Community and Public Health Advisory Committees Meeting

Wednesday 30 October 2019

10.00am

Venue

Waitematā District Health Board
Boardroom
Level 1, 15 Shea Tce
Takapuna

Karakia

E te Kaihanga e te Wahingaro

E mihi ana mo te ha o to koutou oranga

Kia kotahi ai o matou whakaaro i roto i te tu waatea.

Kia U ai matou ki te pono me te tika

I runga i to ingoa tapu

Kia haumie kia huie Taiki eee.

Creator and Spirit of life

To the ancient realms of the Creator

Thank you for the life we each breathe to help us be of one mind
As we seek to be of service to those in need.
Give us the courage to do what is right and help us to always be aware
Of the need to be fair and transparent in all we do.

We ask this in the name of Creation and the Living Earth.

Well Being to All.

AUCKLAND AND WAITEMATA DISTRICT HEALTH BOARDS
COMMUNITY & PUBLIC HEALTH ADVISORY COMMITTEES (CPHAC) MEETING
30 October 2019

Venue: Waitemata DHB Boardroom, Level 1, 15 Shea Terrace, Takapuna **Time: 10.00am**

COMMITTEE MEMBERS	MANAGEMENT
Sharon Shea – Committee Chair (ADHB Board member) Max Abbott - WDHB Board member Judith Bassett – ADHB Board member Edward Benson Cooper - WDHB Board member Zoe Brownlie - ADHB Board member Sandra Coney - WDHB Board member Warren Flaunty - Committee Deputy Chair (WDHB Board member) Matire Harwood - WDHB Board member Lee Mathias - ADHB Board member Robyn Northey - ADHB Board member Allison Roe - WDHB Board member Board chairs: Judy McGregor – Ex-officio as WDHB Board Chair Pat Snedden – Ex-officio as ADHB Board Chair	Dale Bramley - WDHB, Chief Executive Ailsa Claire - ADHB, Chief Executive Tim Wood – Acting ADHB and WDHB, Director Funding Karen Bartholomew - ADHB and WDHB, Director Health Outcomes Peta Molloy- WDHB, Board Secretary

Apologies:

AGENDA

KARAKIA
ACKNOWLEDGEMENTS
DISCLOSURE OF INTERESTS

- Does any member have an interest they have not previously disclosed?
- Does any member have an interest that might give rise to a conflict of interest with a matter on the agenda?

Items to be considered in public meeting

	1.	**AGENDA ORDER AND TIMING**
	2.	**CONFIRMATION OF MINUTES**
10.00am	2.1	Confirmation of Minutes of the meeting held on 07/08/2019 Actions Arising from previous meetings
	3.	**DECISION PAPER**
	4.	**INFORMATION PAPER**
10.05am	4.1	Auckland Regional Public Health Service (ARPHS) update
10.25am	4.2	Health Needs Assessment Update
10.45am	4.3	Healthy Babies Healthy Futures Programme
	5.	**STANDARD REPORTS**
11.05am	5.1	Planning, Funding and Outcomes Update - Executive Summary - Planning - Primary Care - Child, Youth and Women - Health of Older People - Mental Health and Addictions - Māori Health Gain - Pacific Health Gain - Asian, Migrant and Refugee Health Gain
	6.	**GENERAL BUSINESS**

Auckland and Waitematā District Health Boards

Community and Public Health Committees

Member Attendance Schedule 2019

NAME	February	May	August	October
Sharon Shea	✓	✓	✓	
Max Abbott	✓	✓	✓	
Judith Bassett	✓	×	×	
Edward Benson-Cooper	✓	✓	✓	
Zoe Brownlie	✓	✓	✓	
Sandra Coney	✓	✓	×	
Warren Flaunty	✓	✓	✓	
Matire Harwood	×	×	✓	
Lee Mathias	✓	✓	✓	
Judith McGregor (ex-officio)	✓	×	✓	
Pat Snedden (ex-officio)		×	×	
Robyn Northey	✓	✓	✓	
Allison Roe	✓	✓	×	

✓ attended
× absent
** attended part of the meeting only*
^ leave of absence
 # absent on Board business

Community and Public Health Advisory Committee (CPHAC)

REGISTER OF INTERESTS

Committee Member	Involvements with other organisations	Last Updated
Max Abbott	Pro Vice-Chancellor (North Shore) and Dean - Faculty of Health and Environmental Sciences, Auckland University of Technology Patron - Raeburn House Advisor - Health Workforce New Zealand Board Member, AUT Millennium Ownership Trust Chair - Social Services Online Trust Board member - Rotary National Science and Technology Forum Trust	19/03/14
Judith Bassett	Shareholder - Fisher and Paykel Healthcare Shareholder - Westpac Banking Corporation Husband - shareholder of Westpac Banking Corporation	29/03/19
Edward Benson-Cooper	Chiropractor - Milford, Auckland (with private practice commitments) Edward has three (different) family members who hold the following positions: - Family member - FRANZCR. Specialist at Mercy Radiology. Chairman for Intra Limited. Director of Mercy Radiology Group. Director of Mercy Breast Clinic. - Family member - Radiology registrar in Auckland Radiology Regional Training Scheme. - Family member - FANZCA FCICM. Intensive Care specialist at the Department of Critical Care Medicine and Anaesthetist at Mercy Hospital.	25/03/19
Zoe Brownlie	Director – Unless Consulting Workplace Programme Lead - YWCA Board member - RockEnrol Partner – CAYAD Auckland Council	15/05/19
Sandra Coney	Member - Waitakere Ranges Local Board, Auckland Council Patron - Women's Health Action Trust Member - Portage Licensing Trust Member - West Auckland Trusts Services	15/12/16
Warren Flaunty	Trustee (Vice President) - Waitakere Licensing Trust Shareholder - EBOS Group Shareholder - Green Cross Health Director - Life Pharmacy Northwest Chair - Three Harbours Health Foundation Director - Trusts Community Foundation Ltd Trustee - Hospice West Auckland (past role) Shareholder – Genesis Energy	12/09/18
Dr Matire Harwood	Senior Lecturer - Auckland University Director - Ngarongoa Limited, which is contractor providing services to National Hauora Coalition GP at Papakura Marae Health Clinic Advisory Committee Member - State Foundation NZ (Maori Health) Member Te Ora, Maori Medical Practitioners Step-daughter is a surgical registrar at Waitematā DHB	10/05/18
Lee Mathias	Chair – Medicines New Zealand Director/shareholder - Pictor Limited Director – Pictor Diagnostics India Private Limited Director - Lee Mathias Limited Director - John Seabrook Holdings Limited Trustee - Lee Mathias Family Trust Trustee - Awamoana Family Trust Trustee - Mathias Martin Family Trust	12/08/19

Committee Member	Involvements with other organisations	Last Updated
	Member – New Zealand National Party Chair – Collective Hospitality Limited Shareholder/Director - Project XYZ Ltd	
Robyn Northey	Shareholder of Fisher & Paykel Healthcare Shareholder of Oceania Member – New Zealand Labour Party Husband - member Waitemata Local Board Husband – shareholder of Fisher & Paykel Healthcare Husband – shareholder of Fletcher Building Husband – Chair, Problem Gambling Foundation Husband – Chair, Community Housing Foundation Husband – Shareholder, Summerset Group Holdings Husband – Shareholder, Oceania Healthcare	16/05/19
Sharon Shea	Principal - Shea Pita Associates Ltd Board member – Alliance Health Plus Iwi Affiliations: Ngati Ranginui, Ngati Hine, Ngati Hako and Ngati Haua Sub-contractor - Te Ha Oranga/Te Runanga o Ngati Whatua Director – Healthcare Applications Ltd Husband - Part owner Turuki Pharmacy Ltd, Auckland Husband - Board member - Waitemata DHB Husband – Director Healthcare Applications Ltd Chair – Maori Expert Advisory Group Contractor – Impact Research Ltd Director – Manawaroa Ltd. Consultant - ACC – Kaupapa Maori Service Design, Commissioning Framework & Equity Consultant - Midland RGG and MIRB – Strategic Planning and Partnership Model Design	13/08/19
Allison Roe	Chairperson - Matakana Coast Trail Trust Member - Rodney Local Board, Auckland Council Member - Wilson Home Committee of Management (past role)	22/08/18
Judy McGregor	Chair – Health Workforce Advisory Board Associate Dean Post Graduate - Faculty of Culture and Society, AUT Member - AUT's Academic Board New Zealand Law Foundation Fund Recipient Consultant - Asia Pacific Forum of National Human Rights Institutions Media Commentator - NZ Herald Patron - Auckland Women's Centre Life Member - Hauturu Little Barrier Island Supporters' Trust	02/09/19
Pat Snedden	Director and Shareholder - Snedden Publishing & Management Consultants Limited Director and Shareholder - Ayers Contracting Services Limited Director and Shareholder - Data Publishing Limited Trustee - Recovery Solutions Trust Director - Recovery Solutions Services Limited Director - Emerge Aotearoa Limited and Subsidiaries Director - Mind and Body consultants Ltd Director - Mind and Body Learning & Development Ltd Shareholder - Ayers Snedden Consultants Ltd Executive Chair - Manaiakalani Education Trust Chair - National Science Challenge Programme – A Better Start Chair - The Big Idea – Not-for-profit-trust Director - Te Urungi o Ngati Kuri Ltd Director - Wharekapua Ltd	09/10/18

Committee Member	Involvements with other organisations	Last Updated
	Director - Te Paki Ltd Director - Ngati Kuri Tourism Ltd Director - Waimarama Orchards Ltd Chair - Auckland District Health Board Director - Ports of Auckland Ltd Board member - Counties Manukau DHB Chair - Counties Manukau Audit, Risk and Finance Committee	

Conflicts of Interest Quick Reference Guide

Under the NZ Public Health and Disability Act 2000, a member of a DHB Board who is interested in a transaction of the DHB must, as soon as practicable after the relevant facts have come to the member's knowledge, disclose the nature of the interest to the Board.

