CAPITAL & COAST DISTRICT HEALTH BOARD

Community Public Health Advisory Committee

12 FEBRUARY 2018

6th Floor Conference Room, Grace Neill Block, Wellington Regional Hospital, Riddiford Street, Wellington, 9.30am to 11.15am.

	ITEM	ACTION	PRESENTER	MIN	TIME	PG
1	**PROCEDURAL BUSINESS**				9.30pm	
1.1	Karakia					
1.2	Apologies	**Record**	F Wilde			
1.3	Continuous Disclosure - Interest Register - Conflicts of Interest	 **Confirm** **Accept**	 F Wilde F Wilde			3
1.4	Confirmation of Draft Minutes 17 November 2017	**Approve**	F Wilde			7
1.5	Matters Arising 1.5.1 Implementation of a tax on sugar-sweetened beverages 1.5.2 National Bowel Screening Programme (NBSP) Roll-out 1.5.3 DRAFT Update on Community Water Fluoridation (CWF)	**Endorse**	F Wilde			13
2	**PRESENTATIONS**					
2.1	Analytical Insights from Integrated Data • Mental health and wellbeing • Children and families	**Decision** **Presentation**	R Haggerty P Guthrie S Maclean T Wright		9.45am	20
3	**Discussion and Decision**					
3.1	Healthcare Home Update	**Discussion**	R Haggerty A Balram		10.30am	28
3.2	System Level Measures Update 3.2.1 System Level Measures Report 3.2.2 ICC SLM Dashboard – Q2	**Decision**	R Haggerty A Balram		10.45am	39
3.3	Performance Dashboard – Community Services for Older People 3.3.1 Presentation 3.3.2 InterRAI Data Visualisation	**Decision**	R Haggerty S Williams J Marment		11.00am	66
4	**FOR INFORMATION**					
4.1	National interRAI Data Analysis – Annual Report 2015/16	**Note**	S Williams			98

5 OTHER						
5.1	General Business	**Note**	F Wilde			
5.2	Resolution to exclude the public	**Note**	F Wilde		11.25am	178
DATE OF NEXT MEETING 16 APRIL 2018 – BOARDROOM, LEVEL 11, GRACE NEILL BLOCK, WELLINGTON REGIONAL HOSPITAL						

COMMUNITY & PUBLIC HEALTH COMMITTEE

Conflicts & Declarations of Interest Register

UPDATED AS AT JANUARY 2018

Name	Interest
Dame Fran Wilde *Chairperson*	• Ambassador Cancer Society Hope Fellowship • Chief Crown Negotiator Ngati Mutunga and Moriori Treaty of Waitangi Claims • Chair, Remuneration Authority • Chair Wellington Lifelines Group • Chair National Military Heritage Trust • Deputy Chair, Capital & Coast District Health Board • Deputy Chair NZ Transport Agency • Director Museum of NZ Te Papa Tongarewa • Director Frequency Projects Ltd • Member Whitireia-Weltec Council
Mr Andrew Blair *Member*	• Chair, Hutt Valley District Health Board (from 5 December 2016) • Advisor to the Board, Forte Health Limited, Christchurch • Owner and Director of Andrew Blair Consulting Limited, a Company which from time to time provides governance and advisory services to various businesses and organisations, include those in the health sector • Former Member of the Hawkes Bay District Health Board (2013-2016) • Former Chair, Cancer Control (2014-2015) • Former CEO Acurity Health Group Limited
Mr Roger Jarrold *Member*	• Member, Capital & Coast District Health Board • Chair, Capital & Coast DHB FRAC committee • Trustee, Auckland District Health Board Charitable Trust • Member, Finance and Risk Committee, Health Research Council • Past member, Ministry of Health Audit and Risk Committee (resigned 6 December 2013) • Requested to undertake some work at ADHB regarding cost management • CFO Fletcher Construction Division of Fletcher Building • Former employee of Downers Construction
Mr Darrin Sykes *Member*	• Member, Capital & Coast District Health Board • Deputy Chair, Capital & Coast District Health Board, FRAC committee • Trustee, Wellington Regional; Sports Education Trust (trading as Sports WellKim ington) • Member, Sport and Recreation New Zealand (trading as Sport NZ) • Chief Executive, Crown Forestry Rental Trust
Ms Sue Kedgley	• Member, Capital & Coast District Health Board

Name	Interest
Member	• Member, CCDHB CPHAC/DSAC committee • Member, Greater Wellington Regional Council • Member, Consumer New Zealand Board • Deputy Chair, Consumer New Zealand • Environment spokesperson and Chair of Environment committee, Wellington Regional Council • Step son works in middle management of Fletcher Steel • Holds shares in Fisher and Paykel Healthcare
Dr Roger Blakeley *Member*	• Member of Capital and Coast District Health Board • Deputy Chair, Wellington Regional Strategy Committee • Councillor, Greater Wellington Regional Council • Director, Port Investments Ltd • Director, Greater Wellington Rail Ltd • Economic Development and Infrastructure Portfolio Lead, Greater Wellington Regional Council • Member, Harkness Fellowships Trust Board • Independent Consultant • Brother-in-law is a medical doctor (anaesthetist), and niece is a medical doctor, both working in the health sector in Auckland • Son is Deputy Chief Executive (insights and Investment) of Ministry of Social Development, Wellington • Invited to join the Board of the Wesley Community Action Group.
Ms Kim Ngarimu *Member*	• Member of Capital and Coast District Health Board • Member, Medical Council of New Zealand (MCNZ) • Member, Māori Heritage Council • Board Member, Te Māngai Pāhō (Māori Broadcasting Agency) • Board Member Eastern Institute of Technology • Board Member Heritage New Zealand • Alternate Crown Trustee, Crown Forestry Rental Trust • Director, Taaua Ltd (Public policy and management consulting company) • Trustee, Judith and Taina Ngarimu Whānau Trust (has shareholdings in various health related companies – share acquisition and sale is independently managed)
Ms ‘Ana Coffey *Member*	• Member of Capital & Coast District Health Board • Councillor, Porirua City Council • Director, Dunstan Lake District Limited • Trustee, Whitireia Foundation • Brother is Team Coach for Pathways and Real Youth Counties Manukau District Health Board • Father is Acting Director in the Office for Disability Issues, Ministry of Social Development

Name	Interest
Ms Eileen Brown *Member*	• Member of Capital & Coast District Health Board • Board member (until Feb. 2017), Newtown Union Health Service Board • Employee of New Zealand Council of Trade Unions • Senior Policy Analyst at the Council of Trade Unions (CTU). CTU affiliated members include NZNO, PSA, E tū, ASMS, MERAS and First Union • Executive Committee Member of Healthcare Aotearoa.
Dr Kathryn Adams *Member*	• Member, Capital & Coast District Health Board • Fellow, College of Nurses Aotearoa (NZ) • Reviewer, Editorial Board, Nursing Praxis in New Zealand • School Nurse Vaccinator (casual) Regional Public Health, HVDHB • Workplace Health Assessments and seasonal influenza vaccinator, Artemis Health • Secretary, National Party Ohariu Electorate • Director, Agree Holdings Ltd, family owned small engineering business, Tokoroa
Ms Sue Driver *Member*	• Community representative, Australian and NZ College of Anaesthetists • Board Member of Kaibosh • Daughter, Policy Advisor, College of Physicians • Former Chair, Robinson Seismic (Base isolators, Wgtn Hospital) • Advisor to various NGOs
Mr Fa'amatuainu Tino Pereira *Member*	• Managing Director Niu Vision Group Ltd (NVG) • Chair 3DHB Sub-Regional Pacific Strategic Health Group (SPSHG) • Chair Pacific Business Trust • Chair Pacific Advisory Group (PAG) MSD • Chair Central Pacific Group (CPC) • Chair, Pasefika Healthy Home Trust • Establishment Chair Council of Pacific Collectives • Chair, Pacific Panel for Vulnerable Children • Member, 3DHB CPHAC/DSAC
Dr Tristram Ingham *Member*	• Senior Research Fellow, University of Otago Wellington • Member, Capital & Coast DHB Māori Partnership Board • Clinical Scientific Advisor & Chair Scientific Advisory Board – Asthma Foundation of NZ • Trustee, Wellhealth Trust PHO • Councillor at Large – National Council of the Muscular Dystrophy Association • Trustee, Neuromuscular Research Foundation Trust • Member, Wellington City Council Accessibility Advisory Group • Member, 3DHB Sub-Regional Disability Advisory Group • Professional Member – Royal Society of New Zealand • Member, Institute of Directors • Member, Health Research Council College of Experts • Member, European Respiratory Society • Member, Te Ohu Rata o Aotearoa (Māori Medical Practitioners Association)

Name	Interest
	• Director, Miramar Enterprises Limited (Property Investment Company) • Daughter, Employee of Hutt Valley based Māori provider (Tu Kotahi Māori Asthma Trust) • Wife, Research Fellow, University of Otago Wellington
Mr Bob Francis *Member*	• Chair, Masterton Medical Limited • Chair, Bromedical Services New Zealand Limited • Chair, Sub-Regional Disability Advisory Group • Chair, Pukata Mount Bruce • Chair, Wings over Wairarapa • Chair, Te Kauru Upper Ruamahanga River Management Plan

3DHB CPHAC/DSAC Meeting Minutes

DATE:	17 November 2017	**TIME:**	10am – 1pm
VENUE:	CSSB Lecture Room, Ground Floor Clinical & Support Services Building, Blair Street, Masterton		
PRESENT:	Dame Fran Wilde (Chair), Bob Francis, Derek Milne, Lisa Bridson, Prue Lamason, Ana Coffey, Yvette Grace, Sue Kedgley, Andrew Blair (from 11.30am), John Terris, Yvette Grace		
APOLOGIES:	Tino Pereira, Kim Smith, Sue Driver, Andrew Blair, Debbie Chin, Dr Tristram Ingram, Jane Hopkirk, Wayne Guppy, Alan Shirley,		
IN ATTENDANCE:	Ashley Bloomfield, Adri Isbister, Rachel Haggerty, Helene Carbonatto, Nigel Broom,		
PUBLIC	No members of public present.		
PRESENTERS	**Regional Child Oral Health:** Nicky Smith, Manager HVDHB Dr Nicky Fuge, Clinical Director HVDHB **Wairarapa Child Oral Health:** Lynette Field, Manager WDHB **Regional Public Health:** Peter Gush, Manager HVDHB **Regional Screening Update:** Lindsay Wilde, Manager HVDHB **Hutt Valley Wellbeing Approach:** Dr Peter Murray, Public Health Registrar HVDHB		

	Agenda Item	Discussion	Action Required And by Whom
1	PROCEDURAL BUSINESS		
1.1	**KARAKIA**	Yvette Grace led Karakia, Committee Chair, Dame Fran Wilde, welcomed members and DHB staff	
1.2	**APOLOGIES**	**Received** from Tino Pereira, Kim Smith, Sue Driver, Andrew Blair, Debbie Chin, Dr Tristram Ingram, Jane Hopkirk, Wayne Guppy, Alan Shirley,	
1.3	**INTEREST REGISTER**	Board members would note further conflicts	
1.4	**Confirmation of previous minutes**	Otherwise, minutes were accepted as true and correct. Moved **Derek Milne** seconded by **Lisa Bridson**	
1.5	**Matters arising**	No matters arising	
1.6	**Action points**	Note action point 2.3 – Equity Monitoring Indicators are transferred to local CPHACs in 2018 Note action 2.5 – Regional Public Health Updates are transferred to local CPHACs in 2018 Note 2.1 – Advanced Care Planning item is closed Note action 2.5 – Regional Public Health Updates is transferred to local CPHACs in 2018 Note action 2.3 – Aged Care Services Update are transferred to local CPHACs in 2018	

		Note 4.1 – Structure of CPHAC DSAC item is closed	
1.7	**Dissolution of 3DHB CPHAC/DSAC**	Noted that the 3DHBs have agreed the importance of meeting to discuss strategic issues and work together. Moved **Prue Lamason** and seconded **Lisa Bridson**	
1.8	**DSAC Meeting Schedule 2018**	Confirmed there will be a minimum of four meetings and they will consider Mental Health and Disability. CEs to ensure these meetings are resourced and supported to be effective.	Two meetings in Hutt Valley, one in Wellington and the December meeting in Wairarapa. **Director SIP**
2	**DISCUSSION**		
2.1	**Regional Child Oral Health** Nicky Smith, Manager HVDHB Dr Nicky Fuge, Clinical Director HVDHB	This services is for Hutt Valley and Capital & Coast communities. There was a highly informative briefing and presentation on oral health. The importance of data and ensuring that the data tables are read as opportunities for improvement. The discussion on oral health, programmes to support children and their families and fluoridation were widely discussed. It was identified that this information need to be discussed by the Boards of each DHB. It was identified that this would be the role of the District CPHACs. The Committee **NOTED** the approach to oral health.	
2.1a	**Wairarapa Child Oral Health** Lynette Field, Manager WDHB	The presentation and paper were well received. Discussion on tooth brushing pilots which were resource intensive for schools but had merit in improving oral health. There was also discussion on fluoridation and amalgam use. The Committee **NOTED** the approach to oral health.	

		The Committee to **RECOMMEND** to all three Boards that they write to the Minister of Health regarding introducing a tax on sugar-sweetened beverages (as per draft letter attached).	
2.2	**Regional Public Health Update** Peter Gush	The presentation and paper were well received. There was extensive discussion regarding the importance of these population health approaches particularly with the recent change in government. This included discussion on: • The impact of the environment on health and consideration of the impacts of climate change and diesel emissions. • The opportunities to target very poor quality housing to improve insulation, curtains and family understanding of how to keep their home healthy. These initiatives are supported through the Well Homes activity. Committee members noted other activities being supported in Porirua. • That there should be reconsideration of School Food Guidelines by this government and the importance of healthy eating for a wide range of reasons including oral health and obesity. • Consideration of the recommendations of the Lan Commission report on alcohol as an authoritative source for the CEs in considering the activities of Regional Public Health. • The role of the Health Promotion Agency in promoting messages regarding alcohol and population health messages was acknowledged. The importance of outcome data in understanding the impact of these population and public health initiatives. A communication is to be drafted for the new government. This would be developed by management across the three DHBs with expert input. It should reinforce the importance of health as an investment. This resolution will focus on:	A resolution is to be forwarded to each Board to endorse at the first meeting of 2018.

		• The importance of housing insulation and quality homes • Government approach to sugar tax/soft drinks	
2.2a	**Hutt Valley Wellbeing Approach** Dr Peter Murray, Public Health Registrar HVDHB	The Hutt Valley Wellbeing approach was presented by Dr Peter Murray. There was detailed discussion on the benefits of a wellbeing approach as the entry point to health. The discussion regarding the analysis of ambulatory sensitive hospital admissions (ASH) rates and matching data with other services had identified that these children were mostly immunised and frequently engaged with primary care. This strongly suggested that social determinants were major drivers in avoidable hospital use by children. It was noted that all of the DHBs should be taking a wellbeing approach, and it was noted by management that CCDHB and WDHB have their own wellbeing approaches. The Committee received the presentation.	
2.3	**Regional Screening Update** Lindsay Wilde, Manager HVDHB	The regional screening update was well received and included the breast and cervical screening programme. There was discussion regarding national and local results and the critical importance of equity. This included being more flexible and responsive to the ways in which our Maori and Pasifika communities prefer to receive services. The Committee **NOTED** the approach to screening services.	
3	**INFORMATION**		
3.1	**Bowel Cancer Screening Update**	The bowel screening update was well received with a particular focus on the approach to inequalities. The programme has been 'go live' since July 2017. Hutt Valley has seen 53 positive results from the tests returned with one with cancer and one with suspected cancer. It is too early for Wairarapa results to	

		be reported. Capital & Coast has not been advised when bowel screening will be implemented. The Committee **NOTED** the update.	
3.2	**Disability Strategy Implementation First Quarter Report** Bob Francis	Update on implementation of the 3DHB Disability Strategy was well received. There was particular interest in the Review of Footpath Accessibility at Masterton Hospital. Good progress being made on the co-design of an electronic Health Passport with the support of MoH and PWC consulting. It was also noted that it is International Day of Disabled People o 3 December 2017. Derek Milne was specifically delighted to see the Health Passport reach fruition. The Committee **NOTED** the update and quarterly report.	
4.0	**OTHER**		
4.1	**Healthy Ageing Strategy**	The Ministry of Health published 'Healthy Ageing Strategy' was attached for information for members as it was discussed at the September meeting. Members noted that it was an excellent strategy. There was considerable discussion on the activities of each DHB in responding to the strategy; the level of support from government and how policy makers are responding to the strategy. Committed members wanted to ensure that each Board monitored the strategy through their district CPHAC.	
	This is the final combined 3DHB meeting of CPHAC DSAC. The next 3DHB DSAC meeting is Monday 19 March.		

PUBLIC

Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	**CPHAC DECISION PAPER**
	Date: 8 February 2017

Author	Rachel Haggerty, Director – Strategy, Innovation & Performance
Endorsed by	Dr Ashley Bloomfield, Interim Chief Executive, Capital & Coast DHB
Subject	**Implementation of a tax on sugar-sweetened beverages as part of a suite of measures to improve child health especially child oral health**

RECOMMENDATION

It is **recommended** that CPHAC advises the Board it:

a) **Notes** at the 3DHB CPHAC meeting on 17 November 2017, the Committee recommend to all three Boards that they write to the Minister of Health

b) **Endorses** the draft Capital and Coast letter to the Minister of Health as attached

c) **Notes** Hutt Valley DHB endorsed and sent the letter in January 2018.

APPENDIX

1. **LETTER TO THE MINISTER OF HEALTH**

Capital & Coast
District Health Board
ŪPOKO KI TE URU HAUORA

February 2018

Hon. Dr David Clarke
Minister of Health
Private Bag 18041
Parliament Buildings
Wellington 6160

Email: david.clark@parliament.govt.nz

Dear Minister

Re: Implementation of a tax on sugar-sweetened beverages as part of a suite of measures to improve child health especially child oral health

I am writing in my capacity as Board chair of Capital and Coast District Health Board (and HVDHB) on behalf of the Board of CCDHB.

Our DHB has been concerned for some time now regarding the rising obesity rates amongst NZ children with a third of NZ children having an unhealthy weight, and over 10% being obese. For the first time in history, NZ children could live shorter lives than their parents as a result of excess weight and obesity.

You will also be aware that the obesity epidemic is socially patterned with Pacific, and Māori children and those from the most deprived neighbourhoods disproportionately bearing the burden of obesity. Obesity is a major cause of the spiralling demands and rising costs, straining our hospitals and health services. The risk factors related to obesity can lead to chronic disease and/or limit a person's ability to work or take part in family and community activities. Obesity also threatens our population's welfare and future economic prosperity.

As a DHB, our efforts and resources are predominantly at the adult treatment end, working with adults who already have well established lifestyle patterns which are hard to reverse. We also undertake work in the primary prevention space, supporting public health initiatives such as water in schools projects, and working with our Healthy Family's initiative which is making important strides in working with businesses and schools to encourage better environments for their staff and pupils. These are small scale but important investments.

However, the Board believes these efforts need to be supported by a far more proactive policy stance at a central government level, particularly regarding sugar-sweetened beverages (SSBs). There is now substantial evidence supporting the impact of a tax on reducing the consumption of SSBs and the benefits this will have on child health and particularly child oral health.

The World Health Organization (WHO) has recently stated there is clear evidence that taxes and subsidies influence purchasing behavior, and that this could be used to curb consumption of sugar-sweetened drinks and hence fight obesity and diabetes. WHO notes in a 2015 report titled *Fiscal Policies for Diet and Prevention of No communicable Diseases*, that if retail prices of sugar-sweetened drinks are increased by 20 percent through taxation, there will be proportional drop in consumption.

Capital & Coast DHB | Private Bag 7902, Newtown, Wellington 6242
Wellington Regional Hospital, Riddiford Street, Newtown, Wellington 6021
www.ccdhb.org.nz | Phone: 04 385 5999 | Fax: 04 385 5856

A SSB tax is supported by the NZ dental profession, with the NZ Dental Association and partner organisations' *Consensus Statement - Sugary Drinks* calling for a tax on SSBs consistent with the WHO guidelines. In addition, the Australian Medical Association has recently publicised its support for a tax on SSBs and urged the Australian Government to act (http://www.smh.com.au/federal-politics/political-news/advertising-banned-drinks-taxed-vending-machines-removed-doctors-plan-for-war-on-sugar-20180105-h0duw0.html).

At its February 2018 Board meeting, that Capital and Coast Board agreed to:

a) **Endorse** the introduction of a tax on sugar-sweetened beverages (SSBs);
b) **Write** to you and request that the Government move swiftly to implement a tax on SSBs, and strongly consider including artificially-sweetened beverages given that they are also harmful to oral health, as part of a wider set of measures to improve and protect child health;
c) **Communicate** this position publicly and practically support the Government to develop and implement such a tax.

I trust you will give this request serious consideration. I can assure you that the DHB will fully support you and the Government and please do get in touch if we can assist in any way.

Yours sincerely

Andrew Blair
Chair
Capital and Coast District Health Board

Capital & Coast DHB | Private Bag 7902, Wellington South
Wellington Hospital, Riddiford Street, Newtown, Wellington 6021
Phone: 04 385 5999 | Fax: 04 385 5856

MINISTRY OF HEALTH
MANATŪ HAUORA

133 Molesworth Street
PO Box 5013
Wellington 6140
New Zealand
T+64 4 496 2000

22 December 2017

Ashley Bloomfield
Acting Chief Executive
Capital Coast DHB

Email: Ashley.Bloomfield@ccdhb.org.nz

Dear Ashley

Re: National Bowel Screening Programme (NBSP) Roll-out

Further to my letters of 2 November 2016 and 31 August 2017 I would like to provide you with an update on National Bowel Screening Programme (NBSP) and the indicative roll out order.

The NBSP has achieved a number of key milestones this year including the set-up of the Regional Centres, the successful implementation at Hutt Valley and Wairarapa DHBs and the National Coordination Centre as well as the establishment of the Māori and Pacific networks. In addition significant progress has been made in the procurement process of the National Screening Solution (NSS) IT system.

As you are aware the Ministry has continued to assess the implementation timeline for the NBSP to ensure that the programme can be implemented safely. As a result of this Cabinet agreed on 20 December 2017 to extend the implementation timeframe by a further year to include the 2020/2021 financial year. This extension will provide some DHBs with more time to upgrade facilities, and improve their capacity to meet colonoscopy wait time indicators in advance of delivery. A final readiness assessment will also be carried out before DHBs can begin screening

The extended implementation timeframe means that the provisional start date range for your DHB has been revised from 2018/2019 to 2019/2020. The revised roll out order is attached as appendix one.

The revised starting timeframe means a change to when information to support the Ministry of Health Business Case needs to be provided. This will not be required in March 2018.

The NBSP team will be in contract with your team in the New Year to discuss this further.

We regret this news is being communicated so closely to the start of the Christmas holidays. We are committed to continuing to work with you and your team on a successful implementation.

If you have any concerns about the revised timeline for implementation please contact me on Jill_Lane @moh.govt.nz.

The Ministry will be closed over the Christmas and New Year period and will reopen on the 8 January 2018. If you need to contact the Ministry urgently during this period, please email me as above.

Yours sincerely,

P.P Jill Lane
Director, Service Commissioning

cc: Carey Virtue, Executive Director, Operations CCDHB
cc: Maree Pierce, NBSP Implementation Manager, Ministry of Health
cc: Nicola Holden, DHB Relationship Manager, Ministry of Health

Appendix 1: Revised roll out order for Implementation of NBSP

Year	DHBs	Month of go-live
2017/18	Waitemata Southern Counties Manukau	January 2018 April 2018 June 2018
2018/19	Nelson Marlborough Lakes Hawkes Bay Whanganui MidCentral	August 2018 September 2018 October 2018 May 2019 June 2019
2019/20- indicative, by alphabetical order	Auckland Canterbury Capital Coast South Canterbury Tairawhiti	To be confirmed
2020/21- indicative, by alphabetical order	Bay of Plenty Northland Taranaki Waikato West Coast	To be confirmed

MEMORANDUM

Regional Public Health
HAUORA Ā IWI KI TE ŪPOKO O TE IKA A MĀUI
Better health for the greater Wellington region

To:	Chief Executives, Capital & Coast, Hutt Valley and Wairarapa DHBs
From:	Peter Gush, Service Manager
Date:	2 February 2018

SUBJECT: DRAFT Update on Community Water Fluoridation (CWF)

Board Members have received an invitation to attend a community meeting later this month in Carterton; the key speaker is Prof Paul Connett from USA, an avid opponent of CWF who travels to NZ most summers to undertake speaking engagements on behalf of Fluoride Free NZ.

The second reading of the Health (Fluoridation of Drinking Water) Amendment Bill, as at 30 January, is listed at number 18 on Parliament's order paper. The Bill proposes the transfer of decision making to fluoridate water supplies from Territorial Local Authorities to District Health Boards; the Bill and it's progress through Parliament is available here . The Bill in its present form gives DHBs the ability, after consideration of the benefits and costs, to direct local authority drinking-water suppliers to add OR not to add fluoride to a drinking-water supply; in that sense it is about future decisions rather than ratifying policy decisions that have already been made.

In 2014 each of the three DHBs in the greater Wellington region adopted a Position Statement that endorses community water fluoridation as an effective public health measure contributing to the maintenance of oral health, prevention of tooth decay and reduction in health inequalities. More information regarding the safety and effectiveness of CWF is available at www.fluoridefacts.govt.nz/home including videos from NZ Health professionals speaking in support of CWF.

Keeping our communities healthy and well

In your home
GIVING PEOPLE BETTER CONTROL OF HEALTH SERVICES WHERE AND WHEN THEY NEED THEM

In your community
COMMUNITY HEALTH NETWORKS HELP PEOPLE ACCESS THE SERVICES THEY NEED

In your hospital
PROVIDING SPECIALIST SERVICES TO THOSE WHO NEED THEM THE MOST

MA TINI, MA MANO, KA RAPA TE WHAI – BY JOINING TOGETHER WE WILL SUCCEED

Capital & Coast
District Health Board

Mental Health and Addictions
Initial Data Analysis

Terry Smith (Strategy, Innovation & Performance – CCDHB)

David Todd, Josie Reynolds (Synergia)

Capital & Coast District Health Board

Mental health service users are high users of personal health services

Service	Individuals accessing	Number of activities	Average activities per individual accessing
PHO Consultations	273	6,428	23.5
ED Visits	258	1,068	4.1
IP Bed Nights (Non MH)	209	2,011	9.6
GP Scripts	224	4,382	19.6
OP Appointments	351	6,631	18.9
Primary Mental Health	16	29	1.8
Total	**635**	**45,421**	

Improving mental health & wellbeing can reduce demand for personal health services

Capital & Coast District Health Board

People who present to ED for Mental Health Issues who do not use Mental Health Services

The majority of these presentations were alcohol related

ED Presentation Frequency	**FY2016**	**FY2017**	**Grand Total**
High (>5)	6	7	7
Low (1 to 5)	556	613	1114
Grand Total	**562**	**620**	**1121**

Should we consider how we follow-up those who attend ED?

Capital & Coast District Health Board

People prescribed Mental Health related medicines by GPs

1 in 3 enrolled people over two years

DHB	Anti depressants	Anti psychotics	Anxiolytics	Stimulants/ ADHD Treatments	Treatments for Dementia	Treatments for Substance Depend	Total
Seen by MHAIDS or NGO	6965	3569	2670	920	54	1428	**9487**
Seen in Primary Health only	61233	9525	19050	1657	793	10438	**81068**
Total	**68198**	**13094**	**21720**	**2577**	**847**	**11866**	**90555**

Medicines should be prescribed with treatment for most people

Some will be in private treatment or using the medicines for other purposes

Capital & Coast District Health Board

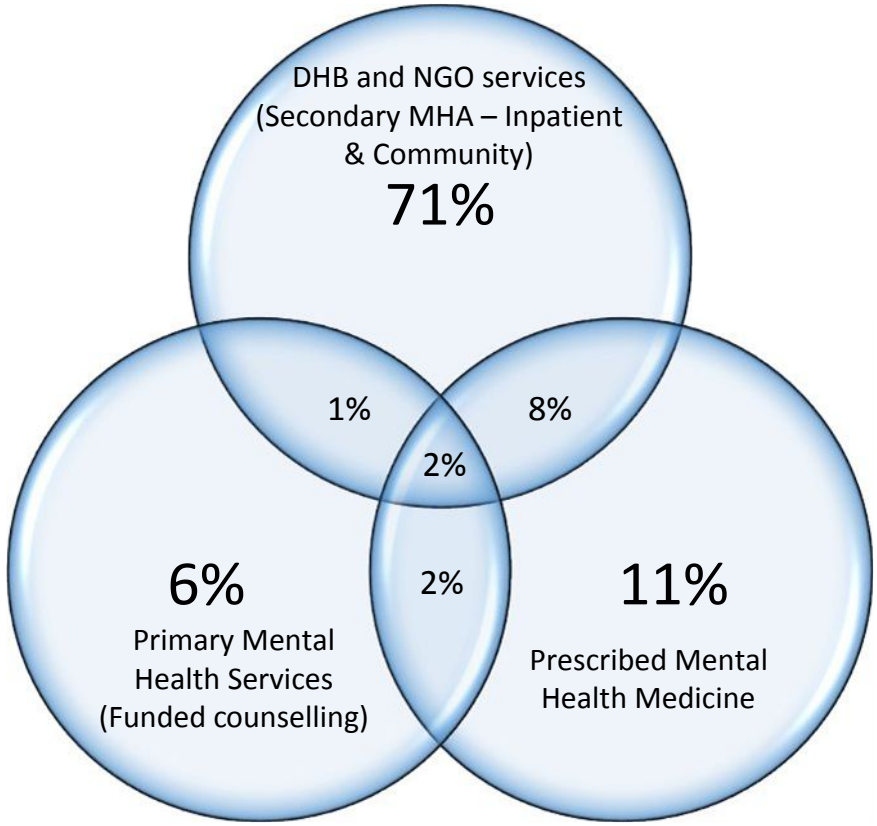
General Practise consultation data

Financial year	Number of people	Number of Consults	Average
FY15/16	11,659	106,078	9.1 per annum
FY16/17	11,847	102,954	8.7 per annum
Grand Total	**12,830**	**209,032**	**16.3 over 2 years**

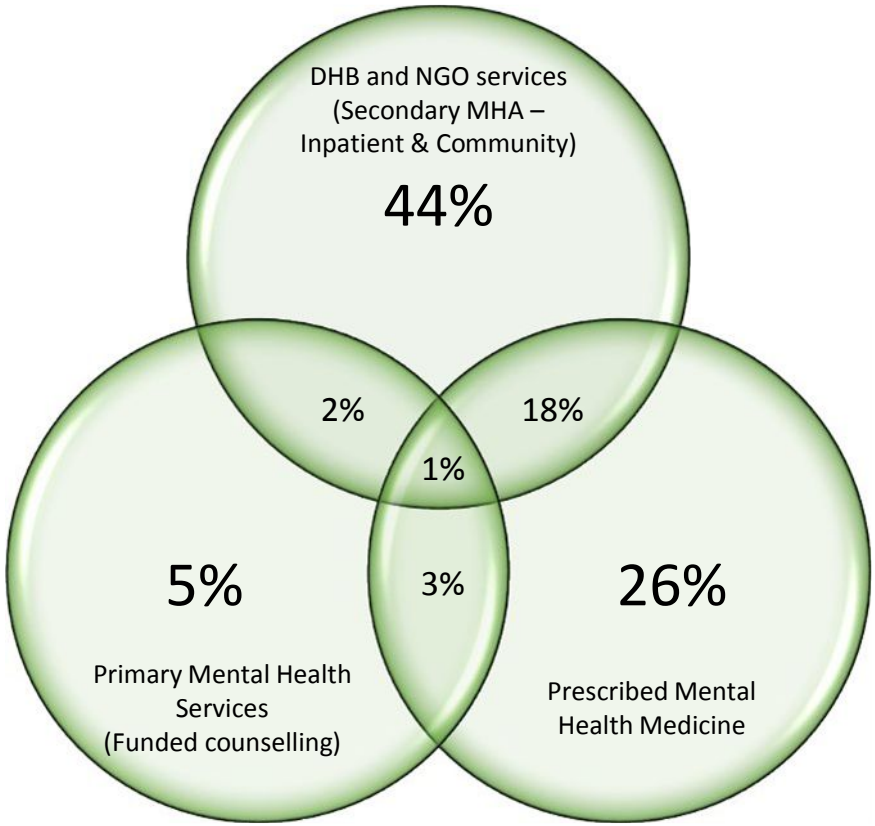
Mental health service users are also high users of primary care

Capital & Coast District Health Board

Comparison of how young people access mental health and addictions services in Porirua and Kapiti



Porirua – 1064

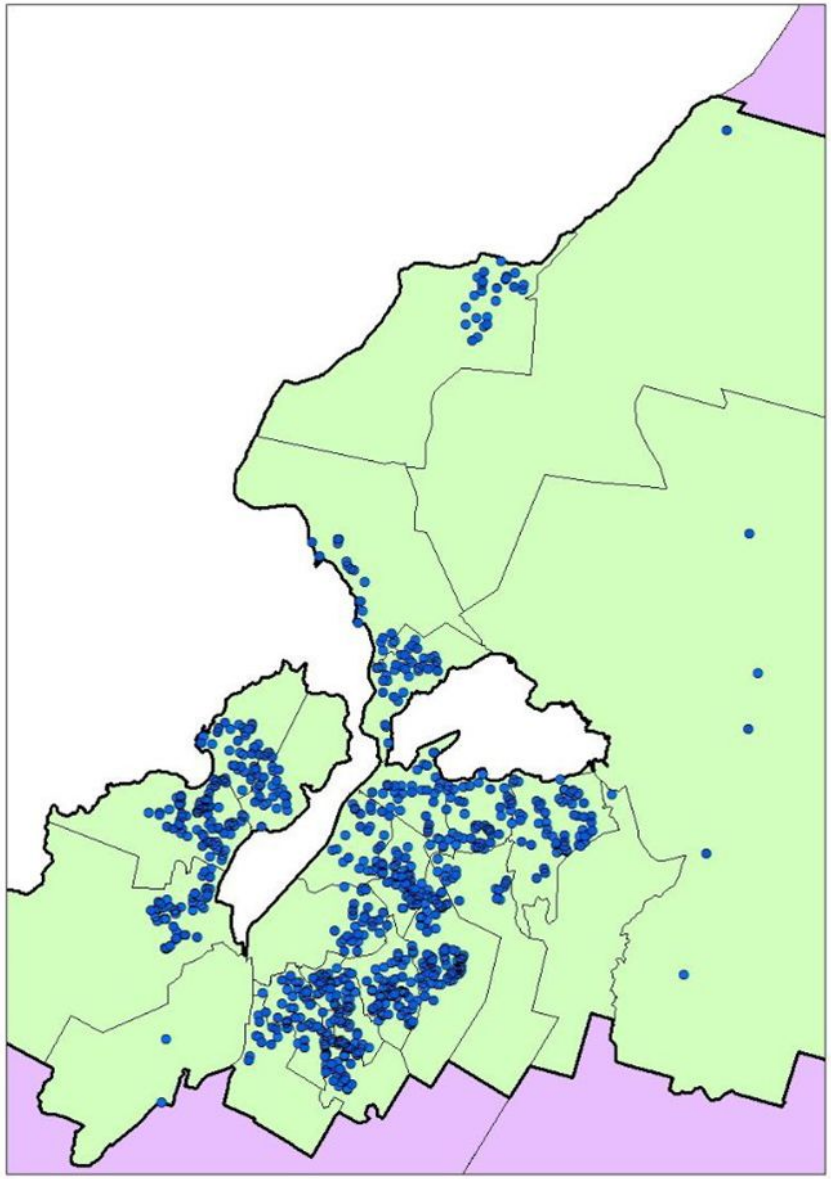


Kapiti - 868

Locality Planning

Identifying households with young people who could be supported by Mental Health services

Porirua City	
Total young people seen	1064
Total enrolled with a PHO	923
Total households with a young person seen	824

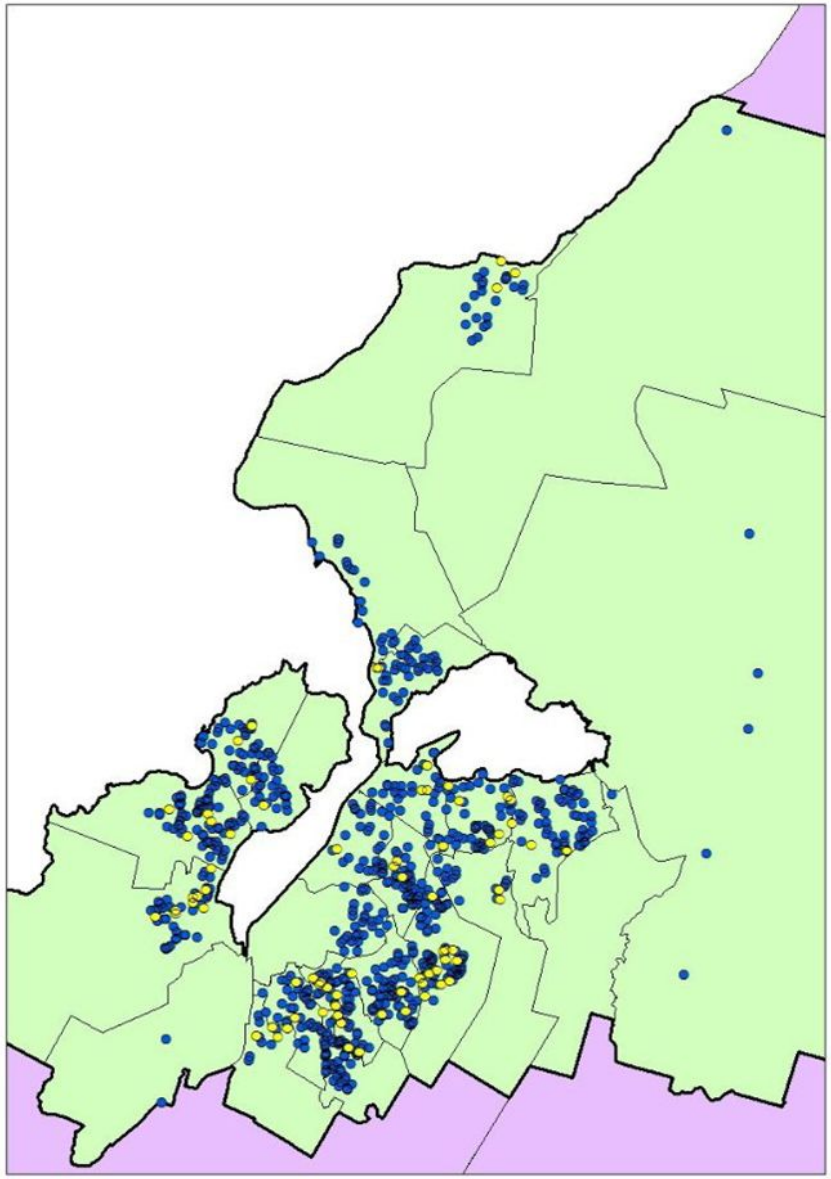


Capital & Coast District Health Board

Locality Planning

Identifying households with more than 1 young person supported by MH services

Porirua City	
Total households with a young person seen	824
Total with >1 young person seen	77

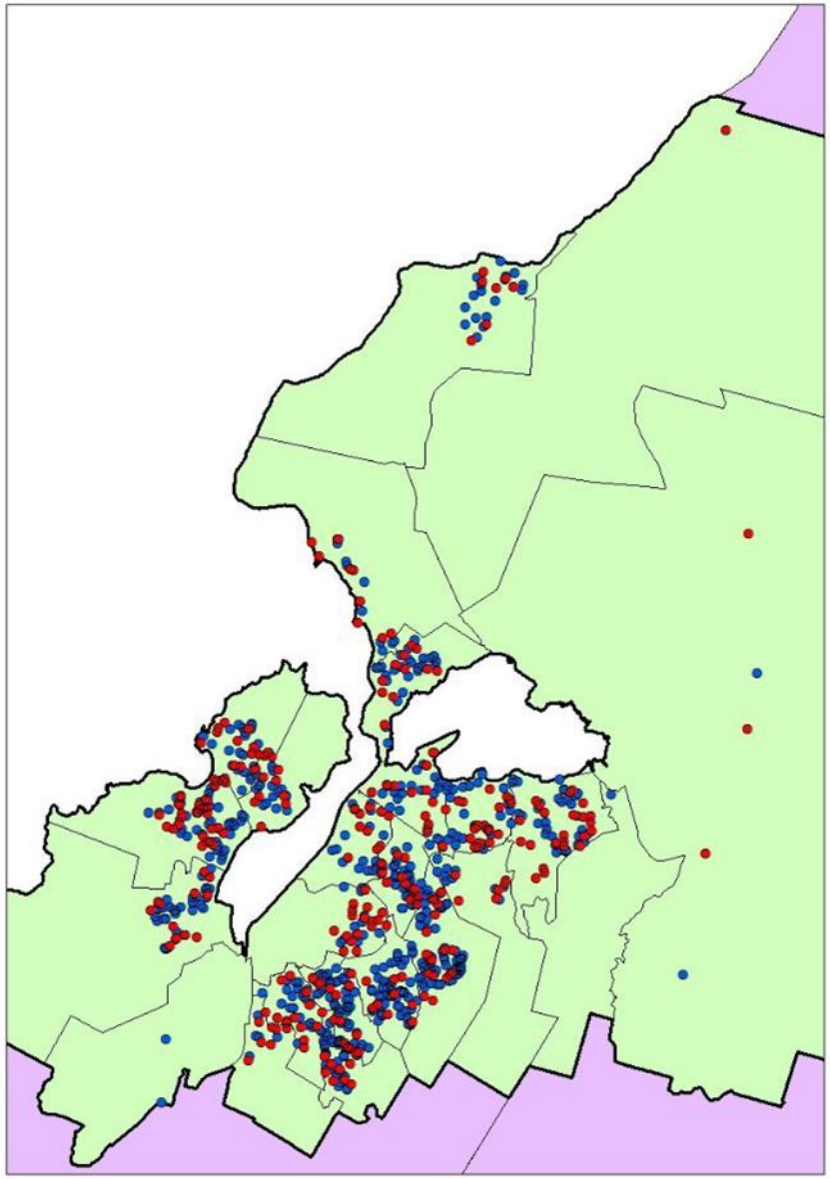


Capital & Coast District Health Board

Locality Planning

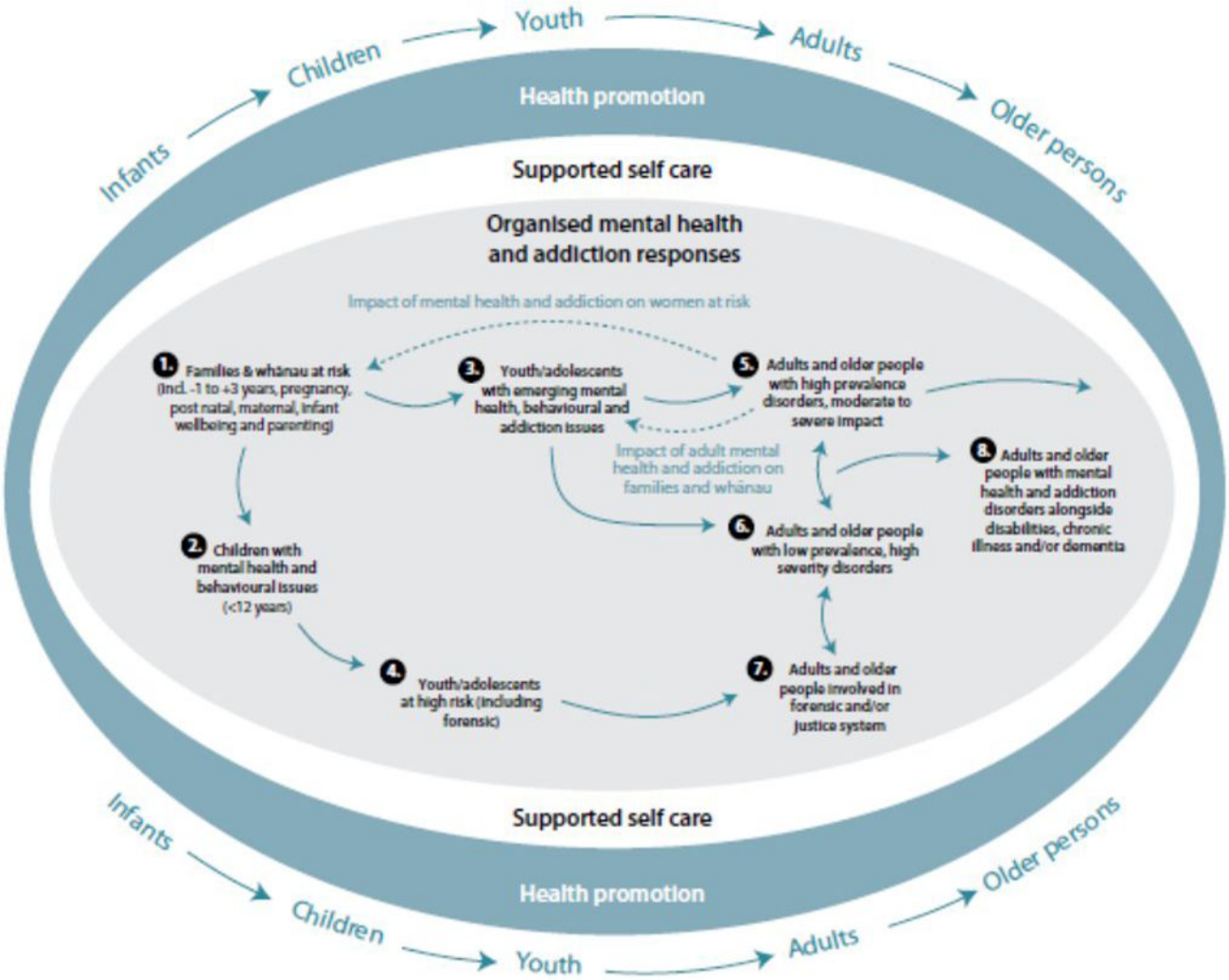
Identifying households with a young person and 1 or more adults seen by MH services

Porirua City	
Total households with a young person seen	824
Total with 1 or more adults seen	293

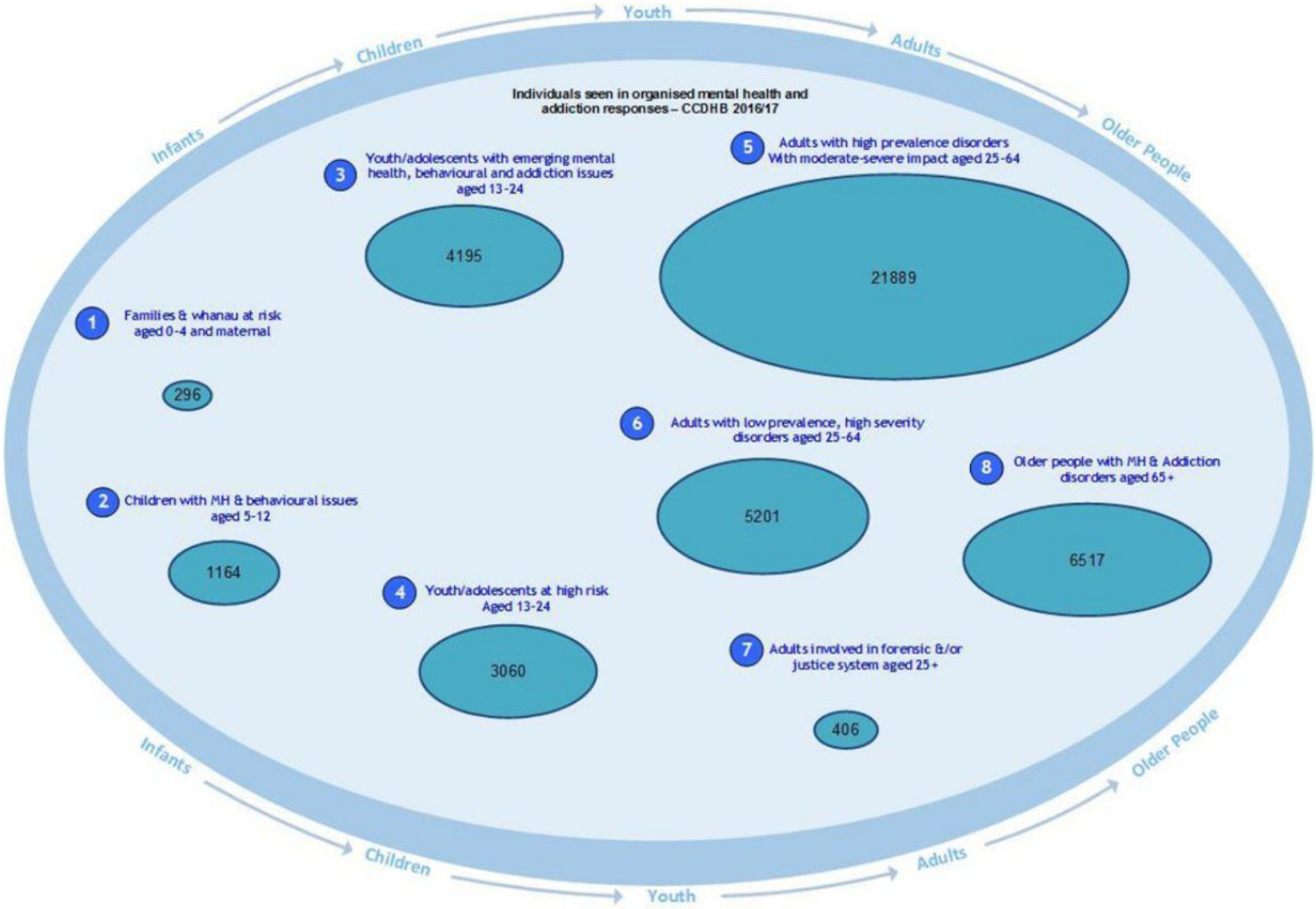


Capital & Coast District Health Board

Mental Health: Life Course Approach



People Served Against a Life Course Approach



Capital & Coast District Health Board

Child & Youth Health System Design

- Sam MacLean (Strategy, Innovation & Performance – CCDHB)
- David Todd, Josie Reynolds (Synergia)

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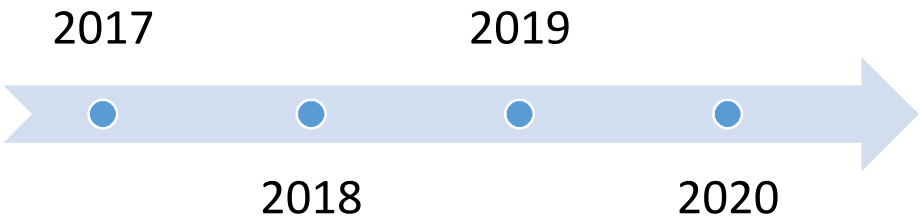
Aim & Opportunity

To review and re-design our child health system, within home, community and hospital settings so that system improvement actions occur in parallel with the new hospital build.



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Responding to Sub-Groups' System Needs

Identifying and focusing on population sub-groups with similar system-response needs

Generally well children from well from resourced families	Children with complex conditions	Children who experience unequal outcomes	Vulnerable children from vulnerable households
Children and youth from households that are relatively stable, supportive and resourced. Health event is likely to be one-off or infrequent. Reasonably high levels of health literacy.	Children and youth with a complex chronic or congenital condition who require a regular relationship with the health system and often with multiple parts of the health system. This may include children with disabilities and children with mental health or addiction issues.	Children and youth from quintile five areas, and where families may have limited financial resources and where issues such as English as a second language or health literacy may be relevant. This group may include Maori and Pacific children where data shows they experience inequality of access and outcomes.	Children who are experiencing patterns of avoidable recurrent health conditions and chaotic access patterns that reflect unstable home lives, potentially compromised care and challenges accessing appropriate care and support. Predictable poor outcomes without change to pathway. Data may indicate multiple household members experience vulnerability.

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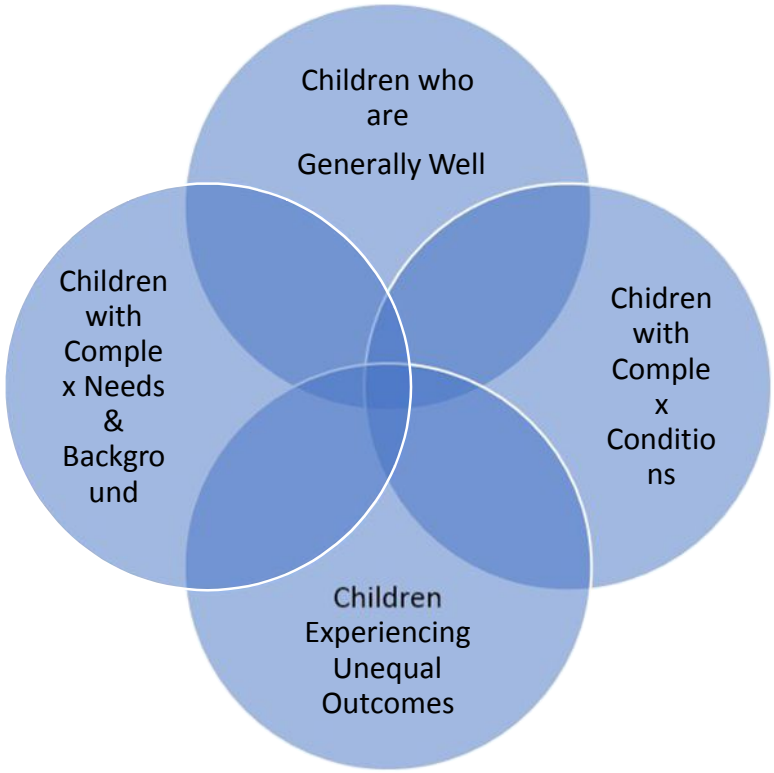
Sub-group Intersectionality

- Sub-groups are not mutually exclusive.
- Initial linked data analysis focused on understanding the four population groups



ED utilisation by Population Sub-Group

Sub-Group	Variable		Number of Events	Unique Individuals	Average Service Utilisation	Unadjusted Rate Ratio
		Total	13814	10807	1.28	
Sub-Group	**Variable**		**Number of Events**	**Unique Individuals**	**Average Service Utilisation**	**Unadjusted Rate Ratio**
Complex Conditions		Complex	2544	1592	1.59	1.3
		Non-Complex	1127	9215	1.22	1
Sub-Group	**Variable**		**Number of Events**	**Unique Individuals**	**Average Service Utilisation**	**Unadjusted Rate Ratio**
Unequal Outcomes		Maori	2368	1843	1.28	1.01
		Non-Maori/Non-Pacific	9733	7708	1.26	1
Sub-Group	**Variable**		**Number of Events**	**Unique Individuals**	**Average Service Utilisation**	**Unadjusted Rate Ratio**
Complex Needs & Backgrounds	Maori	Q1	623	477	1.31	1.04
		Q2	515	395	1.3	1.03
		Q3	461	340	1.36	1.02
		Q5	354	263	1.35	1.04
		Q5	410	284	1.44	1.12
	Non-Maori/Non-Pacific	Q1	2314	1850	1.25	1
		Q2	1944	1533	1.27	1
		Q3	1662	1248	1.33	1
		Q5	1243	959	1.3	1
		Q5	1351	1048	1.29	1

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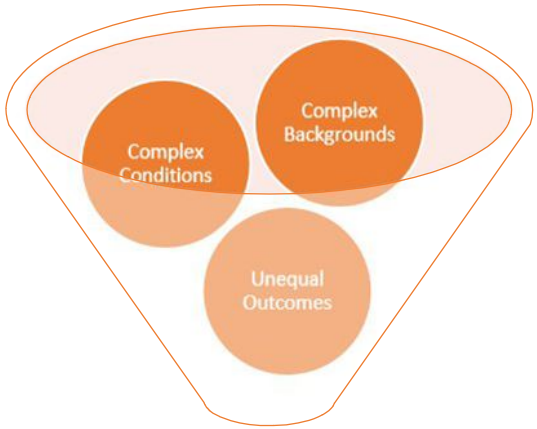
Refining Sub-Groups

- Analysis at sub-group level permits light-touch universality principles in system response to health needs
- Refined sub-groups offer insight into opportunities for intensive intervention



Maternal Mental Health | SUDI Risk Factors | Childhood Obesity | Chronic Respiratory Conditions | Long Term Conditions | Self-Harm & Attempted Suicide

First 100 days | Intellectual Disability & Autism | ASH Conditions | BPS Targets | SLM Targets

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Outpatient Appointments for Children/Youth with Complex Conditions

- In 2016/17, 48 children and youth had an OP contact more than once a week.
  - 22 had more than 100 appointments or two per week.
  - MAX = 326 appointments .
- 70% of the 48 children that attended outpatients more than once a week
- Remaining 15:
  - 5 = Haemophilia
  - 2 = Aplastic Anaemia
  - 4 = neurological impairment
  - 1 = Congenital Myopathy
  - 1 = Post-surgical complications.
  - 2 = No clear chronic disease found
- What other health services are these children/youth touching?

Index	Complex Conditions	Count of OP Events	Distinct days with OP Event
1	No	326	104
2	No	269	102
3	Yes	216	105
4	Yes	202	101
5	No	157	85
6	Yes	156	83
7	Yes	145	114
8	Yes	135	76
9	Yes	128	72
10	Yes	125	60
11	No	121	64
12	Yes	118	53
13	Yes	117	75
14	Yes	115	86
15	Yes	113	64
16	Yes	109	73
17	Yes	106	53
18	Yes	105	65
19	Yes	105	69
20	No	104	93
21	Yes	101	69
22	Yes	101	57

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Opportunities for PHO data to tell the story of these children's background

		Maori	Pacific	Other	Total
Primary Care	At least 1 Primary Care consult	93%	92%	94%	94%
Long Term Conditions	At least 1 LTC	49%	49%	45%	46%
	Diabetic in Household	13%	28%	11%	12%
	Asthma Individual	22%	21%	16%	17%
Tobacco	Current Smoker (15 months) Household	47%	47%	24%	29%
Mental Health	MH Drugs in Household	57%	41%	57%	56%
Secondary Care	At least 1 ED visit last 5 years	28%	25%	27%	27%
	At least 1 ASH admission last 5 years	7%	8%	5%	6%
	At least 1 Inpatient admission last 5 years	21%	19%	18%	18%

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ED presentations for children and youth in the Mental Health Dataset

- 13,810 ED presentations
- 16% were children and youth in MH dataset
- 1,689 unique individuals

	Age Group at Event	Number of Events	Unique Individuals	Average Service Utilisation	ED:IP Conversion Rate
Found in MH Data (no IP events)	0 to 1 yrs	33	15	2.20	0.61
	2 to 5 yrs	80	53	1.51	0.31
	6 to 16 yrs	794	578	1.37	0.28
	17 to 20 yrs	1,422	946	1.50	0.10
Found in MH Data (with IP events)	0 to 1 yrs	N/A	N/A	-	-
	2 to 5 yrs	-	-	-	-
	6 to 16 yrs	108	34	3.18	22%
	17 to 20 yrs	147	62	2.37	10%

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ED presentations for children and youth in the Mental Health Dataset

- 731 unique children & youth presented to ED when:
- Adult with MH illness living in the same household.

