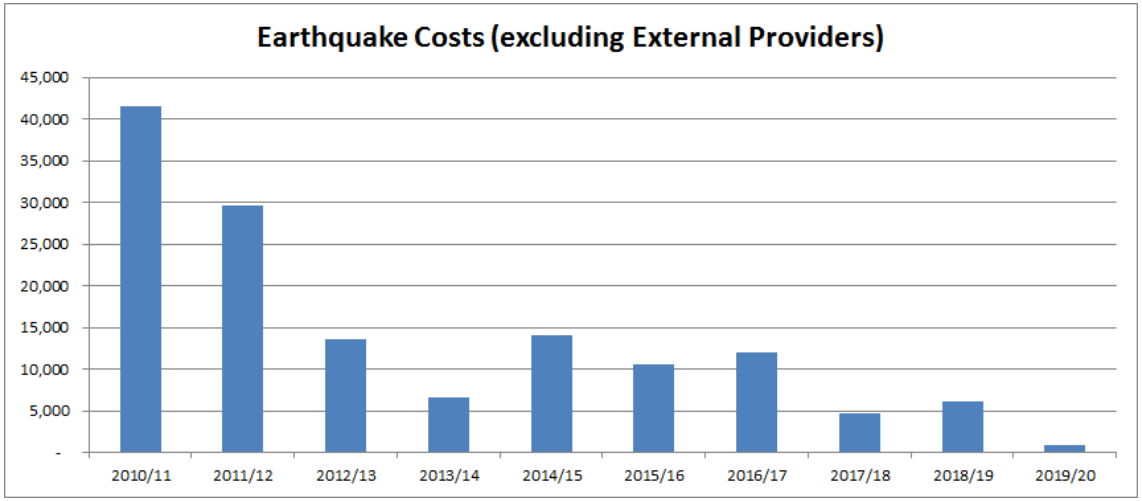


KEY RISKS AND ISSUES

Additional outsourcing to meet electives targets may be required. The use of additional clinics at penal rates, outplacing, and/or outsourcing may be used to reduce this impact.

EARTHQUAKE

Data in this table excludes the Kaikoura earthquakes	Month Actual	Month Budget	Month Variance			YTD Actual	YTD Budget	YTD Variance		
	$'000	$'000	$'000			$'000	$'000	$'000		
Total Earthquake Revenue (Draw Down)	**945**	**480**	**465**	**100%**	✔	**945**	**480**	**465**	**100%**	✔
Earthquake Costs - Repairs	945	480	(465)	100%	✘	945	480	(465)	100%	✘
Earthquake Costs - External Provider	1,431	1,431	-	100%	✔	1,431	1,431	-	100%	✔
Earthquake Costs - Non Repairs	109	109	-	100%	✔	109	109	-	100%	✔
Total Earthquake Costs	**2,485**	**2,020**	**(465)**	**100%**	✘	**2,485**	**2,020**	**(465)**	**100%**	✘



Earthquake (EQ) operating costs include EQ repair works and other non-repair related costs such as additional security and building leases.

EQ repair (integral part of the DHB EQ programme of works) costs are offset by an equivalent amount of insurance revenue that will be progressively drawn down to minimise the impact of EQ repair costs on the net result. The insurance revenue relates to the portion of earthquake insurance settlement amount that was repaid to the Crown in 2013/14 for future draw down by the DHB as and when appropriate to fund the EQ repairs and programme of works.

Note: 'Quake' costs associated with additional funder activity such as increased outsourced surgery are captured under external provider costs.

KEY RISKS AND ISSUES

The variability and uncertainty of these costs will continue to put pressure on meeting our monthly budgets in future periods.

FINANCIAL POSITION

	YTD Actual $'000	YTD Budget $'000	Variance $'000		
Equity	592,935	659,677	(66,742)	-10%	✕
Cash	(33,516)	(30,453)	(3,063)	10%	✕

KEY RISKS AND ISSUES

If future deficit funding is less than the expected amount or not received on a timely basis, cash flows will be impacted, and the ability to service payments as and when they fall due will become an issue.

