AGENDA



COMMUNITY & PUBLIC HEALTH AND DISABILITY SUPPORT ADVISORY COMMITTEE MEETING

To be held in the Board Room, Level 1, 32 Oxford Terrace, Christchurch Thursday, 1 November 2018 commencing at 9:00am

	Apologies		9.00am
1.	Conflict of Interest Register		
2.	Confirmation of Minutes – 30 August 2018		
3.	Carried Forward / Action List Items		
4.	Community & Public Health Exception Report	Evon Currie	9.05-9.20am
5.	Sugar-Sweetened Beverages Position Paper	Evon Currie	9.20-9.35am
6.	Planning & Funding Exception Report	Carolyn Gullery	9.35-9.50am
7.	Māori and Pacific Health Progress Report	Dr Matthew Reid	9.50-10.05am
8.	Hauora Alliance – Presentation	Evon Currie Helen Leahy	10.05-10.25am
9.	Canterbury Wellbeing Index Update – Presentation	Annabel Begg Kirsty Peel	10.25-10.45am
	MORNING TEA		10.45-11.00am
10.	Disability Steering Group Update - Oral	Gordon Boxall	11.00-11.20am
11.	CDHB Workforce Update	Mark Lewis	11.20-11.45am
	11.1 Project Search – Presentation		
	ESTIMATED FINISH TIME		11.45am

AGENDA



Information Items

- Disability Steering Group Minutes Jul & Aug 18
- Health Target Q4 Report
- Air Quality Monitoring/Respiratory Illness Data
- 2018 Workplan

NEXT MEETING: Thursday, 7 March 2019 at 9.00am

ATTENDANCE



COMMUNITY AND PUBLIC HEALTH ADVISORY COMMITTEE

Dr Anna Crighton (Chair)
David Morrell (Deputy Chair)
Sally Buck
Tracey Chambers
Jo Kane
Chris Mene
Wendy Dallas-Katoa
Rochelle Faimalo
Dr Susan Foster-Cohen
Yvonne Palmer
Dr John Wood (ex-officio)
Ta Mark Solomon (ex-officio)

DISABILITY SUPPORT ADVISORY COMMITTEE

Tracey Chambers (Chair)
Chris Mene (Deputy Chair)
Sally Buck
Dr Anna Crighton
Tom Callanan
Dr Olive Webb
Hans Wouters
Dr John Wood (ex-officio)
Ta Mark Solomon (ex-officio)

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

Helen Little – Interim 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 Charlotte Evers – Assistant Board Secretariat Kay Jenkins – Executive Assistant, Governance Support

CONFLICTS OF INTEREST REGISTER COMMUNITY & PUBLIC HEALTH AND DISABILITY SUPPORT ADVISORY COMMITTEE (CPH&DSAC)



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

Dr Anna Crighton Chair - CPHAC Board Member	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.
Tracey Chambers Chair - DSAC Board Member	Chambers Limited – Director 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. Rata Foundation – Trustee
	Rātā Foundation, formerly The Canterbury Community Trust, was established in 1988 and is one of New Zealand's largest philanthropic organisations. The Foundation holds in trust for Canterbury, Nelson, Marlborough and the Chatham Islands an endowment, or putea, of over half a billion dollars. Investment returns on their capital base enables them to make millions of dollars in grants each year to community organisations across their funding region.
David Morrell Deputy Chair - CPHAC Board Member	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.
	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 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.
	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.
Chris Mene	Canterbury Clinical Network – Child & Youth Workstream Member
Deputy Chair – DSAC	
Board Member	Core Education – Director Has an interest in the interface between education and health.
	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.
Sally Buck Board Member	Christchurch City Council (<i>CCC</i>) – 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.
Tom Callanan	CCS Disability Action – Services Manager, Canterbury Service provider within disability sector in New Zealand, including advocacy and information sharing.
	Disability Sector System Transformation, Regional Leadership Group – Member.
Wendy Dallas-Katoa Manawhenua	Greater Healthy Christchurch – Runanga Representative IHI Research – Social Change and Innovation Researcher
	Manawhenua Ki Waitaha – Chair, Representative of Onuku Runanga Manawhenua Ki Waitaha is a collective of health representatives of the seven Ngāi Tahu Papatipu Rūnanga that are in the CDHB area. There is a memorandum of understanding between Manawhenua and the CDHB.
	NZBA – Maori Advisory Group
	Population Health Alliance SLA – MKW Representative
	RANZCOG – Cultural Advisor, He Hono (Wahine Maori Collective of Obstetrics and Gynaecologists)

	Te Kahui o Papaki ka Tai – Mana Whenua Representative (Cultural Advisor)
	Maori Advisory Group to Pegasus Health/PHO
	Victoria University – Women's Health Representative
Rochelle Faimalo	Hurunui District Council – Community Team Leader
	Canterbury Youth Workers Collective – Committee Member
Dr Susan Foster-Cohen	Director Champion Centre
	Receives funding from both the MoH and CDHB.
	Dyspraxia Support Group – Patron Parent Support Group for families/children with dyspraxia.
	Early Intervention Association of Aotearoa New Zealand – Chair Professional association that aims to support early intervention professionals through professional development and information sharing. Has representation on ECAC and Early Childhood Federation.
	New Zealand Institute of Language Brain and Behaviour – Member Researcher with NZILBB through Champion Centre partnership.
	New Zealand Speech Therapy Association – Associate Member Professional body for Speech and Language therapists.
	University of Canterbury – Adjunct Associate Professor
	Researcher and graduate student supervisor in Linguistics and in
	Communication Disorders. (Lecturer on short term contracts as needed.)
Jo Kane Board Member	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.
Yvonne Palmer	Age Concern Canterbury – Project Coordinator Staff member responsible for education courses and events.
	Canterbury Community Justice Panels – Facilitator/Panel Member/ Member Steering Group
	Canterbury Justice of the Peace Association Incorporated – Elected Councillor
	Safer Waimakariri Advisory Group – Member
	Styx Living Laboratory Charitable Trust – Trustee

Ta Mark Solomon Ex Officio-CPH&DSAC 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.

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.

Liquid Media Operations Limited – Shareholder

Liquid Media is a start-up company which has a water/sewage treatment technology.

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 – 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.

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 Waka o Maui – Independent Representative Te Waka o Maui is a Post Settlement Governance Entity.

Dr Olive Webb

Canterbury Plains Water Trust – Trustee Greater Canterbury Forum - Member

Private Consulting Business

Sometimes works with CDHB patients and services.

Frequently involved in legal proceedings alleging breaches of human rights of people with disabilities in Ministry of Health and District Health Board services.

Dr John Wood Ex Officio-CPH&DSAC

Advisory Board NZ/US Council – Member

The New Zealand United States Council was established in 2001. It is a non-

Chair CDHB

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.

Member of the Governing Board of the Office of Treaty Settlements, Ministry of Justice (as Chief Crown Treaty of Waitangi Negotiator) – Ex-Officio Member

The Office of Treaty Settlements, Ministry of Justice, are responsible for 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.

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 2018.

Governing Board, Economic Research Institute for ASEAN and East Asia (ERIA) – Member

ERIA is an international organisation that was established by an agreement of the leaders of 16 East Asia Summit member countries. Its main role is to conduct research and policy analysis to facilitate the ASEAN Economic Community building and to support wider regional community building. The governing board is the decision-making body of ERIA and consists of the Secretary General of ASEAN and representatives from each of the 16 member countries, all of whom have backgrounds in academia, business, and policymaking.

Kaikoura Business Recovery Grants Programme Independent Panel – Member

The Kaikoura Business Recovery Grants Programme was launched in May 2017 and is intended to support local businesses until State Highway One reopens by way of grants which can be applied for by eligible businesses. This programme is now closed.

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 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.
	University of Canterbury (<i>UC</i>) – Chancellor The University Council is responsible for the governance of UC and the appointment of the Vice-Chancellor. It sets UC's policies and approves degree, financial and capital matters, and monitors their implementation.
	University of Canterbury Foundation – Ex-officio Trustee The University of Canterbury Foundation, Te Tūāpapa Hononga o Te Whare Wānanga o Waitaha, is dedicated to ensuring that UC's tradition of excellence in higher education continues. From its earliest beginnings in 1873, philanthropic support and the generosity of donors and supporters has played a major part in making the university the respected institution it is today. The UC Foundation is dedicated to continuing that tradition.
	Universities New Zealand – Elected Chair, Chancellors' Group Universities New Zealand is the sector voice for all eight universities, representing their views nationally and internationally, championing the quality education they deliver, and the important contribution they make to New Zealand and New Zealanders.
Hans Wouters	New Zealand Spinal Trust – Chief Executive Provides support services to patients of the Burwood Spinal Unit during and after admission. NZST receives regular funding from CDHB and MoH as a contribution towards services rendered.

MINUTES



DRAFT

MINUTES OF THE COMMUNITY AND PUBLIC HEALTH AND DISABILITY SUPPORT ADVISORY COMMITTEE MEETING held in the Board Room, Level 1, 32 Oxford Terrace, Christchurch on Thursday, 30 August 2018 commencing at 9.00am

PRESENT

Dr Anna Crighton (Chair, CPHAC); Tracey Chambers (Chair, DSAC); David Morrell (Deputy Chair, CPHAC); Sally Buck; Jo Kane; Tom Callanan; Wendy Dallas-Katoa; Rochelle Faimalo; Dr Susan Foster-Cohen; Yvonne Palmer; Dr Olive Webb; Hans Wouters; Ta Mark Solomon (ex-officio); and Dr John Wood (ex-officio).

APOLOGIES

An apology for absence was received and accepted from Chris Mene. An apology for lateness was received and accepted from Dr Anna Crighton (10.30am).

IN ATTENDANCE

David Meates (Chief Executive); Carolyn Gullery (Executive Director, Planning Funding & Decision Support); Kerry Marshall (Public Health Manager, Community & Public Health); Anna Craw (Board Secretariat); and Charlotte Evers (Assistant Board Secretariat).

Item 6

Allison Nichols-Dunsmuir, Health in All Policies Advisor, Community & Public Health

Item 7

Raegan Kitto, Clinical Manager, Social Work, Older Persons Health & Rehabilitation

Item 8

Bronwyn Larsen, Health in All Policies Advisor, Community & Public Health Jonathan Amos, Service Development Manager, Planning & Funding

Item 12

Carol Horgan, Facilitator, Oxford & Surrounding Areas Health Service Development Group (*OSHSDG*) Kevin Felstead, Chair, Local Government, OSHSDG Judith Millar, GP, Clinical Perspective, OSHSDG Jo Ealam, Oxford Community Trust, Consumer and NGO Perspective, OSHSDG

Ta Mark Solomon opened the meeting with a Karakia.

Ms Tracey Chambers, Chair, DSAC, chaired the first part of the meeting.

1. INTEREST REGISTER

Additions/Alterations to the Interest Register

Rochelle Faimolo advised the following:

- Addition Canterbury Youth Workers Collective Committee Member
- Amendment Hurunui District Council Community Team Leader Social Recovery Co-ordinator

There were no other 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 (09/18)

(Moved: Sally Buck/Seconded: Wendy Dallas-Katoa – carried)

"That the minutes of the meeting of the Community & Public Health and Disability Support Advisory Committee held on 3 May 2018 be confirmed as a true and correct record."

3. CARRIED FORWARD/ACTION LIST ITEMS

The carried forward action list was noted.

4. OUR PEOPLE

The "Our People" story was viewed.

Jo Kane joined the meeting at 9.17am.

David Morrell joined the meeting at 9.19am.

A discussion was held around the CDHB's relationship with ACC. Carolyn Gullery, Executive Director, Planning Funding & Decision Support, advised of a non-acute rehabilitation pilot programme currently underway, being driven at a national level, involving ACC working with CDHB, Auckland and Waikato DHBs.

It was agreed that representatives of the Committee would meet with Ms Gullery to be briefed on where the programme has come from and where it is at currently, with the objective that Committee members provide a sense check for alignment of thoughts.

5. TRANSALPINE STRATEGIC DISABILITY ACTION PLAN UPDATE

Ms Gullery presented the update, which was taken as read, highlighting the following:

- Maori and Pacific Island members in the Diversity Moderation Group.
- The beginning of Project Search in February 2019, which has been expanded to other areas of disability.
- A pilot for acute care plans, which is being led by a collaborative care team from the Canterbury Clinical Network (*CCN*).

There was a request for data on CDHB employees who identify as having a disability. It was noted that this had been discussed at a recent Board meeting. Michael Frampton, Chief People Officer, will provide an update to a future meeting, to also include the rollout of the new employment portal, Max.

With reference to commentary in the report around transferring documents to 'Easy Read', it was noted that there are a number of organisations who can be contracted to do this.

There was discussion around changes to the NHI and whether disability information will be stored.

A Committee member queried the research on people who report as being disabled. There was discussion around people not disclosing a disability for fear of being labelled or excluded by employers.

There was discussion around people with disabilities and the unique challenges faced to access existing facilities. Transport is often hard for wheelchair users to source. It was noted that there is now a wheelchair shuttle operating between Christchurch Hospital and the Lichfield Street parking building, as well as new mobility parks on Rolleston Avenue and Cambridge Terrace.

There was a query from a Committee member as to whether the Healthlearn training module could be made available to organisations outside of the health sector. Ms Gullery undertook to follow this up and report back.

Resolution (10/18)

(Moved: Tracey Chambers/Seconded: Sally Buck – carried)

"That the Committee:

- i. notes the key areas of progress in achieving the two year priority actions of the plan;
- ii. notes that a refresh of the Plan is occurring and will be presented to the Committee for their endorsement following approval by the Disability Steering Group (DSG); and
- iii. notes the increase of Maori and Pacific membership on the DSG following the approved nominations and selection process conducted by the Canterbury Clinical Network."

6. COMMUNITY & PUBLIC HEALTH - DISABILITY SECTOR - PRESENTATION

Allison Nichols-Dunsmuir, Health in All Policies Advisor, Community & Public Health, presented an update on the disability sector from the Community & Public Health perspective. Ms Nichols-Dunsmuir circulated the Christchurch City Council Accessibility Checklist, a document which provides guidance for holding events that are accessible to people with disabilities.

A Committee member asked whether the new stadium will be designed with accessibility in mind. Ms Nichols-Dunsmuir commented that Otakaro is providing guidance on accessibility in anchor projects.

A request was made for the Facility Development Principles to be made available to the Committee. Ms Nichols-Dunsmuir undertook to provide these.

Dr Anna Crighton joined the meeting at 10.12am.

Ms Chambers thanked Ms Nichols-Dunsmuir for her presentation and congratulated the team on their work.

7. SOCIAL WORKERS REPORT ON HOARDING BEHAVIOURS – PRESENTATION

Raegan Kitto, Clinical Manager, Social Work, Older Persons Health and Rehabilitation, presented on social work and hoarding behaviours in the elderly population.

A Committee member queried what effects the Canterbury earthquakes had on hoarding behaviours and whether this was consistent with predicted trends. Ms Kitto noted that often the earthquakes had made the situation better, as neighbours were checking on each other and could identify hoarding behaviour.

There was discussion around data for hoarding disorders. It was noted that data collection is not currently at a point that shows where it is more prevalent or how many people are classed as having a hoarding disorder. Figures are anecdotally reported from staff sharing their experiences.

Discussion was held around how families can get support from services in treating the disorder.

Ms Chambers thanked Ms Kitto for her presentation.

Dr Anna Crighton, Chair, CPHAC, chaired the remainder of the meeting.

8. ALCOHOL UPDATE - PRESENTATION

Bronwyn Larsen, Health in All Policies Advisor, Community & Public Health; and Jonathan Amos, Service Development Manager, Planning & Funding, presented an update on the Canterbury health system strategy to reduce alcohol-related harm.

Ms Crighton thanked Ms Larsen and Mr Amos for their presentation, and invited them to stay for morning tea, where Committee members could raise any questions.

The meeting adjourned for morning tea at 11.01 am, resuming at 11.15 am.

9. COMMUNITY AND PUBLIC HEALTH EXCEPTION REPORT

Kerry Marshall, Public Health Manager, Community & Public Health presented the update, which was taken as read.

There was a request for further information on data regarding air quality/respiratory illness monitoring across the greater Canterbury area. This will be provided to a future meeting.

There was a request that an update on the Healthy Christchurch seminars be added to the 2019 workplan, to address traction, usefulness and achievements.

Resolution (11/18)

(Moved: Anna Crighton/Seconded: Wendy Dallas-Katoa – carried)

"That the Committee:

i. notes the Community and Public Health Exception report."

10. PLANNING & FUNDING EXCEPTION REPORT

Carolyn Gullery presented the update, which was taken as read.

Highlights included:

- An above average national result in ED performance.
- Reaching the immunisation target for all ethnicities.

 Rapid roll-out of the Mana Ake programme. A Wellbeing in Schools tool has been launched, with 25 schools attending training recently.

Discussion was held around increased referrals to CREST services and whether this will cause delays. Ms Gullery commented that the delay relates to assessment, not to services starting. Work is underway and ongoing to re-design the CREST model.

A Committee member queried coverage of the Mana Ake programme and whether the number of FTE positions will grow to meet demand. The rollout was done based on a best assessment model and referrals from Oranga Tamariki, reflecting children in school clusters. Initial funding is for 80 FTE workers for the greater Canterbury region.

A question was raised about the estimated caseload for the Mana Ake workforce. Ms Gullery commented it will be a learning curve because it is designed to complement other services already in place.

There was discussion around the relationship between Mana Ake and the Ministry of Education (MoEd). Ms Gullery commented that MoEd is an alliance partner and part of the design process.

A query was raised about the aging workforce in rural district nursing. Ms Gullery advised that work continues in this area, with a report to the Board expected before year end.

A Committee member questioned whether more can be done for children identified as obese who do not attend referral appointments. Ms Gullery commented that the data in the report is from the B4 School checks where the child is identified as being in the 98th percentile for weight. 42% of children are attending referral appointments, but she acknowledged the difficulty in families accepting the referral. A range of responses are being worked on.

Discussion was held around dementia/resthome capacity. It was acknowledged that this is a serious issue South Island wide, not just in Canterbury. Nelson/Marlborough DHB have put out an RFP for providers and CDHB is hoping to work with them and other South Island DHBs as an alliance.

Resolution (12/18)

(Moved: Jo Kane/Seconded: Tracey Chambers – carried)

"That the Committee:

notes the Planning & Funding Exception report."

Tracey Chambers retired from the meeting at 11.40am. The meeting moved to Item 12.

12. OXFORD MODEL OF CARE UPDATE

Carol Horgan, CCN Facilitator, Oxford and Surrounding Areas Health Service Development Group (OSHSDG); Kevin Felstead, Chair, Local Government, OSHSDG; Judith Millar, GP, Clinical Perspective, OSHSDG; and Jo Ealam, Oxford Community Trust, Consumer and NGO Perspective, OSHSDG presented a video on the OSHSDG and model of care update for Oxford. They also handed out a flyer which will be put in letterboxes in the Oxford community.

There was discussion around:

- Oxford population figures.
- How transient people in the community can access healthcare.
- The importance of telephone landlines for communication.

There was discussion around next steps. The group is seeking feedback from the community and will make revisions to the model of care, which will be presented to the CCN Alliance Leadership Team in November. From there the update will go to the Hospital Advisory Committee and to the CDHB Board early 2019. The full model of care, in draft form, is available on the CCN website.

There was a request to ensure that there is disability representation on the group.

Dr Crighton invited the group to provide an update to the Committee in 12 months, and thanked the group for their attendance and presentation.

Resolution (13/18)

(Moved: David Morrell/Seconded: Hans Wouters – carried)

"That the Committee:

- i. notes the progress of the group; and
- ii. notes the intended community engagement (scheduled for early September)."

The meeting moved to Item 11.

11. HURUNUI – KAIKOURA EARTHQUAKE RECOVERY UPDATE

Ms Gullery presented the report which was taken as read.

Discussion took place around ongoing ambulance access in the Hurunui area. Ms Gullery advised that the Ministry of Health (*MoH*) are initiating discussions with the St John Ambulance CEO in order to address this.

A Committee member queried when the Mana Ake programme will be launched in Kaikoura, as Kaikoura High School is experiencing significant mental health issues. The programme is due to start in October.

Discussion was held around loneliness and why there is no funding for accredited visitor services. A process for sourcing funding for a package of health services is underway.

A Committee member queried the longevity of the All Right? campaign. The Community & Public Health team are looking for funding opportunities to extend this.

Dr Olive Webb retired from the meeting at 12.15pm.

Resolution (13/18)

(Moved: Jo Kane/Seconded: Mark Solomon – carried)

"That the Committee:

i. notes the Hurunui – Kaikoura Earthquake Recovery Update report."

The meeting moved to Item 13.

13. COMMUNITY & PUBLIC HEALTH EARLY CHILDHOOD FOCUS/ACTIVITIES UPDATE – PRESENTATION

Kerry Marshall presented an update on activities in early childhood settings from a Community & Public Health (*CPH*) perspective.

Discussion was held around modern learning environments and how this effects children with sensory learning disorders, as some early childhood centres (*ECE*) are set out in this way. Ms Marshall commented that CPH is eager to be involved in looking at the effects of modern learning environments on children.

Ms Marshall commented that resources produced by CPH are readily available to ECEs and they are in frequent contact with centre managers and owners.

INFORMATION ITEMS

- Disability Steering Group Minutes June 2018
- Disability Steering Group Updated Terms of Reference Adopted 28 June 2018
- Disabled Persons Assembly New Zealand August/September 2018 Newsletter
- CPH End of Year Report to MoH
- CCN Q4 2017/2018
- 2019 Meeting Schedule
- 2018 Workplan

There being no further business the meeting concluded at 12.34pm.

Confirmed as a true and corre	ect record:
Dr Anna Crighton Chair, CPHAC	Date
Tracey Chambers Chair, DSAC	Date

CARRIED FORWARD/ACTION ITEMS



COMMUNITY AND PUBLIC HEALTH AND DISABILITY SUPPORT ADVISORY COMMITTEE CARRIED FORWARD / ACTION ITEMS / POSITION STATEMENTS AS AT 1 NOVEMBER 2018

	DATE	ITEM	ACTION	STATUS
1.	1. 3 May 18	Flu Jabs Funding	Pharmac/Influenza Funding for 2019	To be scheduled
2.	2. 01 Mar 18	Maori & Pacific Health Progress Report	Maori & Pacific Health Progress Report Future reporting to include "B4School Check" in Pacific Today's meeting – Item 7. dashboard.	Today's meeting – Item 7.
3.	3. 30 Aug 18	Transalpine Strategic Disability Action Plan Update	Provide update on data for CDHB employees who identify as having a disability, plus update on Max rollout.	Today's meeting – Item 11.
4	4. 30 Aug 18	Community & Public Health Report	Data regarding air quality monitoring/respiratory illness Today's meeting – Information Item across Canterbury	Today's meeting – Information Item

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CDHB POSITION STATEMENTS

STATEMENT	DATE ADOPTED	STATUS
Alcohol Position Statement	Jul 2012	
Canterbury Water Management Strategy	Oct 2011	
Fluoridation Position Statement	Jul 2003	Due to be reviewed.
Gambling Position Statement	Nov~2006	
Housing, Home Heating and Air Quality	Apr 2012	
South Island Smokefree Position Statement	Nov~2012	
Unflued Gas Heaters Position Statement	Jul 2015	
Sugary Drinks & Artificially Sweetened Beverages		Position paper for consideration – today's agenda, item 5.

COMMUNITY AND PUBLIC HEALTH EXCEPTION REPORT



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: Community and Public Health

DATE: 1 November 2018

Report Status - For: Decision

Noting

Information

1. ORIGIN OF THE REPORT

This report is a standing agenda item, providing exception reporting against the Canterbury DHB's Strategic Directions and Key Priorities as set out in the District Annual Plan and the Core Directions.

2. RECOMMENDATION

That the Committee:

i. notes the Community and Public Health Exception Report.

3. DISCUSSION

All Right? Social Marketing Campaign - An Update

Manly As 2.0 – The second phase of the 'Manly As' campaign was launched on 2 August. The first 'Manly As' campaign celebrated the caring side of men, while this follow up campaign takes the message a step further. Using a strengths-based approach, the campaign seeks to validate a broader range of positive things men may be into and showcases other sides to masculinity. The goal of the campaign is to socialise a broader view of manliness and extend concepts of what constitutes 'Manly As' by shining a spotlight on some the stereotypes men feel pressure to live up to, or conform to e.g. in relation to sport (in particular rugby), vocation (having a manly day job), appearance (the pressure to be the same), relationships (being heterosexual) and pub culture ('real men drink beer').



The objectives of the campaign are to:

- help Canterbury blokes be honest and confident in their own skin, to be themselves in whatever form that is;
- encourage society to broaden their view of what it means to be a 'bloke', challenging the Kiwi stereotypes of manliness; and
- to socialise a broader view of manliness and spark a conversation around what "Manly As' is.