A Board member is interested in a transaction of a DHB if the member is:

- a party to, or will derive a financial benefit from, the transaction; or
- has a financial interest in another party to the transaction; or
- is a director, member, official, partner, or trustee of another party to, or person who will or may derive a financial benefit from, the transaction, not being a party that is (i) the Crown; or (ii) a publicly-owned health and disability organisation; or (iii) a body that is wholly owned by 1 or more publicly-owned health and disability organisations; or
- is the parent, child, spouse or partner of another party to, or person who will or may derive a financial benefit from, the transaction; or
- is otherwise directly or indirectly interested in the transaction.

If the interest is so remote or insignificant that it cannot reasonably be regarded as likely to influence the Board member in carrying out responsibilities, then he or she may not be "interested in the transaction". The Board should generally make this decision, not the individual concerned.

A board member who makes a disclosure as outlined above must not:

- take part in any deliberation or decision of the Board relating to the transaction; or
- be included in the quorum required for any such deliberation or decision; or
- sign any document relating to the entry into a transaction or the initiation of the transaction.

The disclosure must be recorded in the minutes of the next meeting and entered into the interest register.

The member can take part in deliberations (but not any decision) of the Board in relation to the transaction if a majority of other members of the Board permit the member to do so. If this occurs, the minutes of the meeting must record the permission given and the majority's reasons for doing so, along with what the member said during any deliberation of the Board relating to the transaction concerned.

Board members are expected to avoid using their official positions for personal gain, or solicit or accept gifts, rewards or benefits which might be perceived as inducement and which could compromise the Board's integrity.

IMPORTANT

Note that the best course, when there is any doubt, is to raise such matters of interest in the first instance with the Chair who will determine an appropriate course of action.

Ensure the nature of the interest is disclosed, not just the existence of the interest.

Note: This sheet provides summary information only.

2.1 Minutes of the Community and Public Health Advisory Committees meeting held on 07 August 2019

Recommendation:

That the Minutes of the Community and Public Health Advisory Committees held on 07 August 2019 be approved.

Draft Minutes of the Meeting of the Auckland DHB and Waitemata DHB

Community and Public Health Advisory Committees

Wednesday 07 August 2019

held at Waitemata DHB Boardroom, Level 1, 15 Shea Terrace, Takapuna, commencing at 10.00a.m.

Items considered in Public Meeting

COMMITTEE MEMBERS:

Sharon Shea (Committee Chair - ADHB Board member)
Max Abbott (WDHB Board member)
Edward Benson-Cooper (WDHB Board member)
Zoe Brownlie (ADHB Board member)
Warren Flaunty (Committee Deputy Chair - WDHB Board member)
Lee Mathias (ADHB Board member)
Robyn Northey (ADHB Board member)
Judy McGregor (WDHB Board Chair) (ex-officio)

ALSO PRESENT:

Debbie Holdsworth (ADHB and WDHB, Director Funding)
Karen Bartholomew (ADHB and WDHB, Acting Director Health Outcomes)
Tim Wood (ADHB and WDHB, Deputy Director Funding)
Meg Poutasi (ADHB Chief Strategy, Participation and Improvement)
Peta Molloy (WDHB Acting Board Secretary)
(Staff members who attended for a particular item are named at the start of the minute for that item)

PUBLIC AND MEDIA REPRESENTATIVES:

Cheryl Hamilton, Auckland Womens Health Council
Gaylene Sharman, HealthWEST
Hiki Wihongi, HealthWEST
Kate Moodabe, East Tamaki Healthcare

KARAKIA:

The Committee Chair opened the meeting with the karakia.

WELCOME:

To members of public in attendance.

ACKNOWLEDGEMENTS:

Acknowledge long service awards at Auckland DHB

APOLOGIES:

Apologies were received and accepted from Sandra Coney, Allison Roe, Judith Bassett, Pat Snedden, Dale Bramley and Ailsa Claire.

DISCLOSURE OF INTERESTS:

There were no additions to the Interests Register.

There were no interests declared that might give conflict with a matter on the open agenda.

1. AGENDA ORDER AND TIMING

Items were taken in the same order as listed on the agenda.

2. COMMITTEE MINUTES

2.1 Confirmation of Minutes of the Auckland and Waitemata DHBs' Community and Public Health Advisory Committees Meeting held on 15 May 2019 (agenda pages 9-15)

Resolution (Moved Lee Mathias/Seconded Zoe Brownlie)

That the Minutes of the Auckland and Waitemata District Health Boards' Community and Public Health Advisory Committees Meeting held on 15 May 2019 be approved.

Carried

Matters Arising (agenda page 16)

- Māori Health Update: this item can now be removed; an update was provided at the last meeting. It is a Government initiative and a substantive update will be provided when further information is presented/available.
- A link to the guidelines for improving transgender care will be provided to the Committee.

3. DECISION PAPERS

There were no decision items.

4 INFORMATION ITEM

4.1 Abdominal Aortic Aneurysm Screening in Māori (agenda pages 17-22)

Corina Grey (Public Health Physician), Shayne Wijohn (Acting Manager Māori Health Gain) and Karen Bartholomew (Director Health Outcomes) presented this item.

Karen Bartholomew introduced the report, acknowledging the work undertaken with the support of the Auckland and Waitematā DHB Chief Executives. She also acknowledged the support of the key team involved in this project and the MoU partners, Māori Providers and community advocate Rahiri Bennett.

Shayne Wijohn acknowledged the work of the Māori screening team and clinical partners, particularly vascular services, radiology and primary care.

Corina Grey summarised the report noting the key critical success factors and purpose of the project. Information resources were provided in both Te Reo and English. Screening staff were all Māori. It was also noted that there were robust fail safe systems were in place to ensure anything that required follow occurred.

Matters covered in discussion and response to questions included:

- That if a patient has a AAA (abdominal aortic aneurysm) they enter a surveillance system; a small AAA will be on ultrasound surveillance for a five-year period, size depending this is increased to two yearly checks, one year and six monthly.
- There are two types of AAA surgery. Risk of rupture increases with AAA size.
- Transferability of learnings from this programme have been taken into the Māori Health pipeline and wider; learnings were used in the set-up of the HPV self-testing programme.
- Anxiety around screening for patients can be underestimated and it has been beneficial to hear feedback from interviews about personal experiences.
- Noting the algorithm for the screening programme and that testing the risk algorithm for Māori is underway.
- The algorithm risk factor testing is likened to that of a cardiovascular risk assessment where there are a number of factors. For AAA they might include age, smoking, family history of AAA and other cardio-vascular concerns. These are not unique risk factors for Māori patients, but there might be different ratios.
- Participation in the AAA pilot was by extending an invitation to people from the primary care register.
- The pilot was set up with an equity perspective and without taking a clinical approach. The approach taken was personal with good 'wrap-around' support.
- A cost effective analysis has been undertaken.
- More than 70% of the Māori population in the Auckland and Waitematā DHB areas have been screened.

In support of this project, the Committee agreed to the following resolution to support the work undertaken and ensure the wide sharing of lessons.

Resolution (Moved: Max Abbott/ Seconded: Zoe Brownlie)

That the Committee acknowledges the work undertaken for the abdominal aortic aneurysm and atrial fibrillation projects, noting:

- **The importance of leveraging of critical success factors and embedding these across the sector for pro-equity approach.**
- **Committee support for any scaling effort in both DHBs geographic areas and what that might look like/cost effectiveness.**
- **Lessons learned to be shared with National Screening Advisory Committee. Support the robust testing of the algorithm and recommend this be part of a research project.**

Carried

4.2 Cardiac Rehabilitation Prototype (agenda pages 23-29)

Shayne Wijohn (Acting Manager Maori Health Gain), Roimata Tipene (Māori Health Gain Portfolio Manager) and Karen Bartholomew (Director Health Outcomes) presented this item.

Shayne Wijohn introduced the report and acknowledged the cardiac department for their support of this pilot. He also acknowledged the DHB nursing team, the community nursing team and the MoU partners.

Roimata Tipene further summarised the report, noting in particular the uptake (60%) and good clinical results from the cardiac rehabilitation prototype. There was a whanau centred approach taken and with regard to clinical measures, there were pre and post assessments undertaken. Positive relationship areas were noted. A key success factor was moving nurse led clinics from the hospital to a nurse led community setting; clinics were based at Whanau House.

Matters covered in discussion and response to questions included:

- The pilot programme was a 12-week exercise. There are some next steps underway with a focus on West Auckland.
- Noting the criticality of relationships; the pilot was ambitious and the work to set it up was acknowledged.
- Fitness percentile was by the standard cardiology assessment.
- Noting the emphasis placed on rehabilitation and that patients are offered cardiac rehab facility options. This includes four educations sessions at either the North Shore Hospital or Waitakere Hospital sites; a nurse assessment is also carried out.
- There are a range of alternatives for rehabilitation with a discussion for another programme looking at online options.
- The next step for the pilot is to develop a business case and determine roll out.
- A key lesson is the need to do things differently, noting the strong Māori leadership on the AAA project and its success.
- In developing this pilot, a significant cultural change in the cardiology department was observed. These change management lessons are valuable.

Resolution (Moved: Lee Mathias/ Seconded: Robyn Northey)

That the Committee acknowledges the work undertaken for the cardiac rehabilitation prototype, noting:

- **The leveraging of critical success factors and embedding these across the sector for pro-equity approach.**
- **Committee support for sharing lessons learned.**
- **The work associated with understanding scaling and ensuring robustness for qualitative and quantitative evidence.**

Carried

5. STANDARD REPORTS

5.1 Planning, Funding and Outcomes Update (agenda pages 30-54)

Primary Care

Tim Wood (Funding and Development Manager, Primary Care) summarised this section of the report, noting both the update provided on 'better help for smokers to quit' and 'diabetes management'.