APPENDIX 2: CANTERBURY DHB GROUP STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSE

The Group financial results include Canterbury DHB and its subsidiaries, Canterbury Linen Services Ltd and Brackenridge Services Ltd
For the month of July 2019

Month					Year to Date				Annual
19/20 Actual	19/20 Budget	18/19 Actual	Variance to Budget		19/20 Actual	19/20 Budget	18/19 Actual	Variance to Budget	19/20 Budget
155,787	153,120	142,293	2,667 ✓	MoH Revenue	155,787	153,120	142,293	2,667 ✓	1,841,187
4,201	3,232	3,776	969 ✓	Patient Related Revenue	4,201	3,232	3,776	969 ✓	38,778
4,642	4,781	2,503	(139) ✗	Other Revenue	4,642	4,781	2,503	(139) ✗	62,269
164,630	**161,133**	**148,572**	**3,497**	**Total Operating Revenue**	**164,630**	**161,133**	**148,572**	**3,497**	**1,942,234**
75,311	72,852	66,146	(2,459) ✗	Personnel Costs	75,311	72,852	66,146	(2,459) ✗	915,002
14,129	13,070	12,240	(1,059) ✗	Treatment Related Costs	14,129	13,070	12,240	(1,059) ✗	164,749
65,784	65,163	(3,759)	(621) ✗	External Service Providers	65,784	65,163	(3,759)	(621) ✗	773,439
9,684	9,997	71,357	313 ✓	Other Expenses	9,684	9,997	71,357	313 ✓	135,361
164,908	**161,082**	**145,985**	**(3,826)** ✗	**Total Operating Expenditure**	**164,908**	**161,082**	**145,985**	**(3,826)** ✗	**1,988,551**
(278)	**51**	**2,587**	**(329)** ✗	**Total Surplus / (Deficit) Before Indirect Items**	**(278)**	**51**	**2,587**	**(329)** ✗	**(46,317)**
70	56	77	14 ✓	Interest	70	56	77	14 ✓	909
219	222	304	(3) ✗	Donations	219	222	304	(3) ✗	2,567
3	-	3	3 ✓	Profit / (Loss) on Sale of Assets	3	-	3	3 ✓	-
292	**278**	**384**	**14** ✓	**Total Indirect Revenue**	**292**	**278**	**384**	**14** ✓	**3,476**
2,961	3,286	2,454	325 ✓	Capital Charge	2,961	3,286	2,454	325 ✓	53,864
6,066	6,113	4,684	47 ✓	Depreciation	6,066	6,113	4,684	47 ✓	83,165
34	50	-	16 ✓	Interest Expense	34	50	-	16 ✓	600
9,061	**9,449**	**7,139**	**388** ✓	**Total Indirect Expenses**	**9,061**	**9,449**	**7,139**	**388** ✓	**137,629**
(9,047)	**(9,120)**	**(4,168)**	**73** ✓	**Total Surplus / (Deficit)**	**(9,047)**	**(9,120)**	**(4,168)**	**73** ✓	**(180,470)**
-	-	-	- ✓	Gain on Revaluation of Land and Buildings	-	-	-	- ✓	-
(9,047)	**(9,120)**	**(4,168)**	**73** ✓	**Total Comprehensive Revenue & Expense**	**(9,047)**	**(9,120)**	**(4,168)**	**73** ✓	**(180,470)**