<u>Sparklers Website Launch</u> – Sparklers now has its own website, allowing for more interactivity and also providing the potential for further development. The website was launched at Breens Intermediate on 10 August by Duncan Webb (standing in for Minister Megan Woods). The website now includes over 50 activities for students in Years 1 to 8.

The activities teach children things they can do to stay calm, manage worries, be kind, and feel good. There are pages on the website for parents and whanau, with a link to the All Right? parenting page. In addition, a newly developed wellbeing section has been developed specifically for teachers. The recently completed evaluation of Sparklers indicates that the resource is used by a great number of teachers around Canterbury (and some nationally too), who appreciate its simplicity and ease of use. Key informants described valuing the strengths-based approach of Sparklers, noted how Sparklers supported whole of school wellbeing promotion, and respondents also appreciated the fact that teachers do not need to be experts in mental health in order to create classrooms supportive of wellbeing skills development for all children.

<u>Hurunui/Kaikoura</u> – At the time of writing, funding will cease for mental health promotion work in the Kaikoura and Hurunui districts at the end of October. The two health promoters currently based in these communities are focused on ensuring that *All Right?* continues to have a presence, albeit without workers on the ground. Planning is underway for the production of a 'legacy' resource for these communities which will have a five ways to wellbeing focus. A 'train the trainers' programme is being developed to enable support workers in the various communities to develop the skills and knowledge necessary to promote mental wellbeing.

Alongside this work, the *All Right?* campaign team is investigating additional funding for the continuation of *All Right?* in the Hurunui/Kaikoura areas, given that research carried out earlier in the year indicates that there are still psychosocial needs in both districts.

Website for Dissemination of All Right? 'Recipe' – The All Right? campaign team has been asked by the Ministry of Health to develop a website focused on addressing psychosocial wellbeing in the recovery phase following disaster. Based on the All Right? Recipe, which identifies the key ingredients of the campaign, the website will provide advice in simple language about how to facilitate and promote wellbeing in disaster-affected communities anywhere in the country.

The website will describe initiatives undertaken by the All Right? campaign and will offer suggestions as to how these might be personalised for local communities.

The Future – Campaign staff have had several meetings with Ministry of Health officials to discuss the future of the *All Right?* campaign. Funding officially ends in June 2019 so the discussions have been focused on the potential for further support from Government, given the now widely accepted view that psychosocial recovery can take from five to 10 years. Meetings have also focused on the current government's wellbeing agenda, with some discussion about the contribution that the *All Right?* campaign might make to a national conversation on this topic. A meeting with Minister David Clark gave the campaign team an opportunity to share what had been learned from facilitating a wellbeing campaign over the last five years. A similar opportunity arose when the campaign team met with members of the Mental Health Inquiry panel.

World Health Organisation Joint External Evaluation of International Health Regulations - Visit to Community and Public Health 27 November, 2018

Planning is underway for New Zealand's 2018 Joint External Evaluation (*JEE*) pertaining to International Health Regulations monitoring and evaluation. The aim is to assess our capacity to prevent, detect and rapidly respond to public health threats that are naturally occurring, deliberate, or accidental.

The JEE is a component of the international monitoring and evaluation framework for assessing countries' core capacities under the International Health Regulations (*IHR*, 2005), a binding international legal instrument designed to 'prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade'.

The JEE process is undertaken with World Health Organization (*WHO*) support. WHO helps countries identify strengths, and the most critical gaps within their systems, in order to prioritise opportunities for enhanced readiness and responsiveness. The JEE is not intended to be an audit or an inspection, rather the external evaluation team will work collaboratively with New Zealand officials to jointly agree indicator scores and recommendations that can be utilised to enhance our readiness. As at June 2018, 76 JEEs have been conducted worldwide, with New Zealand having already participated in four evaluations (as at end August 2018).

There are two parts to the JEE process, which involve significant engagement from multiple New Zealand government agencies, crown entities and institutions:

- 1. Self-assessment an evaluation against the 19 technical areas in the 'JEE Tool' which will be submitted to WHO as a written report, along with supporting evidence for our capacity in October 2018.
- 2. External evaluation between 25 and 30 November 2018 a team of 10 to 11 subject matter experts from other countries and key international organisations, such as the Food and Agriculture Organization (*FAO*) and WHO, will assess New Zealand's capacity and capability against the 19 technical areas. The week will include peer to peer interactive discussions, along with key site visits that demonstrate New Zealand's capacity.

Community & Public Health has been approached by the Ministry of Health to host a site visit by the external evaluation team on 27 November 2018.

The site visit will demonstrate and build on proven aspects of Canterbury and New Zealand's capacity in the following technical areas:

- IHR coordination, communication and advocacy.
- Biosafety and biosecurity.
- Surveillance.
- Linking public health and security authorities.
- Points of entry.
- Emergency preparedness.
- Emergency response operations.
- Risk communication.

Refugee Resettlement in Christchurch

It has recently been reported by Immigration Minister Ian Lees-Galloway that Christchurch will be re-established as a refugee resettlement location. Christchurch was suspended as a location

following the September 2010 earthquakes. It is anticipated that there will be about 60 refugees settled in Christchurch in the 2018-2019 financial year.

<u>Quota Refugees</u> – On arrival, quota refugees spend six weeks at the Mangere Resettlement Centre where they undergo general health and dental screening, and referral as appropriate. On arrival in Christchurch, the role of the Communicable Disease Nurse (*CDN*) based at Community and Public Health is to ensure:

- a smooth transition into general practice enrolment and practice education;
- provision of health screening results to general practice;
- provision and organisation of Free Introductory Consultation with GP with an interpreter; and
- ensure referral processes carried out (e.g. appointments with Hospital Outpatients etc).

<u>Family Reunification Category</u> – This is another category of refugees where family members can re-unite with refugees who have been in New Zealand for five or more years (a ballot system is used). In these cases, the CDN carries out the above, and in addition to the points above the CDN also:

• organises all the health screening procedures (blood tests, faecal sampling and chest xrays) with an interpreter.

Community Sponsorship Refugee Category – This is a new Pilot Programme where Quota Refugees bypass Mangere Resettlement and arrive at the area of resettlement, where volunteers in the community see to their wellbeing. Three families (16 individuals), sponsored by the West Spreydon Baptist Church, arrived in Christchurch in July 2018 under this scheme. The role of the CDN was extensive in this, and involved organising all health screening, community support and advice, and liaising and collaborating with a variety of agencies, volunteers and organisations to ensure a smooth transition for the families.

Christchurch Alcohol Action Plan

Community & Public Health has worked closely with the Christchurch City Council and the New Zealand Police over the past two years to develop the Christchurch Alcohol Action Plan (*CAAP*), a multi-agency response to community concern about harmful alcohol use.

The CAAP encourages community action and participation to address alcohol-related harm. The CAAP was officially launched on 14 August 2018 at a governance breakfast and stakeholder lunch event held at the Christchurch City Council and attended by more than 70 people.



The CAAP Working Group

Third International Conference on Wellbeing and Policy

Staff from Community and Public Health gave five well received presentations at the 3rd International Conference on Wellbeing and Policy held 3-5 September in Wellington.

The presentations included:

- Evolution of the Canterbury Wellbeing Index Dr Annabel Begg, Kirsty Peel.
- The evolution of the Integrated Planning Guide for a healthy, sustainable and resilient future Sandy Brinsdon.
- Keeping Well: A decade-long 'health in all policies' partnership case study from Christchurch, NZ Claire Bryant (Christchurch City Council), Sandy Brinsdon.
- All Right? Growing Population Literacy and Agency in Mental Wellbeing: Evidence from the world's most sophisticated post-disaster wellbeing campaign Ciaran Fox, Dr Lucy D'Aeth and Sue Turner.

It was useful to learn more about the Government's Treasury Living Standards Framework, the Stats NZ Indicators Aotearoa Project, and to better understand the agenda to place wellbeing measures at the centre of government policy (in ways which will be embedded in legislation). The conference debate reinforced the direction Community & Public Health has taken regarding population wellbeing promotion, monitoring wellbeing and utilising health in all policies approaches.

Community & Public Health: Emergency Response Training

Some of Canterbury DHB's most experienced health emergency responders attended Community & Public Health's refresher Coordinated Incident Management System (CIMS) training in late September. The training, tailored to suit Public Health requirements, was presented by Hamish Sandison (Emergency Preparedness Coordinator) and Debbie Smith (Health Protection Officer). The course was well received by those in attendance, including two Medical Officers of Health, a Public Health Registrar, Health Protection Officers and a PA. Dr Alistair Humphrey was pleased that sufficient time was allowed for appropriate discussion, given the experience of the participants, while Dr Cheryl Brunton remarked that the activities were the most valuable aspect, together with the opportunities made available for discussion.

Collaborating with University of Canterbury's College of Education

Each year Health Promoting Schools' staff are regularly requested to speak to undergraduate and post-graduate health and education students studying to become teachers. Health Promoting Schools' staff delivered two lectures to over 50 students in July and August this year, sharing examples of how schools and kura are identifying, planning and taking actions to improve the health and wellbeing of their school communities.

This year a more proactive approach was taken to collaborate with University of Canterbury College of Education Lecturers Tracey Clelland and Rachael Ismail, to better align and update the Health Promoting Schools' theory and practice being taught. Student teachers now have assignments, as part of their school placements, which involve them in inquiring about a school's health and wellbeing priorities, strategies, plans and actions. The aim is for these students to have a role as agents of change in promoting health and wellbeing within the school settings in which they are placed. At the same time, it is anticipated that this assignment will enhance student learning regarding the importance of health and wellbeing for educational achievement.

Health Promoting Schools: New Food and Nutrition Policy at Mairehau High School

Two years in the making, Mairehau High School Board of Trustees has recently ratified a new food and nutrition policy. Working in collaboration with the Heart Foundation, the Health Promoting Schools Facilitator from Community & Public Health has been supporting the school to introduce a nutrition policy. This involved reviewing the school food environment, consultation with staff, and gathering student voice (on what they need at school to eat well). The new policy also takes steps towards Mairehau becoming a 'water-only' school, and is accompanied by a detailed procedure document focused on embedding a healthy eating culture.

'Over the course of two years, we have crafted, consulted (consulted again) and finally clarified an awesome Nutrition Policy that will help us to ensure our school whanau are supported to make nutritious food choices within the curriculum, in the wider school environment and on our EOTC adventures! We are really looking forward to further embedding this policy into our practice. This term the HED201 class resurrected our Breakfast Club, which is going to continue to grow and establish itself, as nutrition becomes a key focus in our school and with the support of our BOT once the policy is ratified.'

(Kyla Dench, HOD Health, Mairehau)

Selwyn District Council Long Term Plan: Canterbury DHB Submission Points on Drinking Water Supply Compliance

The Canterbury DHB made submissions on Long Term Plans (*LTP*) for eight local and regional councils in the Canterbury area. A significant number of the submission points concerned drinking water, as Community & Public Health seeks to improve drinking water supply compliance in our region.

In the submission to the Selwyn District Council's LTP, Community & Public Health encouraged the improvement or inclusion of treatment (UV and Chlorination) of drinking water supplies in the District. As a result of the Long Term Planning process the Selwyn District Council has made the decision to implement a risk-based approach to the protection of drinking water schemes, utilising filtration, UV treatment, and chlorination as needed.

This decision should result in improved compliance of those drinking water supplies identified as being of greatest risk to public health. Community & Public Health will be part of the stakeholder group developing a risk matrix for the Council to use in determining which supplies within the Selwyn District should be chlorinated (based on identified risk factors). The Selwyn District Council will be finalising their approach in the near future.

Report prepared by: Nicola Laurie, Public Health Analyst

Report approved for release by: Evon Currie, GM Population and Public Health

POSITION STATEMENT ON SUGAR-SWEETENED BEVERAGES



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: Community and Public Health

DATE: 1 November 2018

Report Status - For: Decision
Noting
Information
Information

1. ORIGIN OF THE REPORT

The South Island Public Health Partnership has agreed the attached position statement and is now seeking approval from each of the DHBs.

2. **RECOMMENDATION**

The Committee recommends that the Board:

i. endorses the South Island District Health Boards' position statement on sugar-sweetened beverages.

3. APPENDICES

Appendix 1: South Island DHBs' Position Statement on Sugar-Sweetened Beverages

Appendix 2: Background Paper: Sugar-Sweetened Beverages

Report prepared by: South Island Public Health Partnership

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

APPENDIX 1

South Island District Health Boards' Position statement on sugar-sweetened beverages

SOUTH ISLAND DISTRICT HEALTH BOARDS' POSITION

What sugar-sweetened beverages mean for health

The South Island District Health Boards:

- Consider nutrition to be a key determinant of health and wellbeing.
- Acknowledge that sugar-sweetened beverages¹ are a significant source of sugar in the diet of New Zealanders, are energy-dense and nutrient-poor, and displace healthier food and beverage options.
- Recognise that regular consumption of sugar-sweetened beverages contributes to obesity and dental caries, and is associated with a number of non-communicable diseases including type 2 diabetes.
- Acknowledge that non-communicable diseases contribute to significant personal, social and economic costs to individuals, whānau, communities, and the public health system in New Zealand.
- Understand that non-communicable diseases are a cause of health inequities in New Zealand.
- Recognise that District Health Boards play a role in non-communicable disease prevention through supporting health-promoting environments.

What can be done to reduce the harm from sugar-sweetened beverages

The South Island District Health Boards:

- Show leadership by providing healthy eating environments on their premises for staff, visitors, and the public with the implementation of a healthy food and beverage policy.
- Endorse plain water as the first choice of drink for children and adults as recommended by the Ministry of Health.
- Support evidence-based interventions to reduce sugar-sweetened beverage consumption by:
 - decreasing the availability, affordability and marketing of sugar-sweetened beverages, and
 - increasing awareness of the sugar content of sugar-sweetened beverages, associated negative health outcomes and alternative beverage options.

¹ Any beverage that contains added caloric sweetener, usually sugar. The main categories of sugary drinks include soft-drinks/fizzy-drinks, sachet mixes, fruit drinks, cordials, flavoured milks, cold teas/coffees, and energy/sports drinks (New Zealand Beverage Guidance Panel, 2014b).

APPENDIX 2

Background Paper: Sugar-Sweetened Beverages

Why focus on sugar-sweetened beverages?

Sugar-sweetened beverages² (*SSBs*) are one of the main sources of sugar in the diets of New Zealand adults and children (Parnell et al., 2003; University of Otago & Ministry of Health, 2011), are energy-dense and nutrient-poor, and displace healthier food and beverage options (World Health Organization, 2016a). Regular consumption of SSBs is associated with an increased risk of obesity, dental caries, and other non-communicable diseases (*NCDs*) including type 2 diabetes and coronary heart disease. In addition, decreasing SSB intake improves health outcomes (Hu, 2013). NCDs contribute to significant, and in many cases preventable, personal, social and economic costs to individuals, whānau, communities, and the public health system in New Zealand (Ministry of Health, 2009, 2016c). The burden of NCDs is unequally distributed within the New Zealand population, and is a cause of considerable health inequities (Ministry of Health, 2009). Globally, it was estimated that in 2010, almost 300,000 deaths (about 0.6 percent) were attributable to diets high in SSBs (Lim et al., 2012).

Sugar intake recommendations and sugar-sweetened beverage consumption in Aotearoa New Zealand

The World Health Organization recommends reducing the intake of free sugars3 to less than 10 percent of total energy intake for adults and children, excluding sugars found in whole fruits and vegetables, and milk. That is approximately 50 grams, or 12 teaspoons, per day for adults (The Royal Society of New Zealand, 2016). Further reductions of free sugars to less than 5 percent of total energy intake (around 6 teaspoons for adults and 3-5 teaspoons for children) could provide additional health benefits (World Health Organization, 2015).

Beverages (including SSBs) are the largest contributors of free sugars to the diet of New Zealand children and adults, providing 24 percent of the total sugar⁴ intake of children (Parnell et al., 2003) and 17 percent of the total sugar intake of adults (University of Otago et al., 2011). The New Zealand Ministry of Health recommends that children and adults limit their intake of sugary drinks because they are high in sugar and energy, and contain few (if any) beneficial nutrients (Ministry of Health, 2012, 2015a). Some also contain stimulants, such as caffeine, which are inappropriate for children (Ministry of Health, 2012). However, in New Zealand, the consumption of SSBs is common among children, adolescents and adults (Clinical Trials Research Unit & Synovate, 2010; Ministry of Health, 2016a; Parnell et al., 2003; Sundborn, Gentles, & Metcalf, 2014a; Sundborn et al., 2014c; University of Otago et al., 2011).

In the most recent New Zealand Health Survey, 54 percent of children (2-14 years of age) reported having "fizzy drink" at least once in the past week, and 18 percent had it three or more times in the past week (Ministry of Health, 2016a). Among secondary school students participating in a national survey in 2007, 29 percent consumed "fizzy or soft drinks" four or more times per week, 45 percent consumed them 1-3 times per week, and 26 percent had not consumed any in the last week (Sundborn et al., 2014c).

² Any beverage that contains added caloric sweetener, usually sugar. The main categories of sugary drinks include soft-drinks/fizzy-drinks, sachet mixes, fruit drinks, cordials, flavoured milks, cold teas/coffees, and energy/sports drinks (New Zealand Beverage Guidance Panel, 2014).

³ Free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates (World Health Organization, 2015).

⁴ Total sugars include free sugars (see definition above), intrinsic sugars (those incorporated within the structure of intact fruit and vegetables), and milk sugars (lactose and galactose) (World Health Organization, 2015).

In a nationwide survey of New Zealand adults (15 years of age and over) conducted in 2008/2009, seven percent of respondents reported drinking "soft" or "energy" (not including "diet") drinks daily, and 24 percent reported drinking them three or more times a week (University of Otago et al., 2011). Fruit juice and fruit drinks were consumed more often, with 14 percent of respondents drinking them daily, and 37 percent drinking them three or more times a week (University of Otago et al., 2011). In addition, SSB intake among children, adolescents and adults in New Zealand is significantly higher among Māori, Pacific peoples, and those living in neighbourhoods with high deprivation scores (Kruse, 2014a; Ministry of Health, 2016a; Sundborn et al., 2014a; Sundborn et al., 2014c; University of Otago et al., 2011).

Sugar-sweetened beverage consumption and health outcomes

Overweight and obesity

Excess weight is a leading contributor to a number of significant NCDs, including type 2 diabetes, cardiovascular diseases, several cancers, osteoarthritis, gout, sleep apnoea, and reproductive disorders (Guh et al., 2009; Ministry of Health, 2015b, 2016a). In addition, being overweight or obese in childhood is associated with a variety of physical, social and mental health problems, including low self-esteem and quality of life, high blood cholesterol, blood glucose and blood pressure, and obstructive sleep apnoea (Daniels et al., 2005; Friedemann et al., 2012; Griffiths, Parsons, & Hill, 2010; Lobstein et al., 2004; Mathew & Narang, 2014; Pulgarón, 2013; World Health Organization, 2016a). Obese children are also more likely to become obese adults (Kelsey et al., 2014; Singh et al., 2008) and develop NCDs such as type 2 diabetes and cardiovascular diseases at a younger age (Daniels et al., 2005; Kelsey et al., 2014; Lobstein et al., 2004; Reilly & Kelly, 2011; World Health Organization, 2012, 2016a).

High body mass index (BMI) was the leading modifiable risk to health in New Zealand in 2013, and accounted for approximately 9 percent of all illness, disability and premature mortality (Ministry of Health, 2016c). Obesity is a significant cause of preventable costs to the public health care system and society. Research undertaken in 2006 estimated that obesity cost New Zealand \$847 million annually in health care costs and lost productivity (Lal et al., 2012).

New Zealand ranks third out of approximately 30 OECD countries for both adult and child obesity rates (Organisation for Economic Co-operation and Development, 2014). Nearly one third of New Zealand adults and one in nine children aged 2-14 years are obese, and a further 35 percent of adults and 21 percent of children, are overweight (Ministry of Health, 2015b, 2016a, 2016b). Overweight and obesity rates are significantly higher among Māori, Pacific peoples, and those living in areas with high deprivation scores (Ministry of Health, 2015b, 2016a, 2016b).

There is strong evidence that the consumption of free sugars is associated with weight gain (World Health Organization, 2015). Further, several recent systematic reviews and meta-analyses have found a significant association between higher SSB consumption and increased risk of overweight and obesity among children and adults (Bes-Rastrollo et al., 2013; Bucher Della Torre et al., 2015; Malik et al., 2013; Te Morenga, Mallard, & Mann, 2013; Woodward-Lopez, Kao, & Ritchie, 2011). Those who drank SSBs most often (usually one or more servings per day) were at a significantly higher risk of overweight and obesity than those who drank SSBs the least often (usually no, or infrequent, consumption). Also, the risk of overweight and obesity associated with SSB consumption tended to increase in a dose-dependent manner. There is also good evidence from prospective cohort studies and randomised controlled trials that consuming SSBs causes weight gain, and removing SSBs from the diet (or substituting SSBs with water or low-energy beverages)

can result in significantly lower energy intake and less weight gain in the long-term (Hu, 2013; Malik et al., 2013; Te Morenga et al., 2013; Woodward-Lopez et al., 2011; Zheng et al., 2015).

Evidence suggests that SSBs promote weight gain through excess energy intake, as consumers tend not to reduce their consumption of other foods and beverages sufficiently to compensate for the extra energy provided by SSBs (Bachman, Baranowski, & Nicklas, 2006; von Philipsborn et al., 2016; World Health Organization, 2014). This may be because SSBs do not provide feelings of satiety equivalent to their high energy content, and people tend to consume SSBs irrespective of hunger and satiety cues (Pan & Hu, 2011; von Philipsborn et al., 2016; World Health Organization, 2014).

Dental caries

Dental caries is the most common NCD globally (Marcenes et al., 2013), and is the most prevalent chronic and largely preventable disease in New Zealand (Ministry of Health, 2010). Approximately 29,000 New Zealand children, and 262,000 adults had one or more teeth extracted due to decay, abscess, infection or gum disease in 2015/2016 (Ministry of Health, 2016a). Dental care is one of the most common reasons for children's admission to hospital, and for young children dental disease is a leading cause of potentially avoidable hospitalisations (Craig et al., 2013; Whyman et al., 2014). Significant disparities in oral health status and access to dental services exist in New Zealand, particularly for Māori, Pacific people, and those living in areas with high deprivation scores (Ministry of Health, 2010, 2016a).

There is strong evidence that free sugar consumption is associated with dental caries (World Health Organization, 2015). Further, more frequent consumption of SSBs is significantly associated with increased risk of dental caries among both children and adults (Armfield et al., 2013; Bernabé et al., 2014; Broffitt et al., 2013; Evans et al., 2013; Kolker et al., 2007; Levy et al., 2003; Lim et al., 2008; Marshall et al., 2003; Park et al., 2015; Sohn, Burt, & Sowers, 2006; Tseveenjav et al., 2011; Vartanian, Schwartz, & Brownell, 2007; Warren et al., 2009). The high free sugar concentration of SSBs induces the proliferation of caries-causing bacteria in the mouth and their metabolism produces acids that cause demineralisation of tooth enamel and dentin, leading to the formation of caries (New Zealand Dental Association, 2016a). In addition, the acidic nature of many SSBs can cause tooth erosion (Tahmassebi et al., 2006).

Other non-communicable diseases and risk factors

A large proportion of the morbidity, disability, and premature mortality experienced by New Zealanders is attributable to NCDs, and there is significant potential to achieve health gains by focussing on disease prevention (Ministry of Health, 2016c). Several recent systematic reviews and meta-analyses have found significant associations between higher SSB consumption and increased risk of some NCDs (and their risk factors), including:

- type 2 diabetes (Greenwood et al., 2014; Imamura et al., 2015; Malik et al., 2010; Wang et al., 2015)
- coronary heart disease (Huang et al., 2014; Xi et al., 2015)
- gout (Singh, Reddy, & Kundukulam, 2011)
- non-alcoholic fatty liver disease (Wijarnpreecha et al., 2016),
- chronic kidney disease (Cheungpasitporn et al., 2014), and
- hypertension (Cheungpasitporn et al., 2015; Jayalath et al., 2015; Keller, Heitmann, & Olsen, 2015; Malik et al., 2014; Xi et al., 2015).

Interventions to reduce sugar-sweetened beverage consumption

SSBs would be a suitable target for intervention to improve the health of New Zealanders as their consumption is associated with negative health consequences, they are commonly consumed by children and adults, they provide little-to-no nutritional value, and removing them from the diet can result in positive health outcomes and improved health equity. However, decreasing SSB consumption among New Zealanders is a challenging prospect due to their relatively low cost, wide availability, high palatability, and pervasive marketing.