	Age Group at Event	Number of Events	Unique Individuals	Average Service Utilisation	ED:IP Conversion Rate
Found in MHAIDs data (no IP events)	0 to 1 yrs	12	6	2.00	58%
	2 to 5 yrs	28	20	1.40	32%
	6 to 16 yrs	332	234	1.42	28%
	17 to 20 yrs	656	432	1.52	11%
Found in MHAIDs data (with IP events)	0 to 1 yrs				
	2 to 5 yrs				
	6 to 16 yrs	59	12	4.92	15%
	17 to 20 yrs	78	27	2.89	9%

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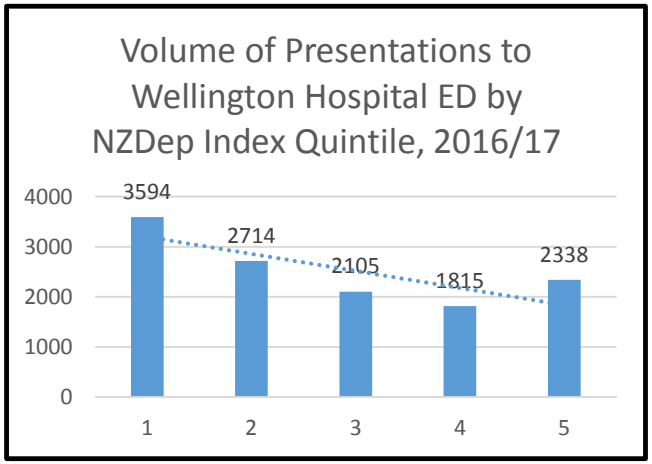
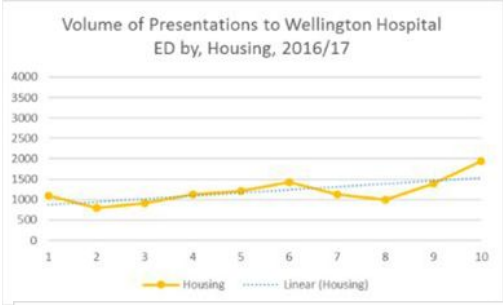
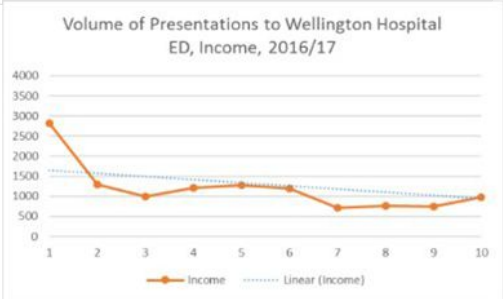
Using exploratory IDI research to identify social determinants

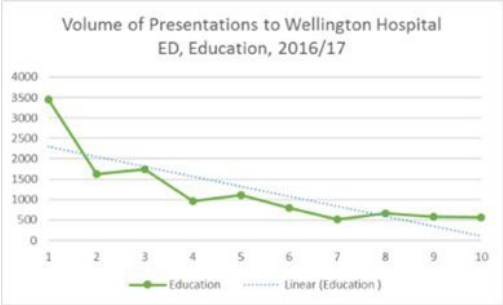


Index of Multiple Deprivation (University of Auckland)

- Employment
- Health
- Crime
- Access
- Income
- Housing
- Education







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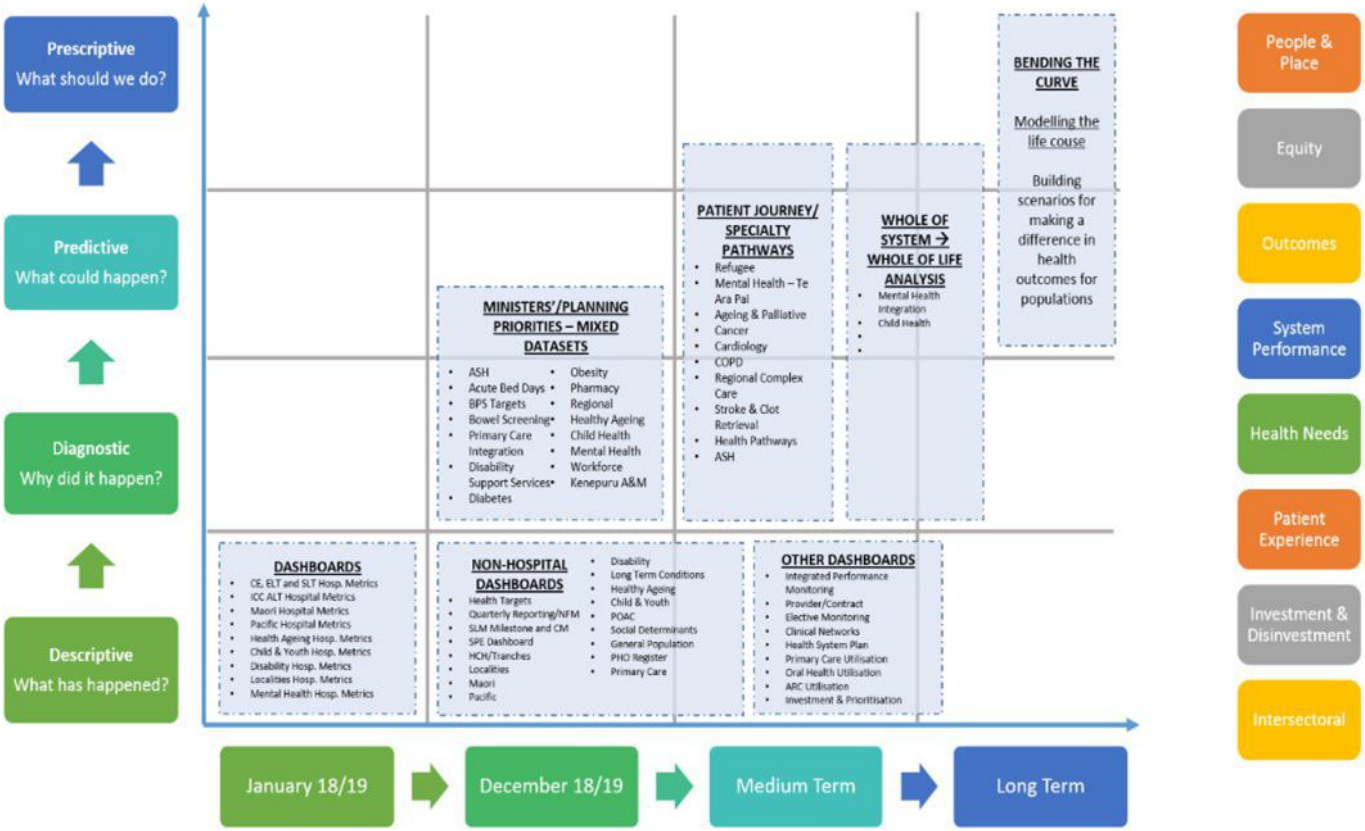
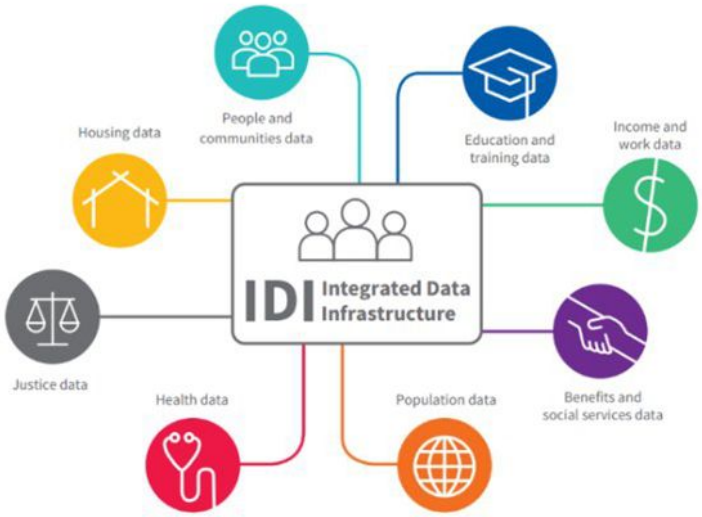
Implementing Data Visualisation



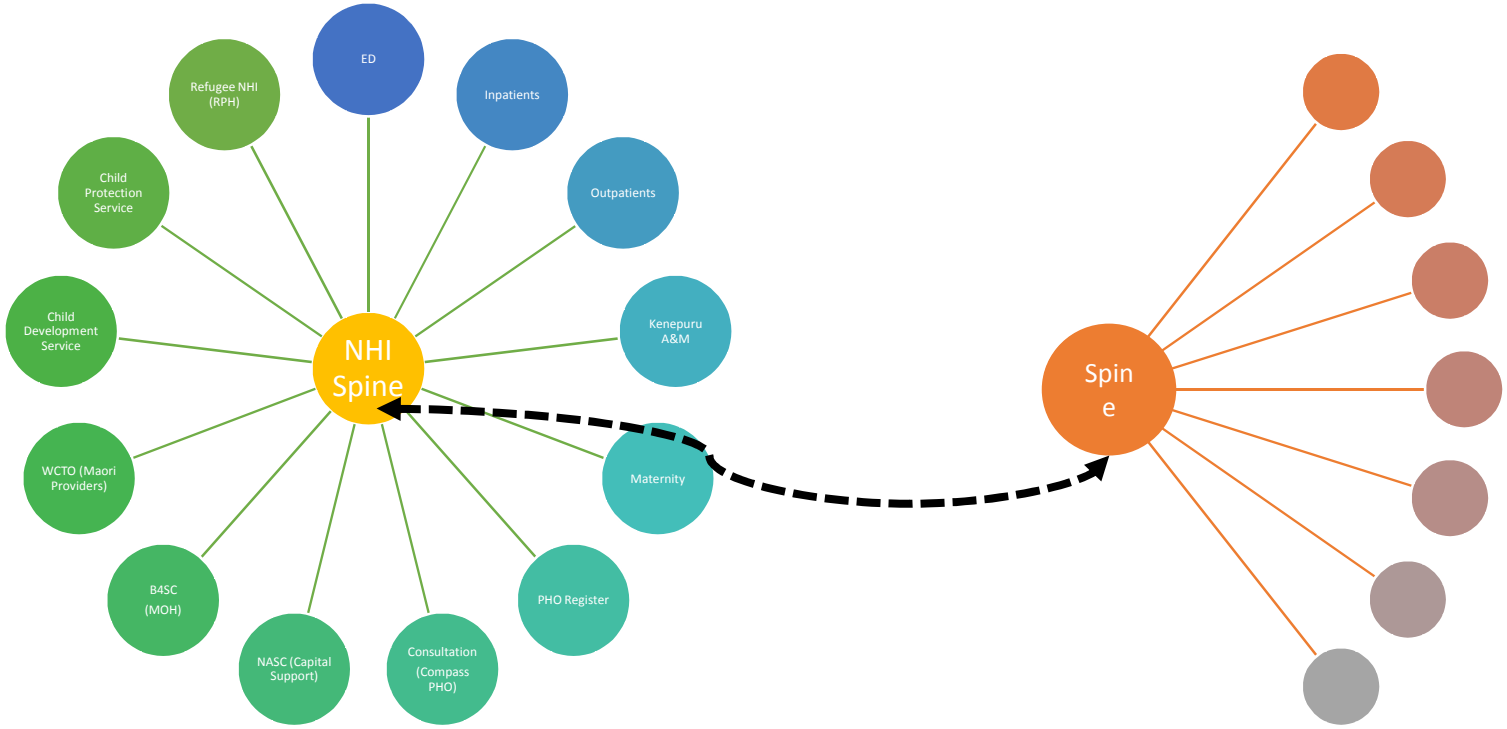
Data Sharing Opportunities

Stats NZ's Integrated Data Infrastructure (IDI) is a large research database containing de-identified microdata about people and households.



The Social Investment Agency's Data Exchange is a platform for safe and regular exchanges of data between organisations as well as the IDI

Insights through Integrated Data



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Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	**CPHAC DECISION PAPER**
	Date: 1 February 2018

From	Rachel Haggerty, Director – Strategy, Innovation & Performance
Author	Sam McLean, Analyst – Strategy, Innovation & Performance Terry Smith, Senior Analyst – Strategy, Innovation & Performance
Endorsed by	Dr Ashley Bloomfield, Interim Chief Executive, Capital & Coast DHB
Subject	ANALYTICAL INSIGHTS FROM INTEGRATED DATA

RECOMMENDATION

It is recommended that CPHAC advise the Board that it**:**

- **Notes** the health sector is often described as data rich and information poor. In the sector there is significant capability to conduct research and analyse data which is often used once or generates reports but is not routinely used.
- **Notes** this proposed approach to integrated data creates the capability for CCDHB, and its partner organisations to connect data to create information, not only about the services we provide but most importantly about the populations we serve, and the impact of the services we provide in our communities.
- **Notes** that SIP has signalled a firm intention to maximise the potential of Qlik by the forming of a Data Visualisation Design Group led by the analytical team. SIP analysts are actively involved in planning for Qlik implementation and will be participating in training sessions for super users in February 2018.
- **Notes** that CCDHB will be working with the Social Investment Agency to trial the technical platform for a data sharing model across our providers.
- **Endorses** SIPs approach to developing whole-of-system analytics to support strategic planning and investment.
- **Endorses** CCDHB wide data sharing arrangements to support the development of integrated data models and future analytics across whole of system and life course.
- **Recommends** efforts to share data across all health providers are supported and prioritised.

APPENDICES

1 OUR VISION: SIP'S ANALYTICAL APPROACH

2 IMPLEMENTING OUR VISION: SIP'S ANALYTICAL APPROACH

3 IMPLEMENTING DATA VISUALISTION: SIP'S APPROACH

4 STATISTICS NZ INTEGRATED DATA INFRASTRUCTURE

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1. PURPOSE

This paper outlines the Strategy, Innovation & Performance (SIP) Directorate's approach to developing advanced analytical insights that support strategic planning and investment through the integration of utilisation data from multiple service providers and data from other social service agencies. This supports our Investment Approach, implementation of the Health System Plan, our Integrated Care work programme and Even Better Healthcare.

2. INTRODUCTION

The health sector is often described as data rich and information poor. In the sector there is significant capability to conduct research and analyse data which is often used once or generates reports but is not routinely used.

This proposed approach to integrated data creates the capability for CCDHB, and its partner organisations to connect data to create information, not only about the services we provide but most importantly about the populations we serve, and the impact of the services we provide in our communities.

Much of this work has not previously been undertaken by other DHBs and is recognised by Government bodies, such as the Social Investment Agency (SIA) as being worthwhile championing in order to speed up system level change. It is beginning to have the same impact internally and has under pinned both the MHAIDs Integration and Child Health System design work.

The Board, our leadership and our communities will be better served by the insights developed from integrated data. It will target our activity, measure our performance and support our investment approach. The dataset will be shared with our current and future partners.

3. BACKGROUND

The SIP analytics team has been leading the development of a whole of system approach to analytics and proactive use of whole of system data to generate information which enables more sophisticated strategic planning and investment. This approach is underpinned by the Health System Plan and a social investment methodology.

With the support of the Board for additional analytical capability and capacity (focused on population, investment & prioritisation, system modelling and casemix analytics) we are:

- Developing capacity to move from descriptive analytics to diagnostic, predictive, and prescriptive.
- Enabling whole of system analytics by developing a joined-up data model incorporating hospital, community, NGO, PHO, Youth One-Stop Shop (YOSS), and other national health data collections.
- Leveraging from the 2018 roll-out of the Qlik visualisation tool across CCDHB to automate existing reporting and to maximise data utilisation to commission and evaluate services outcomes.
- Partnering with the Social Investment Agency (SIA) to investigate avenues for sharing data between health providers and linking to other social agencies' data held in the Statistics NZ Integrated Data Infrastructure (IDI), using the existing data exchange platform developed by the SIA.

The SIP analytical team currently have a number of projects underway that are beginning to utilise a whole of system approach; including MHAIDS Integration, Child & Youth Health Systems Design, Whole of Life NASC, Localities Approach, Healthy Ageing Strategy and the Investment Approach/Price Volume Schedule for 2018/19. The insights these projects are generating are beginning to change the way we view our health system and the points at which we might intervene to improve health outcomes for our population. Some of these findings will be presented at the CPHAC meeting by the analytics team.

We have developed a strengthened analytics work programme to better support the Directorate's outputs. The analytics work programme leverages the opportunity provided by data visualisation to automate descriptive analytical reporting. Over time, the team's resources will shift from the descriptive – "What has happened?", into the diagnostic – "Why did it happen?", towards the predictive analytical space – "What

could happen if things continue as they are?", and ultimately into prescriptive analytics – "What should we do?". The three slides attached as Appendix One, Two, and Three illustrate how this change will be achieved.

3.1 Working with the social investment agency (SIA)

Central to the success of this approach will be the ability to share event and person level data between providers in an accessible, yet secure and unidentifiable, way. To this end, a data sharing agreement has been trialled by Compass PHO and CCDHB. As CCDHB has developed a reputation for leadership in the integrated data space this has led other agencies to approach us to take part in programmes that will be used as exemplars of best practice. An example of this is the SIA has offered to assist by providing the technical platform for a shared data model. The SIA has developed a data exchange tool to provide a secure online platform for agencies and NGOs to upload data and share with others, while maintaining full control over how their data is accessed. Linking into the data exchange tool will also enable linkages to the data of other social agencies that is held in the IDI, as detailed in Appendix Four. Establishment of such a robust and secure model will facilitate the process of bringing other providers and agencies on board over time.

3.2 Using QLIK Data Visualisation

The roll-out of the QLIK data visualisation tool across CCDHB in 2018 presents an opportunity to automate existing reports. More importantly it enables the development of a visual approach to analytics and to maximise utilisation of data and analytics in service commissioning and evaluating outcomes. Qlik users are able to use interactive visualisations to freely search and explore across all the data in a model created from multiple datasets. Feedback from other DHBs is that the introduction of data visualisation increases the demand for analytics and over time the level of sophistication with which that data is used. Therefore, it is a key tool to move CCDHB to be an organisation which routinely makes decisions based on evidence.

SIP has signalled a firm intention to maximise the potential of Qlik by the forming of a Data Visualisation Design Group led by the analytical team. SIP analysts are actively involved in planning for Qlik implementation and will be participating in training sessions for super users in February 2018.

4. ANALYTICS IN PROGRESS USING INTEGRATED DATA

The SIP analytics team have worked with Synergia to develop one-off integrated data models for the purpose of the MHAIDS Integration and Child & Youth Health Systems Design projects. These data models use an encrypted NHI number to link separate data sources and relate it back to demographics from the PHO register. The projects are learning platforms for the introduction of more sophisticated and sustainable analytical models.

The initial insights from these projects will be presented and discussed at the Committee meeting.

4.1 MHAIDS Integration

The 3DHB MHAIDS Integration project required analytics that would provide a view of all the people in the sub-region who access Mental Health and Addictions (MHA) services across Primary, NGO and Secondary settings. The project steering group sought a greater insight into who these people were and what differences there may be between different communities in how services are accessed.

Two years of DHB and NGO activity data from the national mental health data collection (PRIMHD) was joined up with extracts of inpatient and outpatient data from the hospital systems in each DHB. Compass Health provided extracts of GP consultations for the PRIMHD cohort in CCDHB and Wairarapa, along with Primary Mental Health activity data for funded counselling and prescription data for MHA related medicines. Data from the Kāpiti Youth Service was subsequently added.

Initial analytics based on this rich source of data have revealed a number of insights into the way MHA services are accessed, and point the way towards where further lines of investigation should be focussed in order to support the next stage of the integration project, which is due to report back in June.

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4.2 Child & Youth Health System Design

For the past six months, CCDHB has been working with the benefactor to design a new children's hospital for the region. In parallel to facility design, CCDHB has also been working on the design of the child health system. Guided by the HSP, the child health system design has focused on understanding consumer and population-group needs and service use dynamics.

Five years of local DHB activity data has been joined up with activity data provided by NGOs, Ministry of Health and Needs Assessment and Coordination Services (NASCs). Compass Health has provided extracts of GP consultations for their enrolled child and youth population over the last two years, as well as summary demographics some of which relate to the health status of other members of the household.

Initial analytics based on this rich source of data have revealed some early insights into the way children and youth access and utilise CCDHB services. This analysis has also highlighted further avenues for investigation that will support subsequent stages in of the investigation.

4.3 Joining These Integrated datasets

The next step in integrated data is joining the MHAIDS Integration and Child & Youth System Design data models. Joining these data models provides the opportunity to interrogate data in order to offer insight to service use and access across multiple parts of the system. Two cases that will benefit from this approach are Maternal Mental Health and SUDI (Sudden Unexpected Death of an Infant) risk factors (e.g. Household members' physical and mental health, infant birth weight, neonatal admission). Insight into these areas will identify opportunities for targeted intensive intervention and light touch programmes adopting universality principles.

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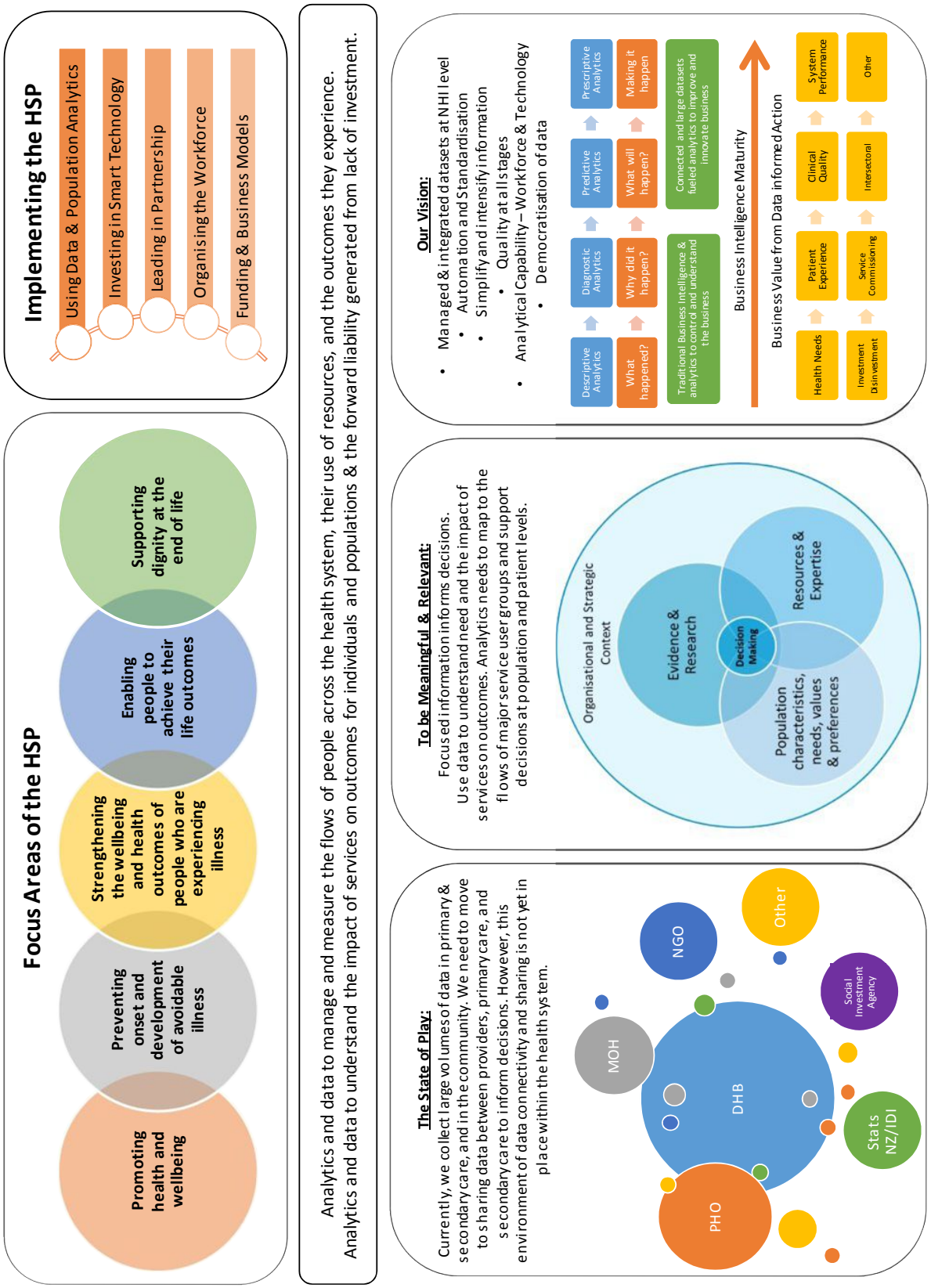
4.4 Appendix 1. Our Vision – SIP's Approach to Analytics



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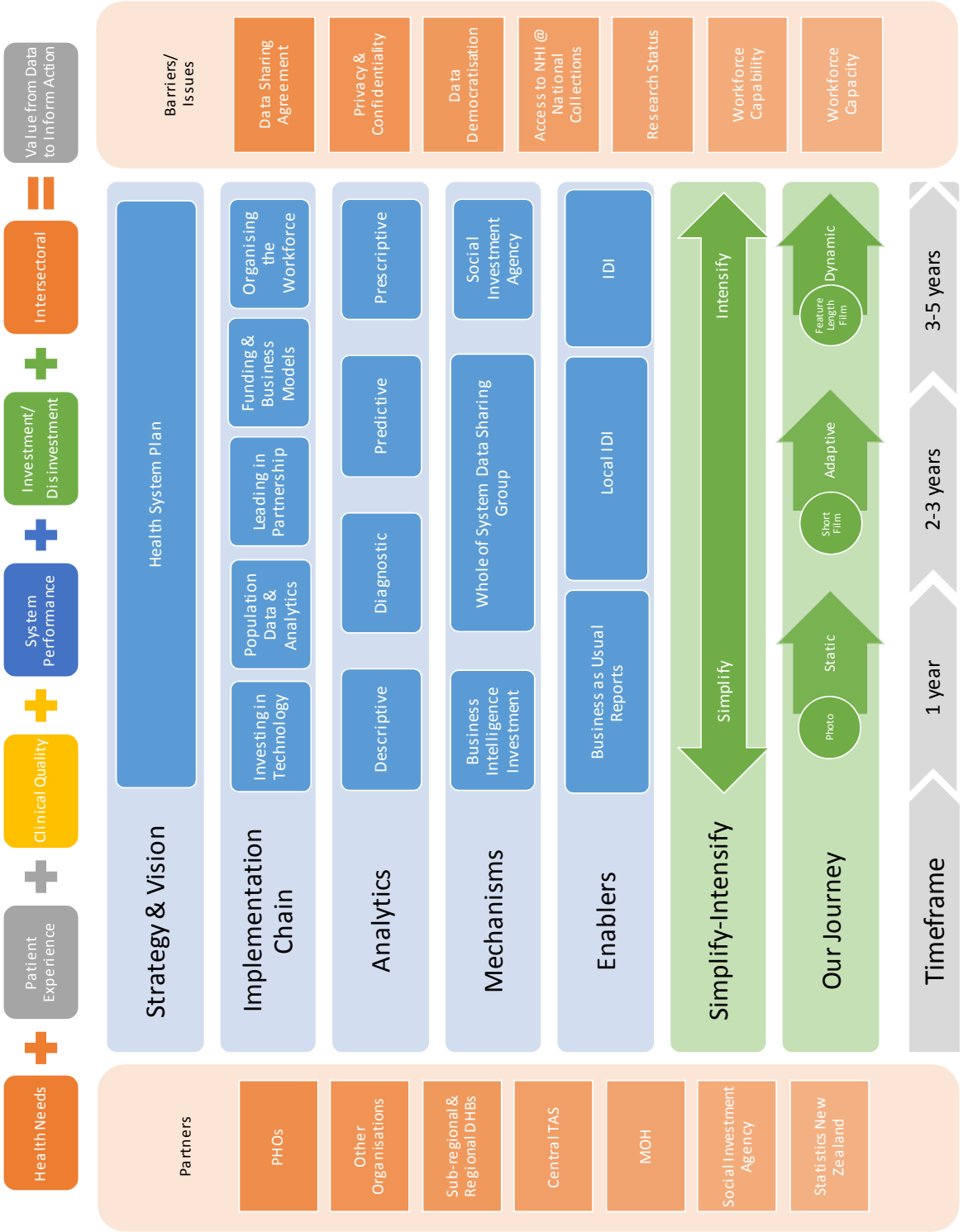
4.5 Appendix 2. Implementing OUR VISION: SIP'S Analytical approach



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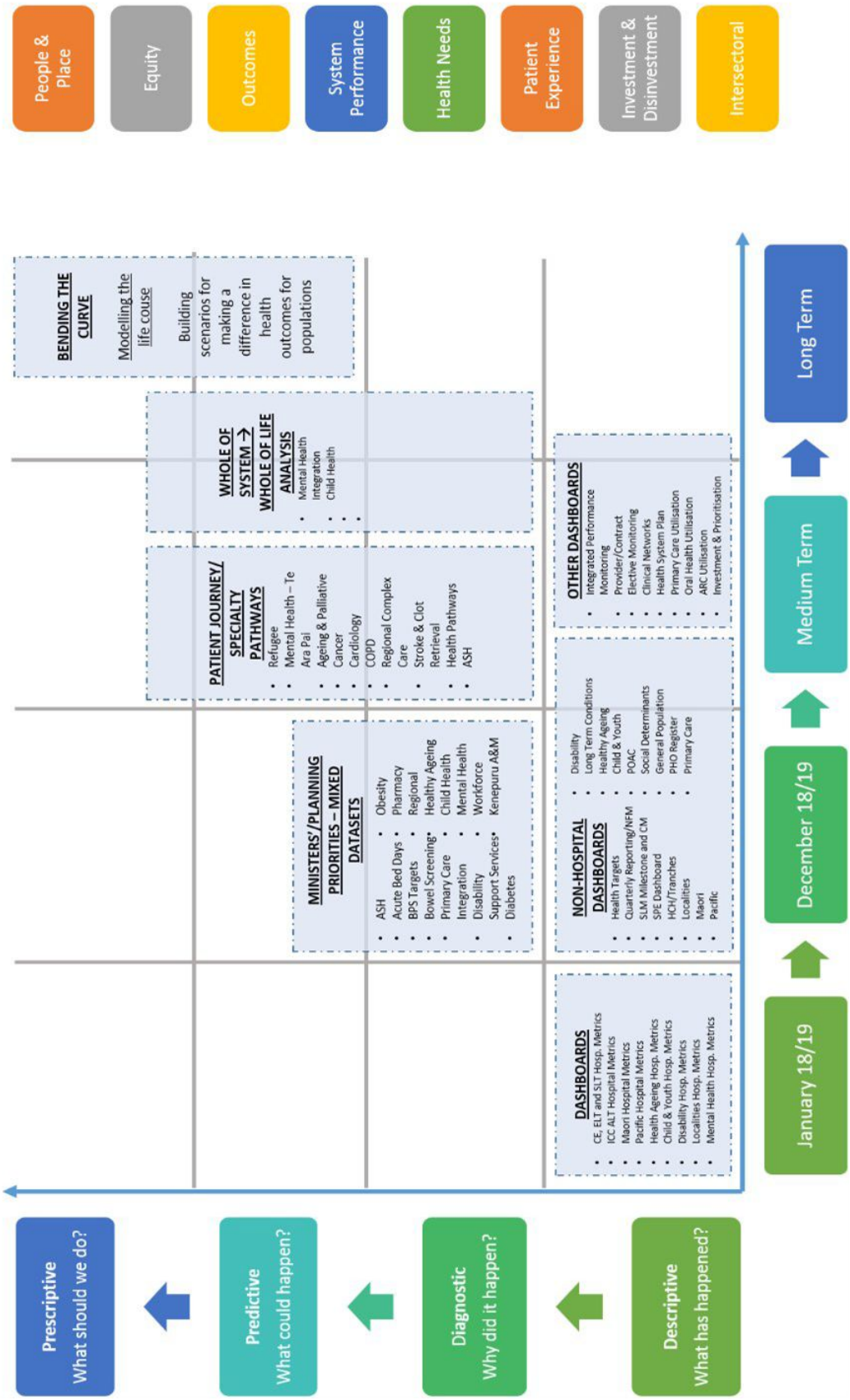
4.6 Appendix 3. Implementing OUR VISION: SIP'S Analytical approach



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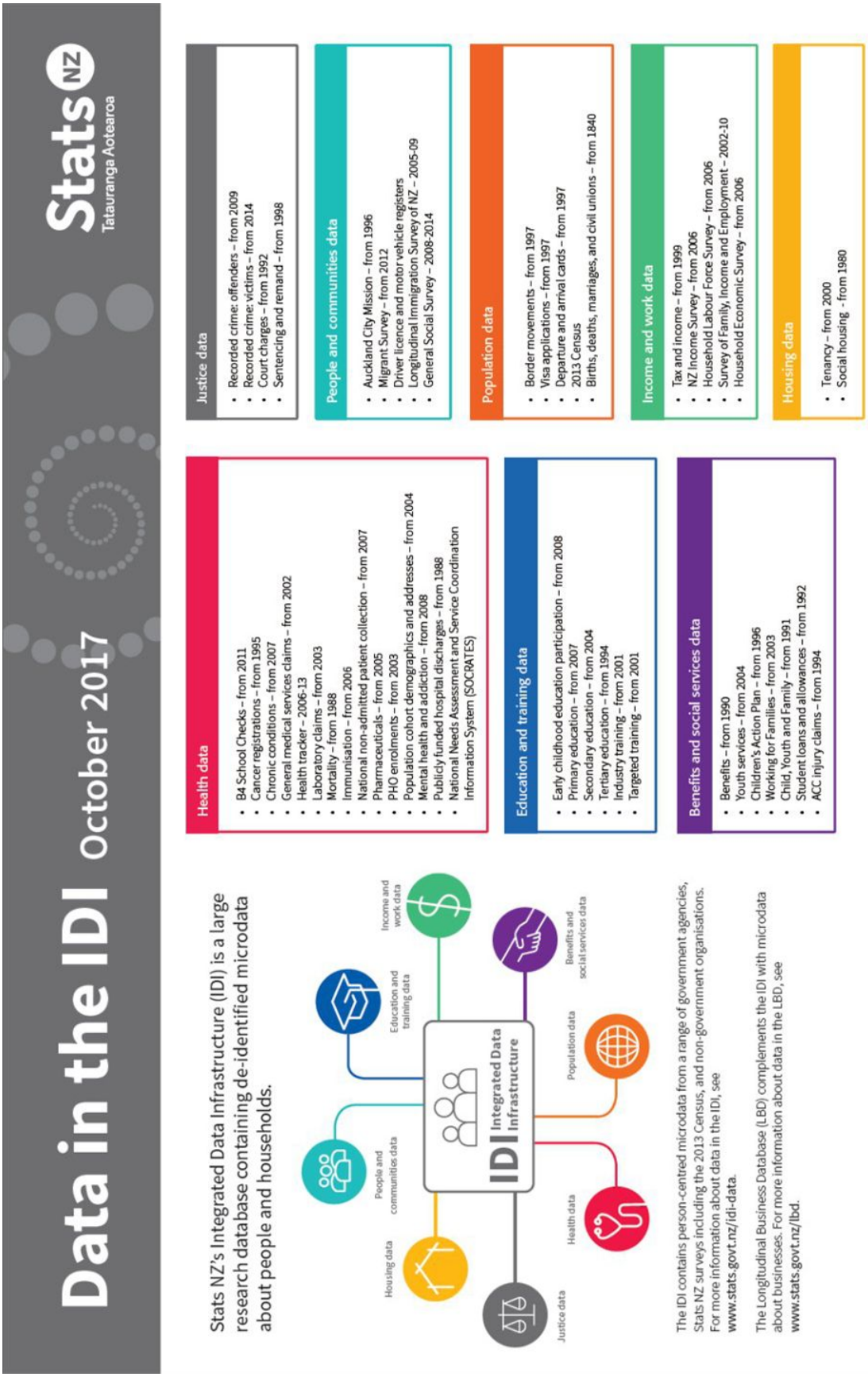
4.7 Appendix 3. The Statistics NZ Integrated Data Infrastructure



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Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	**CPHAC DISCUSSION PAPER**
	2 February 2018

Author	Astuti Balram. Manager – Integrated Care. Strategy, Innovation and Performance
Endorsed By	Rachel Haggerty. Director, Strategy, Innovation and Performance Ashley Bloomfied, Interim CE, Capital & Coast District Health Board
Subject	Health Care Home – Progressing into 2018

RECOMMENDATION

It is recommended that CPHAC:

- **Notes** at the end of 2015 the CCDHB Board endorsed the three year roll-out of the HCH model with the initial goal to reach about 60% of the population over this time period;
- **Notes** that in 2016/17 the model reached about 20% of the CCDHB population and was able to demonstrate early positive impacts for the population;
- **Notes** that in 2017/18 the model has rolled out to a further 29% of the population – a total of 49%, about 145,879 people. This includes 69% and 61% of the Māori and Pacific populations respectively and 59% and 60% of the 0-14yo and >85yo respectively;
- **Notes** there are HCH developments and services that are focused on improving the patient experience. Across the first nine HCH practices this has the additional 30 hours of practice opening hours, 4,500 people being managed over the phone via GP triage calls returning 281 working days back to the community and over 17,000 people enabled to book appointments and order prescriptions via the patient portal;
- **Notes** for the first nine HCHs there is approximately 10%, a reduction in the actual ED presentations for total, Māori and Pacific populations in HCHs compared to projected results for these practices prior to the HCH initiative. Acute Admission differences are similar ranging from 9-13% reduction;
- **Notes** by the end of 2017/18 HCH model include twelve more practices and will reach about 51% of the overall CCDHB enrolled population; The CCDHB HCH model has focused on reaching at least 80% of the overall population in 2018/19, subject to confirmation of investment;
- **Notes** there has been a recent research project that to understand the experience of in practices that have implemented the CCDHB HCH model. There were a range of HCH practice staff members interviewed, and overall feedback from the HCH practice teams has been largely positive.

APPENDIXES

1: MEASURES TO MONITOR HCH IMPLEMENTATION

1 PURPOSE

This paper gives an update to CPHAC on progress in the implementation of the Healthcare Home.

2 INTRODUCTION

The HCH is a shared programme with our PHOs to improve the impact of primary care on the health, wellbeing of our communities and sustainability of the health care system.

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HCH is a team-based health care delivery model with the goal of supporting individuals to obtain the best possible health outcomes through a primary care team that provides comprehensive and continuous health care.

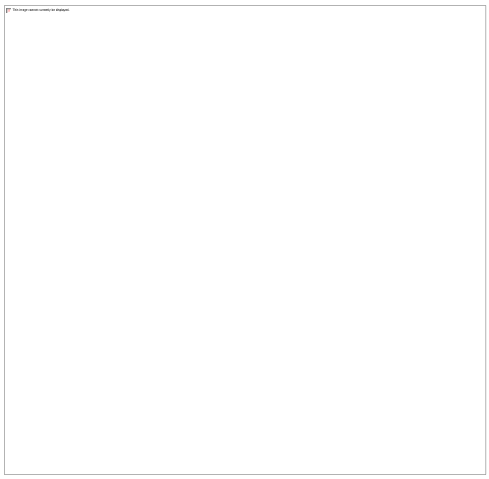
The HCH programme has been led through the CCDHB Integrated Care Collaborative (ICC) Alliance Leadership Team (ALT). It has been implemented in partnership with the PHOs, and with support from across the CCDHB services.

The CCDHB Health Care Home (HCH) model forms the core of the Community Health Network development strategy of CCDHBs within the Health System Plan (HSP).

3 HEALTH CARE HOMES

HCHs aim to keep people well in the community through primary health care teams that have undertaken to transform their services in line with the agreed model of care and providing a platform that specialists services can confidently integrate with.

As a transformational development, the CCDHB HCH programme will deliver on the quadruple aim as depicted below. It is quite early in the journey to ascertain the potential benefits of the HCH model, but the programme is on track and benefits that are being demonstrated to date are positive.



4 HEALTH CARE HOME MODEL – MODEL & MILESTONES

HCH is a model that provides comprehensive and continuous health care with the goal of supporting individuals to obtain maximised health outcomes in primary care. Key HCH elements and services of provide improved urgent, proactive and preventative care by the practices.

Based on the requirements of people and their place on their health journey, each of these elements work together provide a comprehensive primary care service that supports them in the community.

The following table is a descriptor of the key elements, some services and their alignment with key CCDHB Health System Plan principles.

HCH Key Element	Examples of HCH services that support people in the community and reduce acute demand in the hospital	Alignment with Health System Plan Principles

Urgent & Unplanned care	People are able to access same day appointments. People are able to phone the practice at peak times and be called back by a GP for virtual care/triaged for urgent appointment	Intensify Innovate
Proactive Care	People that are identified via risk stratification are supported with a proactive care plan to keep them as well as possible. This is done with the practice team and/or the community services teams (District Nurses & Allied Health)	Act early Work together
Routine & Preventative Care	People are able to use the patient portal to have non urgent e-consultations, book appointments, order repeat prescriptions.	Simplify Innovate Efficient use of resources

The programme that underpins the CCDHB HCH roll-out has been a collaboration between primary care and the hospital and has involved clinicians from the ground to senior management and Board. With this support through the ICC ALT the programme has attained its key milestones and maintained momentum.

5 COVERAGE OF THE POPULATION AND INVESTMENT

Primary care is the core of the universal health system in New Zealand. Every resident is entitled to be enrolled in a PHO and receive a range of services including access to primary care. Ensuring the quality and effectiveness of primary care will improve the health and wellbeing of our entire population. The focus on creating equity requires both strong service performance that supports the intensification of services to strengthen those who have accumulated adversity.

5.1 Coverage

The ability to impact on population health is determined by coverage of the population. The CCDHB HCH model is focused on reaching at least 80% of the overall population in 2018/19, as well as focus on improving equity.

At the end of 2015 the CCDHB Board endorsed the three year roll-out of the HCH model with the initial goal to reach about 60% of the population over this time period. In 2016/17 the model reached about 20% of the CCDHB population and was able to demonstrate early positive impacts for the population.

In 2017/18 the model has rolled out to a further 29% of the population – covering a total 49%, about 145,879 people. Subject to investment confirmation, as part of the wider DHB investment decisions, the HCH model could reach the 80% CCDHB population coverage in 2018/19 in the programmes final tranche roll-out.

The CCDHB HCH model practice selection process aims to maximise benefits for targeted populations in keeping them well in the community and to make improvements on the hospital presentation rates. Selection is based on practices volume of Māori, Pacific and high deprivation populations and the volume of presentations to the hospital. Other considerations such as absolute size of the practice, clustering by geography and the practices commitment to the change are also included.

As a result of the selection by the end of 2017/18 HCH model will have reached about 51% of the overall CCDHB enrolled population; 69% and 61% of the Māori and Pacific populations respectively; and 59% and 60% of the 0-14yo and >85yo respectively.

The selection for Tranche 3 practices that will go live during 2018/19 has been completed and will proceed subject to resource availability. Based on the same selection processes, by the end of 2018/19 the HCH model will reach about 80% of the population; 79% and 73% of the Māori and Pacific populations respectively; and 78% and 85% of the 0-14yo and >85yo respectively.

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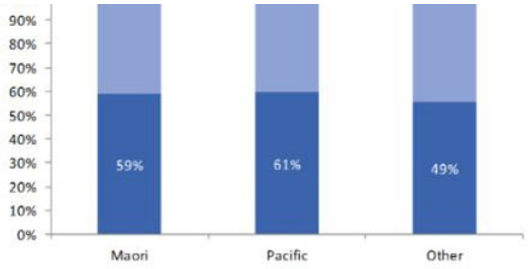
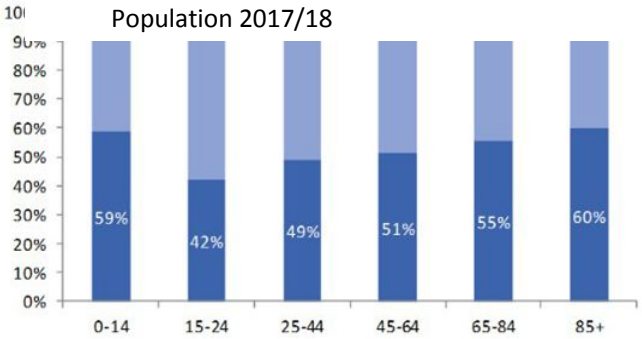
Graph 1: Ethnicity of HCH Enrolled Population 2017/18



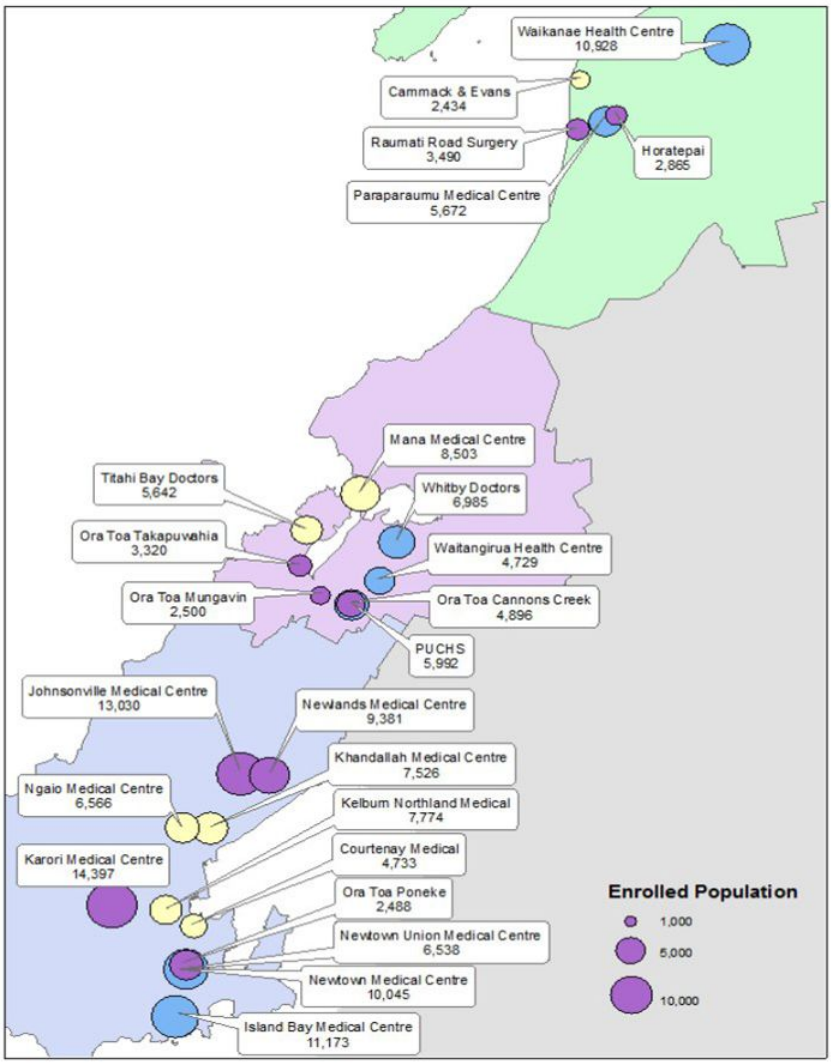
Graph 2: Age Band of HCH Enrolled Population 2017/18



HCH

Non-HCH

The first two tranches, Tranche 1 in 2016/17 and Tranche 2 in the current year of 2017/18 include the practises below.



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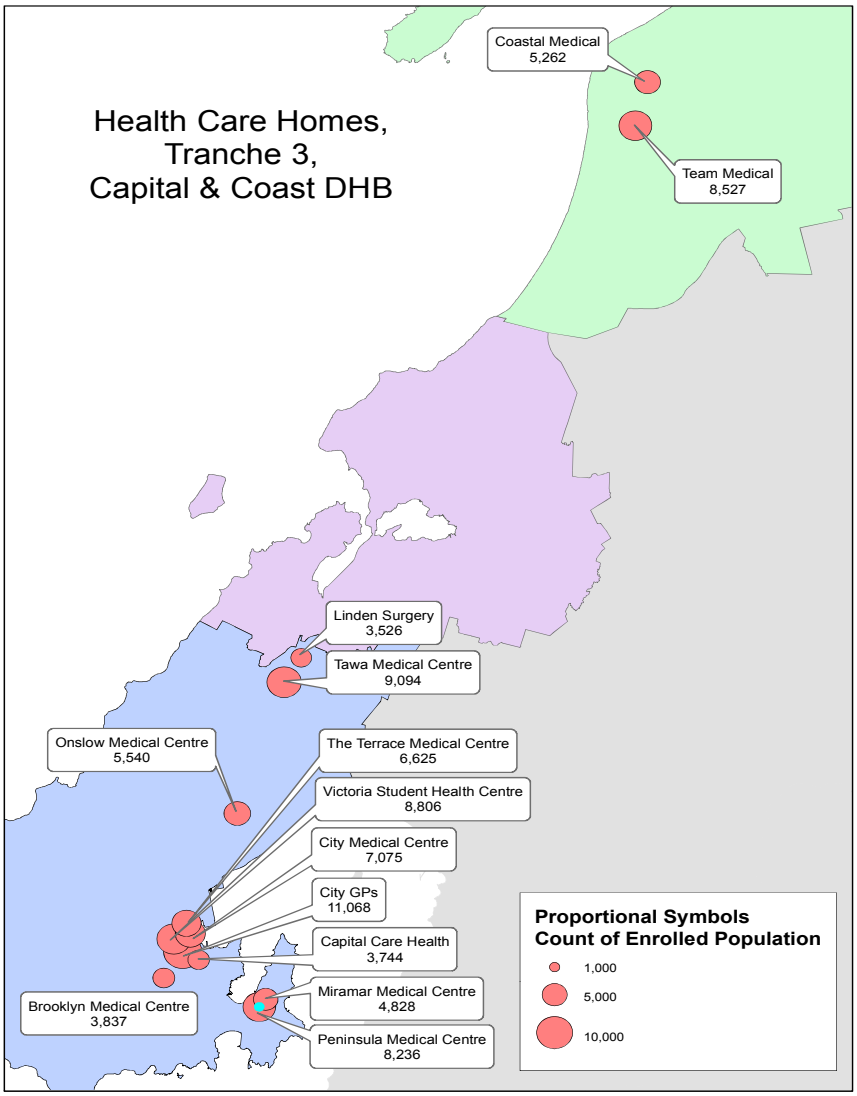
There has been an investment proposal put forward to enable another tranche of practices to reach the 80% coverage target. As depicted above relative to other investments the $17 per enrolled person to reach the population below is likely to be cost effective.



5.2 Investment

The HCH model implementation is being resourced through a collaboration between the DHB funder and PHOs. CCDHBs contribution in 2017/18 to the model is $2.6m, equalled by the investment by PHOs of 87.5% of CCDHB funding.

There is additional people and change management resource to support this programme of change from across the PHOs, SIP and DHB. Specific investments include support for community service integration capacity to participate in the primary health care multidisciplinary team, and the change management team working with individual practises to achieve the results.

Practice Population Based Funding	**$16 per enrolled population from CCDHB** **$14 per enrolled population from PHO**
Community Service Team Capacity	$150,000 pa
HCH Change Team – provided by Compass PHO	$500,000 pa

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Overall on a population reach the investment in 2017/18 equates to $16 per enrolled person by the DHB. Relative to other investments, the interim results to date and the direction to focus on community based services in the CCDHB Health System Plan the HCH development would be considered an effective investment.

6 PERFORMANCE TARGETS

The focus on delivering benefits for the investment have been incorporated in the CCDHB HCH model with 30% of the DHB contribution of ongoing funding ($16 per enrolled population) would be subject to a performance payment against these targets at the end of Year 2. From Year 2 of being a HCH, it is expected that practices will have changed their model of care significantly and in doing so be able to demonstrate population health based improvements that are based on cost-benefit, best practice and aspirational change.

The performance targets linked to payment are identified in the table below:

Measure at Practice Level	Target for 30 June 2018
Acute Admissions per 1000 Patients* (as a system based outcome measure)	4.2% annual decrease from practice baseline at 1 July 2017
ED Attendances per 1000 Patients* (as a system based outcome measure)	4.2% annual decrease from practice baseline at 1 July 2017
Ambulatory Sensitive Hospitalisations per 1000 Patients*(as a system based outcome measure)	4.2% annual decrease from practice baseline at 1 July 2017
Time to third next available appointment - TNAA (as a measure of routine appointment availability)	≤ 2 days by end of the year
Patient Portal – Minimum requirements and inbound activity (as a measure of capacity)	Minimum requirement of all patient portal functionalities & 10% annual increase from practice baseline at 1 July 2017

This is the first year of this expectation for the first tranche of HCHs. It is too early to report on achievements against these targets but early indications are strong.

7 ARE WE MAKING PROGRESS?

Below we outline the achievements of the Healthcare Homes against the quadruple aim for the first tranche of HCHs that launched during 2016/17. It is too early for a cost effectiveness analysis. These achievements are indicating the HCH model is successful in improving and transforming primary care performance to improve outcomes.

7.1 Patient experience – Quadruple AIM

The focus on improving the patient experience includes:

- improving access,
- experiencing better coordinated care, and
- new ways of providing feedback to the practices.

Patient access to their primary health care team has been increased across the HCHs with:

- an additional 30 practice opening hours,

- all of these practises now provide acute on-the-day appointments,
- these practises have taken 15,000 GP triage calls that have a 30% over the phone resolution rate,
- some of the practises have also developed nurse triage as an effective alternative to GP triage, and
- patient portals have been accessed by 17,395 patients across these HCHs.

For the people enrolled in these practises they can and have been readily interacting with their HCH practice team via their phone or computer to access health services such as booking appointments, ordering repeat prescriptions and having virtual consultations.

For those people using GP/Nurse triage, their care has been managed without them having to take time out from their day, travel and attend their appointment, while maintaining the continuity of care with their HCH clinical team. If even 30 minutes was saved through this we have returned about 281 working days back to the community.

Patients will also experience better **co-ordinated care** through their HCH practice as it is takes on the role of the core of the community health network. All CCDHB HCHs have a District Nurses and ORA Allied Health aligned to them that has driven better working relationships as well as a focus on people who are at higher risk identified either by risk stratification, shared lists or clinician led prioritisation. Collaboratively the teams work through multidisciplinary care planning sessions to work through proactive care plans and immediate patient care issues, brining care closer and more co-ordinated for the person.

Co-ordination of services has delivered:

- the integration of District Nurses and ORA Allied Health in each of the HCHs
- 290 cases coordinated through multidisciplinary team meetings in 2017

Finally, the importance of consumer engagement and monitoring the patient experience. There have been a number of other initiatives carried out by individual practices to ascertain feedback from their enrolled populations, such as the introduction of self-check kiosks and “push my button” tools. All the tranche 1 practices that are entering their second year of HCH implementation have included in their plans and budgets a consumer involvement approach.

7.2 Population Health – Quadruple AIM

Improving the health of the population will improve the affordability and financial sustainability of the health care system.

In addition to developmental milestones, the HCH is being monitored against a number of quality and population outcome indicators (see Appendix 1). Positive gains, while early are demonstrated below with improvements in presentations to ED and acute admissions for both the cohort of HCH Tranche 1 practices that launched in 2016/17 and non-HCH practices.

The improvement is more marked for the HCH cohort for the overall population as well as Māori and Pacific populations. There is approximately 10% difference in the actual ED presentations for total, Māori and Pacific populations in HCHs compared to projected results for these practices prior to the HCH initiative. Acute Admission differences are similar ranging from 9-13% differences. Further tranches have not been included in this analysis as their roll-out is occurring this financial year and results are early so should be considered preliminary.

Overall ED presentations are falling but are greater in HCH practises.

Graph 3: ED Presentations CCDHB Total Population – HCH and non-HCH

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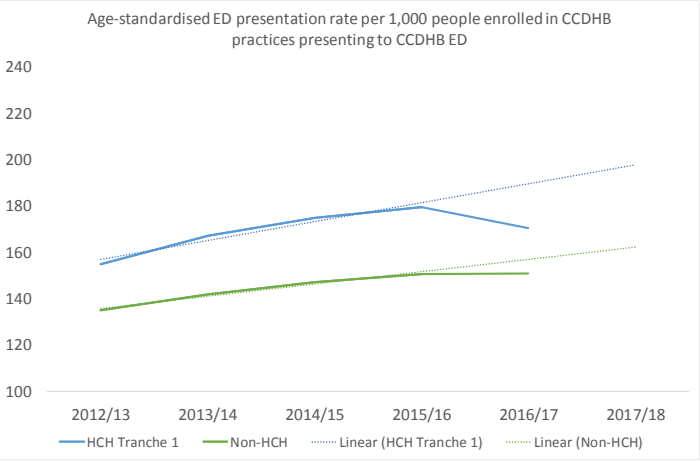
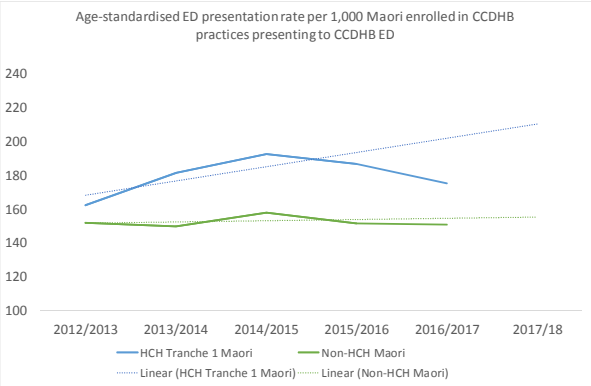
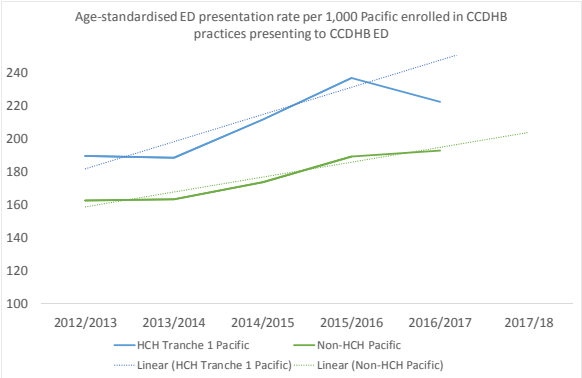


In CCDHB Māori and Pacific populations have higher rates (age standardised) of ED presentations and bed days compared to other populations. The highest rates of ED presentations are for those >65yo and ambulatory sensitive hospitalisations have been increasing for 0-4yo.

The improvement is greatest for Maori and Pacific people deomnstrating even grater impact for those populations that experience inequalities.

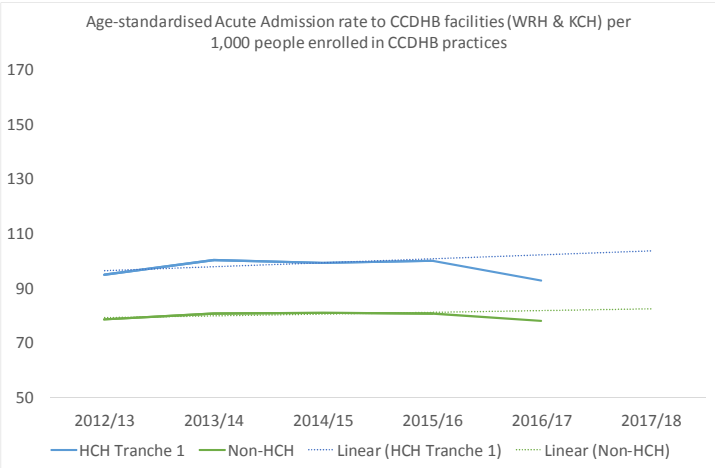
Graph 4 and 5: ED Presentations CCDHB Māori and Pacific Populations – HCH and non-HCH





Overall acute admissions for the total population are also falling at a greater rate for those enrolled in the HCH.

Graph 6: Acute Admissions for Total Population – HCH and non-HCH



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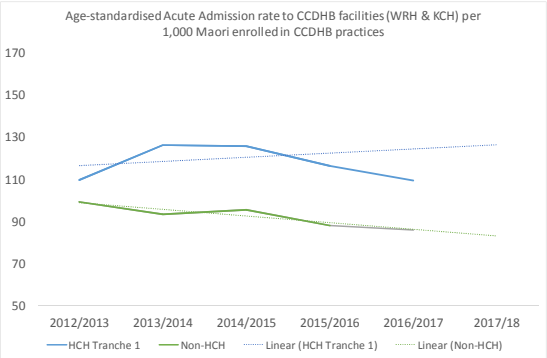
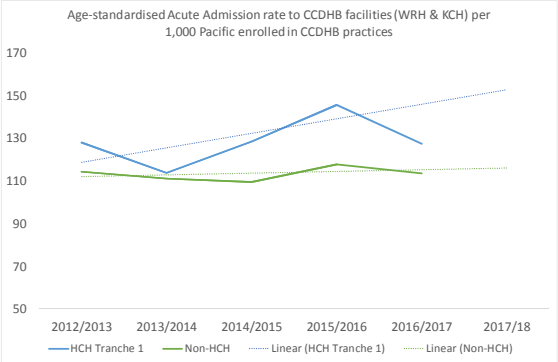
Graph 7: Acute Admissions for Māori and Pacific – HCH and non-HCH





7.3 Care team/clinician experience – quadruple Aim

One of the drivers for the CCDHB HCH was the ability to release capacity within practice teams with the increasing pressures on health providers. There has been a recent research project[1], results still in draft, which looked to understand staff experiences in the CCDHB HCH model. The project selected three HCH practices covering a wide range of different backgrounds in terms of geography, patient cohorts, and owner structure. There were a range of HCH practice staff members interviewed, and results were collated into key themes: Staff Experience of the domains of HCH Model, workload/scope of Work, workplace relationship and staff perception of HCH on patients.

Overall feedback from the HCH practice teams has been largely positive. Highlights captured in the report include:

- HCHs have enabled teams to better plan their days and streamlined processes that impact across the team
- Gained better understanding of wider health services, particularly the community teams that have been integrated with them
- Technology solutions and the application of lean processes have created efficiency opportunities to for practice team members
- Extended roles within primary care to have had a cascading positive satisfaction impact across the team
- The change approach within HCH as driven better connectivity and team dynamics within the practice

Selection quotes from members of the HCH practices as captured by the project are:

[1] Helen Kim. Otago University. "Learnings from Health Care shines in the CCDHB Regions - Evaluating the staff experience"

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GP 1 re GP Triage "You can get a story before they come in, so I know what they are coming in for and if they need investigations before they come, I can arrange those."

Nurse 2 "I think the patient health outcome has improved because people know what other services are doing so you are not overlapping all the time".

GP 2 Re Portal "It's been fantastic. It makes life much easier. For people who are getting results, I can get it to them more quickly, I can make comments, they can email me and I can reply and there is no middle man, there is no lost in translation."

HCA 1 "I've always enjoyed the patient side of it. All this means now is that with the new HCA role, I will have more of that."

PM 1 "The primary and secondary (care) are now starting to talk to each other. The barrier there was that we didn't know what each other were doing. Two totally different policies. Now that gap isn't as big due to the MDTs."

8 CONCLUSION

HCH is an investment that is delivering on its promises and has the potential to contribute to the transformation of our health system. There is great commitment from the practises who are identifying benefits that are systemic and improving their experience as providers.

HCH is also building capability in the primary care sector and CCDHB in supporting innovation using funding levers, with system performance.

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Appendix 1: Measures to monitor HCH implementation

Urgent and Unplanned Care

1. Age standardised ED attendances per 1000 enrolled patients
2. Age standardised After Hours Consultations per 1000 enrolled patients
3. Age standardised ASH Admissions per 1000 enrolled patients
4. Age standardised Acute Admissions & readmissions per 1000 enrolled patients
5. Triage outcomes—% of patients managed appropriately without a same day face to face appointment
6. Age standardised After Hours primary care Consultations per 1000 enrolled patients
7. Primary options for acute care claim volumes per 1000 enrolled population
8. Same day access for those where clinically appropriate
9. A&M/other Practice visits during business hours
10. Hospital bed days in the last 6 months of life
11. Average patient wait time to consult
12. Annual audit of triage patients and re presentations

Proactive Care

13. Age standardised Nurse Consultations per 1000 enrolled patients
14. Percentage of patients seeing their own GP
15. Average number of different clinicians seen over the last 10 visits
16. BMJ measure: percentage of consults with the GP seen most often over the 24month period
17. Percentage of DNAs at hospital FSAs
18. Partners in Health Scale—change in average score over time
19. % of high needs patients with a care plan and named coordinator

Routine and Preventative Care

20. Number of patient inbound secure messages through patient portal/1000 adults
21. No. of virtual (telephone/video) planned consults as % total consults
22. Patients with activated patient portal access per enrolled population
23. % of patients that have access to own notes (PHO measure)
24. Smoking quit rate
25. Dropped call rate
26. Patient experience survey scores
27. Wait times in the practice (post appointment time)
28. Time to 3rd available appointment
29. Percentage of DNAs at the practice

Business Efficiency

30. Practice team climate survey results
31. % Room utilisation for clinical interactions
32. No of aged standardised patients enrolled per GP FTE
33. No of aged standardised patients enrolled per Nurse/ FTE
34. % of enrolled population who leave during the year
35. Staff turnover
36. Sick days per FTE per year
37. Total phone calls per 1000 per month

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Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	**CPHAC DECISION PAPER**
	2 February 2018

Author	Astuti Balram. Manager – Integrated Care. Strategy, Innovation and Performance
Endorsed By	Rachel Haggerty, Director, Strategy, Innovation and Performance Dr Ashley Bloomfield, Acting CE - CCDHB
Subject	System Level Measure (SLM) Update – Progressing into 2018

RECOMMENDATIONS

It is recommended that CPHAC advise the Board that it:

- **Notes** each DHB is required to develop a SLM Plan that is endorsed by its Alliance and submit this as part of the Annual Plan;
- **Notes** for the CCDHB SLM Plan (Appendix 1) it was agreed that the milestones for the SLMs should take into consideration the strategic priorities across the sector, focus on achieving equity and be attainable while supporting the current good performance of CCDHB;
- **Notes** the ICC ALT provides oversight for progress of the 2017/18 SLM. To support this a summary dashboard has been created to highlight areas of progress and areas that require further improvements which is attached as Appendix 1.
- **Notes** the 2017/18 CCDHB SLM plan included goals to achieve equity for Ambulatory Sensitive Hospitalisation (ASH) 0-4 years old and acute bed days (ABD).
- **Notes** and the current quarter data is tracking to target for ASH 0-4 years old and for acute bed days (ABD) with the greatest achievements in our Pacific population and limited impact for our Māori population.
- **Endorses** the focus on improving equity in partnership with our Pacific and Māori teams to continue improvement for Pacific and improve the result for Māori.
- **Endorses** the focus on social determinants through connecting to the localities approach and the work of our public health service.
- **Note** we are awaiting further advice from the MOH for the 2018/19 SLM and that the MOH approved the CCDHB quarterly reporting progress for Oct –Dec 2017 (Appendix 2).