In response to a question about whether statistics are provided by pharmacies for smoking cessation, Tim Wood advised that statistics are from the PHOs.

Child, Women and Youth

Ruth Bijl (Funding and Development Manager Child, Youth and Womens Health) presented this section of the report.

Debbie Holdsworth acknowledged Kainga Ora in partnership with Healthy Homes as a finalist at the Spirt of Service Awards.

Ruth Bijl summarised the report. Matters covered in discussion and response to questions included:

- Noting the pressure indicated for maternity services and staffing for the holiday period. There is historically a small pool of midwives available over holiday periods to cover DHB needs.
- Acknowledging HealthWest for their work in the area of immunisation.
- Both the Auckland DHB and Waitematā DHB Communications Teams have been involved with assisting in the promotion of immunisation.

Health of Older People

Kate Sladden (Funding and Development Manager Health of Older People) presented this section of the report, noting the large aged residential care new builds across both DHBs geographic areas.

Matters covered in discussion and response to questions included:

- With regard to the coordination of NASC it was noted that NASC is part of a continuum that sits within the DHB Provider Arm. The Funder has close engagement with NASC, but do not manage the service.
- The falls prevention programme is in homes, not hospitals.
- Bed supply for aged residential care facilities is not determined by the DHB. The DHB will contract with any certified facility from the Ministry of Health.
- Between 36-38% of aged residential care beds are privately funded, the remainder are eligible for DHB assistance.
- Ethnicity of aged residential care bed occupancy has recently been looked at; it is low for Māori and Pacific people. It is not known from an ethnicity perspective whether people are choosing not to enter aged residential care facilities or there is not an appropriate model of care. A paper will be presented to the Committee about this.

Mental Health

Tim Wood (Funding & Development Manager, Primary Care) summarised this section of the report. Matters covered in discussion and response to questions included:

- Noting the Government's Wellbeing budget and that more detail around the allocation of the funding will be made available on the Ministry of Health's website.
- That at this stage the Suicide Prevention Director had not been appointed. An update on suicide prevention will be presented to the Committee at a future meeting.

Māori Health Gain

Shayne Wijohn (Acting Manager Māori Health Gain) summarised this section of the report. He noted that work progressing the establishment of the Iwi-DHB Partnership Board is ongoing.

Pacific Health

Leani Sandiford (Pacific Health Portfolio Manager) summarised this section of the report, noting the work under way for the Pacific Health Pipeline.

Asian health

Raj Singh (Project Manager, Asian Migrant) introduced this section of the report.

GENERAL BUSINESS

There were no items of general business

The Chair thanked those in attendance, noting the discussions held and the value of the Committee's deep dive into specific areas.

The meeting concluded at 11.56 a.m.

SIGNED AS A CORRECT RECORD OF A MEETING OF THE AUCKLAND AND WAITEMATA DISTRICT HEALTH BOARDS' COMMUNITY AND PUBLIC HEALTH ADVISORY COMMITTEES HELD ON 07 AUGUST 2019

_____CHAIR

Actions Arising and Carried Forward from Meetings of the Community and Public Health Advisory Committees as at 23 October 2019

Meeting	Agenda Ref	Topic	Person Responsible	Expected Report Back	Comment
15/05/19	5.1	Child, Youth and Women's Health A copy of the guidelines for improving transgender care be provided to the Committee	Ruth Bijl		Available in the resource centre of Diligent Boardbooks.

4.1 Auckland Regional Public Health Service (ARPHS) update

Recommendation:

That the Community and Public Health Advisory Committee:

a) Receives this update from Auckland Regional Public Health Service.
b) Notes the key pieces of work that are underway and/or completed since the last update in May 2019, through to end of September 2019.

Prepared by: Jane McEntee (General Manager, Auckland Regional Public Health Service (ARPHS)) and Dr Julia Peters (Clinical Director, ARPHS)
Endorsed by: Dr Margaret Wilsher (ADHB Chief Medical Officer), Dr Debbie Holdsworth (Director Funding) and Dr Karen Bartholomew (Director Health Outcomes)

Glossary

AIAL	-	Auckland International Airport
ARPHS	-	Auckland Regional Public Health Service
ATEED	-	Auckland Tourism, Events and Economic Development
HAT	-	Healthy Auckland Together
IANZ	-	International Accreditation New Zealand

Purpose

Auckland Regional Public Health Service (ARPHS) is providing this update to Waitemata and Auckland Community and Public Health Advisory Committee (CPHAC) on key pieces of work that are underway or have been completed, since the last update in May 2019, through to the end of September 2019. The report contains the following updates:

1. Disease notifications and management (including measles and meningococcal updates)
2. Ill traveller exercise at Auckland International Airport
3. Healthy Auckland Together (HAT) update
4. Wai Auckland update
5. Proposed vaping regulations
6. Alcohol update
7. International Accreditation New Zealand (IANZ) accreditation assessment
8. Vision Zero - Tāmaki-Makaurau Road Safety Governance Group's new safety strategy
9. Policy submissions.

1. Disease notifications and management

ARPHS receives notifications of 48 notifiable diseases as defined under the Health Act, 1956. ARPHS' role includes receiving the disease notifications, case confirmation, risk assessment and ensuring appropriate public health actions are undertaken, daily and weekly monitoring and surveillance of these notifications, and investigation and follow-up of any disease outbreaks. Below is a summary of disease notifications received between April and September 2019 that have varied from the normal disease pattern. For most diseases, accompanying figures show confirmed, probable and suspected

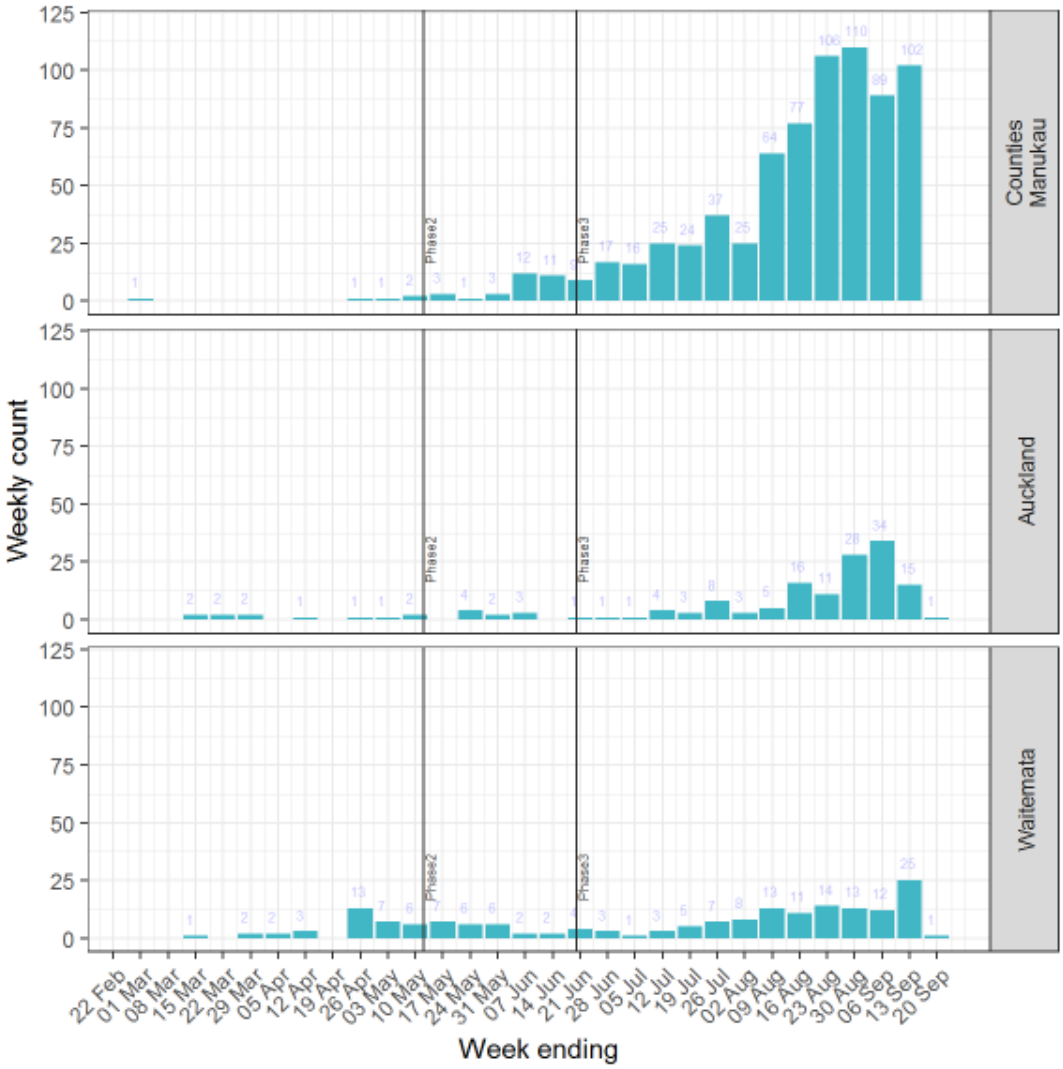
cases (red), cases under investigation (yellow), compared with the historical three yearly average for that week (grey shaded bar).

1.1 Measles

Since March 2019, the Auckland region has been experiencing the largest measles outbreak in New Zealand since 1997. The most recent large scale outbreak in Auckland was in 2014 with 112 confirmed cases.