Many local and international health organisations support recommendations to decrease sugar (Public Health England, 2015a; World Cancer Research Fund International, 2015a; World Health Organization, 2015) and SSB consumption (Australian Prevention Partnership Centre, Deakin University, & INFORMAS, 2017; Beaglehole, 2014; Duckett, Swerissen, & Wiltshire, 2016; Faculty of Public Health, 2013; Khan et al., 2009; New Zealand Beverage Guidance Panel, 2014; New Zealand Dental Association, 2016a; New Zealand Medical Association, 2016; Toi Te Ora - Public Health Service, 2015; Yale Rudd Center for Food Policy and Obesity, 2014) as part of wider strategies to improve population health. Several commonly recommended environmental and behavioural strategies are summarised below, and it is acknowledged that implementing multiple complementary interventions would achieve the largest health gains with greater costeffectiveness than any one strategy alone (Cecchini et al., 2010; World Health Organization, 2012).

Environmental strategies

The World Health Organization and World Cancer Research Fund International, among other organisations, highlight the need to create health-promoting food environments that enable the public to easily make healthy food choices, as part of multicomponent strategies to improve public health, and prevent and control NCDs (Hawkes, Jewell, & Allen, 2013; World Cancer Research Fund International, 2015b; World Health Organization, 2013). Environmental strategies to achieve this include decreasing the availability of unhealthy food and beverages in public institutions and workplaces, restricting their marketing to children, and increasing their price. These types of environmental strategies are some of the most effective and cost-effective or cost-saving) for governments in terms of public health interventions (Gortmaker et al., 2015; Gortmaker et al., 2011; Lehnert et al., 2012; Owen et al., 2012; Swinburn et al., 2011; Vos et al., 2010). "Upstream" interventions such as these are also more promising in reducing inequities between socioeconomic groups (Lorenc et al., 2013).

Decrease the availability of sugar-sweetened beverages in public institutions and other specific settings

The World Health Organization recommends public institutions (such as hospitals and other health care settings, education and child-care facilities, government agencies, and prisons) create healthy food environments by not providing or selling unhealthy foods and beverages (World Health Organization, 2013, 2016a). Local health advocates support the introduction of guidelines for organisations and workplaces that decrease the availability of SSBs, where water and unflavoured milk are the main cold drink options provided (New Zealand Beverage Guidance Panel, 2014; New Zealand Dental Association, 2016a; Toi Te Ora - Public Health Service, 2015).

Some steps towards decreasing the availability of SSBs in New Zealand have been made using settings-specific policies. In August 2015 the New Zealand Director General of Health requested that all district health boards implement a policy to remove SSBs from their premises by 30 September 2015 as part of a wider approach to reduce the incidence of obesity. In September 2016, the National Healthy Food and Drink Policy was released, which aims to demonstrate commitment to the health of staff, visitors, patients, and the general public by providing food and

beverage options consistent with the Eating and Activity Guidelines for New Zealand Adults (National District Health Board Food and Drink Environments Network, 2016b). Individual district health boards can choose to adopt the policy, which states that SSBs will not be provided by the district health board and/or their contracted health service providers, or develop their own policy. The Ministry of Health adapted the policy for other New Zealand organisations and workplaces to tailor and/or adopt (National District Health Board Food and Drink Environments Network, 2016a). Further, the Health Promotion Agency (2013) has published guidelines for providing healthier beverage options in workplaces.

At a local government level, some local councils in New Zealand have introduced policies to support public health by limiting the availability of SSBs at council premises and events (Community & Public Health, 2015). For example, Nelson City Council has introduced a policy whereby SSBs will not be made available to staff and visitors within its facilities (Nelson City Council, 2015). Similarly, Marlborough District Council has adopted a policy which prevents SSBs being made available at its workplaces, functions or events where the Council is the main funder (Marlborough District Council, 2015).

The Ministry of Health is encouraging schools to adopt a healthy beverage policy of water and plain reduced-fat milk (Ministry of Health, 2016d), and the Health Promotion Agency provides a guide (Health Promotion Agency, 2016) and specific resources for schools. Schools are ideal settings to model healthy nutrition behaviours as in New Zealand around a third of a child's daily energy intake is consumed while at school (Regan et al., 2008), and many children frequent the school canteen (Parnell et al., 2003). Eliminating the provision and sale of SSBs on school premises would be a pro-equity approach, as consumption of food and beverages purchased at school is more common among Māori and Pacific children (Utter et al., 2007). There is also a high level of support from New Zealand parents and caregivers for schools to limit access to high fat foods, sugary drinks, and sugary foods (Holland, 2015).

Restrict marketing of sugar-sweetened beverages to children and adolescents

Food and beverage marketing to children has a role in developing children's food and beverage preferences, purchases, knowledge, and intake (Boyland & Whalen, 2015; Cairns, Angus, & Hastings, 2009; Cairns et al., 2013; Kraak & Story, 2015; Norman et al., 2016; Public Health England, 2015c). A range of methods are used to market to children, including television and online advertising, branded online games ("advergames"), gift-with-purchase, packaging, industry sponsorship of children's sports and community events, in-store product placement, and the use of licensed characters and celebrity endorsements (Agencies for Nutrition Action, 2013; Jenkin et al., 2014; Public Health England, 2015a; World Health Organization, 2010). In New Zealand, as elsewhere, food and beverages (including SSBs) high in sugar, salt and saturated fat are commonly marketed to children and adolescents across a wide variety of media and settings (Cairns et al., 2009; Carter et al., 2013; Hammond, Wyllie, & Casswell, 1999; Heart & Stroke, 2017; Jenkin, Wilson, & Hermanson, 2009; Maher, Wilson, & Signal, 2005; No et al., 2014; Vandevijvere & Swinburn, 2015; Wilson, Quigley, & Mansoor, 1999; Wilson et al., 2006; World Health Organization, 2010). Evidence suggests there is also an association between food and beverage marketing and poor diet quality and obesity (Cairns et al., 2013). In addition, there is valid concern about the ethics of marketing to children and adolescents, as young people are vulnerable to the effects of marketing due to their limited ability to critically analyse the content of persuasive messages (Calvert, 2008).

For some time public health advocates have called for government-led regulations to limit young people's exposure to the marketing of unhealthy food and beverages (including SSBs) (Agencies for Nutrition Action, 2013; Australian Prevention Partnership Centre et al., 2017; Heart & Stroke,

2017; New Zealand Beverage Guidance Panel, 2014; New Zealand Dental Association, 2016a; New Zealand Medical Association, 2014; Toi Te Ora - Public Health Service, 2015; World Cancer Research Fund International, 2015a; World Health Organization, 2010, 2012, 2016b). There is also some support among New Zealand parents and caregivers for restricting the marketing of unhealthy food and beverages to children (Gendall et al., 2015; Kruse, 2014b).

The restriction of television food and beverage advertising to children is estimated to be one of the most cost-effective population-based interventions available to governments to reduce the consumption of energy-dense, nutrient-poor food and beverages (Gortmaker et al., 2015; Magnus et al., 2009). While television advertising has been the focus of much of the research to date, it is recommended that restrictions cover wider aspects of marketing, particularly as the use of marketing to young people via digital media (e.g. via websites, apps, text messages and social media) is increasing (Kelly et al., 2015; Public Health England, 2015c; World Health Organization, 2010, 2016b).

Some countries including Sweden, Norway, and the Québec province in Canada have government regulations that restrict advertising (of any product) to children, and the UK, Ireland, Mexico, Chile and South Korea have restrictions on the advertising of certain food and beverages to children (Australian Prevention Partnership Centre et al., 2017; Galbraith-Emami & Lobstein, 2013; Heart & Stroke, 2017). Some food and beverage companies have responded with voluntary policies to market "healthier" options and lifestyles to children (Galbraith-Emami et al., 2013; Kraak et al., 2016). However, these types of voluntary codes do not appear to be making a significant impact on decreasing young people's exposure to unhealthy food and beverages, and mandatory regulations are recommended (Galbraith-Emami et al., 2013; Hawkes & Lobstein, 2011; Kunkel, Castonguay, & Filer, 2015; Vandevijvere et al., 2015).

Increase the purchase price of sugar-sweetened beverages

Price greatly influences food and beverage purchasing behaviours (Andreyeva, Long, & Brownell, 2010), and economic tools (such as taxes and subsidies) can be used to improve the affordability and encourage purchasing of healthier food and beverage products, and discourage the purchasing of less healthy options (Epstein et al., 2012; Eyles et al., 2012; Powell et al., 2013; Public Health England, 2015b; Thow et al., 2010; World Health Organization, 2013). The World Health Organization, among others, advocates the use of fiscal policies to improve diet quality at the population level (Hawkes et al., 2013; World Health Organization, 2013, 2016a). Further, numerous international and local organisations support specific taxes on SSBs and/or sugar to decrease their consumption and improve population health (Australian Chronic Disease Prevention Alliance, 2017; Australian Prevention Partnership Centre et al., 2017; Duckett et al., 2016; Faculty of Public Health, 2013; Hawkes et al., 2013; New Zealand Beverage Guidance Panel, 2014; New Zealand Dental Association, 2016a; New Zealand Medical Association, 2016; Toi Te Ora - Public Health Service, 2015; World Cancer Research Fund International, 2015a; World Health Organization, 2013, 2016a). A tax on SSBs is also recommended as it has the potential to reduce health disparities due to a greater impact on consumption among low-income consumers, whose purchases tend to be more price-sensitive, leading to greater possible health gains in this group (Backholer et al., 2016; Eyles et al., 2012; Ni Mhurchu et al., 2013; World Health Organization, 2016a).

There is evidence from several population-based policies currently in action supporting the use of taxes on SSBs to limit their consumption and decrease the prevalence of obesity. A meta-analysis of nine studies has investigated the impacts of SSB tax/price increases that have been implemented in the USA, Mexico, Brazil and France (Cabrera Escobar et al., 2013). It reported that higher prices were associated with a lower demand for SSBs, an increased demand for non-taxed

beverages, and a modest decrease in BMI and prevalence of overweight and obesity at the population level. One specific example is Mexico, where a tax on SSBs was introduced in January 2014 increasing their price by around 10 percent. Evaluation of the tax on purchases found that by December 2014, purchases of taxed drinks had declined by 12 percent overall with a greater reduction (17%) among lower socioeconomic status households, indicating that the tax was proequity (Colchero et al., 2016). Untaxed beverage sales increased by 4 percent, mainly due to an increase in bottled water sales. In addition it is estimated that the tax could significantly decrease diabetes and cardiovascular disease-related morbidity and mortality and reduce healthcare costs (Sánchez-Romero et al., 2016).

It has been estimated that a 20 percent tax on carbonated beverages in New Zealand would decrease intake by an estimated 19 percent (Eyles et al., 2012). Further, 60-73 premature deaths in New Zealand a year might be prevented, with up to \$40 million of revenue raised annually (Ni Mhurchu et al., 2014). These modelling studies considered only carbonated beverages, so including other non-carbonated SSBs (e.g. fruit drinks) in the taxation strategy would enhance the estimated benefits and revenue further. Revenue from such a tax could be used to support health promotion programmes to improve population health (Ni Mhurchu et al., 2014). The authors state that the tax would likely reduce inequities in New Zealand as the impact would likely be larger amongst Māori consumers due to their greater responsiveness to changes in food prices, and amongst children and young people due to their higher consumption of these types of beverages (Ni Mhurchu et al., 2014).

Introduce mandatory nutrition label standards for sugar-sweetened beverages

Many consumers use nutrition labels on pre-packaged foods and beverages to inform their purchasing, and their use varies considerably across sub-groups, with lower label use among young people, older adults, males, ethnic minorities, and those on low incomes (Campos, Doxey, & Hammond, 2011). Individuals with healthier eating habits report higher use of nutrition labels (Campos et al., 2011; World Health Organization, 2012).

Nutrition labelling is a cost-effective population-level intervention with wide reach (Campos et al., 2011; Lehnert et al., 2012), and is endorsed as part of multicomponent strategies to improve population diet and prevent and control NCDs (World Health Organization, 2013). The use of simple "interpretive" labelling on the front of packs using symbols/graphics, logos and colours to guide consumers in understanding nutrition information, is recommended (World Health Organization, 2012). These types of labels are easier to interpret, and are particularly effective for people with lower nutrition-related knowledge (Campos et al., 2011; Cecchini & Warin, 2016; Hersey et al., 2013). Research from New Zealand also indicates that interpretive labels are more easily understood (Gorton et al., 2009; Ni Mhurchu et al., 2017) and accepted across ethnic groups and income levels (Gorton et al., 2009). Among those who use them most, interpretative labelling assists consumers to select healthier products to a small degree (Cecchini et al., 2016; Ni Mhurchu et al., 2017; World Health Organization, 2012). There is also some evidence that the use of front-of-pack symbols has provided an incentive for food manufacturers to reformulate their products with less salt, fat and sugar (Dummer, 2012; Vyth et al., 2010; Williams, McMahon, & Boustead, 2003; World Cancer Research Fund International, 2015a; Young & Swinburn, 2002).

In New Zealand, the Health Star Rating is a voluntary front-of-pack labelling system designed to help consumers make healthier food choices (Health Promotion Agency, 2015; Ministry for Primary Industries). It uses a graduated rating scale of stars ranging from half (least healthy) to 5 (most healthy) stars. However, as the system is voluntary not all food manufacturers will choose to use the system, or only use it for certain products, so consumers may not necessarily be able to compare all available options. To ensure that consumers can quickly and easily identify the sugar

content of SSBs, and compare different beverages, a mandatory labelling system with an evidence-based interpretive format is necessary. It is recommended that any interpretive front-of-pack labelling is supported by public education programmes on nutrition literacy for both adults and children (World Health Organization, 2016a).

Behavioural strategies

Behavioural strategies target the "dietary preferences, knowledge, attitudes, motivations, skills and abilities of individuals, as well as their subjective perception of social norms on food and beverage consumption." (von Philipsborn et al., 2016). Behavioural strategies targeted at individuals are more limited in their overall impact and cost-effectiveness as changes to an individual's behaviour requires support from health-promoting environments. Enhanced and longer-term effects of individual-level strategies are likely to occur when they are implemented in conjunction with population-based environmental strategies (World Health Organization, 2012).

Provide information on sugar-sweetened beverages through public awareness and nutrition education

To increase nutrition knowledge and literacy, disseminating nutrition information and guidelines for adults and children in ways that are understandable and accessible to all population groups is recommended (World Health Organization, 2016a). This includes evidence-based public awareness campaigns and social marketing initiatives to inform consumers about healthy dietary habits, and incorporating health and nutrition literacy into the school curriculum (World Health Organization, 2013, 2016a).

Social marketing and media campaigns targeting SSBs, implemented by health organisations, are increasing in number worldwide (Sundborn et al., 2014b). Previously in New Zealand the Health Sponsorship Council promoted water and milk as the first drink of choice for children and families in their "Feeding our Futures" campaign from 2007 (Sundborn et al., 2014b). More recently, the New Zealand Dental Association challenged New Zealanders to "Switch to water" as part of their annual oral health awareness campaign in November 2016 (New Zealand Dental Association, 2016b). Focussed social marketing campaigns can increase healthy eating practices to a small degree at an individual level (Carins & Rundle-Thiele, 2014). However it has been suggested that these universal "one-size-fits-all" media advertising approaches may contribute to further increasing health inequities as those with more resources are better able to implement the suggested behaviours (Frohlich & Potvin, 2008; Lorenc et al., 2013; Stead, Hastings, & McDermott, 2007).

School-based education programmes delivered as part of the school curriculum focussed on decreasing SSB intake can be effective at reducing SSB consumption and BMI, though follow-up sessions are necessary to ensure behaviour change is sustained (Avery, Bostock, & McCullough, 2015). The effectiveness of beverage-specific school-based education programmes could be increased by changes to the school environment, for example, by implementing milk- and water-only policies, and providing quality water fountains (Avery et al., 2015).

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PLANNING AND FUNDING EXCEPTION REPORT



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: Planning & Funding

DATE: 1 November 2018

Report Status - For: Decision

Noting Information

1. ORIGIN OF THE REPORT

This report is a standing agenda item, highlighting the progress made on the Minister of Health's health and disability priorities and the key priority areas from the Canterbury DHB's Annual Plan.

2. **RECOMMENDATION**

That the Committee:

i. notes the Planning & Funding Exception Report.

3. SUMMARY

Key Achievements and Project Updates:

- A new procurement model for rural nursing services has been implemented in Kaikoura in order to improve efficiency and sustainability of these providers. Consumables have subsequently been sourced through Christchurch Hospital with an overall system saving of 25%.
- The next phase of the Maternal Health Strategy has been completed. The follow up to the codesign workshop has identified four key components of the strategy which have now been endorsed by the Board.
- Hospital services reached capacity in the winter months. The number of people attending ED spiked with an average of over 300 attendances at Christchurch and Ashburton each week.
- One general practice in Hurunui has advised it will not be able to maintain its contribution to the after-hours model. We are actively working to ensure services will be maintained for this population.
- Mana Ake workers for phase two were welcomed to the role on 11 July. Times when Mana Ake workers will be available to schools have been shared throughout Canterbury.
- Canterbury met the electives health target in quarter four with 21,406 elective surgical discharges completed against a plan of 21,330.

4. APPENDICES

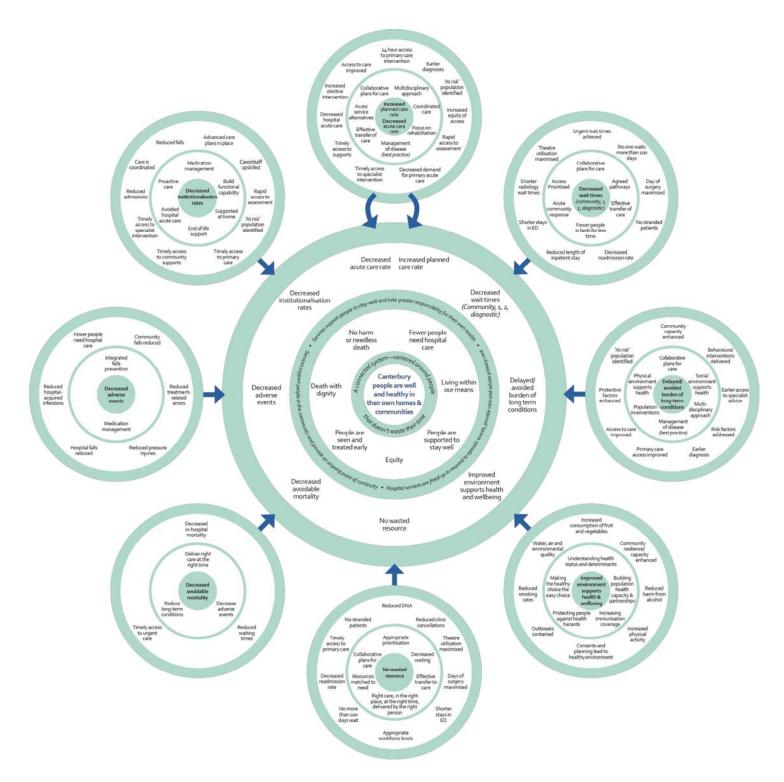
Appendix 1: Planning & Funding Exception Report

Report prepared by: Ross Meade, Accountability Coordinator, Planning & Funding

Report approved for release by: Dr Greg Hamilton, Acting Executive Director, Planning Funding

& Decision Support

APPENDIX 1



Decreased Institutionalisation Rates

- Carers and staff up-skilled
- Timely access to primary care
- Rapid access to assessment
- At Risk population identified
- Reduced fallsTimely access to community supports
- Timely access to specialist intervention
- Reduced admissions
- Coordinated care
- Advanced care plans in place

Increased Planned Care / Decreased Acute Care

- Earlier diagnosis
- At Risk population identified
- Increased equity of access
- Rapid access to assessment
- Timely access to specialist intervention
- 24hr access to primary care intervention
- Decreased hospital acute care
- Increased elective interventionDecreased acute primary care demand
- Access to care improved

Older Persons' Health

Outcome and Strategy Indicators

Figure 1.1: Proportion of the population 75+ living at home

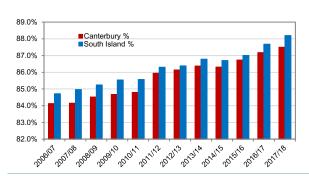


Figure 1.2: Proportion of the population 65+ presenting to ED

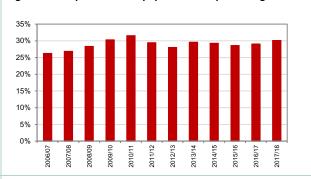


Figure 1.3: Accepted Referrals to CREST support services

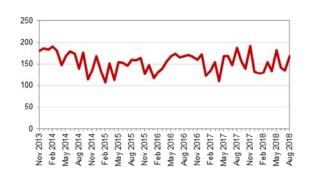
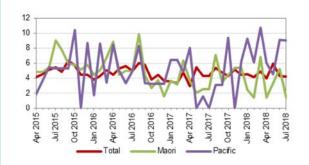


Figure 1.4: Rate of clinical assessment of need (InterRAI) per 1,000 of the population aged 65+



Achievements/Issues of Note

Rural District nursing services: Procurement of consumables

We are working closely with Rural District Nursing providers towards a central procurement mechanism by which they will be able to source consumables through the DHB. This has been implemented in Kaikoura, where a list of consumables has been formulated in consultation with nurses. These consumables have subsequently been sourced through Christchurch Hospital with an overall system saving of 25%. While it is a delicate line to walk between the clinical preferences of nurses and clinicians, and potential financial savings, Kaikoura report that they are very happy with the process. This new procurement model has not affected patient care but is freeing up clinical time. We are discussing repeating this process with other rural district nursing providers as part of an ongoing piece of work to improve the sustainability of these vital services.

Delayed Burden of Long-term Conditions

- Improved Environment Supports Health & Wellbeing
- Behavioural interventions delivered
- Earlier access to specialist advice
- Risk factors addressed
- Earlier diagnosis
- Primary care access improved
- Access to care improved
- Protective factors enhanced
- At Risk population identified
- Community capacity enhanced
- Community resilience & capacity enhanced
- Reduced harm from alcohol
- Increased physical activity
- Consents and planning lead to healthier environments
- Outbreaks contained
- Reduced smoking rates
- Water, air and environmental quality
- Increased fruit & vegetable consumption

Child & Youth Health

Outcome and Strategy Indicators

Figure 2.1: Rate of acute medical admissions for children (0-14)

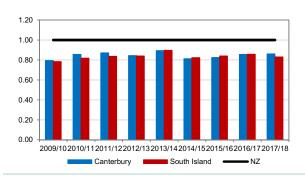


Figure 2.2: HEALTH TARGET Proportion of eight-month-olds fully immunised

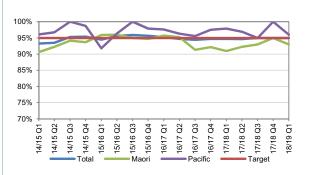


Figure 2.3: Proportion of children (aged under 5) receiving a B4 School Check

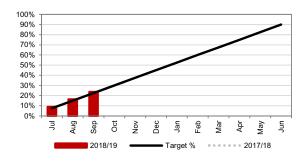
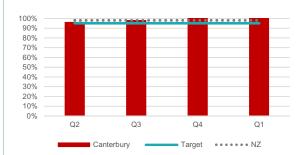


Figure 2.4: HEALTH TARGET Proportion of obese children referred to a health specialist



Achievements/Issues of Note

Maternal Health:

The next phase of the Maternal Health Strategy has been completed. The follow up to the co-design workshop has identified four key components of the strategy which have now been endorsed by the Board:

- **Becoming pregnant in Canterbury** will focus on public health messaging for women well before they become pregnant to ensure women are healthy to provide their baby with the best start to life.
- Having a baby in Canterbury will ensure that women have the knowledge and confidence to choose from the whole range of birthing options – from homebirth to primary care facilities to specialist inpatient care when required
- **Becoming a parent** in Canterbury will focus on supporting breastfeeding, reducing SUDI (sudden unexpected death in infancy), and pregnancy and parenting education among other initiatives to support an infant's first 1000 days. It will also consider maternal (and paternal) metal health.
- Being a Child in Canterbury, will link the maternity strategy to the Child and Youth Workstream, including, infant mental health and child development, immunisation and Well Child/Tamariki Ora checks

Increased Planned Care / Decreased Acute Care Earlier diagnosis At Risk population identified Increased equity of access Rapid access to assessment Timely access to specialist intervention 24hr access to primary care intervention Decreased hospital acute care Increased elective intervention

Decreased Wait Times



- No one waits more than 100 days
- Day of surgery maximised
- No stranded patients
- Decreased readmission rate
- Reduced length of stay
- Shorter stays in ED
- Shorter diagnostics wait times
- Theatre utilisation maximised
- Urgent wait times achieved

Mental Health

Outcome and Strategy Indicators

Decreased acute primary care demand

Figure 3.1: Admissions to Acute Adult MH Inpatient Service

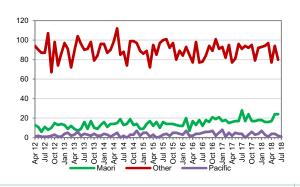


Figure 3.2: Specialist, NGO and Primary MH Access Rates

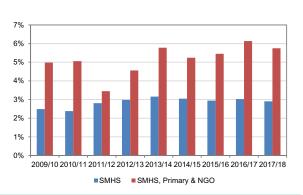


Figure 3.3: Proportion of clients having contact with community MHS 7 days prior to a SMHS admission (KPI 18)

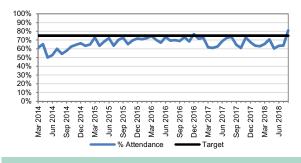
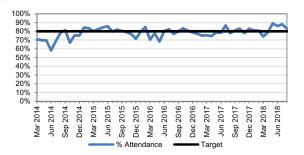


Figure 3.4: Proportion of clients having contact with community MHS within 7 days of a SMHS discharge (KPI 19)



Achievements/Issues of Note

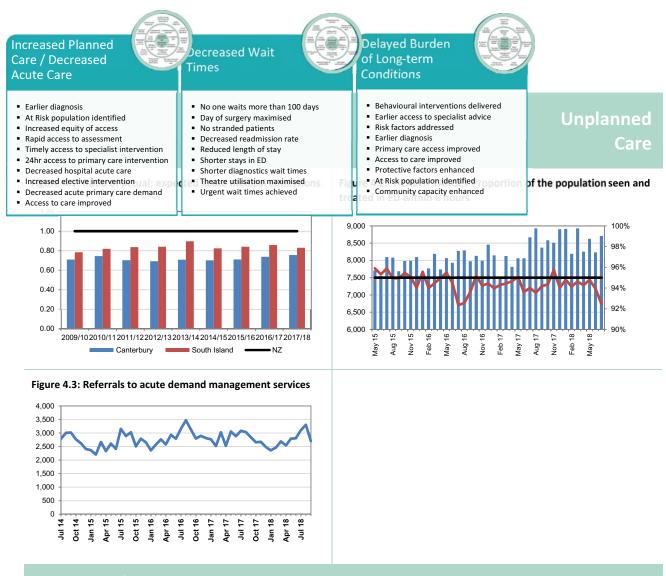
Mana Ake – Stronger for Tomorrow:

The focus of service design for Mana Ake this month has been on:

- Supporting the phase two kaimahi and school clusters as they start to implement Mana Ake;
- Engaging and supporting the readiness of the clusters for phase three (term 4); and
- Recruiting and appointing project team and team leader roles.