APPENDIX 3: CANTERBURY DHB GROUP STATEMENT OF FINANCIAL POSITION

as at 31 July 2019

Unaudited 30-Jun-19 $'000		Group Actual 31-Jul-19 $'000	YTD Group Budget 31-Jul-19 $'000	Annual Group Budget 30-Jun-20 $'000
496,272	Opening Equity	597,378	662,639	597,378
141,600	Net Equity Injections / (Repayments) During Year	4,604	4,604	650,781
137,345	Reserve Movement for Year	-	-	-
(177,839)	Operating Results for the Period	(9,047)	(7,566)	(180,470)
597,378	**TOTAL PUBLIC EQUITY**	592,935	659,677	1,067,689
	Represented By:			
	Current Assets			
4,824	Cash & Cash Equivalents	4,556	627	627
750	Short Term Investments	750	750	750
91,010	Trade and Other Receivables	88,371	91,010	91,010
5,838	Prepayments	5,999	5,838	5,838
13,210	Inventories	13,326	13,209	13,209
14,685	Restricted Assets	14,412	14,685	14,685
130,316	**Total Current Assets**	127,414	126,119	126,119
	Less Current Liabilities			
36,575	Overdraft	38,072	31,080	63,024
123,936	Trade and Other Payables	128,844	127,222	123,936
14,760	Restricted Funds	14,483	14,760	14,760
245,602	Employee Benefits	241,309	180,342	245,603
420,873	**Total Current Liabilities**	422,707	353,404	447,323
(290,557)	**Working Capital**	(295,294)	(227,285)	(321,204)
	Non Current Assets			
16	Restricted Funds	16	16	16
3,225	Investment in NZHPL	3,225	3,225	3,225
890,595	Fixed Assets	890,889	889,623	1,391,554
893,837	**Term Assets**	894,131	892,864	1,394,795
	Non Current Liablilties			
5,902	Employee Benefits	5,902	5,902	5,902
5,902	**Term Liabilities**	5,902	5,902	5,902
597,378	**NET ASSETS**	592,935	659,677	1,067,689

Restricted Assets and Restricted Liabilities include funds held by Maia on behalf of CDHB.

APPENDIX 4: CASHFLOW

Unaudited 30-Jun-19 $'000		Actual 31-Jul-19 $'000	YTD Budget 31-Jul-19 $'000	Budget 30-Jun-20 $'000
	CASHFLOW FROM OPERATING ACTIVITIES			
(52,505)	**Net Cash from Operating Activities**	(66)	1,834	(97,305)
	CASHFLOW FROM INVESTING ACTIVITIES			
(44,167)	**Net Cash from Investing Activities**	(6,302)	(5,140)	(70,913)
	CASHFLOW FROM FINANCING ACTIVITIES			
80,794	**Net Cash from Financing Activities**	4,604	4,604	137,572
(15,878)	Overall Increase/(Decrease) in Cash Held	(1,764)	1,298	(30,646)
(15,698)	Add Opening Cash Balance	(31,751)	(31,751)	(31,751)
(31,576)	**Closing Cash Balance**	(33,516)	(30,453)	(62,397)

CPH&DSAC – 29 AUGUST 2019

Canterbury District Health Board
Te Poari Hauora ō Waitaha

TO: **Chair and Members**
Canterbury District Health Board

SOURCE: **Community & Public Health and Disability Support Advisory Committee**

DATE: **19 September 2019**

Report Status – For:	Decision ☐	Noting ☑	Information ☐

1. ORIGIN OF THE REPORT

The purpose of this report is to provide the Board with an overview of the Community & Public Health and Disability Support Advisory Committee's (*CPH&DSAC*) meeting held on 29 August 2019.

2. RECOMMENDATION

That the Board:

i. notes the draft minutes from CPH&DSAC's meeting on 29 August 2019 (Appendix 1).

3. APPENDICES

Appendix 1: CPH&DSAC Draft Minutes – 29 August 2019.

Report prepared by: Anna Craw, Board Secretariat

Report approved by: Dr Anna Crighton, Chair, Community & Public Health Advisory Committee
Tracey Chambers, Chair, Disability Support Advisory Committee

MINUTES

Canterbury District Health Board
Te Poari Hauora ō Waitaha

DRAFT
MINUTES OF THE COMMUNITY & PUBLIC HEALTH AND DISABILITY SUPPORT ADVISORY COMMITTEE MEETING
held in the Board Room, Level 1, 32 Oxford Terrace, Christchurch
on Thursday, 29 August 2019 commencing at 9.00am

PRESENT

Dr Anna Crighton (Chair, CPHAC); Tracey Chambers (Chair, DSAC); Sally Buck; Wendy Dallas-Katoa; Dr Susan Foster-Cohen; Jo Kane; Chris Mene; David Morrell; and Hans Wouters.