APPENDIXES:

1. **CCDHB SERVICE LEVEL MEASURES PLAN**
2. **ICC SERVICE LEVEL MEASURES DASHBOARD**

1. PURPOSE

To update on the system level measures monitored by the Ministry of Health, and the opportunities to improve performance including a focus on improving equity.

2. INTRODUCTION

The national System Level Measures Framework has been developed with a system-wide view of performance, building on the previous Integrated Performance Incentives Framework (IPIF). This was

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in response to a desire to lift performance measurement from a transactional approach to one based on outcomes, and aligns with the refreshed New Zealand Health Strategy. One of the aims of SLMs is to reflect the performance story across the health system to support the progress to integrated health services.

Each DHB is required to develop a SLM Plan that is endorsed by its Alliance and submit this as part of the Annual Plan. CCDHB committed to work in partnership to jointly develop and agree the current 2017/18 Improvement Plan with the Integrated Care Collaborative Alliance Leadership Team (ALT). There is funding related to the SLMs that is paid to PHOs which they receive at various milestones. For CCDHB this equates to close to $1.7m. The majority of the funding is targeted to practices to improve results for their communities.

The six System Level Measures (SLMs) being implemented for 2017/18 are:

- Ambulatory Sensitive Hospitalisation (ASH) rates per 100,000 for 0-4 year olds
- Acute hospital bed days per capita
- Patient experience of care
- Amenable mortality rates under 75 years.
- Proportion of babies who live in a smoke-free household at six weeks postnatal (developmental)
- YYouth access to and utilisation of you-appropriate health services (developmental)

3. DEVELOPMENT, IMPLEMENTATION AND OVERSIGHT

The SLM Development Group convened with sector wide membership, and discussions were facilitated by the Integrated Care Collaborative ALT Programme Manager to progress the CCDHB SLM Improvement Plan. To support development a horizon scan of measures across the CCDHB Annual Plan, ICC ALT framework, PHO Quality Measures and Hospital Quality measures was undertaken. The Group then identified key system principles to guide the focus for the Improvement Plan development.

It was agreed that the milestones for the SLMs will take into consideration the strategic priorities across the sector, focus on achieving equity and be attainable while supporting the current good performance of CCDHB. These were then translated to the first cut selection of system goals, SLM milestones, contributory measures and potential improvement processes, which have collectively been refined to this CCDHB SLM Improvement Plan.

Diagram one: The Plan development Process

The CCDHB SLM plan (Appendix 2), includes an improvement milestone for the SLM, a brief description of activities to be undertaken by primary, secondary and community providers to achieve the SLM milestone and a suite of contributory measures for each SLM.

The CCDHB SLM Performance Dashboard (Appendix 1) has been developed to enable governance of the overall SLM Plan progress by the ICC ALT, as well a shared with the sector to support the drive for improvement.

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4. 2017-18 SLM PLAN PROGRESS

Progress is being made in the implementation of the SLM Plan across the measures as detailed in the attached dashboard. (Appendix 1) There are strong positive achievements against this plan with a wide range of activity contributing to success in system performance.

While noting overall progress, key highlights noted this quarter have been the improvements seen in the ASH 0-4 years old particularly for Pacific and in the Acute Bed Days, again for Pacific.

4.1. AMBULATORY SENSITIVE HOSPITALISATION (ASH) RATES PER 100,000 FOR 0-4 YEAR OLDS

One of CCDHBs strategic goals is to improve child health and child health services to support all families to maximise their children's health and potential. The CCDHB 2017/18 SLM Plan includes a milestone for ambulatory sensitive hospitalisations for 0-4 years old is to achieve equity for all population groups over 5 years (by 2021/22), and for 2017/18 a 9% reduction in ASH rate for Pacific and maintenance of equity for the Māori population with total population.

There is demonstrated improvement for the Pacific children and for the total child cohort 0-4 years old, compared to the same time last year.

The drivers for these improvements achieved are multifactorial, ranging from changes in social determinants of health, to prevention, proactive management and acute care within the community. The diagram outlines key stakeholder groups that would be contributing to the improvements for the total population and Pacific.

The SLM Dashboard (Attachment 2) outlines the success in progress in activity:

- ✓ The DHBs immunisation rate at two years for Pacific continues to be at or above the 95% national target. The immunisation rate for Māori was 93% in Q2 2017/18.
- ✓ The DHBs performance towards achieving the national Health Target *'Raising Health Children'* continues to improve. Now that systems are in place, CCDHB is on track to exceed the target in 17/18.
- ✓ Tranche 2 of the HealthCare Home model will reach 53% of the Māori and 67% of the 0-4 years old in CCDHB.
- ✓ The percentage of children enrolled in the Bee Healthy Regional Dental Service was substantially greater in 2016 than in previous years for all ethnic groups.

The immunisation rates at 8 months are marginally below the 95% target, with Pacific population at Māori populations achieving 94% immunisation rates.

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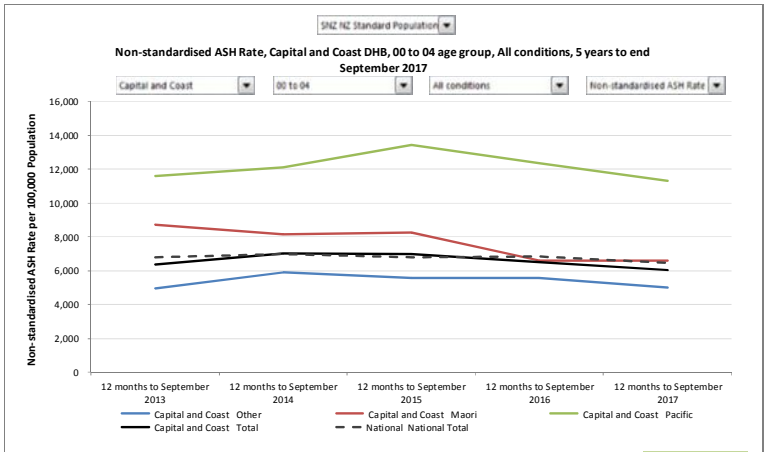
Table One: Non-standardised ASH ate for 0– 4 yr olds



Previous initiatives that have been carried out focused on the Top 10 ASH 0-4 years old rates have included the Child ICC project to improve support for children when they are discharged with a respiratory condition. They introduced processes to ensure these children are provided with best practice advice on managing their condition, are referred to the Well Homes service and Porirua Asthma service.

Additional tools have been implemented by PHOs to drive quality improvements, such as the inclusion of the SLM measures in the Practice Quality Reports that are updated weekly for practices within Compass PHO. Cosine PHO has invested in data visualisation that provides a summary of daily discharge data to allow the PHO and practice to identify frequent flyers, those with chronic conditions, those referred for admission and those actually admitted including children.

The following table outlines the change in the number of children between September 2016 and 2017 for the Top 10 specific conditions. These conditions are affected by different drivers of health outcome and inform further improvement initiatives.

Table two: Top Ten Conditions for an ASH by Ethnicity

	Maori			Pacific			Other			Total		
	Sep-16	Sep-17	Change	Sep-16	Sep-17	Change	Sep-16	Sep-17	Change	Sep-16	Sep-17	Change
Asthma	56	53	3	48	53	-5	142	121	21	246	227	19
Upper and ENT respiratory infections	46	49	-3	36	51	-15	161	181	-20	243	281	-38
Dental conditions	73	50	23	60	59	1	96	120	-24	229	229	0
Gastroenteritis/dehydration	19	25	-6	16	12	4	111	143	-32	146	180	-34
Pneumonia	10	11	-1	20	19	1	34	36	-2	64	66	-2
Cellulitis	9	16	-7	23	18	5	26	26	0	58	60	-2
Lower respiratory infections	12	20	-8	13	17	-4	20	39	-19	45	76	-31
Dermatitis and eczema	5	9	-4	11	18	-7	13	16	-3	29	43	-14
Constipation	1	0	1	1	0	1	14	8	6	16	8	8
GORD	1	1	0	1	0	1	8	8	0	10	9	1
Total	235	234	1	249	229	20	701	629	72	1185	1092	93

The improvements achieved in the ASH rates for Pacific have resulted from fewer children presenting to the hospital with conditions such as gastroenteritis and cellulitis. A reduction in the number of non Māori and non Pacific children presenting with asthma and constipation. There is negligible improvement for the Māori population.

As indicated in the 2017/18 CCDHB SLM Plan, which established a 5 year equity (to total population) target based on MOH guidelines. While further effort is required, current indications suggest that the CCDHB system if it continues with the current progress is working to its equity goal in 5 years.

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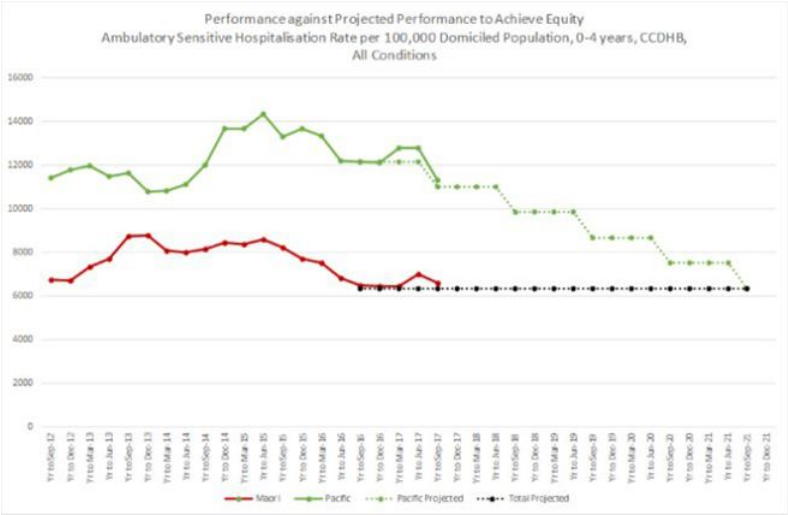
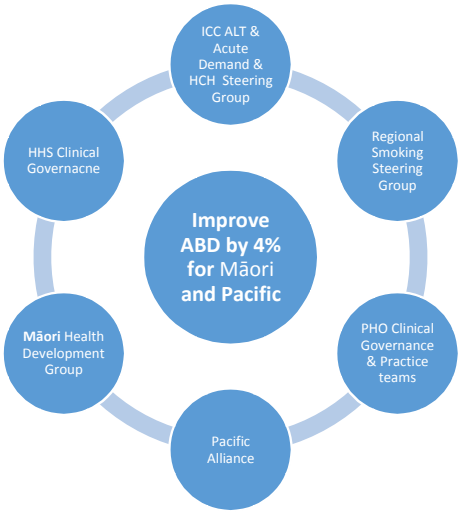
Table three: Projected performance to achieve equity



4.2. ACUTE HOSPITAL BED DAYS PER CAPITA

As identified in the 2017/18 SLM Plan CCDHB is aiming support all populations to be well in the community and to receive appropriate care when they are not well. This includes achieving equity for Māori and halving the equity gap for Pacific. For 2017/18 this will require an improvement of 4% in acute bed day, age standardised rates for both Māori and Pacific populations in 2017/18.

The drivers for these improvements achieved are also multifactorial, ranging from changes in social determinants of health, to prevention, proactive management, acute care within the community, flow through the hospital and effective discharge processes. The diagram outlines key stakeholder groups and a selection of activities that would be contributing to the improvements for the Pacific population.



The SLM Dashboard (Appendix 1) outlines the success in progress in activity:

- ✓ The smoking quit rate for Pacific and Other patients continues to increase with Ora Toa data may see improved outcomes for Māori.
- ✓ The total average length of stay for CCDHB residents at CCDHB facilities has slightly decreased, however is lower than the same period 12 months previous.
- ✓ Tranche 2 of the HealthCare Home model will reach 51% of the overall CCDHB population, and 59% and 60% of the Māori and Pacific populations respectively.

Influenza immunisation rates have dropped compared to the previous years and improvements in cellulitis and DVT presentations requires investigation within the Primary Options for Ambulatory Care programme.

Table four: Acute Bed Days by Ethnicity

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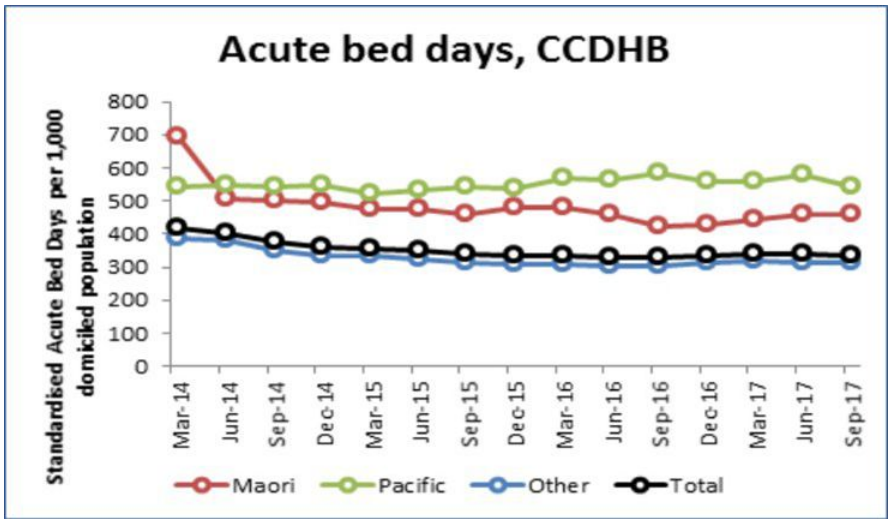
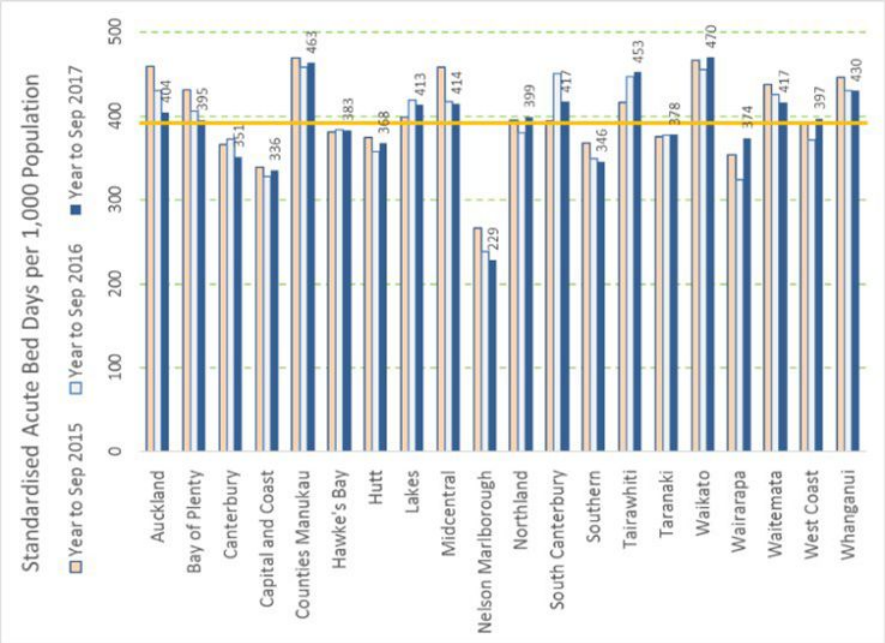


The recent update from the MOH demonstrates improvements for the Pacific population, compared to the previous quarter that has contributed to the change overall. CCDHB also maintains its ranking as the 2nd in terms of DHB acute bed day rates.

Table five: All DHB Acute Bed Day Rates



Relative to other DHBs, overall CCDHB does have a lower burden of potentially high needs groups and this contributes somewhat to the positive relative positive performance. This advantage is somewhat balanced by the adjustment in funding that is CCDHB is resourced with based on its population demographics.

Similar to the ASH 0-4 years old progress sustained improvements will achieve the equity in acute bed days for the Pacific population. Further work is required to make this progress for the Māori population.

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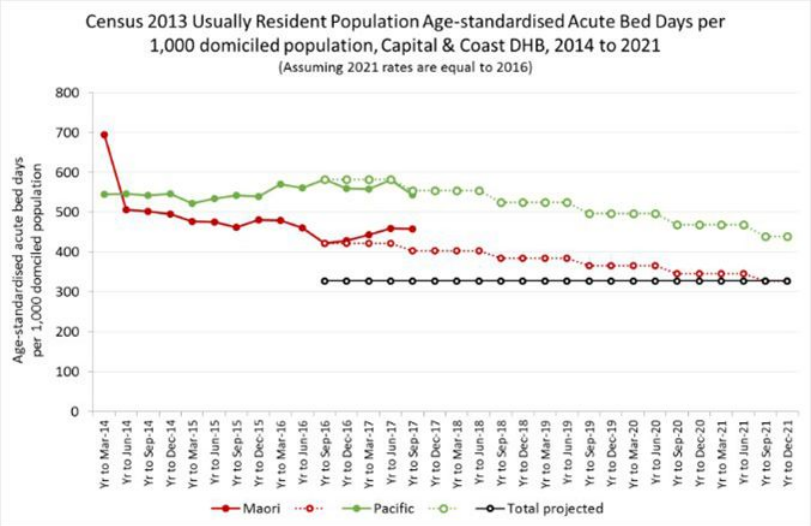
Table six: Projected performance to achieve equity



The small levels of change, if sustained change will achieve equity when Māori and Pacific are achieving the same rates of the non Māori and non pacific population.

5. NEXT STEPS

The achievement of the system improvements and equity requires a continued focus. The integrated data sets and our analytics will continue to strengthen our approach. The key priority areas are:

- Identifying strategies to lift performance with Māori in partnership with the Māori health team.
- Continue the strong performance with the Pacific team to continue the gains for our Pacific community.
- A greater focus on social determinants as well as health behaviours and clinical services. This will be achieved through connecting to the localities approach and the work of our public health services.
- Continue to connect performance expectations to the Health Care Home and forming Community Health Networks.

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Capital & Coast DHB

System Level Measures Improvement Plan 2017/18

Written by: Astuti Balram, ICC Programme Manager,

on behalf of the CCDHB Integrated Care Collaborative (ICC) Alliance

V2 Final for Submission to MOH 24th July 2017

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SIGNATORIES

Capital & Coast DHB	Debbie Chin, Chief Executive
Integrated Care Collaborative	Dr Bryan Betty, Chair
Compass Health	Martin Hefford, Chief Executive
Cosine Primary Care Network Trust	Dr Peter Moodie, Director
Ora Toa PHO	Teiringa Davies, Manager

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Introduction

Background

The national System Level Measures Framework has been developed with a system-wide view of performance, building on the previous Integrated Performance Incentives Framework (IPIF). This was in response to a desire to lift performance measurement from a transactional approach to one based on outcomes, and aligns with the refreshed New Zealand Health Strategy. The Ministry of Health has worked with the sector to co-develop a suite of System Level Measures (SLMs) to support this whole-of-system view of performance.

CCDHB committed to work in partnership to jointly develop and agree the 2017/18 Improvement Plan with the Integrated Care Collaborative Alliance Leadership Team (ALT). The CCDHB SLM plan includes the following:

- an improvement milestone for the SLM (either for total population, Maori or other population where equity gaps exist) from the district baseline provided by the Ministry
- brief description of activities to be undertaken by primary, secondary and community providers to achieve the SLM milestone
- suite of contributory measures for the SLM and
- district alliance stakeholder agreement with the plan

In addition the DHB has local Implementation Plan to support the SLM Improvement Plan that includes:

- Activities to meet the Improvement Milestones for SLMs and the quantitative goals for selected contributory measures
- An investment logic, including the above activities and key stakeholder contributions
- A local reporting and accountability dashboard and framework.

2017/18 System Level Measures

The six System Level Measures (SLMs) being implemented for 2017/18 are:

- Ambulatory Sensitive Hospitalisation (ASH) rates per 100,000 for 0-4 year olds
- Acute hospital bed days per capita
- Patient experience of care
- Amenable mortality rates under 75 years.
- Proportion of babies who live in a smoke-free household at six weeks post natal (developmental)
- Youth access to and utilisation of youth-appropriate health services (developmental)

The following three SLMs and two primary care Health Targets will be incentivised through the Primary Health Organisation (PHO) Services Agreement in 2016/17:

- Ambulatory Sensitive Hospitalisation (ASH) rates per 100,000 for 0-4 year olds
- Acute hospital bed days per capita
- Patient experience of care
- Better help for smokers to quit (90 percent of PHO enrolled patients who smoke have been offered help to quit smoking by a health care practitioner in the last 15 months & 90 percent of pregnant women who identify as smokers upon registration with a DHB-employed midwife or Lead Maternity Carer are offered brief advice and support to quit smoking
- Increased immunisation for eight month olds (95 percent of eight months olds will have their primary course of immunisation - six weeks, three months and five months immunisation events - on time)

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CCDHB SLM Plan Development 2017/18

Collaborative Development Team

The ICC ALT and Programme Board provided direction for the development processes undertaken. In addition to members of these leadership group, the CCDHB SLM development has included discussion with the following:

- PHO CE and/or Clinical Quality Leads
- Hospital Services Quality Team
- Director of Nursing, Primary & Integrated Care
- CCDHB GP Clinical Advisor
- ICC ALT Programme Manager & Co-ordinator
- Māori Health Director and Māori Health Development Group, CCDHB
- Pacific Health Director and Pacific Directorate Team, CCDHB
- Child & Youth Health Team, Strategy, Innovation & Performance Directorate
- Child ICC Steering Group, as well as expanded stakeholder group at workshop
- 3DHB Youth Service Level Alliance, as well as expanded stakeholder group at workshop
- GM, Mental Health & Addictions, Strategy, Innovation & Performance Directorate

Principles for Improvement 2017/18

The ICC ALT and the SLM Development Group agreed that the milestones for the SLMs should take into consideration the strategic priorities across the sector, focus on achieving equity and be attainable while supporting the current good performance of CCDHB.

To support the focus on equity in the SLM Plan the following are underway:

- Develop and implement of a CCDHB Equity Strategy
- Data for the SLMs and CMs will be monitored and reported by ethnicity, where possible
- Implementation plan that will focus on accelerating improved outcome for Māori, Pacific and populations with high need
- Advice and oversight by Māori will be sought and provided to support accelerated improved outcome for Māori
- A Pacific Alliance is in development and this group will maintain a focus and work together to achieve outcomes for target populations, including children.

In selecting the contributory measures (CM) and the domains within the Youth SLM the following principles were applied:

- Linked to current strategic priorities
- Relevant to family & whanau; clinicians; managers
- Focus that aims to achieve equity
- Relevant to vulnerable populations including but not limited to older people and children
- Impact on a reasonable sized population
- Balancing a mix of outcomes and outputs
- Performance can be influenced through stakeholders and partners engaged with the DHB
- Return on input investment

Where an improvement initiative and CM is included in the DHB Annual Plan 2017/18, this has been referenced with “(AP 17/18)”.

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Improvement Initiative – Health Care Home

While improvements in SLMs will require the partners in the CCDHB system to deliver a number of initiatives, one of the key developments is the CCDHB Health Care Home (HCH) model. The CCDHB HCH initiative is a team-based health care delivery model, led by primary health clinicians, providing comprehensive and continuous health and social care with the goal of supporting individuals to obtain the best possible health outcomes. To deliver on this in CCDHB the HCH practices are required to deliver the following service elements: GP triage and on the day telephone consults; on the day appointment for triaged patients; call management arrangements; extended hours availability; patient portal uptake and increased use; delivery of packages of care (POAC); Person Centric Appointments; Year of Care planning for at risk; clinical and administrative pre-work; enhanced layout of facilities; workforce development; lean process and community Service Integration. CCDHB is working to achieve more than 40% coverage of its population by the end of 2017/18.

SLM Plan 2017/18 Governance

The CCDHB SLM Performance Dashboard has been developed to provide performance data for each SLM, a description summary of progress and trend data on each CM. The dashboard is utilised by the ICC ALT to enable governance of the overall SLM Plan, and will be shared with each PHOs Clinical Governance Group, the Māori Health Development Group and Pacific Health Team to support the drive for improvement. Specific SLM dashboards will also be utilised by respective ICC ALT Steering Groups to drive service improvement initiatives and provide oversight for their area of focus.

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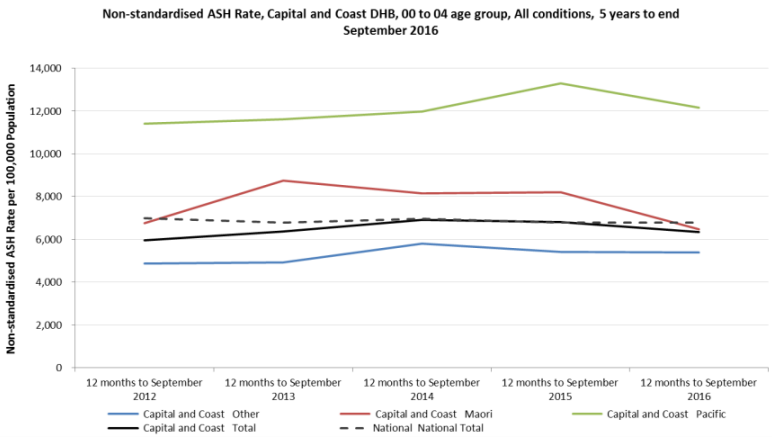
Ambulatory Sensitive Hospitalisations 0-4yo

We want all of our children to have a healthy start in life

One of the CCDHBs strategic goals is to improve child health and child health services in the CCDHB. Our system will empower all families to maximise their children's health and potential. In doing so CCDHB milestone will be to achieve equity for all population groups over 5years (by 2021/22), and for 2017/18 a 9% reduction in ASH rate for Pacific and maintenance of equity for the Māori population with total population.

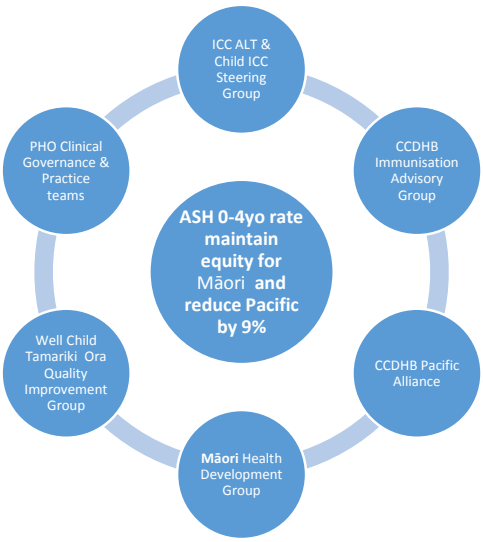
Where we are now?

- Most years CCDHB rates are lower than national rates
- The Top 10 includes conditions related to respiratory, skin and dental
- Inequities are evident with Pacific children whose rates are about double that of total population.
- Equity for Māori children, in comparison to the Total population, has been achieved however there is still a gap between Māori and Other
- It is also noted that while the rates for Pacific children are relatively higher, the actual volumes of ASH related presentations are considerably lower than for the total. (Yr to Sept 2016 by volume Pacific 249, Māori 235, Other 701)



How will we get there?

Key partners in the CCDHB System who will work together to improve this SLM:



Initiatives led by these groups will focus on improvements preventative, proactive & acute care for babies, children and their whanau

Improvement initiatives	Contributory Measures
Review Core 1 check and develop an improvement action plan focused on immunisation rates of Māori, Pacific and new migrant babies. (AP 17/18)	Immunisation Health Target
Assess the pathway, uptake and follow through of referrals to Pre-school Active Families for Māori and Pacific children. (AP 17/18)	Healthy Kids Health target
Improve dental enrollment through data sharing mechanisms (AP 17/18)	Dental enrollment and carries free rates
Health Care Home enrollment to include populations with high numbers of Māori & Pacific children	Child coverage numbers in HCH
Implement improvements to referral processes for the Pacific Navigation Service	Referrals volumes of children to Pacific Navigation

Patient Experience of Care

PUBLIC

We want to encourage patient involvement and feedback

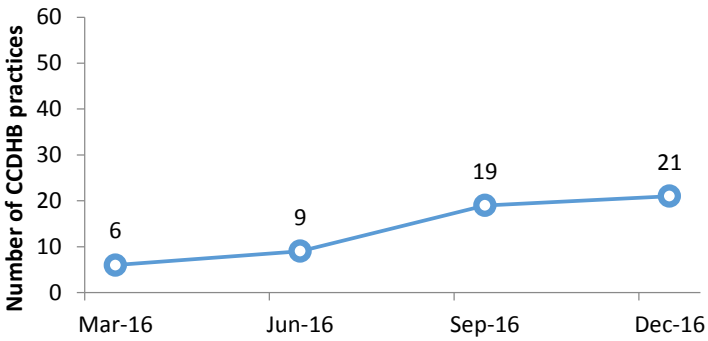
This will support improvement initiatives that will lead to improved health service design and patient experience of care. One of the DHBs local priorities is to monitor patient experience to ensure better health outcomes are achieved. In 2017/18 CCDHB will ensure that 75% of primary care practices are participating in the patient experience survey (PES) and in future years achieve improvements in PES scores. The 2017/18 AP includes the establishment of a Consumer Council (AP 17/18).

Where we are now?

- The uptake of the PES in primary care is increasing
- CCDHB is on national average for 4 core elements: communication, coordination, partnership, physical & emotional needs for most quarters as per the primary care PES
- CCDHB maintains good return rates for the hospital PES

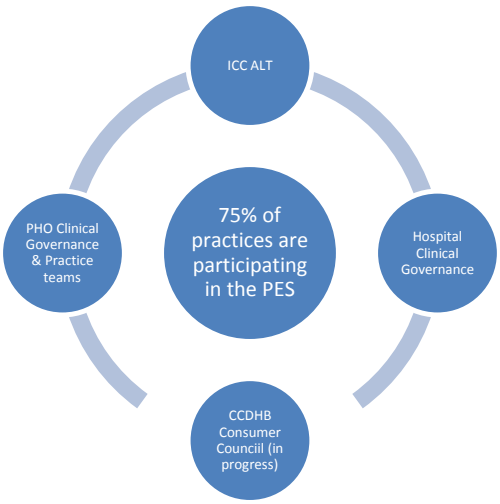
In future there is a strong motivation for CCDHB to move to focusing on the results of the PES results across primary and secondary care and consideration of an equity focus.

Practice uptake of patient experience survey



How will we get there?

Key partners in the CCDHB System who will work together to improve this SLM



Improvement initiatives	Contributory Measures
PHO facilitation teams support uptake of the National Enrollment Service (NES) in practice, which is required to run the PES across some practices	NES uptake by practices
Hospital experience survey is a focus of the Hospital Quality team, as well as related improvement initiatives eg. Reducing medicine errors (AP 17/18)	Return rate of hospital patient experience survey
Promote the use of the patient portal in primary care through the Health Care Home programme	Patient portal uptake and activation

PUBLIC

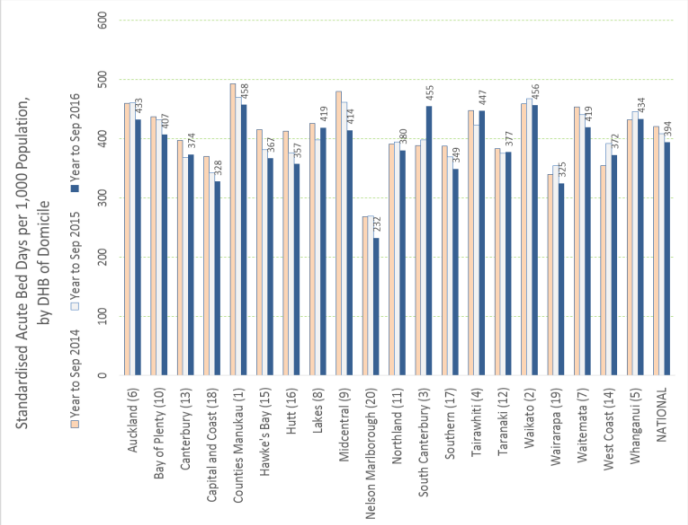
Acute Bed Days

We want our population to be well in the community and be supported to receive appropriate care when they are not well.

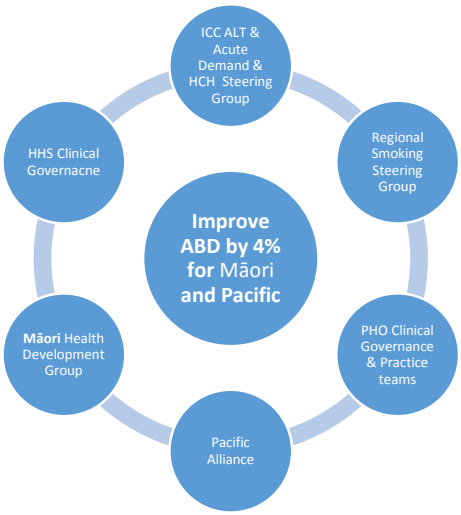
Better health and independence for people, families and communities is the CCDHB vision with a focus on equity. In doing so over 5years (by 2021/22) CCDHBs milestones will be to achieve equity for Māori and half the equity gap for Pacific. For 2017/18 this will require an improvement of 4% ABD, age standardised rates for both Māori and Pacific populations in 2017/18 to be on track for the 5yr target.

Where we are now?

- CCDHB has the 2nd lowest ABD in NZ, with continued improvement over the last few years
- Compared to other age bands, >85yo have the highest bed day per 1000
- Equity is yet to be achieved for Māori and Pacific populations compared to total utilizing age standardized rates
- Stroke, respiratory infection and heart failure are the Top 3 diagnosis (DRG) for acute bed days per 1000
- Acute length of stay and elective length of stay in CCDHB continue to reduce over recent quarters
- ED attendance rate had been increasing more quickly than the national rate however has slowed in the last two years



How will we get there?



Initiatives led by these groups will focus on improvements preventative, proactive, acute care as well as patient flow through the hospital.

Improvement initiatives	Contributory Measures
Progress roll-out of HCH model across primary care, targeting practices with high volumes of Māori and Pacific. (AP 17/18)	HCH Enrollment
Improve flow in ED and specialty response to ED (AP 17/18)	Length of Stay
PHO facilitation teams drive process improvements in practices to achieve smoking Health Target and increase referrals for cessation support (AP 17/18)	Smokers Quit Rate
PHO facilitation teams support practices with opportunistic and recall processes to achieve flu vaccination targets (AP 17/18)	Vaccination rates in >65yo
Increase the uptake and flexibility of existing primary care packages of care (AP 17/18	Uptake of primary care packages of care

PUBLIC

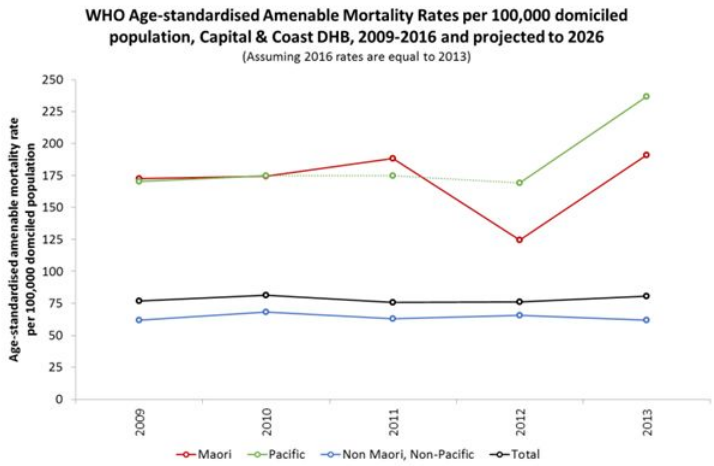
Amenable Mortality

We want to have an effective CCDHB health system, for the individual and population.

As per the DHBs strategic goals and local priorities CCDHB will look to reduce amenable mortality rates for Māori and Pacific, with a focus to half the equity gap 10yrs from now- 2027. (Note baseline data is from 2013)

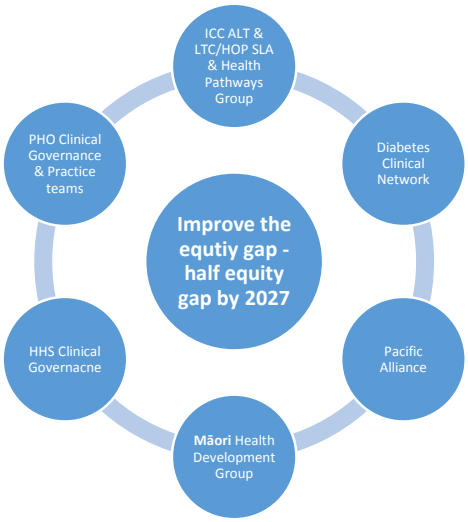
Where we are now?

- 5th lowest in the NZ, with small fluctuations
- Inequities evident with the Pacific population having the highest mortality rates, followed by Māori and then the other population
- Ischaemic Heart Disease (IHD), diabetes and suicide and are ranked the Top 3 conditions for CCDHB



How will we get there?

Key partners in the CCDHB System who will work together to improve this SLM



Initiatives led by these groups will focus on improvements preventative, proactive and enabling equitable access for all population groups.

Improvement initiatives	Contributory Measures
Complete and begin implementation of a CCDHB Obesity Prevention Plan, including plans to achieve equitable outcomes for Māori and Pacific children. (AP 17/18)	Uptake of Green Prescription Plus
PHO facilitation teams support practices to achieve cervical screening targets through provision of regular data feedback between PHOs and practices (AP 17/18)	Cervical screening rates
Deliver the Diabetes Care Improvement Plan (AP 17/18) and cardiovascular management in primary care	HbA1C>64mmol/mol and not on insulin Microalbuminuira & not on ACEI High (>20%) CVD risk and on statin
Primary care access supported in primary care as ongoing focus in PHOs and through the HCH model	Access ratio
Continue to progress localization of Health Pathways (AP 17/18)	Number of pathways & utilisation

PUBLIC

Babies living in Smokefree Homes

We want all our babies to have the best start in life in a safe and healthy environment

In CCDHB we want our babies to thrive and go on to become adults that self determine their own health outcomes The aim of our CCDHB system is to encourage, inform and support our population to enjoy excellent health and wellbeing for themselves and their families. In doing so, CCDHB will focus on increasing the proportion of whānau who are asked about the smoking status in the home and have this recorded at the 6week Well Child Tamariki Ora check to at least 50%.

Where we are now?

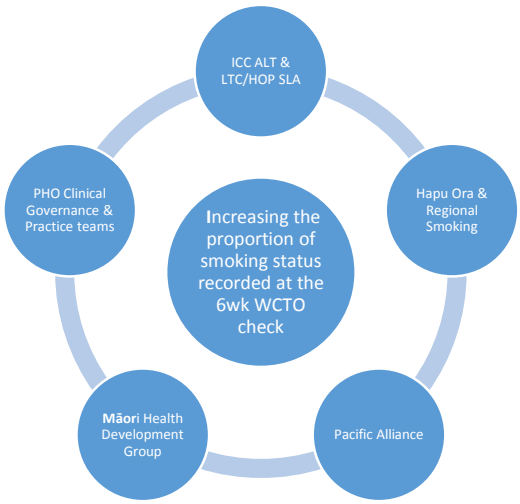
New babies with no record ie unknown for household smoker at a WCTO Core Contact before 50 days of age

Was the smoking status checked at 6wk check? 1 Jul-16 to 31 Dec-16	Total	Percentage
Yes	204	14%
No, Not Asked, Unknown, (blank)	1233	86%
Total	1437	100%

14% of whanau are asked about the smoking status in the home at the 6week Well Child Tamariki Ora check in CCDHB.

How will we get there?

Key partners in the CCDHB System who will work together to improve this SLM



Initiatives led by these groups will initially focus on improvements in data collection, and in the future population, antenatal and postnatal smoking cessation support for whānau and babies.

Improvement initiatives	Contributory Measures
Work with WCTO Improvement Group to assess and improve the processes for the WCTO data collection at the 6wk check	Smoking status recorded at 6wk check
Encourage referral of young Māori females and whānau to Regional Smoking Service	Service utilization
Improve registration of pregnant women with LMC though the Maternity Quality & Safety programme	Percentage of women registered with LMC
Monitor and assess the Hapū Ora service for young pregnant women to ensure responsiveness and outcomes aligned with expectations. (AP 17/18)	Uptake of Hapū Ora service
Maintain a programme of ABC training for health care professionals to support achievement of the health target in primary care and the KPI for hospital maternity services. (AP 17/18)	ABC training delivery

Youth access to & utilisation of youth appropriate services

PUBLIC

We want our youth to be healthy, safe and supported.

In 2017/18 CCDHB will focus on the Alcohol and Other Drugs domain of the developmental Youth SLM. The long-term aim is that young people experience less alcohol & drug related harm and receive appropriate support. In 2017/18, CCDHB will primarily aim to improve data quality around alcohol-related Emergency Department (ED) presentations for 10 – 24 year olds and aim to have ≤15% of 10-24yo presenting to CCDHB hospital whose answer to the question "is alcohol associated with this event?" is "Unknown.

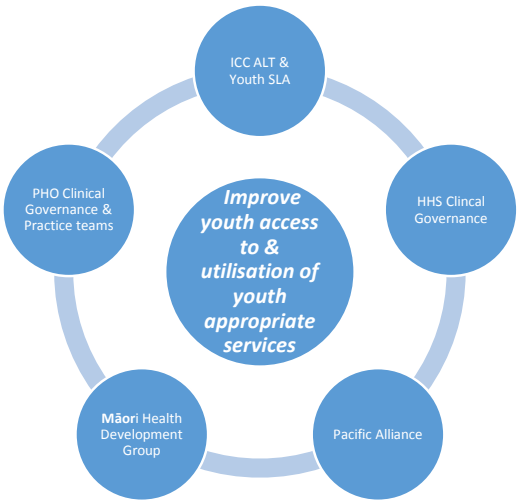
Where we are now?

For the Youth SLM target setting CCDHB will utilise the following two domains

% of 10-24yo presenting to CCDHB hospital whose answer to the question "is alcohol associated with this event?" is "Unknown"			
	2015/16	**2016/17 year to date**	**Target**
Maori	65%	17%	≤15%
Pacific	64%	15%	≤15%
Other	61%	15%	≤15%
Total	62%	15%	≤15%

How will we get there?

Key partners in the CCDHB System who will work together to improve this SLM



Initiatives led by these groups will initially focus on improvements in data collection

Improvement initiatives	Contributory Measures
Work with ED to improve screening and data collection processes on alcohol related presentation.	Alcohol related presentations
Implement a 3DHB Youth Alcohol & Other Drug / Co-existing Problems specialist liaison service	Referral volumes to service
Primary care teams encouraged to implement processes to complete alcohol screening	Numbers of youth with alcohol screening completed in primary care

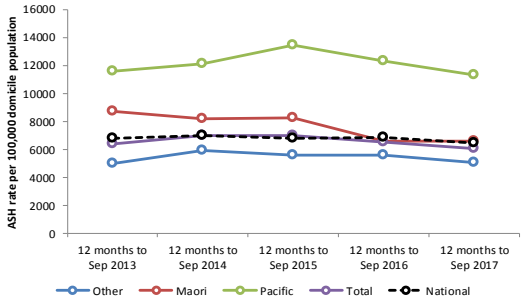
PUBLIC

Updated December 2017

Integrated Care Collaborative

SLM - Ambulatory sensitive hospitalisations 0-4 yrs

CCDHB ASH rate 0-4 yrs



Capital & Coast DHB is now working towards the 2017/18 milestones of achieving a 9% reduction in ASH rates for the Pacifc children population and maintaining equity for Maori.

✕ The immunisation rate for Māori at eight months is 94% in Q2 2017/18. Immunisation rates at eight months for Pacific was 94% in Q2 2017/18.

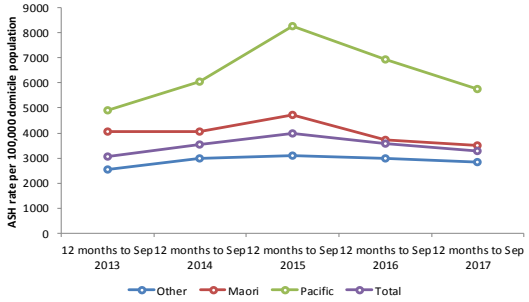
✔ The DHB's immunisation rate at two years for Pacific continues to be at or above the 95% national target. The immunisation rate for Maori was 93% in Q2 2017/18.

✔ The DHB's performance towards achieving the national Health Target *'Raising Health Children'* continues to improve. Now that systems are in place, CCDHB is on track to achieve target in 17/18.

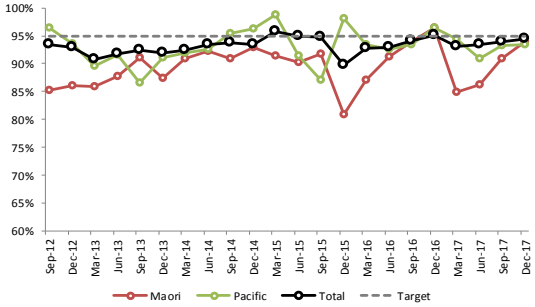
✓Tranche 2 of the HealthCare Home model will reach 53% of the Maori and 67% of the 0-4yo in CCDHB.

✔ The percentage of children enrolled in the Bee Healthy Regional Dental Service was substantially greater in 2016 than in previous years for all ethnic groups.

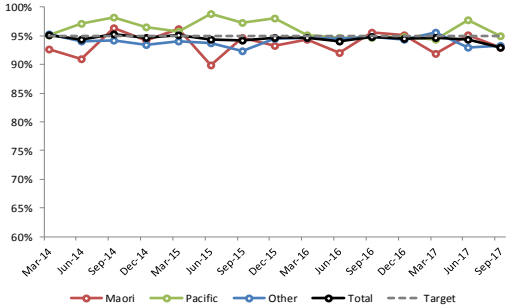
CCDHB respiratory ASH rate 0-4 yrs



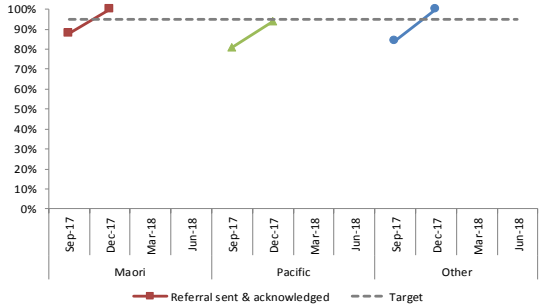
CCDHB infants fully immunised at 8 months



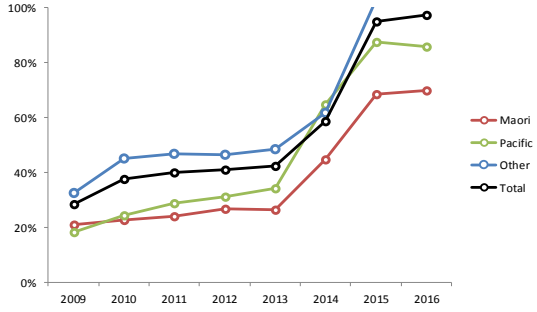
CCDHB infants fully immunised at 2 years



CCDHB B4 School Check referrals for obesity

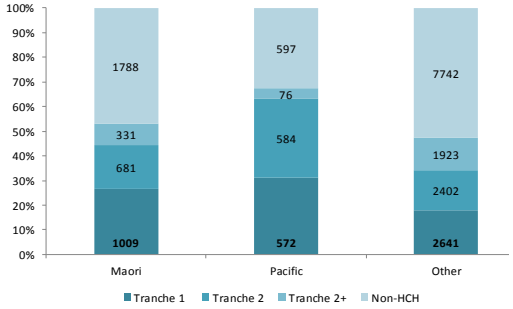


CCDHB pre-school enrolment in school dental services

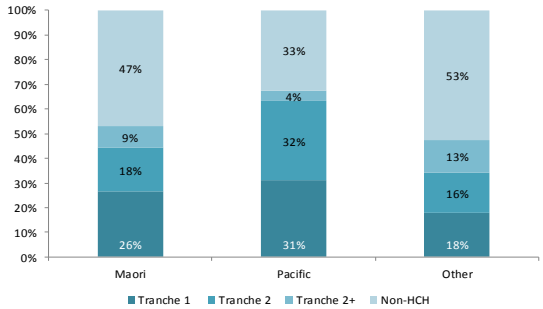


582
PACIFIC NAVIGATOR
Referrals
2016/17

HCH Patient Population by Ethnicity, 0-4 years, October 2017



HCH Patient Population by Ethnicity, 0-4 years, October 2017



Updated December 2017

Integrated Care Collaborative

SLM - Patient Experience of Care

Capital & Coast DHB has achieved the SLM milestone for 2016/17. The focus for 2017/18 is 75% of primary care practices are paticipating in PES.

✕ The DHB's results of across all domains in the adult inpatient experience survey have decreased. Further work is required to improve these scores.

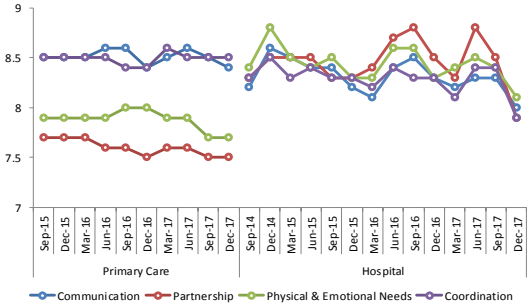
✕ The DHB's results across the Partnership and Communication domians in the primary care patients experience survey are below the national average.

✔ The domains of Coordination and Physical & Emotional Needs in the primary care patient experience survey are in line with the national average.

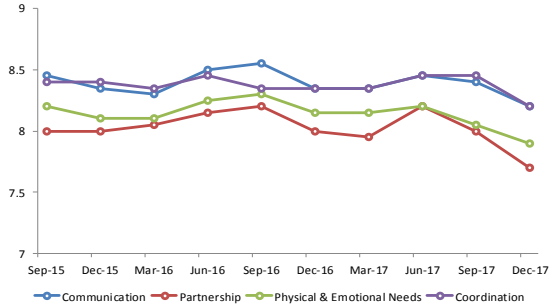
✔ 94% of patients enrolled in primary care have a Shared Care Record.

✔ Patient registrations and activitiations on Patient Portal continue to experience significant growth.

Patient Experience Survey, CCDHB



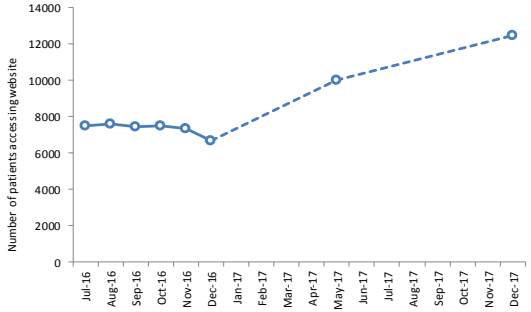
Composite Patient Experience Survey Score, CCDHB



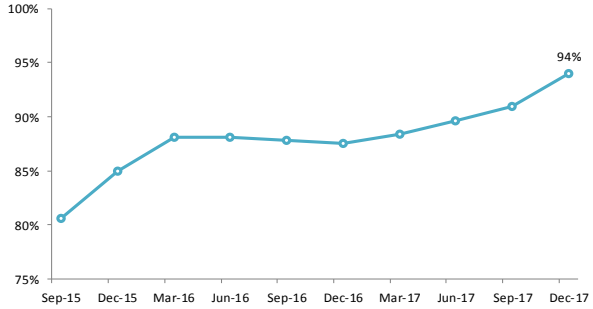
52,942 Patients registered on PATIENT PORTAL Dec-17

42,870 patients registered & active on PATIENT PORTAL Aug-17

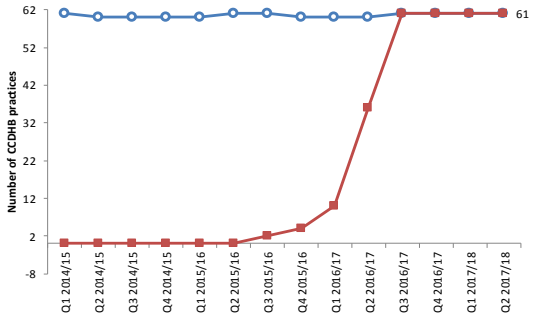
CCDHB patient access to Health Navigator website



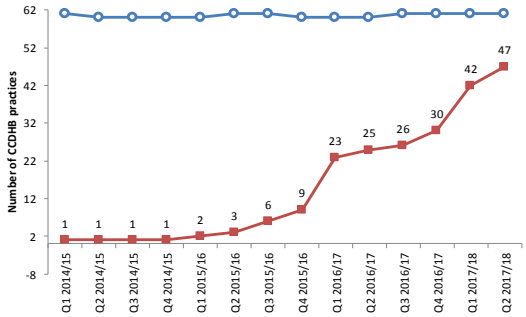
Percentage of patients with Shared Care Record



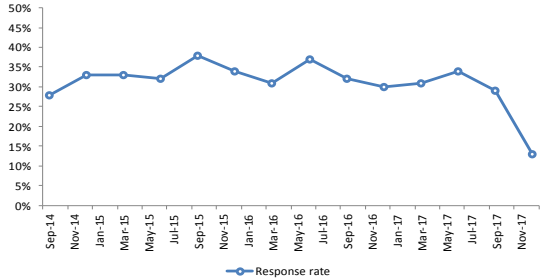
Practice uptake of National Enrolment Service



Practice uptake of patient experience survey



Response rate of Adult Inpatient Experience Survey, CCDHB



Updated December 2017

Integrated Care Collaborative

SLM - Acute bed days

Capital & Coast DHB has achieved the SLM milestone for 2016/17.
2017/18 SLM is 4% reduction in age standardised acute bed day rates for both Maori and Pacific populations

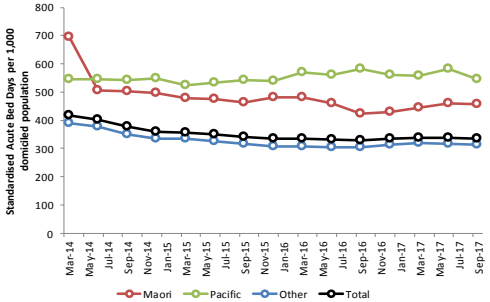
✕ The seasonal influenza immunisation rate for Māori has decreased slightly from 48% to 45% in winter 2017. Over the same period, the influenza immunisation also decreased for for Pacific from 67% to 62%.

✔ The smoking quit rate for Pacific and Other patients continues to increase. Inclusion of Ora Toa data may see improved outcomes for Maori.

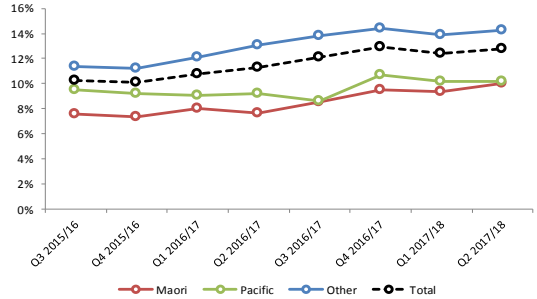
✔ The total average length of stay for CCDHB residents at CCDHB facilities has slightly decreased, however is lower than the same period 12 months previous.

✕ Further work is required to understand the rising incidence of DVT and and Cellulitis cases in relation to POAC.

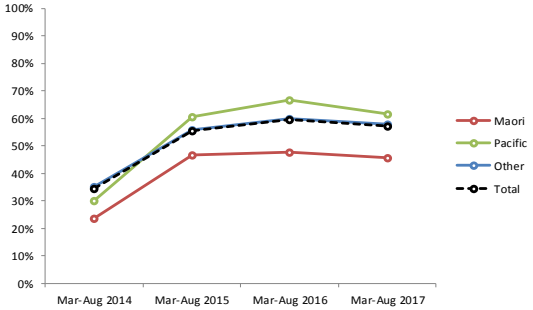
Acute bed days, CCDHB



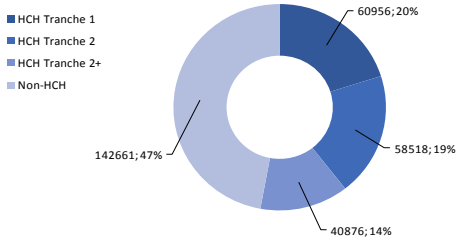
CCDHB Smoking Quit Rate

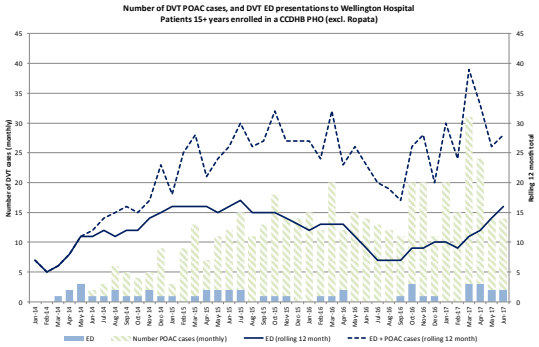


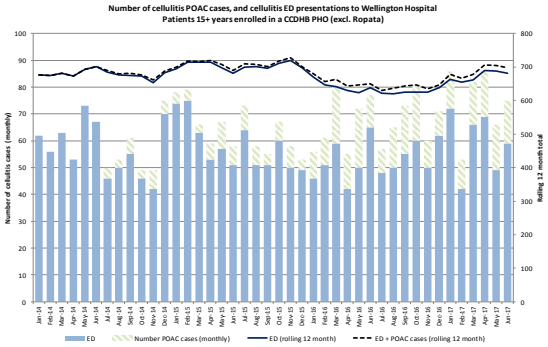
CCDHB Seasonal influenza vaccination 65+ years



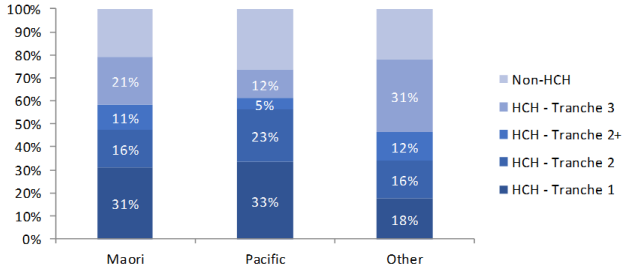
HCH Patient Population, October 2017



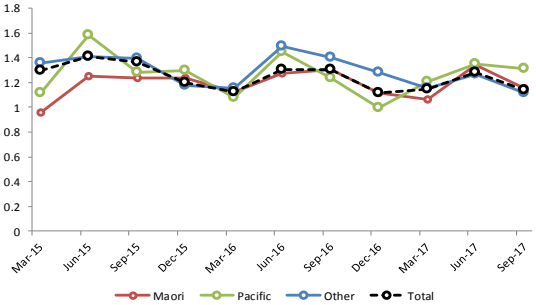




HCH Patient Population by Ethnicity, Oct. 2017



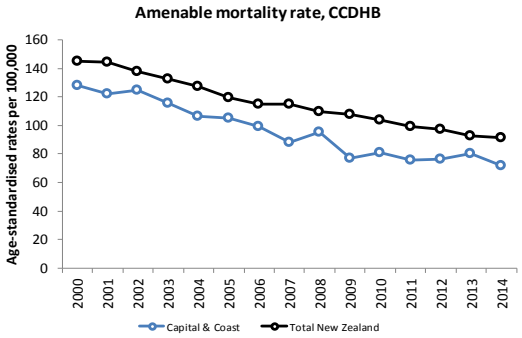
Total Average LOS, CCDHB residents CCDHB facilities



Updated December 2017

Integrated Care Collaborative

SLM - Amenable mortality



Capital & Coast DHB has achieved the SLM milestone for 2016/17. Capital & Coast DHB 2017/18 half equity gap in 10 yrs (2027).

✓ In CCDHB, high needs patients continue to access primary care at higher rates than the non-high needs population. Ths indicates primary care is accessible. However, further work is required to reduce their demand for health services.

✓ Sport Wellington have exceeded their referral target for Green Prescriptions in 2017/18.

✕ Improvements in cervical screening coverage are required to reach the 80% national target for eligible Maori and Pacific women and counter the declining coverage trend.

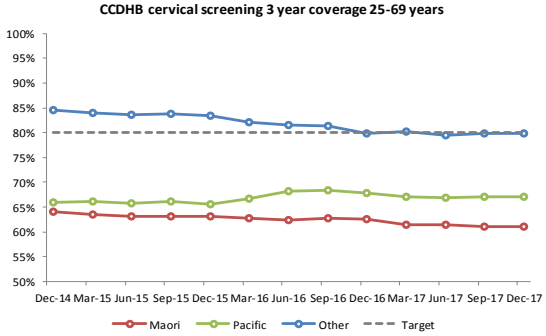
✕ Further work is required to reduce the number of people with a diagnosis of diabetes and HbA1c>64mmol/mol and not on insulin. Thiese numbers should improve with greater numbers of insulin starts in the community.

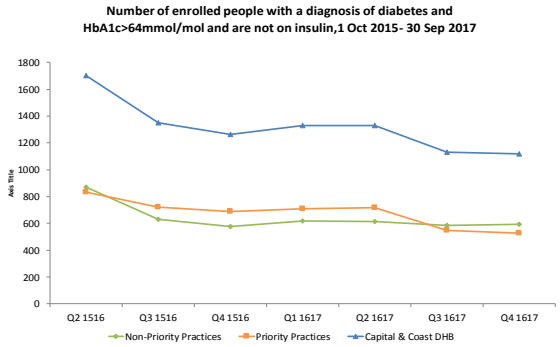
✕ Further work is required to improve the number of people with a diagnosis of microalbuminuria and not on ACE inhibitors.