The new team leader role is critical to supporting implementation of Mana Ake. They will both ensure consistency of service support from the Mana Ake kaimahi (workers) and will support school clusters to implement a collaborative approach. We anticipate that we will need eight team leaders by April 2019. We have appointed two team leaders to support the phase three roll out which commences on 15 October.

Phase three (term 4, October) brings 21 full time equivalent (FTE) kaimahi on board, supporting 60 schools in seven clusters from the Hurunui to Leeston and Akaroa. This will bring the total FTE to 40, supporting 98 schools.



Achievements/Issues of Note

Acute services:

Winter has again seen high volumes in our acute services across the system. Although we haven't experienced much influenza this winter, the number of people attending ED have spiked with an average of over 300 attendances at Christchurch and Ashburton each week. In addition the urgent care providers have also reported high volumes. As predicted, our hospital services reached capacity in the winter months. The growth in population and need is placing us at risk of gridlock until the opening of the Acute Services Building.

Delayed Burden of Long-term **Conditions**

- **Improved Environment Supports** Health & Wellbeing

- Behavioural interventions delivered
- Earlier access to specialist advice
- Risk factors addressed
- Earlier diagnosis
- Primary care access improved
- Access to care improved
- Protective factors enhanced
- At Risk population identified
- Community capacity enhanced
- Community resilience & capacity enhanced
- Reduced harm from alcohol
- Increased physical activity
- Consents and planning lead to healthier environments
- Outbreaks contained
- Reduced smoking rates
- Water, air and environmental quality
- Increased fruit & vegetable consumption

Long-term Conditions Management

Figure 5.1: Proportion of the eligible population receiving a CVD Risk Assessment once every five years

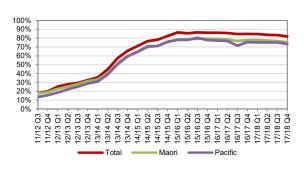


Figure 5.2: HEALTH TARGET Proportion of 'smokers' seen in primary care given quit advice and help to quit

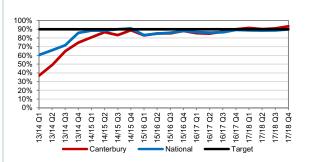
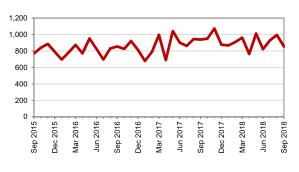
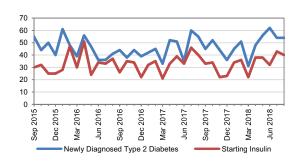


Figure 5.3: Number of subsidised procedures delivered by GPs in the community rather than in hospital



Note: This data includes procedures such as skin lesion removals, sleep assessments, Spirometry tests and steroid injections

Figure 5.4: Number of patients accessing additional diabetes support via general practice



Smoking Cessation Primary Care:

Canterbury achieved the health target in quarter four with 93% of smokers enrolled with a PHO offered advice and help to quit smoking against the 90% target.

Canterbury DHB's cessation support indicator is again the highest in the country at 60%, a 2.2% increase on the quarter three result. This indicator shows the percentage of current smokers who have taken the next step from brief advice and accepted an offer of cessation support services in the last 15 months.

Smoking Cessation Hospital Services:

Canterbury did not achieve the secondary smoking target in quarter four with 94% of hospitalised smokers offered advice and support to stop smoking.

Increased Planned Care / Decreased Acute Care

- Earlier diagnosis
- At Risk population identified
- Increased equity of access
- Rapid access to assessment
- Timely access to specialist intervention
- 24hr access to primary care intervention
- Decreased hospital acute care
- Increased elective intervention
- Decreased acute primary care demand
- Access to care improved

Delayed Burden of Long-term Conditions



- Behavioural interventions delivered
- Earlier access to specialist advice
- Risk factors addressed
- Earlier diagnosisPrimary care access improved
- Access to care improved
- Protective factors enhanced
- At Risk population identified
- Community capacity enhanced

Planned Care

Outcome and Strategy Indicators

Figure 6.1: Rate of elective surgery per 100,000 population

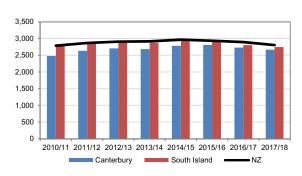


Figure 6.2: HEALTH TARGET Number of elective surgical discharges 2018/19¹

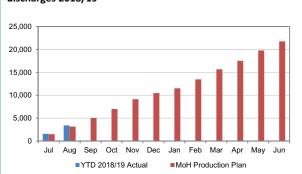
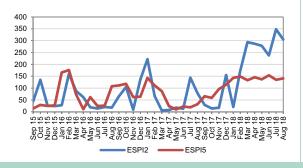


Figure 6.3: Number of patients waiting more than 4 months for first specialist assessment (ESPI 2) or treatment (ESPI 5)



Achievements/Issues of Note

Elective Surgery: Improved access to elective surgery is no longer a health target. Elective surgical discharge rates will continue to be reported as part of the National Reporting Framework. As at August Canterbury is on track to meet the agreed 2018/19 target of 21,782 elective surgeries.

Elective Services Patient Flow Indicators (ESPI): Canterbury has been granted dispensation for all ESPI non-compliances from 01 Jan 2018 through 30 June 2019 specifically for data quality and reporting issues resulting from the PICs implementation as well as issues surrounding the Acute Services Building link delay.

¹ Elective discharge results will differ from previous reports as actual results from coding delays have been incorporated

Rural Health

The Canterbury Clinical Network (CCN) is leading local health providers in the integration and redesign of health services in the Hurunui, Oxford, and Ashburton areas, as part of the wider Rural Sustainability Project.

Hurunui

The Hurunui Health Services Development Group is now overseeing work on implementing recommendations to improve access to local health services, as endorsed by the Board at its meeting in July. A six month trial of new arrangements between local practices for delivering urgent care after-hours is underway. This model increases partnership between the General Practices with north and south rosters. Advice is also being sought on options to improve the future sustainability of the four community trust-owned practices. One General Practice has advised it will not be able to maintain its contribution to the after-hours model. We are actively working to ensure services will be maintained for this population.

Oxford

The Oxford and Surrounding Area Health Services Development Group is continuing to develop recommendations for improved local access to health services. Key areas of focus are: transport for access to health services in Christchurch; telehealth for local access to specialist clinics; urgent care after-hours; and restorative care in the community for people following hospital discharge. The Group now seeks feedback from the community on their draft recommendations.

Ashburton

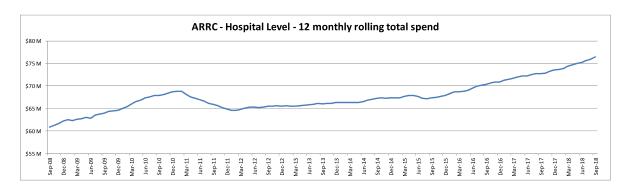
While the Ashburton Operational Working Group is continuing to focus on progressing actions that will achieve outcomes identified in the Ashburton Service Level Alliance Co-Design process an emphasis has now been placed on understanding the increase in presentations to the Ashburton Acute Assessment Unit (AAU). This has included the Working Group engaging with Home Care Medical, the Primary Health Organisations and General Practice to ensure communication to the community about after hours arrangements are consistent and supports the population being seen in the right place of the health system to meet their urgent care needs.

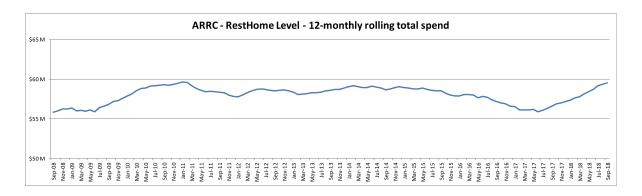
Decreased Rates

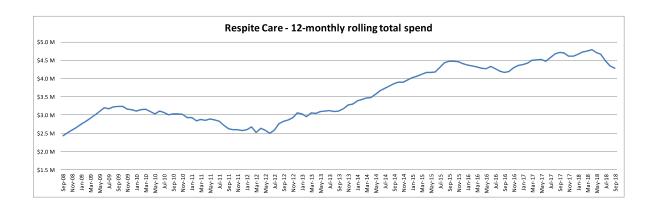
- Carers and staff up-skilled
- Timely access to primary care
- Rapid access to assessment
- At Risk population identified
- Reduced falls
- Timely access to community supports
- Timely access to specialist intervention
- Reduced admissions
- Coordinated care
- Advanced care plans in place

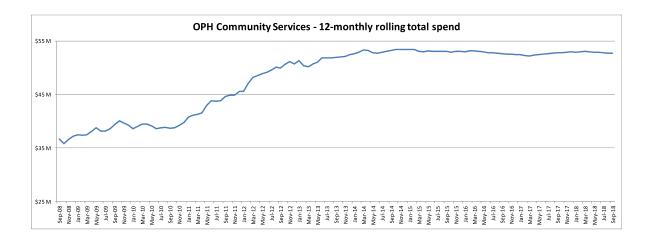
No Wasted Resource

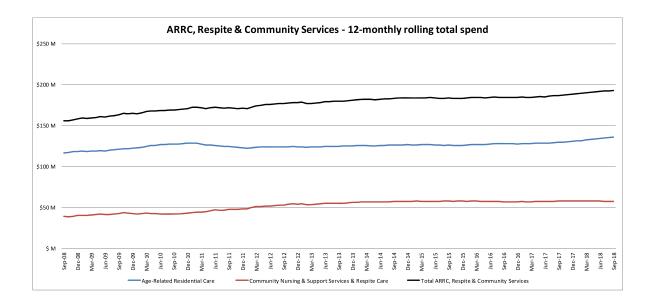
- Reduce clinic cancellations
- Theatre utilisation maximised
- Timely access to primary care
- Shorter stays in ED
- No more than 100 days wait
- Appropriate workforce levels
- Days of surgery maximisedDecreased readmission rate
- No stranded patients ■ Reduced DNAs

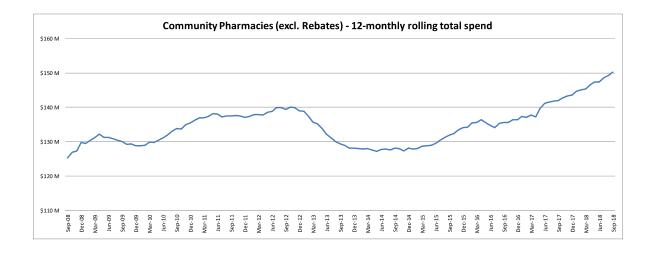












MĀORI AND PACIFIC HEALTH PROGRESS REPORT



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: Executive Director, Māori and Pacific Health

DATE: 1 November 2018

Report Status – For:	Decision		Noting	V	Information	
Report Status - Por.	Decision	_	roung	<u>-</u>	IIIIOIIIIatioii	_

1. ORIGIN OF THE REPORT

This report provides an update on progress and activities pertaining to Māori and Pacific Health.

2. RECOMMENDATION

The Committee recommends that the Board:

notes the Māori and Pacific Health Progress Report.

3. <u>DISCUSSION</u>

Canterbury Māori Health Dashboard Report

Attached (Appendix 1), is the latest Canterbury Māori Health Dashboard Report against targets set from the 2017/18 Māori Health Action Plan. The Māori Health Dashboard Report is primarily a monitoring document and we measure our performance across a range of targets, although it represents a small part of the actual targeted activity for our Māori population in Canterbury.

The Canterbury DHB focuses on priority areas that show how the system is working towards Pae Ora. We seek to reduce and eliminate the health inequities that have long persisted in the Māori population as a step towards pae ora for Māori in our community.

Although we have much more work to do, the dashboard shows some improvement trending in children's oral health, which is encouraging. There are also encouraging signs in the improvement of eligible Māori women cervical screening.

Canterbury Pacific Health Dashboard Report

Attached (Appendix 2), is the latest Canterbury Pacific Health Dashboard Report. The Pacific Health Dashboard Report, like its Māori sibling, is primarily a monitoring document and we measure our performance across a range of targets, although it represents a small part of the actual targeted activity for our Pacific population in Canterbury.

The Canterbury DHB focuses on priority areas that show how the system is working towards reducing and eliminating the health inequities that have also long persisted in the Pacific population.

Again, although we have much more work to do, the dashboard shows some improvement trending in children's oral health enrolment, which is encouraging. There are also encouraging signs in the improvement of HPV immunisation.

Please note the tables below both the Māori and Pacific dashboards which describe the measure, data source and period of latest results for each indicator. There is a lag time between some of the data being received and the Ministry of Health (MoH) publishing the data. These dashboards represent the latest data.

National Māori Health Indicators Dashboard Report

Attached (Appendix 3), is the latest National Māori Health Indicators Report (sourced from http://trendly.co.nz), which enables us to compare performance by ethnicity (Māori vs non-Māori), and by DHB.

The target field is blank where there is no target, or the indicator assigned by the MoH is a specific target tailored for each DHB. Rheumatic fever is not displayed in the dashboard table because the MoH reports total population and South Island data is aggregated.

The report demonstrates that although Canterbury is one of the better performing DHBs for our Māori population, there are still stark differences between Māori and non-Māori across all DHBs, but we are making progress towards improving. Such comparisons provide compelling data as to why we should be targeting Māori to reduce inequity in our system.

4. APPENDICES

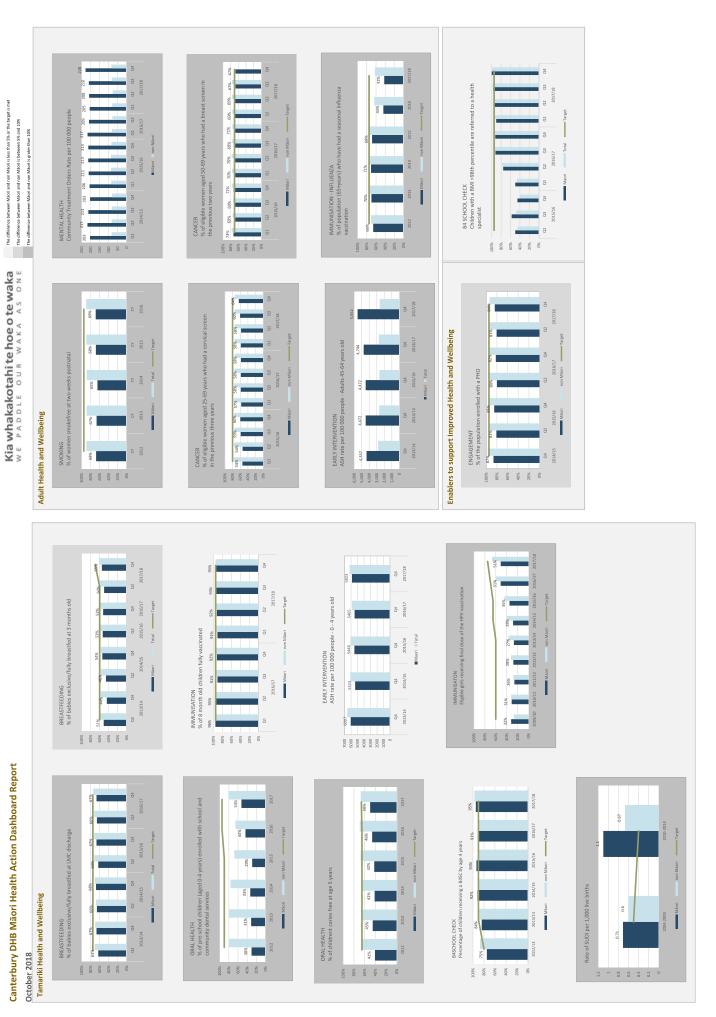
Appendix 1: Canterbury Māori Health Dashboard Report, October 2018.

Appendix 2: Canterbury Pacific Health Dashboard Report, October 2018.

Appendix 3: National Māori Health Indicators Dashboard Report, October 2018.

Report prepared by: Hector Matthews, Executive Director, Māori and Pacific Health

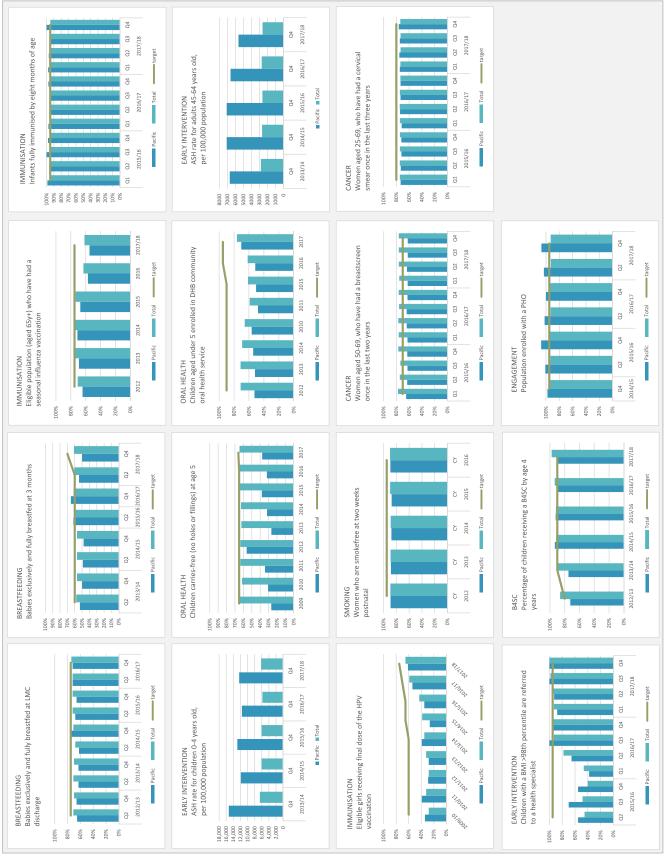
CPH&DSAC - 1 November 2018 - Maori and Pacific Health Progress Report



CPH&DSAC - 1 November 2018 - Maori and Pacific Health Progress Report

Indicator Full Name	Data Source	Latest Reporting Period	Data Release Date	Notes
Infants are exclusively or fully breastfed at discharge from LMC	National Maternity Collection (MAT)	Apr - Jun 2017	Mar 2018	Data may be incomplete, excluding data where records have no status
Infants are exclusively or fully breastfed at three months	Well Child Tamariki Ora (WCTO) National Dataset	Jul - Dec 2017	May 2018	
Percentage of Infants fully vaccinated at eight months	National Immunisation Register	Apr - Jun 2018	Jul 2018	
Children aged 0-4 years are enrolled with the Community Oral Health Service	Canterbury DHB Community Oral Health Service database "Titanium"	Jan - Dec 2017	Mar 2018	Results are provided annually in line with the school year. The next release is expected in March 2019
ASH rates per 100,000 Children 0-4 years old	National Minimum Dataset (NMDS)	Jun 2014 -Jun 2018	October 2018	
B4SCs are started before children are 41/2 years	B4 School Check	Jul 2017 - Jun 2018	Jul 2018	
Percentage of children caries-free for 5 years	Canterbury DHB Community Oral Health Service database "Titanium"	Jan - Dec 2017	Apr 2018	Results are provided annually in line with the school year. The next release is expected in March 2019
Percentage of eligible girls receiving final dose of the HPV immunisation	National Immunisation Register	Apr - Jun 2018	Jul 2018	
Rate of SUDI per 100,00 live births	The Mortality Collection (MORT)	Jan 2010 - Dec 2014	Jan 2017	Due to small numbers, SUDI data is release every five years. Release of next series is expected in 2019
Percentage of Women Smokefree at two weeks postnatal	National Maternity Collection (MAT)	Jan - Dec 2016	Apr 2018	MAT data can take up to two years to show all events which may explain deviation between reports
Population under Mental Health Act: section 29 Community Treatment Orders, rate per 100 000 population	Project for the Integration of Mental Health Data (PRIMHD)	Apr-18	Apr 2018	Data is provided 3 months in arrears for each reporting quarter
Women aged 25-69, who have had a cervical smear once in the last three years	National Screening Unit	Apr - Jun 2018	Jul 2018	
Women aged 50-69, who have had a breast screen once in the last two years	National Screening Unit	Apr - Jun 2018	Jul 2018	
ASH rates per 100,000 Adults 45-64 years old	National Minimum Dataset (NMDS)	Jun 2014 -Jun 2018	October 2018	
Percentage of population (65+years) who have had a seasonal influenza vaccination	National Immunisation Register	Mar - Sep 2017	Sep 2017	This meausre has changed from using PHO enrolled population data to census population data. The reporting dates have changed from 2016, the reporting period now covers Mar- Sep where previously this was Jan-Dec. Results are not directly comparible between 2017 and previous
Percentage of the population enrolled with a PHO	Canterbury DHB data Q2 onwards PHO Enrolment Collection	Apr - Jun 2018	Jul 2018	
Children with a BMI >98th percentile are referred to a health specialist	B4 School Check	Apr - Jun 2018	Jul 2018	

Pacific Health Dashboard October 2018



CPH&DSAC - 1 November 2018 - Maori and Pacific Health Progress Report

Indicator Full Name	Data Source	Latest Reporting Period	Data Release Date	Notes
Infants are exclusively or fully breastfed at discharge from LMC	National Maternity Collection (MAT)	Apr - Jun 2017	Mar 2018	Data may be incomplete, excluding data where records have no status
Infants are exclusively or fully breastfed at three months	Well Child Tamariki Ora (WCTO) National Dataset	Jul - Dec 2017	May 2018	
ASH rates per 100,000 Children 0-4 years old	National Minimum Dataset (NMDS)	Jun 2014 -Jun 2018	October 2018	
Children with a BMI >98th percentile are referred to a health specialist	B4 School Check	Apr - Jun 2018	Jul 2018	
Percentage of eligible girls receiving final dose of the HPV immunisation	National Immunisation Register	Apr - Jun 2018	Jul 2018	
Percentage of Women Smokefree at two weeks postnatal	National Maternity Collection (MAT)	Jan - Dec 2016	Apr 2018	MAT data can take up to two years to show all events which may explain deviation between reports
ASH rates per 100,000 Children 45-64 years old	National Minimum Dataset (NMDS)	Jun 2014 -Jun 2018	October 2018	
Percentage of population (65+years) who have had a seasonal influenza vaccination	National Immunisation Register	Mar - Sep 2017	Sep 2017	This measure has changed from using PHO enrolled population data to census population data. As such the results are not directly comparable between 2016 and previous years.
Percentage of Infants fully vaccinated at eight months	National Immunisation Register	Apr - Jun 2018	Jul 2018	
Children aged 0-4 years are enrolled with the Community Oral Health Service	Canterbury DHB Community Oral Health Service database "Titanium"	Jan - Dec 2017	Mar 2018	Results are provided annually in line with the school year. The next release is expected in March 2019
Percentage of children caries-free for 5 years	Canterbury DHB Community Oral Health Service database "Titanium"	Jan - Dec 2017	Apr 2018	Results are provided annually in line with the school year. The next release is expected in March 2019
B4SCs are started before children are 41/2 years	B4 School Check	Jul 2017 - Jun 2018	Jul 2018	
Women aged 50-69, who have had a breast screen once in the last two years	National Screening Unit	Apr - Jun 2018	Jul 2018	
Women aged 25-69, who have had a cervical smear once in the last three years	National Screening Unit	Apr - Jun 2018	Jul 2018	
Percentage of the population enrolled with a PHO	Canterbury DHB data	Apr - Jun 2018	Jul 2018	