The first case of 2019 was notified on 22 February. Infection was acquired overseas and there were no secondary cases. Two new cases were notifed in early-mid March, which led to the current outbreak. As of 17 September 2019, there have been 1,064 confirmed cases in the Auckland region. The initial focus of the outbreak was in West Auckland, but the epicentre moved to the Counties Manukau region from the end of June 2019. The number of cases notified each week remains highest in Counties Manukau Health (CMDHB), but Auckland DHB (ADHB) and Waitematā DHB (WDHB) have seen increasing cases in the past few weeks as community circulation of the virus has widened (Figure 1). The increase in ADHB and WDHB cases has also also been reflected in the number of cases presenting to hospitals in each DHB region.

Figure 1: Weekly confirmed measles cases, Auckland region 2019



Demographic breakdown of cases is shown in Figure 2. Pacific peoples have been most severely affected, with 49% of cases. Māori are also overrepresented (26%) compared to their proportion of the Auckland regional population. European (23%), Asian (6%) and other ethnic groups are comparatively less affected. Note that these proportions do not add up to 100% because people are included in all ethnicity categories to which they identify (total response ethnicity reporting).

Affected age groups are predominantly 0-4 year olds, and 15-29 year olds. Within the 0-4 year old age group, 0-2 year olds are particularly affected, which is partly because MMR vaccination is not recommended until one year of age. The hospitalisation rate for 0-2 year olds has been above 50% at times during this outbreak. Almost all cases (96%) have not been fully vaccinated.

ARPHS' response

Since March 2019, ARPHS has been managing measles within a formal emergency management system (Coordinated Incident Management System). Our response and subsequent goals have changed over time in line with the size of the outbreak. After the initial 'stamp it out' phase, and as the outbreak escalated, ARPHS tailored its operational response to deliver public health activities that would contain or slow the outbreak, for example, prioritising follow up of cases and contacts at higher risk of developing measles and/or at higher risk of severe disease (children, pregnant women or immune compromised people). ARPHS has also prioritised support for institutions such as schools, early educational services, and other high risk institutions such as correction facilities. Once wide community spread was established in mid-June ARPHS' public health response has focussed on:

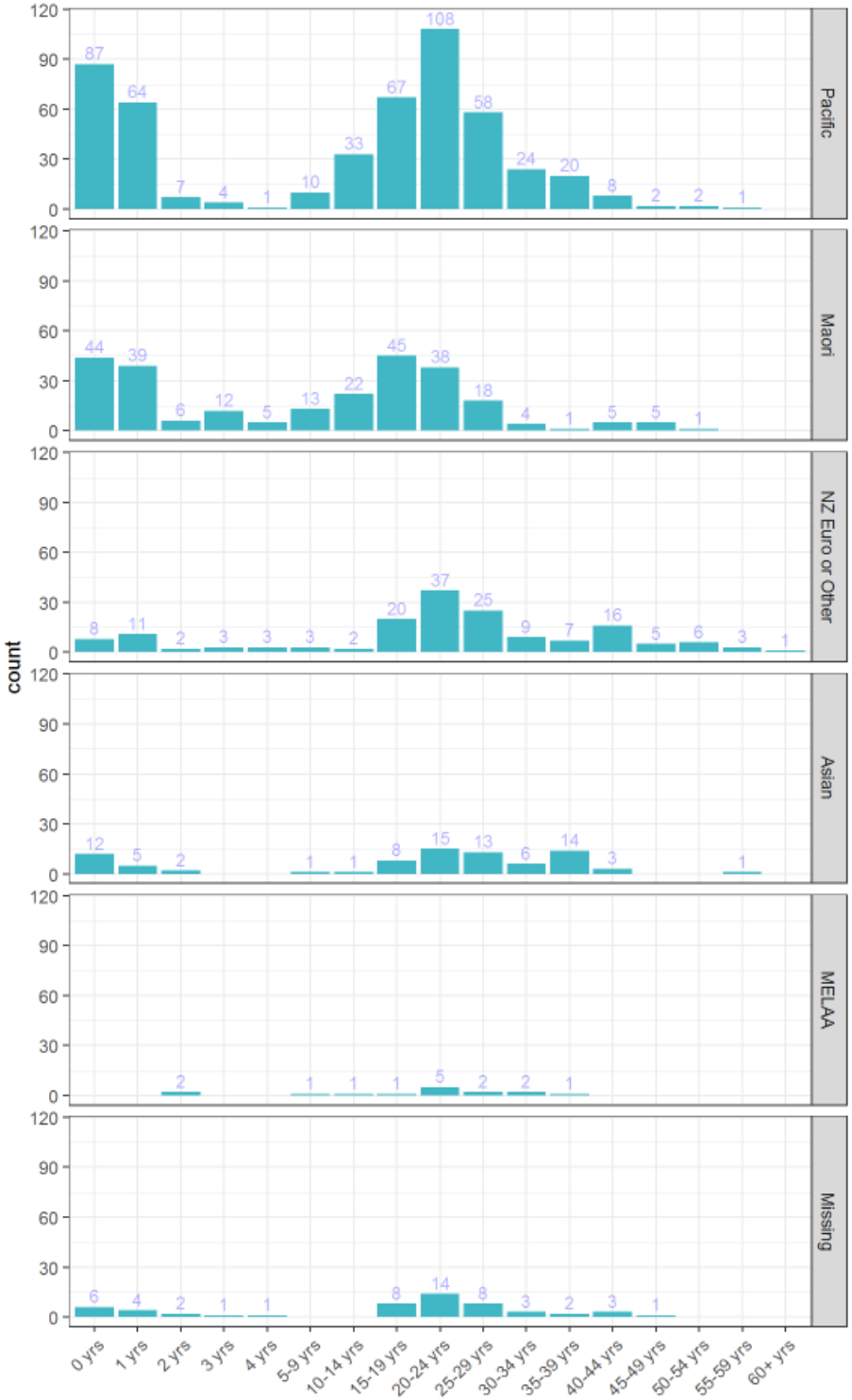
- Receiving and recording all measles cases.
- Undertake scoping of cases to confirm any flight details, identification of a school, early learning service or other high risk environment.
- Liaison with early learning services and schools to provide advice where there is a case. (approximately five to ten institutions per day, taking approximately 30 minutes per institution)
- Provide phone advice to cases, institutions, health professionals, and the public. Volumes fluctuate between 40-80 calls per day.
- Analyse and report on outbreak epidemiology.
- Support DHB vaccination efforts (for example demand for authorisation of approved vaccinators has increased).
- Work with the Ministry and other public health units in cases where there has been travel beyond Auckland, and
- Continue proactive communications via media and social media channels.

ARPHS currently has public health nurses, public health medicine specialists, general practitioners, the senior management team, emergency management, a surveillance specialist, project managers, administrative and support staff involved full time or part time in the measles outbreak response. Throughout the outbreak, ARPHS has liaised with hospital and primary care services, laboratories, DHBs' Funding and Planning teams, communications teams and Pacific liaison teams, and the Ministry of Health. The impact on ARPHS' day-to-day activities has been considerable. This includes an increased staff workload and resource requirements to operate a dedicated response room, considerable media and public information/written resource requirements, and temporary ceasing of non-core activities.

Communications activities have included development of a whānau support pack, dedicated measles information packs for suspected cases, schools, and early learning services, a number of website tools such as a clinical pathway and quarantine calculator, coordination of stand-up media briefings since 31 August, and filming of a Sunday television programme feature on how public health

authorities respond to notifiable diseases and outbreaks. Appropriate resources have also been translated. Vaccine supply shortages have necessitated ongoing modifications of public health messaging.

Figure 2: Measles cases by age and ethnic group, Auckland region 2019



ARPHS participated in TVNZ's Sunday current-affairs programme on the Auckland measles outbreak ('the anatomy of an outbreak') which aired on 22 September. Clinical Director, Dr Julia Peters, was ARPHS' spokesperson and explained the public health response to measles, the process of contact tracing and the trajectory and impact of the current outbreak. The crew filmed in ARPHS' Measles Operations Room, and also attended part of ARPHS' weekly surveillance meeting. A South Auckland GP, a Middlemore Hospital Emergency Department clinician, and a front-line nurse at a pop-up community immunisation clinic in Counties Manukau were also interviewed.

Regional and national responses

On 30 August 2019, the Ministry of Health activated the National Health Coordination Centre (NHCC) to respond to the measles outbreak. On 6 September, the Northern Regional Health Coordination Centre (NRHCC) was activated to coordinate the regional measles response. This response involved an Incident Management Team (IMT) including membership from all three DHBs, ARPHS, primary care liaison, communications support and emergency management support.

A key task of the regional and national responses is to secure and deliver MMR vaccine to those population groups most impacted by the current outbreak (children under five and adults, particularly those aged 15-29 years, with a focus on Pacific and Māori. The IMT managed the stocktake of vaccine in primary care and the distribution to practices in the areas of most need. With the recent arrival of the 100,000 additional doses, the allocation to metro Auckland is now making its way out to general practice. This will allow more people to be vaccinated.

Key learnings so far include, the smooth establishment of the NRHCC as a credit to the emergency planning teams work, close collaborative DHB and PHO relationships with very strong support for the vaccine management processes, and the positive feedback about the MedinZ primary care messaging platform now in place in all DHBs and the media standup processes providing regular progress updates.

Estimating population immunity is difficult due to incomplete data, but it is clear that current coverage levels of people who have received at least one MMR are lower than the 95% considered necessary to prevent community spread. Ongoing vaccination and public health efforts will be required.