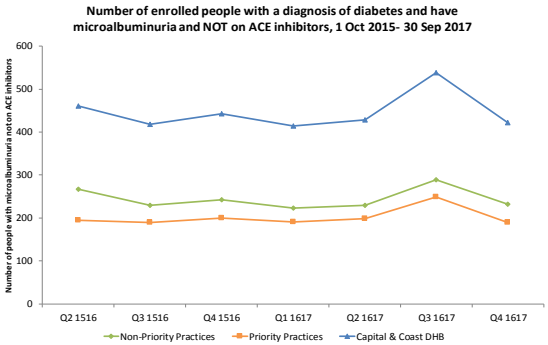
359
new and localised
HEALTH PATHWAYS
Dec-2017

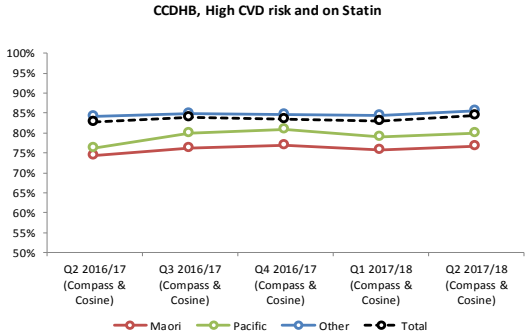
2,035
page views per day to
HEALTH PATHWAYS WESBITE
Q2 2017/18

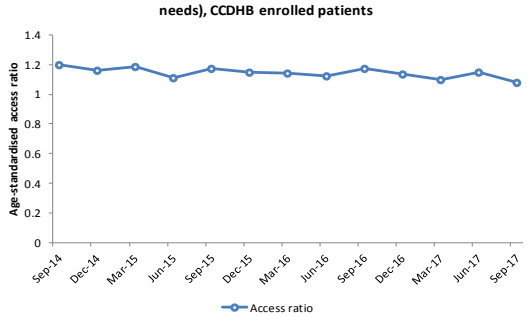
2,096
adult referrals to
GREEN PRESCRIPTION
programme in the sub-region
Jan-Sep 2017











Updated December 2017

Integrated Care Collaborative

SLM - Smokefree homes

NOTES TO THE INDICATORS

Note this SLM dashboard is developmental.
CCDHB will focus on increasing the proportion of whānau who are asked about the smoking status of household members in the home and have this recorded at the 6 week Well Child Tamariki Ora check to at least 50%.

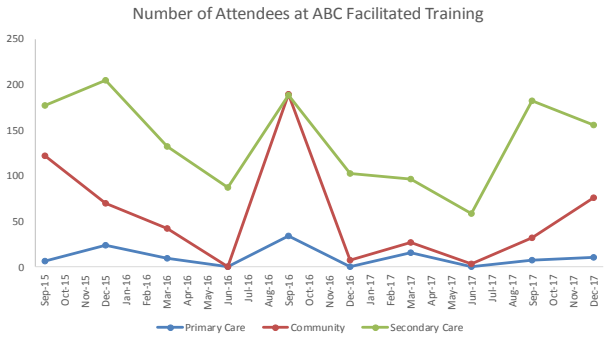
Where are we now?

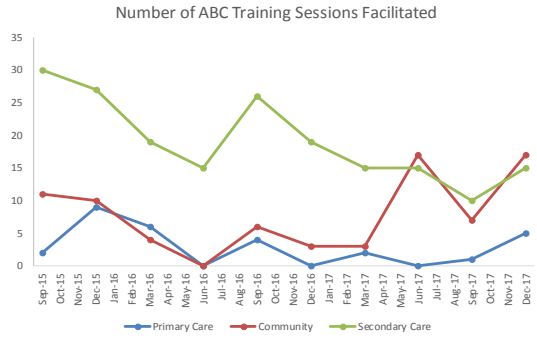
Was the smoking status checked at 6wk check? 1 Jul-16 to 31 Dec-16	Total	Percentage
Yes	204	14%
No, Not Asked, Unknown, (blank)	1233	86%
Total	1437	100%

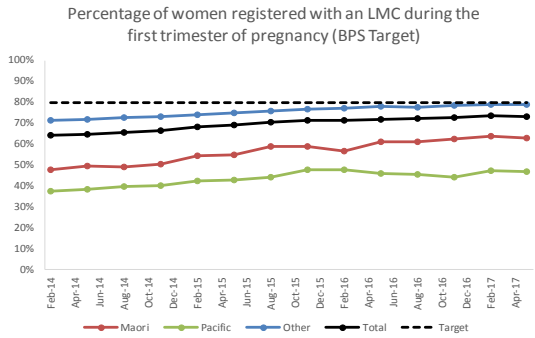
Improvement initiatives include:
Service utilisation of Regional Smoking Service

Hapu Ora Stop Smoking Service

In total, 69 women have been referred to the Hapu Ora service.
41 Maori
16 Pacific
12 Other Ethnicities
Between Oct-Dec 2017, 35 new referrals were made.
Between Oct-Dec 2017, 17 women exited the programme with 6 successfully quiting
6 women declined stop smoking support
5 women could not be contacted.







Updated December 2017

Integrated Care Collaborative

SLM - Youth access & utilisation of services

NOTES TO THE INDICATORS

Note this SLM is developmental.
CCDHB will focus on improving the data quality around alcohol-related Emergency Deparmtne t(ED) presentations for 10-24 year olds and aim to have <=15% of 10-24 year olds presenting to CCDHB hospitals whose answer to the question "Is alcohol associated with this event?" is Unknown.

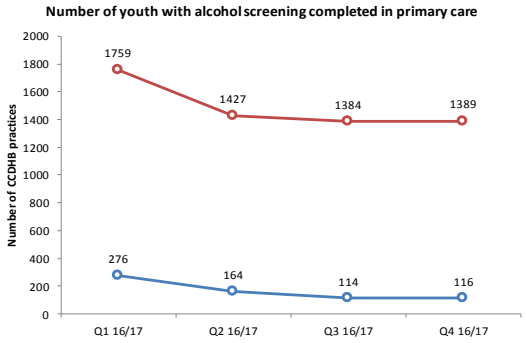
Where are we now?

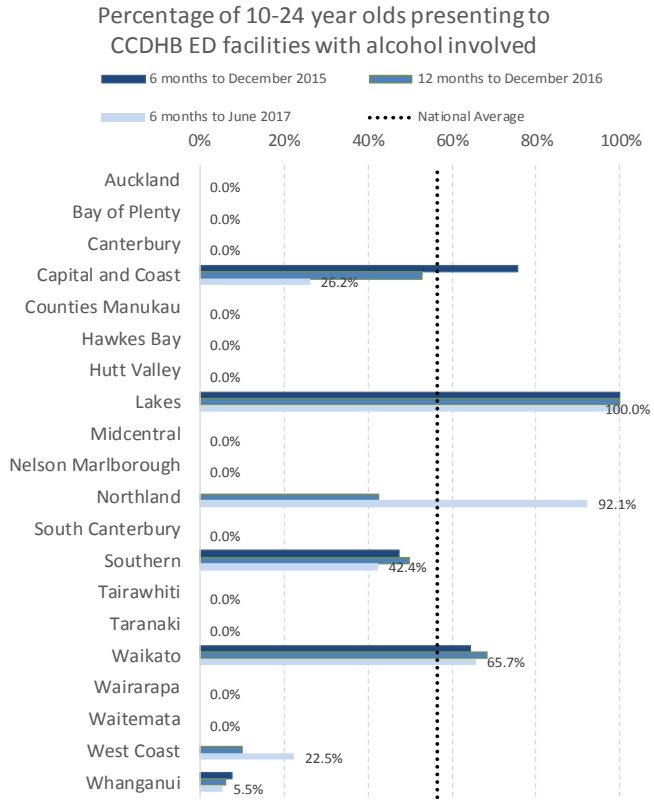
% of 10-24yo presenting to CCDHB hospital whose answer to the question "is alcohol associated with this event?" is "Unknown"			
	2015/16	2016/17 year to date	Target
Maori	65%	17%	≤15%
Pacific	64%	15%	≤15%
Other	61%	15%	≤15%
Total	62%	15%	≤15%

Improvement initiatives include:

Alcohol related presentations to ED

Referrals volumes to 3DHB Youth Alcohol & Other Drug service





Note includes only those DHBs that have submitted data as part of the pilot.
Inlcudes responses where alcohol involvement is Unknown

Updated December 2017

53
67

Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	CPHAC DECISION PAPER
	2 February 2018

From	Rachel Haggerty, Director – Strategy, Innovation & Performance (SIP)
Author	Jan Marment, Senior Systems Development Manager – Strategy, Innovation & Performance Sandra Williams, General Manager Primary and Complex Care, Strategy, Innovation & Performance
Endorsed By	Dr Ashley Bloomfield, Interim Chief Executive, Capital and Coast DHB (CCDHB)
Subject	Performance Dashboard - Health of the Older Person Contracted Services

RECOMMENDATIONS

It is recommended that CPHAC**:**

- **Notes** that CCDHB invests in Needs Assessment Service Coordination, a small number of community support services, Age Residential Care and Home-Based Support Services.
- **Notes** that CCDHB invested $67.5m in aged residential care services (ARC) and $34.4m on home care support and disability services in 2017/18.
- **Notes** SIP has existing quality indicators for health of older person's services which are used to assess how well the system is working and also to monitor individual provider performance.
- **Notes** that there is an opportunity to create a more effective dashboard that monitors indicators of care, process, quality and outcomes has been developed to assist CCDHB to improve oversight and leadership of the older person's community service sector.
- **Endorses** the development of the proposed Older Persons Service Dashboard with its focus on structure, system level performance and impact measures.
- **Endorses** working with the interRAI programme to develop the impact measures for individuals.
- **Notes** the need to work with Aged Residential Care to understand whether staffing levels should, or can be monitored and to consider customer satisfactory assessment.
- **Notes** an investment plan is being developed to support healthy ageing investment in the longer term and an update will be provided to CPHAC in April 2018.

APPENDIXES:

1. **INSTRUCTIONS ON USING THE INTERRAI DATA VISUALISATION (A WEB-BASED TOOL)**

1 PURPOSE

The purpose of this paper is to seek advice on CPHAC on a proposed Older Person Service Dashboard and update CPHAC on the how CCDHB monitors the quality and effectiveness of services provided in the community to older people including aged residential care (ARC), home based support services (HBSS) and NASC (Needs Assessment & Coordination).

2 PREVIOUS CPHAC/DSAC DISCUSSION

The 3DHB CPHAC/DSAC meeting in September 2017 received a full update on older person's services. This committee requested an update on how CCDHB ensures the quality of services for the elderly including the indicators used to ensure the quality of services delivered.

3 SCOPE

This paper focuses on services provided in the community for older people by non-DHB providers. It does not include the services provided by CCDHB including domiciliary nurses, outpatient services, and specialist community team services such as the Older Adult Rehabilitation Team, Psychogeriatric team, primary care and non-funded services.

4 INVESTMENT

CCDHB is investing $67.5m in aged residential care services (ARC) and $34.4m on home care support and disability services in 2017/18. CCDHBs level of investment has been stable over the last three years as effective management of admission to ARC services, and the strong management of home care support service. Total investment increased in 2017/18 because of the pay equity settlement, which was funded by central government.

The introduction of pay equity will impact positively on the quality of services provided in ARC and HCSS by supporting a more stable workforce, enabling more comprehensive training of care givers and support ongoing professional development. Historically, the turnover rate for HCSS workers was around 30%. Such rapid change in workforce meant it was very difficult to ensure staff were appropriately trained, retained and reliable which impacted on the organisation's ability to get staff to where they were meant to be, to be able to replace staff on leave or sick, and work in more isolated geographical areas.

Since the introduction of pay equity a small number of ARC providers across New Zealand indicated pay parity implementation has affected their sustainability. In CCDHB three facilities indicated they are impacted and have received top-up funding from the transitional support process run by the MOH.

5 COMMUNITY SERVICES FUNDED BY CCDHB FOR OLDER PEOPLE

CCDHB invests in Needs Assessment Service Coordination, a small number of community support services, Age Residential Care and Home-Based Support Services.

5.1 Needs Assessment service coordination service (NASC)

The CCDHB Care Coordination Centre (Nurse Maude) is contracted to manage referrals, assess clients and allocate services for older people. Care Coordination's range of services include: referral and care management; interRAI assessment; liaison with providers across the health system; and single point of entry for community services.

The NASC has advantage of being able to access the whole range of community services and supports available depending on the needs identified. Their knowledge of the range of support available both funded and unfunded informs their decision making and ability to advise clients and their whanau.

The NASC operates a seven day a week referral service prioritising referrals and linking referrers to the most appropriate service. Assessment using interRAI tools supports the care management decisions.

5.2 Community support services

There are community based funded providers who provide important services specifically to support older people living at home who are frail with complex needs. These services are small in number but reflect a growing need to have greater support in the community to support wellbeing for this population.

These include:

- **Accredited Visiting Service** is managed by Age Concern. The NGO coordinates volunteers to visit people in their homes. The service matches volunteers to older people who are isolated and/or lonely. This service was recently awarded the Volunteer of the Year award at the CCDHB 'Celebrating our Success' Awards.
- **Wellelder** provide specialist counselling to those over 65 in the community. The main themes covered in counselling are: depression, grief and loss, being a carer and relationships. Wellelder provide services in the local community, people's homes and either one to one or group counselling. 75 years is the median age of people using the service. The feedback from people using the services is extremely positive and has been consistently so, over many years.
- **Wesley Community Action** provide a service to those who are frail and require specialist and more intensive support to manage their everyday lives. These are often people with very complex needs without family or friends who can help. Wesley provide service to those people who are marginalised and who require skilled interventions to take advantage of supports. Wesley are active in mentoring other organisations to be more confident in providing support to this group. For instance, they chair a multi-sectorial group for supporting those who hoard, have been involved in setting up the Welfare Guardian Trust and have the contract for Elder Abuse response service in Wellington.
- **Alzheimer's Wellington** provide one to one or group support/education to those with dementia and their families/carers. They have been instrumental in the successful roll out of the Dementia pathway in Wellington and Hutt Valley. This is evidenced by these pathways having vastly more 'hits' than any other health pathway.
- **Day activity programmes** are available in the community.
    - Chelsea, Marsden, Redwood, Kāpiti Cottage and Nikau provide day activity programmes. These are programmes in the local community where people are transported to and from home for a day of activity, meals and company. They offer carers time out and give clients time out from their usual routine. These programmes are well attended and are mostly provided in suburban houses, which makes them more appealing. The DHB has increased the amount paid per day for several of the community based activity providers. This increase has enabled providers to increase the number of days it can offer the service.
    - Redwood, the day programme at Tawa, is fully subscribed with a small waiting list. This programme has a large Māori and Pacific client group.
    - The aged care facility in Titahi Bay has a thriving day activity programme within its facility which reflects their community.

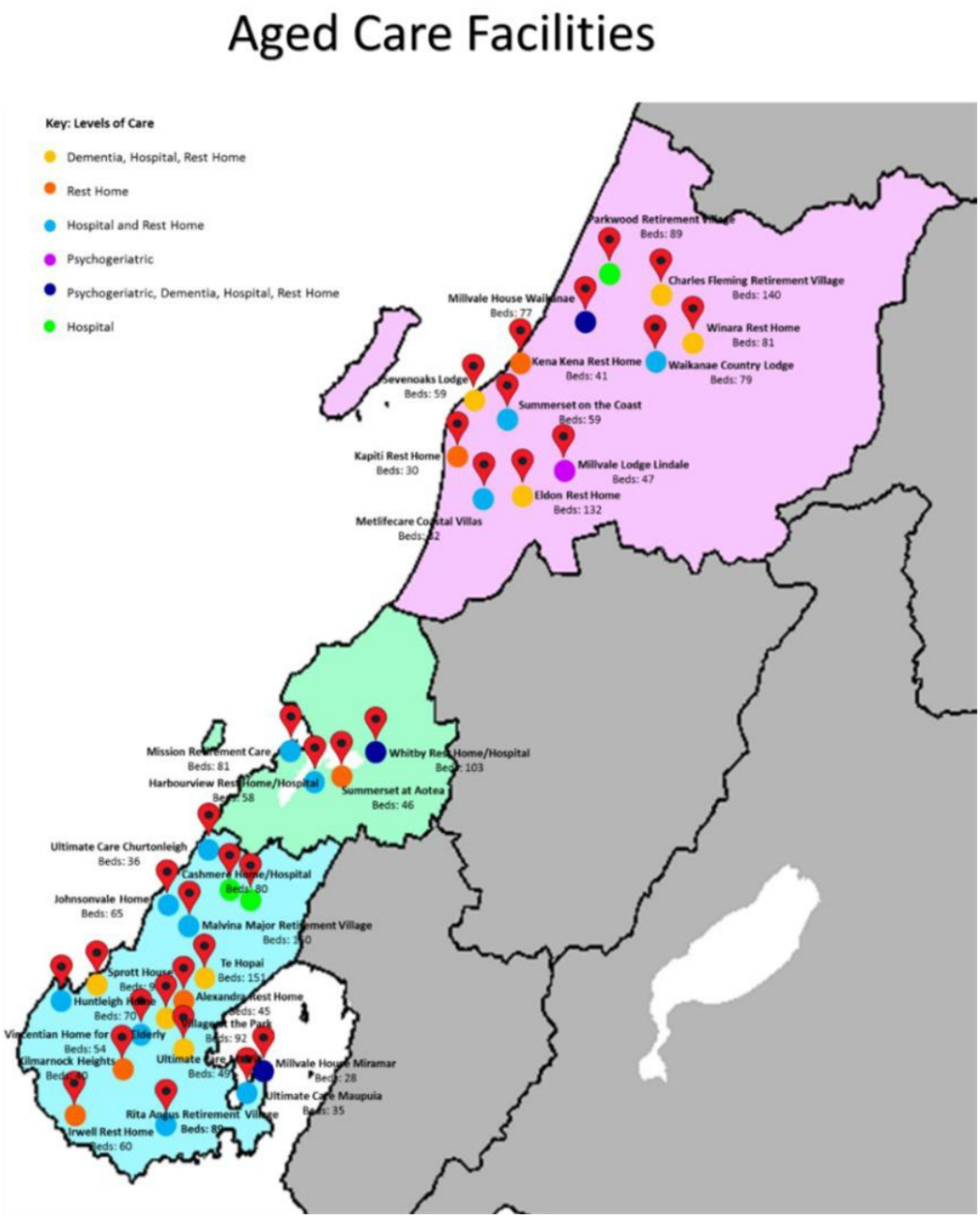
5.3 Residential Care (ARC) Facilities

There are 34 Aged Residential Care facilities in the CCDHB area. There has been a recent increase of 17 in dementia beds. The chart below shows the geographical area each facility is in, the number of beds and the levels and types of care the facility offers.

Some of these facilities have committed to improving the capabilities to meet the needs of older people in a meaningful way.

- Two facilities have been certified by Silver Rainbow, an organisation that supports activities promoting the well-being of LGBTQI elders in aged care.
- Ryman healthcare have been certified to provide Strength and Balance exercises in the Wellington region.
- Cashmere Heights has achieved the 10 core principles under the Eden Alternative Philosophy. These principles help create living environments that "nurture and celebrate companionship, spontaneity, choice, meaningful activity and a balance between the giving and receiving of care."

Several other facilities are progressing towards achieving the same core competencies. (http://www.edeninoznz.com.au/html/s01_home/home.asp)



The people we serve

There were 1,178 individuals who received subsidised ARC services during the 6-month period ended December 2017. The demographic information of these individuals is presented below. This information has been obtained by cross-matching NHIs against the hospital patient records and PHO register.

The numbers of Māori and Pacific people who use ARC facilities is small compared with our 'other' population, and under-represented as a percentage of the population. There is a mix of age ranges but more people are over 85 years, reflecting greater levels of independence in the community and growth in

the number of people living in older persons communities, prior to entering residential care. Our Maori and Pacific residents are likely to be younger that 'other', which reflects their experience of greater co-morbidity and disability at a younger age.

Prioritised Ethnicity	Count of Client NHI
Asian	47
Maori	25
Pacific	34
Other	1069
Unknown	3
Grand Total	1178

Age Group (current age)	Count of Client NHI
Under 65	16
65-74	106
75-84	372
85-94	537
95+	144
Unknown	3
Grand Total	1178

5.4 Home and Community Support Services (HCSS)

There are three HCSS providers in the CCDHB area. HVDHB and CCDHB have one HCSS contract with 'Access' provider for the over 65 age group. HVDHB is the lead DHB for this contract. They provide approximately 12,500 care encounters to clients in CCDHB each week.

The other two providers are HealthCare NZ and Geneva (soon to merge with HealthCare NZ). These organisations provide HCSS to people over 65 years of age under the Long Term Support – Chronic Health Conditions contract.

The chart below shows the proportion and number of service users by ethnicity for the calendar year 2017. Like age residential care services our Maori, Pacific and Asian populations are small in number in these services. In Kāpiti there are 35 Maori and 5 Pacific receiving HCSS services; in Porirua there are 49 Maori and 56 Pacific; in Wellington there are 61 Maori and 50 Pacific receiving services.

The logistics of ensuring the right services to the right people at the right time are complex requiring significant investment in IT and human resources.

6 CREATING A DASHBOARD TO MONITOR PERFORMANCE

In developing our performance matrices we are focusing on three types of measures; structure measures, system performance measures and impact measures. InterRAI, which is discussed below is a significant opportunity to improve the management of the quality and impact of the services we fund.

Organising matrix for performance measurement

How are we doing the work?					
Structural measures What is required to deliver the services?		**System Performance Measures How do we know we are delivering quality services?**		**Impact Measures What is the expected change or experience**	
Activity	**Competence & compliance**	**Evidence Markers**	**Quality & completion**	**System change**	**People Impact**
The activity count.	The infrastructure required.	What shows we are having an impact?	What is the quality of the service provided?	What changed for health system?	What was the change for the person.

6.1 InterRAI – clinical assessment tools for individuals and therefore populations

The interRAI tool is a suite of comprehensive clinical assessment tools built on a core set of assessment items that are considered important in all care settings. Each tool in the comprehensive clinical assessment interRAI suite has been developed for a specific population. The tools work together to form an integrated health information system, the primary purpose being to improve care planning for each individual, and also for communities and populations.

Using common measures enables clinicians and providers in different care settings to improve continuity of care and integrate the care and support needed for each individual. The assessments is collected from individuals at regular individuals. The measures include outcome scales, clinical assessments and social wellbeing.

InterRAI has changed the way we can monitor performance and we have attached the interRAI Annual Report and the guideline to "Using the interRAI Data Visualisation" to illustrate how the information can be used to manage performance.

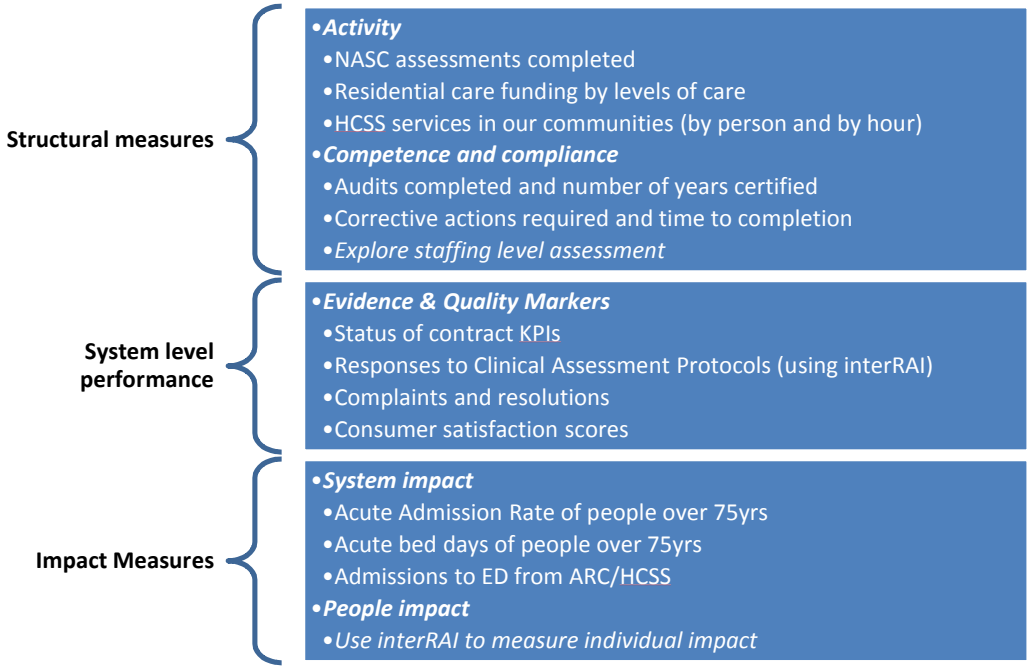
This tool is a major breakthrough to enable DHBs to ensure service investments for older people are effective, meet the needs of our communities and measure the impact of services on clinical and social wellbeing for individuals as well as groups in our populations. This is illustrated in the interRAI Annual Report.

6.2 Proposed Older Person's Service Performance Dashboard

A draft older person's service dashboard of indicator of care, process, quality and outcomes has been developed to assist CCDHB to improve our oversight and leadership of the older person's community service sector.

Below we have collated the activity undertaken and identified opportunities to build this dashboard of performance for community services, HCSS and ARC. The dashboard will be able to be analysed from a demographic, service and provider level. There are three gaps requiring more analysis: staff level as an input, including how it is measured; consumer satisfaction in ARC and community services; and use of interRAI to show the impact on individuals over time.

SIP will be implementing the dashboard with available information over the next two months whilst working on how the gaps are resolved.



The development of the dashboard through Qlik (data visualisation) is estimated at 12 months. This will allow easy access to people, service and provider views.

6.3 Structural measures

For the services we provide we monitor the level of activity, and the competence and compliance for the population served.

Activity
CCDHB has good activity data and is improving demographic data. For this report we are able to map NHIs to primary care data and analyse the demographics of the population receiving care. For activity we include:

- NASC assessments completed
- Residential care funding and activity for different levels of care
- HCSS services in our communities (by person and by hour)

Competence and compliance
For the services we fund we monitor competence and compliance through the audit process. We will include:

- Audits completed and number of years certified
- Corrective actions required and time to completion
- Explore staffing level assessment

Staffing numbers or skill mix within aged care is not mandated aside from a minimum requirement for a Registered Nurse presence, 24/7 at hospital and psychogeriatric level care facilities. For a dementia unit, the staffing required is a minimum of one RN who would not be able to be present 24/7. The contract requires that resident's needs are met and auditors check staffing levels as part of the audit process. We do not specify preferred staffing levels. This will be considered in the future.

Current Audits (certification and unannounced)
Aged Residential Care Facilities are audited by Designated Auditing Authorities that are internationally certified. They are audited against the Health & Disability Sector Standards and the Aged Residential Care contract. The audit process is overseen by the Health Ministry's HealthCERT. Any corrective actions required are overseen by CCDHB.

The maximum number of years a facility can be certified is four years. A four-year certification requires few or no corrective actions (usually over two certification periods) and continuous improvements that show the facility has achieved beyond the required standard. The number of facilities with four-year certification is increasing and compared to other DHBs is a high % of the total.

A three or four year certification means that the facility is meeting the Health and Disability Sector Standards and requires few if any actions to improve. The DHB expects all their facilities to achieve this standard.

SIP works with any facility on corrective actions to ensure that the facility will meet the standards. Currently CCDHB has one facility with a two-year certification period. The facility is on 'watch' as it is failing to meet some Health and Disability standards and staff will continue to work with the facility to ensure the corrective actions are put in place, or other contractual mechanisms are used.

HCSS and NASC providers are certified by the same auditing authorities as Aged Care facilities. In CCDHB all the HCSS providers are certified for three years. Any corrective actions are managed by the auditing authority if required.

The tools currently used in New Zealand include the interRAI Contact Assessment, Home Care Assessment and Long-Term Care Facilities (LTCF) Assess. The NASC meet regularly with SIP personnel and report monthly and quarterly on their service and service activity. The NASC are audited by TAS. Corrective actions from the audits are managed by CCDHB.

6.4 System level performance

Understanding our evidence markers enables CCDHB to ensure that services are meeting system performance requirements. These are complemented by quality measures.

Evidence & Quality Markers
To monitor confidence in the quality of services provided we will use the following metrics:

- Status of contract KPIs for HCSS (requires development for ARC)
- Responses to Clinical Assessment Protocols (using interRAI) for HCSS
- Complaints and resolutions
- Consumer satisfaction scores

Other than consumer satisfaction score we do not hold evidence and quality markers for ARC outside of the audit process. This needs to be considered to identify opportunities to improve this level of monitoring possible using interRAI and consumer satisfaction monitoring.

Current Key Performance Indicators in HCSS
Aged Residential Care does not have specific KPIs outside of the audit processes. The audits are comprehensive and compliance is a strong indicator of performance. There is an opportunity to improve system level performance measures.

The contract for HCSS has a Quality and Evaluation framework that includes: quality and safety measures; client experience; referrer experience; best value from resources; equity; integration; and workforce sustainability. There are also quality payment links. These are:

In the first year of the contract:

- 100% of "high risk" clients receive services to meet their identified need in the fortnight starting 1 September 2016;
- 95 % of "medium risk" clients receive service to meet their identified need in the fortnight starting September 2016; and
- 95% of client records entered into IT system ready for start of service delivery, all clients have a live, up to date and staffed roster ready for service delivery.

In the second year of the contract:

- The % of care encounters not delivered being less than 2%.
- Entry to Aged Residential Care remains at previous levels.
- 90% of high risk clients receive services within 24 hours of referral.

The KPI results year to date are:

- KPI 1 - "100% of clients receiving services at any time during 1 Sept 2016 – 31 August 2017 have received an assessment or review (as applicable) in accordance with Appendix 1 to schedule B of this section E, during 1 May 2016 to 31 august 2017". This KPI was not met with 63 % of clients in this time frame has an assessment or review.
- KPI 2 - Less than 2% of rostered visits were not delivered (excluding visits cancelled by the client) during the relevant measurement period. The KPI was met. The incidence of care encounters missed as a ratio of the whole was 0.22%.

Current Response to Clinical Assessment Protocol (CAPs)

HCSS also measure show the percentage of people whose assessment has triggered the CAPs requiring targeted intervention in their support plan. **Access** report on those who have triggered the Fall, Nutrition and Physical Activity CAP. This quality measure ensures that client assessment is resulting in appropriate client interventions.

Falls	CAPS	Plans	%
CCDHB	146	43	29%
Total	231	54	23%
Nutrition			
CCDHB	51	14	27%
Total	121	16	13%
Physical Activity			
CCDHB	206	79	38%
Total	352	92	26%

The results below show that more work is required by **Access** to increase the percentage of intervention plans. There is work underway to enable Access to refer to Strength and Balance programmes directly.

Current Complaint Monitoring

Complaints are received and monitored across all of these services. Complaints are received by the DHB via multiple sources including: SQUARE (CCDHB risk management system); Ministry of Health; and direct to SIP. Complaints are logged and follow the CCDHB complaints process. The complaints are investigated by the DHB.

Complaints regarding ARC can be grouped into two key theme 1) communication between the provider and the service user/families and 2) staffing levels in the facilities. These complaints are important to provide feedback to the DHB and the facility on patient experience and service quality. The complaints can lead to changes in the way services are delivered and the facilities responses to service users' needs. For example, one complaint resulted in increased staffing levels, another in increased support/mentoring for Registered Nursing staff from the Health of Older People Nurse Practitioner, and another in increased hours for resident's activities.

With regards to HCSS there has been a steady number of complaints to CCDHB and HVDHB about the services **Access** are providing. These are monitored by both HVDHB and CCDHB. Complaints are categorised and reported to the DHB weekly.

The major complaint themes are:

- missed care – particularly when the 'usual' support worker is unavailable
- late care
- poor care – support workers not trained adequately for the tasks required
- poor communication

Complaints are managed individually, and Access has responded by appointing a Client Resolution officer to oversee the complaints received within HVDHB and CCDHB. This response is making a difference to the provider's ability to close the loop on complaints and develop solutions. This includes rolling out new technology which will improve their system and processes:

- Smart Rostering: support workers' skills will be electronically matched with client's clinical and social support needs
- Access virtual Assistance: records when a support worker arrives and departs from a client's house. In time, this technology will provide most communication needed with the support worker, removing their need to use the call center, thus freeing up the call centre to answer client calls.

Current Consumer Satisfaction

The HCSS the client experience is monitored. Access use 'Net Promoter Score' (NPS) to measure customer satisfaction. It is measured monthly and reported six monthly to the DHB. "0" is unsatisfied "10" is very satisfied. This information is not collected for ARC.

For HCSS, from October 2016 to September 2017, the NPS score was 18%.

NPS score	Percentage
0-6	26%
7-8	31%
9-10	43%

This means that 43% of people scored 9-10 on the satisfaction scale, 31% scoring 7-8, with the remaining 26% between 0-6.

Access also participate in weekly telephone contact with consumer advocacy groups including Age Concern, Grey Power, Parkinson's NZ, Alzheimer's, Brain Injury Trust, Mary Potter Hospice, Wesley Community Action.

6.5 Impact Measures

Services for older people form a complex system. Systems and processes change in response to increased demand and the increased emphasis on people staying at home for longer. Community, residential and specialist services have all responded by becoming more able to deal with medical and social complexity. Changes within one part of the system will inevitably have an impact within another; including sometimes unintended and unforeseen consequences. System level measures provide a check of the system performance at a macro level.

System impact

Impact measures include the impact on the system, and the impact for the individual. We will include in our measures:

- Acute Admission Rate of people over 75yrs
- Acute bed days of people over 75yrs

- Admissions to ED from ARC
- Admissions to ARC

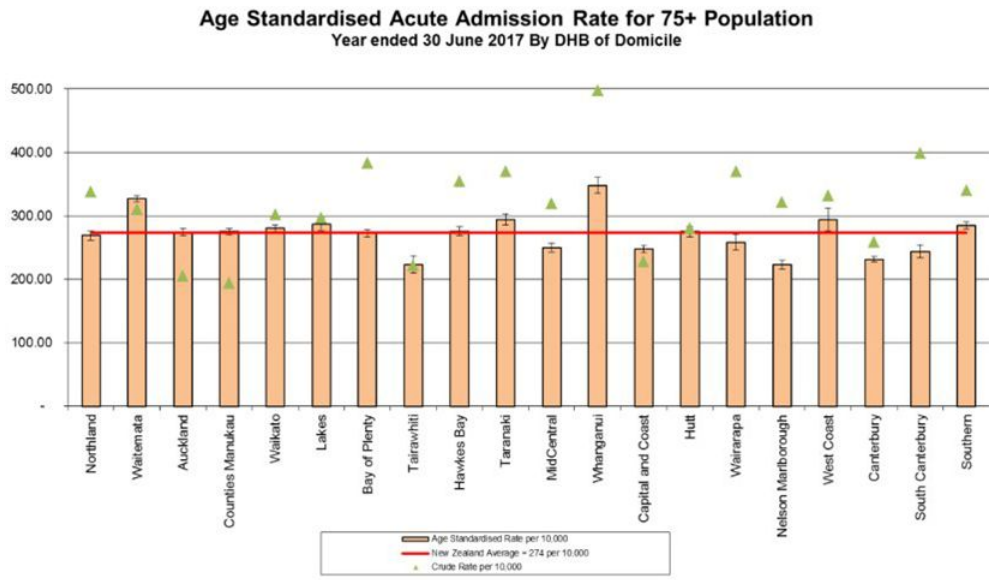
People impact

- Explore use of interRAI to measure individual impact

Current System Impact Measures

Acute Admissions of people aged 75+

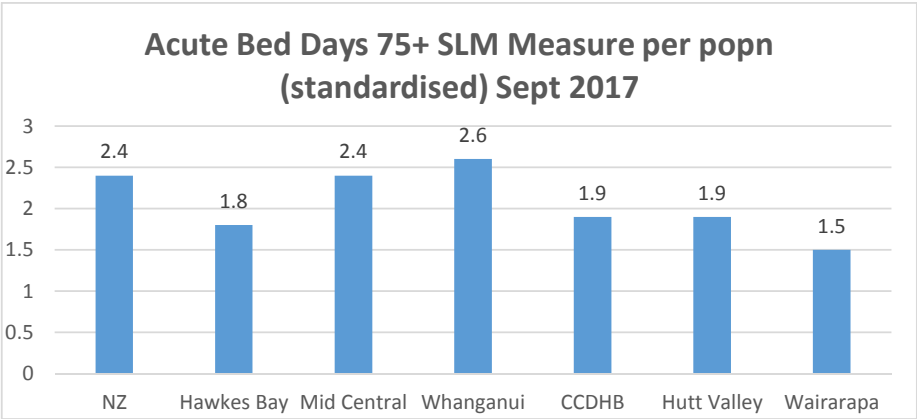
The acute admission rate is a useful broad indicator to measure the effectiveness of home support, primary care, community NGOs and ARC. It can be inferred that a lower admission rate for the over 75 year old population indicates they are receiving appropriate and timely care in their community. From the graph below, it can be seen that CCDHB has lower admission rates than the NZ average along with five other DHBs.

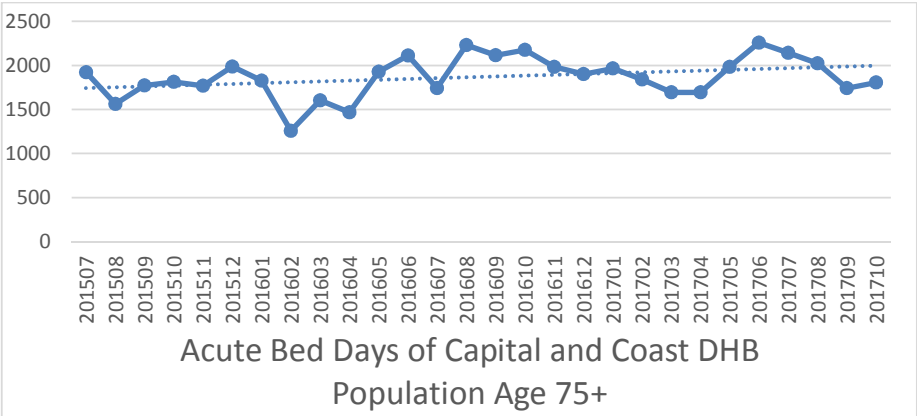


Acute Bed Days of people aged 75+

This measure adds information to the previous measure. It may be inferred that a reducing or stable acute bed day rate for people over 75 years shows a health system that is managing speedy discharge and supports reduced admissions to hospital.

This graph shows the comparison with the central region DHBs and NZ and shows that CCDHB is favorably benchmarked against both.





Admissions to Hospital and Emergency Department (ED) presentation of residents within Residential Care

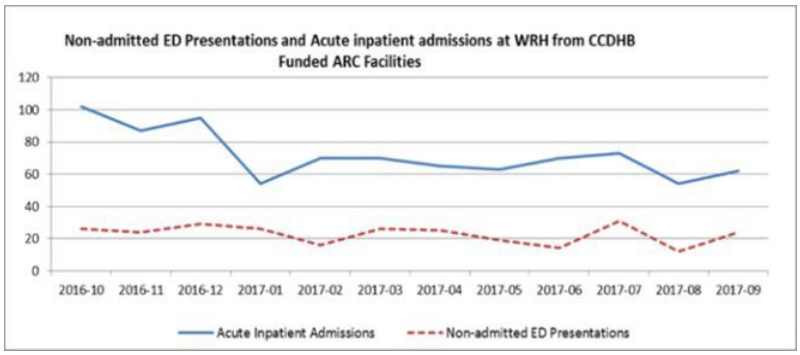
The aim at CCDHB is for ED presentations and hospital admissions from aged care facilities to be appropriate, and avoiding unnecessary trips for frail elderly residents to hospital. There has been a reduction in the number of admissions reflecting a variety of successful interventions, which include:

- commitment by ARC managers and regional managers to reduce inappropriate admissions;
- monitoring and identifying facilities with exceptional presentation rates and address specific issues; and
- specialist consultations and support to aged care facilities including Nurse Practitioners, Wound Specialists, and Palliative Care.

It must be noted that many ED presentations and admissions to hospital from ARC are entirely appropriate. The aim of sharing this data with facilities is to reduce inappropriate and avoidable visits to hospital.

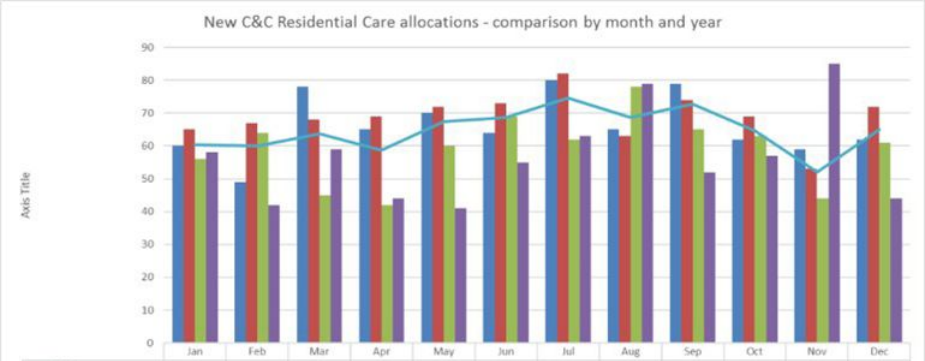
Information is shared with managers of Aged Residential Care facilities at a quarterly provider meeting held with the DHB. This enables all facilities to compare themselves with others in key quality areas and investigate reasons if they are outliers. For those facilities who are part of national organisations, the regional managers support facility managers to make changes including resource changes that may be required. The data shows the facility: when admissions are occurring (day and shift); broad diagnosis category; percentage of admissions by the number of beds a facility has; and divides the visits to Wellington hospital by ED presentation (not admitted) and admissions. Most facilities who are outliers in presentation rates have investigated the likely causes and taken action to improve the experience for their residents.

The graph below shows that acute admissions to hospital from aged care facilities is reducing and is now maintained at around 60- 70 admissions per month. There are approximately 2300 residents in aged care. With further uptake of Advanced Care Planning the number of residents going to ED will reduce. Residents and their family/whanau will have a more informed and active role in decision-making.



Admission to Aged Residential Care

Entry to ARC is monitored monthly by SIP and the Needs Assessment and Service Coordination Service (NASC). There are more people in the community who are frail and complex who are choosing not to enter residential care. This is a positive result of the various Older People's strategies including Ministry and Council led strategies enabling people to stay at home. The graphs below show the reducing admissions to aged care since early 2016 despite increasing growth numbers in the over 65 population. The figures show a 14% reduction in entry to ARC in 2016-17 from 2014-15 falling from 793 to 679.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	60	49	78	65	70	64	80	65	79	62	59	62
2015	65	67	68	69	72	73	82	63	74	69	53	72
2016	56	64	45	42	60	69	62	78	65	63	44	61
2017	58	42	59	44	41	55	63	79	52	57	85	44
Average (prev 3 years)	60	60	64	59	67	69	75	69	73	65	52	65

7 OTHER KEY PROJECTS CONTRIBUTING TO OLDER PEOPLE'S WELLBEING

Alongside the development of the performance dashboard, with a strong focus on the use of InterRAI data there are two other key projects. The Support of Carers and the development of a Healthy Ageing Investment Plan.

7.1 Support for Carers

Carer Support payments are a contribution paid to the family to enable them to pay someone of their choice to be with their family member while they take a break. This is a popular service for Māori and Pacific people who prefer to have wider whanau involved in care.

InterRAI data identifies those carers who are feeling overwhelmed or vulnerable. TAS provides this data set to the DHB quarterly. The data set is provided by ethnicity also

We know that in order for people to stay home with significant frailty, the importance of carers cannot be underestimated. A Project: "Carers' support – right support – right time" is underway to improve support for carers in the community.

The project will assist us to identify carer's need for support, how effective the support is and what service improvements are required. The data collected has been expanded to focus on Māori and Pacific Peoples.

To date, the interRai data has identified geographical areas where more support is needed. For this type of support, people need a local service. In response to this information, the number of aged care facilities who offer day programmes have increased.

Encouraging carers to use the programmes available to give them a break is in the scope of this project. The data shows that whilst the services are allocated, the take up is low. Work is underway to understand the reasons why the allocated services are not being fully used. Carers are telling us that it can be difficult to persuade their spouse to go to the programmes.

The programme teams will work to improve the utilisation of services by following up when the allocated service is not used, encourage 'get to know' us days at the community sites and making sure that services

are available locally. Most programmes send personnel out to the person's home once they are referred to meet the person and their carer and help to allay any fears they may have.

7.2 Health Ageing Investment Plan

Work has begun on the development of an investment plan to support health ageing in line with the Health System Plan and the national strategy for healthy aging. It will tell the story about the proposed health system design and framework for older people, how this links with investment choices. It will place people at the centre building off the strong work of the Healthy Ageing Strategy, It will listen to our communities, through the localities plan and design responses that reflect the unique needs of our communities. It will have a strong focus on:

- Understand our ageing population and their health, social wellbeing, and ethnography status and projected need.
- Map the existing investment configuration and understand its value contribution including services that are directly funded by the Ministry of Health or other Social Agencies.
- Use an integrated data set to understand the patterns of service demand for older people and identify service gaps.
- Ascertain any current services that do not align with the Strategy/Health System Plan direction.
- Use local, national and international strategy to inform the view of the future system to support healthy ageing.
- Identify the contributions and investments required to meet a future system design.
- Identify funding arrangements, levers and enablers that will contribute to reducing inequalities, improve outcomes and reduce failure demand.
- Identify immediate investment and disinvestment opportunities that are aligned with the system design.

Keeping our communities healthy and well

In your home
GIVING PEOPLE BETTER CONTROL OF HEALTH SERVICES WHERE AND WHEN THEY NEED THEM

In your community
COMMUNITY HEALTH NETWORKS HELP PEOPLE ACCESS THE SERVICES THEY NEED

In your hospital
PROVIDING SPECIALIST SERVICES TO THOSE WHO NEED THEM THE MOST

MA TINI, MA MANO, KA RAPA TE WHAI – BY JOINING TOGETHER WE WILL SUCCEED

Capital & Coast
District Health Board
ŌPOKO KI TE URU HAUORA

PERFORMANCE DASHBOARD FOR COMMUNITY SERVICES FOR OLDER PEOPLE

Our Services

Capital & Coast District Health Board

MEASURING PERFORMANCE TO DELIVER OUTCOMES

Capital & Coast District Health Board

Structural measures

What is required to deliver the services?

System Performance Measures

What is the evidence of quality services?

Impact Measures

What is the impact of services on people and systems

Capital & Coast District Health Board

Measuring Outcomes

Structural measures	• Activity • Competence and compliance
System level performance	• Evidence Markers • Quality Markers
Impact Measures	• System impact • People impact

Capital & Coast District Health Board

What we can now do?

Integrated data means we can:

- Link demographic data to measure the patient journey
- Understand the impact of services
- Monitor individual and collective providers

InterRAI means we can measure outcomes

- Completes assessments of individuals
- Understand the impact of services
- Monitor the impact/change over time

Capital & Coast District Health Board

The measures already exist

Structural measures

- ***Activity***
  - NASC assessments completed
  - Residential care funding by levels of care
  - HCSS services in our communities (by person and by hour)
- ***Competence and compliance***
  - Audits completed and number of years certified
  - Corrective actions required and time to completion
  - *Explore staffing level assessment*

System level performance

- ***Evidence & Quality Markers***
  - Status of contract KPIs
  - Responses to Clinical Assessment Protocols (using interRAI)
  - Complaints and resolutions
  - Consumer satisfaction scores

Impact Measures

- ***System impact***
  - Acute Admission Rate of people over 75yrs
  - Acute bed days of people over 75yrs
  - Admissions to ED from ARC/HCSS
- ***People impact***
  - *Use interRAI to measure individual impact*

Capital & Coast District Health Board

Implementation

Three gaps

- staff level as an input
- consumer satisfaction in ARC and community services
- use of interRAI to show the impact on individuals over time

Time to develop

- create data set
- use SIA to create automatic links
- use Qlik to build apps to monitor

We start now

Capital & Coast District Health Board

Keeping our communities healthy and well

In your home
GIVING PEOPLE BETTER CONTROL OF HEALTH SERVICES WHERE AND WHEN THEY NEED THEM

In your community
COMMUNITY HEALTH NETWORKS HELP PEOPLE ACCESS THE SERVICES THEY NEED

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Capital & Coast
District Health Board
ŌPOKO KI TE URU HAUORA

interRAI™

Better Assessment, Better Care, Better Outcomes

Using the InterRAI Data Visualisation

Contents

Introduction

Welcome to the **interRAI Data Visualisation tool user guide**. This guide aims to provide all the information you require to use this data visualisation tool.

The interRAI Data Visualisation makes interRAI data more accessible to everyone, and it is fit-for-purpose to our stakeholders' needs.

This visualisation runs on Microsoft Power BI, which is designed to allow users to transform and visualise interRAI data freely.

Follow this guide to navigate through the interRAI Data Visualisation page by page.

Page 1: Home Page

This page provides a brief introduction to interRAI Data Visualisation and interRAI Services in New Zealand.

Use the '**<**' and '**>**' button or click on the text '**1 of 7**' for a selection list to navigate between pages.

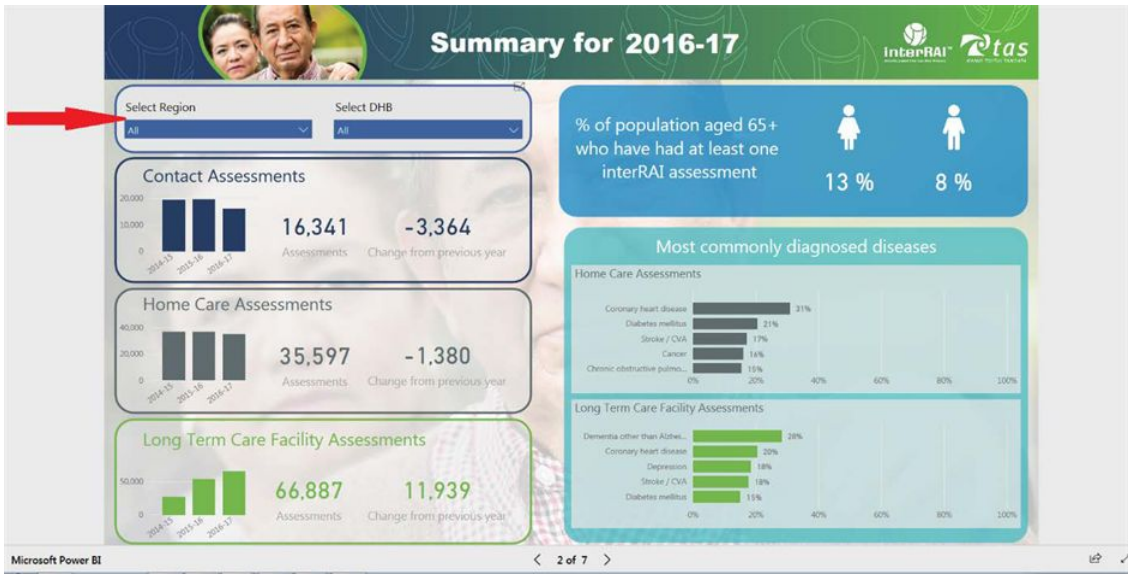
Page 2: Summary

Page 2 presents key statistics from interRAI NZ data for the time period specified in the title.

The data in this Visualisation tool refers to assessments rather than clients/residents unless specified.

Use the drop down list on the top left to select District Health Board (DHB) Region and/or DHB of interest. The DHB regions and DHBs in the drop down list are in a geographic order.

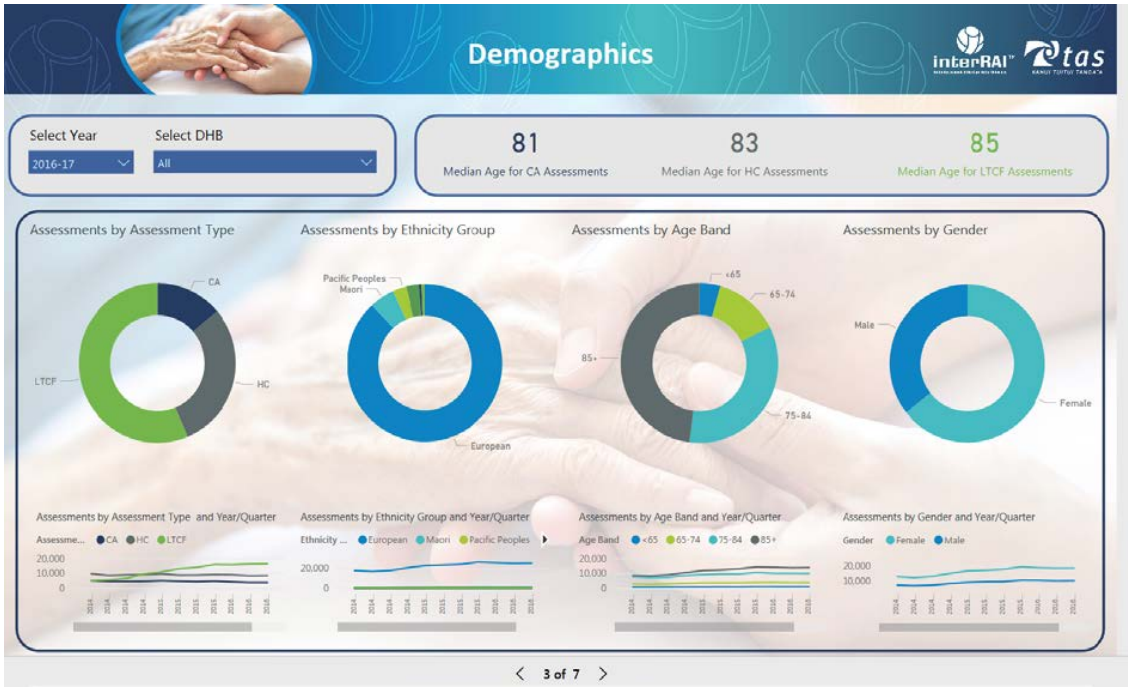
This page is updated annually once a year in July.



Page 3: Demographics

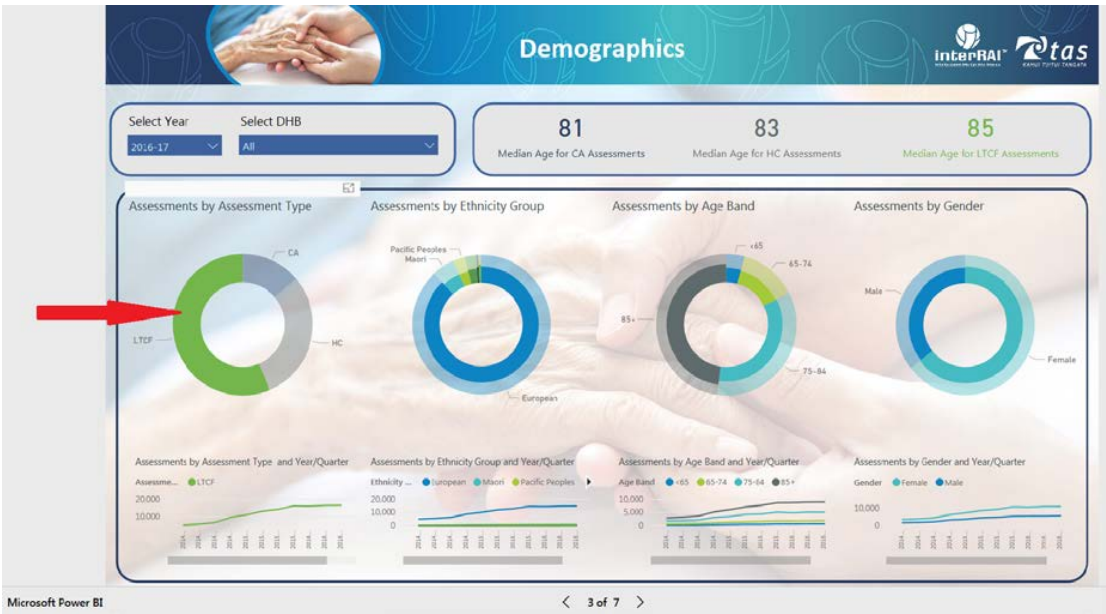
Page 3 includes key statistics describing the demographic information collected from interRAI assessments.

Use the drop down list on the top left to select year and/or DHB of interest.



You can also select different types of assessment, ethnic group, age band and gender by clicking the corresponding area on the doughnut chart. A doughnut chart is similar to a pie chart in that it shows the relationship of parts to a whole.

The screenshot below is an example where the assessment type has been selected as '**LTCF**'. The highlighted area represents the proportion of LTCF assessments out of all assessments.



There are four genders recorded in the interRAI assessment. To preserve privacy, “Unknown” and “Indeterminate” are mapped to Female in this visualisation tool.

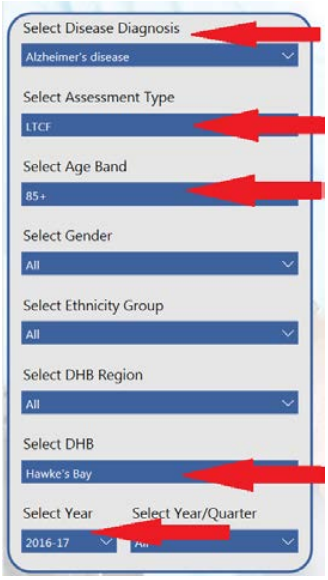
Ethnicity is shown as a modified prioritised level 1 ethnicity. The groups are European, Māori, Pacific Peoples, Asian, Middle Eastern / Latin American / African and Other Ethnicity. Other Ethnicity includes Residual groups.

This page is updated annually in July.

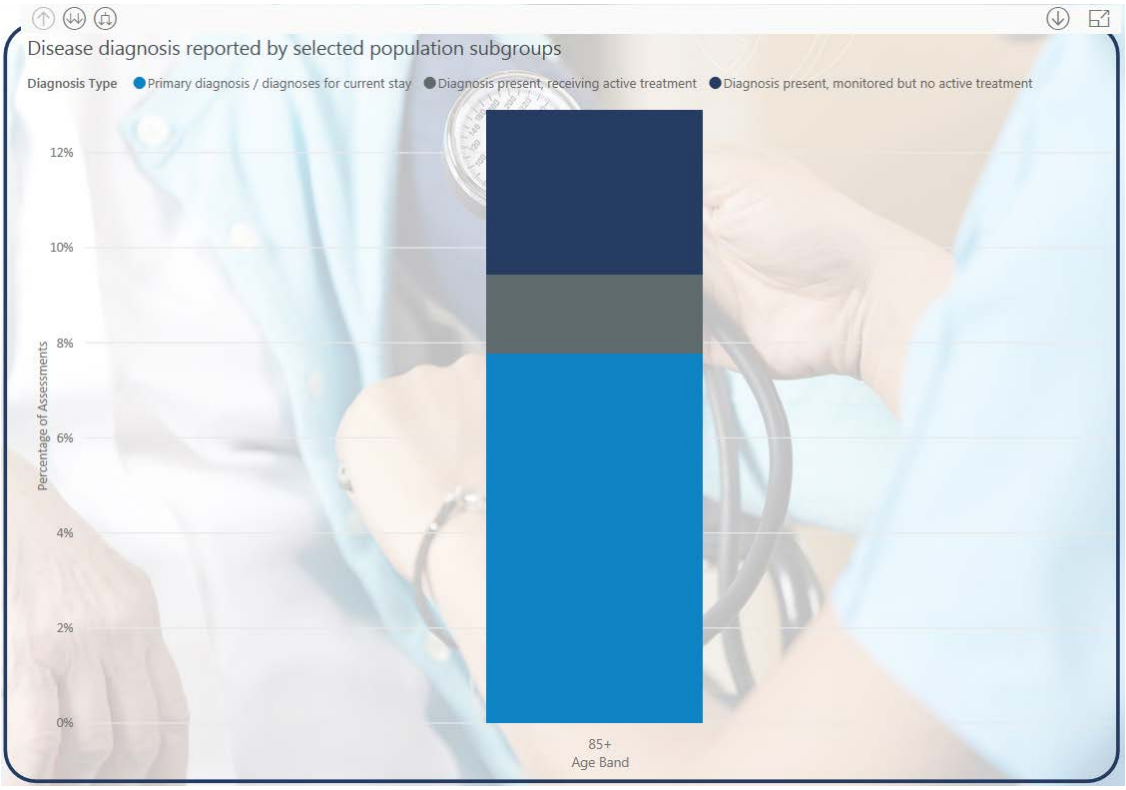
Page 4: Disease Diagnosis

Page 4 describes the disease diagnosis information collected from interRAI assessments.

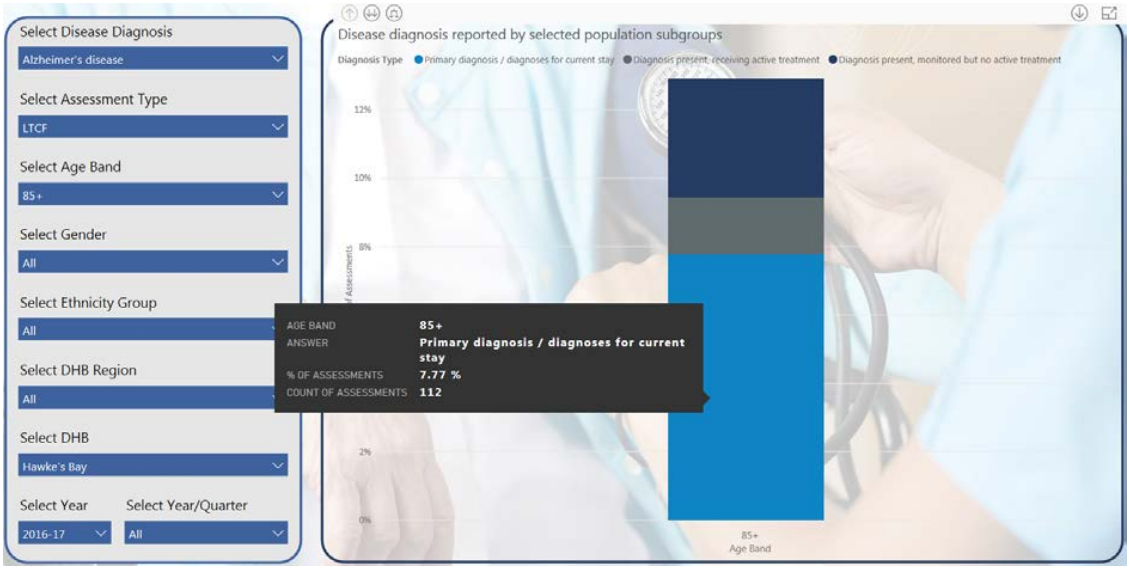
Use the filter panel on the left-hand side to choose the level of detail you would like to see. The bar chart will update accordingly. For example, if you would like to find out the proportion of LTCF assessments for people aged 85 and over, who reported Alzheimer's disease and other dementia, living in the area of Hawke's Bay DHB, in 2016-17, set the filter selection as shown.