National Māori Health Indicators - October 2018

Non-Māori

Indicator	Data Period	Target	Target Auckland	Bay of Plenty	Canterbury	Capital & Coast	Counties Manukau	Hawke's Bay	Hutt	Lakes	Mid Central	Nelson Mariborough	Northland	South	Southern	Tairawhiti	Taranaki	Walkato V	Wairarapa W	Waitemata	West	Whanganul	Reached
PHO Enrolment 0	Jul-Sep 2018	%06	81.0%	100,0%	93.0%	93.0%	92.0%	98,0%	100.0%	95.0%	94.0%	38.0%	%0.66	%0.66	93.0%	96.036	96.0%	95.0%	101.09%	92.0%	95.0%	%0.66	19
ASH (0-4 yrs) 0	Yr to Sep 17	163	5308	6650	2069	5012	4447	4741	8143	8254	5868	3638	5747	3448	5615	2607	6303	7181	5824	4391	4625	7315	ī
ASH (45-64 yrs) 0	Yr to Sep 17	13	2704	3059	2504	2530	2867	3313	3920	4222	4147	2356	3396	3758	2868	3007	4492	3426	3478	3489	2614	4988	ā
Breastfeeding (6 wks) 0	Jan-Jun 2017	75%	75.0%	%0.62	73.0%	75.0%	%0.69	78,0%	70.0%	27,0%	71.0%	73.0%	82:0%	75.0%	76.0%	85.0%	73.0%	73:0%	71.0%	77.0%	74.0%	73.0%	10
Breastfeeding (3 mths) 9	Jan-Jun 2017	%02	%0.59	%0.99	63.0%	%0'.29	51.0%	62.0%	56.0%	960.69	960.09	63.0%	%0'69	61.0%	64.0%	65.0%	96.0%	%0'09	54.0%	%0.39	62.0%	%0.09	0
Breastfeeding (6 mths) 0	Jan-Jun 2016	%59	78.8%	72.4%	67.2%	78.9%	66.3%	68.4%	69.5%	62.5%	58.3%	72,3%	77.1%	63.3%	64.9%	69.5%	68.0%	67.3%	72.1%	73.9%	62.0%	52.2%	14
Breast Screening (50-69 yrs) 0	Apr-Jun 2018	%02	63.7%	73.6%	75,4%	72.6%	71.8%	74.0%	73.5%	71.5%	960'22	%0 62	70.3%	76.6%	74,7%	72.1%	76.5%	70.6%	76.9%	65.3%	75.2%	79.9%	18
Cervical Screening (25-69 yrs) 0	Apr-Jun 2018	%08	65.5%	83.4%	75.0%	78.2%	70.3%	76.5%	76.3%	78.3%	77.5%	81.5%	77.0%	78,2%	78.3%	78.9%	82.8%	77.77%	78.3%	71.8%	75.7%	77.6%	т
Immunisation (8 mths) 9	Apr-Jun 2018	%96	94.1%	85.3%	95.7%	94.7%	94.0%	92.4%	94.5%	90.4%	92.4%	93.7%	84.4%	93.8%	93.8%	94.7%	90.5%	91.5%	94.7%	92.1%	93.0%	%2.98	-
Immunisation (Influenza) 0	Mar-Aug 2017	75%	%6.09	58.2%	61.6%	57.3%	46.0%	96.0%	51.3%	37.5%	59.8%	80.5%	51.6%	%6.69	51.5%	53.4%	52.7%	52.7%	62.1%	45.7%	92.6%	55.5%	0
Mental Health 0	Year to Jun 2018		118	46	92	136	94	115	100	94	06	74	133	102	91	107	76	109	89	107	112	102	
Oral Health 0	Jan-Dec 2016	95%	88.2%	114.6%	%9.99	106.9%	89.5%	107.0%	107.7%	127.3%	95.9%	88,4%	74.7%	95.4%	84.9%	113.2%	101.0%	72.1%	92.3%	%9'66	100.3%	106.4%	12
o lans	2012-2016 combined	6	6	65	0.63	ě	65	10	0.51	ě		e	ě	6	0.3	6	9.0	0.46	-	0.11	6	e	



Māori

Indicator	Data Period	Target	Target Auckland	Bay of Plenty	Canterbury	Capital & Coast	Counties	Hawke's Bay	Hutt	Lakes	Mid	Neison Mariborough	Northland	South	Southern	Tairawhiti	Taranaki	Walkato	Wairerapa	Waitemata	West v	Manganui	Reached
PHO Enrolment 0	Jul-Sep 2018	%06	%0.97	%0.96	84.0%	85.0%	93.0%	98.0%	89.0%	101.0%	%0.98	88.0%	101.0%	83.0%	85.0%	101.0%	87.0%	94.0%	%0.66	83.0%	85.0%	%0.66	0
ASH (0-4 yrs) 0	Yr to Sep 17	9	6524	7426	5111	6573	6791	6434	9654	8292	6282	4171	8328	3387	5355	7960	8154	8841	11023	5827	4884	9442	0
ASH (45-64 yrs) 9	Yr to Sep 17		8638	7607	4952	6498	9182	8250	8297	8444	6924	4626	8401	4453	4550	6092	8747	9347	5420	7591	4276	8887	0
Breastfeeding (6 wks) 0	Jan-Jun 2017	75%	71,0%	72.0%	%0.99	%0.07	960.79	62.0%	61.0%	65.0%	960'29	67.0%	76.0%	63.0%	68.0%	960.99	63.0%	65.0%	960.99	71.0%	94.0%	%0.79	2
Breastfeeding (3 mths) 0	Jan-Jun 2017	%02	44.0%	48.0%	52 0%	47.0%	39.0%	40.0%	46.0%	42.0%	49.0%	45.0%	45.0%	46.0%	49.0%	37.0%	43.0%	45.0%	48.0%	53,0%	96.75	45.0%	0
Breastfeeding (6 mths) 0	Jan-Jun 2016	965%	%9'29	53.6%	53.8%	54.9%	48.8%	50.2%	44.4%	57.7%	44.3%	62.3%	61.7%	37.5%	48.2%	55.4%	46.8%	49.1%	56.1%	61.5%	64.7%	57.1%	0
Breast Screening (50-69 yrs) 0	Apr-Jun 2018	%02	58.8%	61.4%	%2'89	68.0%	65.2%	70.0%	%9'89	64.3%	65.1%	74 1%	68.4%	67.3%	67.4%	66.6%	61.4%	58.1%	70.3%	63.8%	%9.99	72.8%	4
Cervical Screening (25-69 yrs) 0	Apr-Jun 2018	%08	53.6%	%9'02	63.8%	61.5%	%8.59	75.5%	%9'.29	74.9%	65.1%	72.4%	69.3%	65.5%	67.5%	71.8%	76.3%	68.3%	%8'69	61.2%	64.7%	71.9%	0
Immunisation (8 mths) •	Apr-Jun 2018	92%	86.1%	81.0%	94.5%	85.5%	84.0%	94.7%	86.9%	86.0%	88.3%	87.8%	81.8%	97.5%	93.5%	83.3%	80.7%	82.1%	93.0%	85.9%	87.5%	87.1%	-
Immunisation (Influenza) 0	Mar-Aug 2017	75%	33.1%	53.8%	41.9%	45.5%	40.0%	55.8%	46.4%	32.0%	47.9%	50.6%	50.2%	41.7%	43.9%	53.8%	42.1%	47.4%	50.9%	32.9%	48.9%	64.6%	0
Mental Health 0	Year to Jun 2018	8	489	172	222	509	362	385	191	340	105	169	453	133	263	231	212	462	341	284	256	179	0
Oral Health 0	Jan-Dec 2016	%96	65.3%	67.3%	43.7%	70.2%	73.5%	72.7%	81.1%	88.1%	94.6%	64.2%	70.5%	41.7%	65.4%	95 7%	81,4%	72.0%	%2 29	71.3%	88.1%	102.1%	2
SUDI O	2012-2016 combined	9	0.73	0.61	0.92	1.92	2.15	1.54	1.36	1.18	1.49	,	1.03	ą	1.96	2.37	1.55	1.75	9	4	34	2.97	0



Target faild is blank, where there is either no larget for the indicator assigned by the Ministry of Health, or where there are specific largest suitored to each DHB.
 Riferentable fever is not displayed on this table as the Ministry of Health reports. Total Population data, and data for South island DHBs is aggregated.

National Māori Health Indicators - Oct 18 **Canterbury DHB**

ASH (0-4 yrs) 6 ASH (0-4 yrs) 6 ASH (45-64 yrs) 6 ASH (45-64 yrs) 6 Breastfeeding (6 wks) 6 Breastfeeding (6 wks) 6 Breastfeeding (6 mths) 6 Breastfeeding (6 mths) 6 Breastfeeding (6 mths) 6 Breastfeeding (50-69 yrs) 6 Breast Screening (50-69 yrs) 6 Breast Screening (25-69 y	5905		Gap	Change 6	Trend \\
75 70 65 65 65 65 65 65 65 65 65 65 65 65 65	5905	84.0	6	_	
- 75 70 70 80 80 95 -	2504	5111	-794	-543	}
75 70 70 80 80 95 -		4952	2448	1191	
70 65 80 80	73.0	0.99	7	7	
95 7 - 9 5	63.0	52.0	7	9	>
(s) (e) (s) (s) (s) (s) (s) (s) (s) (s) (s) (s	67.2	53.8	13.4	2.8	5
(S) © (S) 95	75.4	68.7	6.7	1.3	
15) (2) 95 175 175 175 175 175 175 175 175 175 17	75.0	63.8	11.2	3.5	
95	95.7	94.5	1.2	1.1	
1 60 1	61.6	41.9	19.7	-1.1	
	92 28	222	146	9	
1	9.99	43.7	22.9	14.8	
		0.7	2.0	-0.1	
2012-2016 combined	0.63	0.92	0.29	-0.2	1



CPHAC Meeting 1 November 2018

Annabel Begg Kirsty Peel

Establishment of Canterbury Wellbeing

Canterbury
District Health Board
Te Poari Hauora o Waitaha

CERA established end March 2011 In late 2011 CERA initiated series of workshops (domain specific) to develop indicators to monitor social recovery

Need for survey to supplement data on wellbeing identified at workshops

Early 2012 - survey questionnaire developed by cross agency group First survey produced in September 2012 and repeated every 6 months (April and September)

Canterbury
Wellbeing
Index
December 2013
June 2014

Canterbury Wellbeing First Index produced June 2013, updated Dec 2013 Repeated with minor changes in 2014 and 2015

Data from many agencies plus wellbeing survey data

Inheritance

Canterbury
District Health Board
Te Poari Hauora 5 Waitaha

2016

2017



Canterbury Earthquake Recovery Authority

Te Mana Haumanu ki Waitaha

CERA



District Health Board Te Poari Hauora ō Waitaha





2017 Review





Review of New Zealand and International to identify best practice.

Survey

Found out who uses wellbeing monitoring tools and how, and what would be most useful.

 Meetings with local stakeholders

Gained in-depth understanding of existing monitoring and what would make our tool distinct and valuable.

Learnt about local preferences for indicators and indicator domains. Workshop

Analysis
 Used information collected during research and engagement to develop proposal for a local product.

Advice

Sought technical advice from experts about some indicators and domains.

Proposal

Proposal approved by Psychosocial Governance Group in December 2017





Online tool



Compact



Wellbeing, broadly

Public health approach



Treaty expression

Canterbury Wellbeing Survey



- 11 time points to date
- Multiagency working group continues
- Response rate 39% in 2018
- Questions moving to reflect wellbeing broadly
- New questions added to address gaps in revised index (safety, personal identity, civic engagement)
- 16/57 indicators in Index come from survey- data allow multiple breakdowns
- 2018 survey report release aligned with Index

EING INDEX



OUR WELLBEING

HE TOHU ORA

9 indicators

OUR POPULATION

19 indicators

57 indicators

Population size and change

SUBJECTIVE WELLBEING (4) CIVIC ENGAGEMENT (3)

Māori conceptualisations of wellbeing

Ngāi Tahu and Te Pūtahitanga o Developed in consultation with Te Waipounamu Draws heavily on Te Kupenga and Canterbury Wellbeing Survey

ENVIRONMENT (7)

HOUSING (5)

NCOME (4)

SAFETY (5)

HEALTH (10)

EMPLOYMENT (5)

EDUCATION (4)

Culturally reviewed by Ihi

SOCIAL CAPITAL (10)

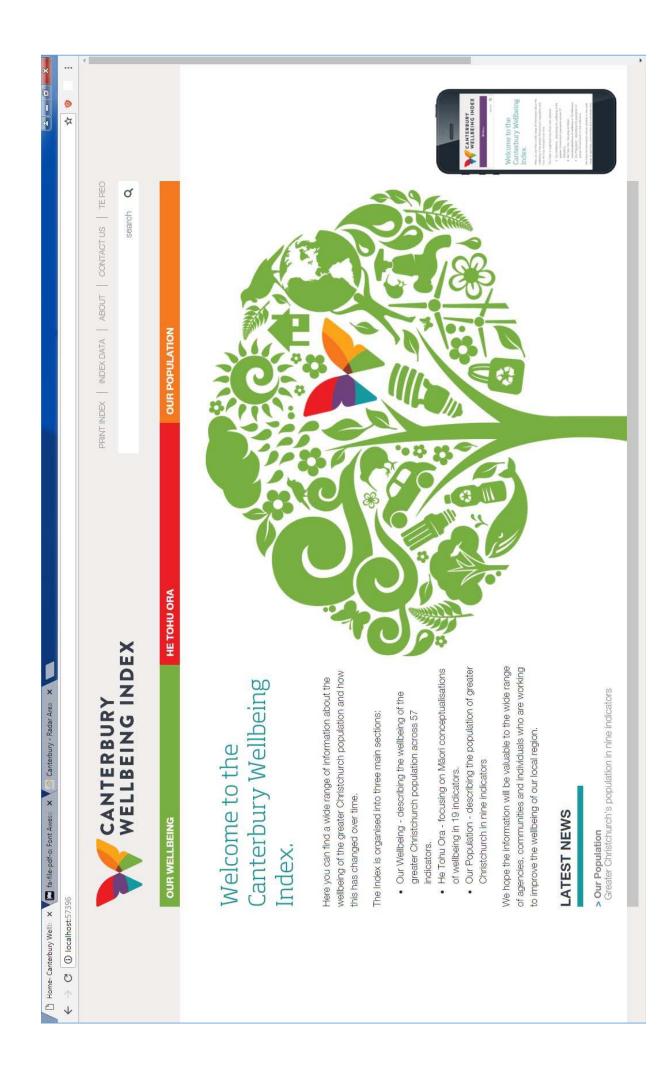
Population distribution

lwi affiliation

Deprivation

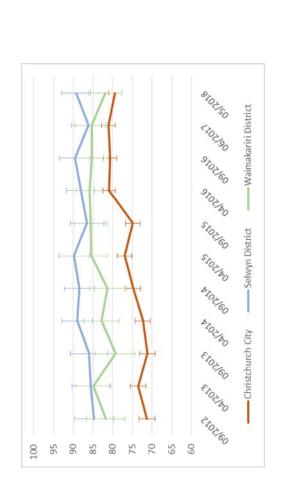
Disability status

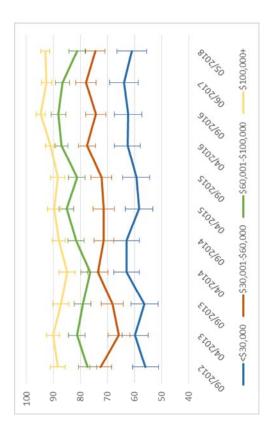
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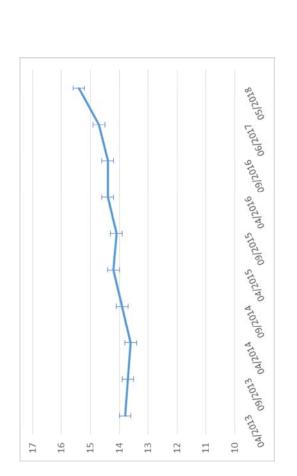
Proportion of those aged 18 years and over rating **quality of life** as good or extremely good

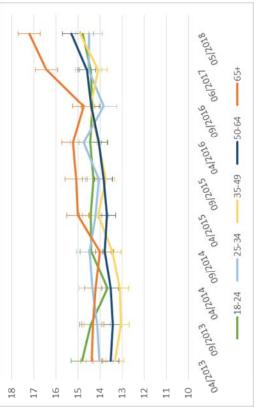






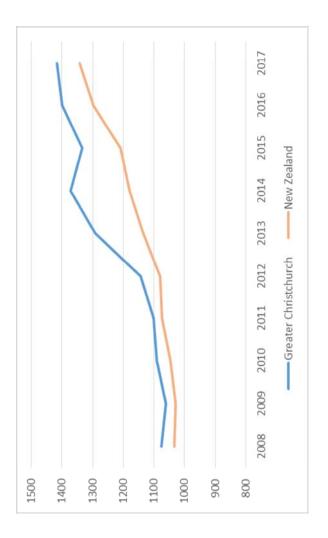
WHO-5 wellbeing scale mean raw score







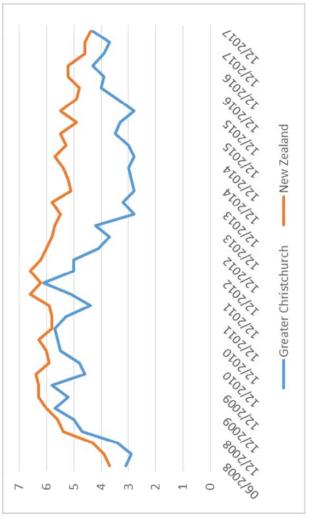
Median equivalised gross weekly household income

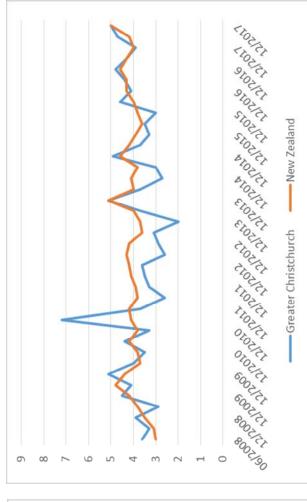




Unemployment rate - Number of unemployed as a proportion of the labour force

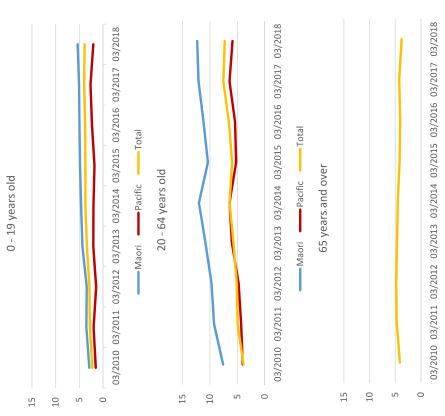
Underemployment rate - Proportion of total employed who work part-time who want to and are available to work more hours







HEALTH

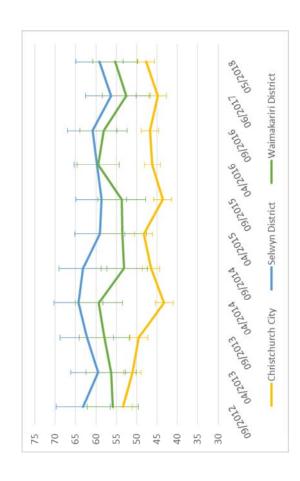


Proportion of population accessing mental health services (combined Non-Government Organisations, primary mental health, and specialist mental health services) in the Canterbury DHB region, by age and ethnicity.



SOCIAL CAPITAL

Proportion of those aged 18 years and over agreeing or strongly agreeing that they feel a sense of community with others in their neighbourhood

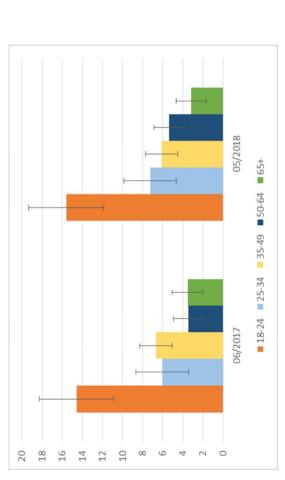


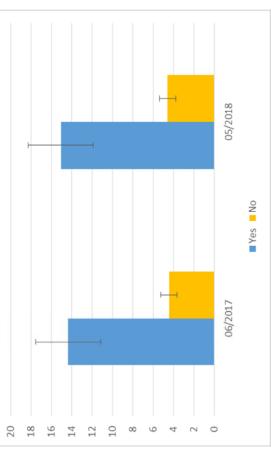




SOCIAL CAPITAL

Proportion of those aged 18 years and over reporting feeling lonely or isolated always or most of the time



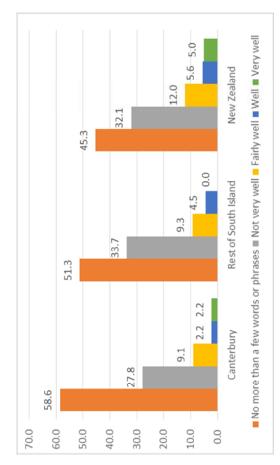


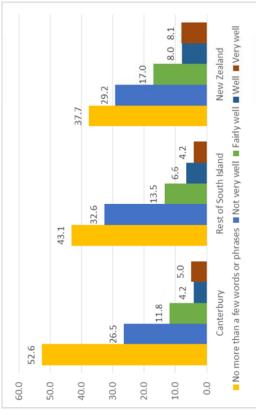


HE TOHU ORA – MĀORI INDEX

Proportion of Māori 15 years and over who reported **Speaking te reo Māori** no more than few words or phrases, not very well, well, or very well

Proportion of Māori 15 years and over who reported understanding te reo Māori no more than few words or phrases, not very well, well, or very well







HE TOHU ORA – MĀORI INDEX

Proportion of those aged 18 years and over rating quality of life as good or extremely good





- Linked into national developments in the area of wellbeing monitoring
- Presented at International Conference on Wellbeing and Public Policy in Wellington in early September
- Submitted on Treasury's Living Standards Framework
- Submitted on Stats NZ Indicators Aotearoa what matters to you consultation
- Will attend Stats NZ technical workshop in Christchurch on 6 November



Next Steps

Complete development of Index

Psychosocial Governance Group sign off

Launch at Healthy Greater Christchurch hui on 28 November



Acknowledgements

Index review

Sara Epperson

Analysts

- David Brinson
- Charlotte Ward
- Hongfang Dong

Website development

- Chris Ambrose
- Claire Dangerfield

N N N N

NDICATOR LIST



Quality of life

Emotional wellbeing

Self-reported stress

Sense of purpose



- Voter turnout in local government elections
- Voter turnout in general elections
- Ability to influence central and local government



EDUCATION

- Year-1 entrants' previous participation in ECE
- School leavers' achievement of NCEA level 2 or higher
- Highest qualification for those aged 15 years and over
- Young people not engaged in employment, education, or training (NEET)



- Unemployment rate
- Employment rate
- Labour force participation rate
- Underemployment rate
- Job satisfaction



FUNDAMINA

- Satisfaction with community facilities
- Satisfaction with access to transport
- Impact of loss of sports, recreation, cultural and leisure facilities
- Alcohol licence density
- Gambling machine density
- Satisfaction with access to natural environment
- Air quality PM10 exceedances



- Self-rated health
- Year-10 students' smoking
- Adult smoking
- Adult obesity
- Physical activity
- Hazardous drinking

- Psychological distress
- Unmet need for primary health care
- Acute medical admissions
- Mental health service access



Housing affordability measure (HAM)

Spending on housing

Rental property supply – price of bonds lodged

Household crowding

Satisfaction with housing quality



- Household income
- Household income after housing costs
- Low household income
- Satisfaction with income meeting everyday needs



- Perceptions of safety
- Property-related victimisations
- Child investigations
- Child abuse or neglect
- Family violence victimisations



- Sense of community in the neighbourhood
- Contact with family and friends
- Loneliness and isolation
- Personal identity
- Attendance at arts events
 Confidence in agencies

- Participation in the arts
- Experience of discrimination
- Regional sports organisations membership
- Involvement in unpaid activities

DISABILITY STEERING GROUP UPDATE



NOTES ONLY PAGE

CDHB WORKFORCE UPDATE



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: People and Capability

DATE: 1 November 2018

Report Status – For: Decision \square Noting \checkmark Information \square

1. ORIGIN OF THE REPORT

In 2017 we launched our *People Strategy 2017-2022*, which reflects our commitment to putting people at the heart of all we do. This report provides an update on the People Strategy and the Disability Action Plan priorities for People and Capability for 2016/2018.