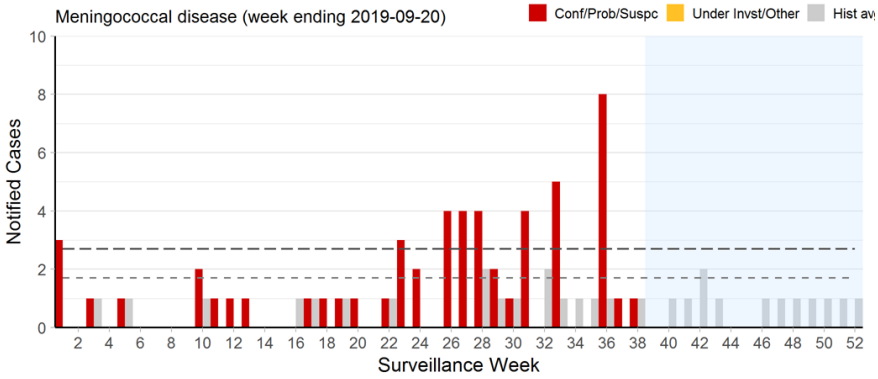
1.2 Meningococcal

In 2019 the total number of meningococcal cases in the Auckland region has increased to 47 cases (as at 17/09/2019). This is up from 38 cases in 2018 and 42 cases in 2017. The proportion of these cases identified as MenW increased from 8% in 2017 to 30% in 2018. This proportion of MenW cases has remained much the same for 2019 at 26%. Serogroup B dropped from 75% of cases in 2017, to 46% of cases in 2018, and 51% of cases in 2019. Over the 2019 winter, the proportion of the various serogroups in the Auckland region has remained relatively unchanged and shows little divergence from the national trend.

ARPHS has been conducting on-going surveillance to identify possible outbreaks in the Auckland region this year, and no outbreaks have been identified to date. Figure 3 below demonstrates eight new cases of meningococcal disease were managed by ARPHS in the first week of September (surveillance week 36). However, no outbreak was identified after analysing the serogroups and other data.

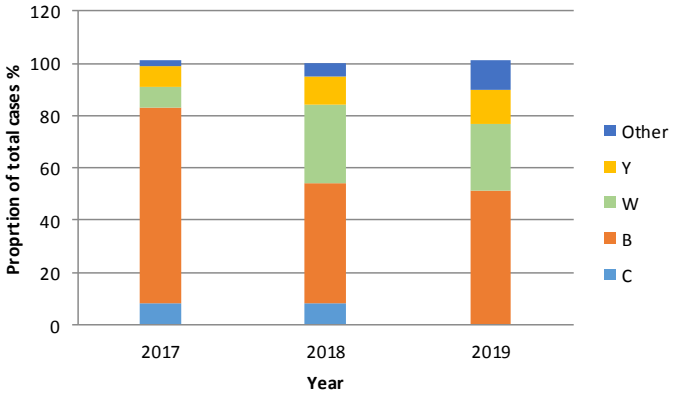
ARPHS is continuing to provide public health management of meningococcal cases and their contacts, including chemoprophylaxis and post exposure vaccination where indicated.

Figure 3: Weekly confirmed meningococcal diseases cases, Auckland region 2019



Note: The above graph also includes cases from other DHBs transferred to the Auckland region for treatment.

Figure 4: Proportion of meningococcal serotypes by year, Auckland region 2019



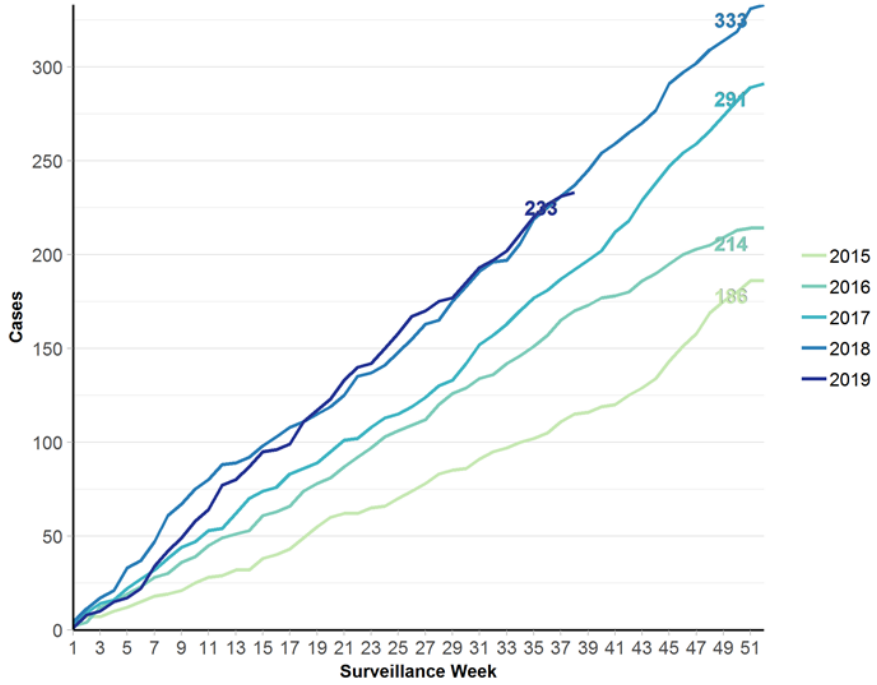
1.3 Syphilis outbreak

233 syphilis cases have been reported to Auckland Regional Sexual Health Services (ARSHS) for 2019. Cumulatively the number of cases is tracking similar to 2018.

ARPHS and ARSHS are working in partnership to manage the outbreak. Key activities to manage the outbreak include:

- An enhanced surveillance system and reporting.
- Prioritisation of case finding and management.
- Enhanced contact tracing of sexual partners of those who have been diagnosed with syphilis
- Increased initial health screening in prisons.
- Increased opportunistic testing in high risk primary care settings such as some health and community alcohol and drug services.

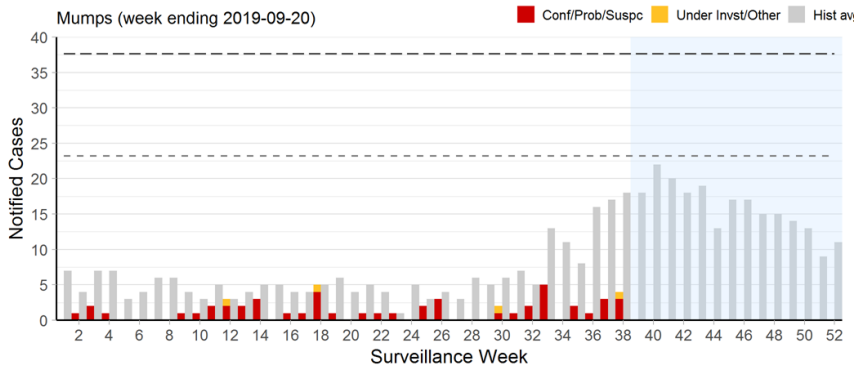
Figure 5: Syphilis weekly cumulative case chart (2015-2019), Auckland region



1.4 Mumps

Over the last six months there has been an average of four to five mumps cases per month. The cases are spread across the Auckland region.

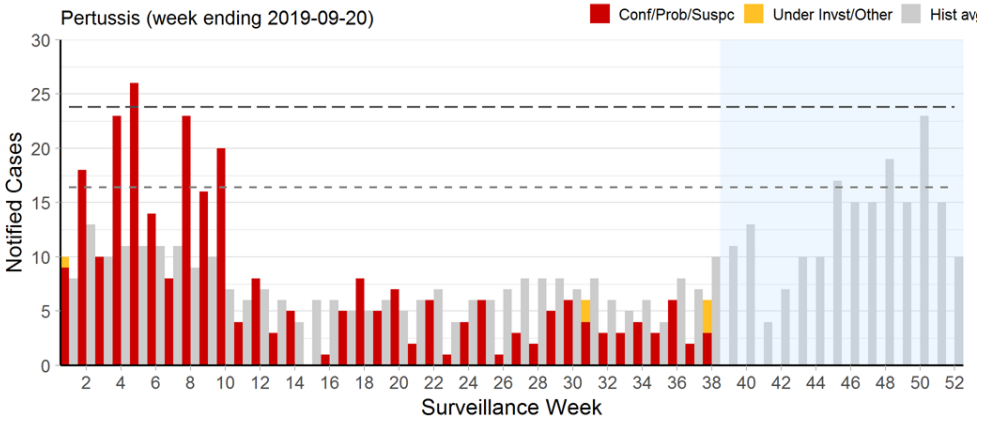
Figure 6: Weekly confirmed mumps cases, Auckland region



1.5 Pertussis

ARPHS' last update noted that there was a second wave of pertussis in spring 2018 after tailing off gradually over last winter. This was a biphasic outbreak with 447 cases in October 2017- February 2018 compared with 353 during October 2018 – February 2019. Cases have now decreased further over the last six months, at or below the historical average, and ARPHS is monitoring for any indications of a third wave.

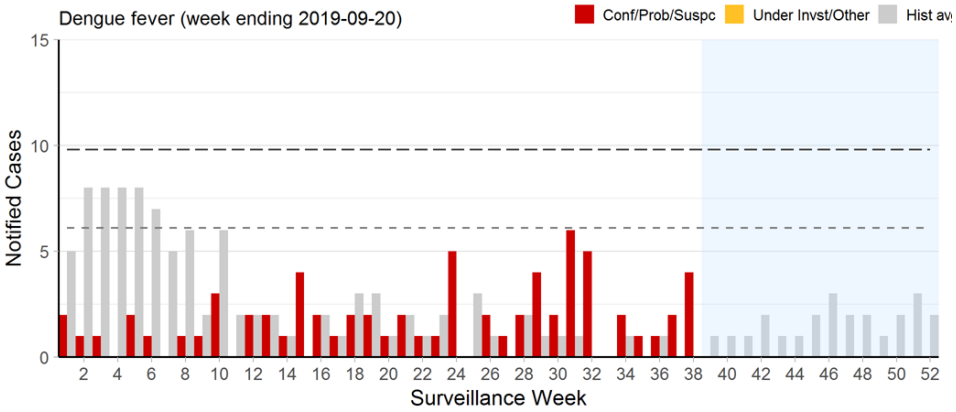
Figure 8: Weekly pertussis cases, Auckland region 2019



1.6 Dengue fever

Over the last six months there have been 53 dengue cases notified to ARPHS with 60% associated with travel to Fiji (32), 30% from Asia (3) and South East Asia (13), and 10% from Australia and the Pacific Islands (5). The July spike was associated with travel to Fiji in 75% of cases.