APOLOGIES

Apologies for absence were received and accepted from Tom Callanan; Rochelle Faimalo; Yvonne Palmer; Ta Mark Solomon (ex-officio); Olive Webb; and Dr John Wood (ex-officio).
An apology for lateness was received and accepted from Tracey Chambers (9.15am).
An apology for early departure was received and accepted from David Morrell (9.45am).

EXECUTIVE SUPPORT

Mary Gordon (Acting Chief Executive/Executive Director of Nursing); Evon Currie (General Manager, Community & Public Health); Carolyn Gullery (Executive Director, Planning Funding and Decision Support); Jacqui Lunday-Johnstone (Director of Allied Health, Scientific & Technical); Kay Jenkins (Executive Assistant, Governance Support); and Anna Craw (Board Secretariat).

EXECUTIVE APOLOGIES

David Meates – for absence

IN ATTENDANCE

Item 6
Kerry Marshall, Communicable Disease Manager, Community & Public Health (*C&PH*)
Dr Ramon Pink, Clinical Director, Communicable Disease, C&PH

Item 8
Mardi Postill, Older Persons Health Team Leader, Planning & Funding (*P&F*)
Andrea Davidson, Portfolio Manager, P&F

Item 10
Kathy O'Neill, Team Leader, P&F

Item 11
Allison Nichols-Dunsmuir, Health in All Policies Advisor, C&PH

Dr Anna Crighton, Chair, CPHAC, chaired the first part of the meeting.

1. INTEREST REGISTER

Additions/Alterations to the Interest Register
There were no additions/alterations to the interest register.

Declarations of Interest for Items on Today's Agenda
There were no declarations of interest for items on today's agenda.

Perceived Conflicts of Interest
There were no perceived conflicts of interest.

2. MINUTES OF THE PREVIOUS MEETING

Resolution (17/19)
(Moved: Sally Buck/Seconded: David Morrell – carried)

"That the minutes of the meeting of the Community & Public Health and Disability Support Advisory Committee held on 4 July 2019 be approved and adopted as a true and correct record."

3. CARRIED FORWARD / ACTION LIST ITEMS

The carried forward action list was noted.

4. COMMUNITY & PUBLIC HEALTH UPDATE REPORT

Evon Currie, General Manager, C&PH, presented the report which was taken as read. The following points were highlighted:

- All Right? Social Marketing Campaign. The 2019 evaluation summary shows:
  - Awareness of All Right? continues to rise year on year – 69% (2015), 75% (2016), 81% (2017), 82% (2018), and 88% (2019).
  - All Right? is increasing wellbeing literacy – 77% say the messages make them more aware of looking after their wellbeing.
  - All Right? is encouraging people to take action – 47% have done things as a result of what they have seen or heard.
- The Integrated Planning Guide. An excellent example of the ever increasing joined up way of working. Staff from across several organisations have provided input and expertise into the development of Version 3 of the Guide - CDHB, Christchurch City Council, Environment Canterbury, Greater Christchurch Partnership, and Regenerate Christchurch.
- Broadly Speaking Training Programme. A Health in All Policies governance training programme developed by C&PH. C&PH staff are currently in Australia providing training to the Mayor and Councillors of Bendigo.

Discussion took place on connections and access to health messaging/information in the community. The importance of information being available in various languages was stressed, as was the ability to readily access information. A presentation by CALD is to be scheduled to provide an update on work in this area.

There was acknowledgement of C&PHs input into the "Our Space 2018-2048: Greater Christchurch Settlement Pattern Update".