You should get a chart like this.



If you hover your mouse cursor to the chart area, you should be able to read the exact figure from a pop-up window.

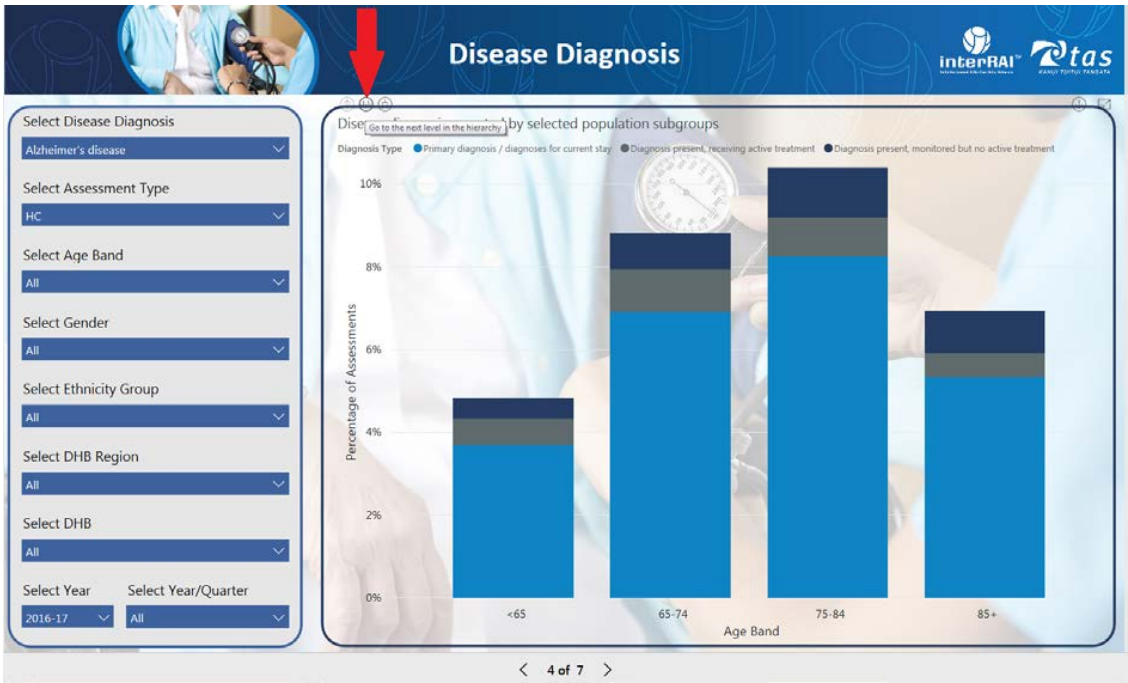


In this example, in 2016-17, 7.77% of LTCF assessments were completed for people aged 85 and over, within Hawke's Bay DHB, reporting Alzheimer's disease and other dementia as their primary diagnosis.

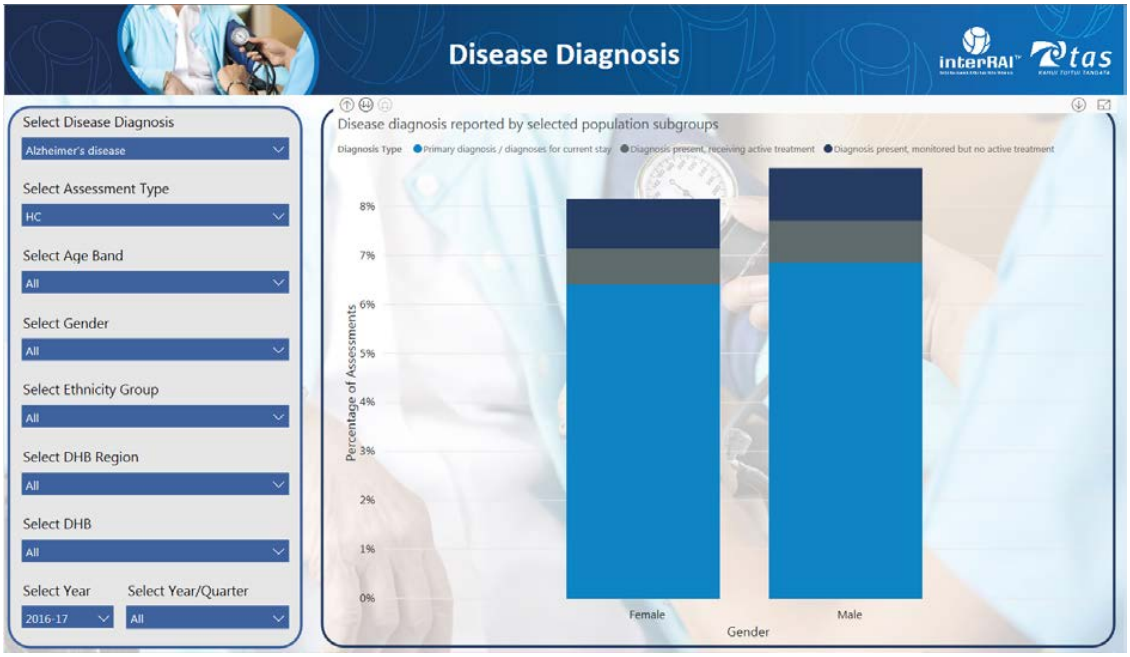
If you are interested in some comparative data, hover your mouse cursor to the chart area. You will see these three icons on the top left.

The middle icon allows you to see drill down to the next level of data. In this case, the level of data follows the order of the selection on the left-hand side.

For instance, the default view of this page is comparison by **age groups**.



Click on the once, and the chart will display a comparison by **gender**.

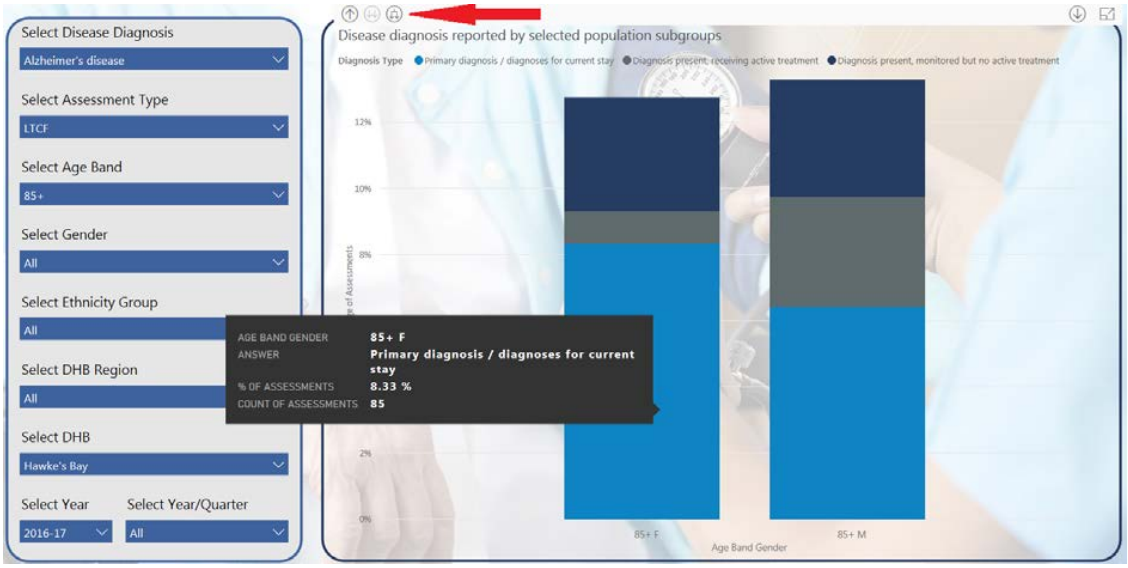


Rather than selecting a single data element for comparison, you can also expand on the number of data elements by selecting the 'Expand all down one level of hierarchy' icon .

For instance, click once on and the chart will display a comparison by **age group and gender**.

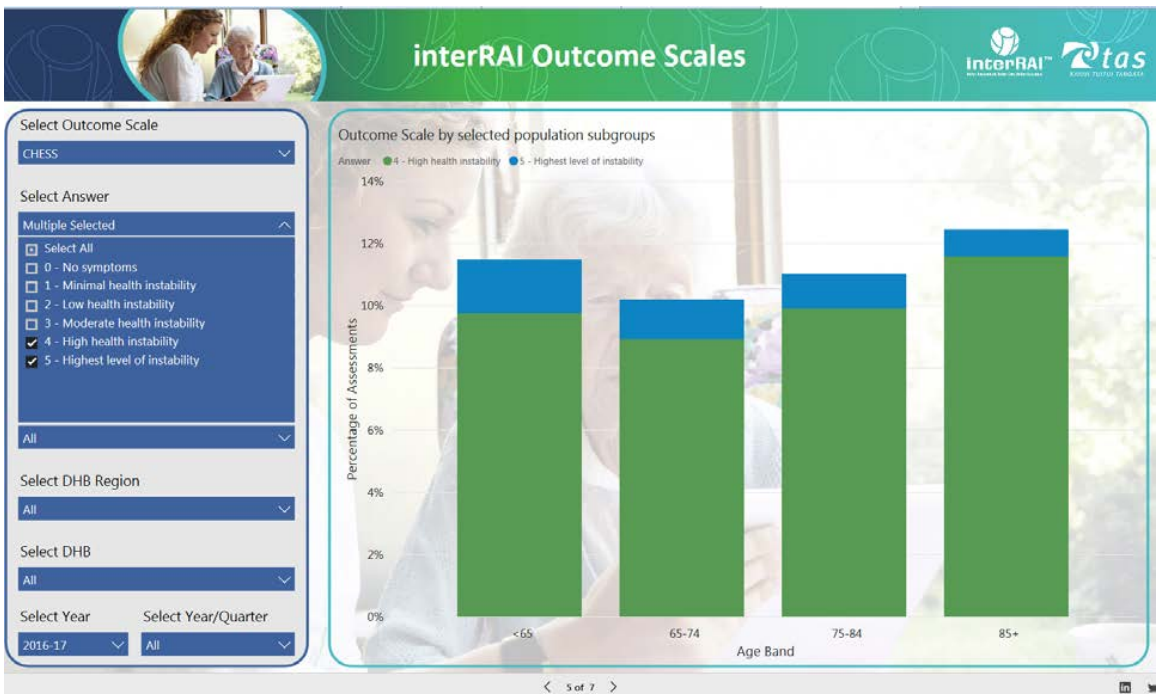
NOTE: Use the single up arrow to get back to the top level of the data element (in this case, by age groups) for the 'expand all down one level" function to work!

Following our example, if you are interested in the gender differences in Alzheimer's disease and other dementia disease diagnosis, click on . The chart should be updated as shown below.



Page 5: Outcome Scales

This page has the same functionality as the “disease diagnosis” page. In addition, there is a filter which allows only certain scores to be shown on the charts. For example, you can see the CHESS scale with only 4 and 5 scores.



Invalid selection combinations will display no data in the charts, e.g. LTCF and MAPLe.

The data on this page is updated quarterly in January, April, July and October.

Page 6: Clinical Assessment Protocols

This page has the same functionality as the “disease diagnosis” page.

Invalid selection combinations will display no data in the chart, e.g. LTCF and Institutional Risk CAP
The data on this page is updated quarterly in January, April, July and October.

Page 7: Social Wellbeing Measures

This page has the same functionality as the “disease diagnosis” page.

For the measures Advance Care Plan (ACP) and Enduring Power of Attorney (EPOA), there was a change in the question in the November 2015 software upgrade. The data for these two questions start from 01/01/2016 (2015/16 Q3).

The data on this page is updated quarterly in January, April, July and October.

Outcome Scale Definitions

Assessment urgency

The purpose of this scale is to determine whether or not the person needs further in-depth assessment. This score is calculated by referring to a number of elements in the assessment that relate to the person's physical health, person's mood, the family's ability to cope and the person's dependence with personal hygiene. The scale range is 1-6 with 6 being the most complex. Level 0 is included for those assessments where no score is calculated.

Service urgency

This score is calculated by looking at whether the person has specialist nursing needs, is dependent with personal hygiene, has had recent hospital visits and has daily pain. The range is 1-4 with 4 being the most urgent. Level 0 is included for those assessments where no score is calculated.

Rehabilitation

This score is calculated by looking at whether the person has specialist nursing needs, is dependent with personal hygiene, has had recent hospital visits and has daily pain. The range is 1-4 with 4 being the most urgent. Level 0 is included for those assessments where no score is calculated.

ADL Hierarchy

The ADL Hierarchy Scale groups activities of daily living according to the stage of the disablement process in which they occur. Early loss ADLs (for example, dressing) are assigned lower scores than late loss ADLs (for example, eating).

ADL Long Form

Scale from 0 to 28 that provides a summary of the person's ability to perform ADLs. It is based on 7 ADL items personal hygiene, toilet use, locomotion, eating, dressing, transferring, and bed mobility. The higher the score the greater the difficulty in performing activities.

ADL Short Form

Scale from 0 to 16 that provides a summary of the person's ability to perform ADLs. It is based on 4 ADL items, personal hygiene, toilet use, locomotion, eating. The higher the score the greater the difficulty in performing activities. Validated by Morris, Fries, and Morris 1999.

Aggressive Behaviour

The Aggressive Behaviour Scale (ABS) is a measure of aggressive behaviour based on the occurrence of verbal abuse, physical abuse, socially disruptive behaviour and resistance to care. Scale scores range from 0-12 with higher scores indicative of greater frequency and diversity of aggressive behaviour.

A score of 1 to 4 on the ABS indicates mild to moderate aggressive behaviour, whereas scores of 5 or more represents the presence of more severe aggression. This scale has been validated against the Cohen Mansfield Agitation Inventory.

Body Mass Index (BMI)

The Body Mass Index (BMI) is a measurement which represents the ratio of a person's height to weight. In the interRAI assessment suite, it is recorded to monitor nutrition, hydration status, and weight stability over time. The under-nutrition CAP triggers (3 levels) are based on the BMI. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m2).

CHESS

The Changes in Health, End-Stage Disease, Signs, and Symptoms Scale was designed to identify individuals at risk of serious decline. It can serve as an outcome where the objective is to minimise problems related to declines in function, or as a pointer to identify persons whose conditions are unstable. CHESS, originally developed for use with nursing home residents, has been adapted for use

with other instruments in the interRAI suite. It has a 6 point scale from 0 (not at all unstable) to 5 (highly unstable) with higher levels predictive of adverse outcomes such as mortality, hospitalisation, pain, caregiver stress, and poor self-rated health. The CHESS Scale is calculated by adding sign and symptom variables up to a maximum of 2, then adding three other variables (Change in decision making, Change in ADL status, and End-stage disease), giving the highest CHESS score of 5.

Cognitive Performance Scale (CPS)

The Cognitive Performance Scale (CPS) combines information on memory impairment, level of consciousness, and executive function, with scores ranging from 0 (intact) to 6 (very severe impairment). The CPS has been shown to be highly correlated with the MMSE in a number of validation studies.

Communication

This scale is derived from expressive and receptive communication. The higher the score on the communication scale, the poorer the communication.

Depression Rating Scale (DRS)

The Depression Rating Scale (DRS) is used as a clinical screen for depression. The higher the score the stronger the clinical indicator. Validation studies were based on a comparison of the DRS with the Hamilton Depression Rating Scale and the Cornell Scale for Depression.

IADL Capacity

The Instrumental ADL Scale is based on a sum of eight items: meal preparation, ordinary housework, managing finances, medications, phone use, stairs, shopping, and transportation. Individual items are summed to produce a scale that ranges from 0 to 48, with higher scores indicating a greater difficulty for a person to carry out an activity.

IADL Performance

The Instrumental ADL Scale is based on a sum of eight items: meal preparation, ordinary housework, managing finances, medications, phone use, stairs, shopping, and transportation. Individual items are summed to produce a scale that ranges from 0 to 48, with higher scores indicating greater dependence on others for instrumental activities for daily living.

MAPLe

MAPLe differentiates people into five priority levels, based on their risk of adverse outcomes. People in the lowest priority level have no major functional, cognitive, behavioural, or environmental problems and are considered self-reliant. The highest priority level is based on the presence of ADL impairment, cognitive impairment, wandering, behaviour problems, and the interRAI nursing home risk CAP. Research has demonstrated that the five priority levels are predictive of risk: Individuals in the highest priority level are nearly nine times more likely to be admitted to a long-term care facility than are the lowest priority persons. MAPLe also predicts caregiver stress.

Pain

Scale that attempts to define levels of pain. The scale is highly predictive of pain on the Visual Analogue Scale (Fries et al 2001). Pain that is adequately managed does not feature in the scale.

Pressure Ulcer Risk

Scores from 0 (lowest risk) to 8 (highest risk) for development of pressure ulcers. This scale complements the Pressure Area CAP and should always be reviewed when that CAP is triggered.

Range of Values

The following table defines the range of valid values for each scale and identifies which assessment type each Scale is applicable to:

		Applicable to:		
Outcome Score	**Range of Values**	**CA**	**HC**	**LTCF**
Assessment - Urgency	0,1-6	Y		
Service Urgency	0,1-4	Y		
Rehab	0,1-5	Y		
ADL Hierarchy	0-6		Y	Y
ADL Long Form	0-28		Y	Y
ADL Short Form	0-16		Y	Y
Aggressive Behaviour	0-12		Y	Y
CHESS	0-5		Y	Y
Cognitive Performance Scale (CPS)	0-6		Y	Y
Communication	0-8		Y	Y
Depression Rating Scale (DRS)	0-14		Y	Y
IADL Capacity	0-48		Y	
IADL Performance	0-48		Y	
MAPLe	1-5		Y	
Pain	0-4		Y	Y
Pressure Ulcer Risk	0-8		Y	Y

Clinical Assessment Protocol (CAP) Definitions

Abusive Relationship
To identify potential abuse/neglect situations — fearful of a family member, caregiver, close acquaintance, unusually poor hygiene, unkempt appearance, neglected, abused, or mistreated.

Activities
This CAP identifies persons with some cognitive reserve who have either withdrawn from activities or who are uneasy entering into activities and social relationships.

Activities of Daily Living
To improve ADL performance or prevent avoidable functional decline — receive some ADL help; potential to improve self-performance.

Appropriate Medications
To identify and promote appropriate medication management — 9+ medications and 2 of the following: chest pain, dizziness, oedema, shortness of breath, poor health, or recent deterioration.

Behaviour
To prevent, manage behavioural problems — wandering, verbally abusing others, physically abusing others, socially inappropriate, disruptive behaviour, inappropriate disrobing, public sexual behaviour or resisting care.

Bowel Conditions
To facilitate improvement and prevent a decline in bowel function — risk of decline and improvement and bowel continence.

Cardiorespiratory Conditions
To assess and manage cardiorespiratory conditions — symptoms of chest pain, shortness of breath, irregular pulse, dizziness and test results such as BP, respiratory rate, heart rate, and oxygen saturation.

Cognitive Loss
The definition of this CAP changed in the version 9.3 assessment upgrade that occurred in November 2015. This CAP now has only two trigger levels: 0 (not triggered) and 2 (prevent cognitive decline).

Communication
To improve communication ability and to prevent avoidable communication decline — moderate–severe communication issues in understanding/expression.

Dehydration
To identify and treat underlying causes of dehydration — insufficient fluid intake; and diarrhoea, vomiting, delirium, fever, dizziness, syncope, constipation, weight loss.

Delirium
To identify persons with active symptoms of delirium — acute change in mental status and behaviour appears different from usual functioning.

Falls
To identify and change any underlying risk factors for falls — report of a single fall or multiple falls.

Feeding tube
To identify persons with a feeding tube and manage — has a feeding tube and some residual cognitive abilities/absence of cognitive abilities.

Home Environment Optimisation
To improve the safety of an environment — problems with lighting, flooring, bathroom, toilet, kitchen, heating, disrepair, squalor, and indicators of frailty.

Informal Support
To identify where a person needs help — not independent with meals/housework/shopping/transport and alone for long periods or lives alone and no primary informal helper present.

Institutional Risk
To avoid premature admission to LTCF — identify the person with impaired functioning who is at high-risk of institutional placement.

Instrumental Activities of Daily Living
To improve IADL self-performance and capacity — identify person who have the capability and interest to carry out instrumental activities of daily living more independently.

Mood
To identify, treat and monitor mood issues — negative statements, persistent anger, expressions of unrealistic fears, repetitive health complaints, repetitive anxious complaints, sad, crying or tearfulness. Depression Rating Scale (DRS) score medium to high.

Pain
To identify and treat underlying reasons for pain — high-risk trigger for people with severe, horrible or excruciating pain or medium-risk trigger for people with daily mild/moderate pain.

Physical Activities Promotion
To increase levels of exercise and physical activity — identify person does less than two hours physical activity over a three- day period; moves and goes up/down stairs without help; increased independence possible.

Physical Restraints
This CAP identifies persons who are physically restrained.

Pressure Ulcer
To prevent, identify and treat pressure ulcers — has or is at risk of developing a pressure ulcer.

Prevention
To prevent illness and disability — blood pressure, colonoscopy, dental exam, hearing exam, fluvax, mammogram, or Pneumovax.

Social Relationship
To identify factors associated with reduced social relationships and facilitate engagement, such as mental health problems and poor health.

Tobacco and Alcohol Use
To identify strategies to help people cease smoking and cut back on excessive drinking.

Under-nutrition
To address and manage under-nutrition based on a person's BMI score.

Urinary Incontinence
To facilitate improvement and prevent decline in bladder function — reoccurring episodes of incontinence, minimal cognitive abilities, locomotion impaired; possibility of improvement.

Range of Values
The following table defines the range of valid values for each CAP, and identifies which of the assessment types each CAP is applicable to:

		Applicable to:		
CAP	**Range of Values**	**CA**	**HC**	**LTCF**
Functional Performance CAPS				
1. Physical Activities Promotion	0-1		Y	Y
2. Instrumental Activities of Daily Living	0-1		Y	
3. Activities of Daily Living	0-2		Y	Y
4. Home Environment Optimisation	0-1		Y	
5. Institutional Risk	0-1		Y	
6. Physical Restraints	0-2			Y
Cognition/Mental Health CAPS				
7. Cognitive Loss	0,2		Y	Y
8. Delirium	0-1		Y	Y
9. Communication	0-2		Y	Y
10. Mood	0-2		Y	Y
11. Behaviour	0-2		Y	Y
12. Abusive Relationship	0-2		Y	
Social Life CAPs				
13. Activities	0-1			Y
14. Informal Support	0-1		Y	
15. Social Relationship	0-1		Y	Y
Clinical Issues CAPs				
16. Falls	0-2		Y	Y
17. Pain	0-2		Y	Y

18. Pressure Ulcer	0-3		Y	Y
19. Cardiorespiratory Conditions	0-1		Y	Y
20. Under-nutrition	0-2		Y	Y
21. Dehydration	0-2		Y	Y
22. Feeding Tube	0-2		Y	Y
23. Prevention	0-2		Y	Y
24. Appropriate Medications	0-1		Y	Y
25. Tobacco and Alcohol Use	0-1		Y	Y
26. Urinary Incontinence	0-3		Y	Y
27. Bowel Conditions	0-2		Y	Y

tas
KAHUI TUITUI TANGATA

interRAI™
New Zealand

National interRAI Data Analysis

Annual Report 2015/16

A report to inform the continuous improvement of health outcomes for New Zealanders as they age

interRAI stands for 'international Resident Assessment Instrument'. As an organisation interRAI is a non-profit collaboration of clinicians and researchers from over 35 countries with the vision of promoting evidence based best practice in the care of the disabled or medically complex.

interRAI™
New Zealand

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We welcome feedback on this document. All correspondence should be forwarded to **interRAI_data@centralTAS.co.nz**

The Annual Report 2015/16 and data tables showing the interRAI outcome scales and Clinical Assessment Protocols (CAPs) can be downloaded from: **www.interRAI.co.nz**

Photography

Our most sincere thanks to Ultimate Care Churtonleigh (member of Ultimate Care Group) who assisted us in taking some of the photographs for this report.

Copyright Statement

Disclaimer

contents

foreword

interRAI New Zealand Governance Board Chair

It is my pleasure to release the National interRAI Data Analysis Annual Report 2015/16, the second publication in a series of annual reports. The report provides a national overview of interRAI assessments in New Zealand.

New Zealand is a world leader in the use of the interRAI Comprehensive Clinical Assessment suite, being the first country in the world to implement the Home Care and Long Term Care Facilities assessment tools nationwide.

The ability to speak a common language, use common assessment platforms and provide continuity across health care settings gives New Zealand the opportunity to gather useful information, enhance care and create a truly world class service for people in our community.

A single assessment platform ensures a consistent quality approach to support people as they transition across care settings.

The development of a national interRAI data warehouse to gather aggregated interRAI data provides an unprecedented opportunity to understand our population's needs, enhance services to support the vulnerable and target resources in an environment where value for investment is essential and supporting quality of life as we age is paramount.

The information presented in this report highlights some of the key risks and issues facing older people in their care journey, which can be used by policy makers, care providers and community support networks to develop more robust and focused services to meet need as demand rises.

Use of interRAI offers New Zealand health professionals an evidence based assessment platform to inform optimal care delivery.

The interRAI outcome measures and Clinical Assessment Protocols derived through the assessment process provide a roadmap for how best to care for an individual, highlight the risks, and offers the opportunity to respond at the right time for the best health outcome.

This report supports the vision of interRAI in New Zealand to ensure the continuous improvement of health outcomes for New Zealanders as they age, and the effectiveness and efficiency of our health system by guiding and leading the use of interRAI instruments and the dissemination and use of interRAI information.

I encourage all those interested in the health and wellbeing of our older people to consider the information in this report and use the opportunity it affords to develop the kind of quality services New Zealanders need and deserve as they age.

Ngā mihi

Catherine Hooney

Chair, interRAI New Zealand Governance Board

executive summary

This report provides a national overview of interRAI assessments for older people living in New Zealand during the financial year 1 July 2015 to 30 June 2016.

interRAI assessments represent about ten percent of the New Zealand population aged 65 years and over in 2015/16, the data presented in this report provides valuable insight into the health and general wellbeing of people across care settings in our communities.

The following summarises some of the key findings in this year's report:

1. In 2015/16, there were 19,600 interRAI Contact assessments (CA), 36,900 Home Care (HC) assessments and 54,800 Long Term Care Facilities (LTCF) assessments completed in New Zealand.
2. The number of Contact and Home Care assessments has plateaued but the number of LTCF assessments continues to rise sharply (from 27,200 in 2014/15 to 54,800 in 2015/16). This increase was expected as the LTCF tool became the primary assessment tool in the aged residential care sector in July 2015.
3. The percentage of completed assessments, as a share of total assessments, varied across District Health Boards (DHBs). Waitemata DHB completed the highest percentage of Contact assessments while Taranaki DHB was at the opposite side of the spectrum. Capital and Coast DHB completed the highest percentage of Home Care assessments while Waitemata DHB completed the lowest. Taranaki and MidCentral DHBs stood out as having completed the highest percentage of LTCF assessments while West Coast and South Canterbury DHBs had completed the lowest.
4. Similar to 2014/15, Home Care clients were more likely to report coronary heart disease, diabetes, cancer and chronic obstructive pulmonary disease as their primary diagnosis compared to LTCF residents. As expected, LTCF residents were more likely to report Alzheimer's disease and other dementia as their primary diagnosis than Home Care clients.
5. Nationally, the results for most of the interRAI outcome measures in 2015/16 were consistent with 2014/15. The main change over the last year was a decline in the percentage of Home Care clients with the highest Method of Assigning Priority Level (MAPLe) score from 25 percent to 21 percent. This may suggest a number of possibilities such as an increase in the number of Home Care clients moving to aged residential care or an increase in support for Home Care clients from family, friends and service providers.
6. Similar to the outcome measures, the national level results for the interRAI Clinical Assessment Protocols (CAPs) in 2015/16 were in line with 2014/15. The key change was a decline in the percentage of LTCF assessments that triggered the pressure ulcer CAP, at level 3, from 10 percent in 2014/15 to five percent in 2015/16.
7. Home Care clients (22 percent) were more likely to report feeling lonely compared to LTCF residents (8 percent). Just over a fifth (22 percent) of Home Care clients also reported informal carer stress such as feelings of distress, anger or depression.
8. LTCF residents (74 percent) were more likely to have an Enduring Power of Attorney (EPOA) in place compared to Home Care clients (58 percent). LTCF residents (30 percent) were also more likely to have an advance care plan in place compared to Home Care clients (3 percent).

scene setting

What is interRAI™?

The term 'interRAI™'[1] refers to both the international organisation (www.interrai.org) responsible for developing comprehensive clinical assessment systems, and the suite of clinical assessment tools available. The acronym stands for International Resident Assessment Instrument.

interRAI is a not-for-profit organisation consisting of a collaborative network of clinicians and researchers in over 35 countries. interRAI international aims to promote evidence based clinical practice and policy decisions to improve care for persons who are disabled or medically complex.

Countries using interRAI include Canada, USA, Australia, Belgium, Spain, Jordan, Finland, France, Switzerland, Sweden, Poland, Germany, Netherlands, Italy, Hong Kong, India, Estonia, Japan, Iceland, South Korea, China, Taiwan, Lithuania, Czech Republic, Denmark, Norway, Singapore, South Africa, Brazil, Lebanon, the United Kingdom, Israel, South Korea, Qatar and New Zealand.

The interRAI comprehensive clinical assessment suite

interRAI is a suite of comprehensive clinical assessment tools. The suite of instruments is built on a core set of assessment items that are considered important in all care settings.

Each tool in the comprehensive clinical assessment interRAI suite has been developed for a specific population. The tools are standardised assessments designed to work together to form an integrated health information system, the primary purpose being to improve care planning for each individual.

interRAI tools share a common language, that is they refer to the same clinical concepts in the same way across different tools. Using common measures enables clinicians and providers in different care settings to improve continuity of care and integrate the care and support needed for each individual.

In New Zealand, the interRAI suite of assessments is mainly used to assess the health of older people in the home and community, hospital and residential care settings.

The tools currently used in New Zealand include the interRAI Contact Assessment, Home Care Assessment and Long Term Care Facilities (LTCF) Assessment. Work is underway to broaden the use of the interRAI suite across other healthcare settings. For example, a pilot of the Palliative Care assessment tool has taken place in three District Health Boards (DHBs) and a national roll out is planned over the next two years.

[1] For ease of reading, we have removed the '™' symbol when referring to interRAI in the remainder of this report, however it is noted that interRAI™ is a registered trademark and appropriate use of the term applies.

interRAI in New Zealand

interRAI has had a long journey of evolution in New Zealand. The interRAI Home Care assessment tool was first piloted in five DHBs and then implemented nationally in all 20 DHBs between 2008 and 2012.

The interRAI LTCF tool was introduced in the aged residential care sector through a project which took place between 2011 and 2015.

In July 2015, interRAI became the primary assessment tool to inform a resident's care plan in aged residential care. New Zealand is the first country in the world to use the interRAI suite of assessment tools nationwide within a single national software platform.

In July 2015, the Central Region's Technical Advisory Services (TAS) became the national interRAI service provider. interRAI Services are established as a business unit within TAS.

In 2016, the delivery of interRAI education and support services across DHBs and aged residential care (ARC) sector was integrated into one national service to ensure consistency across the two sectors.

The interRAI New Zealand Governance Board

The interRAI New Zealand Governance Board (the Board) is a governance group with the authority to give direction and provide strategic governance for interRAI from a clinical, operational, and consumer perspective. The Board was appointed by the Director General of Health.

The primary purpose of the Board is "to ensure the continuous improvement of health outcomes for New Zealanders as they age, and the effectiveness and efficiency of our health system by guiding and leading the use of interRAI instruments and the dissemination and use of interRAI information".

The National interRAI Data Analysis and Reporting Centre

The National interRAI Data Analysis and Reporting Centre (the Centre) is part of interRAI Services in TAS and the author of this report.

The Centre is responsible for delivering a suite of interRAI data analysis, reports and insights to a large variety of stakeholders to assist them in their planning and decision making and ultimately to improve health outcomes for older people.

The Centre has built a national interRAI data warehouse which hosts the data collected from interRAI assessments. The Centre provides a number of benchmarking and accountability reports to meet the needs of DHBs and other stakeholders. From February 2017 onwards, ARC providers are able to access a standard suite of national interRAI reports to inform the delivery and development of services for older people.

The Centre also makes interRAI data available and accessible for use by any party for quality improvement, research, planning and service delivery. It has developed interRAI data access protocols that govern the access and use of interRAI data to any party. The aim of the interRAI data access protocols is to protect the privacy, security and confidentiality of interRAI data and at the same time facilitate its use and availability. The data access protocols can be accessed from www.interRAI.co.nz

introduction

Purpose of the report

The National interRAI Data Analysis Annual Report 2015/16 is the second publication in a series of annual reports. The previous report can be accessed from the interRAI New Zealand's website (www.interRAI.co.nz).

This report summarises key data collected from interRAI assessments over the year from July 2015 to June 2016 for a broad audience of service providers and users across the health sector in New Zealand.

The report aims to stimulate discussion and to provide data to inform individuals, organisations, policy makers, care providers, researchers and other interested groups, to develop and enhance services that improve health outcomes for older people in New Zealand.

While the report provides analysis and data interpretation for a range of stakeholders, it does not attempt to prescribe how stakeholders should use that data nor does it attempt to answer policy questions – that is for the stakeholders themselves to consider.

interRAI alignment with the New Zealand Health Strategy

The Ministry of Health updated the New Zealand Health Strategy[2] (the Strategy) in April 2016 and the Healthy Ageing Strategy[3] in December 2016.

The refreshed New Zealand Health Strategy outlines the high level direction for New Zealand's health system over the ten years from 2016 to 2026.

The Strategy puts greater emphasis on maintaining health, health literacy and illness prevention to reduce future demands and allow New Zealanders to live well, stay well and get well.

'All New Zealanders live well, stay well, get well' is central to the New Zealand Health Strategy.

It also provides a "roadmap of actions" identifying 27 areas for action over five years to make the Strategy happen. The actions are organised under the five themes of the Strategy.

The Board takes strategic direction from the Strategy 2016 and the Healthy Ageing Strategy.

The interRAI NZ – Future Direction[4] is a three year rolling strategic plan updated each year. The Future Direction is based on the five strategic themes of the refreshed Strategy and how interRAI can support the implementation of the strategy.

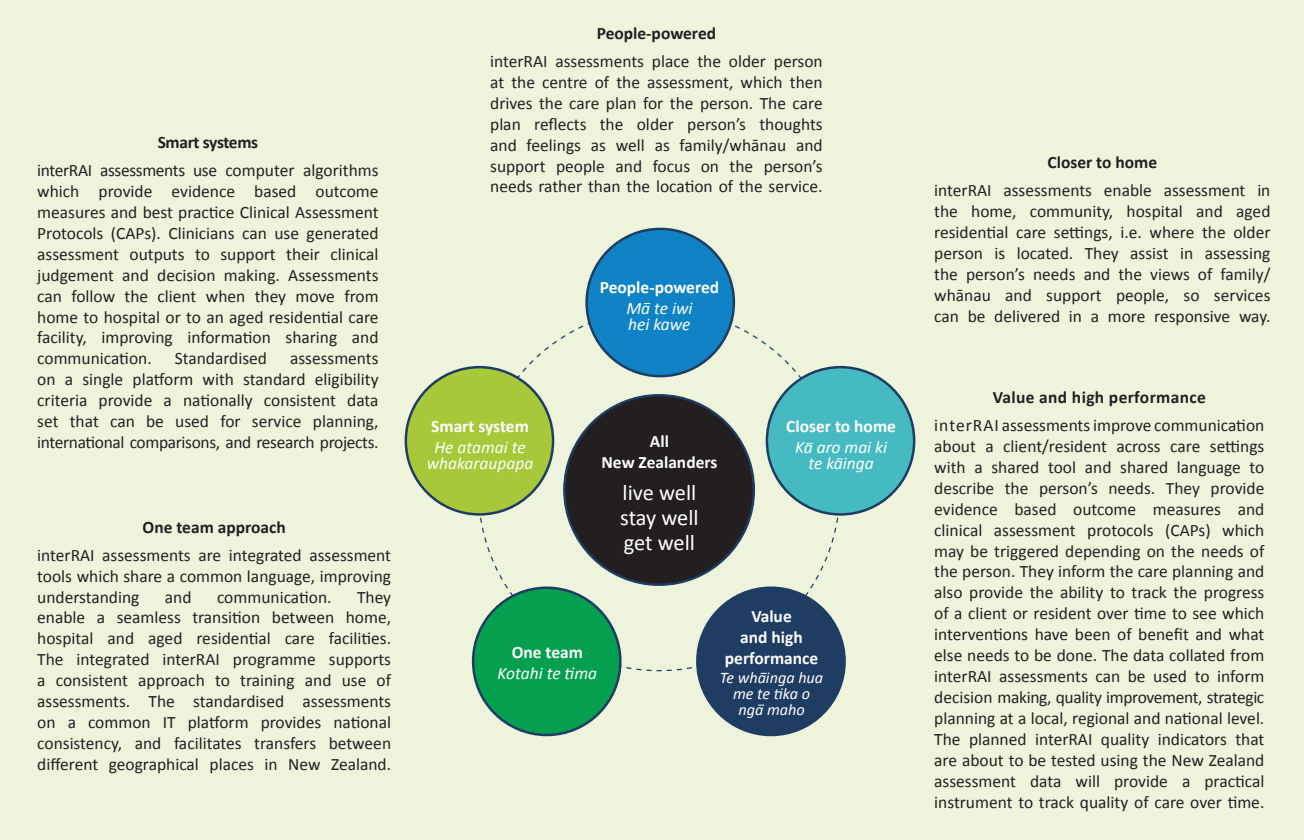
Figure 1 shows how interRAI assessments and the information presented in this report align with the five strategic themes of the Strategy.

[2] Ministry of Health (2016). New Zealand Health Strategy 2016. *http://www.health.govt.nz/publication/new-zealand-health-strategy-2016*

[3] Ministry of Health (2016). Health of Older People Strategy update. *http://www.health.govt.nz/our-work/life-stages/health-older-people/healthy-ageing-strategy-update*

[4] The interRAI New Zealand – Future Direction can be accessed at *http://www.interrai.co.nz/assets/Documents/Board-Minutes/interRAI-New-Zealand-Future-Direction-2016-2019.pdf*

Figure 1: Alignment of the information presented in this report with the New Zealand Health Strategy



Source: Image from New Zealand Health Strategy 2016

The Healthy Ageing Strategy is most pertinent to interRAI and its relationship to the health outcomes of older New Zealanders. It aims to provide a framework for the health and disability system to achieve equitable outcomes and be able to provide for the growing number of older New Zealanders in a sustainable way. The strategy encourages health and aged care providers to consider the way they deliver services so that they "add life to years, not just years to life" for older people.

The Action Plan in the Healthy Ageing Strategy sets out the steps that will be taken over the next two years and beyond towards the five outcome areas of the plan. The five outcome areas make up the substance of the plan and along with 26 specific actions, some of which are identified as priorities for the first two years of the Strategy:

- Ageing well
- Acute and restorative care
- Living well with long-term conditions
- Support for people with high and complex needs
- Respectful end of life.

In particular, under Action 8b[5], aged care and health providers are tasked to use interRAI assessment data to identify quality indicators and service development over the next two years. The aim of this action is to improve the models of care for home and community support services and ultimately, to support older people to live well with long term conditions.

The 'Future developments' chapter provides more information on the development of interRAI quality indicators, a new project recently initiated by interRAI Services.

[5] See page 54 of the Healthy Ageing Strategy. http://www.health.govt.nz/system/files/documents/publications/healthy-ageing-strategy.pdf

Target audience

This publication series is aimed at a broad audience. This includes the following (in no particular order):

- The interRAI New Zealand Governance Board
- DHBs – This group consists of interRAI assessors, interRAI educators, interRAI systems clinicians, Needs Assessment and Service Co-ordination Service (NASC)[6] assessors and managers, General Managers Planning and Funding and Health of Older People (HOP) Portfolio Managers
- The DHB HOP Steering group[7]
- ARC providers and managers of ARC facilities
- Representative groups of the aged residential care sector e.g. the Joint ARC Steering Group, the New Zealand Aged Care Association (NZACA), Care Association New Zealand (CANZ), New Zealand Council of Christian Social Services (NZCCSS)
- Social and health researchers
- Health professionals such as clinicians, geriatricians and general practitioners
- The Ministry of Health
- Other agencies such as the Accident Compensation Commission (ACC), the Ministry of Social Development (MSD), the Health Quality and Safety Commission (HQSC)
- Home and community support providers and their representative groups such as the Home and Community Health Association (HCHA)
- International users of interRAI data and information such as the Canadian Institute of Health Information (CIHI)
- TAS staff.

The data presented in this report relates to three interRAI assessment types: Contact assessments, Home Care and LTCF assessments...and refers to assessments rather than clients/residents unless specified.

[6] NASC services are contracted by the Ministry, on behalf of the New Zealand Government, to assess the needs of, and coordinate support for children, older people or people with disabilities. DHB older people NASC teams conduct interRAI assessments for older people in the community. A general practitioner (GP) can also refer an older person to a NASC for access to support services.

[7] The DHB HOP Steering Group is chaired by the Lead Chief Executive who has overall responsibility for national decisions about health of older people services. It includes regional representatives of DHB General Managers Planning and Funding, and DHB Health of Older People Portfolio Managers and the Ministry of Health.

About the data

The data presented in this report relates to three interRAI assessment types: Contact assessments, Home Care and LTCF assessments.

A Contact assessment is a brief standardised clinical assessment that provides information to support living at home and emergency department referral. It is used for people with short term or non-complex needs. The assessment can be done face to face or over the phone and takes about 30 minutes to complete.

A Home Care assessment is a comprehensive clinical assessment designed for people with more complex needs who are able to live at home. This tool can also help identify when a person needs to be referred to ARC.

An LTCF assessment is a comprehensive clinical assessment designed for people in residential care to inform their care plans.

All interRAI assessment data for the 2015/16 report[8] is sourced from the National interRAI Software Service[9] in New Zealand, unless stated otherwise. Where the data is sourced from other places such as census data provided by Statistics New Zealand or overseas data, the source is stated below the chart or table.

The data in this report refers to assessments rather than clients/residents unless specified.

Contact assessments are reported separately from interRAI Home Care assessments.

Home Care clients in this report refers to home care assessed clients, that is, those who have been assessed using an interRAI Home Care assessment tool. They are not necessarily those who are receiving home and community support services from home care providers.

While only a selected number of interRAI assessment outcomes and Clinical Assessment Protocols (CAPs) are discussed in the body of this report, data on all assessments outcomes and CAPs by DHB, region and nationally are available in Excel format from the interRAI NZ website (www.interRAI.co.nz).

Data for all assessment types is reported at the national, regional and DHB level[10,11]. Figure 2 shows the geographical boundaries of the 20 DHBs and their four regional groupings in New Zealand.

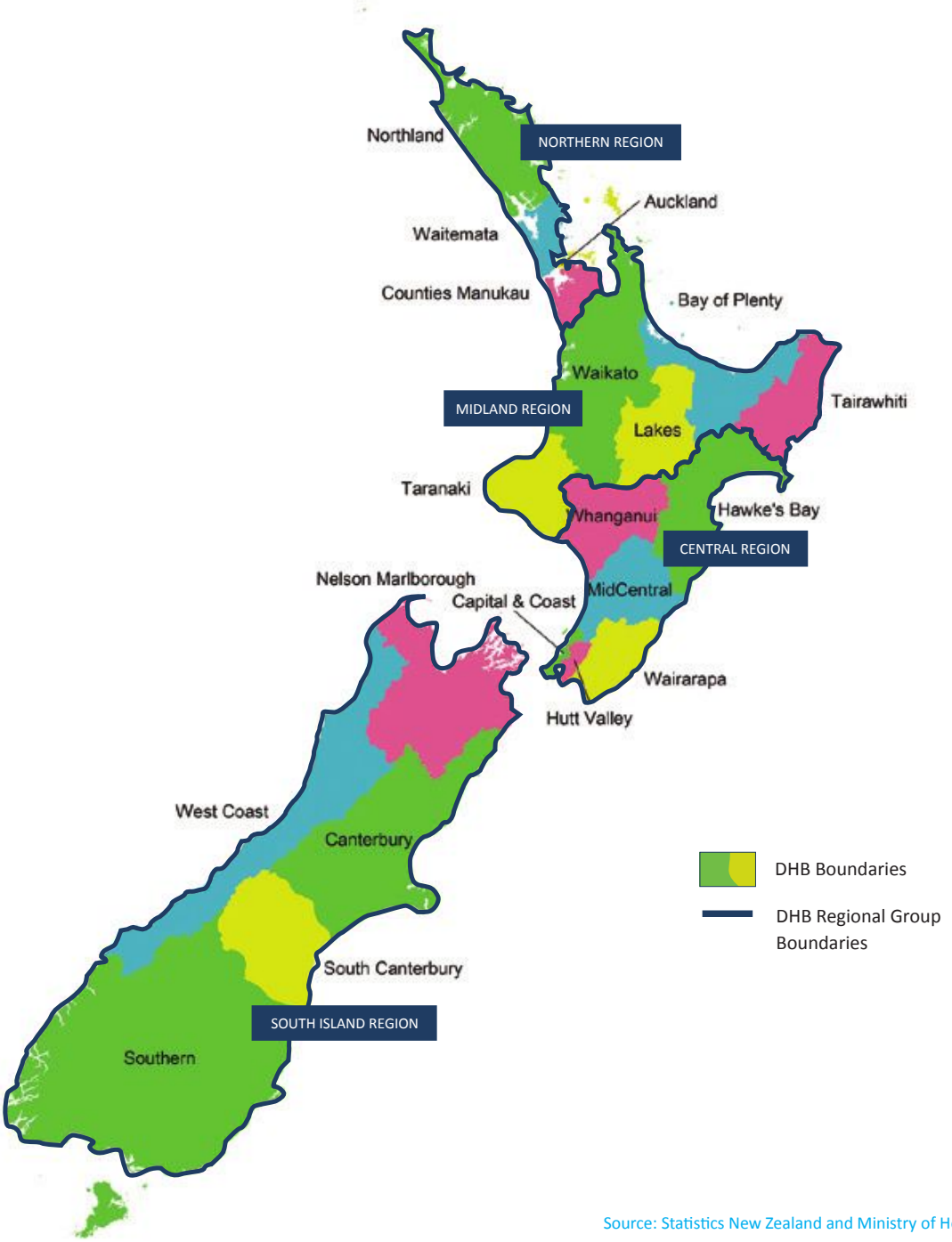
[8] The data for the 2015/16 report was extracted in mid-September 2016. There may be slight differences in the numbers presented in this report and numbers from the interRAI operational database for 2015/16 due to the timing of extracting data. Differences are generally because some draft assessments in progress were completed at a later date after extraction.

[9] The National interRAI Software Host Service is contracted by the Ministry to provide access to the national interRAI software assessment system for DHBs and their associated third party providers.

[10] The HOP Steering group agreed for public reporting on Home Care assessment data at the DHB level (i.e. not just at the regional and national level) in December 2014.

[11] In its inaugural 2014/15 Annual Report, due to the data sharing agreement at the time, the Centre reported on LTCF assessment data at a regional and national level only, not at the DHB level. In August 2016, the Board agreed for the Centre to expand reporting on LTCF assessments at the DHB level in addition to reporting at the regional and national level. At the time of writing, there is no data sharing agreement to publicly report on aggregated interRAI assessment data finer than the DHB level.

Figure 2: The 20 District Health Boards and their four regional groupings in New Zealand



Source: Statistics New Zealand and Ministry of Health

"The ability to speak a common language, use common assessment platforms and provide continuity across health care, enhancing care and creating a truly world class service for people in our community."

Introduction

In New Zealand, in the financial year 2015/16, the number of completed interRAI assessments was:

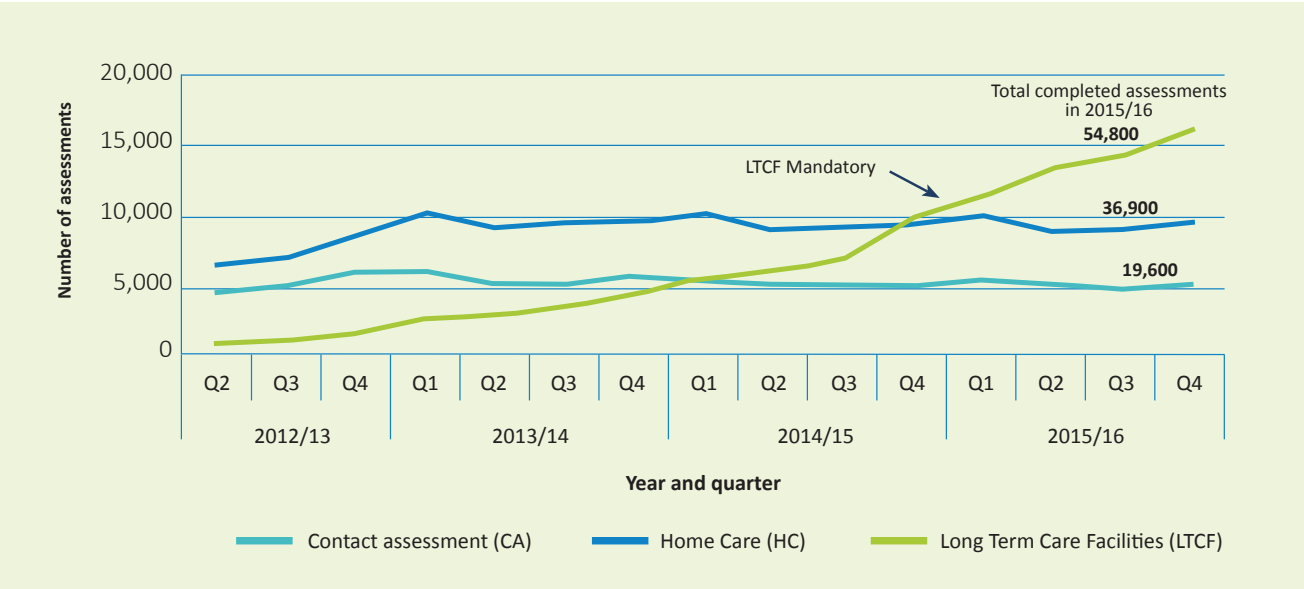
19,600
Contact assessments (CA)

36,900
Home Care assessments (HC)

54,800
Long Term Care Facilities (LTCF) assessments

The number of completed Contact and Home Care assessments has remained constant in the last two years. On the other hand, the number of completed LTCF assessments continues to increase (from 27,200 in 2014/15 to 54,800 in 2015/16). This increase is expected given the roll out of the interRAI LTCF assessment tool as being the primary assessment in aged residential care from July 2015.

Figure 3: Number of completed assessments by type over time



International comparison of assessments

Table 1 compares the proportion of completed Home Care and LTCF assessments in New Zealand and Canada relative to the total 65+ population. Readers are advised that neither the interRAI Home Care nor the interRAI LTCF tools are used in all the provinces and territories in Canada.

About 10 percent of New Zealanders had completed a Home Care or LTCF assessment in 2015/16, higher than in Canada (7.0 percent).

Relative to the 65 and over population, more New Zealanders had completed a Home Care or LTCF assessment than Canadians.

Table 1: Percentage of population who had an assessment by country, 2015/16

Indicator	New Zealand	Canada
Population 65+	687,663[2]	5,990,511[3]
Number of assessed clients /residents (HC and LTCF)[6]	65,379[4]	421,008[5]
Percentage of population who had an assessment	**9.5%**	**7.0%**

Sources/Notes:

1 Contact assessments are not shown as there is no comparable data between Canada and New Zealand.

2 Statistics New Zealand. Census of Population and Dwellings 2013, 'medium' 2015/16 population projections, Ministry of Health assumptions, 2013 base (2014 update).

3 Statistics Canada. Annual estimates of population, by age group and sex for July 1 2016, Canada, provinces and territories.

4 Does not include clients or residents who are below 65 years old.

5 Home Care Reporting System (HCRS) and Continuing Care Reporting System (CCRS) 2015/16 Quick Stats, CIHI. Includes clients or residents who are below 65 years old.

6 Double counting of clients/residents is very likely in the numbers presented. Includes clients and residents regardless of the care setting, i.e. hospital, community or facility.

7 Readers are recommended to exercise caution when comparing data from the two countries.

The number and percentage of assessments by type and DHB

Service delivery models vary across DHBs and the interRAI assessment tool DHBs use to assess the health status of a client/resident can vary depending on the need of the client/resident and other factors.

Table 2 shows the number and percentage of completed interRAI assessments by type and DHB in 2015/16. At the national level, Contact assessments represented just under a fifth (18 percent) of completed assessments, Home Care assessments were a third (33 percent) and LTCF were nearly half (49 percent).

The largest variances above the national average are shown in blue while the largest variances below the national average are shown in green.

Table 2: Number and percentage of completed assessments by DHB and region, 2015/16

DHB and Region	CA	%	HC	%	LTCF	%	Grand Total
Northland	840	22%	1,248	33%	1,727	45%	3,815
Waitemata	3,612	35%	2,164	21%	4,458	44%	10,234
Auckland	2,870	27%	2,537	23%	5,395	50%	10,802
Counties Manukau	952	12%	3,130	40%	3,816	48%	7,898
Northern Region	**8,274**	**25%**	**9,079**	**28%**	**15,396**	**47%**	**32,749**
Waikato	1,135	12%	3,286	36%	4,766	52%	9,187
Lakes	438	17%	969	37%	1,187	46%	2,594
Bay of Plenty	910	14%	2,543	38%	3,178	48%	6,631
Tairawhiti	120	14%	374	44%	364	42%	8,58
Taranaki	239	6%	1,395	37%	2,172	57%	3,806
Midland Region	**2,842**	**12%**	**8,567**	**37%**	**11,667**	**51%**	**23,076**
Hawke's Bay	1,190	24%	1,789	36%	2,050	41%	5,029
MidCentral	410	9%	1,496	33%	2,568	57%	4,474
Whanganui	215	10%	898	43%	973	47%	2,086
Capital and Coast	593	7%	3,696	46%	3,769	47%	8,058
Hutt Valley	1,049	26%	1,254	31%	1,705	43%	4,008
Wairarapa	109	9%	430	37%	617	53%	1,156
Central Region	**3,566**	**14%**	**9,563**	**39%**	**11,682**	**47%**	**24,811**
Nelson Marlborough	383	8%	2,018	42%	2,405	50%	4,806
West Coast	147	20%	317	42%	289	38%	753
Canterbury	2,313	19%	3,202	26%	6,980	56%	12,495
South Canterbury	668	23%	1,154	40%	1,052	37%	2,874
Southern	1,428	15%	3,005	31%	5,305	54%	9,738
South Island	**4,939**	**16%**	**9,696**	**32%**	**16,031**	**52%**	**30,666**
New Zealand	**19,621**	**18%**	**36,905**	**33%**	**54,776**	**49%**	**111,302**

Clients/residents by assessment type and age group relative to DHB population

To better understand the variation in the number and percentage of assessments across DHBs, the age profile of clients/residents who had had an interRAI assessment relative to the DHB population in that age group can offer some insight.

Table 3 shows the proportion of interRAI clients aged 65-74, 75-84 and 85+ who had completed an interRAI assessment by assessment type, as a percentage of the population in those age groups in 2015/16.

Table 3: Clients/residents by assessment type and age group, 2015/16

Clients by assessment type	65-74		75-84		85+		65+	
	N	%	N	%	N	%	N	%
CA	3,431	0.9	8,020	3.8	6,745	8.2	18,196	2.6
HC	5,327	1.3	12,748	6.1	14,277	17.5	32,352	4.7
LTCF	3,766	0.9	10,801	5.2	18,460	22.6	33,027	4.8
Total assessed clients/residents	12,524	3.2	31,569	15.2	39,482	48.3	83,575	12.2
Population*	**397,530**		**208,353**		**81,780**		**687,663**	

*The source for the DHB population by age group is the 'medium' 2015/16 population projections produced by Statistics New Zealand according to assumptions specified by the Ministry of Health, using the 2013 base (2014 update).

A total of 83,575 clients aged 65 and above had completed an interRAI assessment of some sort in 2015/16. This represented 12.2 percent of the New Zealand population aged 65 and above.

Close to half of clients/residents (48.3 percent) aged 85 and above had had an interRAI assessment.

As expected, there was a higher percentage of clients for each of the assessment types within the 85+ group compared to the 65-74 and the 75-84 age groups, indicating that older clients/residents are more likely to have greater needs.

While the majority of clients aged 85 and above were Home Care (17.5 percent) assessed clients and LTCF (22.6 percent) assessed residents, about 8 percent were Contact assessment clients. The latter may be due to a number of factors such as the service delivery model adopted by the DHB or the fact that some clients are stable and sufficiently independent to require only a Contact assessment.

*A total of **83,575** clients aged 65 and above had completed an interRAI assessment of some sort in 2015/16.*

Figures 4-6 show the variation across DHBs in the percentage of clients who had completed a Contact assessment relative to the DHB population in that age group.

At the national level, just under one percent of clients aged 65-74 had completed a Contact assessment. This percentage varied across DHBs. Auckland and Hutt Valley DHBs had the highest proportions while Nelson Marlborough and Capital and Coast DHBs had the lowest (Figure 4).

Nationally, 3.8 percent of clients aged 75-84 had completed a Contact assessment. Figure 5 shows that Hutt Valley and South Canterbury DHBs had the highest proportions while Whanganui and Taranaki had the lowest.

Nationally, 8.2 percent of clients aged 85 or above had completed a Contact assessment. Figure 6 shows that Auckland and Hutt Valley DHBs had the highest percentage of clients who had completed a Contact assessment in that age group while Wairarapa and Taranaki DHBs were in the other side of the spectrum.

Figures 7-9 show the variation in the percentage of clients who had completed a Home Care assessment by age group across DHBs relative to the DHB population in that age group.

Nationally, 1.3 percent of clients aged 65-74, 6.1 percent of clients aged 75-84 and 17.5 percent of clients aged 85 and above had completed a Home Care assessment.

South Canterbury and Capital and Coast DHBs had one of the highest percentages of clients who had completed a Home Care assessment across all the three sub age groups. Waitemata and Canterbury DHBs had one of the lowest percentages of clients aged 65-74 and 85+ who had completed a Home Care assessment. Waikato and Wairarapa DHBs had one of the lowest percentages of clients aged 75-84 who had completed a Home Care assessment.

Figure 4: Clients with a Contact assessment aged 65-74 relative to DHB population

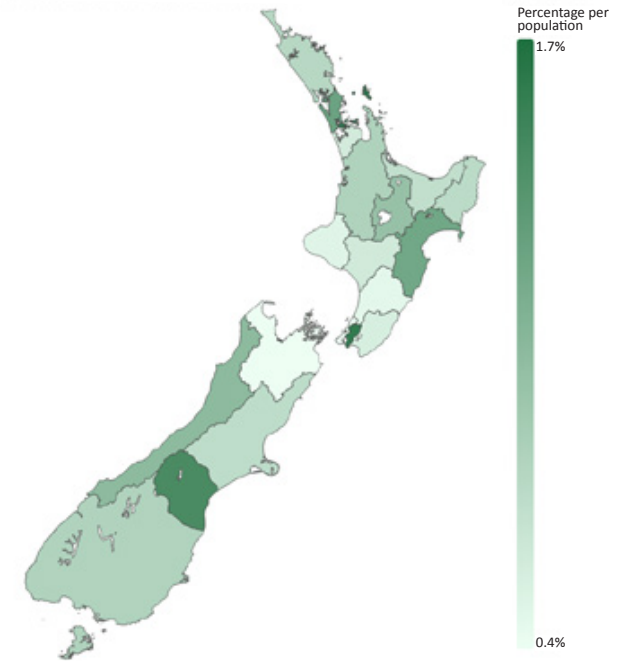
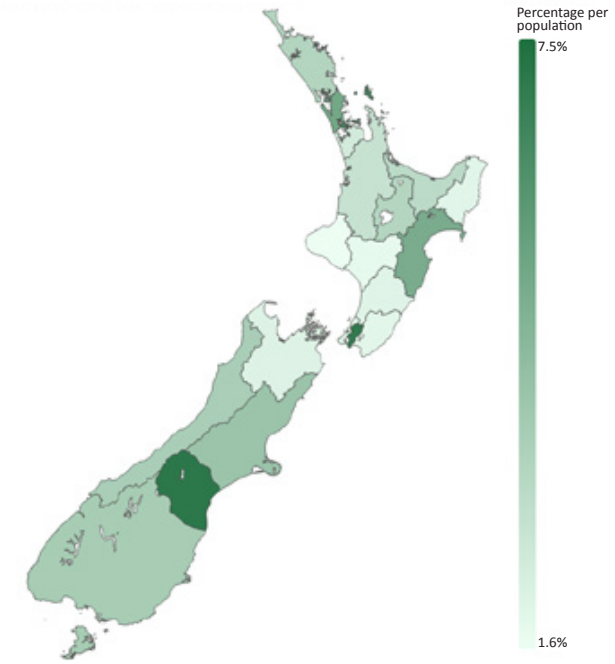


Figure 5: Clients with a Contact assessment aged 75-84 relative to DHB population



Nationally, 8.2% of clients aged 85 or above had completed a Contact assessment.