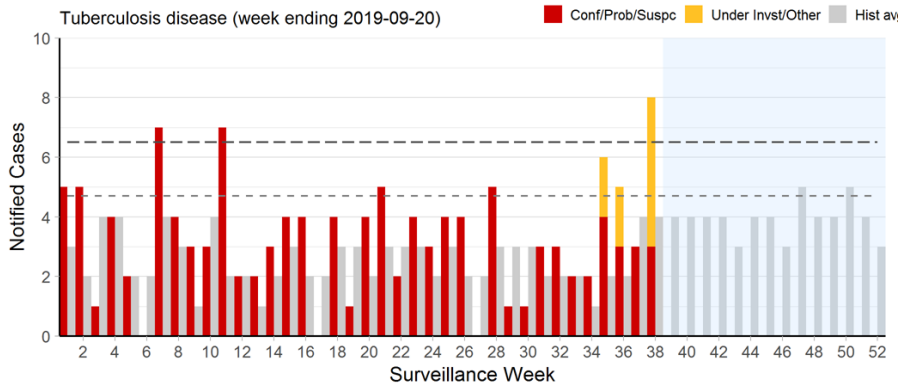
Figure 9: Weekly dengue cases, Auckland region 2019



1.7 Tuberculosis (TB)

For the last six months TB notifications (69) are tracking at the same number of cases compared with the same period in 2018 and 2017. Of the 69 cases, 64 (92%) of new TB cases were born outside of New Zealand. The probable source countries were India (39%), China (7%), the Philippines (10%), Tonga (7%), South Africa and Samoa (3%) respectively, and Fiji (1%).

Figure 14: Weekly new TB cases, Auckland region 2019



1.8 Acute rheumatic fever

Thirty nine acute rheumatic fever (ARF) notifications were received for the six month period April to September 2019 compared with 57 for the same period in 2018. This represents a 32% reduction. Of the 39 cases, 31 cases were aged 0 – 19 years (79%), while 29 cases (56%) were aged between five and 12 years. Of those aged 0 - 19 years, six self-identified as Māori, and 24 were of Pacific descent, the majority of whom identified as Samoan. The largest burden of disease is in CM Health (3.8 cases per 100,000) compared with ADHB (1.5 cases per 100,000) and WDHB (1.6 cases per 100,000). For all DHBs ARF cases increased for the first five months of the year but the number of cases flattened off in June, and this trend has been sustained over the last four months. 73% of all ARF cases occurred in Auckland's most deprived areas (NZDEP 8, 9, 10).

Figure 15: Weekly acute rheumatic fever cases, Auckland region 2019

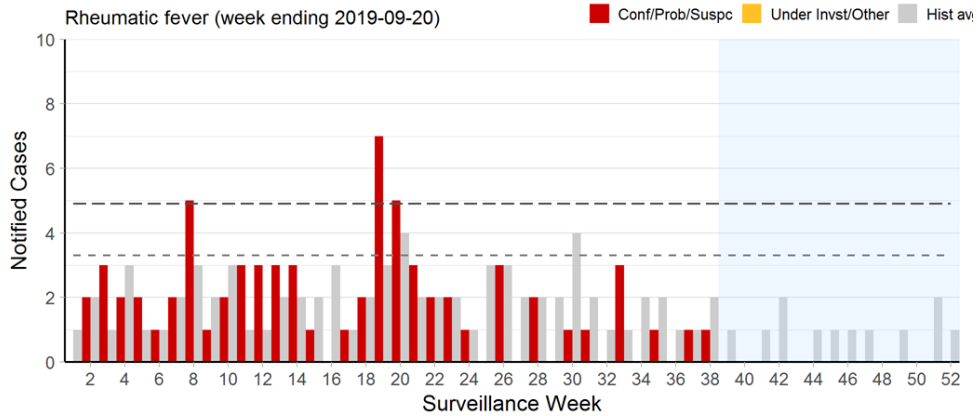
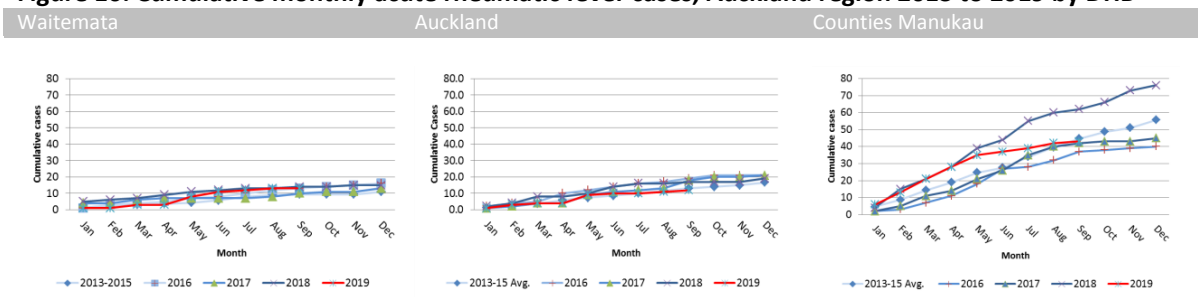


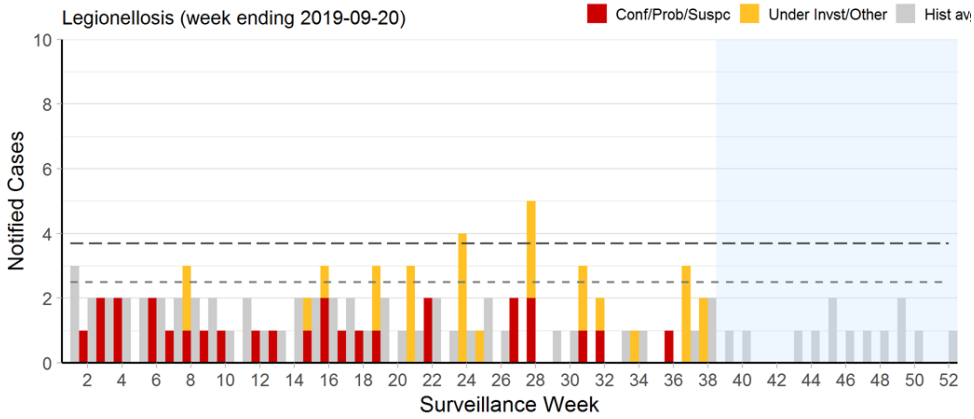
Figure 16: Cumulative monthly acute rheumatic fever cases, Auckland region 2013 to 2019 by DHB



1.9 Legionellosis

The number of confirmed legionellosis cases decreased in the April to September 2019 period (15) compared with the same period in 2018 (25), although there are a number of cases under investigation. In February 2019, Auckland Council, following a request from ARPHS, asked owners of all known cooling towers to proactively shock dose (i.e. disinfect) their installations, in anticipation of the usual autumnal increase of L. pneumophila notifications. This additional dosing may well be responsible for the decrease in the number of cases. Of the 15 confirmed cases, the predominant serotype was L. pneumophila sero-group 1 (60%), which is typically associated with aerosolised water and man-made warm water systems, especially cooling towers. There have been no L. longbeachae cases over this period, but the number of cases in this sero-group typically increases during spring and summer months with increased contact with soil and landscaping products.

Figure 17: Weekly legionellosis cases, Auckland region 2019



2. Ill traveller exercise at Auckland International Airport

ARPHS and Auckland International Airport (AIAL) jointly planned a full scale ill traveller exercise held at Auckland International Airport on 12 September. The exercise utilised an aircraft and over 100 participants, observers and facilitators in order to assess passenger movement and management at the gate. Key stakeholders included AIAL, Air NZ, St John, Aviation Security, Police and NZ Customs. The scenario was based on ill travellers with a recent travel history to the Democratic Republic of Congo where there is currently an Ebola outbreak. The exercise demonstrated the importance of a coordinated multi-agency ill traveller response that involves ARPHS collaborating with the airport, the airline, St John, New Zealand Police, and other border agencies. The exercise provided the opportunity to practice their roles and responsibilities, in a safe learning environment.

The aim of the exercise was to:

- Activate the multi-agency Ill Traveller Protocol in response to a probable quarantinable disease.
- Apply and discuss the appropriate response including escalation to AIAL Emergency Operations Centre (EOC) activation following protocol activation.
- Describe how ARPHS will engage efficiently and effectively with other agencies and stakeholders;
- Identify the information flow to ensure the appropriate channels are being utilised and intelligence is being shared effectively.
- Assess the current protocol and process to ensure it is 'fit for purpose' during a realistic simulation replicating a situation on an inbound flight.

A full debrief will be scheduled for late October/early November for all stakeholders to provide feedback.