Tracey Chambers joined the meeting at 9.15am.

Resolution (18/19)
(Moved: Hans Wouters/Seconded: Chris Mene – carried)

"That the Committee:

i. acknowledges the excellent work of the All Right? Social Marketing Campaign".

There was discussion on "The First 1000 Days" and the distribution of additional funding. Carolyn Gullery, Executive Director, Planning Funding and Decision Support, advised this is a regional process, being lead through SIAPO to formulate a South Island plan to be provided to the Ministry of Health. The Committee requested a more detailed update when appropriate.

Resolution (19/19)
(Moved: Chris Mene/Seconded: Wendy Dallas-Katoa – carried)

"That the Committee:

i. notes the Community and Public Health Update Report."

5. ENVIRONMENTALLY SUSTAINABLE HEALTH CARE: POSITION STATEMENT

Ms Currie presented the report, noting the position statement and accompanying actions will enable South Island District Health Boards to work both collaboratively and independently to ensure an appropriate focus and response to sustainability. The position statement creates a foundation upon which CDHB can move forward with credibility and it was noted that a CDHB sustainability governance body has been established.

Discussion took place on strategies; collaboration focus; and the relevance and benefits of influence strategy maps; as well as valuing the cost of sustainable procurement.

Resolution (20/19)
(Moved: Dr Susan Foster-Cohen/Seconded: Jo Kane – carried)

"The Committee recommends that the Board:

i. approves the draft Environmentally Sustainable Health Care: Position Statement."

6. COMMUNICABLE DISEASE (PRESENTATION)

Kerry Marshall, Communicable Disease Manager, C&PH; and Dr Ramon Pink, Clinical Director, Communicable Disease, C&PH, presented to the Committee. Mick O'Donnell, Communications Advisor, was also in attendance.

David Morrell retired from the meeting at 9.45am.

The presentation provided an overview of:

- Communicable disease control in terms of purpose and outcomes.
- Canterbury's February 2019 measles outbreak - key features; distribution and transmission; MMR vaccination campaign, as well as ongoing challenges.
- Measures taken to prevent the introduction of communicable disease.
- Supporting immunisation work across the sector.
- Refugee and migrant health.

There was discussion around the importance of ensuring comprehensive wrap around services are in place when requesting people to quarantine.

It was noted that Canterbury appears to have a community spirit that is not seen in other parts of the country, responding well when medical advice is given at a community level.

Discussion took place on influenza vaccinations and whether it would be appropriate for the Board to lobby for the availability of a population wide fully funded seasonal influenza vaccine for the 2020 winter. The following points were raised:

- Work is underway for DHBs to be involved in Pharmac's early planning for the 2020 season.
- The cost to deliver a population wide vaccine will be borne by DHBs.
- There are technical issues relating to the vaccination of children.
- In lobbying for the seasonal influenza vaccine, consideration should be given to demand for other unfunded drugs.

It was agreed that a paper will be prepared for the Committee's consideration, detailing cost benefits of supporting a population wide fully funded seasonal influenza campaign, and where such support stands when compared to lobbying for other unfunded drugs.

The Committee thanked Ms Marshall and Dr Pink for the presentation.

7. PLANNING & FUNDING UPDATE REPORT

Carolyn Gullery, Executive Director, Planning Funding and Decision Support, presented the report, noting it highlighted progress made against commitments set out in CDHB's Annual Plan for 2018/19.

There was discussion on the success of the Mana Ake service, which delivered against all commitments set in 2018/19, with over 2,400 children and families accessing the service in its first year.

Resolution (21/19)
(Moved: Chris Mene/Seconded: Sally Buck – carried)

"That the Committee:

i. notes the update on progress to the end of quarter four (Apr - Jun) 2018/19."

8. INTERRAI (PRESENTATION)

Mardi Postill, Older Persons Health Team Leader, Planning & Funding (*P&F*); and Andrea Davidson, Portfolio Manager, P&F, presented on InterRAI. The presentation provided an overview of:

- What InterRAI is.
- How InterRAI is used in Canterbury
- Potential risk areas and steps that have been taken to mitigate these risks.