Figure 6: Clients with a Contact assessment aged 85 and above relative to DHB population

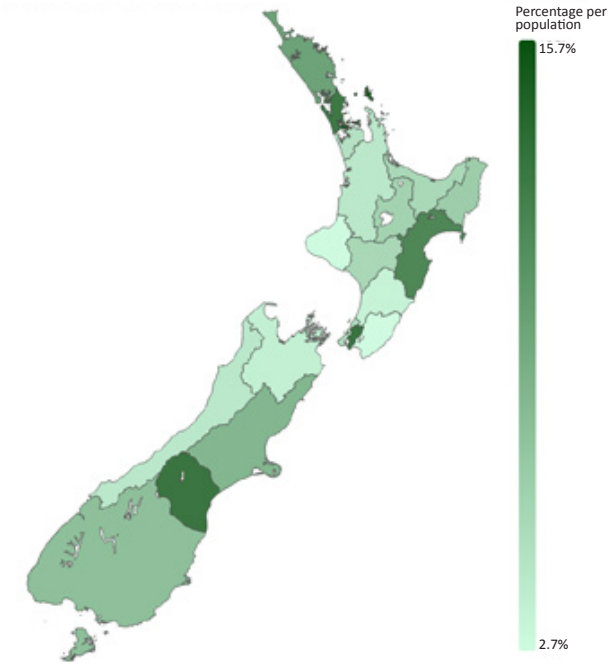


Figure 7: Clients with a HC assessment aged 65-74 relative to DHB population

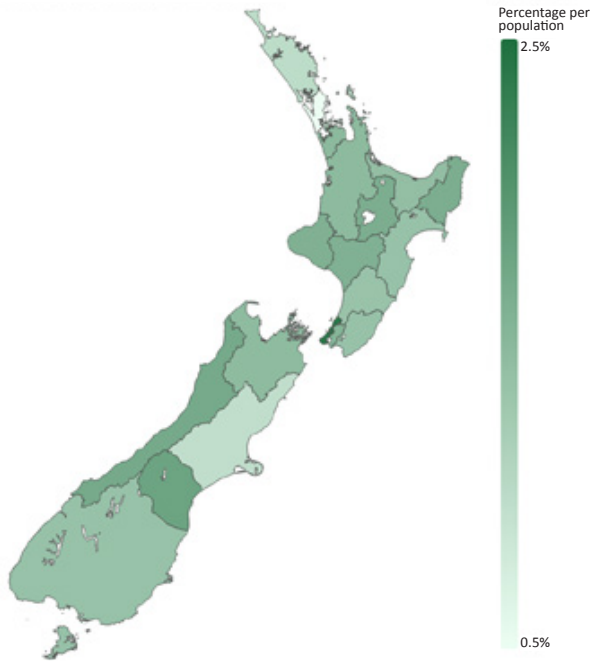
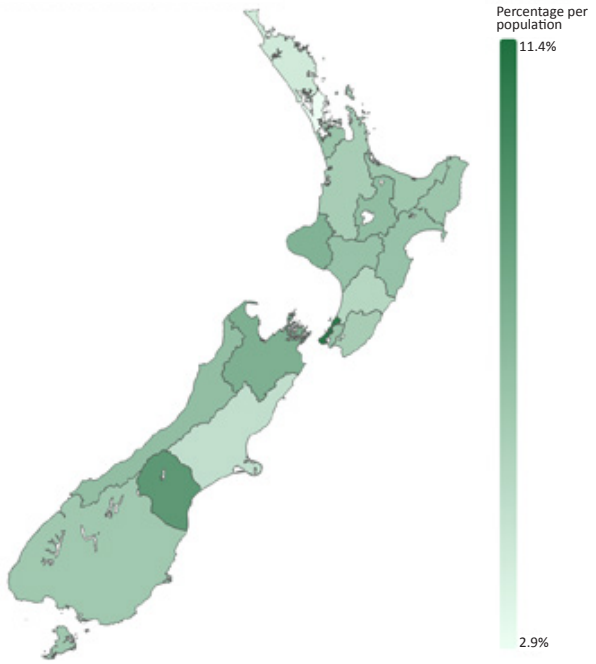


Figure 8: Clients with a HC assessment aged 75-84 relative to DHB population



South Canterbury and Capital and Coast DHBs had the highest percentages of clients who had completed a Home Care assessment across all the three sub age groups.

Figure 9: Clients with a HC assessment aged 85+ and above relative to DHB population

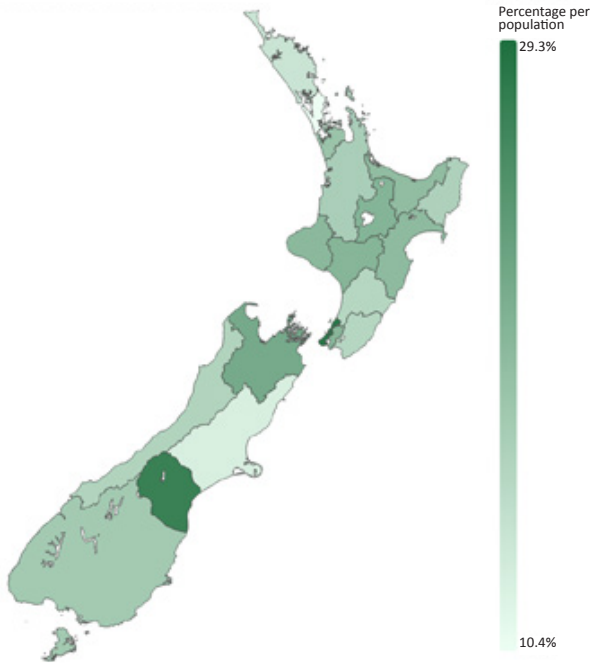


Figure 10: Clients aged 65-74 with an LTCF assessment relative to DHB population

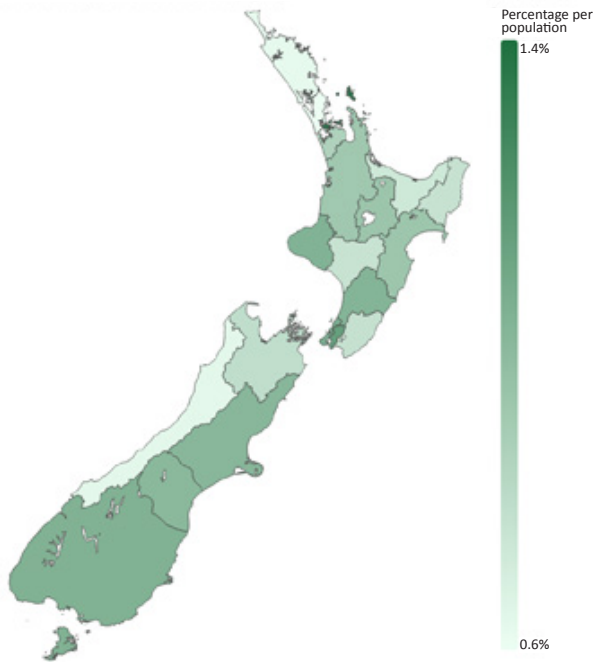
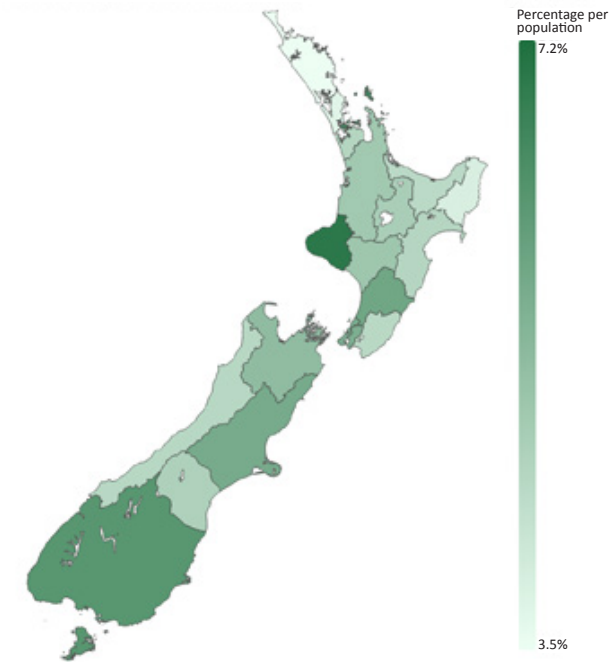


Figure 11: Clients aged 75-84 with an LTCF assessment relative to DHB population

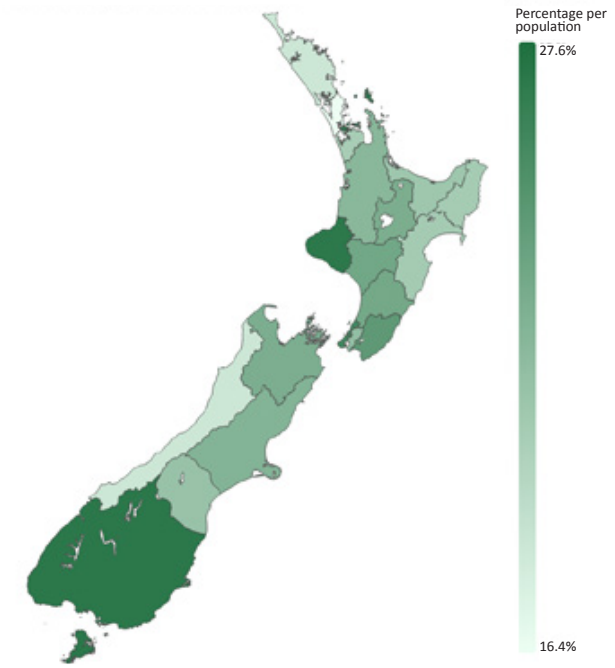


Nationally, just under one percent of clients aged 65-74, 5.2 percent aged 75-84 and 22.6 percent aged 85+ had completed an LTCF assessment.

Figures 10-12 show the variation in the percentage of clients by age group who had completed an LTCF assessment across DHBs relative to the DHB population in that age group.

Auckland DHB had one of the highest percentages of clients who had completed an LTCF assessment across all the three sub age groups while Waitemata DHB had one of the lowest percentages in all the three sub age groups. Southern DHB had the highest percentage of clients aged 85 and above who had completed an LTCF assessment. Taranaki DHB had the highest percentage of clients aged 75-84 while Hutt Valley DHB had the highest percentage of clients aged 65-74 who had completed an LTCF assessment.

Figure 12: Clients aged 85+ and above with an LTCF assessment relative to DHB population



Assessments per client/resident by type

According to the provisions of the Aged Related Residential Care (ARRC) Services Agreement 2016[12], ARC residents are expected to have an LTCF assessment within 21 days of being admitted into an ARC facility and at six monthly intervals thereafter, unless there are significant changes requiring more frequent assessments. It is acknowledged that not all ARC facilities have achieved this yet.

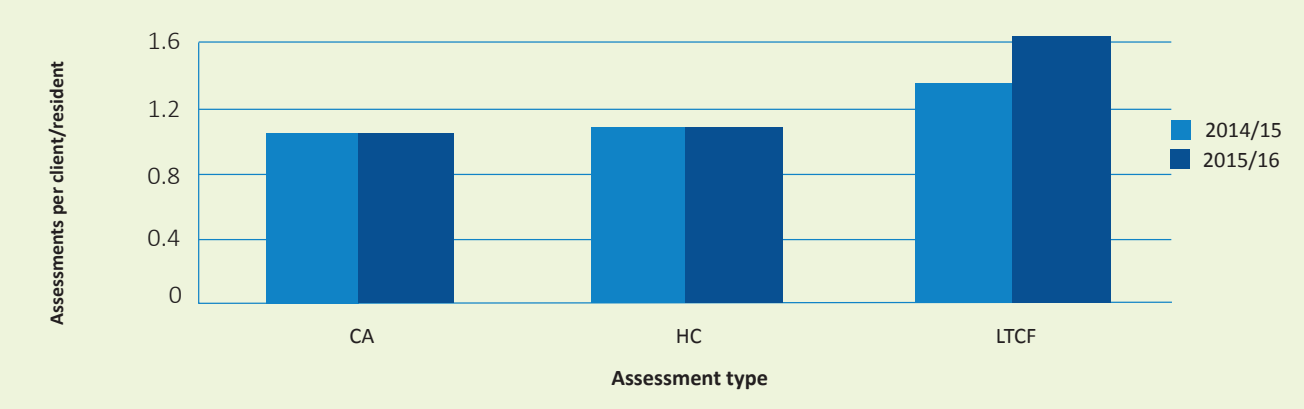
Contact and Home Care assessments are completed for clients in accordance with DHB protocols. For older people living in the home and the community, the frequency of assessments can vary from an annual reassessment to a three yearly assessment, and/or at the point of a significant change in health status.

The assessment per client ratio gives an indication of the frequency of assessments for a given client/resident. A higher assessment per client ratio suggests more frequent assessments for the same client/resident.

Figure 13 shows the ratio of LTCF assessments per resident has increased from 1.4 to 1.6 between 2014/15 and 2015/16. The increase was expected, particularly, since the LTCF tool was made the primary assessment tool in aged residential care in July 2015.

On the other hand, the ratio of assessments per client for Contact and Home Care assessments has remained the same, as expected over the last year.

Figure 13: Ratio of assessments per client/resident by assessment type



Assessments per client/resident by DHB and region

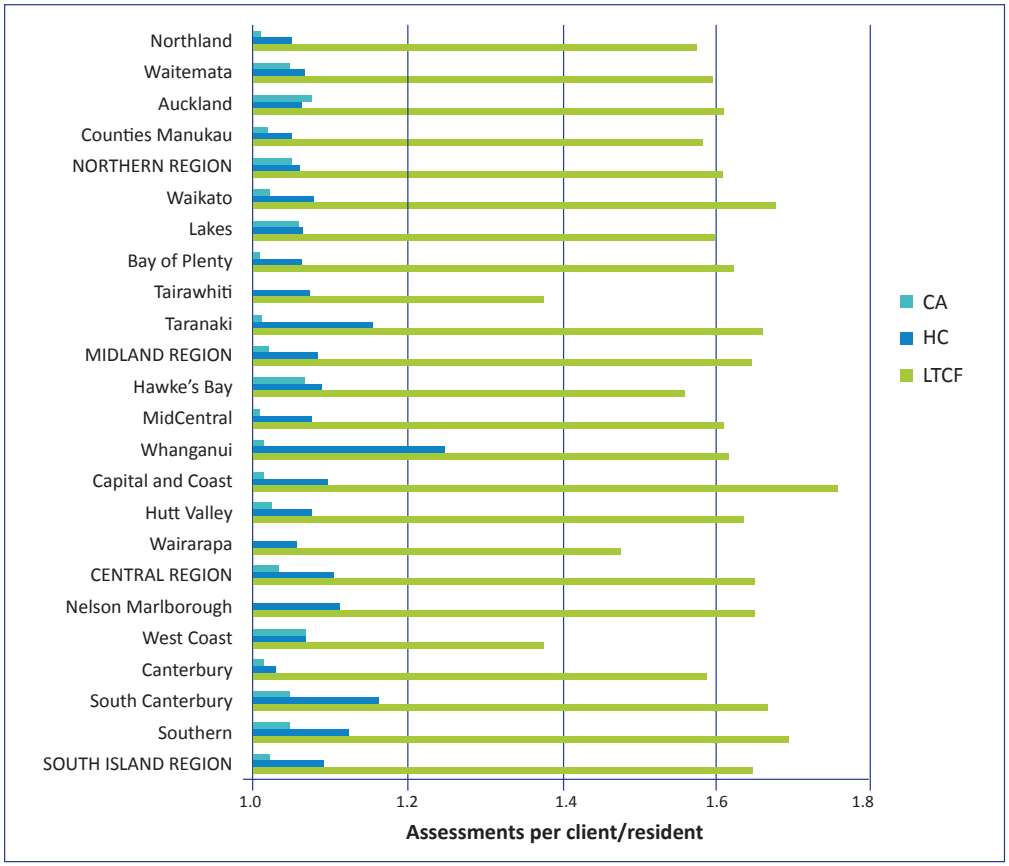
Figure 14 shows the breakdown of the ratio of assessments per client by DHB for 2015/16.

In 2015/16, for Home Care assessments, Whanganui DHB had the highest ratio of assessments per client while Canterbury DHB had the lowest.

For LTCF assessments, Capital and Coast DHB had the highest assessment per client ratio while West Coast DHB was at the opposite side of the spectrum.

[12] The ARRC Services agreement is a generic service level agreement between a DHB and an ARC facility in New Zealand. It provides the terms and conditions for the purchase of contracted care services by a DHB to ARC residents in an ARC facility. The 2016 agreement can be accessed from *http://www.centraltas.co.nz/assets/Health-of-Older-People/ARRC-agreement-2016-17-effective-1July2016-for-website-26May2016.pdf*

Figure 14: Ratio of assessment per client by DHB and region, 2015/16



Reason for assessment

An assessor conducts a first assessment for a Home Care client to determine if the client requires home based support services. A routine assessment is a follow-up assessment that can help service providers monitor the changes in the health of an older person over time to ensure that his/her care plan is appropriate and current.

A return assessment is conducted when the older person returns from the hospital or re-enters the home care system after a planned absence. A significant change in status reassessment occurs when the older person's status or condition changes significantly during the course of care.

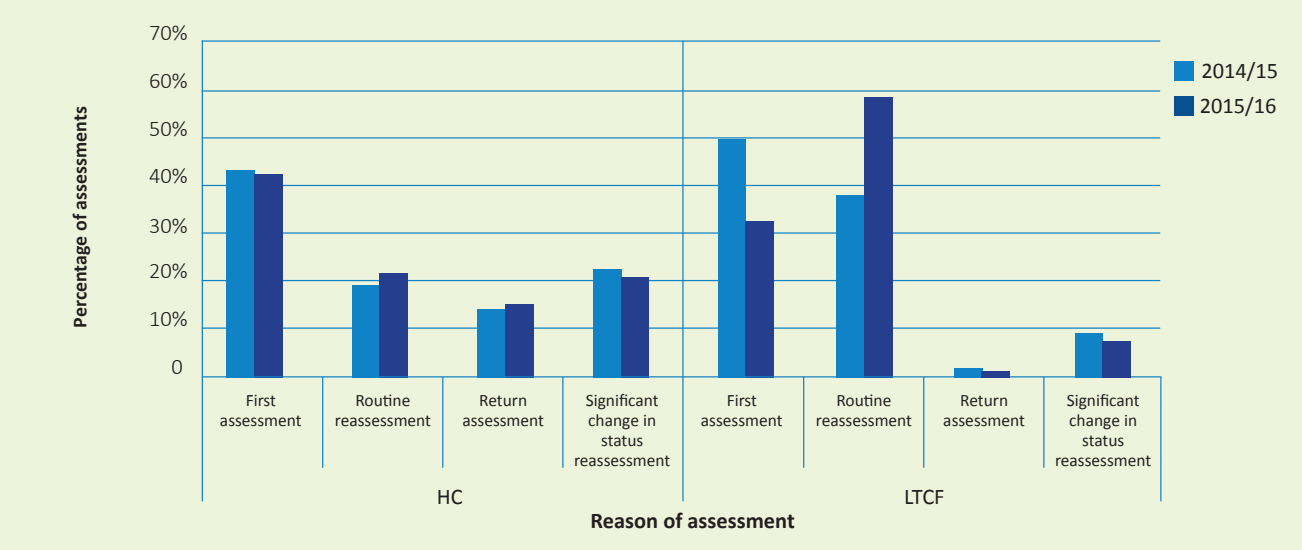
As expected, the percentage of routine LTCF assessments continues to increase.

In aged residential care, a nurse assessor should conduct a first assessment within 21 days of the resident being admitted into the aged residential care facility[13]. A routine reassessment in a facility should occur broadly within six months of the first assessment[14]. Further routine assessments should continue to occur at six month intervals.

Figure 15 shows the reason for assessment by assessment type over the last year. There has not been much change in the percentage of Home Care first, routine, return assessments and 'significant change in status' reassessments since 2014/15.

However, as expected, in aged residential care, the percentage of first assessments declined from 50 percent to 33 percent between 2014/15 and 2015/16. This points to the progress made in the ARC sector in completing first assessments since the roll out of the LTCF assessment tool from 2011 as well as improvement in coding[15]. The percentage of routine LTCF assessments rose from 38 percent to 58 percent during this period, in line with expectations.

Figure 15: Reason for assessment by type, 2014/15 and 2015/16



Note: The information gathered under "reason for assessment" is not always consistently recorded. Readers are recommended to exercise caution when using the results from this question. Other categories are excluded from the chart due to very small percentages.

Location of assessments

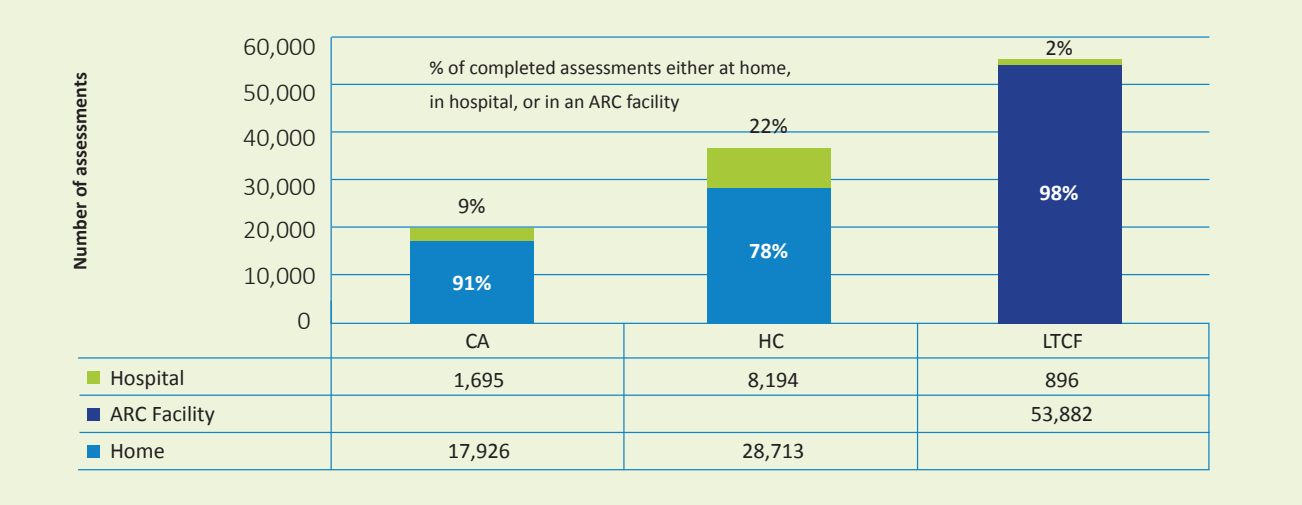
interRAI assessments can occur either in the private home of the older person, in a hospital or in an aged residential care facility.

An interRAI assessment completed in a hospital setting means the person has been admitted to hospital care, for example following a fall.

Figure 16 shows that the majority of Contact and Home Care assessments were completed in the person's private home. Almost all of LTCF assessments were completed in an ARC facility except for two percent completed in a hospital.

A slightly larger portion (22 percent) of Home Care assessments were carried out in a hospital setting compared to other assessment types. These results were similar to 2014/15.

Figure 16: Assessments completed at home, ARC facility or in hospital, 2015/16



[13] As per the terms and conditions stated in the ARRC agreement.

[14] In aged residential care, it is expected that the admission care plan is informed by the transferred home care assessment of the recently admitted resident. The assessment reference date (ARD) refers to the last date of observation for a particular assessment. A second routine reassessment should occur within six months of the ARD.

[15] Note that an LTCF resident has a first assessment when he/she is admitted to an ARC facility for the first time. If residents move between facilities, every subsequent assessment is coded as a routine re-assessment.

"Like many other countries, New Zealand's population is ageing. According to the census, the 65 and over population was estimated to be 688,000 in 2015."

demographics

Introduction

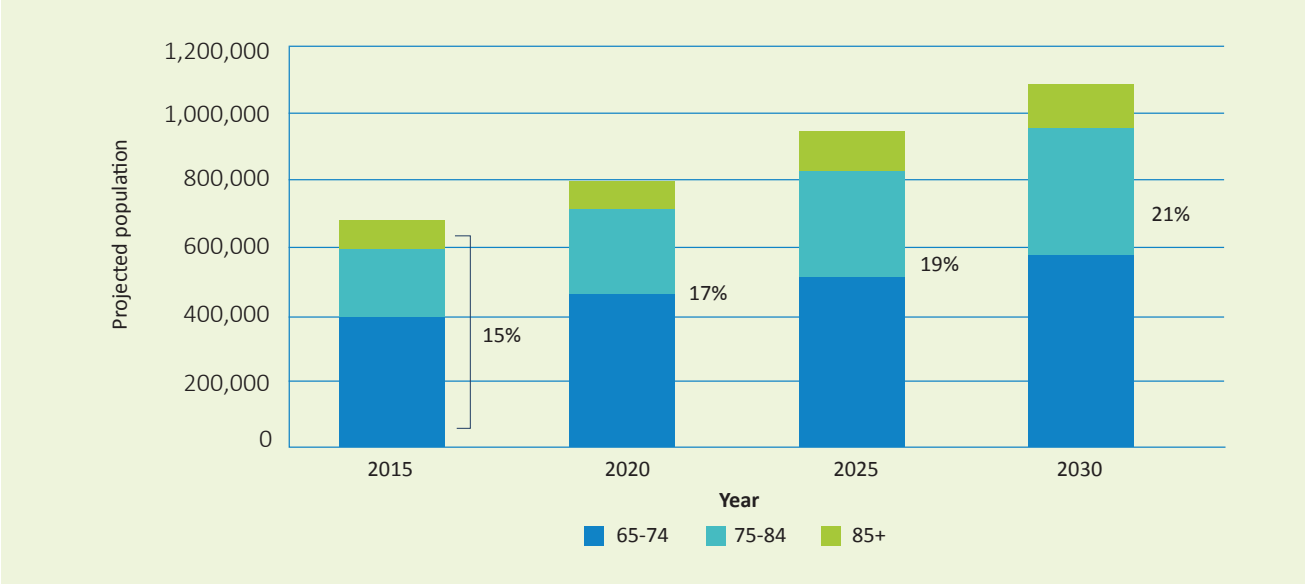
Like many other countries, New Zealand's population is ageing.

According to the census, the 65 and over population was estimated to be 688,000 in 2015. This represented 15 percent of the total New Zealand population and is projected to increase to 21 percent by the year 2030 as the last of the baby boomers' cohort (those born from 1946 to 1965) moves into the 65 years and over age group.

Figure 17 shows that by 2030, the number of people aged 85 years and over will increase from 80,100 to 137,000 (a 71 percent increase) while the number of people aged 75-84 will increase from 204,000 to 382,500 (an 88 percent increase).

This trend is likely to put increasing pressure on the demand for services to care for older people.

Figure 17: Population growth in New Zealand in the older age groups, 2015-2030



Source: Statistics New Zealand. Projections are 'medium' 2015/16 population projections according to assumptions specified by the Ministry of Health, using the 2013 base (2014 update)

International comparison with Canada

Table 4 (see over) compares a few key demographic characteristics between New Zealand and Canadian interRAI assessed clients and residents.

New Zealand Home Care clients were slightly older than their Canadian counterparts. There was a higher percentage of female Home Care clients in Canada than in New Zealand. Both countries had more or less similar percentage of interRAI female clients for LTCF assessments.

Table 4: Key demographic indicators by assessment type and country, 2015/16

Indicator	Home Care		LTCF	
	NZ[1,4]	Canada[1,2,4]	NZ[1]	Canada[1,2,3,5]
Number of assessed clients/residents	34,134	242,013	34,268	178,995
Average age	81.0	78.0	83.0	83.0
Percentage 85 years and over	41.8	39.7	53.7	55.2
Percentage of female	60.4	63.2	65.8	65.9

Sources/notes:

1. Includes assessed clients/residents who may be less than 65 years old.
2. Home Care Reporting System (HCRS) and Continuing Care Reporting System (CCRS) 2015/16 Quick Stats, Canadian Institute for Health Information (CIHI). Home Care data relates to clients assessed both in hospital and in the community.
3. LTCF data relates to residents assessed both in hospital and in a residential care setting.
4. Home Care indicators (i.e. average age, percentage 85 years and over, and percentage female) are based on assessed clients. These clients do not necessarily represent clients receiving home care and support services from home care providers.
5. Canadian LTCF indicators (i.e. average age, percentage 85 years and over, and percentage female) are based on all residents, not just assessed residents.
6. Comparable data is not available for Contact assessments between the two countries.
7. Readers are recommended to exercise caution when comparing data between the two countries. Note that neither the interRAI Home Care nor the interRAI LTCF tools are used in all the provinces and territories in Canada.

New Zealand Home Care clients were slightly older than their Canadian counterparts.

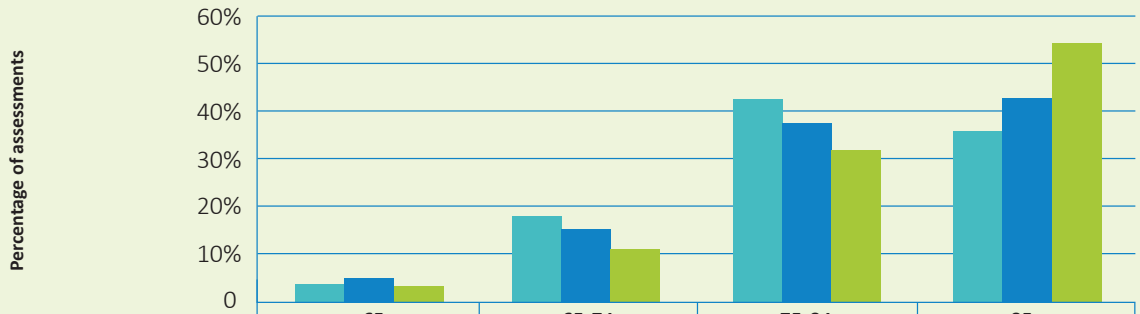
Age profile

Figure 18 shows the age profile of clients who had been assessed using a Contact assessment, Home Care or an LTCF assessment in 2015/16.

Most LTCF residents were aged 75-84 (32 percent) or 85 and above (54 percent). A small percentage of LTCF residents were under 65 years of age (4 percent).

About 42 percent of Contact assessment clients were aged 75-84 and another 36 percent were aged 85 and above, suggesting a number of possible reasons. For example, some of these clients may be low need clients or some DHBs may be using Contact assessments for relatively complex clients.

Figure 18: Percentage of assessments by type and age group, 2015/16



	<65	65-74	75-84	85+
CA	4%	18%	42%	36%
HC	5%	15%	37%	42%
LTCF	4%	11%	32%	54%

Ethnicity

Improved understanding of the ethnic makeup of clients/residents can lead to better provision of services.

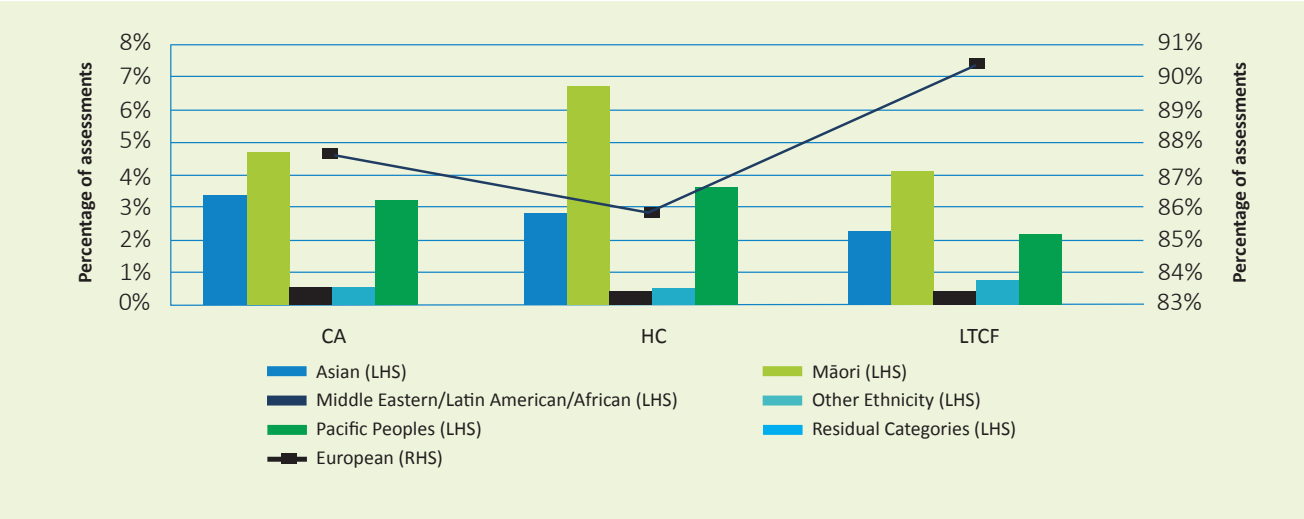
In 2015/16, the majority of assessments were for clients who identified as European. This is shown by the line graph using the right hand side scale in Figure 19.

Close to seven percent of Home Care clients were Māori. About another four percent were Pacific Peoples.

Among LTCF residents, four percent were Māori.

About 7 percent of Home Care clients were Māori compared to 4 percent of LTCF residents.

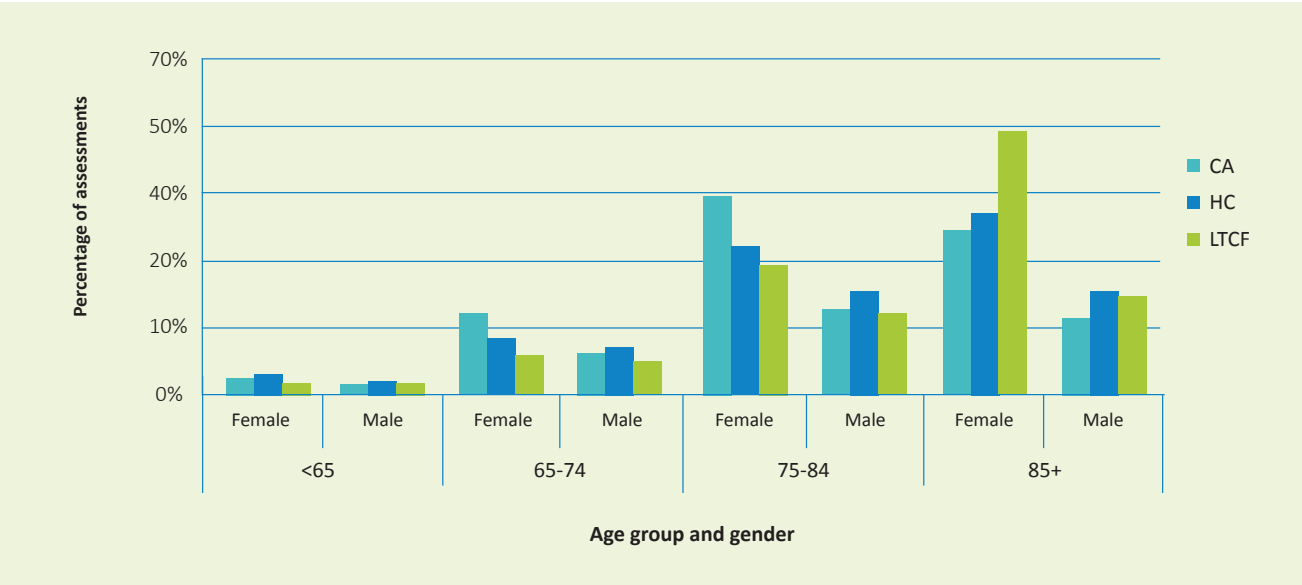
Figure 19: Percentage of assessments by type and ethnicity, 2015/16



Gender

There were more females assessed than males and this is more noticeable in the 85+ age group, consistent with the higher proportion of females in the general population over 85.

Figure 20: Percentage of assessments by type, age group and gender, 2015/16



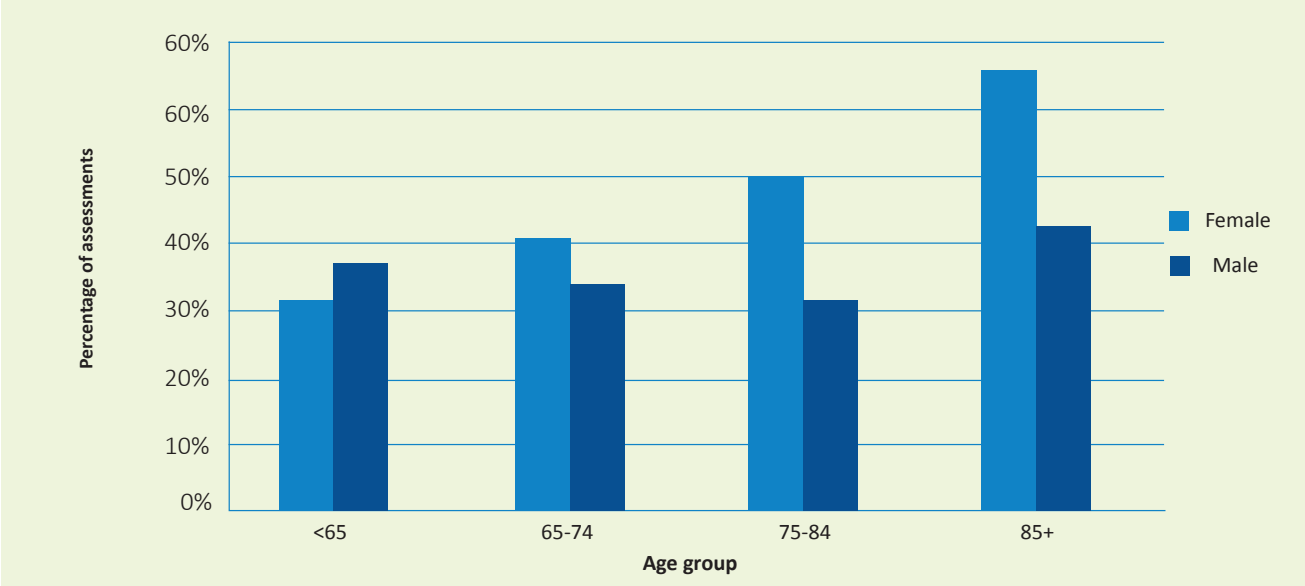
Across all age groups, females consisted of 68 percent of Contact assessments, 60 percent of Home Care assessments and 66 percent of LTCF assessments.

Living alone and living arrangement

Understanding the living arrangements of older people living at home or in the community can better inform service providers to help them access appropriate services that are relevant to their personal circumstances.

Figure 21 shows that female Home Care clients aged 85+ were more likely to be living alone compared to males. Male Home Care clients below 65 were more likely to be living alone compared to females in the same age group.

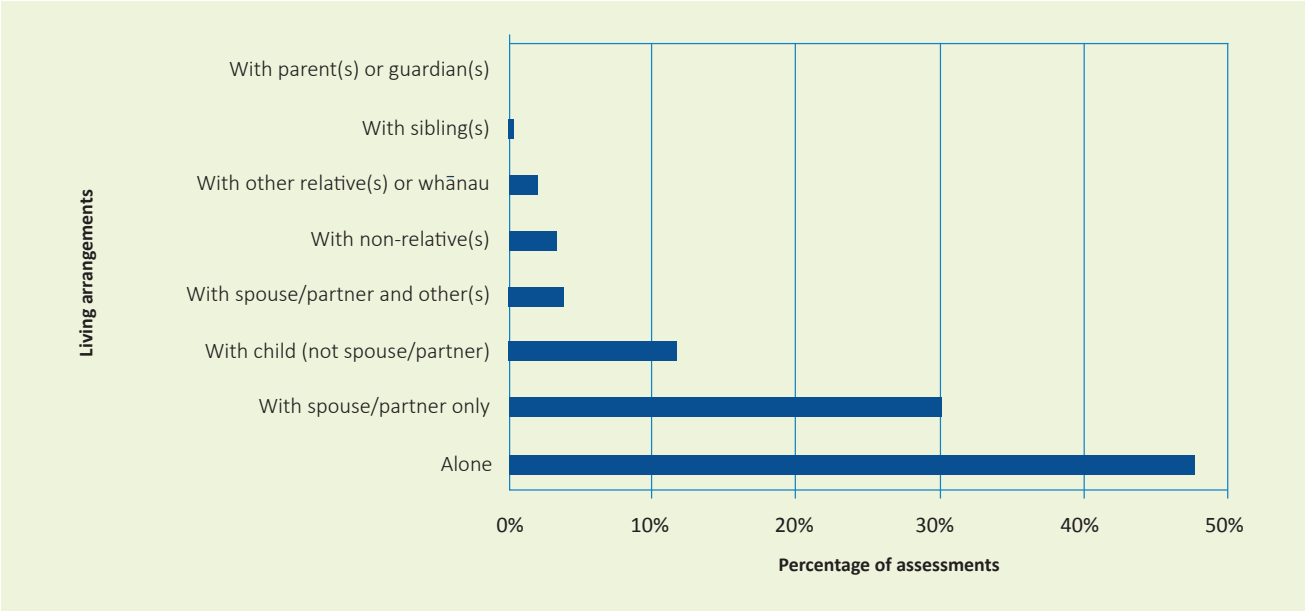
Figure 21: Percentage of Home Care assessments living alone by age and gender, 2015/16



The living situation of an older person can indicate the level of home support and social inclusion. Figure 22 shows the living arrangements of Home Care clients. Close to half (48 percent) of Home Care clients were living alone. Just under a third were living with a spouse or partner.

Home Care assessed female clients aged 85+ were more likely to be living alone compared to males. Close to half of Home Care clients were living alone.

Figure 22: Percentage of Home Care clients by living arrangement, 2015/16



Disease diagnoses

In general, people are living longer but many are also living longer in poor health[16]. Older people are likely to face chronic conditions and co-morbidities that will require interventions as they age.

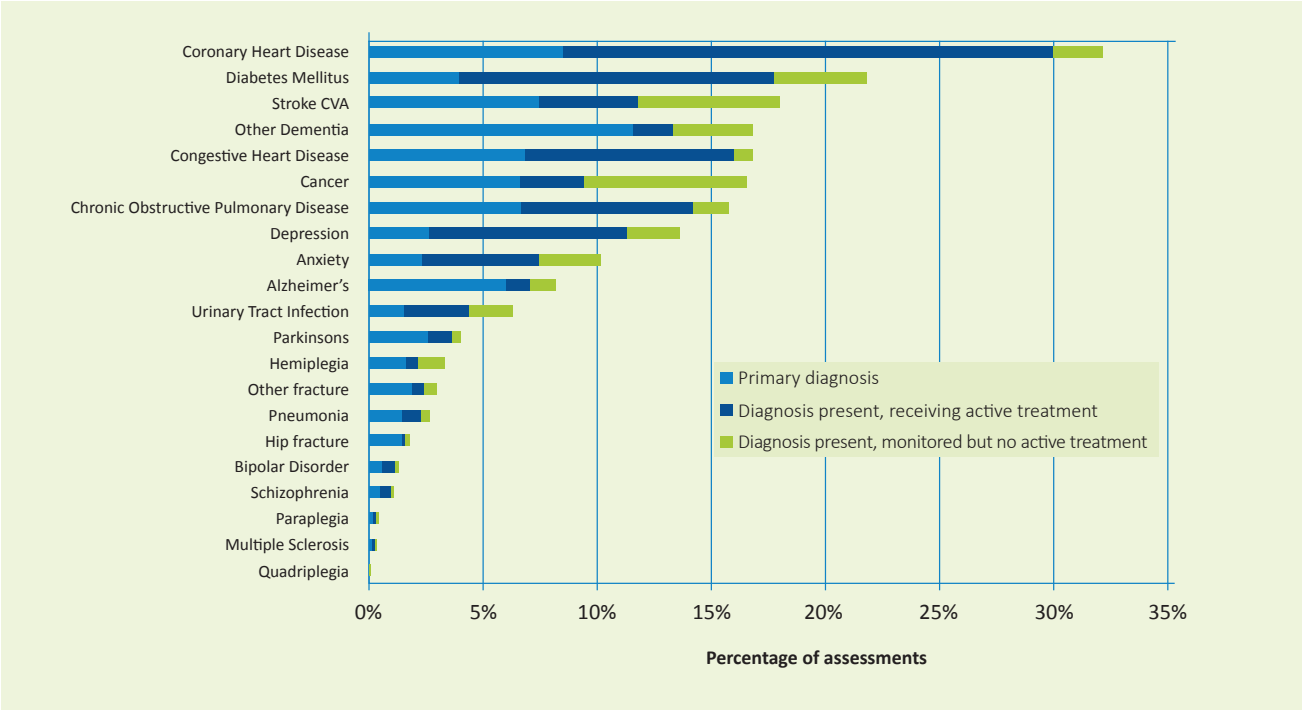
Figures 23 and 24[17]show the diseases reported by Home Care clients and LTCF residents in 2015/16, respectively. The diseases are coded in three categories: (i) the primary diagnosis (ii) diagnosis present, receiving active treatment and (iii) diagnosis present, monitored but no active treatment. A full list of diseases and their definitions is included in the Appendix.

Similar to 2014/15, Home Care clients were more likely to report coronary heart disease, diabetes, cancer and chronic obstructive pulmonary disease as their primary diagnosis compared to LTCF residents[18].

LTCF residents were more likely to report Alzheimer's disease and other dementia as their primary diagnosis than Home Care clients. The higher prevalence of Alzheimer's disease and other dementia for LTCF residents is expected given their enhanced care need identified as part of their need to enter long term residential care.

LTCF residents were also more likely to report the presence of depression and anxiety and receive active treatment or be monitored for these conditions compared to Home Care clients.

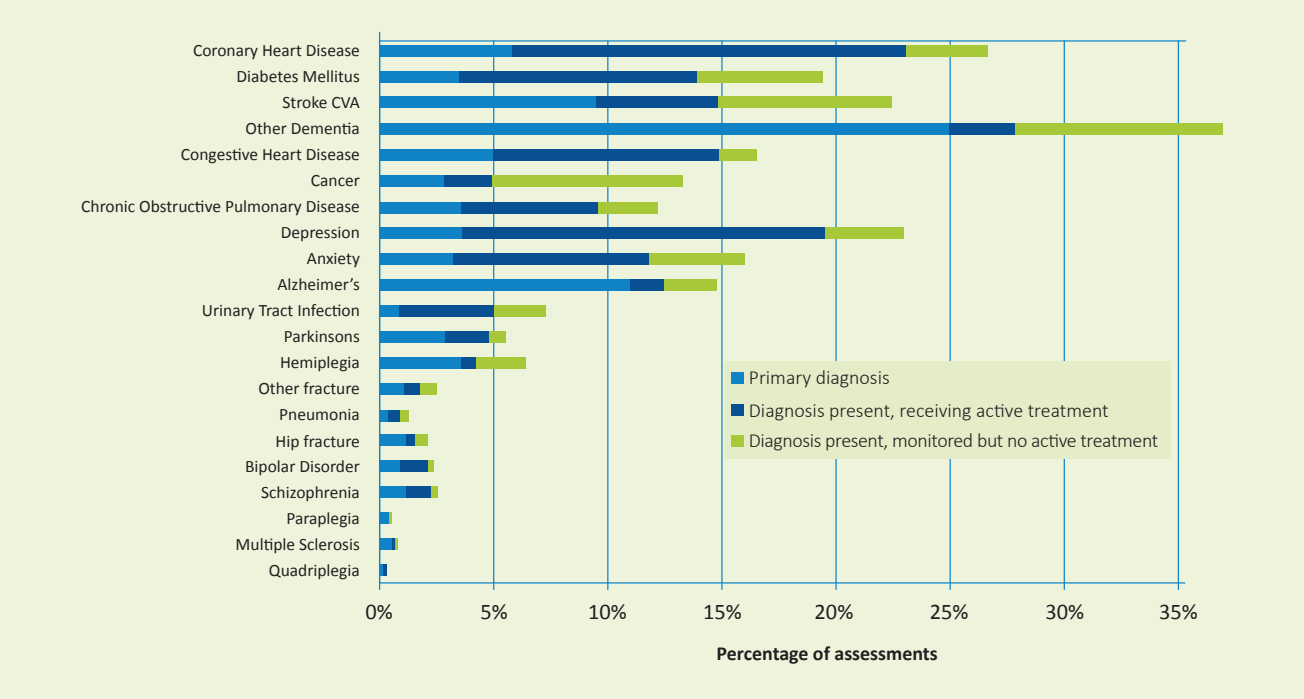
Figure 23: Diseases reported by Home Care clients, 2015/16



[16] Ministry of Health (2016). Health Loss in New Zealand 1990-2013. A report from the New Zealand Burden of Diseases, Injuries and Risk Factors Study.

[17] Figures 23 and 24 are drawn to scale to enable comparison between assessments completed by Home Care clients and LTCF residents.

Figure 24: Diseases reported by LTCF residents, 2015/16

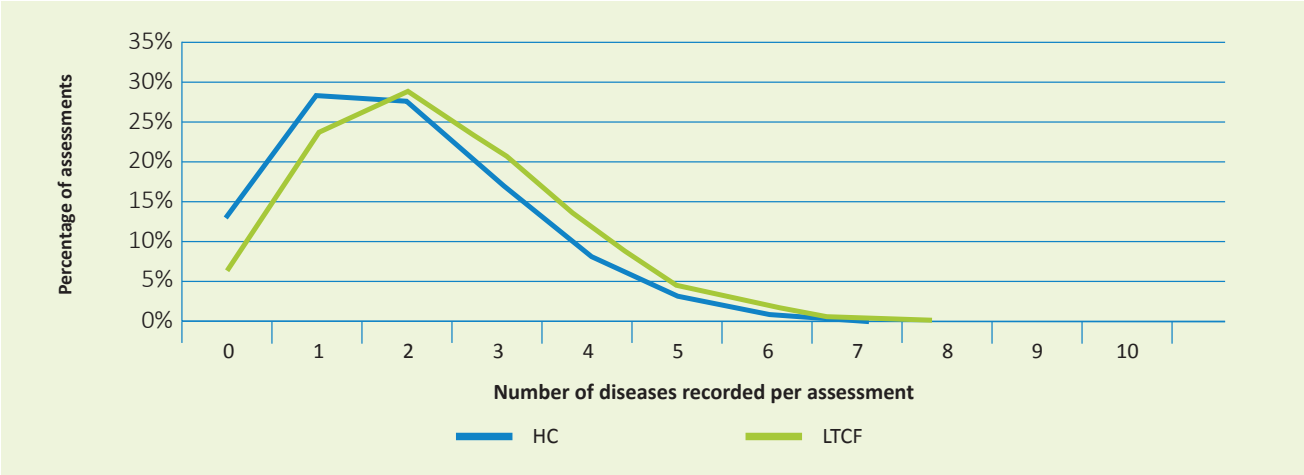


Co-morbidities

Understanding the complexities of multiple morbidities can assist the delivery of more effective health care.

In 2015/16, LTCF residents were more likely to report multiple diseases compared to Home Care clients. Figure 25 shows that 70 percent of Home Care assessments were for clients with nil to two diseases diagnosed compared to 60 percent of LTCF assessed residents. These results have remained fairly stable compared to 2014/15.

Figure 25: Number of diseases diagnosed and what proportion make up all assessments, 2015/16



selected social and wellbeing measures

Introduction

In this section, a few social and wellbeing measures are reported for the first time. The selection of these measures is based on stakeholder interest and feedback. Results are based on assessments not clients. Response to these items in the interRAI questionnaire is required.

Home Care clients were more likely to report feeling lonely than LTCF residents.

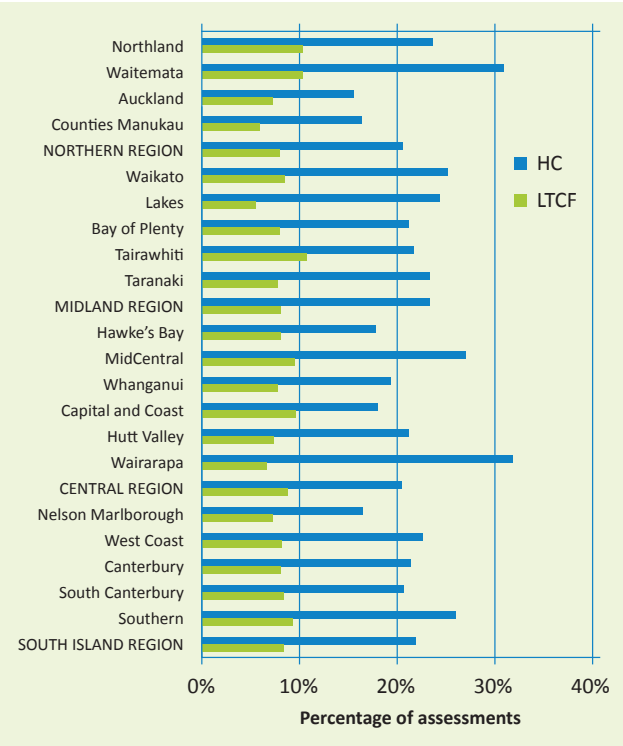
Loneliness

This measure shows the responses of interRAI clients and residents who reported feeling lonely.

In 2015/16, 20 percent of Home Care clients reported feeling lonely compared to eight percent of LTCF residents. These percentages remained almost unchanged over the last year.

Figure 26 shows the variability of this measure across DHBs. For assessments completed in the home and the community, Wairarapa DHB had the highest percentage of clients who reported feeling lonely while Auckland DHB was in the opposite end of the spectrum. For assessments completed in aged residential care, Tairawhiti DHB topped the list in terms of residents who reported feeling lonely.

Figure 26: Percentage of clients/residents who reported feeling lonely, 2015/16



Informal carer stress

This measure captures the feelings of distress, anger or depression of the primary informal helper. The measure is applicable to assessments completed in the home and the community only.

In 2015/16, just over a fifth (22 percent) of Home Care assessments reported the informal carer's feelings of distress, anger or depression. This percentage was similar (21 percent) in 2014/15.

On the other hand, 8 percent of completed Contact assessments reported on the primary informal helper's feelings of distress, anger or depression.

Figure 27 shows how this percentage varied across DHBs and regions. Waitemata DHB had the highest percentage of Home Care assessments reporting on informal carer stress while Whanganui DHB had the highest percentage for Contact assessments.

A higher percentage of LTCF residents had an EPOA in place compared to Home care clients.

Enduring Power of Attorney (EPOA)

An EPOA gives legal authority to someone to act on behalf of the older person in matters relating to property, personal care and welfare when he/she is not able to make decisions for himself/herself, or to communicate those decisions. For example, if he/she has a serious head injury, disease or mental illness.

This measure reports on the percentage of assessments that reported having an EPOA in place.

In 2015/16, a higher proportion of LTCF residents (74 percent) had an EPOA in place compared to Home Care clients (58 percent). This data is not comparable to 2014/15 due to changes in the assessment question.

Figure 28 shows the DHBs in terms of the percentage of assessments that reported having in place an EPOA. Southern and Whanganui DHB topped the list for Home Care assessments and LTCF assessments, respectively. On the other hand, Northland and Counties Manukau DHBs were at the bottom of the list for Home Care assessments and LTCF assessments, respectively.

Notes: 1. The 2015/16 data for the EPOA measure relates to 7 months of data, following the 9.3 upgrade of the interRAI operational software.

2. This data is not comparable to 2014/15.

Figure 27: Percentage of assessments reporting on informal carer stress by DHB and region, 2015/16

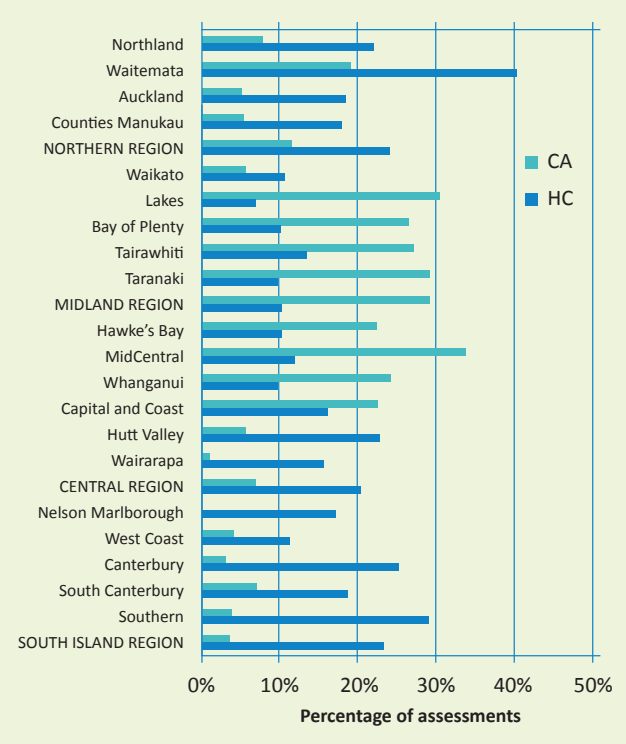
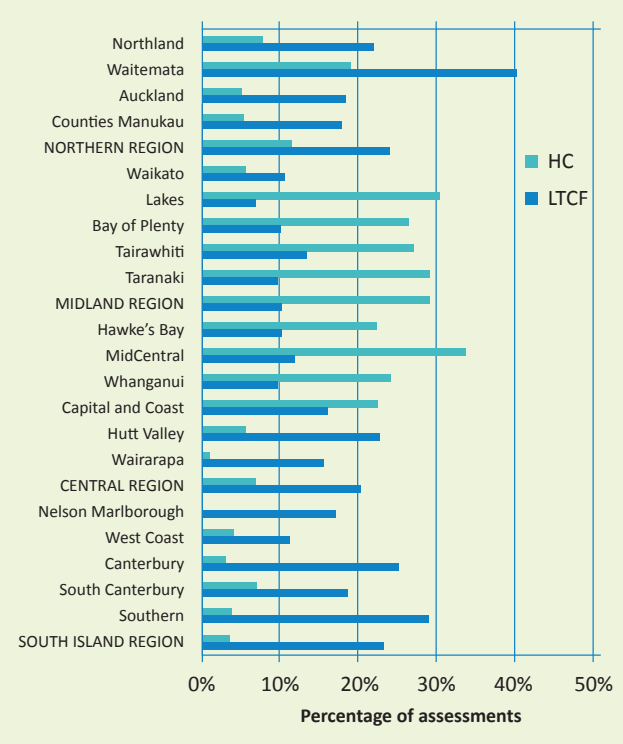


Figure 28: Percentage of assessments reported having an EPOA by DHB and region, 2015/16



Advance Care Plan (ACP)

Advance care planning is a process of discussion and shared planning for future health and end of life care. It is focused on the individual and involves both the person and the health care professionals responsible for their care. It may also involve the person's family/whānau and/or carers if that is the person's wish.

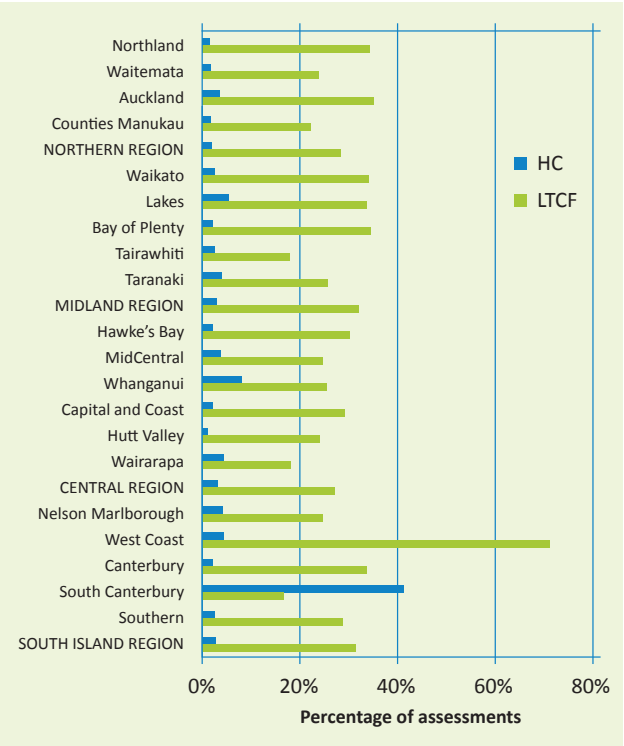
This measure reports on the percentage of assessments who reported having an advance care plan in place.

Nationally, in 2015/16, a higher proportion of LTCF residents (30 percent) had an advance care plan in place compared to Home Care clients (3 percent). This data is not comparable to 2014/15 due to changes in the assessment question.

Figure 29 shows the DHBs in terms of the percentage of assessments that reported an advance care plan in place. For assessments completed in aged residential care, West Coast DHB topped the list with 72 percent of assessments having in place an advance care plan. Tairawhiti and Wairarapa DHBs had the lowest percentage (19 percent of LTCF assessments) compared to the national average of 30 percent.

Nationally, in 2015/16, a higher proportion of LTCF residents (30 percent) had an advance care plan in place compared to Home Care clients (3 percent).

Figure 29: Percentage of assessments reported having an advance care plan in place by DHB and region, 2015/16



Notes: 1. The 2015/16 data for the advance care plan measure relates to 7 months of data, following the 9.3 upgrade of the interRAI operational software.

2. This data is not comparable to 2014/15.

"Use of interRAI offers New Zealand health professionals an evidence based assessment platform to inform optimal care delivery."

Introduction

interRAI assessment outcomes and Clinical Assessment Protocols (CAPs) are outputs from the interRAI assessment process. These are automatically generated using built in algorithms in the assessment. Both outcome measures and triggered CAPs can be used to plan appropriate and timely care and support.

The assessment outcomes can help identify areas to be included in the care plan for the client/resident. The standardised tool allows assessors, planners and researchers to look at the scores over time, and to consider the older person's response to change in location of care and service interventions.

The data for all outcome measures and CAPs are downloadable in Excel format from the interRAI NZ website (www.interRAI.co.nz).

Table 5 provides a summary of the outcome measures by assessment type at the national level.

Table 5: Summarised assessment outcomes by assessment type, 2015/16

Outcome Scales	Scores	Contact assessment	Home Care	LTCF
Assessment Urgency Algorithm (AUA) Scale (scores range 1-6)	Score of 4 Score of 5 Score of 6	21% 5% 14%	NA	NA
Method of Assigning Priority Level (MAPLe) (scores range 0-5)	Low priority Mild Moderate High Very high priority	NA	17% 5% 21% 36% 21%	NA
Changes in Health, End-Stage Disease, Signs, and Symptoms (CHESS) (scores range 0-5)	None/low (0-2) Moderate (3) High instability (4-5)	NA	69% 20% 11%	86% 8% 6%
Cognitive Performance Scale (CPS) (scores range 0-6)	Intact/mild (0-2) Moderate (3-4) Severe/very severe (5-6)	NA	79% 15% 6%	55% 24% 21%
Activities of Daily Living (ADL) Self-performance Hierarchy score (ADL) (scores range 0-6)	Independent/limited assistance (0-2) Extensive/maximal assistance (3-4) Very/total dependence (5-6)	NA	80% 14% 7%	56% 21% 23%
Depression Rating Scale (DRS) (scores range 0 to 14)	Scores (0-2) Scores (3-5) Scores (>5)	NA	83% 13% 4%	80% 15% 5%
Pain Scale (scores range 0-4)	No pain (0) Less than daily pain/daily but not severe (1-2) Daily severe/excruciating pain (3-4)	NA	39% 48% 13%	48% 49% 3%
Pressure Ulcer Risk Scale (PURS) (scores range 0-8)	Very low to low (0-2) Moderate (3) High to very high (4-8)	NA	86% 8% 6%	76% 14% 10%

Note: NA means that the outcome measure is not applicable to that assessment type.