2. RECOMMENDATION

That the Committee:

i. notes the Canterbury Workforce Update.

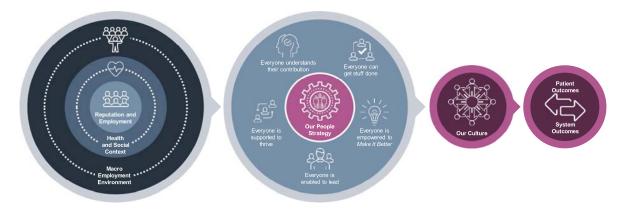
3. **DISCUSSION**

As part of the Disability Action Plan, People and Capability has responsibility for actions under two of the objectives:

- be an equal opportunity employer; and
- increase staff disability awareness, knowledge and skills.

Our People Story

Health is about people caring for people. Our People Story makes the connection between our operating environment, the commitments we've made to our people via our People Strategy 2017-2022, our culture, and the outcomes that we seek for the people we care for and *Our Health System*.



Our People Strategy

Our *People Strategy 2017-2022* sets out our key people priorities for the *next five years*. The strategy is built on five key pillars which directly address these priorities.

CPH&DSAC-01nov18-cdhb workforce update

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This table sets out each of the five pillars, the definition of success in 2022 according to the People Strategy, and the key priorities we have agreed in 2018 to take us 12 months towards 2022 success.

Our People Strategy		What does strategic success look like in 2022?	Our Key Priorities for 2018	
	Everyone understands their contribution	A culture of connectedness, engagement and communication	 Core People Policies [including Code of Conduct] – Doing the Right Thing, Being and Staying Well, and Valuing Everyone 	
[<u>*</u>]	Everyone can get stuff done Everyone can get stuff processes and ways of working		Max 2.0: People and Capability Service Portal	
	Everyone is empowered to <i>Make It Better</i>	Service improvement and innovation through co-design	Health and Safety Systems Improvement	
202	Everyone is enabled to lead	Widely distributed clinical and operational leadership	 Shared Approach to Talent Management and Leadership Leadership and Management Essentials 	
و الم	Everyone is supported to thrive	Continuous team and individual development	Occupational Health Service Improvement	

Updates on People and Capability 2018 Key Priorities

The following key is applicable to all tables below:



Programme	Due	Status	Impact as at 30 June 2018
Pillar One: Everyone understands their contribution			
Care Starts Here: Core People Policies This is the opportunity for us to support discussion about what we care about, what we value, how we behave and how we take care of ourselves and others. Key deliverables include new core people policies, including a refreshed Code of Conduct.	Ongoing	•	Wide spread engagement and feedback sought from our people across CDHB and WCDHB; with 40+ champions now empowered to walk the talk and spread the message from the ground up.
Pillar Two: Everyone can get stuff done			
Max 2.0: People and Capability Service Portal This is the opportunity to simplify our bureaucratic processes that waste people's time.	2018: Q4		↑ 47,012 cases since go live last year. 56% of cases resolved in 24 hours.

Programme	Due	Status	Impact as at 30 June 2018
Pillar Three: Everyone is empowered to Make It Better			
Health and Safety Systems Improvement This is the opportunity to ensure our people are healthy and safe when they're at work.	2018: Q4		◆ 11.8 average days lost from workplace injury in the last 12 months compared to 16.7 days in the 12 months prior.

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Pillar Four: Everyone is enabled to lead				
Talent Management and Leadership This is the opportunity to enable everyone to lead.	2019: Q2		Proof of concept being launched currently within Older Persons Health and Rehabilitation and Canterbury Health Laboratories.	
Leadership and Management Essentials This is the opportunity to enhance the leadership and management capability of our clinical and operational leaders.	2019: Q1		Prior to the official launch in August there have been 1,108 learners access the Development Centre, with Emotional Intelligence seeing the most unique users and Introducing Change receiving the most hits.	
Pillar Five: Everyone is supported to thrive				
Occupational Health Service Improvement This is the opportunity to better support our people to be and stay well, and to recover from illness and injury.	ТВС		Baseline is 89,558 working days lost to sickness in the 2017 financial year. Our target is a 17% reduction	

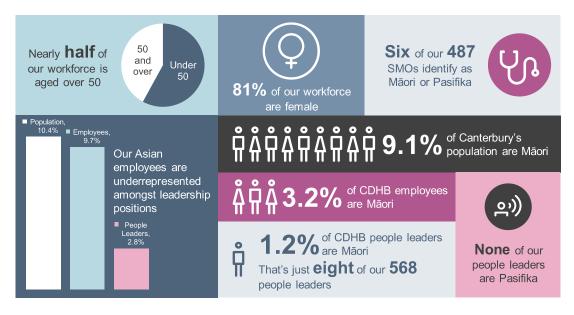
Diversity and Inclusion

Achieving our people strategy with a more diverse and inclusive workforce

Our People Strategy is about putting our people at the heart of all we do, and this includes embracing diversity of thought so everyone feels they have real purpose and value, and are part of shaping the future.

This means having a diverse and inclusive culture where everyone is respected, treated equitably, valued and empowered to grow.

While in some areas we have a good balance of diversity and inclusion, there are other areas we could do better. Demographically, we have differences in several areas:



Historically, the majority of our diversity and inclusion efforts focus on Treaty of Waitangi commitments. We know 18 per cent of our employees have no ethnicity data recorded, and we want a better understanding of our workforce. While we do not require employees to report their ethnicity, we know better data will help us make better workforce decisions. We are currently making it easier for individuals to update their ethnicity with planned enhancements to the Max service portal.

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Improving our demographic diversity will be a visible indicator of improvements towards diversity of thought, which will challenge existing approaches and ideas, improve services, and deliver more innovation across what we do. It will also provide opportunities to improve the experience for our patients and their whānau, and the experience for our people.

We are committed to continuing to grow the diversity of our organisation and clarify the inclusive behaviours that are expected. To do this, we are launching a programme of work on diversity, inclusion and belonging, looking at strengths to leverage and gaps to address across the people lifecycle – from recruitment, performance, recognition and reward, through to retention.

<u>Core People Policies – people policies to reflect and embed Doing the Right Thing, Being and Staying Well, and Valuing Everyone</u>

Following the Big Shout Out in December 2017, which launched the Care Starts Here programme of work, intentional opportunities have been created for our people to engage and get involved in the conversation about Doing the Right Thing, Being and Staying Well, and Valuing Everyone.

These opportunities have or continue to include:

- Face to face briefing sessions and/or mini workshops with different departments/teams.
- An organisation wide survey about what the behaviours mean to us.
- Focus Groups with a diverse range of our people.
- Care Starts Here Facebook group.
- Launch of Humans of Health; emphasising the 'human' elements of our people (see Pete's story).
- Care Starts Here Champions on the ground.
- Engagement with unions and their delegates.

To ensure our people have every opportunity to participate in these conversations, the timeline for the delivery of the People Policies has been extended.

The impact of this programme to date includes:

- 900+ shout outs to thousands of our people, with an estimated third of our people having been engaged by this initiative.
- 850+ survey respondents, with over 8000 individual comments.
- 470+ staff members on the Care Starts Here Facebook Group.
- 100+ staff members have been engaged in face to face conversations and briefing sessions.

Once embedded, we anticipate the Care Starts Here programme of work will result in positive behaviour change in our people and a bettering of our organisational culture.



While I am realistic of what can be done in a normal day, I do like to challenge myself to do more because I believe I'm doing things that can make a difference. Along the way I've met some really cool people and made some really cool relationships.

I worry about not meeting my own expectations and letting people down, which always makes it hard for me to say no to people.

I'm excited about the support Canterbury DHB is giving me and the faith and trust they have put in me to make some changes to how we do things.

My family is my inspiration, my happiest and my proudest moments. I try hard to be a good husband and a good dad. I adore my two little girls and a lot of what I do is because I think about them when I'm helping other people's children. I'm proud they understand what I do.

One of my daughter Paige's friends had to write about a person doing good things and changing the world, and she wrote about Paige's dad and how he was helping children in hospital not to be scared (with the virtual reality work). Outside of work I lead spin classes at a central city gym."

Pete Dooley, MRI Charge Technologist

CPH&DSAC-01nov18-cdhb workforce update

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Key Milestones	Due	Status
Big Shout Out launched	Dec 2017	
Key principles of behaviour identified through organisation-wide engagement	Mar-May 2018	
This will inform our people policies, including our Code of Conduct		
Organisation-wide engagement and conversations to enable the embedding of the three behaviours in our people and organisation culture. This includes:	Ongoing	
Engagement with the Unions and the training and deployment of Care Starts Here Champions		
Engagement forums and initiatives such as Facebook and Humans of Health		
Policies developed and approved (including Code of Conduct)	Aug 2018 – Aug 2019	
Consultation with key stakeholders and our people for new people policies (with particular reference to the Code of Conduct)	Aug 2018 – Aug 2019	
Release of final Code of Conduct and people policies	Oct 2018 - Nov 2019	
Resources and training developed and implemented to support our people living out these behaviours	Sept 2018 - ongoing	

Max 2.0 - People and Capability Service Portal

In December 2017, People and Capability launched Max, a self-service portal available to all of our people, with the intention of becoming the primary source of contact for requesting assistance, accessing automated services and acquiring HR specific knowledge.

The Max programme is committed to maximising service delivery efficiency and reducing administrative burden on clinical and corporate areas alike.

Our latest development phase, Max 2.0 is underway and there are now 21 services available to managers across Canterbury and the West Coast, and 10 services available for all employees.

This quarter we'll go live with Max Junior, a chat bot designed to provide an additional channel of self-help for employees and managers. As well as the introduction of this automated assistance we are also working on the release of many more services.

We've just released Resident Medical Officer Annual Practicing Certificate (APC) alerts, to proactively inform this workforce group of when they need to update their information, and we're commencing the initial stages of integrating Microster and Max.

Alongside new developments, the Max team continuously works on change requests to modify and improve existing functionality to ensure Max is meeting the needs of the organisation.

The on-going organisation-wide adoption of Max is reflected in the following figures:









78,856 total cases

1,741 profile updates

13,910 leave requests

8,331 unique users

Key Milestones	Due	Status
Max launched	Dec 2017	
Max 2.0 work programme confirmed	Jan 2018	
Max 2.0 work programme launched	Feb 2018	
Leave variations and approvals delegation services launch	May 2018	
'Exit my employee' service launched	Jul 2018	
Next phase roadmap confirmed • 'Cash Up Leave' service launched	Aug 2018	
 'Request Orderly Services' service launched 'On-boarding' service launched 		
Services launched: • 'Expense Claim' service launched • 'SMO Leave Request' service launched [Pilot Group]	Sep 2018	
 Recruitment approval service launched 'Occupational Health Referral' service launched 	Oct 2018	
 'Mileage claims' service to be launched 'Delegation' capability of nine services 'IEA Merit Application' service to be launched 'Kiwisaver' service to be launched Chatbot 	Nov 2018	•
Next phase functionality launch: Integrating MicRoster and Max	Q1 2019	

Occupational Health Service Improvement

The Occupational Health Service (*OHS*) improvement programme builds on a review conducted in 2017 to identify how we might better support the current and future needs of our people. The programme seeks to reduce sickness absence by 17 per cent from our current position. The impact of this would be a workforce that is supported to be and stay well, and a potential \$4,019,241 that could redeployed into quality patient care.

A key activity for this quarter has been supporting the expansion of the Wellbeing Health and Safety team through reprioritising existing resources to increase internal capabilities of the Occupational Health interdisciplinary team. We've been working with the existing team to support a shared understanding of the team's collective responsibilities, and to confirm the most effective use of existing skills and resources across the team in preparation for expansion of the team.

We've ensured Statements of Accountability for the new positions are aligned with the team's shared responsibility and the vision for OHS. We've also ensured messaging and communications to support recruitment for new positions are aligned with the OHS vision that these are valuable roles within our health system to support our people to be and stay well to provide the best possible care for our patients. We have had a strong response to recruitment with successful appointments to all four positions likely early next quarter.

We've been collaborating with health system partners to establish workstreams for the change management programme. These build on successful collaboration models that exist across our health system. We expect the collaboration model, and the capabilities and experience required of participants to be confirmed by our Advisory Group in the next quarter, with the workstreams established by end of September.

With the guidance of our Advisory Group, we've confirmed the development and implementation of a clinical leadership role within the Wellbeing, Health and Safety Community of Expertise as a key enabler to support the vision for the future for the OHS, and a key partner for the implementation of the improvement programme. Important next steps include working with our Advisory Group to identify the skills, perspectives, and expertise required of this leadership role.

Key Milestones	Due	Status
Review completed	Dec 2017	
Programme plan developed	Mar 2018	
Business case developed	Mar 2018	
Establish workstreams for the change management programme	Jun 2018	•
Identify new model of care and early intervention pathways	Dec 2018	

Disability Action Plan Priority Actions (People and Capability)

Be an Equal Opportunity Employer

• Project Search has grown from a single programme site at Cincinnati Children's Hospital Centre to over 300 sites across the United States, Canada, England, Scotland, Ireland and Australia. The project's primary objective is to secure competitive employment for people with disabilities. The programme's focus is on serving young adults with a variety of developmental disabilities.

- People and Capability continues to work alongside our partners, including CCS Disability
 Action; Blind Foundation; Work Bridge and Ministry of Education to implement Project
 Search with the Canterbury DHB taking the role of employer.
- CCS Disability, alongside the Blind Foundation, have secured funding for the Programme Search license and Canterbury DHB will fund the Project Search Co-ordinator role for 12mths to establish the programme.
- Project Search United States visited New Zealand during September to support kicking off the programme of work here in Canterbury. Project Search met with all the partners and stepped through the implementation approach with each of the partners who have a contribution to making the programme successful.
- Project Search Canterbury through People and Capability will work to identify appropriate job skills development tasks with clinical and operational leaders on the Burwood Campus and prepare the skills assessment centre to confirm which applicants will be in the programme to commence February 2019.

Increase Staff Disability Awareness, Knowledge and Skills

- <u>Making it better for our people with a disability</u>. People and Capability engaged with our people who identify as having a disability. The purpose of this engagement was to increase awareness of how our people with disabilities can be better supported; increase awareness of how our people can better support colleagues who have a disability; and to create an agreed list of actions to guide future activity. This work has been folded into the core policies, Max and the Occupational Health Improvement programme of work for 2018.
- <u>Disability responsiveness/confident employer course.</u> A national conversation about learning content standardisation. Currently individual DHBs and other heath sector organisations develop and consume training independently, with limited collaboration and consistency. Examples of successful collaboration in the development of training or use of consistent training products suggest that greater collaboration and consistency can be achieved. At the most recent workshop, held in Wellington on 3rd August 2018, agreement was reached on, processes, roles and responsibilities; a draft criteria for identifying courses for national collaboration and a list of courses to begin testing the process. The following topics were agreed as worth investing effort to confirm they can be developed as national products:
 - o Diversity and inclusion
 - o Disability responsiveness
 - o Leadership
 - Health Literacy
 - o Infection prevention and control (incl. hand hygiene)
 - Pressure injury
 - o IV and related therapy

People and Capability is looking to take the lead in the content areas of diversity and inclusion, disability responsiveness and leadership under the broad umbrella of growing the diversity and inclusiveness of the organisation, which is one of the activities outlined in our *People Strategy*.

Action - measuring the number of people employed by the CDHB

CDHB does not have a mechanism to determine the number of people employed who have an impairment or disability on an ongoing basis.

Even if CDHB had a mechanism to determine the number of people with a disability employed at any given time, there is no agreed standard for what is defined as an impairment or disability or an evidenced based instrument that could be used. Other factors that need to be considered are whether the impairment or disability is permanent or temporary – there is also no agreed definition for either – and even with an agreed definition, whether the individual even identifies with having

an impairment or disability. What we can say is that CDHB actively case manages 100-120 individuals on average each month with a temporary impairment or disability, and rehabilitates them back to work. Based on the nature of the event, this may mean the individual may end up with some form of permanent impairment or disability – however – this does not impact on their employability.

CDHB did gather some additional insight and data through a survey that captured our people who identify as having an impairment or disability as part of the review of the Occupational Health Service at the end of 2017. The review has formed the foundation for how we can transform the Occupational Health Service with a greater focus on prevention and promotion of individual health to better support our people to *be and stay well*. This is aligned to our vision of being an employer of choice, to remove barriers to gaining employment and to reduce attrition through having a diverse and inclusive health workforce. While we are in the process of transforming the People and Capability function, and the Occupational Health Service within this, there is no intent to use the survey measures around impairment and disability over the next 12 – 18mths delivery. We do have a commitment to measuring the benefits of this transformation through our *People Strategy*. We are working towards capturing a bench line for the People Strategy before the end of the year and to improve Board and operational workforce reporting with the support of Decision Support to inform decision making and measure the tangible benefits from *people at the heart of all that we do*.

Report prepared by: Mark Lewis, Head of Talent, Leadership & Capability

Report approved by: Michael Frampton, Chief People Officer



Minutes – 27 July 2018

Canterbury DHB Disability Steering Group (DSG)

Attendees: Prudence Walker, Gordon Boxall (Chair), Kathy O'Neill, Allison Nichols-Dunsmuir, Jane Hughes, Haley Nielsen, Catherine Swan, Donna Hahn, George Schwass, Maureen Love (attending for Mark Lewis), Sekisipia Tangi, Catherine, Susan Wood, Paul Barclay, Dave Nicholl, Kathryn Jones, Simon Templeton, Lara Williams (Administrator)

Guests: Pip Stewart, CEO Brackenridge

Apologies: Mick O'Donnell, Stella Ward, Kay Boone, Ngaire Button

	Agenda Item	Summary of Discussion	Action/Who
1.	Karakia Timatanga Apologies to date, as above Previous minutes, matters arising and any conflicts of interest for today's agenda items	No changes to June minutes.	
2.	Improving the experience of the Health System for People with an intellectual disability and complex needs Presentation from Pip Stewart Implications of DSS system transformation Perspectives from members of DSG Identifying Actions to take forward from the discussion	Pip Stewart CEO Brackenridge presented, featuring Enabling Good Lives and Brackenridge's evolvement since 1999. The presentation is attached, summary how can the health system help? Pip asks about CDHB Communications, CEO Update and WellNow featuring good news stories about ID and complex needs.	Action point: Powerpoint presentation circulated with minutes. Action point: Lara has emailed Mick outlining Pip's presentation and offering to feature Brackenridge.
3.	General Business Updates Communications Accessibility Working Group	Disability Action Plan – next step is active promotion into the disabled community. Prudence will assist with the right language of survey	Action Point Kathy to forward draft to Prudence for

1

	Project Search	Allison briefed the group about	amendment prior to
	New meeting dates	Accessibility Charter Plan.	promotopn
		Manawa visit took place before the building opened with Andy Savin. Very helpful to see plans, how well groups had worked together to produce the space. Identified some advice and remediation recommended. Andy has forwarded that. Thank you George for organising.	Action point: Rachel Cadle to be invited to a meeting. As Rachel is on leave in September, Gordon is meeting.
		Autism - spaces and appointment times suitable for those with high needs.	
		Project Search – Kathy briefed about Riccarton High School. August will be planning month for Project Search trainers who will be onsite in September.	Action point: Project Search steering group, meeting to be organised by Kathy.
		Washington group short set of questions will be included. CDHB is submitting on the issues on including disability in NHI data. Discussion on having disability information being kept in NHI and usage of this data.	Action point: Allison to be on agenda for August meeting, presentation on Washington short data
		Ngaire mentioned an email with NHI data discussion.	Action point: Ngaire's email to be circulated with
		Donna presented about CCN codesign project. Haley has participated, endorsing the speaker. Offer extended that this opportunity is	minutes. Action point:
		available. It would suit those participating in a project.	CCN brief on project to be circulated with minutes
4.	General Business items and anything that's different in a disabled person's life since we last met.	Census – priorities for data usage. 5 top areas identified for collation, 3	Action point: Is available on NZ Statistics Webpage

	others highly recommended. Kathy will circulate.	
	George spoke of a positive experience with wayfinding at the hospital. A blind and deaf patient with assistance dog, negotiating all known entrances that are now closed with roadworks. Obstacles identified. George booked the interpreter, system notification worked well. Booking system now knows to send the interpreter to meet Carl. Brings Carol into the service and exit. Best service for the client.	
Next Meeting	2-4pm Friday August 24th 2018 Location, 32 Oxford Terrace, 2.11	Action point: Lara has resent date of 24 th to everyone's calendars. Allison will contact attendees about 1-2 beforehand. Also
		Room 2.11



Minutes – 24 August 2018 Canterbury DHB Disability Steering Group (DSG)

Attendees: Prudence Walker, Gordon Boxall (Chair), Kathy O'Neill, Allison Nichols-Dunsmuir, Jane Hughes, Donna Hahn, George Schwass, Maureen Love, Mark Lewis, Sekisipia Tangi, Paul Barclay, Dave Nicholl, Simon Templeton, Stella Ward, Kay Boone, , Lara Williams (Administrator)

Guests:

Apologies: Kathryn Jones, Hayley Nielsen, Susan Wood, Ngaire Button, Catherine Swan, Mick O'Donnell

	Agenda Item	Summary of Discussion	Action/Who
1.	Karakia Timatanga Apologies to date, as above	No changes to July minutes.	
	Previous minutes, matters arising and any conflicts of interest for today's agenda items	Update from Allison from the July minutes, the Manawa building visit, queries raised haven't been answered yet.	Action point: Allison to follow up Washington short questions discussion to be deferred to next month.
2.	Follow up actions to be taken following Pip Stewart's presentation - Implications of DSS system transformation - Perspectives from members of DSG - Identifying Actions to take forward from the discussion	Pip's presentation wasn't circulated with the July minutes. Action point was to send presentation to Mick in Comms (as he wasn't' at meeting) asking for opportunities to feature in WellNow and CEO Update. This has been done, Mick will contact Pip as they know each other.	Action point: Pip's presentation to be circulated with minutes. For agenda next month.
3.	Update on AT&R, work that is happening now, future plans. How can DSG help?	Jane Hughes reported with a mixture of progress, featuring positive progress on 4 self-contained units/pods. The pods provide an autism friendly safe environment, an area for retreat if people are not calm. An Architect has been appointed, next step is council consent by	

end of the year, completion date at end of 2019 or 2020. Modification is the next stage. A further 2 beds will be created through modifications to rear end of the existing facility. Another positive, is we have been able to recruit a psychologist from UK. We are engaging with Ministry of Health on significant challenges in meeting the needs of clients in crisis Positive stories - the purchasing of Vocera unit helps staff to communicate with each other urgently if required. Protective clothing is helping with bite prevention. Increased security has been installed. Gordon mentioned from the DSAC report. How are challenges with ongoing crisis, and is reducing bed numbers creating pressures in the community? Jane – flexibility with community providers is important. Ideally as building improvements come on line, this will enable needs to be better matched to resources. Ability to increase capacity is important. Ability to recruit and retain more staff. It is about building trust with community practitioners. Gordon asked if thought has been given to a community of practice both at a practitioner level and also more strategically so interested parties can contribute to a common model of care based on positive behaviour support, consider joint training, collaboration around crisis prevention and management and to work towards prevention of crises and build capacity of community? NZDSN members keen to progress if CDHB interested. Seki asked what % of Māori & Pacifica numbers are represented? Asked about Pacific Models of Care. Jane replied **Action Point: Gordon** numbers couldn't be given as there are to go to National no Pasifika models known to Jane. Leadership Group to Discussion led to how we can address get numbers for Jane the overrepresentation of numbers?