3. Healthy Auckland Together (HAT)

Healthy Auckland Together (HAT) is a coalition of 30 partners committed to making it easier for Aucklanders to eat better, be physically active and maintain a healthy weight. HAT partners include health entities, local government, iwi-based organisations and non-governmental organisations. During May to September 2019, HAT has undertaken the following:

3.1 Food environments

ARPHS continues to make progress working with major events in Auckland. Auckland Tourism, Events and Economic Development (ATEED) has now adopted the Health Promoting Environments framework into all of its major cultural events – Diwali, Lantern Festival and Tamaki Herenga Waka. Good Food Kai Pai is an integral part of this policy where stall holders now must meet the requirements of selling no sugar sweetened beverages, with emphasis on promoting water, healthy food options and portion amounts. ATEED has also made it mandatory (whereas previously it was voluntary) for all successful stall holders to attend the Good Food Kai Pai workshops.

ARPHS is part of a working group (including the Ministry of Health, Regional Public Health, and the Heart Foundation) that has created a toolbox to help communities and organisations implement the Healthy Food and Drink Policy for Organisations. ARPHS is working with Healthy Families South to support council run leisure centres to meet the bronze benchmark criteria for this policy, as clauses are now being included in new leisure centre café leases that state they must work towards meeting the bronze guidelines.

3.2 Food industry

HAT partners have created a working group that is led by ARPHS and Healthy Families Waitakere to generate guiding principles around how to engage with the food industry. A toolkit will be used to assist HAT partners in making decision(s) about engagement with the food industry.

3.3 Marketing to children

HAT continues to submit complaints to the Advertising Standards Authority (ASA). Two formal complaints have been partially upheld by the ASA Complaints Board.

- On 30 August 2019 the Complaints Board agreed that Arnott's Tiny Teddy bus shelter advertisement breached the Children and Young People's Code and the Advertising Standards Code by promoting an unhealthy food product to children. The Board agreed that the bus shelter ad targeted children with its presentation of a boy in school uniform reaching for biscuits in his lunch box, and the use of bright colours and cartoon images of cute bears. The ad was also deemed to undermine health and wellbeing by promoting Tiny Teddy biscuits as an everyday food and part of a balanced school lunch box.
- BurgerFuel's instagram ad showed two children eating and drinking BurgerFuel kid's ink meals, which are made up of occasional food and drinks. The commentary included the words 'wholesome' and 'happier'. On 30 August 2019 the Complaints Board agreed that the ad breached the Advertising Standards Code as it gave the misleading impression that a meal of burgers, chips and juice is a wholesome and healthy meal option for children, which would make them happier. The webpage was also determined to be misleading as it described BurgerFuel's kid's cheeseburger as highly nutritious, wholesome and healthy. The instagram ad complaint was settled as BurgerFuel removed the ad, and the website ad was amended.

HAT's backbone team has completed a review of worldwide policies that restrict marketing on public transport systems and within local government infrastructure. Policy wording has been collated and the team are now exploring the arguments for and against restricting unhealthy food and drink marketing on public transport. When completed, this work will be shared with HAT partners including Auckland Council and Auckland Transport.

3.4 Research platform / monitoring report

The HAT 2019 scorecard (previously called the HAT monitoring report) was released on 26 September 2019. Key findings from this report include:

- Adult obesity is still trending up. Only 34% of adults in Auckland are consuming enough fruit and vegetables, and less than half are meeting the physical activity guidelines.
- Overall, the child (2-14 years) obesity rate in Auckland has remained stable at 15% but obesity rates have increased in areas of high deprivation.
- Obesity levels have decreased amongst the pre-school population (i.e. four year olds). The Maori obesity rate in pre-schoolers has reduced from 31% in 2013 to 22% in 2017.
- Active transport within Auckland is low. Active transport makes up only 13% of trips in Auckland compared with 25% in Wellington.

The report was released to media and partners and promoted through several media platforms including social media, Dr Michael Hale's appearance on TVNZ1's Breakfast programme and Spinoff op-ed contribution, a video launched on ARPHS' website and YouTube, and mailchimp to stakeholders.

The HAT research platform looks at ways research can inform policy, as well as the development of evaluation skills that can be used by HAT partners. University of Auckland has agreed to co-host a second research networking event that will take place in March 2020. Currently, the University of Auckland and ARPHS are engaging HAT partners to invite speakers for the event. ARPHS is transitioning and updating the research platform to a Google Group.

4. Wai Auckland

In June 2019, Radio New Zealand ran a series of stories on the drinking water fountain quality survey, which generated public support for this infrastructure, but also highlighted concerns about hygiene. As a result of this media coverage a mother and daughter duo set-up their own campaign, *The Public Water Project*, to increase the number of drinking water fountains in Auckland through corporate sponsorship. Wai Auckland will provide guidance to this project to ensure equitable distribution of any new drinking water fountains.

Momentum has started to build for Wai Auckland and RefillNZ's shared mission of shifting the cultural norm back to tap water refills, not bottled beverage purchases. Through this partnership 86 RefillNZ stations have been confirmed across the city, including 45 Auckland Council libraries and leisure centres that came on board as part of a Plastic Free July campaign. RefillNZ has been selected as a finalist for two awards in recognition of this innovative approach to improve the health of the planet and our people – *Keep New Zealand Beautiful Community Environmental Initiative Award* and the *NZI Sustainable Business Networks Communicating for Change Award*.

The University of Auckland continues to support Wai Auckland by providing student resource and academic input. A Masters of Health Leadership student produced a business case for the inclusion of drinking water fountain information on Auckland Council's digital platform. This was accepted and will go live in October 2019. Two Bachelor of Health Science students are currently working on separate projects to help inform future advocacy for Wai Auckland. This activity is to understand the availability of drinking water fountains at shopping centres and assessing the amount of sugary drink marketing around schools using Google Street View.

Market research has been completed about consumer attitudes to drinking water fountains and sugary drinks; attitudes to the association of sugary drinks and sports; and the commercial challenges of changing beverage offerings in quick service restaurants. Findings have been shared with partners to help inform future advocacy to displace sugary drinks and improve drinking water fountain infrastructure.

Funding for year two (FY19/20) of Wai Auckland has been reduced and consequently the scope of the project is now three work streams - infrastructure, advocacy and collaboration.

5. Vaping regulation

In November 2018 the Government announced its intention to amend the Smoke-free Environments Act 1990 (the Act) to improve access to quality vaping and smokeless tobacco products for people who smoke, while protecting children and young people from the risks associated with them. In summary the Government has proposed to:

- Regulate all nicotine and nicotine-free vaping liquid, devices and components.
- Regulate flavours and colours, with the Associate Health Minister recently stating that "… [she] will be allowing at the moment at least three flavours which will include tobacco, menthol and mint."
- Prohibit vaping in legislated smokefree areas (indoor workplaces, early childhood centres, schools)
- Agree to exempt notified specialist R18 retailers from the prohibition on vaping indoors.

Once a bill is introduced, it is anticipated that Government will call for submissions on the proposed amendments to the Smokefree Environments Act. Based on comments from the Associate Health Minister, ARPHS anticipates that it will have an opportunity to lodge a submission to the bill in October or November 2019.

Due to vaping being a topical issue within the public health sector, ARPHS' Smokefree and Policy team has consulted with the Auckland Intersectional Population Health Group (AIPHG), the three DHBs' Population Health Analytical Peer Group, Hāpai Te Hauora, the ADHB/WDHB Planning and Funding team, and the CM Health Population Health Directorate, including the Living Smokefree Service. As a result, ARPHS has developed three key messages that reflect its overarching philosophy and position of taking a precautionary approach to the regulation of vaping, as there is limited evidence on the potential long-term health risks associated with it. The key messages acknowledge vaping as a tool that can help people quit smoking and contribute to addressing the inequities in tobacco-related harm. The messages will inform ARPHS' submission to the amendment bill. The key messages represent the views of ARPHS and will not necessarily represent the views of the various consulted organisations.

Key message 1: People who smoke currently should be provided the option of using vaping products as one of the possible stop smoking tools with the aim to stop vaping completely when there is no risk of relapse.

Key message 2: There is a need to prevent people who do not smoke, particularly minors and youth, from vaping and becoming nicotine dependent. People who do not smoke should not be using these products.

Key message 3: The safety and long-term health impacts of vaping are currently unclear as the evidence is still emerging; a precautionary approach should be utilised.

Due to the deaths and hospitalisations linked to vaping products in the United States, ARPHS will be developing a further key message to address product and safety regulations.

The Ministry of Health position statement on vaping can be found here: https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/vaping-and-smokeless-tobacco

6. Alcohol update

6.1 TV3 Newshub four part series on alcohol

Medical Officer of Health (MOH), Dr William Rainger, represented ARPHS in an interview in regards to the effectiveness of the Sale and Supply of Alcohol Act (2012) as part of a Newshub four part *Because It Matters* series on alcohol in New Zealand. Dr Rainger noted that the Act did not appear to be meeting its object of minimising harm caused by the excessive or inappropriate consumption of alcohol, and that alcohol-related harm appears to be increasing since its implementation. The series also detailed that communities are not having as much influence in the process as intended, and the alcohol industry is being influential at blocking what could lead to a meaningful minimisation of alcohol-related harm via the Local Alcohol Policy (LAP). These assertions were supported by the MOHs from Christchurch and Wellington. The four part series can be viewed via the links below:

- 'Wake up': Police say alcohol laws aren't working (25/08/2019).
- Justice Minister Andrew Little warns alcohol industry a law review is on the cards (26/08/2019).
- Bias and inconsistent decisions raise concerns about authorities tasked with liquor licensing (27/08/2019).
- 'Exploitative': Beer cheaper than a can of coke targeting poor Auckland communities (28/08/2019).

6.2 Glassy Junction Bar District Licensing Committee (DLC) hearing

This new on-licence application was opposed by ARPHS due to the premises being located within a high deprivation area with a large Māori population, coupled with a high alcohol outlet density. Opposition to the application was supported by the Council and Police, as well as a number of community objectors. The licence was declined by the DLC on the basis that harm in the area is already high, therefore, adding another licence was likely to increase the harm experienced by the community. This decision may yield a change in the licensing landscape as the DLC in Auckland have not declined applications on this basis before. The decision is being appealed by the applicant.