There was a query around wait times for rural assessments. Ms Postill advised that as assessors are geographically located, rural clients do not experience longer wait times for assessments. It was also noted there are dedicated Maori and Pacific assessors.

The Chair thanked Ms Postill and Ms Davidson for the presentation.

The meeting adjourned for morning tea from 10.40 to 11.00am.

Tracey Chambers, Chair, DSAC, chaired the remainder of the meeting.

9. WORKFORCE DIVERSITY, INCLUSION & BELONGING

Jacqui Lunday-Johnstone, Director of Allied Health, Scientific & Technical, presented the report which was taken as read. Whilst not specific to disability, it was noted that the report highlights "diversity, inclusion and belonging" work underway across the organisation.

Ms Lunday-Johnstone noted the importance of CDHB having a high level policy with a stated intent. A multi-level approach has been adopted, with work progressing in various areas. Project Search was highlighted – an initiative predicated on changing expectations by shifting from a "deficit" approach to an "asset" approach. Workshops have also been held with businesses and NGOs with expertise in the field. Ms Lunday-Johnstone advised that this is a journey – the journey has commenced and continues to progress.

Discussion took place around policies; unconscious bias; and connections with the business community.

The Committee received the report.

10. STEP-UP PROGRAMME UDPATE

Kathy O'Neill, Team Leader, Planning & Funding, presented the report which was taken as read.

There was discussion on the challenging start faced by the trail, with events in Christchurch resulting in General Practice needing to focus on priorities relating to the events of 15 March 2019 and the measles outbreak. As a consequence, referral numbers were low during this period and may mean the target of 180 client enrolments required by MSD by the end of this agreement at 31 October 2019 will not be achieved. Enrolment rates have picked up over recent months. It was noted that once clients are enrolled in the service, there is a 12 month period to achieve specified outcomes.

The Committee received the report.

11. COMMUNITY & PUBLIC HEALTH UPDATE – DISABILITY SECTOR (PRESENTATION)

Allison Nichols-Dunsmuir, Health in All Policies Advisor, C&PH, presented to the Committee. The presentation highlighted:

- Public health's approach to disability.
- Matters of interest nationally, including a new Disability Strategy Action Plan going to Cabinet in September 2019; development of an Information Accessibility Charter; and an Access Alliance for Accessibility Legislation.
- Partnerships and Projects.
- Transport issues and initiatives.

Queries were raised about the "Information Accessibility Charter". It was noted that this relates to national standards around website accessibility, document accessibility etc. It is independent of the Canterbury Accessibility Charter. It is understood the Information Accessibility Charter has been signed nationally by various public sector organisations, but at this time no DHBs have signed. Work is underway to understand the issues, with an update requested for the Committee's 31 October 2019 meeting.

The Chair acknowledged the positive work being undertaken by both Ms Nichols-Dunsmuir and Ms O'Neill.

Chris Mene advised that today was his last meeting as a CPH&DSAC member. He acknowledged the work of staff, specifically in relation to disability issues. The Chair thanked Mr Mene for his contribution.

INFORMATION ITEMS

- CDHB Public Health Report: January – June 2019
- Board Minutes Excerpt – 18 July 19 – Maori Health Strategy Proposal
- Extracts from Chief Executive's Report to Board - 18 July 19
- Influenza – Pharmac Approvals
  (CPH&DSAC - 7 Mar 19)
- Disability Steering Group Minutes
  (21 June 2019 and 26 July 2019)
- Canterbury & West Coast Health Disability Action Plan
- 2020 Tentative Meeting Schedule
- 2019 Workplan

There being no further business the meeting concluded at 12.00pm.