		Jane replied about the Compulsory Care Act and how the care of patients are moved to providers. There are no current culturally specific providers. Discussion continued on options to raise disability issues and raise awareness to enable good outcomes? This as a countervoice to the current media coverage. Jane agreed it is always positive to promote good outcomes, adding positive behavioural support model is good example of what could be promoted.	Action point – Communications and P&C to interview and promote positive stories. Donna suggested CCN as a platform for promoting good news.
4.	Accessibility – update presentation Parking	George presented update on siteworks suddenly effecting temporary mobility parks on Christchurch Hospital campus. A meeting with DSG members and the responsible CDHB officer came up with a range of suggestions and George's circulated report provides the details of what has been achieved. CCC have responded well by agreeing to re-assign some local car parks to mobility and to get these in place by1st September. George emphasised these parks will be mobility parks rather than hospital use mobility parks, they are open for all mobility holders. Full details included in: - Mobility parking august 2018 DSG update.pdf - Aerial photo of hospital mobility parks.pdf - Wheelchair shuttle flier.pdf CDHB has secured the services of a dedicated wheelchair taxi through Gold Band for patient shuttle for the 13 weeks needed. Seen as a good example of the impact and profile of DSG George also gave 1st October as new date for Oxford Terrace next stage of opening. Ie the area past Pegasus Arms. Simon provided positive feedback from elderly on the parking shuttle service.	Action point: Members to promote wheelchair accessible taxi service by sending wheelchair shuttle flier.pdf to their networks

		George asked members to look in CEO update coming up, there are bouquets for security staff helping elderly people on transfer from hospital.	
		Allison reported the Accessibility Charter Working group has had their first meeting. The Plan will be drafted for EMT by the end of the year with an 18 month timeframe. Future meetings to front on to DSG.	
5.	Exploring the proposal for inclusion of West Coast into DSG	Kathy O'Neill reported on the West Coast supporting inclusion into their plan through Alliance Leadership Team that Stella chairs. West Coast has unique factors. WC have developed strategy, will be launched soon. Discussion on how transalphine issues are dealt with, together or separate? Stella confirmed EMT, Canterbury and WCDHB meetings are held separately.	Action point: Kathy to progress thinking of a quarterly combined Transalpine DSG meeting with West Coast teleconferencing in. Stella will assist to draft a potential agenda.
		Prudence and Paul discussed how their own organisations are represented on the Coast and how they deal with resourcing. Paul highlighted the issue on the Coast of staffing with recruitment and retaining staff.	·
		Options of how WC could be meaningfully engaged were explored. Agreed to offer to join each meeting or say quarterly when WC issues could help form the agenda	
		It was agreed that Stella and Kathy approach West Coast partners to identify the best way to ensure the Actions remain Trans-Alpine in a way that is relevant and avoids being tokenistic or just an add-on to Canterbury.	
		(31 st August - This section is with Stella for confirmation)	
6.	General Business		
	Stella - EMT	Stella's Chief Digital Officer role commences at end of year. Stella will hold the disability portfolio until the end of the year.	
		The incoming Executive Director of Allied Health, Scientific and Technical will take over from Stella as the EMT rep on DSG in the New Year. The appointment was	

	announced by CEO 28 th August, see Appendix 1 below.	
P&C Update – Project Search	Linda Leishman at Riccarton High is starting on Monday. Now that Linda is full-time, coordination of training sessions can start. The Working Group hasn't met since Blind Foundation offered financial support. Paul requested a meeting be arranged soon. This is particularly important as trainers are due to be coming over from the USA.	Action point: invite Linda to future meetings. Action point: Mark to provide update to Paul when Working Group next meets.
Communication	Mick was unable to attend today. He has sent through a report. Gordon suggested it be deferred with an update to the next meeting as it is important to have Mick's personal input.	Action point: Mick's report attached, see Appendix 2 below.
	Kathy and Gordon are featured on the front page of the DPA newsletter.	Action point: DPA newsletter to be circulated with minutes
	Seki asked how can the community improve outcomes? This stems from the report mentioned in Jane/Gordon's DSAC discussion, and other reports in the community. How can we transform when 80% are not accessing service providers such as Etu Pasifika?	Action point: Seki asked for ongoing awareness to continually strive to transform these targets.
	Dave Nicholl - Clinicians' disability awareness, the module on HealthLearn is not being used. Dave sought Mike Ardagh's advice on Hospital HealthPathways. Key point being the content should be advisory on disability awareness, rather than clinical treatment. An example being a patient with Spina Bifida, their disability needs, rather than the clinical treatment for SB.	Action point – Mark will reinforce to national action group that there is a need for other content apart from clinical training.
	Discussion followed on who could write this content. Are there providers with online content already prepared? Content would need to be key points, 30 seconds maximum. Where to start – ideally we'd ask groups	
	to provide to us, and we moderate. We	

	would then liaise with HHP Clinical	
	Editors. Mark advised this is a national issue and all DHBs meeting to discuss how to progress. CDHB has offered to take a lead but no progress as yet and no resources to pursue.	
	Prudence has offered to provide Subject Matter Expert (SME) advice.	
	This is a priority area which we have struggled to make much progress on. Mark to consider options.	
	Team Leader Older Persons Health will attend the 6 th September DPA Forum on home care.	Action point – Kathy to follow up with TL OPH to see if another Rep could also attend.
	System transformation updates – Prudence has offered to provide regular updates.	Action point – To be included in agenda as regular update item
	2019 dates, please bring diaries. Final word from Gordon who requested members to consider agenda items for the next meeting as both he and Kathy not around much between now and then.	Action point: Lara will get dates from Stella's PA first
Next Meeting	10.30-12.30, Room 2.11 Friday September 28 th 2018 Location, 32 Oxford Terrace At Oxford Terrace, after Accessibility Charter Working Group	

ITEMS FOR NEXT MEETING

- Mick's Communications Update
- Action points from Pip at Brackenridge's presentation at July meeting
- Washington Short answer questions from Allison
- Progressing disability awareness in a timely fashion
- System transformation updates regular updates from Prudence
- Bring diaries for 2019 dates

Appendix 1

From: Mick O'Donnell On Behalf Of Internal Email

Sent: Tuesday, 28 August 2018 9:55 a.m.

To: Internal Email < Internal. Email@cdhb.health.nz>

Subject: APPOINTMENT TO THE EXECUTIVE MANAGEMENT TEAM: Executive Director of Allied Health,

Scientific and Technical

Message sent on behalf of David Meates, Chief Executive Canterbury District Health Board and West Coast District Health Board

Subject: Executive Director of Allied Health, Scientific and Technical

I am pleased to advise the appointment of **Jacqui Lunday Johnstone** to the role of **Executive Director of Allied Health, Scientific and Technical for Canterbury DHB and West Coast DHB**. This role provides strategic leadership for Allied Health, Scientific and Technical professionals and is a member of the Executive Management Teams for both the Canterbury and West Coast DHBs.

Jacqui was born and raised in Scotland. She is currently Chief Health Professions Officer for the Scottish Government. Her experience spans the public and private healthcare systems in the UK, and includes clinical leadership positions and the founding and running of her own business. Jacqui has many published works covering AHP, Healthcare systems, Occupational Therapy, patient care, change initiatives and reviews.

Jacqui gained her Occupational Therapist Qualification from Queen Margaret University in the UK. She was awarded an Honorary Fellowship from the Chartered Society of Physiotherapy and an Honorary Doctorate from the Queen Margaret University. Currently, Jacqui is completing a Masters in the Humanities at the Open University.

Jacqui has a range of other professional memberships, affiliations, awards and positions, including:

- Honorary lecturer at Glasgow Caledonian and Queen Margaret Universities
 - Trustee of the International Council of Allied Health Leaders
 - Order of the British Empire (OBE), Queens New Year Honours 2015, for Services to Healthcare and the Health Care Professions.

Jacqui will commence in the role on Monday, 5 November 2018 and we look forward to welcoming her to the Canterbury and West Coast Health Systems.

Regards

David Meates, MNZM

Chief Executive | Canterbury District Health Board and West Coast District Health Board

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Appendix 2

From: Mick O'Donnell

Sent: Wednesday, 22 August 2018 3:41 p.m.

To: Lara Williams (Administrator) < Lara. Williams 2@cdhb.health.nz>

Subject: Communications Report for DSG 24th August 2018

Gordon, Kathy and I met last month to discuss the poor response rate to the survey that was publicised through WellNow and ways we can strengthen the two way flow of information between the community and the DSG. We don't really know what went wrong re the survey, perhaps the wrong channel, or maybe the survey didn't work for people – I doubt if it's the latter, or I'd have expected to see lots of surveys started but not finished. We agreed to work with CCS Disability Action via Pru before re-publicising an improved survey – I haven't yet acted upon this.

Following that meeting, and at Gordon's request, I investigated an open 'blog' type of communication so we could share ideas with a wider group more effectively, and hear back from them. I made some enquiries and suggested a closed Facebook page to Gordon which included protocols for publicising it and how it might be used. He considered it over the weekend and decided he had a strong preference for a monthly video newsletter.

A captioned vlog is doable, but there would be a modest cost and like a newsletter, it's need regular input from the DSG and other parties. There is also the challenge of where it is hosted and how it is distributed – for example we can host a video on a site like Youtube or Vimeo but need a way to distribute the link to it. At the moment, I have a pretty basic list of 100 or so interested people/parties made up from those who were consulted in the drafting of the DAP – that list and network would be very much strengthened if non-DHB DSG members would agree to cascade information through their own networks so that it reaches a much wider audience. As an alternative to hosting on a neutral video site, we can embed videos on a website, but which one, and how do we signpost it?

I met with Stella to talk about these options, including those that might require resources. She was open to all of these options, but first wanted it broached/discussed at DSG.

My sincere apologies to the group that I can't be there to lead the discussion this time around and for my recent absences, but I'm afraid it's the nature of the job that we deal with the unpredictable. Your options now, through Gordon, are to discuss it without me today or to wait until the next meeting when I am (ever) hopeful of being there.

Regards,
Mick O'Donnell
Communications Team Leader

HEALTH TARGET DASHBOARD – QUARTER 4 2017/18



TO: Chair and Members

Community & Public Health and Disability Support Advisory Committee

SOURCE: Planning and Funding

DATE: 1 November 2018

Report Status – For: Decision \square Noting \square Information \checkmark

1. ORIGIN OF THE REPORT

The purpose of this dashboard is to present the Committee with Canterbury DHB's progress against the national health targets as at quarter four (April-June 2018).

The attached dashboard provides the DHB results and a short narrative regarding the work underway to deliver each health target. These results are presented to highlight the performance of the DHB.

2. SUMMARY

Canterbury achieved five of the six health targets this quarter, including receiving outstanding results for raising healthy kids and increased immunisation. Increased immunisation was particularly positive, with Canterbury being the only DHB to achieve the target and also meeting the target across all reported ethnicities.

Shorter stays in ED was partially achieved this quarter, with Canterbury missing the target by 1%. Increasing presentations to ED in 2017/18 have made this measure difficult to achieve.

3. APPENDICES

Appendix 1: Health Target Report – Quarter Four

Report prepared by: Ross Meade, Accountability Coordinator, Planning & Funding

Report approved by: Dr Greg Hamilton, Acting Executive Director, Planning Funding &

Decision Support

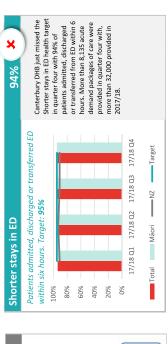
Improved access to elective surgery

Patients receiving planned surgery

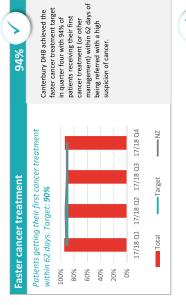
Canterbury DHB health target report

Quarter 4: April - June 2017/18

The health targets are a set of national performance measures specifically designed to improve performance of the health sector in areas that reflect significant bublic and government priorities. They provide a focus for action. Three of the is knealth targets focus on patient access, and three focus on prevention. Health targets are reviewed annually to ensure they align with health priorities and targets are set nationally for all DHBs. DHBs report progress to the Ministry quarterly, who in turn publish the targets online and in newpapers via a national league table. Shorter access to the Ministry quarterly, who in turn publish the targets online and in newpapers via a national league table.







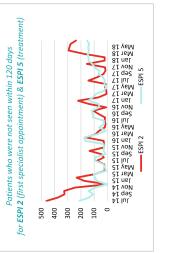
The number of people presenting to ED

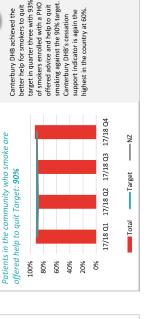
80,000 60,000 40,000

120,000

Supplementary indicators







93%

Better help for smokers to quit

2011/28

2016/17

2013/16

2012/14

201112

20,000

0

ated 6/9/2018: Produced by Canterbury and West Coast DHB Planning and Performance team. PTO for data definitions.



:				
Measure	Full description	Data source	Reporting period Notes	Notes
Shorter Stays in ED	Patients admitted, discharged or transferred from Christchurch and Ashburton EDs within 6 hours	Canterbury DHB data submitted to the Ministry via quarterly reporting.	FY Quarter	
Improved access to elective Volume of elective surgery surgery discharges each year	Volume of elective surgery delivered, increasing by a national average of 4,000 discharges each year	National Minimum Dataset (NMDS).	Cumulative FYTD F quarterly result 8	Published by the Ministry via quarterly reporting and the monthly via the Elective Services website. This is a cumulative annual target for the full year.
Faster cancer treatment	Patients receiving their first cancer treatment (or other management) within 62 days of being referred with a high suspicion of cancer	cancer treatment (or other management) within 62 days of Canterbury DHB data submitted to the Ministry via secure FTP. Rolling six months uspicion of cancer to cancer to FY quarter end, to FY quarter end		Note the target and definition changed from 2C127718, with results prior to this not directly comparable. Patients who choose to delay treatment, or whose treatment is delay treatment or whose treatment is explayed fror littler reasons, are now excluded from the health target count.
Increased immunisation	Eight-month-olds fully immunised	National Immunisation Register	FY Quarter	
Better help for smokers to quit	PHO-enrolled population who smoke that have been offered help to quit smoking by a Submitted to the Ministry by PHOs through the PHO health care practitioner in the last 15 months Ministry. Winnistry.	 Submitted to the Ministry by PHOs through the PHO performance programme (PPP) system. Published by the Ministry. 	FY Quarter	
Raising healthy kids	Children identified as obese at their B4SC having had a referral sent and acknowledged for a clinical assessment and healthy lifestyle intervention.	B4 School Check Dataset	Rolling six months F one month in b arrears from (FY) quarter end.	Results are based on all referrals that have been both sent and acknowledged.
Supplementary targets				
People presenting to ED	Patients presenting to ED, according to the health target definition.	Canterbury DHB data submitted to the Ministry via the Shorter Rolling 12 months. This has been aligned with the health target stays in ED health target quarterly report.	Rolling 12 months T to (FY) quarter end d	This has been aligned with the health target definition.
ESPI 2 and ESPI 5	The target is for patients to be seen for both ESPI 2 and ESPI 5 within four months.	Canterbury DHB data submitted to the National Minimum Dataset (NMDS). Monthly data published through the Ministry's elective services portal.	Monthly	

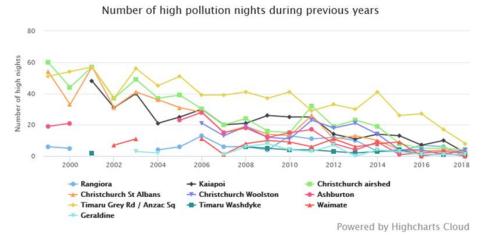
Request for data regarding air quality monitoring/respiratory illness across Canterbury. Information item for 1 Nov 18 meeting.

Community and Public Health work closely with Environment Canterbury on the goal of improving air quality in the Canterbury region. Environment Canterbury have implemented the Canterbury Air Regional Plan with the aim to meet national air quality standards. Community and Public Health completed a Health Impact Assessment of the Regional Air Plan.

The Government's National Environmental Standards for Air Quality set different targets for different air-sheds. Christchurch, Timaru, Ashburton, Waimate and Kaiapoi airsheds must experience fewer than three days per year with PM₁₀ over 50 micrograms per cubic metre of air from 1 September 2016 and no more than one day per year from 1 September 2020.

Geraldine, Rangiora and Washdyke airsheds must experience no more than one day per year with PM_{10} over 50 micrograms per cubic metre of air from 1 September 2016. The air quality standard we exceed most often relates to PM_{10} , which is particulate matter 10 micrometres or less in diameter. PM_{10} is made up of things like smoke from home heating, industry and vehicles, as well as dust and sea salt. In Canterbury, PM_{10} levels generally peak in winter.

The Environment Canterbury website includes a number of statistic graphs that clearly show the improvements in air quality between 2000 and 2018.



New Zealand and overseas evidence shows an association between poor air quality and poor health outcomes – and the inverse (i.e. improved air quality and improved health outcomes).

Ascribing causality to the association between improved air quality and improved health outcomes is difficult, due to the complexity of studying exposures and outcomes at population level, including potential confounding and moderating factors.

Despite the many methodological limitations within individual studies and heterogeneity between studies, most of the studies reviewed (in the attached literature review) have reported reduced air pollution associated with improved health outcomes, which supports a causal association.

The methodological difficulties involved in evaluating the health outcomes due to improved air quality at a population level mean that a scarcity of high-quality evidence is likely to be due to challenges in methodology, rather than lack of effect.

At a regional level, it is difficult to explore the relationship between health outcomes and air quality – this is partly due to the complexities noted above (e.g. other factors driving change in health outcomes) and also to relatively small numbers – both aspects limit the interpretability of the data.

APPENDIX 1

Improved Air Quality and Health Outcomes Literature Review



Prepared by the Information Team, Community & Public Health, CDHB May 2018



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Improved air quality and health outcomes

Executive Summary

The association between air pollution and adverse health effects is well established, particularly in relation to adverse respiratory health outcomes (Boogaard et al., 2013; Holgate, 2017; Kuschel et al., 2012). It is vital to improve air quality as much as possible, since there is no air pollution level below which there is no harm to health (The Lancet, 2013; World Health Organization, 2005).

Air quality interventions and policies improve air quality (Benmarhnia et al., 2014). Additionally they should endeavour to reduce health inequalities (Benmarhnia et al., 2014; Marmot et al., 2008) as young children, the elderly, people suffering from respiratory and cardiovascular disease, and those who are socioeconomically disadvantaged, have a greater risk of poor health outcomes related to air pollution (Environment Canterbury Regional Council, 2017; J. R. Pearce, Kingham, & Zawar-Reza, 2006; Richardson, Pearce, & Kingham, 2011). Air quality interventions require evaluation and monitoring for effectiveness, for example, by using population-level health data, or modelling predicted effects of future interventions. This can facilitate a better understanding of the health benefits of cleaner air and identify the most effective interventions (van Erp, O'Keefe, Cohen, & Warren, 2008; Yinon & Thurston, 2017).

There are methodological challenges associated with demonstrating that improved air quality improves health, due to complex and interacting factors that affect both air quality and health. Accurately determining people's exposure to air pollution is challenging due to geographically varying air pollution levels and people's constant movement, although geospatial technology may allow more accurate classification of people's exposure levels in the future (Epton et al., 2008; Richardson et al., 2011). Using computer models to predict air pollution exposure can be limited by the accuracy of the model and may be less accurate than using data from real people (Cox, 2017).

Accurate and high quality routine health data are required to assign health outcomes in air quality studies precisely, however there are many challenges associated with attaining good quality routinely collected health data, especially for milder symptoms (Mindell & Joffe, 2004). It is also important that the background frequency of disease is accurate in the populations being studied (Kunzli, 2002). Furthermore, conducting studies over long periods of time means that it can be difficult to determine whether trends in health outcomes are due to background trends, temporal trends, or changes in air quality (van Erp, Kelly, Demerjian, Pope, & Cohen, 2011). There are also a number of interacting factors that can potentially reduce the quality of studies into air pollution and health outcomes unless they are properly accounted for, such as, temperature, weather conditions, indoor air pollution, health care services, socioeconomic status and smoking (Correia et al., 2013; Epton et al., 2008; Hales, Blakely, & Woodward, 2012; Richardson et al., 2011; Strak et al., 2017). Consequently the challenges in methodology are likely to limit the quantity of high quality studies regarding air quality and health outcomes.

An association between an exposure and an outcome does not necessarily mean that the exposure caused the outcome. The likelihood of the association being causal is commonly assessed against criteria described by Bradford-Hill (1965). Despite methodological limitations and heterogeneity between studies, and although it is difficult to quantify causality, many of the criteria that support a causal association between reduced air pollution and improved health outcomes are demonstrated by the air quality literature. For example, there is evidence of a **dose-response relationship** between air quality and morbidity and mortality. Similarly, studies have demonstrated **temporality**, with air quality improvements preceding improvement in health outcomes.

There is **consistency** across studies that demonstrate that reduced air pollution is associated with improved health, and the criterion of **experiment** is also addressed by studies that demonstrate that removal of

harmful exposure results in reduction of negative outcome. The **strength of association** described in these studies may not be large (Boogaard et al., 2013), which is less supportive of causality, although determining what constitutes a strong association is often challenging. New Zealand studies that demonstrate that air pollution has detrimental health consequences, demonstrate **coherence** with pre-existing studies in this area (Epton et al., 2008; Hales et al., 2012). Due to the multiple factors that interact with air quality and affect health outcomes, the **specificity** of the relationship between exposure and outcome is more difficult to demonstrate. However sensitivity and multiple regression analysis can help to determine that the changes in health outcomes are attributable to changes in air quality rather than other factors, but this remains a challenging area for air quality research. Lastly **biologically plausible** mechanisms have been proposed to explain the health effects of air pollution, which also supports a causal association.

Further high-quality evidence and evaluation of the effects of air quality on health outcomes and health equity will be useful to more clearly demonstrate a causal association and continue to advance air quality policy. In addition to health benefits discussed in this literature review, reducing fossil fuel combustion will contribute to mitigating climate change and its associated health impacts (Kunzli, 2002), and air quality interventions will have indirect beneficial health impacts such as increased active travel (Mindell & Joffe, 2004). Thus there are many public health arguments for advocating for clean air.

Purpose

The purpose of the literature review is to inform discussion regarding air quality and health outcomes.

Search Methods and Limitations of this review

Literature on air quality and health outcomes was searched using Google Scholar and Ovid Medline search engines using key words air quality, air pollution, clean air, causality, evaluation, health outcome and benefits. Author searches included Simon Kingham, Simon Hales, Jamie Pearce, Susann Henschel, Annemoon van Erp. Reference lists were also reviewed for further relevant articles. This review is not comprehensive or systematic, as it has been carried out in a limited time frame and is limited to literature readily available to the Canterbury District Health Board. Due to the limited amount of literature on improved air quality and health outcomes and the longitudinal nature of some of the epidemiological studies, some of the studies reviewed are older than 10 years. New Zealand literature on the health outcomes of improved air quality is limited, therefore international evidence evaluating improved air quality has been reviewed, together with some New Zealand literature on health outcomes and air pollution. It is unknown whether or to what extent publication bias affects air quality literature. For example, if more studies with positive findings are published, this would exaggerate the consistency of studies.

Background

Clean air is considered to be a basic requirement of human health and wellbeing and air pollution is an important risk factor for morbidity and mortality (World Health Organization, 2005). For example the Lancet reports that air pollution was responsible for 6·4 million deaths worldwide in 2015 (Landrigan, 2017). Although there are international and local recommended guidelines for air pollution levels, there is no air pollution level below which there is no harm to health, therefore it is important to aim for air pollution levels to be as low as possible (The Lancet, 2013; World Health Organization, 2005).

In New Zealand, although levels of pollution are low by international standards (Hales et al., 2012), some towns and cities have significant air pollution problems (Canterbury District Health Board, 2012). The main sources of urban air pollution are home heating, motor vehicle emissions and industrial emissions (Canterbury District Health Board, 2012; Environment Canterbury Regional Council, 2017; Hales et al., 2012). Burning wood for home heating in winter is estimated to be responsible for 67% of PM10 emissions in Christchurch (Canterbury District Health Board, 2014).

The Canterbury Air Regional Plan reports that particulate matter (PM) is the air pollutant of greatest concern in Canterbury and most of New Zealand. Particulate matter is described by reference to size: PM10 comprises particles less than 10 microns, while PM2.5 particles have a diameter less than 2.5 microns (Environment Canterbury Regional Council, 2017). Under Resource Management Regulations 2004 (National Environmental Standards for Air Quality), regional councils in New Zealand are required to monitor PM10 and publicly report when the short-term average 24-hour levels exceed 50 micrograms per cubic metre of air (50 μ g/m³) on more than one day per annum. The long term PM10 target is an annual mean of 20 μ g/m³ (Environment Canterbury Regional Council, 2017). The Canterbury Air Regional Plan suggests that in addition to PM10 targets, targets for PM2.5 are being considered to bring New Zealand in line with international and World Health Organization (WHO) guidelines (Environment Canterbury Regional Council, 2017). Fine particles are thought to remain suspended in the air for longer, travel larger distances, and penetrate the lungs more deeply (Burns et al., 2014).