Assessment Urgency Algorithm (AUA) Scale

The AUA scale is used in Contact assessments and is not applicable to Home Care or LTCF assessments.

A Contact assessment is a short, screening assessment suitable for people living in the community with short term or non-complex needs. Its main goals are to:

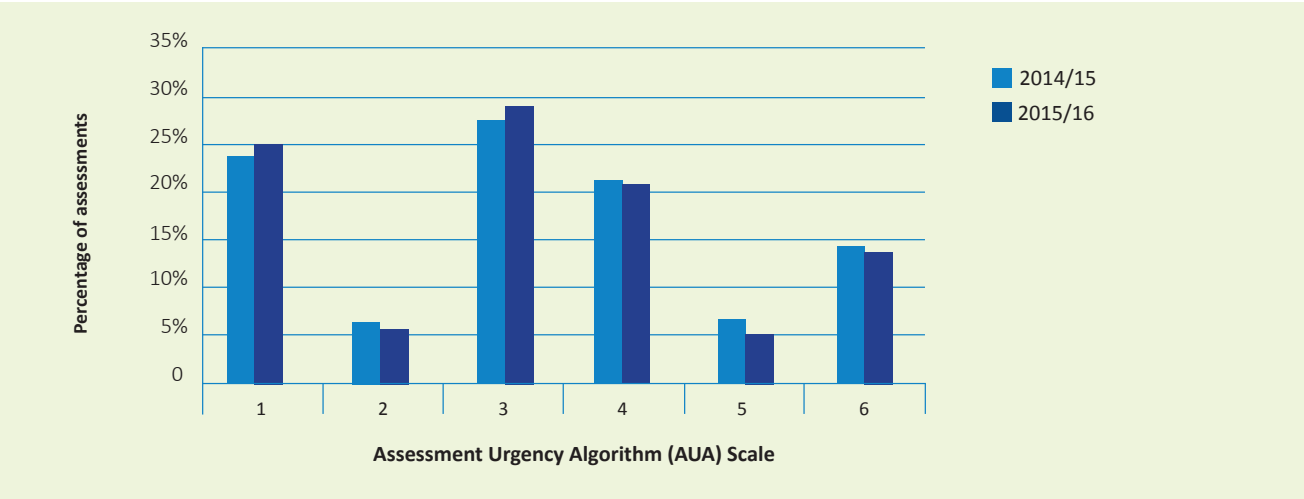
- support decision making related to the need and urgency for comprehensive assessment, support services and rehabilitation services
- provide the minimum clinical information needed for short term services that may be put in place prior to further assessment
- record basic clinical information on persons who are unlikely to need additional comprehensive assessment.

The purpose of the AUA scale is to determine whether or not the client needs further in-depth assessment. This scale is calculated by referring to a number of elements in the assessment that relate to the person's physical health, mood, the family's ability to cope and the person's dependence with personal hygiene.

The scale ranges from 1-6 with higher scores indicating higher priority for a comprehensive assessment, that is, the interRAI Home Care assessment. Clients with an AUA scale of 4 or more must be followed up using an interRAI Home Care assessment[19].

Figure 30 shows the percentage of Contact assessments for clients who were assigned an AUA scale in 2014/15 and 2015/16. Nationally, the percentage of Contact assessments with an AUA scale of 4 or more declined from 42 percent in 2014/15 to 40 percent in 2015/16, driven by a decline in the proportion of Contact assessments for clients who had scored an AUA scale of 5[20].

Figure 30: AUA scale for Contact assessments, 2014/15 and 2015/16



[19]Approved by HOP Steering Group. See TAS (July 2016), "Which interRAI assessment to use and when to use it, information for assessors". *http://www.interrai.co.nz/assets/Documents/ESS-Information-for-Assessors/Which-assessment-to-use-and-when-to-use-it.pdf*

[20]The decline in the percentage of Contact assessment clients who had scored an AUA scale of 5 may be due to a change in the Assessment Urgency Algorithm that was implemented in the September 2014 upgrade of the operational software.

Figure 31 shows the breakdown of the 2015/16 AUA scale by DHB and region. Lakes, Waitemata and Whanganui DHBs had the highest percentage of Contact assessments with AUA scale of 4 and above while Wairarapa DHB was in the opposite side of the spectrum.

Figure 31: AUA scale for Contact assessments by DHB and region, 2015/16

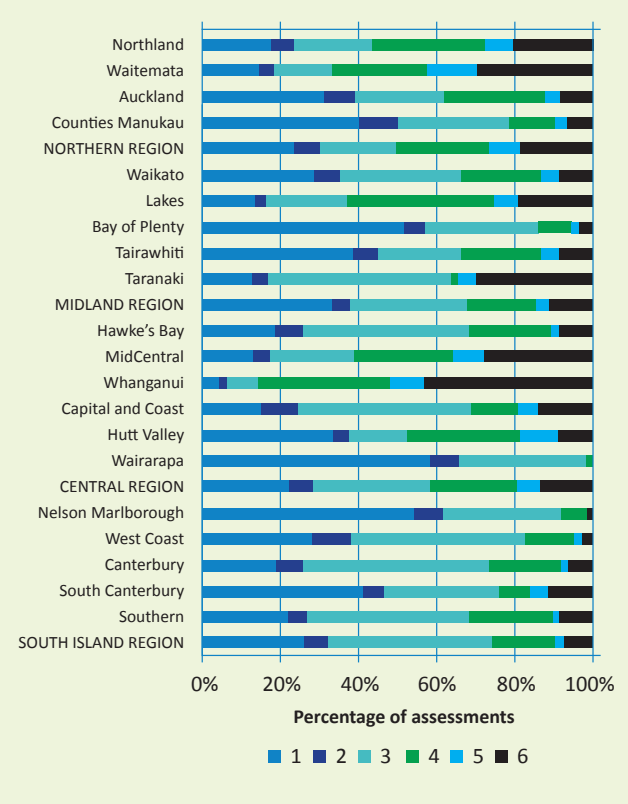


Table 6 (see over) looks at a subset of the Contact assessment clients in 2015/16, that is those who were assigned an AUA scale of 4 and above and who were subsequently assessed using a follow-up interRAI Home Care assessment, by region and DHB, within six months.

Out of a total of 7,859 Contact assessment clients who were assigned an AUA scale of 4 and above, 16 percent were assessed when they were in hospital, three percent died and another one percent moved to an aged residential care facility within six months of their assessment. These clients were, therefore, excluded from the analysis in Table 6, leaving a total of 6,301 clients.

Table 6 shows that, at the national level, 27 percent of Contact assessment clients who had been assigned an AUA scale of 4 or above, were followed up with a Home Care assessment within six months.

DHBs varied in terms of the percentage of Contact assessment clients who were followed up with a Home Care assessment within six months. DHBs in the Central Region had a high follow-up rate while DHBs in the Northern Region had a relatively lower follow-up rate.

Method of Assigning Priority Level (MAPLe)

The MAPLe score is only used in Home Care assessments and is not applicable for LTCF assessments. It is a priority indicator, with higher scores based on the presence of Activities of Daily Living (ADL) impairment, cognitive impairment, wandering, and behaviour problems.

The MAPLe score has components that can indicate carer stress. The higher the priority scores the greater the need for services to prevent hospitalisation or admission into residential care. Priorities for service planning and potential risk in institutionalisation can also be predicted using the MAPLe score.

Figure 32 (see over) shows the change in the percentage of Home Care clients with the lowest to highest MAPLe score in 2014/15 and 2015/16. The percentage of Home Care clients with the highest MAPLe score declined from 25 percent to 21 percent during this period.

This decline suggests a number of possibilities such as an increase in the number of Home Care clients moving to aged residential care or an increase in support for Home Care clients from family, friends and service providers.

The percentage of Home Care clients with the highest MAPLe score declined over the last year.

Table 6: Contact assessments completed in 2015/16 with an AUA scale of 4 and above and who had a Home Care assessment within six months, by DHB and region

DHB and Region	CA clients with an AUA scale of 4 or more		CA clients with an AUA scale of 4 or more and who had a HC assessment within 6 months	
	N	%	N	%
Northland	409	55%	42	10%
Waitemata	1,438	57%	225	16%
Auckland	1,042	37%	262	25%
Counties Manukau	155	18%	22	14%
Northern Region	**3,044**	**44%**	**551**	**18%**
Waikato	358	33%	69	19%
Lakes	179	57%	98	55%
Bay of Plenty	118	13%	18	15%
Tairawhiti	32	29%	5	16%
Taranaki	42	22%	3	7%
Midland Region	**729**	**28%**	**193**	**26%**
Hawke's Bay	371	32%	199	54%
MidCentral	234	60%	62	26%
Whanganui	159	85%	119	75%
Capital and Coast	149	27%	90	60%
Hutt Valley	446	45%	155	35%
Wairarapa	2	2%	-	-
Central Region	**1,361**	**40%**	**625**	**46%**
Nelson Marlborough	29	8%	3	10%
West Coast	25	18%	5	20%
Canterbury	608	26%	140	23%
South Canterbury	78	14%	27	35%
Southern	427	31%	155	36%
South Island	**1,167**	**25%**	**330**	**28%**
Grand Total	**6,301**	**36%**	**1,699**	**27%**

Notes: 1. Table excludes Contact assessment clients who were assessed in hospital, who died or who moved to an ARC facility within 6 months of their assessment.

2. The data for this table was extracted in December 2016.

DHBs in the Central Region had a relatively higher follow-up rate for Contact assessment clients who had scored an AUA scale of 4 or more.

Figure 32: MAPLe scores for Home care assessments, 2014/15 and 2015/16

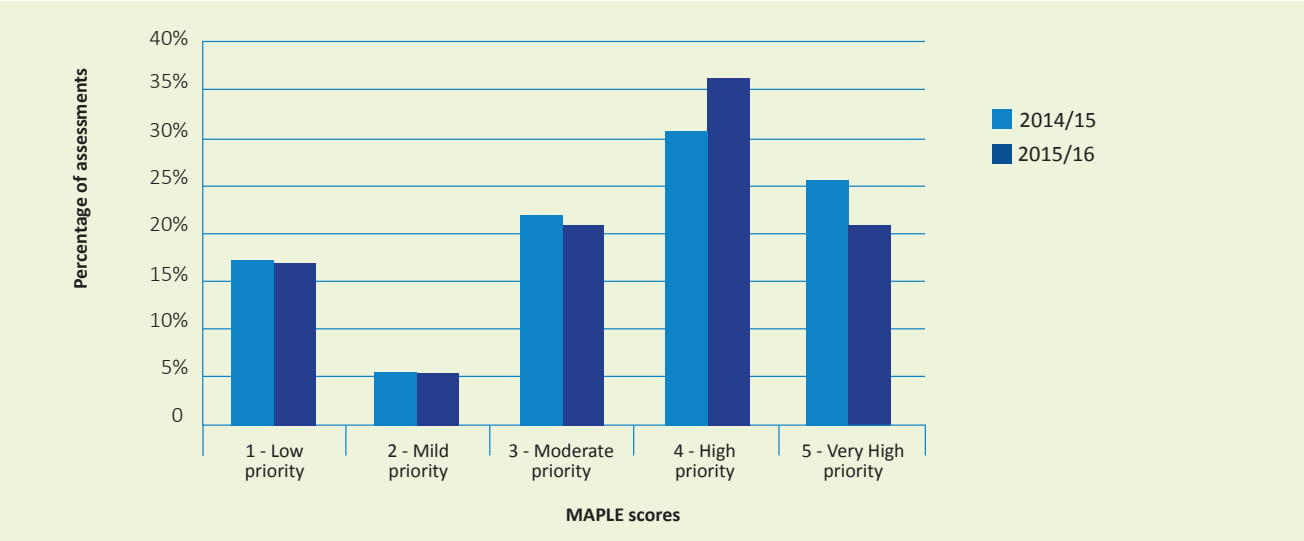
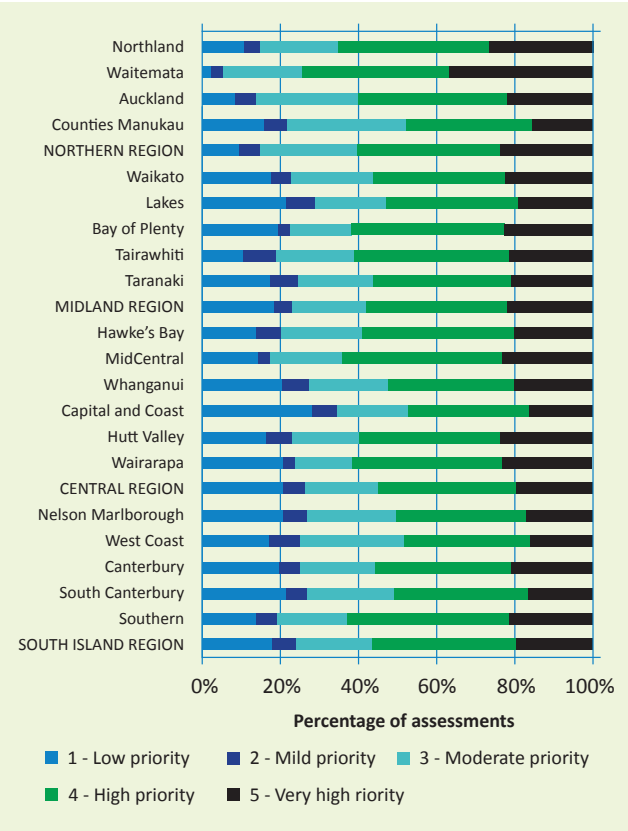


Figure 33: MAPLe scores for Home Care assessments by DHB and region, 2015/16



The percentage of Home Care clients with the highest MAPLe score declined over the last year.

Figure 33 shows the MAPLe scores for Home Care assessed clients in 2015/16 by DHB.

Nationally, 21 percent of Home Care assessments were for clients who had scored the highest MAPLe score of 5. This percentage varied considerably across DHBs. At one end of the spectrum, Counties Manukau DHB had 15 percent of Home Care assessments with a MAPLe score of 5, while Waitemata DHB was at the opposite end of this spectrum with 37 percent of Home Care assessments.

Changes in Health, End-Stage disease, Signs, and Symptoms (CHESS)

The CHESS scale detects frailty and health instability and was designed to identify people with unstable health conditions who are at risk of serious decline. It can also be used as an outcome measure to show whether a person has been stabilised following an intervention.

Higher CHESS scores are associated with adverse outcomes such as increased mortality, hospitalisation, pain, caregiver stress and poor self-rated health[21].

Figure 34 shows that, on average, a higher portion of LTCF assessed residents (41 percent in 2015/16) scored no health symptoms than compared to Home Care assessments (15 percent in 2015/16), suggesting interventions in the long term care setting can make a positive difference. Having said that, there was a slight decline in the percentage of LTCF residents with no health symptoms from 43 percent in 2014/15 to 41 percent in 2015/16, indicating a slight increase in health instability.

Home Care assessed clients were also more likely to experience less stable health than their LTCF counterparts (CHESS scores 3-5).

Figure 35 shows the CHESS scores for Home Care and LTCF assessments by DHB and region.

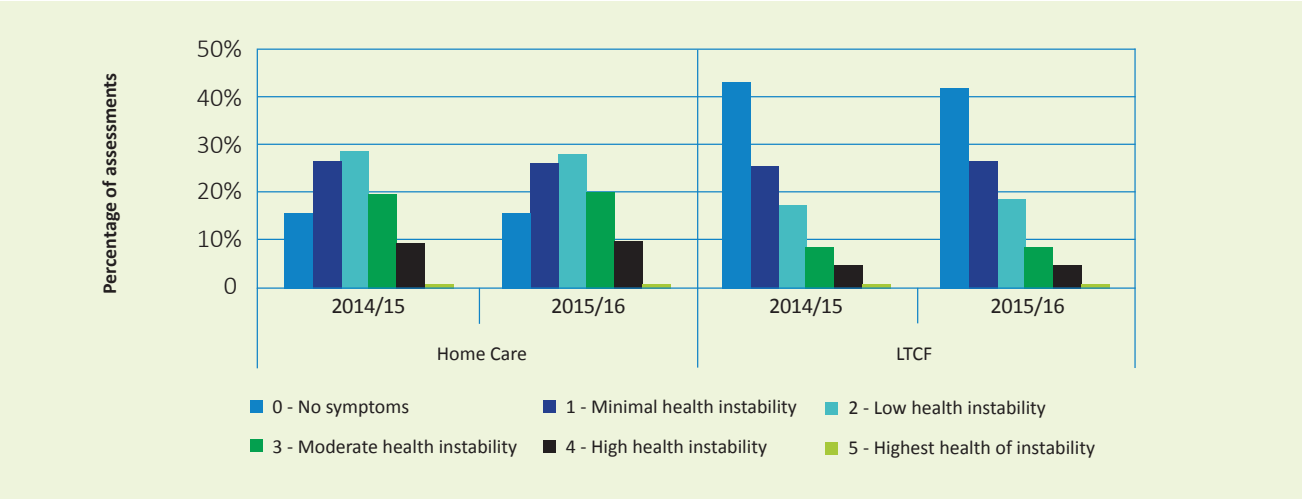
Focussing on the highest CHESS scores 4-5 can indicate where clients/residents could benefit from interventions.

In 2015/16, for Home Care assessments, Southern and Waitemata DHBs had the highest percentage of assessments with CHESS score 4 while Nelson Marlborough DHB topped the list for CHESS score 5.

For LTCF assessments, West Coast and Nelson Marlborough DHBs had the highest percentage of assessments with CHESS scores 4 and 5, respectively.

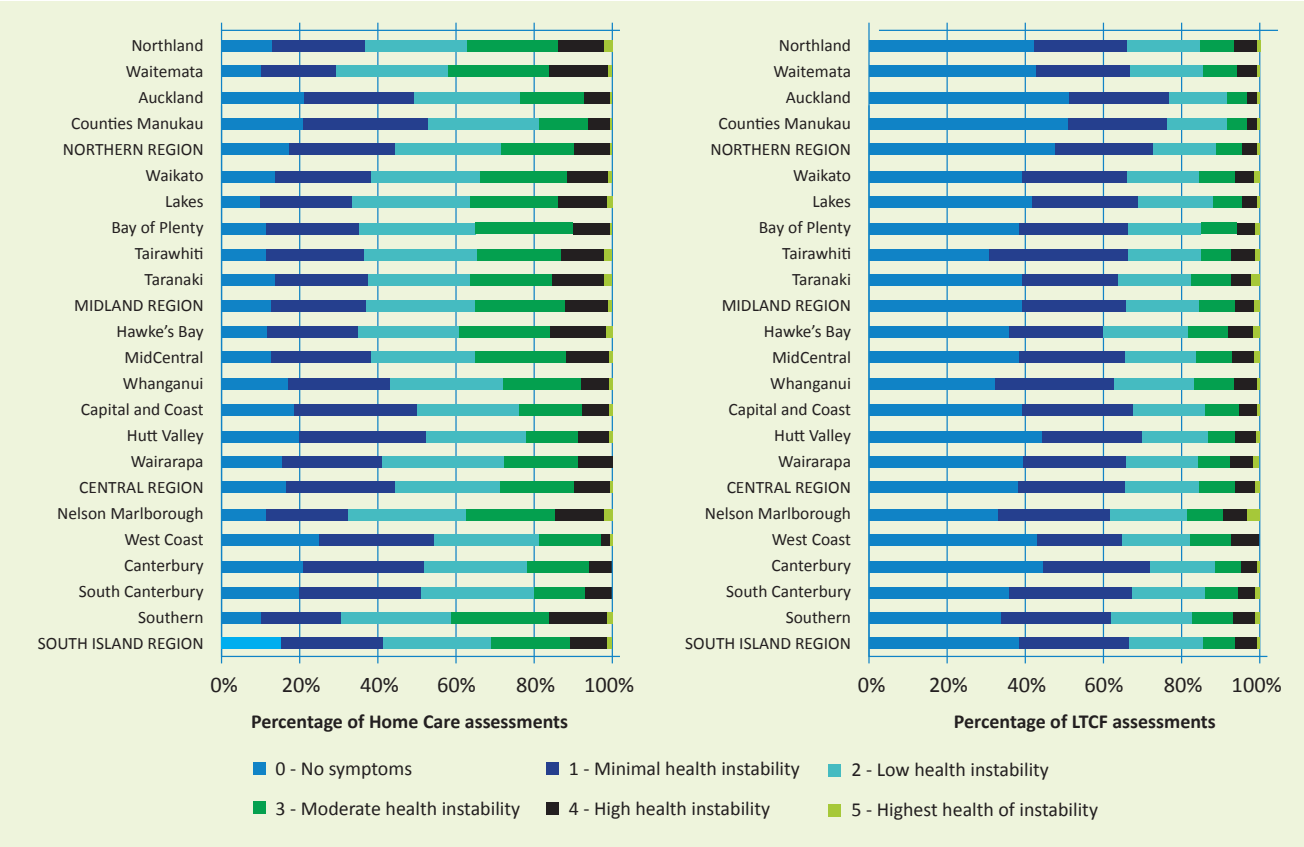
LTCF residents had better CHESS scores than Home Care clients, although the percentage of residents with no symptoms declined.

Figure 34: CHESS scores for Home Care and LTCF assessments, 2014/15 and 2015/16



[21]The CHESS scale has also been shown to predict mortality, health service use, and caregiver distress in the overall populations of persons receiving care in home care, post-acute, nursing home and palliative care settings. See Hirdes J.P., Frijters D.H., Teare G.F. (2003), "The MDS-CHESS scale: a new measure to predict mortality in institutionalized older people". Journal of the American Geriatrics Society 51: 96–100.

Figure 35: CHESS scores for Home Care and LTCF assessments by DHB and region, 2015/16



Cognitive Performance Score (CPS)

This scale combines information on memory impairment, level of consciousness and executive functioning. The scores range from zero to six with intact (0) and very severe impairment (6). The higher the score, the worse the cognitive impairment.

As expected, 24 percent of LTCF residents had moderate/severe to very severe cognitive impairment compared to 7 percent of Home Care clients.

Figure 36: CPS scores by assessment type, 2014/15 and 2015/16

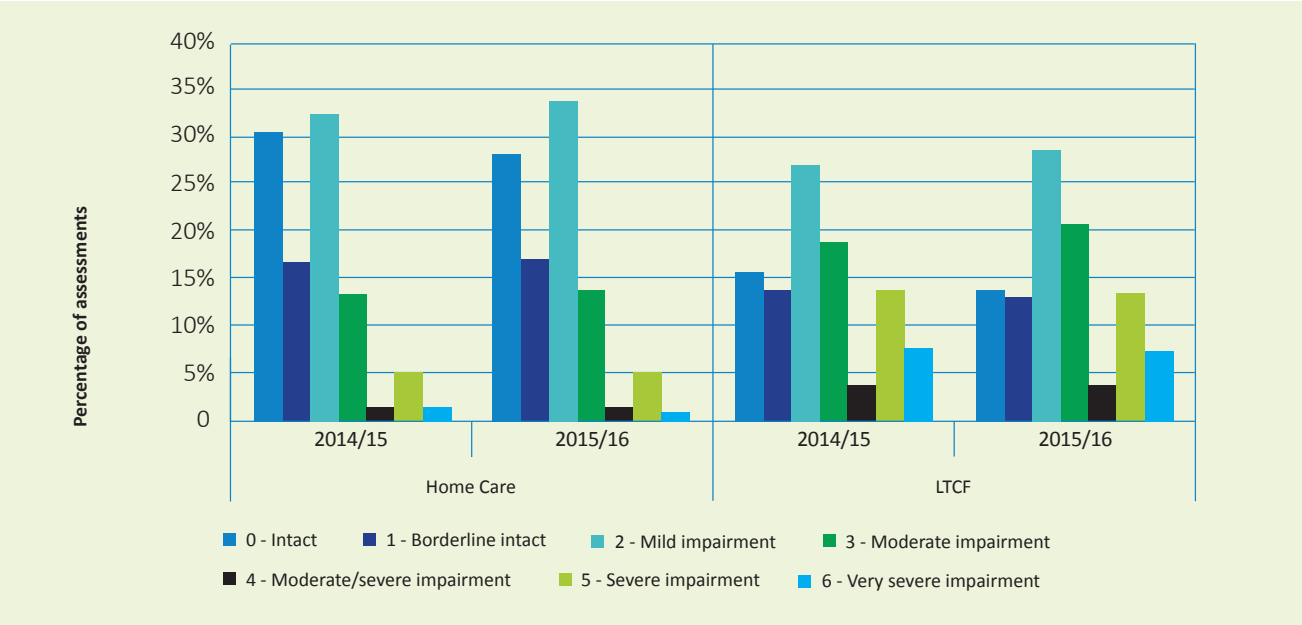


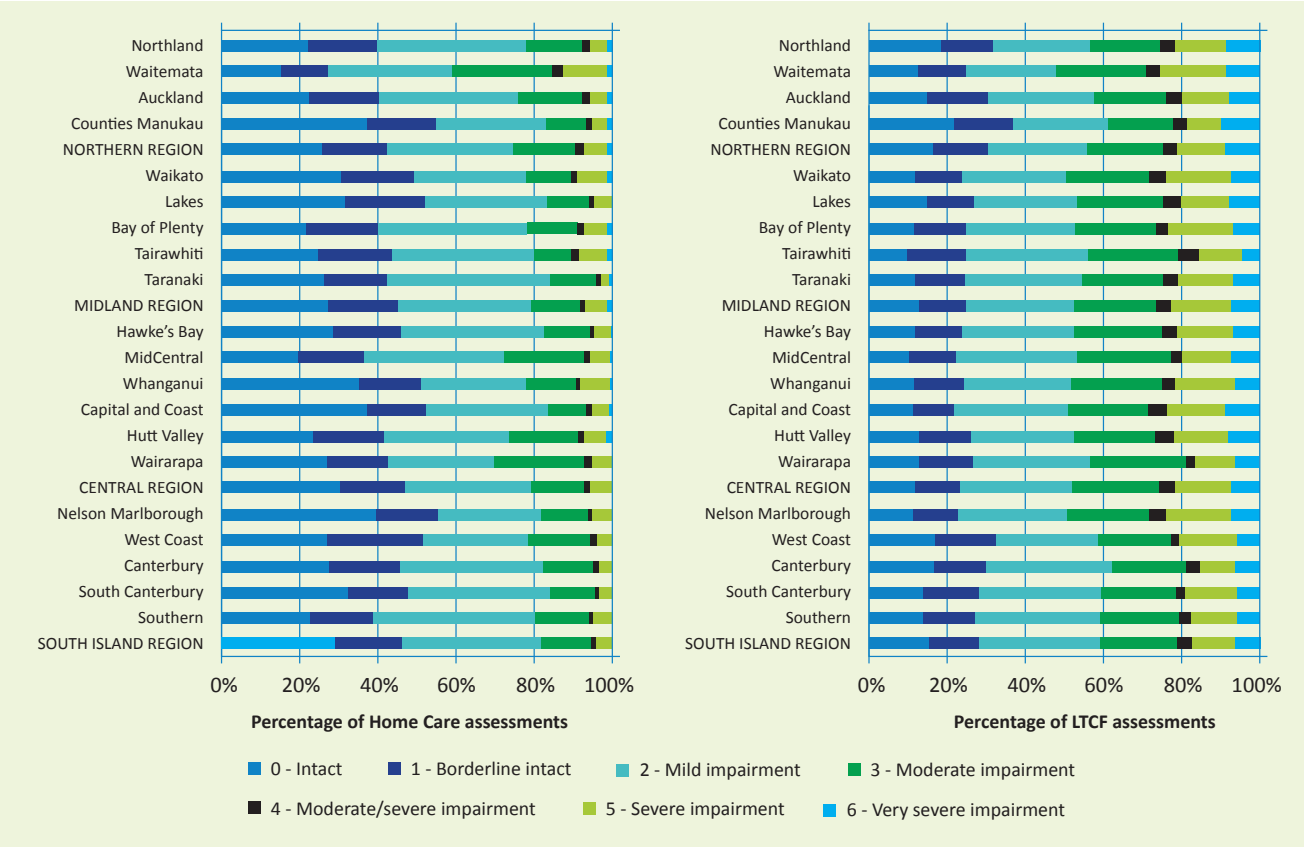
Figure 36 shows that in 2015/16, 24 percent of LTCF residents had moderate/severe to very severe cognitive impairment (CPS scores 4-6) compared to 7 percent of Home Care clients.

This result was similar in 2014/15 and is expected. Older people with cognitive impairment are more likely to be identified as high need clients as this is part of their need to enter long term residential care.

Figure 37 shows the CPS scores for Home Care and LTCF assessments by DHB and region.

Waitemata DHB had the highest proportion of assessments with moderate/severe to very severe cognitive impairment (CPS scores 4-6) compared to other DHBs, for both assessments completed in the home and the community, and in long term care.

Figure 37: CPS scores for Home Care and LTCF assessments by DHB and region, 2015/16



Pressure Ulcer Risk Scale (PURS)

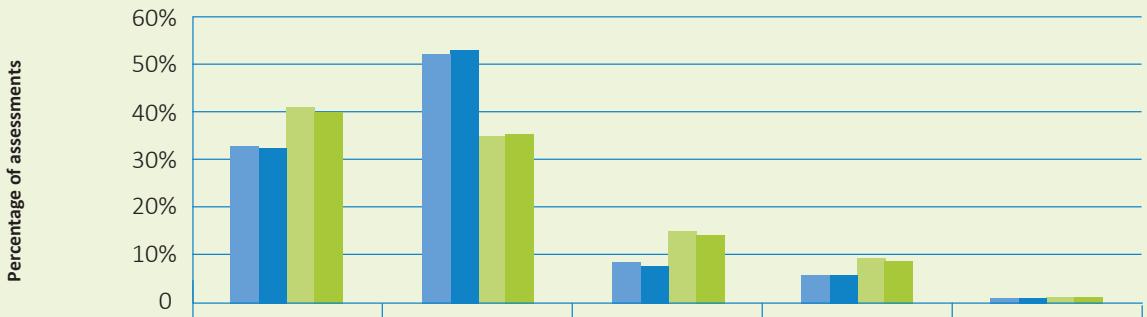
The PURS screens for the risk of pressure ulcer injury. It combines information on the history of pressure ulcers, impaired walking, bowel incontinence, weight loss, shortness of breath, bed mobility and pain frequency.

Figure 38 shows that the PURS has remained fairly stable over the last year. This is also true for results at the DHB level.

As expected, a higher proportion of LTCF assessments (24 percent) had moderate to very high risk (PURS 3-6) of pressure ulcer injury than Home Care assessments (14 percent). While there were a higher proportion of LTCF residents with very low risk (PURS 0), Home Care clients were more prominent in the low risk category (PURS 1-2).

As expected, LTCF residents were more likely to have a moderate to high risk of pressure ulcer injury than Home Care.

Figure 38: PURS by assessment type, 2014/15 and 2015/16



	very low risk (0)	low risk (1-2)	moderate risk (3)	high risk (4-5)	very high risk (6-8)
HC 2014/15	33%	53%	8%	6%	1%
HC 2015/16	33%	53%	8%	6%	1%
LTCF 2014/15	41%	35%	15%	9%	1%
LTCF 2015/16	40%	35%	14%	9%	1%

Figure 39: PURS by assessment type and DHB and region, 2015/16

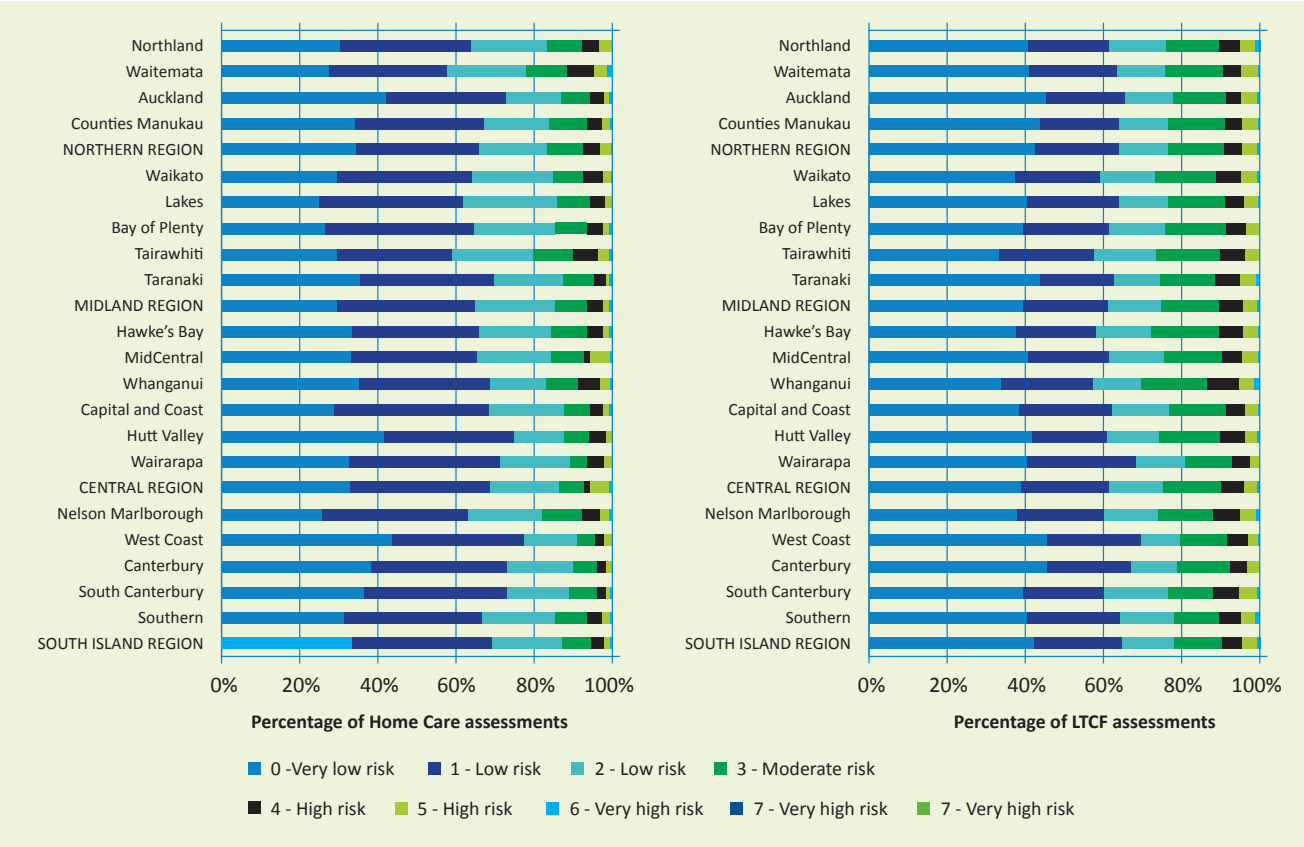


Figure 39 shows the PURS by DHB and region for each of the PURS categories for Home Care and LTCF assessments.

For Home Care assessments, Waitemata DHB had the highest percentage of assessments in the moderate to very high risk category (PURS 3-6) while Whanganui DHB stood out in that category for LTCF assessments.

Home care clients were more likely to experience daily severe to excruciating pain compared to LTCF residents.

Pain Scale

The pain scale screens for the frequency and intensity of pain. Figure 40 shows that, in 2015/16, a higher proportion of Home Care clients (13 percent) experienced daily severe and excruciating pain (scale 3-4) compared to LTCF assessments (3 percent). These results remained similar over the last year.

The higher level of pain in the home care setting compared to aged residential care warrants further investigation. One such possibility may be the higher mobility of home care clients relative to ARC residents.

The data also suggests that there may be better pain management in aged residential care which may be associated with the level of support provided to residents with all activities of daily living.

Figure 41 shows the pain scale for both Home Care and LTCF assessments by DHB and region. Bay of Plenty DHB had the highest percentage of Home Care assessments experiencing daily severe and excruciating pain.

Figure 40: Pain scale by assessment type, 2014/15 and 2015/16

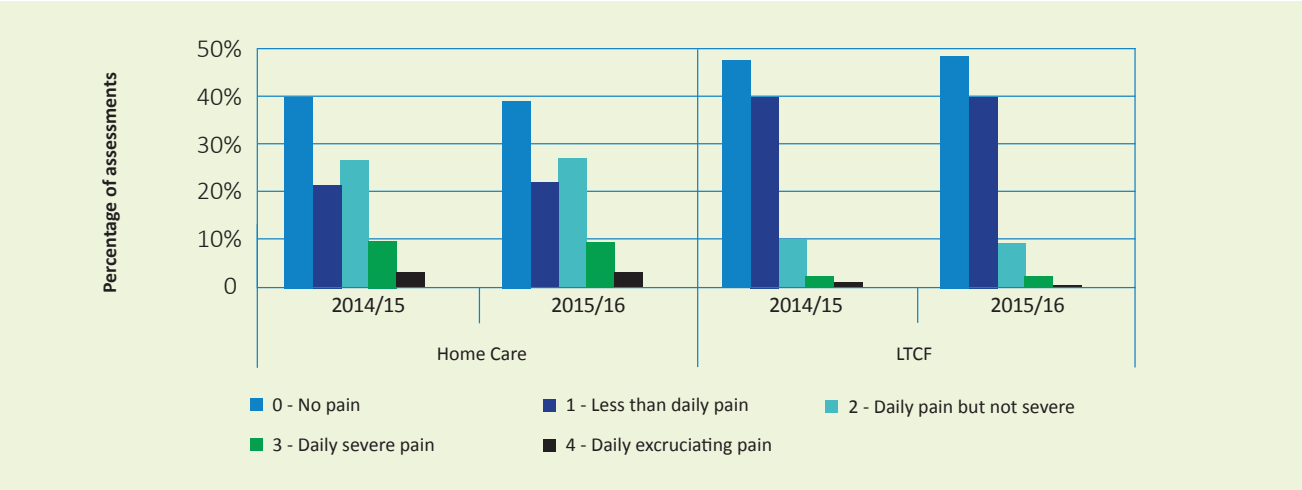
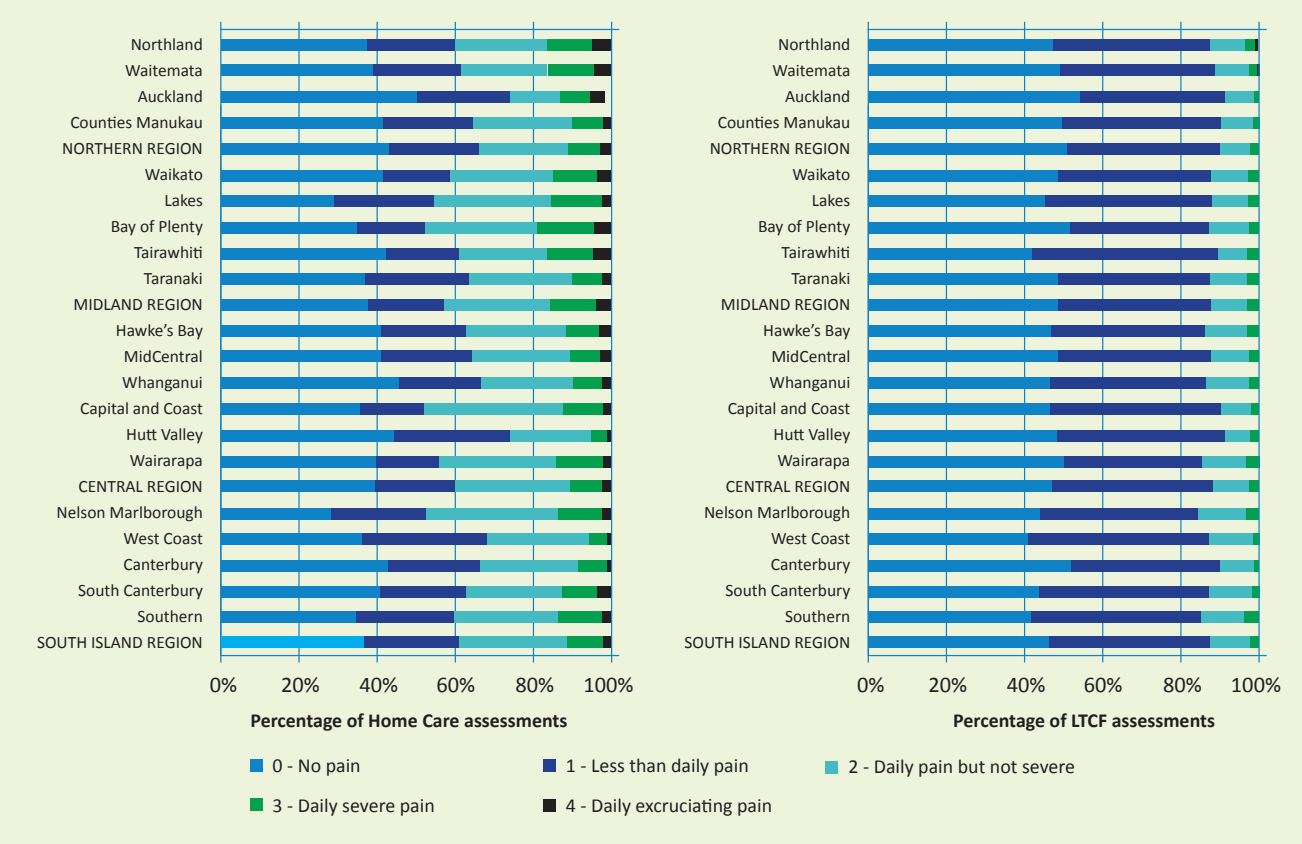


Figure 41: Pain scale by assessment type, DHB and region, 2015/16



Depression Rating Score (DRS)

This scale is used as a clinical screen for depression and includes levels of negativity, anger, fear, repetitive health complaints, anxiety, sadness and crying.

The scale ranges from 0 to 14 with the higher the score the greater the depression. Scores 3 or more may suggest symptoms of the person suffering from some degree of depressive disorder.

The majority of people assessed, regardless of the care setting, had low DRS scores (i.e. below 3), see Figure 42.

LTCF assessed residents were slightly more likely to have moderate (i.e. score 3-5) and high (i.e. score above 5) DRS scores than Home Care clients.

Over the last year, the DRS results for Home Care and LTCF assessments remained fairly consistent.

21 percent of LTCF residents had moderate to high depression scores compared to 16 percent of Home Care clients.

Figure 43 shows the DRS for both assessment types by DHB and region. For assessments completed in the home and in the community, Waitemata DHB stood out with the highest percentage of assessments scoring 3-5 and above 5 in the DRS. For assessments completed in aged residential care, Tairawhiti DHB had the highest percentage of assessments scoring 3-5 while Whanganui and Northland DHBs had the highest percentage of assessments scoring above 5.

Figure 42: DRS by assessment type, 2014/15 and 2015/16

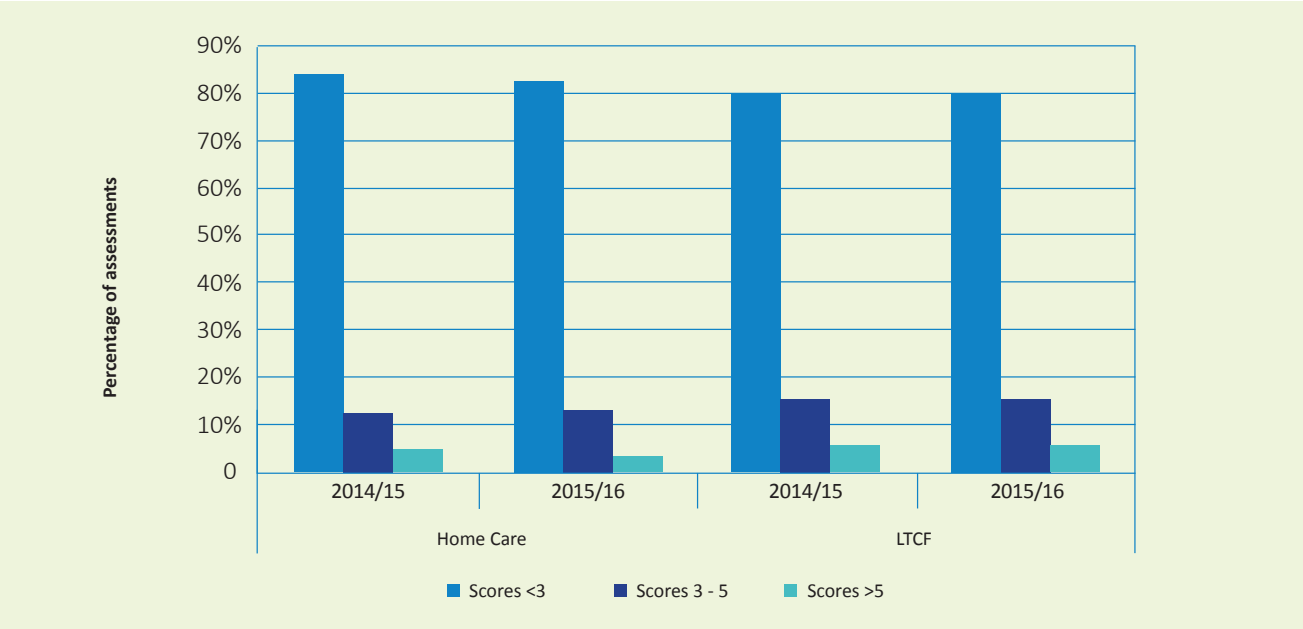
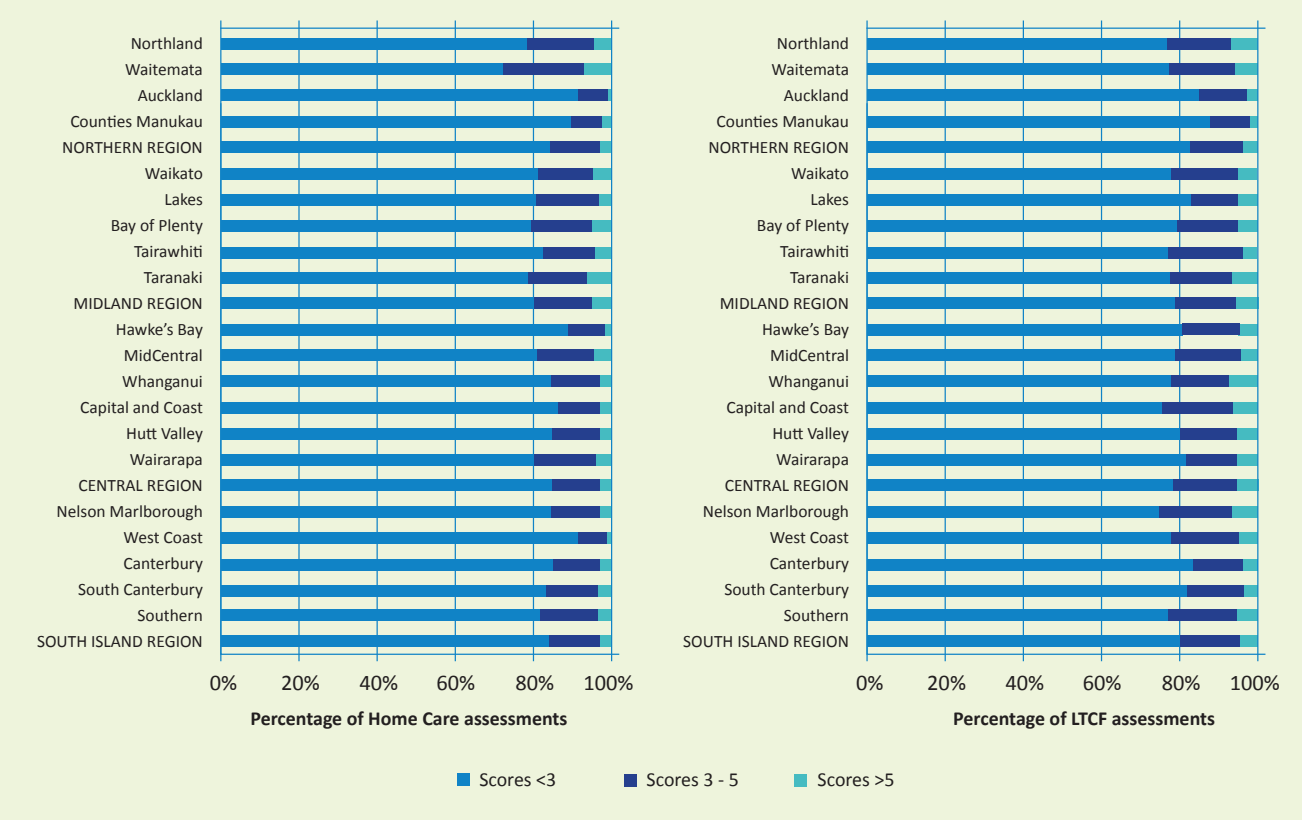


Figure 43: DRS by assessment type, DHB and region, 2015/16



Activities of Daily Living (ADL) Self-performance Hierarchy Scale

The ADL self-performance hierarchy scale is a measure of functional performance grouping activities of daily living according to the stages of the disablement process in which they occur.

The scale is based on four ADL items showing the level of difficulty in personal hygiene, locomotion, toilet use and eating. The higher the score the worse the health instability (0=independence, 6=total dependence).

Figure 44 shows the ADL self-performance scale for both Home Care and LTCF assessments in the last two years.

The noticeable differences between Home Care and LTCF assessments were the higher levels of independence for clients living in the home and the community and the increased level of dependence for residents in aged residential care. This observation remained the same in the last two years.

Regardless of the assessment type, nationally, there was little change in the ADL self-performance hierarchy scale between 2014/15 and 2015/16.

Home Care clients were more likely to be functionally independent compared to LTCF residents when performing daily activities such as personal hygiene, locomotion, toilet use and eating.

Figure 44: ADL Self-performance Hierarchy scale by assessment type, 2014/15 and 2015/16

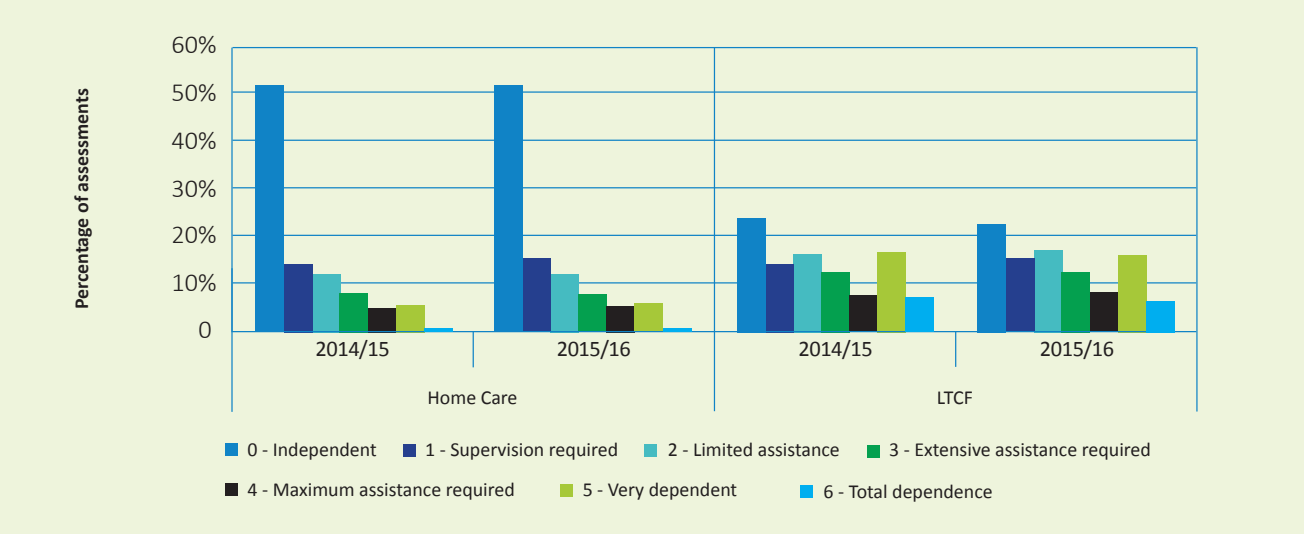
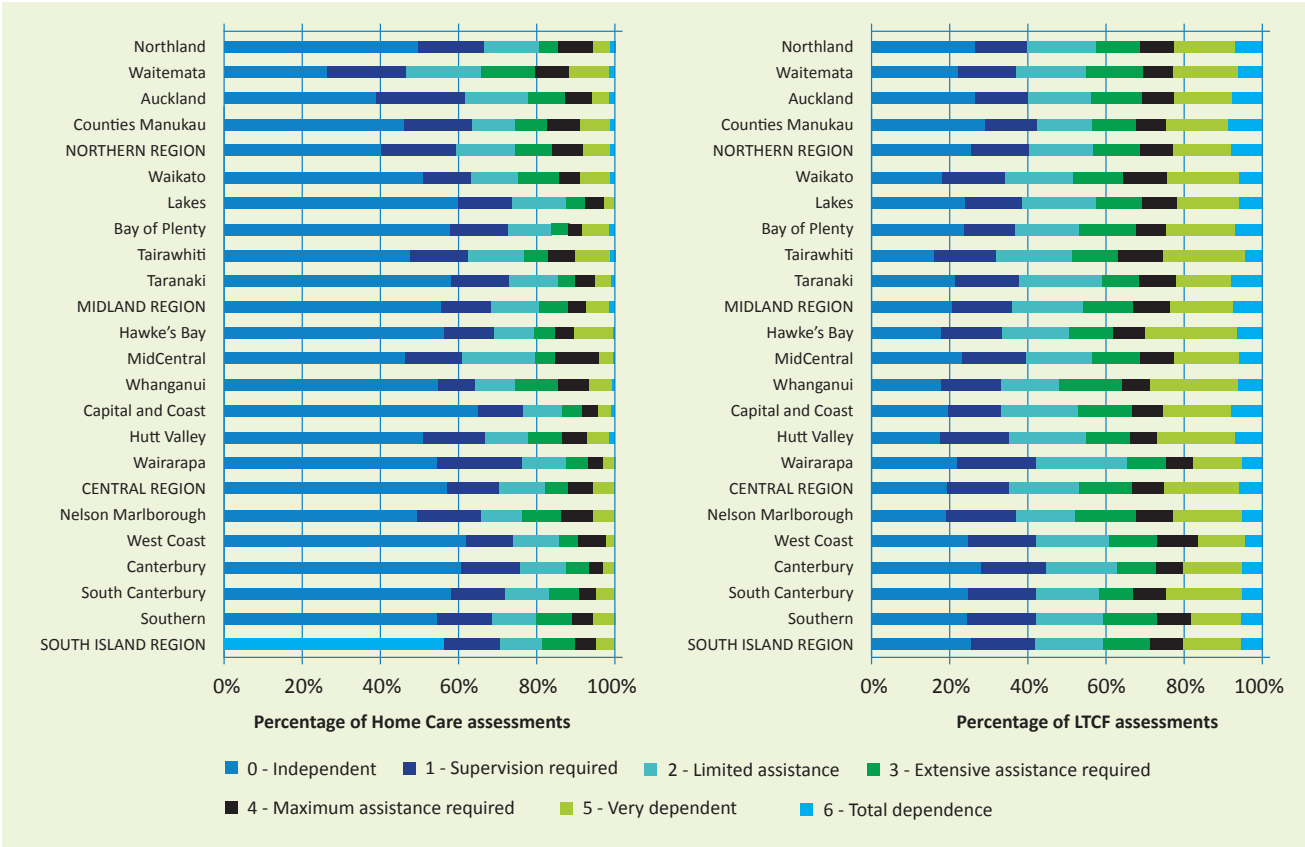


Figure 45 shows the ADL self-performance hierarchy scale by assessment type, DHB and region for 2015/16.

For Home Care assessments, Capital and Coast DHB had the highest percentage of clients who were independent while Waitemata DHB had the lowest percentage in that category. In aged residential care, Counties Manukau DHB had the highest percentage of LTCF assessments for residents who were independent while Tairawhiti DHB was at the opposite end of this spectrum.

Figure 45: ADL Self-performance Hierarchy scale by assessment type, DHB and region, 2015/16



"CAPs provide a roadmap for how best to care for an individual, highlight the risks, and offers the opportunity to respond at the right time for the best health outcome."

Clinical Assessment Protocols (CAPs)

Introduction

CAPs focus on a person's function and quality of life, assessing need, strengths and preferences. Selected items in the assessment can trigger a CAP, indicating a person who may benefit from care and support in that area. There are a total of 27 individual CAPs; 22 of these are used in LTCF assessments and 25 in Home Care assessments in New Zealand.

Identifying the factors that clients/residents are presenting with, can assist with tailoring services to meet their needs.

A CAP is triggered to help identify areas in which the client/resident is either:

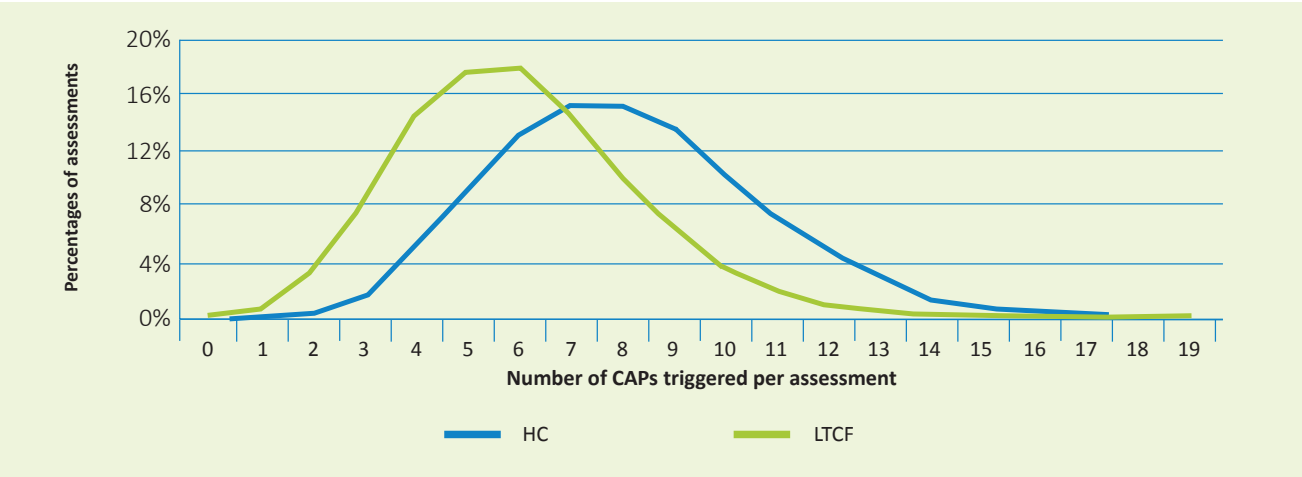
1. Is at a higher than expected rate of decline
2. Has an increased potential to improve
3. Has symptoms that could be alleviated if an identified problem is addressed.

A CAP will not trigger unless there is an opportunity for slowing the rate of decline, potential for improvement or for symptoms to be alleviated.

CAPs triggered in association with clinical expertise can together better inform a client/resident's care plan and lead to treatments, programmes or referrals.

On completing a Home Care or an LTCF assessment, most people would have multiple CAPs triggered. Figure 46 shows the distribution of the number of CAPs triggered per assessment in 2015/16, which showed a similar pattern to 2014/15.

Figure 46: Distribution of CAPs triggered per assessment for Home Care and LTCF assessments, 2015/16



The most common number of CAPs triggered per assessment in aged residential care was six compared to eight CAPs per assessment completed in the home and community.

The wider shape of the curve for Home Care assessments in Figure 46 indicates that, on average, a Home Care assessment had more possible CAPs triggered compared to an LTCF assessment. Sixty percent of completed Home Care assessments triggered eight or fewer CAPs compared to six or fewer CAPs triggered by a similar percentage of LTCF assessments.

Different CAPs have different levels of trigger. Each CAP has a unique algorithm definition. The interRAI CAPs manual provides useful context for each CAP and the different trigger levels[22].

The interRAI CAPs manual can provide useful explanation on each of the 27 CAPs.

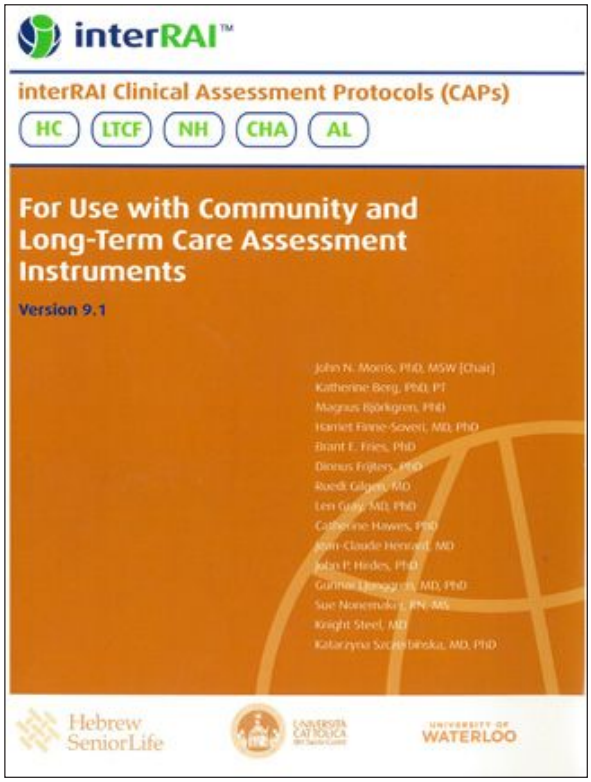


Table 7 shows the percentage of CAPs triggered for Home Care and LTCF assessments by trigger level, in 2015/16.

The data for CAPs are downloadable in Excel format from the interRAI NZ website (www.interRAI.co.nz).