Confirmed as a true and correct record:

_____ _____

Dr Anna Crighton
Chair, CPHAC

Date of approval

_____ _____

Tracey Chambers
Chair, DSAC

Date of approval

RESOLUTION TO EXCLUDE THE PUBLIC

Canterbury District Health Board
Te Poari Hauora ō Waitaha

TO: **Chair and Members**
Canterbury District Health Board

SOURCE: **Corporate Services**

DATE: **19 September 2019**

Report Status – For:	Decision	☑	Noting	☐	Information	☐

1. ORIGIN OF THE REPORT

The following agenda items for the meeting are to be held with the public excluded. This section contains items for discussion that require the public to be excluded for the reasons set out below. The New Zealand Public Health and Disability Act 2000 (the *Act*), Schedule 3, Clauses 32 and 33, and the Canterbury DHB Standing Orders (which replicate the Act) set out the requirements for excluding the public.

2. RECOMMENDATIONS

That the Board:

i resolves that the public be excluded from the following part of the proceedings of this meeting, namely items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and the information items contained in the report;

ii. notes that the general subject of each matter to be considered while the public is excluded and the reason for passing this resolution in relation to each matter and the specific grounds under Schedule 3, Clause 32 of the Act in respect to these items are as follows:

	GENERAL SUBJECT OF EACH MATTER TO BE CONSIDERED	GROUND(S) FOR THE PASSING OF THIS RESOLUTION	REFERENCE – OFFICIAL INFORMATION ACT 1982 (Section 9)
1.	Confirmation of minutes of the public excluded meeting on 15 August 2019	For the reasons set out in the previous Board agenda.	
2.	2019 / 20 Final Annual Plan Update	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
3.	National Bowel Screening Programme	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
4.	Chair & Acting Chief Executive - Update on Emerging Issues – Oral Reports	Protect the privacy of natural persons. To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	S9(2)(a) s9(2)(j)
5.	Holidays Act – Memorandum of Understanding	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
6.	Holidays Act – Compliance Project	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)

7.	IEA Remuneration Strategy 2019 / 20	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
8.	Hagley (ASB) Handover Report	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
9.	Equity Support for 2018 / 19 Deficit	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
10.	NZHPL	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
11.	NZ Health Innovation Hub – Update on Governance Arrangements	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
12.	People Report	To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s9(2)(j)
13.	Legal Report	Protect the privacy of natural persons. To carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations). Maintain legal professional privilege.	S9(2)(a) s9(2)(j) s9(2)(h)
14.	Advice to Board: • QFARC Draft Minutes *27 August 2019*	For the reasons set out in the previous Committee agendas.	

iii notes that this resolution is made in reliance on the Act, Schedule 3, Clause 32 and that the public conduct of the whole or the relevant part of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under any of sections 6, 7 or 9 (except section 9(2)(g)(i)) of the Official Information Act 1982.

3. SUMMARY

The Act, Schedule 3, Clause 32 provides:

"A Board may by resolution exclude the public from the whole or any part of any meeting of the Board on the grounds that:

(a) the public conduct of the whole or the relevant part of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under any of sections 6, 7 or 9 (except section 9(2)(g)(i) of the Official Information Act 1982.

In addition Clauses (b) (c) (d) and (e) of Clause 32 provide further grounds on which a Board may exclude members of the public from a meeting, which are not considered relevant in this instance.

Clause 33 of the Act also further provides:

(1) Every resolution to exclude the public from any meeting of a Board must state:

(a) the general subject of each matter to be considered while the public is excluded; and

(b) the reason for the passing of that resolution in relation to that matter, including, where that resolution is passed in reliance on Clause 32(a) the particular interest or interests protected by section 6 or 7 or

section 9 of the Official Information Act 1982 which would be prejudiced by the holding of the whole or the relevant part of the meeting in public; and

(c) the grounds on which that resolution is based(being one or more of the grounds stated in Clause 32)

(2) Every resolution to exclude the public must be put at a time when the meeting is open to the public, and the text of that resolution must be available to any member of the public who is present and form part of the minutes of the Board.

Approved for release by: Justine White, Executive Director, Finance & Corporate Services