In addition to setting targets for air quality, the National Environmental Standards for Air Quality include regulations such as prohibition of outdoor waste burning; set air quality limits for various contaminants in polluted urban areas termed airsheds; require regional councils to monitor PM10 levels in airsheds and decline resource consents where PM10 limits will be exceeded; regulate the discharge of various chemical contaminants in airsheds; set standards for domestic wood burners; and prohibit domestic open fires in airsheds.

It is important that public health air quality interventions are evaluated, to monitor for effectiveness and make improvements if required (van Erp et al., 2008). Effectiveness can be investigated by measuring outcomes of actions already taken, by using population level health data, or modelling or estimating predicted effects of potential interventions (van Erp et al., 2008). Evaluating the extent to which interventions are meeting their goals is sometimes termed accountability (van Erp et al., 2008). Additionally, a better understanding of the health benefits of cleaner air is predicted to help identify the type of reductions that are the most effective (Yinon & Thurston, 2017).

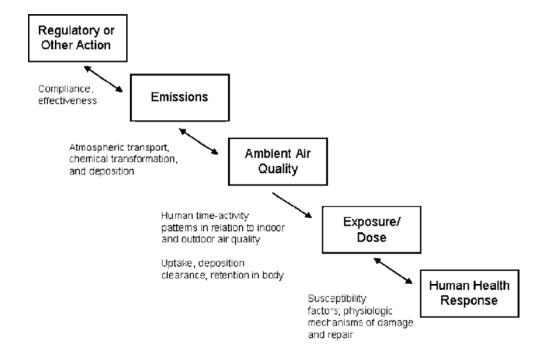


FIG. 1. Chain of accountability (from van Erp et al., 2008). Each box indicates a link between regulatory action and human health response to air pollution, with connecting arrows showing the links and possible directions of influence. Regulation of each stage can be improved by acting on information from accountability assessment. (Adapted from HEI, 2003.)

There is an unequivocal link between air pollution and health, with a large body of literature describing the adverse health outcomes of air pollution (Boogaard et al., 2013; Holgate, 2017), particularly adverse respiratory health outcomes, in children, the elderly, and healthy populations (Boogaard et al., 2013). However, some specific associations, such as for Chronic Obstructive Pulmonary Disease (COPD), are still being debated (Benmarhnia et al., 2014; Schikowski et al., 2014).

Comprehensive systematic reviews of existing studies have mainly found that air pollution interventions including legislative change have led to improved air quality, but there have been very few studies (including interventional studies) into the beneficial health effects of improved air quality (Benmarhnia et al., 2014; Boogaard et al., 2013; Henschel et al., 2012) and any potential differences between different populations or geographical areas (Benmarhnia et al., 2014). Much of the evidence of health benefits is sourced from cross-sectional and cohort studies describing associations between air pollution and health (Boogaard et al., 2013). A limitation of the observational design of such studies is that they do not control exposure and can only measure and adjust for known confounding factors², thus they may have residual confounding (Rich, 2017). Interventional studies (where the exposure is altered, making it possible to study the effect of this change) add validation to observational studies and are better able to determine causality (Henschel et al., 2012). Some health impact assessments of air pollution reduction policies have depended on observational studies and assumptions that reverse causality will apply, that is, that improving air quality will improve health outcomes (Boogaard et al., 2013).

The 2012 Updated Health and Air Pollution in New Zealand Study (HAPINZ) used statistics from 2006 to estimate the health impacts and social costs associated with PM10 air pollution in New Zealand. The study estimated that the main health impacts from air pollution each year are 1,175 premature deaths in adults and babies, 607 additional hospital admissions for respiratory and cardiac illnesses, and 1.49 million restricted activity days (Kuschel et al., 2012).

The importance of equity

It is important to consider equity when evaluating health outcomes of interventions such as improving air quality. It is essential to measure the impact of an intervention on health disparities, not just average health, as average health may improve but the gap between different groups within populations may be worsening or exacerbating existing inequalities (Benmarhnia et al., 2014; Marmot et al., 2008).

A systematic review by Benmarhnia et al. (2014) found that six of the eight studies reviewed demonstrated a positive effect on equity; all used a partial or complete simulation design. The two remaining studies, both observational studies, found some potentially inequitable health outcomes. For example, Cesaroni et al. (2012) found that the wealthiest benefited the most from an improved air quality intervention in Rome, and Clancy (2002) found that elderly people benefited the least from the Dublin coal ban (Benmarhnia et al., 2014).

Additionally, other consequences of air quality regulations need to be considered as there could be adverse health outcomes associated with fuel poverty and cold houses. Fuel poverty is thought to contribute to New Zealand's high rates of excess winter mortality. Respiratory and cardiovascular health can be adversely

- risk factors for the outcome, independent of the exposure
- associated with the exposure under study in the source population.
- not an intermediary between exposure and outcome, i.e. not on the causal pathway (Webb & Bain, 2011)

¹ Observational studies such as case-control and cohort studies do not include intervention. Changes in health status in relation to changes in other characteristics, such as air pollution, are simply observed and recorded (Porta, 2016).

² Confounding factors can introduce bias when measuring the effect of an exposure on an outcome, due to the association of the exposure with other factors that influence the outcome (Porta, 2016). Confounders are:

affected by exposure to cold temperatures. Fuel poverty and living in a cold house can cause stress and worsen mental health (Canterbury District Health Board, 2014). These issues will require support and incentives for landlords to provide less polluting, more affordable heating and insulation (Canterbury District Health Board, 2014).

Vulnerable populations

People who are most at risk from particulate matter air pollution are young children, the elderly, and people suffering from respiratory and cardiovascular disease (Environment Canterbury Regional Council, 2017). For example, a Christchurch study found high pollution days were associated with significant changes in lung function in students with asthma but not students without asthma (Epton et al., 2008).

International literature describes worse health outcomes, such as cardiovascular disease, respiratory disease and lung cancer, related to air pollution for populations with low socio-economic status (J. R. Pearce et al., 2006; Richardson et al., 2011). This observation has been linked to disproportionate exposure of low socioeconomic status populations to polluted environments and/or increased susceptibility to these environments due to pre-existing health conditions and inequitable access to health care (Richardson et al., 2011). For example, Pearce et al.'s (2006) study found higher mean annual pollution levels in areas of high deprivation. However, Richardson found health inequalities related to air pollution to be less prominent in New Zealand, compared to the UK, noting an increase in socio-economic inequalities in the most polluted communities but which did not meet statistical significance (Richardson et al., 2011). The authors suggested health inequalities in New Zealand may be associated with other factors such as poverty and poor housing, rather than air pollution (Richardson et al., 2011).

Pearce et al. (2011) reported UK residents of socially disadvantaged areas facing higher levels of multiple physical environmental deprivation, which included combined area-level data on the relative levels of exposure to air pollution, cold climate, industrial facilities, green space, and UVB radiation. The authors applied their Multiple Environmental Deprivation Index in New Zealand and found that although neighbourhoods with higher levels of multiple environmental deprivation tended to have greater social disadvantage, this association was not linear. There was a modest positive association between environmental deprivation and adverse health outcomes relative to the influence of socioeconomic deprivation (J. R. Pearce et al., 2011).

In a New Zealand cohort study, increased PM10 pollution levels were associated with higher odds of adult all-cause mortality, although associations were greater for respiratory and lung cancer deaths. There was a non-significant difference between all-cause mortality rates for Europeans 7% (95% confidence interval 3% to 10%) and Māori 20% (95% confidence interval 7% to 33%) (Hales et al., 2012). The cohort study did not determine the reason for the differences but hypothesised it may be due to differences in co-morbidities, or that the study was limited by the relatively small Māori population (Hales et al., 2012).

Challenges to answering this question

Methodological limitations

Prior to determining causality, internal and external validity³ of a study must be robust (Lucas & McMichael, 2005) thus methodological limitations should be considered to ensure chance, bias and confounding are not substantially affecting the results.

Exposure classification

Accurate assessment of pollution exposure in health outcome studies is extremely important (Epton et al., 2008). Potential misclassification of air pollution exposure was a limitation and potential source of bias in some of the studies reviewed (Hales et al., 2012; Kunzli, 2002; Rich, 2017). Exposure misclassification can occur when pollution exposure is variable across a region but limited air pollution monitoring means people with different exposures are recorded as having the same exposure (Rich, 2017). Population movement makes measuring exposure difficult because people's exposure changes frequently over both short and long time frames, for example traveling to work or school and time spent indoors (Epton et al., 2008; Richardson et al., 2011). In addition it is difficult to obtain accurate longitudinal measurements from large groups of people because accurate measurement using personal exposure monitoring is expensive and logistically difficult (Epton et al., 2008). Therefore air pollution exposure monitoring is challenging to implement at a population level, although future developments in geospatial technology may change this. Additionally choosing a reference level of air pollution is difficult since there is no threshold effect, so ideally the reference would be zero air pollution, but in reality an acceptable reference level is established (Kunzli, 2002).

Air pollution is a mixture of pollutants. It is artificial to analyse pollutants separately, as surrogate markers of air pollution may underestimate the benefits of reduction of all pollutants, but combining the effects of all pollutants will overestimate the total benefit (Kunzli, 2002). Different air pollutants are linked and react in different ways, for example sulphur dioxide can react with the atmosphere and form secondary PM2.5 (Yinon & Thurston, 2017). Thus it is important to consider how to accurately incorporate a combination of air pollutants when studying the health effects of air pollution.

Many of the studies reviewed used modelled pollution exposures rather than measured pollution exposures (Mindell & Joffe, 2004), thus the model accuracy may limit the internal validity of studies if models are not validated (Richardson et al., 2011). Also, computer-based models may not predict real world outcomes and have the potential for modelling bias (Cox, 2017). Thus, it is important that computer regression models that adjust for confounding factors document the systematic methods used in a rigorous and transparent way to demonstrate they are not biased (Cox, 2017).

Outcome classification

Another challenge is investigating health outcomes that are directly attributable to air pollution exposure (van Erp et al., 2008). High quality routine health data is essential to ensure validity of health outcome data (Rich, 2017). Studies were limited by health data available to them, such as a lack of data regarding common milder disease symptoms, particularly respiratory symptoms, which would be useful to determine

³ Internal validity is extent to which a study is free from bias or error. External validity is the degree to which a study can be generalised to populations that were not part of the study (Porta, 2016).

health effects of air pollution (Mindell & Joffe, 2004). In addition it is important that the background frequency of disease is accurate in the populations being studied (Kunzli, 2002).

Mindell comments that it is important to consider how outcomes of studies are framed as 'the number of deaths or hospital admissions affected by the proposed reduction in air pollution is small compared with the total that is attributable to particulate air pollution. Attribution of a quantified burden of disease to a particular risk factor is quite different from quantifying the achievable health gain for a specified policy or target' (Mindell & Joffe, 2004). Additionally heterogeneity of study populations and methods makes comparison of different interventions difficult and may account for variation in results (Henschel et al., 2012).

It is difficult to determine whether trends are due to background trends, temporal trends, or changes in air quality (van Erp et al., 2011). Control populations may help with this (Cox, 2017), but there are challenges with finding suitable control populations (Yinon & Thurston, 2017). This was demonstrated when Clancy's study into the Dublin coal bans was reanalysed a decade later using a control population. It was found that although reductions in respiratory mortality persisted, reductions in total and cardiovascular mortality were associated with temporal trends rather than the coal bans (Cox, 2017; Dockery et al., 2013).

Confounding and moderating factors

Temperature and weather conditions have the potential to confound the health effects of air pollution because temperature is connected with air pollution and mortality, independently of air pollution (Hales et al., 2012). Temperature and indoor air pollution both affect respiratory function and symptoms (Epton et al., 2008), and thus need to be accounted for in air quality studies.

Health care services can affect health outcomes independently of an air quality intervention (Correia et al., 2013). Benmarhnia describes more hospital admissions for elderly people after an air quality intervention, but a reduction in mortality for that age group, thus demonstrating how health care services may be a moderating⁴ factor (Benmarhnia et al., 2014).

Smoking is an important confounding factor that should be adjusted for (Epton et al., 2008; Strak et al., 2017). Richardson found that, during multivariate analysis, smoking and socio-economic status by census area increased respiratory mortality to a greater degree than (PM10) air pollution did. However when they adjusted for these variables this only slightly reduced the risk attributable to PM10, suggesting that the association of respiratory mortality with PM10 levels was not due to confounding by these factors (Richardson et al., 2011). However it is important to examine possible confounding factors to determine whether the confounding factor or the exposure is causing the effect.

Influenza epidemics require consideration. Campbell et al adjusted for influenza epidemics (Campbell & Tobias, 2000), whereas Yinon did not (Yinon & Thurston, 2017) citing Braga, that influenza epidemics do not cause confounding and thus do not need to be adjusted for in computer modelling (Braga, Zanobetti, & Schwartz, 2000).

In addition, factors such as health-related behaviours (including alcohol consumption and physical activity) or adequate housing may also confound results (J. R. Pearce et al., 2011). It is important that individual lifestyle-related risk factors are accounted for in the analysis. For example, a Dutch study found that

⁴ A moderating variable affects the direction and/or strength of the relationship between an independent variable and a dependent variable thus modifies the way in which the exposure and the disease are related (Baron & Kenny, 1986).

smoking and alcohol consumption were slightly positively associated with long-term exposure to air pollution, and physical activity and overweight were slightly negatively associated with air pollution. Despite the small associations, indirect adjustment for confounding by these factors resulted in considerable changes of air pollution risk estimates for cardiovascular and especially lung cancer mortality (Strak et al., 2017). Despite the measures taken by studies to address confounding there is still potential for omitted or unknown (residual) confounding (Cox, 2017; Rich, 2017; Yinon & Thurston, 2017).

Causality

An association between exposure and outcome does not necessarily mean that the exposure caused the outcome. Cox (2017) cautions not to conflate association and causality, for example associations do not predict results of changes in exposure unless the association is causal. Assessing causality using criteria is based on interpretation rather than an absolute proof, and is complicated in epidemiological research because of complex interrelated or interacting factors that influence the risk of disease (Lucas & McMichael, 2005). Factors that support causal associations were described by Bradford-Hill (1965) as strength of the relationship, consistency of findings, temporality, dose response, a plausible biomedical theory, specificity, coherence with pre-existing knowledge, experiment proves the hypothesis, and analogy with other classes of exposure.

The literature describes aspects that support a causal association between reductions in air pollution and benefits to human health. There is evidence that there is a **dose response** pertaining to both. That is, higher pollution levels cause greater mortality (Hales et al., 2012; Mindell & Joffe, 2004; Richardson et al., 2011; World Health Organization, 2005), and the largest reductions in air pollution cause the greatest health benefits (Boogaard et al., 2013). For example, a study in the Netherlands that measured respiratory function after a reduction in air pollution found that improvements in respiratory function were only demonstrated for the small population on the street with the biggest reduction in air pollution and when this street was removed from the analysis, the improvements in respiratory function mostly disappeared (Boogaard et al., 2013). Although the strength of association in this study is not particularly high, the results demonstrate a dose response to improved air quality.

The exposure must precede the outcome for a causal association to be established; this is termed temporality (Lucas & McMichael, 2005). For example, pollution and mortality data from Barcelona from 1986 to 1995 were analysed using regression models, adjusted for temperature, seasonality, influenza epidemics, and days of the week. The results showed a lag time between mortality and air pollution exposure. The lag time was 4 days for sulphur dioxide and black smoke, 3 days for nitrogen oxide and 1 day for ozone. This analysis contributes towards proving causality as it demonstrates that the exposure occurred before the outcome (Campbell & Tobias, 2000). In addition, a study in three Israeli cities used Interrupted Time Series (ITS), which uses data collected before and after an intervention to detect whether the intervention has an effect on health significantly greater than temporal trends, to demonstrate that reductions in air pollution over 2002-2011 were associated with statistically significant reductions in cardiovascular mortality (Yinon & Thurston, 2017) and so demonstrated temporality. The models controlled for temporal trends, using mortality data in a reference population, and temperature including a temperature lag of 1-3 days (Yinon & Thurston, 2017).

The main factor that supports a causal association between reduced air pollution and improved health outcomes that is apparent from the literature is the **consistency** of the results of the studies: that reduced air pollution was associated with health benefits, despite methodological limitations (Boogaard et al., 2013;

Correia et al., 2013; Henschel et al., 2012; Kunzli, 2002; Mindell & Joffe, 2004; Rich, 2017; Yinon & Thurston, 2017). Six of the eight studies reviewed by Benmarhnia recorded a reduction in mortality and three studies estimated an improvement in respiratory health (Benmarhnia et al., 2014). Studies that demonstrate health benefits associated with reductions in air pollution (Boogaard et al., 2013) contribute to the **experiment** part of Bradford Hill's causality criteria, whereby removal of harmful exposure results in reduction of negative outcome. The **strength of association** described in these studies was not always large (Boogaard et al., 2013), although determining what constitutes a strong association is often challenging.

Several **biologically plausible** mechanisms have been proposed to explain the health effects of air pollution, related to complex interactions between multiple pathways within the lungs, heart, blood, vasculature and brain (Burns et al., 2014). The biological mechanism for adverse health effects of PM2.5 are known to include pulmonary and oxidative stress and inflammation, progression of atherosclerosis and altered cardiac autonomic function (Yinon & Thurston, 2017). The biological explanation for reduced cardiovascular mortality associated with reductions in sulphur dioxide air pollution is unknown (Yinon & Thurston, 2017).

The New Zealand studies included in this review have not evaluated improvements in air pollution, but they add to the evidence that air pollution has detrimental health consequences, demonstrating **coherence** with pre-existing knowledge. A New Zealand cohort study of 3,732,000 people, using 1996 census data, found that higher rates of all-cause mortality were associated with increases in PM10 air pollution exposure, demonstrating a dose response relationship and stronger associations for respiratory and lung cancer deaths (Hales et al., 2012). However, this study was limited by likely misclassification of air pollution (PM10) exposure, as predicting factors for air pollution based on atmospheric dispersion modelling results for Christchurch were used rather than atmospheric dispersion modelling for the whole country (Hales et al., 2012). Another New Zealand study looked at wood smoke particulate air pollution and the respiratory function of 93 school students (26 with asthma) in Christchurch in winter. High pollution days were associated with small but statistically significant effects on lung function in students with asthma but not students without asthma. High pollution days were associated with a slight increase in the proportion of students reporting cough the same day (Epton et al., 2008).

Due to the multiple factors that interact with air quality and affect health outcomes, **specificity** of the relationship between the exposure and outcome measures is more difficult to demonstrate. Sensitivity and multiple regression analysis can help to determine that the changes in health outcomes are attributable to changes in air quality rather than other factors, but this remains a challenging area for air quality research.

Considerations for future research

Further research and standardising guidance regarding air pollution exposure measures would be useful. For high-quality health impact assessments and evaluations of air quality interventions, good data is necessary for both outcome and exposure measures. A standardised approach to evaluating air quality interventions including guidelines on time frames, methodologies, pollution monitoring networks and health outcomes would aid comparison of different interventions and their health outcomes (Henschel et al., 2012). Many existing studies are based on computer modelled data, whereas for accurate health impact assessment, systematic air pollution monitoring is required (Kunzli, 2002).

If designing a study to evaluate the impact of clean air on health outcomes, it would be useful to choose outcome measures that measure wellbeing and positive measures of health (Mindell & Joffe, 2004). These measures may include other health benefits of clean air such as the mental health benefits of reduced

emissions, noise or other co-benefits of air policies, and the health benefits of increasing active transport (Mindell & Joffe, 2004). Including suitable health data related to milder disease symptoms, such as respiratory symptoms, may be useful as mild disease is more prevalent and affects quality of life and wellbeing (Mindell & Joffe, 2004). This will require good quality routine data, including data from primary care, which presents a further challenge (Mindell & Joffe, 2004). It is likely to be useful to categorise health conditions and groups vulnerable to air pollution in future studies to measure the impact on vulnerable populations to monitor health equity (Benmarhnia et al., 2014).

Summary

The association between air pollution and health is widely published and accepted, with air pollution associated with mortality and morbidity both globally and locally. It is important to consider the effectiveness, in terms of improved health outcomes, of interventions to improve air quality. However ascribing causality to the association between improved air quality and better health is more difficult, due to the innate complexities of ecological research⁵. Studies into air quality in health must overcome a range of methodological challenges, including misclassified or poor-quality exposure and outcome measures and a number of potential confounding and moderating factors such as smoking, climate, health care service, health behaviours, and the health of the population being studied. Due to the longitudinal nature of these studies, temporal factors that change over time in society also need to be accounted for. Despite the many methodological limitations within individual studies and heterogeneity between studies, most of the studies reviewed have consistently reported reduced air pollution associated with improved health outcomes, which supports a causal association.

Although evidence-based practice and policy is of paramount importance when assessing public health interventions, a lack of evidence does not necessarily mean that an intervention is not beneficial (Rychetnik, Frommer, Hawe, & Shiell, 2002) or that the precautionary principle⁶ cannot be used (Kunzli, 2002). For example, the methodological difficulties involved in evaluating the health outcomes due to improved air quality at a population level mean that a scarcity of high quality evidence is likely to be due to challenges in methodology rather than lack of effect.

Further high-quality evidence and evaluation of the effects of air quality on health equity will be useful to more clearly demonstrate a causal association and continue to advance air quality policy. In addition to health benefits discussed in this literature review, reducing fossil fuel combustion will contribute to mitigating climate change and the associated health impacts (Kunzli, 2002), and air quality interventions will have indirect beneficial health impacts such as increased active travel (Mindell & Joffe, 2004). Thus there are many public health arguments for advocating for clean air.

⁵ Ecological studies compare diseases in populations rather than individuals (Webb & Bain, 2011)

⁶ The precautionary principle advocates that action should be taken to prevent harm even if there is some uncertainty regarding the cause and effect of relationships (N. Pearce, 2004)

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WORKPLAN FOR CPH&DSAC 2018 (WORKING DOCUMENT)

	3 May 2018	5 July 2018	30 August 2018	1 November 2018
Standing Items	Interest Register Confirmation of Minutes Our People	Interest Register Confirmation of Minutes Our People	Interest Register Confirmation of Minutes Our People	Interest Register Confirmation of Minutes
Standard Monitoring Reports	Planning and Funding Exception Report Community and Public Health Exception Report	Planning and Funding Exception Report Community and Public Health Exception Report	Planning and Funding Exception Report Community and Public Health Exception Report	Planning and Funding Exception Report Community and Public Health Exception Report Maori & Pacific Health Progress Report
Planned Items	Step-Up Programme Update Equally Well Programme Update Disability Steering Group Update Mental Health/Intellectual Disability – Presentation Draft CDHB Public Health Plan Pacific Health in Canterbury – Presentation Oral Health Update – Presentation Alcohol Update – Presentation	CDHB Workforce Update Canterbury Accessibility Charter – Accessibility Working Group Disability System Transformation Hurunui Health Services	Transalpine Strategic Disability Action Plan Update Community & Public Health Update – Disability Sector Social Workers Report on Hoarding Behaviours – Presentation Alcohol Update – Presentation Hurunui – Kalkoura Earthquake Recovery Update Oxford Model of Care Update Community & Public Health Early Childhood Focus/Activities Update	Sugar-Sweetened Beverages – A Position Paper Hauora Alliance – Presentation Canterbury Wellbeing Index Update – Presentation CDHB Workforce Update Disability Steering Group Update
Governance and Secretariat Issues		MEETING CANCELLED		
only items	CPH&DSAC Terms of Reference Disability Steering Group Minutes Influenza Vaccination in Children/Young People Drinking Water in Canterbury Healthy Homes – Investing in Outcomes Report Health Target Q2 Report CCN Q2 2017/18	Disability Steering Group Minutes ASH Year 10 Snapshot Survey 2017 Healthy Food & Drink Policy for Organisations Health Target Q3 Report CCN Q3 2017/18 2018 Workplan	Disability Steering Group Minutes – June Disability Steering Group Terms of Reference Disabled Persons Assembly New Zealand August/September 2018 Newsletter Drinking Water Compliance Report – 2016/17 MoH Findings (emailed to members) CPH End of Year Report to MoH CCN Q4 2017/18 2019 Meeting Schedule 2018 Workplan	Disability Steering Group Minutes – Jul & Aug 18 Health Target Q4 Report Air Quality Monitoring/Respiratory Illness Data 2018 Workplan

- 2019 Workplan Items:

 * CAAP Update

 * Oxford Model of Care Update

 * Healthy Christchurch Seminars Update

 * Terms of Reference Review

 * Psychosocial Recovery, Monitoring and Wellbeing

 * Child & Youth Workstream Update