[22] interRAI (2007-2010). 'interRAI Clinical Assessment Protocols (CAPs), for use with community and Long Term Care assessment instrument'. Version 9.1

Table 7: CAPs triggered by assessment type and trigger level, 2015/16

interRAI Clinical Assessment Protocols (CAPs)	Percentage of Home Care assessments				Percentage of LTCF assessments			
	Not Triggered	Trigger level 1	Trigger level 2	Trigger level 3	Not Triggered	Trigger level 1	Trigger level 2	Trigger level 3
Prevention*	0%	88%	12%		0%	44%	56%	
Cardiorespiratory	37%	63%			65%	35%		
Institutional risk	43%	57%			N/A	N/A	N/A	N/A
Cognitive loss**	79%		21%		92%		8%	
Physical activity	55%	45%			80%	20%		
Activities of Daily Living (ADL)	56%	9%	35%		33%	37%	31%	
Mood	56%	27%	17%		49%	31%	20%	
Falls	58%	30%	13%		64%	27%	8%	
Informal support	58%	42%			N/A	N/A	N/A	N/A
Pain	59%	26%	15%		86%	9%	5%	
Urinary incontinence***	6%	56%	20%	18%	21%	33%	34%	12%
Instrumental ADL	63%	37%			N/A	N/A	N/A	N/A
Communication	74%	7%	19%		70%	8%	22%	
Social relationships	79%	21%			87%	13%		
Undernutrition	79%	12%	8%		72%	17%	11%	
Bowel conditions	83%	7%	10%		80%	14%	6%	
Appropriate medications	85%	15%			93%	7%		
Behaviour	91%	4%	5%		77%	10%	13%	
Delirium	91%	9%			90%	10%		
Dehydration	93%	2%	6%		95%	1%	4%	
Pressure ulcer	93%	3%	3%	1%	89%	3%	3%	5%
Tobacco and alcohol use	93%	7%			96%	4%		
Home environment	95%	5%			N/A	N/A	N/A	N/A
Abusive relationship	97%	1%	2%		N/A	N/A	N/A	N/A
Feeding tube	100%	0%	0%		100%	0%	0%	
Activities	N/A	N/A	N/A	N/A	85%	15%		
Physical restraint	N/A	N/A	N/A	N/A	97%	2%	1%	

Notes:
1. Different CAPs have different levels of trigger. Blank cells indicate that a particular trigger level does not apply to that CAP.
2. NA means that the CAP is not applicable to that type of interRAI assessment.
3. The 2014/15 Annual Report showed the total triggered CAPs in the summary table rather than the CAPs by trigger level. Readers are recommended to exercise caution when comparing this table with the 2014/15 results.
4. *The prevention CAP is almost always triggered in New Zealand. This is because the time frame for a resident to be seen by a General Practitioner (GP) is longer than international standards. The prevention CAP is excluded from further analysis.
5. **The cognitive loss CAP, based on the 9.3 version of interRAI assessments, includes only levels 0 and 2.
6. ***The Urinary Incontinence CAP is only triggered at levels 2 and 3. Trigger level one is defined as "Not triggered".

Functional CAPs

Activities of Daily Living (ADL) CAP

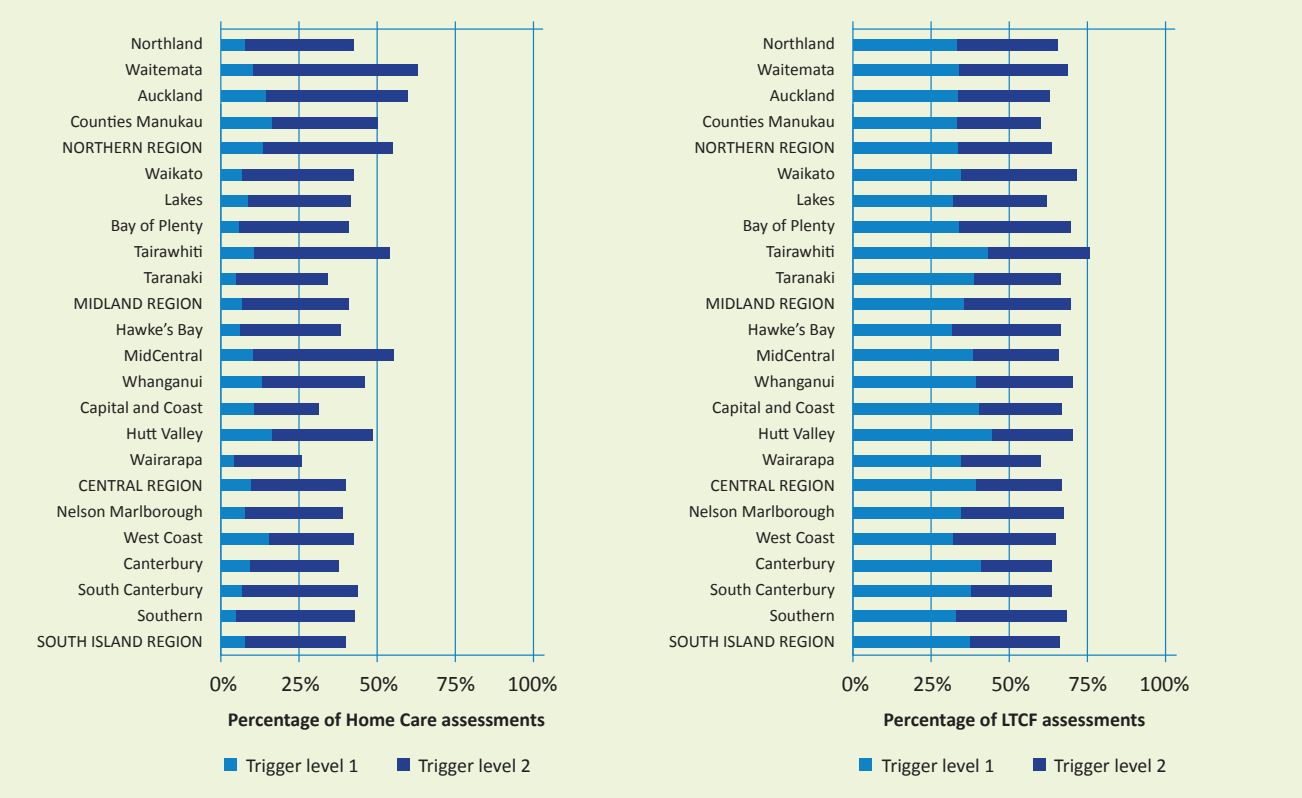
The ADL CAP addresses the person's ability to perform basic tasks such as getting dressed, personal hygiene, walking, toileting, changing position in bed, and eating. The goal is to improve performance or prevent functional decline in older people who already have some difficulty with their ADL.

The ADL CAP is triggered at level 1 to facilitate improvement while level 2 is triggered to prevent decline.

Figure 47 shows that the ADL CAP at level 1 was more likely to trigger for LTCF assessments than Home Care assessments (37 percent compared to 9 percent) while the situation was reversed for the CAP at level 2 (35 percent for Home Care assessments compared to 31 percent for LTCF assessments). These results were similar in 2014/15.

Figure 47 provides information on the level of intervention that could potentially benefit clients/residents in their care plan and DHBs from a resourcing perspective. Waitemata DHB had the highest percentage of Home Care assessments triggering the CAP at level 2 (59 percent compared to 35 percent nationally) while Hawke's Bay and Tairawhiti DHBs had the highest percentage of LTCF assessments triggering the CAP at that level (36 percent compared to 31 percent nationally).

Figure 47: Triggered ADL CAP by assessment type, trigger level, DHB and region, 2015/16



Institutional Risk CAP

The institutional risk CAP identifies if the person has an increased risk of entering an aged care facility in the coming months.

This CAP is applicable to only Home Care assessments and can indicate issues with physical functioning, memory, decision making and health.

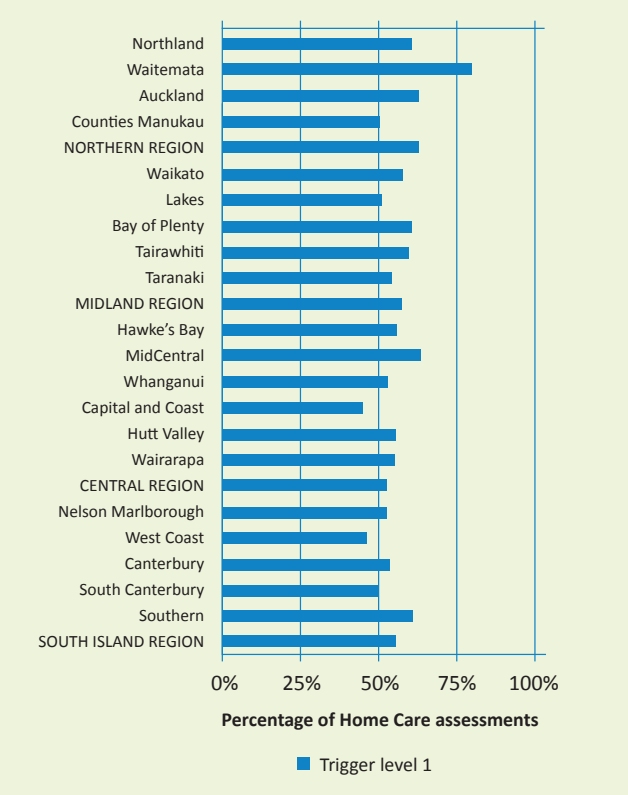
The institutional risk CAP is triggered at level 1 to avoid premature admission to a long term care facility by supporting family efforts and providing community intervention programmes.

The percentage of Home Care assessments that triggered this CAP increased slightly from 55 percent in 2014/15 to 57 percent in 2015/16.

Figure 48 shows that Waitemata DHB had the highest percentage of Home Care assessments, as last year, triggering this CAP at level 1. Capital and Coast DHB was in the opposite end of the continuum.

An increase in the percentage of Home Care assessments triggering the institutional risk CAP potentially indicates an increase in the demand for aged residential care.

Figure 48: Triggered institutional risk CAP by DHB and region, 2015/16



Cognition/Mental Health CAPs

Cognitive Loss CAP

This CAP is triggered to help a person who has mild to no cognitive impairment (a score of two or less on the Cognitive Performance Scale) so that he/she can be supported to remain as independent as possible, for as long as possible.

The cognitive loss CAP has been modified recently. In 2014/15, the cognitive loss CAP triggered at level 1 to monitor for risk of cognitive decline when an older person scored two or less on the CPS scale and had the presence of none or one of the risk factors for cognitive decline such as Alzheimer's disease, dementia other than Alzheimer's disease, wandering, repetitive questions, to name a few conditions.

In 2014/15, the CAP triggered at level 2 to prevent decline for individuals who scored two or less on the CPS scale and who had the presence of two or more clinical risk factors for cognitive decline, as explained above.

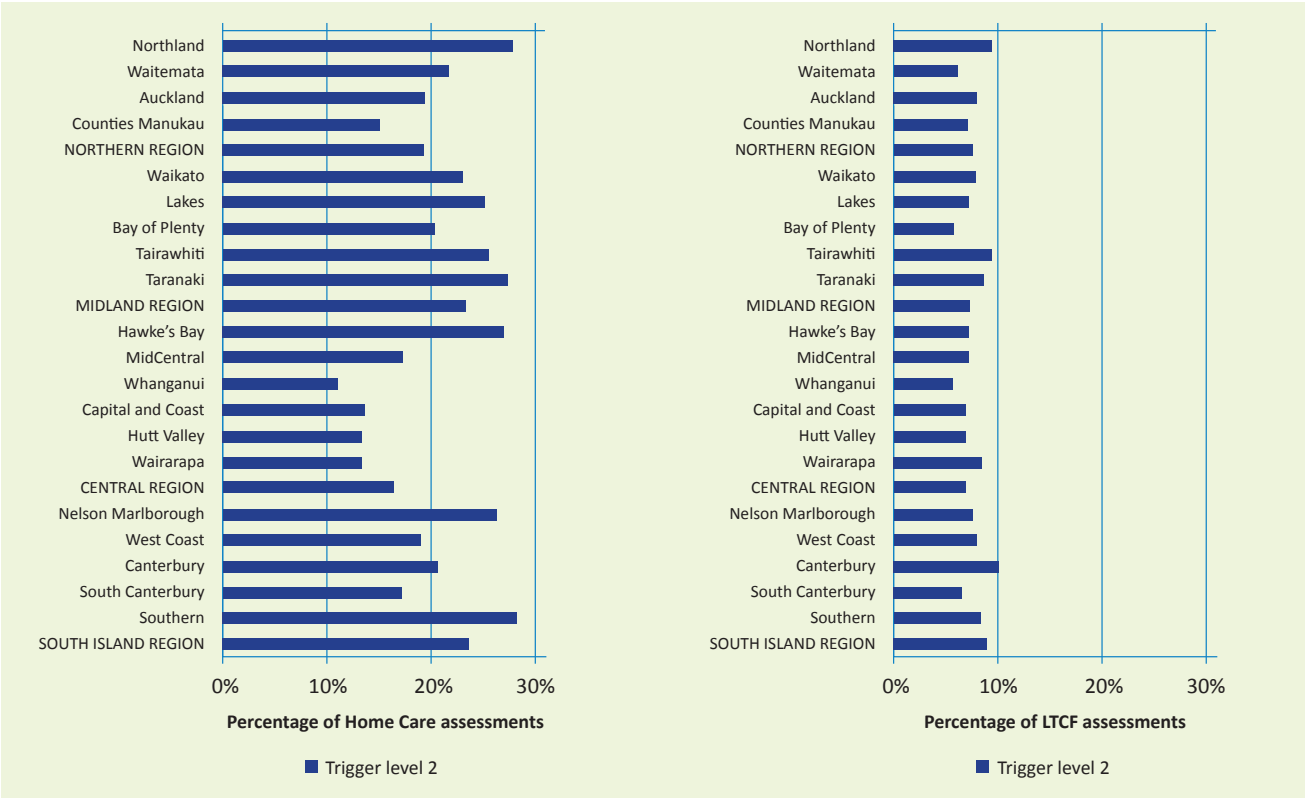
Following the upgrade of the interRAI operational software to the 9.3 version, the cognitive loss CAP now only triggers at level 2. Hence, the 2015/16 data for this CAP is not comparable to 2014/15.

On average, in 2015/16, this CAP was more likely to trigger at level 2 for assessments completed in the home and community (21 percent) than for assessments completed in aged residential care (8 percent).

Figure 49 shows the results by DHB. Southern DHB had the highest percentage of Home Care assessments that triggered this CAP at level 2 while Canterbury DHB stood out for LTCF assessments.

The cognitive loss CAP now triggers at level 2 only. It is not comparable with 2014/15 results.

Figure 49: Triggered cognitive loss CAP by DHB and region, 2015/16



Note that the 2015/16 data for the cognitive loss CAP relates to 7 months of data, following the 9.3 upgrade of the interRAI operational software. The data cannot be compared to 2014/15.

Mood CAP

The goal of the mood CAP is to identify and address any immediate threats to a person's or other people's safety that may be compromised due to the mood state.

Mood disorders (for example, depression, sadness and anxiety) are common problems in the community and in aged residential care, and are often under diagnosed.

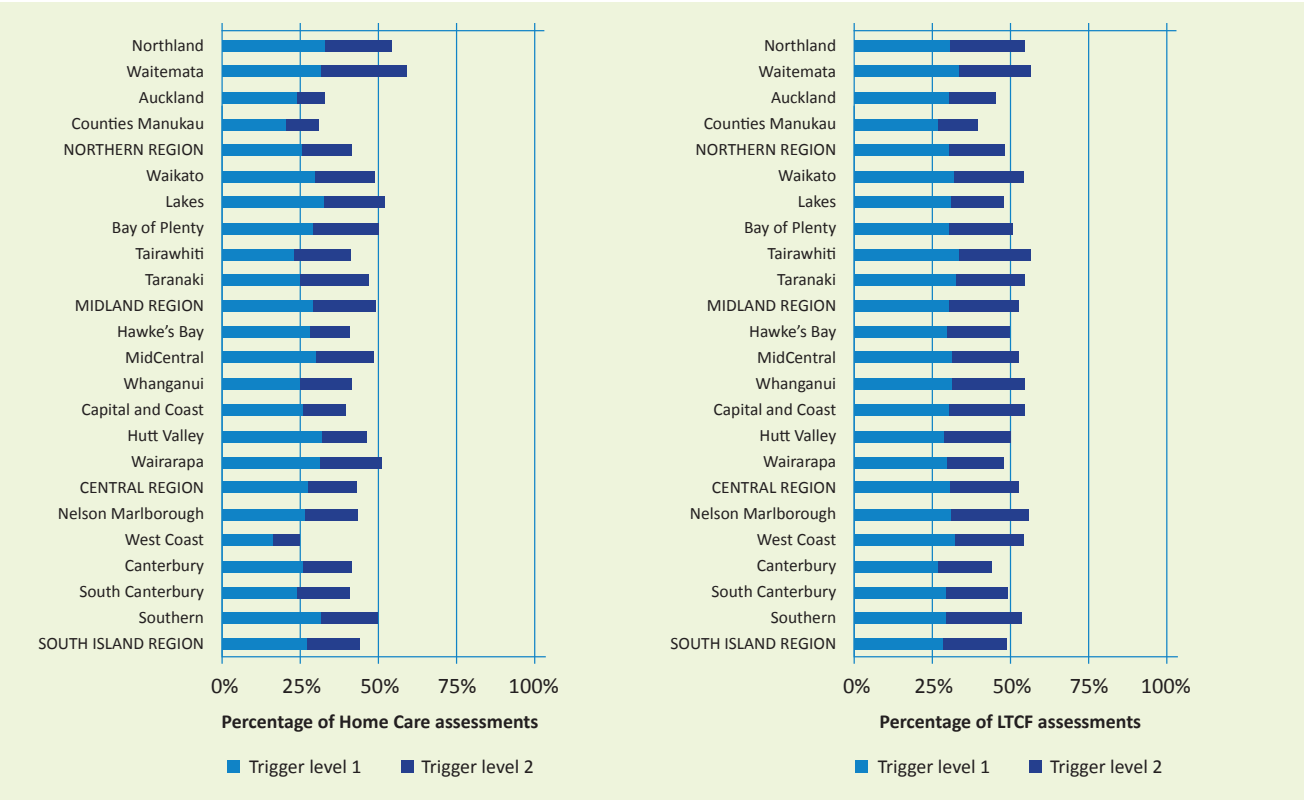
There are two trigger levels to the mood CAP. The triggers are based on the person's Depression Rating Scale (DRS).

The level 1 trigger is for those who score 1 or 2 on the DRS. The level 2 trigger is for those people who score 3 or higher on the DRS.

In 2015/16, the mood CAP was more likely to trigger for assessments completed in aged residential care (31 and 20 percent for levels 1 and 2, respectively) than for assessments completed in the home and in the community (27 and 17 percent for levels 1 and 2, respectively). These results were similar in 2014/15.

Figure 50 shows the distribution of the percentage of assessments that triggered the mood CAP at levels 1 and 2 by DHB and region. The DHBs that stood out in 2015/16 were Northland, Lakes and Southern (highest level 1 trigger) and Waitemata (highest level 2 trigger) for Home Care assessments, and West Coast (highest level 1 trigger) and Nelson Marlborough (highest level 2 trigger) for LTCF assessments.

Figure 50: Triggered mood CAP by DHB and region, 2015/16



Behaviour CAP

The behaviour CAP focusses on reducing the frequency and intensity of daily troubling behaviours such as wandering, being verbally or physically abusive, inappropriate or disruptive social behaviour and resisting care. The CAP also aims to identify and possibly eliminate the conditions and factors that contribute to behavioural issues.

There is a strong link with declining cognitive ability or mental health issues so the underlying causes need to be understood and addressed.

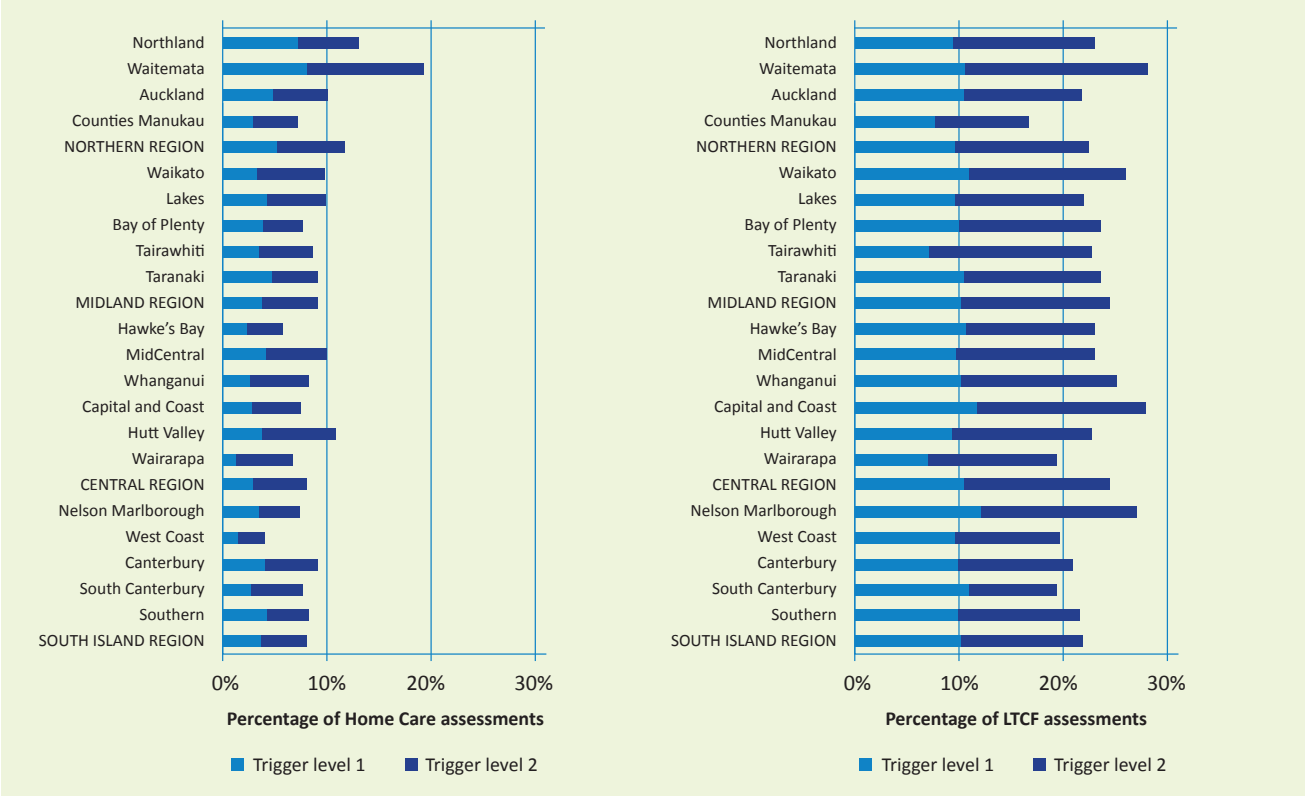
The behaviour CAP triggers at two levels. Level 1 triggers to prevent behaviour from occurring daily. Level 2 triggers to reduce the occurrence of daily behaviours such as wandering, verbally or physically abusing others, socially inappropriate or disruptive behaviours.

Figure 51 shows that the behaviour CAP is more likely to trigger in LTCF (10 percent and 13 percent for levels 1 and 2, respectively) than Home Care assessments (4 percent and 5 percent for levels 1 and 2, respectively). This result was the same in 2014/15.

Given the rate of Alzheimer's disease and other dementia in ARC facilities tends to be higher than in the home care setting, this result is as expected.

Figure 51 shows that, in 2015/16, Waitemata DHB had the highest percentage of Home Care assessments triggering at both levels and for LTCF assessments at level 2. Capital and Coast, and Nelson Marlborough DHBs had the highest percentage of LTCF assessments at trigger level 1.

Figure 51: Triggered behaviour CAP by DHB and region, 2015/16



Clinical issues

Falls CAP

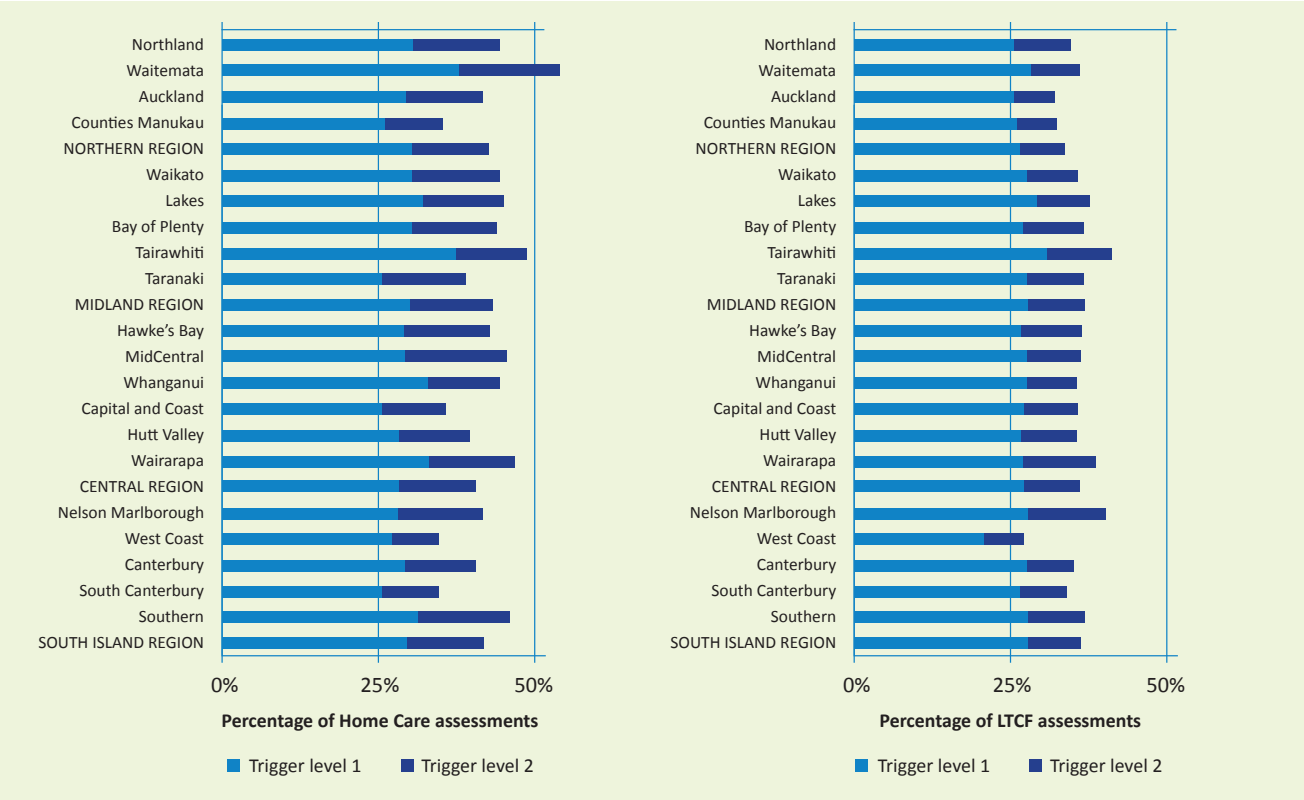
The falls CAP is triggered if the person has a history of falling, as they are at a higher risk of falling again. Preventing falls protects the person from injuries such as hip fracture which can reduce mobility, physical functioning and independence.

The falls CAP triggers at two levels. Level 1 triggers to identify a person as at the medium risk of future falls based on prior report of a single fall. Level 2 triggers to identify a person as at the high risk of future falls based on prior report of multiple falls.

Figure 52 shows that, in 2015/16, the falls CAP was more likely to trigger at both levels for Home Care assessments (30 percent at level 1 and 13 percent at level 2) than LTCF assessments (27 percent at level 1 and 8 percent at level 2). These results were similar in 2014/15.

In terms of the highest percentage of assessments that triggered the falls CAP at level 1, Waitemata and Tairawhiti DHBs stood out for both Home Care and LTCF assessments. On the other hand, in terms of the highest percentage of assessments that triggered the falls CAP at level 2, MidCentral and Nelson Marlborough DHBs were the outliers for Home Care and LTCF assessments, respectively.

Figure 52: Triggered falls CAP by DHB and region, 2015/16



Pain CAP

The purpose of the pain CAP is to identify and treat underlying reasons for pain so that the older person can optimise his/her ability to perform activities of daily living, and to lead an active and healthy social life.

The pain CAP triggers at two levels. The medium priority, level 1, triggers to identify a person with daily pain described as mild or moderate. The high risk, level 2, triggers to identify a person with severe or excruciating pain either daily or less frequently.

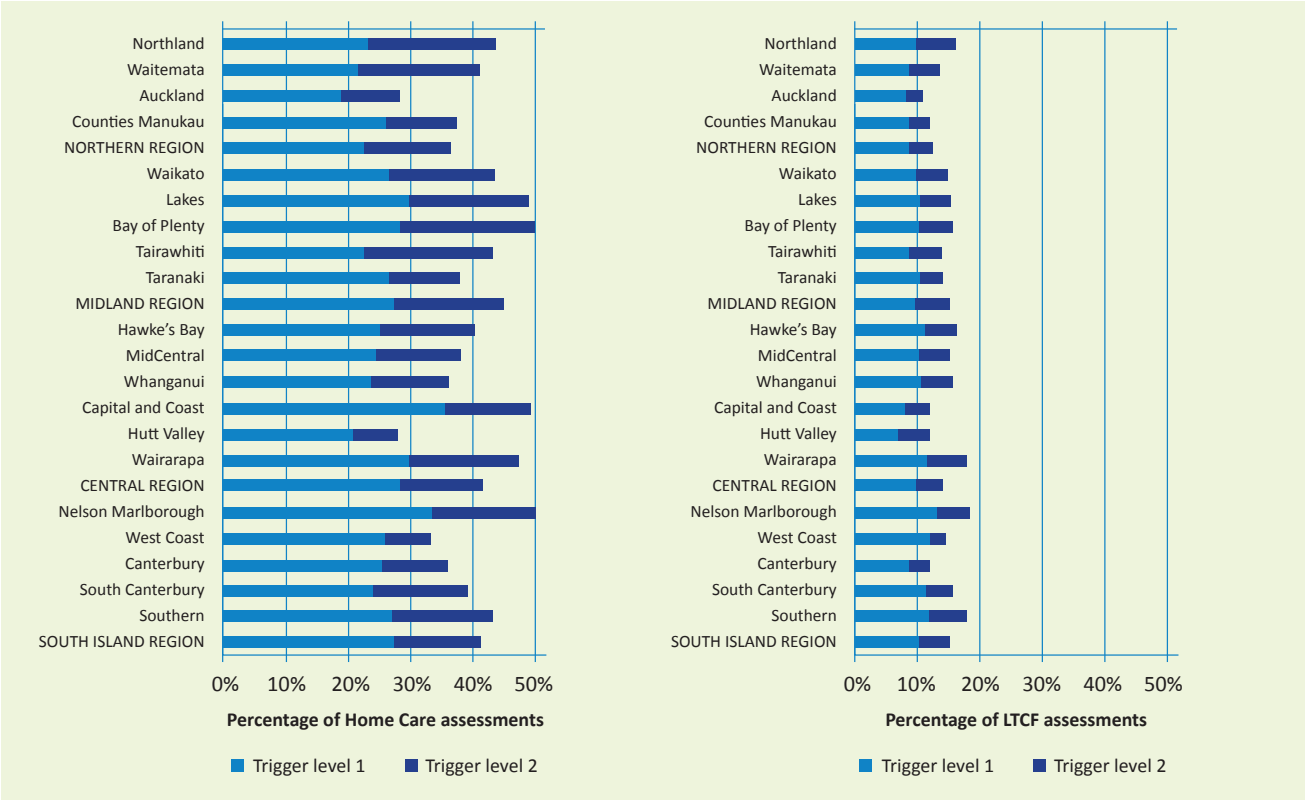
Figure 53 shows the levels 1 and 2 triggers of the pain CAP by DHB and region for Home Care and LTCF assessments.

The pain CAP was more likely to trigger at both levels for assessments completed in the home and community settings (26 percent for level 1 and 15 percent for level 2) compared to the long term care setting (9 percent for level 1 and 5 percent for level 2).

These results were consistent with 2014/15.

In 2015/16, Capital and Coast and Bay of Plenty DHBs had the highest percentage of Home Care assessments triggering the pain CAP at level 1 and 2, respectively.

Figure 53: Triggered pain CAP by DHB and region, 2015/16



As expected, clients assessed in the home and community were more likely to trigger the pain CAP than long term care residents.

Pressure Ulcer CAP

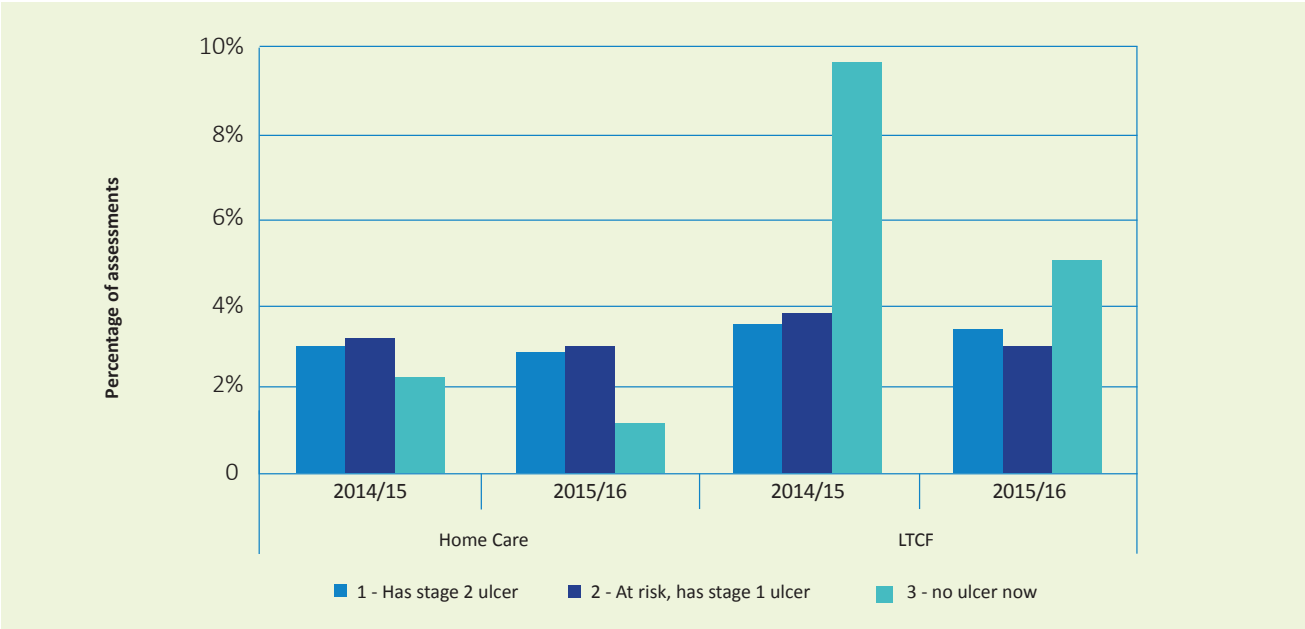
A pressure ulcer is defined as a localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction[23].

The purpose of the pressure ulcer CAP is to prevent pressure ulcers from occurring, to allow the local wound to heal, to monitor the healing process and to prevent the development of new pressure ulcers.

The CAP triggers at three levels. Level 1 triggers for a person who has stage 2 or higher pressure ulcer with the goal to support healing. Level 2 triggers for a person who has a stage 1 pressure ulcer but who is at risk of developing a stage 2 or higher pressure ulcer. Level 3 triggers for a person who does not have a pressure ulcer but is at risk of developing such a condition.

Figure 54 shows that, over the last year, the percentage of assessments that triggered the pressure ulcer CAP declined, more so at level 3 for assessments completed in the long term care setting (10 percent in 2014/15 to five percent in 2015/16).

Figure 54: Triggered pressure ulcer CAP by assessment type, 2014/15 and 2015/16

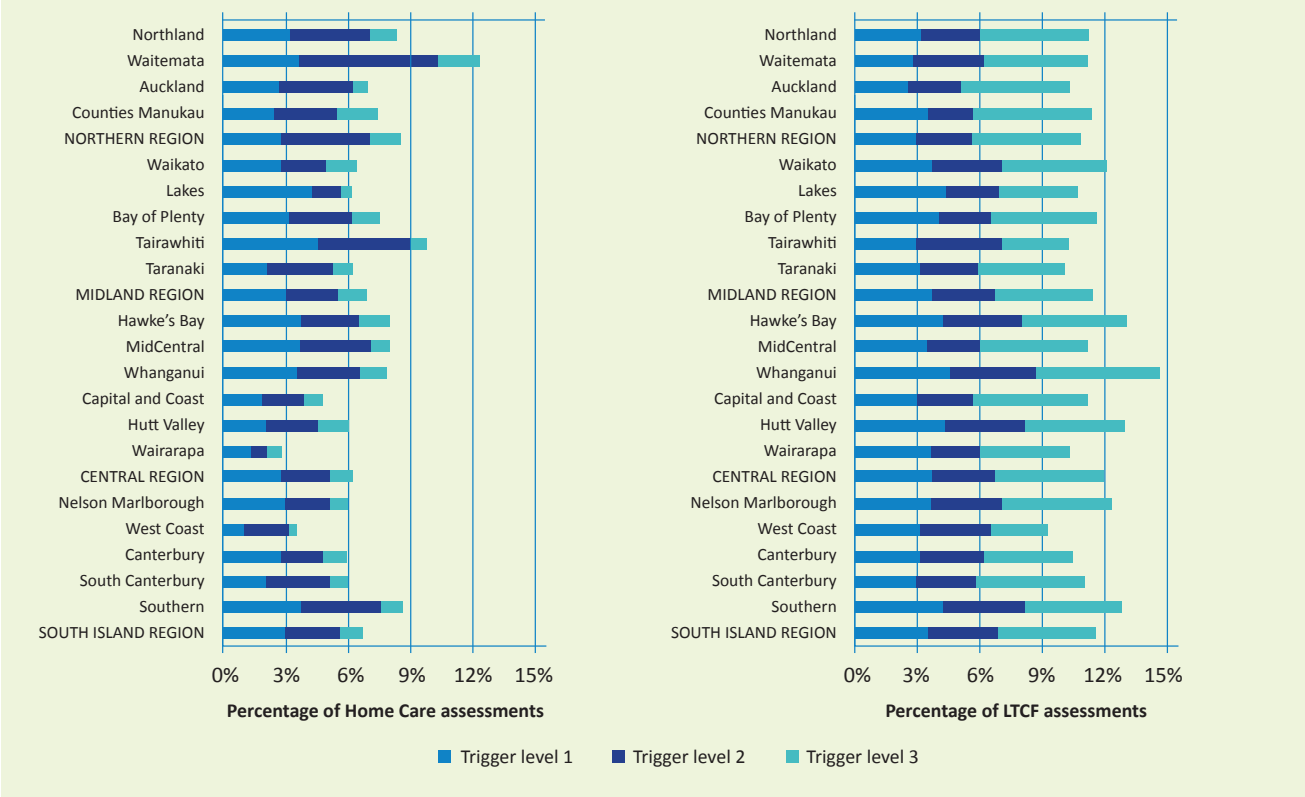


The percentage of assessments triggering the pressure ulcer CAP, at level 3, especially in long term care, declined over the last year.

[23] US National Pressure Ulcer Advisory Panel. http://www.npuap.org/

Figure 55 shows the breakdown of the 2015/16 results by DHB and region. Looking at level 1, which is the most acute trigger level of the pressure ulcer CAP, Tairawhiti DHB stood out with the highest percentage of Home Care assessments while Whanganui DHB had the highest percentage of LTCF assessments.

Figure 55: Triggered pressure ulcer CAP by DHB and region, 2015/16



Communication CAP

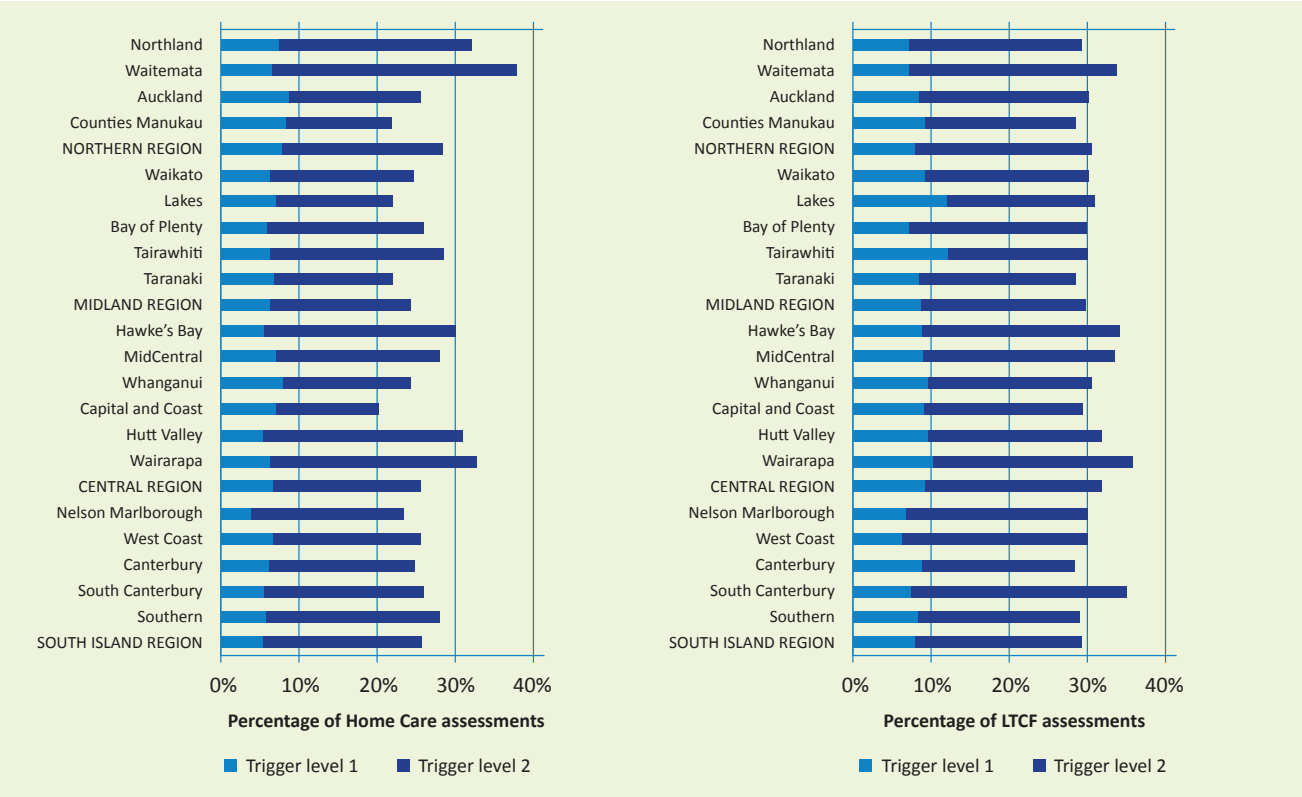
The purpose of the communication CAP is to prevent avoidable loss of communication skills and to improve communication for as long as possible.

The CAP triggers at two levels. Level 1 triggers to help facilitate a person's communication. Level 2 triggers to reduce the likelihood of a decline in communication.

In 2015/16, the communication CAP was slightly more likely to trigger for assessments completed in aged residential care (8 percent for level 1 and 22 percent for level 2) compared to assessments completed in the home and community (7 percent for level 1 and 19 percent for level 2). These results were consistent with last year.

Figure 56 shows the communication CAP by trigger level, DHB and region. At level 1, Auckland DHB had the highest percentage of assessments triggering the CAP for Home Care assessments while Lakes and Tairawhiti DHBs had the highest percentage for LTCF assessments. At level 2, Waitemata DHB had the highest percentage of assessments triggering the CAP for both assessments completed in the home and in long term care settings. South Canterbury DHB also had the highest percentage of assessments triggering the CAP at level 2 for LTCF assessments.

Figure 56: Triggered communication CAP by DHB and region, 2015/16



"New Zealand is a world leader in the use of the interRAI Comprehensive Clinical Assessment suite, being the first country in the world to implement the Home Care and Long Term Care Facilities assessment tools nationwide."

future developments

In line with the strategic direction outlined in interRAI NZ – Future Direction, the New Zealand Health Strategy and the Healthy Ageing Strategy, the vision of the National interRAI Data Analysis and Reporting Centre (the Centre) is to make interRAI data more visible and accessible to stakeholders in the aged care and wider health sector.

The following projects are already underway in the 2016/17 financial year:

(1) A national standard suite of interRAI reports for Aged Residential Care (ARC) facilities and groups

In response to one of the recommendations of 'Lessons learned from the introduction of the Comprehensive Clinical Assessment (interRAI) in Aged Residential Care (2011-2015) – a post project review'[24], the Centre is pleased to introduce a national standard suite of interRAI reports for ARC facilities and ARC groups.

The principle aim of this reporting is to add value to the sector by providing information to ARC facilities to enable better decision making and planning, to improve health outcomes for residents.

While ARC facilities can access their own resident and facility level data via the interRAI operational software, the standard suite of interRAI reports will add value by enabling facilities to benchmark themselves against their DHB, other similar sized facilities and nationally.

The reporting also aims to meet DHBs' contractual obligation as set out in the 2016 ARRC Services agreement[25].

The national standard suite of interRAI reports has been developed in consultation with a selected ARC consultation group.

The reports provide the following information to each ARC facility from LTCF assessments completed in a relevant quarter, at a summarised level:

- Selected demographic information
- Outcome measures showing the health status of residents who were assessed in that quarter
- CAPs showing where there may be opportunities for interventions for assessed residents
- Disease diagnosis showing the diseases reported by the assessed residents.

The first quarterly suite of interRAI reports (quarter 2, 2016/17) was released to ARC facilities via a secure channel at the end of February 2017.

(2) An interRAI data visualisation tool

This is a project for planned from January to December 2017.

The purpose of this tool is to empower stakeholders and users of interRAI assessment data by enabling them to interactively interrogate the data for themselves, to assist them in their planning, decision making, quality improvement and service delivery, ultimately improving health outcomes for New Zealanders as they age.

Contact:
National interRAI Data Analysis and Reporting Centre on
interRAI_Data@CentralTAS.co.nz

[24] Evaluationconsult (2017) - forthcoming report. "Post Project Review. Comprehensive Clinical Assessment (interRAI) in Aged Residential Care (2011-2015)".

[25] See clause D15C.1 of the ARRC Services agreement at *http://www.centraltas.co.nz/assets/Health-of-Older-People/ARRC-agreement-2016-17-effective-1July2016-for-website-26May2016.pdf*

The interRAI data visualisation tool will have the following features. It will:

- make interRAI assessment data visible
- be accessible to everyone from a public facing website, that is the interRAI NZ website
- be interactive and freely available to a large variety of stakeholders in the health sector
- protect the integrity, security and privacy of interRAI assessments, clients, residents and ARC facilities
- showcase interRAI as the primary source of data on the health of older people
- report on key summary interRAI outcome measures and CAPs at the DHB, regional and national level
- be updated on a regular basis, subject to data availability
- be compatible for display on tablets and mobile devices.

At the time of writing, a project plan and high level business requirements have been developed. The next stage of the project is to engage with a selected user group and to begin testing the most appropriate software to host the data visualisation tool.

(3) interRAI quality indicators (QIs)

A project in response to the Healthy Ageing Strategy is currently underway to support the introduction of interRAI quality indicators in New Zealand using Home Care and LTCF assessment data.

While interRAI QIs are reported on a regular basis in other countries such as Canada and the USA, they are yet to be introduced and validated in New Zealand.

interRAI QIs are standardised, validated indicators that provide a basis for benchmarking care across time, populations and care settings. They provide a practical instrument to track quality of care over time at an organisation/facility level, DHB, regional or national level.

The purpose of the project is to use interRAI assessment data to understand the quality performance of services to older people provided by DHBs. The project aims to engage with the sector in the development and implementation of the QIs to validate their effectiveness as a measure of quality.

Given that the Centre now has a fully functional national interRAI data warehouse, the QI algorithms from interRAI international can be applied and tested using the New Zealand interRAI Home Care and LTCF assessment data.

A project plan has been developed and presented to the interRAI New Zealand Governance Board in December 2016. By early 2017, a project reference group will be established and engagement with the sector will commence. Following this, the interRAI New Zealand operational software will be tested to ensure that the interRAI QIs will be able to be derived using the New Zealand interRAI assessment data.

If you wish to find more information about any of these projects, you are welcome to contact the National interRAI Data Analysis and Reporting Centre on interRAI_Data@CentralTAS.co.nz

Glossary of Terms

ADL	Activities of daily living
ARC	Aged Residential Care
Assessor	A person who uses the interRAI tools to undertake care needs assessments
CAPs	Clinical Assessment Protocols
CHESS	Changes in Health, End-Stage Disease, Signs, and Symptoms
Contact assessment (CA)	An interRAI Contact assessment is a brief standardised clinical assessment that provides information to support the home care assessment intake and emergency department referral. It is not a substitute for a comprehensive interRAI assessment. The Contact assessment can be done face to face or over the phone and takes about 30 minutes to complete.
COPD	Chronic obstructive pulmonary disease
CPS	Cognitive Performance Scale
DHB	District Health Board
DRS	Depression Rating Scale
Home Care (HC) assessment	An interRAI Home Care assessment is a comprehensive clinical assessment designed for people with more complex needs who are able to live at home.
IADL	Instrumental activities of daily living
interRAI	International Resident Assessment Instrument
Long Term Care Facilities (LTCF) assessment	An LTCF assessment is a comprehensive clinical assessment designed for people in residential care to inform their care plans.
MAPLe	Method of Assigning Priority Level
NZ	New Zealand
PURS	Pressure Ulcer Risk Scale

Outcome Scale Definitions

Assessment Urgency Algorithm (AUA) Scale The AUA scale is used in Contact assessments and is not applicable to Home Care or LTCF assessments. The AUA scale is used to determine whether or not the client needs further in-depth assessment. This scale is calculated by referring to a number of elements in the assessment that relate to the person's physical health, mood, the family's ability to cope and the person's dependence with personal hygiene.	Range of Values: 1-6
Activities of Daily Living (ADL) Self-Performance Hierarchy Scale The ADL Self-Performance Hierarchy Scale aims to describe the disablement process rather than to simply provide a summary of functional impairment. The scale shows the level of difficulty of the client/resident in relation to personal hygiene, locomotion, toilet use and eating.	Range of Values: 0-6
Aggressive Behaviour Scale (ABS) The Aggressive Behaviour Scale is a measure of aggressive behaviour based on the occurrence of verbal abuse, physical abuse, socially disruptive behaviour and resistance of care. Scale scores range from 0-12 with higher scores indicative of greater frequency and diversity of aggressive behaviour. A score of 1 to 4 on the ABS indicates mild to moderate aggressive behaviour, whereas scores of 5 or more represents the presence of more severe aggression. This scale has been validated against the Cohen Mansfield Agitation Inventory.	Range of Values: 0-12
Body Mass Index (BMI) The Body Mass Index is a measurement which represents the ratio of a person's height to weight. In the interRAI assessment suite it is recorded to monitor nutrition, hydration status and weight stability over time. The Undernutrition CAP triggers (3 levels) are based on the BMI. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m^2).	Range of Values: Usually 15-40
Changes in Health, End-Stage Disease, Signs, and Symptoms Scale (CHESS) The CHESS scale is designed to identify individuals at risk of serious decline and their level of medical instability. It has a 6 point scale from 0 (not at all unstable) to 5 (highly unstable) with higher levels predictive of adverse outcomes such as mortality, hospitalisation, pain, caregiver stress, and poor self-rated health.	Range of Values: 0-5
Cognitive Performance Scale (CPS) The Cognitive Performance Scale combines information on memory impairment, level of consciousness, and executive function, with scores ranging from 0 (intact) to 6 (very severe impairment). The CPS has been shown to be highly correlated with the Mini Mental Status Exam (MMSE) in a number of validation studies.	Range of Values: 0-6
Communication Scale The higher the score on the communication scale, the poorer the communication. This scale is derived from expressive and receptive communication.	Range of Values: 0-8

Outcome Scale Definitions

Depression Rating Scale (DRS) The Depression Rating Scale is used as a clinical screen for depression. The higher the score the stronger the clinical indicator. Validation studies were based on a comparison of the DRS with the Hamilton Depression Rating Scale and the Cornell Scale for Depression.	Range of Values: 0-14
Instrumental Activities of Daily Living (IADL) Capacity The Instrumental ADL Scale is based on a sum of eight items: meal preparation, ordinary housework, managing finances, medications, phone use, stairs, shopping, and transportation. Individual items are summed to produce a scale that ranges from 0 to 48, with higher scores indicating a greater difficulty for a person to carry out an activity.	Range of Values: 0-48
Instrumental Activities of Daily Living (IADL) Performance The Instrumental ADL Scale is based on a sum of eight items: meal preparation, ordinary housework, managing finances, medications, phone use, stairs, shopping, and transportation. Individual items are summed to produce a scale that ranges from 0 to 48, with higher scores indicating greater dependence on others for instrumental activities for daily living.	Range of Values: 0-48
Method of Assigning Priority Level (MAPLe) The MAPLe score (1-5) is a priority indicator. Higher scores are based on the presence of ADL impairment, cognitive impairment, wandering, and behaviour problems. The MAPLe is also a predictor of carer stress. The higher the score the higher the priority for services to be commenced or increased in the community, to prevent hospitalisation or admission into residential care.	Range of Values: 1-5
Pain Scale The Pain Scale attempts to define levels of pain. The scale is highly predictive of pain on the Visual Analogue Scale (Fries et al 2001). Pain that is adequately managed does not feature in the scale.	Range of Values: 0-4
Pressure Ulcer Risk Scale (PURS) The PURS scores range from 0 (lowest risk) to 8 (highest risk) for development of pressure ulcers. This scale considers such things as any history of pressure ulcers, impaired bed mobility, impaired walking, bowel incontinence, weight loss and dyspnoea. This scale complements the Pressure Area CAP and should always be reviewed when that CAP is triggered.	Range of Values: 0-8

Clinical Assessment Protocols (CAPs) Definitions

Functional Performance	
Physical Activities Promotion To increase levels of exercise and physical activity – person does <2 hours activity/day; moves and goes up/down stairs without help; increased independence possible.	Range of Values: 0-1
Instrumental Activities of Daily Living To improve IADL self-performance and capacity – decline in IADL function; increased independence possible.	Range of Values: 0-1
Home Environment Optimisation To improve safety of environment – problems with lighting, flooring, bathroom, toilet, kitchen, heating, disrepair, squalor and indicators of frailty.	Range of Values: 0-2
Activities of Daily Living To improve ADL performance or prevent avoidable functional decline – receive some ADL help; potential to improve self-performance.	Range of Values: 0-1
Institutional Risk To avoid premature admission to LTCF – identifies persons with impaired functioning who are at high risk of institutional placement.	Range of Values: 0-1
Physical Restraints This CAP identifies persons who are physically restrained.	Range of Values: 0-2
Cognitive and Mental Health	
Cognitive Loss To maintain independence, prevent and monitor cognitive decline – Identifies persons with CPS of 0,1,2 and associated clinical risk factors.	Range of Values: 0-2
Delirium To identify persons with active symptoms of delirium – acute change in mental status and behaviour appears different from usual functioning.	Range of Values: 0-1
Communication To improve communication ability and to prevent avoidable communication decline – moderate-severe communication issues in understanding/expression.	Range of Values: 0-2
Mood To identify, treat, monitor mood issues – negative statements, persistent anger, expressions of unrealistic fears, repetitive health complaints, repetitive anxious complaints, sad, crying, tearfulness. DRS score medium to high risk.	Range of Values: 0-2
Behaviour To prevent, manage behavioural problems – wandering, verbally abusing others, physically abusing others, socially inappropriate, disruptive behaviour, inappropriate disrobing or public sexual behaviour, resisting care.	Range of Values: 0-2

Clinical Assessment Protocols (CAPs) Definitions

Social Life	
Abusive Relationship To identify potential abuse/neglect situations – fearful of family member, caregiver, close acquaintance, unusually poor hygiene, unkempt appearance, neglected, abused, mistreated – plus stressors.	Range of Values: 0-2
Activities This CAP identifies persons with some cognitive reserve who have either withdrawn from activities or who are uneasy entering into activities and social relationships.	Range of Values: 0-1
Informal Support To identify where a person needs help – not independent with meals/housework/shopping/transport and alone for long periods or lives alone and no primary informal helper present.	Range of Values: 0-1
Social Relationship To identify reduced social relationships and facilitate engagement – feels lonely, cognition adequate, able to understand others.	Range of Values: 0-1

Clinical Assessment Protocols (CAPs) Definitions

Clinical Issues	
Falls To identify and change any underlying risk factors for falls – report of multiple falls/report of a single fall.	Range of Values: 0-2
Pain To identify and treat underlying reasons for pain – high risk trigger – severe, horrible or excruciating pain; medium risk trigger – daily mild/moderate pain.	Range of Values: 0-2
Pressure Ulcer To prevent, identify and treat pressure ulcers – has or is at risk of developing a pressure ulcer.	Range of Values: 0-3
Cardiorespiratory Conditions To assess and manage cardiorespiratory conditions – symptoms of chest pain, shortness of breath, irregular pulse, dizziness and test results – blood pressure, respiratory rate, heart rate, oxygen saturation.	Range of Values: 0-1
Undernutrition To address and manage under nutrition – based on a person's BMI score.	Range of Values: 0-2
Dehydration To identify and treat underlying causes of dehydration – insufficient fluid intake; and diarrhoea, vomiting, delirium, fever, dizziness, syncope, constipation, weight loss.	Range of Values: 0-2
Feeding Tube To identify persons with a feeding tube and manage – has feeding tube and some residual cognitive abilities/absence of cognitive abilities.	Range of Values: 0-2
Prevention To prevent illness and disability – blood pressure, colonoscopy, dental exam, hearing exam, flu vax, mammogram, pneumovax.	Range of Values: 0-2
Appropriate Medications To identify and promote appropriate medication management – 9+ medications and 2 of the following – chest pain, dizziness, oedema, shortness of breath, poor health, recent deterioration.	Range of Values: 0-1
Tobacco and Alcohol Use To identify strategies to help people cease smoking/ cut back on excessive drinking – daily smoker; alcohol intake, pressure to cut back.	Range of Values: 0-1
Urinary Incontinence To facilitate improvement and prevent decline in bladder function – reoccurring episodes of incontinence, minimal cognitive abilities, locomotion impaired; possibility of improvement.	Range of Values: 0-3
Bowel Conditions To facilitate improvement and prevent decline in bowel function – risk of decline and improvement in bowel continence.	Range of Values: 0-2

Disease Diagnosis Descriptions

Hip Fracture

Includes any hip fracture that occurred during the past 30 days (or since the last assessment, if it was less than 30 days ago) that continues to have a relationship to current status, treatments, monitoring, etc. Hip fracture diagnoses also include femoral neck fractures, fractures of the trochanter, and subcapital fractures.

Other Facture

Any fracture other than hip (for example, wrist) due to any condition, such as falls or weakening of the bone as a result of cancer. Fracture to have occurred during the past 30 days (or since the last assessment, if it was less than 30 days ago).

Alzheimer's Disease

A degenerative and progressive dementia that is diagnosed by ruling out other dementias and physiological reasons for the dementia.

Dementia other than Alzheimer's Disease

Includes diagnoses of organic brain syndrome (OBS) or chronic brain syndrome (CBS), senility, senile dementia, multi-infarct dementia, and dementia related to neurological diseases other than Alzheimer's (such as Pick's, Creutzfeldt-Jakob, Huntington's disease, etc.).

Hemiplegia

Paralysis (temporary or permanent impairment of sensation, function, motion) of both limbs on one side of the body. Usually caused by cerebral haemorrhage, thrombosis, embolism, or tumour. There must be a diagnosis of hemiplegia in the person's record to code this item.

Multiple Sclerosis

A disease in which there is demyelination throughout the central nervous system. Typical symptoms are weakness, incoordination, paraesthesia, speech disturbances, and visual complaints.

Paraplegia

Paralysis (temporary or permanent impairment of active motion) of the lower part of the body, including both legs.

Parkinson's Disease

A disorder of the brain characterised by tremor; muscle rigidity; and difficulty with walking, movement, and coordination.

Quadriplegia

Paralysis (temporary or permanent impairment of sensation, function, motion) of all four limbs and trunk.

Stroke/CVA

A sudden rupture or blockage of a blood vessel within the brain, causing serious bleeding or local obstruction.

Coronary Heart Disease

A chronic condition marked by thickening and loss of elasticity of the coronary artery, and caused by deposits of plaque containing cholesterol, lipoid material, and lipophages.

Chronic Obstructive Pulmonary Disease (COPD)

Any long-standing condition that impairs airflow in and out of the lungs.

Congestive Heart Failure

A condition in which the heart cannot pump out all of the blood that enters it, which leads to an accumulation of blood in the vessels, fluid in the body tissues, and lung congestion.

Anxiety

A non-psychotic mental disorder. There are five types, which include generalised anxiety disorder, obsessive-compulsive disorder, panic disorder, phobias and post-traumatic stress disorder.

Bipolar Disorder

Includes documentation of clinical diagnosis of either manic depression or bipolar disorder. “Bipolar disorder” is the current term for manic-depressive illness.

Depression

A mood disorder often characterised by a depressed mood (for example, the person feels sad or empty; appears tearful); decreased ability to think or concentrate; loss of interest or pleasure in usual activities; insomnia or hypersomnia; loss of energy; change in appetite; feelings of hopelessness, worthlessness, or guilt. May include thoughts of death or suicide.

Schizophrenia

A disturbance characterised by delusions, hallucinations, disorganised speech, grossly disorganised behaviour, disordered thinking, or flat affect. This category includes schizophrenia subtypes (for example, paranoid, disorganised, catatonic, undifferentiated, residual).

Pneumonia

Inflammation of the lungs, most commonly of bacterial or viral origin.

Urinary Tract Infection

Includes chronic and acute symptomatic infection(s) in the last 30 days. Code only if there is current supporting documentation and significant laboratory findings in the clinical record.

Cancer

Any malignant growth or tumour caused by abnormal and uncontrolled cell division. The malignant growth or tumour may spread to other parts of the body through the lymphatic system or the blood stream.

Diabetes Mellitus

Any of several metabolic disorders marked by persistent thirst and excessive discharge of urine. Includes insulin-dependent diabetes mellitus (IDDM) and diet-controlled diabetes mellitus (NIDDM or AODM).

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PUBLIC

Capital & Coast District Health Board ŪPOKO KI TE URU HAUORA	**CPHAC DECISION PAPER**
	Date: 8 February 2018

Author	Fran Wilde, CPHAC Chair
Subject	**RESOLUTION TO EXCLUDE THE PUBLIC**

RECOMMENDATION

It is **recommended** that CPHAC:

a) **Agree** that as provided by Clause 32(a), of Schedule 3 of the New Zealand Public Health and Disability Act 2000, the public are excluded from the meeting for the following reasons:

SUBJECT	REASON	REFERENCE
Public Excluded Minutes	For the reasons set out in the respective public excluded papers	
Public Excluded Matters Arising from previous Public Excluded meeting	For the reasons set out in respective public excluded papers	
Development of a work plan for CPHAC	Papers contain information and advice that is likely to prejudice or disadvantage commercial activities and/or disadvantage negotiations	9(2)(b)(i)(j)

* Official Information Act 1982.