6.3 Advertising Standard Agency (ASA) alcohol advertising code policy submission

ARPHS responded to the review of the Advertising Standard Agency (ASA) alcohol advertising code. The submission focussed on the strong evidence that self-regulatory codes are not effective, yet also gave a perspective on how the proposed code could be made stronger within its parameters of self-regulation.

6.4 David Ratū – winner of the 2019 Minister of Health Volunteer Award

Following his nomination from Alcohol Healthwatch and ARPHS, David Ratū won the Community of NGO Health Service Individual Award on 17 June 2019 for his work in helping to reduce alcohol harm in South Auckland. Such was David's contribution, that he was also awarded the overall Minister of Health Volunteer Award. During the presentation, the Minister of Health praised ARPHS for the work it has been doing with Māori, specifically in alcohol licensing.

7. International Accreditation New Zealand (IANZ) accreditation drinking water

In mid-September 2019, International Accreditation New Zealand (IANZ) visited ARPHS to conduct the annual Drinking Water Assessment Unit (DWAU) appraisal. The quality assessment is also carried out against Part 2A of the Health Act, the Drinking Water Standards for New Zealand, and compliance with ARPHS Admin Manual. The DWAU has been re-accredited for one year and two Drinking Water Assessors (DWAs) had their individual accreditations renewed for three years.

8. Vision Zero - Tāmaki-Makaurau Road Safety Governance Group's new safety strategy

ARPHS is a partner of the Tāmaki-Makaurau Road Safety Governance Group that oversees Auckland's Vison Zero programme. Other partners include Auckland Transport, Police, NZ Transport Agency, Ministry of Transport, Auckland Council, and Accident Compensation Corporation. The aim of the programme is to have no deaths or serious injuries on Auckland's transport network by 2050.
The governance group's new safety strategy, *Vision Zero for Tamaki Makaurau – A transport safety and action plan to 2030*, was released on 3 September 2019. It adopts the Safe System approach, which acknowledges that people make mistakes, but a mistake should not mean someone dies or is seriously injured on our roads. ARPHS contributed to the development of the strategy by providing population health advice to the leadership and governance groups and speaking to the AT Board in support of a Safe System approach to Road Safety.

9. Policy submissions

ARPHS has completed and submitted 18 policy submissions between April 2019 and September 2019.

Date	Subject
19 April	*Our Water Future: Auckland's water discussion* The strategy looks into how Auckland Council should take care of natural waterbodies, the changing water needs due to population growth and preparations required in relation to climate change. ARPHS' submission fully supported Council's intent to move towards the development of an integrated framework for water decisions. Such a framework will help Council to work through potentially controversial decisions about water management that often result from competing stakeholder demands. ARPHS' main recommendations included: • Ensure the framework moves beyond a theoretical concept, and is practically applied to help determine which water infrastructure, initiatives, and policies are implemented, operationalised and funded. • Focus on activities that mitigate the effects of climate change. • Place equal weight on ecology, human, cultural, historical, social and wellbeing values versus technical and commercial values. • Support the implementation of the Te Mana o te Wai concept.
30 April	*Drury-Opāheke and Pukekohe-Paerata draft structure plans* The Auckland Unitary Plan has set aside land around Drury-Opāheke and Pukekohe-Paerata for future development. Council invited comment on the draft structure plans for these areas, which have been developed over the last couple of years. ARPHS

Date	Subject
	previously attended a public workshop on the structure plan development. As part of the structure planning exercise, a health topic paper had been developed to provide a rapid assessment of the draft structure plans from a health and well-being lens. The health topic paper summarised the current health provision in the Drury and Pukekohe structure plan areas, and provided a brief, high-level assessment of possible health impacts from the draft structure plans. ARPHS' submission supported the development of the health topic paper and encouraged Council to further use healthy urban planning frameworks and resources such as those from the World Health Organisation (WHO). It was suggested that future health topic papers should consider a wider range of health impacts.
17 May	*Proposal for reducing the notifiable level for lead absorption under the Health Act* The Ministry of Health developed a consultation document on the proposed revision of the notifiable blood lead level for (non-occupational) lead absorption under the Health Act 1956. The aim of the position paper was to seek comment on the proposal to reduce the current notifiable blood level of 0.48 mol/L to 0.24 mol/L for all ages. ARPHS previously responded to this issue, in June last year, when the Ministry was seeking pre-consultation feedback. ARPHS' latest comments on this issue reiterated its support for the proposed reduction in the notifiable blood lead level, acknowledging that a lower lead level is likely to prove beneficial across all age and ethnic groups. After obtaining data from LabPLUS, ARPHS' submission concluded that the proposed notifiable blood level of 0.24umol/L would have increased the blood lead notifications to ARPHS from 247 to 449, during the previous two year period. However, this would not necessarily double the workload for ARPHS, as notification at lower lead levels would shorten the period of re-testing and re-notification required, as well as reducing the number of individuals who go on to develop higher blood lead levels. Another potential benefit of the proposed lower notifiable blood lead level may be the identification of additional sources of occult lead exposures, which in turn could lead to greater awareness of at risk groups and more opportunities for both public and occupational health interventions.
31 May	*Health and Disability System Review* The Minister of Health announced a wide-ranging review designed to future-proof our health and disability services. ARPHS' submission noted that the future holds significant challenges for public health and the health system including the unsustainable burden from non-communicable diseases, an ageing population, emerging and re-emerging diseases, underlying social and environmental determinants, health impacts of climate change and the threats associated with antimicrobial resistance. ARPHS' submission recommended: • Strengthening central government agency alignment and ensuring cross government decisions consider public health, wellbeing and equity implications. • Investing in public health capacity, capability, consistency and coordination; recognising that investment in public health interventions is cost-effective for New Zealand. • Building strong system enablers through workforce planning and development (including a review of the Public Health Workforce Development Plan), public health intelligence and technology.

Date	Subject
31 May	*Draft Healthy Food and Drink -Education Settings* The MoH sought feedback on a draft 'Healthy Food and Drink Policy for Education Settings'. It is envisaged that the voluntary policy will be considered by education settings, and adapted as appropriate to the local context in consultation with the school board, students, parents and others. ARPHS' submission strongly supported the MoH's work to develop national policies that will improve influential food environments for children. While appreciating the consultation centred on the proposed nutrient criteria in the Policy, ARPHS considers there are wider process considerations that will contribute greatly to the effectiveness and relevance of any policies developed, including: • Building on earlier policy on child wellbeing – namely the 'Healthy Eating - Healthy Action, Oranga Kai – Oranga Pumau' (HEHA) framework. • Basing policy development on existing, effective work such as the Food and Beverage Classification System and associated programmes at the Heart Foundation of New Zealand. • There are opportunities for MoH and Ministry of Education to jointly leverage existing contracts and funding to ensure implementation is adequately resourced. • With a view to eliminating inequities, ARPHS' strongly advocated for making the proposed policy mandatory.
31 May	*Proposed changes to funded vaccines in the National Immunisation Schedule* Pharmac proposed several changes to the funding of vaccines in the National Immunisation Schedule, including replacing the adult diphtheria and tetanus vaccine (ADT Booster) with Tdap (Boostrix), and changing the eligibility criteria for the Meningococcal C conjugate vaccine (Neisvac-C) to limit use to children under nine months of age who are too young to receive the Meningococcal ACWY conjugate vaccine. ARPHS supported the proposal and noted that changing Td to Tdap means that there will be more opportunities for boosting immunity to pertussis in the New Zealand population. APRHS also recommended an additional quadrivalent Meningococcal C conjugate vaccine be approved for infants less than nine months of age without conditions such as asplenia, HIV and complement deficiency. ARPHS noted there is an ACWY vaccine that is licensed from six weeks of age in the form of NimenRix which could provide superior protection for this age cohort.
4 June	*Proposal to widen access to pertussis (whooping cough) vaccine* PHARMAC sought feedback on a proposal to widen access to funded pertussis (whooping cough) vaccine for all pregnant women at any time during their pregnancy, as well as for parents of infants admitted to a Neonatal Intensive Care Unit or Specialist Care Baby Unit for more than three days. ARPHS supported the proposal with some amendments to ensure the benefit is maximised and unintended consequences are mitigated. ARPHS noted the following: • Biological evidence would suggest that from 27-30 weeks is the optimal time for pregnant women to receive the pertussis booster, and maternal IgG does not cross the placenta until the second trimester. Therefore, ARPHS recommended that funding be restricted to the second trimester onward, and that consideration be given to promoting a 'recommended time'. • The delivery of the influenza vaccine is recommended early in pregnancy to protect the mother. Therefore clear communications about the timing of both the

Date	Subject
	influenza and pertussis vaccinations in pregnancy is required.
7 June	*Review of the Australian and New Zealand Standard Research Classification* Stakeholder views were sought on the Discussion Paper - Australian and New Zealand Standard Research Classification (ANZSRC) Review 2019. ANZSRC is the collective name for a set of three related classifications developed for use in the measurement and analysis of research and experimental development undertaken in Australia and New Zealand. ARPHS undertook a review of the proposed changes to determine if the categories within the three classifications cater for ARPHS' research interests. ARPHS' submission focused on research in public health and raised five points: • The research classification needs to align with and support the New Zealand Health Research Strategy. • Increasingly, research needs to span human and environmental health with full recognition of the social determinants of health. • For public health, it is important that there is significant flexibility for selecting categories across the system, so that projects led by Māori health researchers can select the categories that they find relevant. • If there is a move to consider research methodologies as key criteria for classifying research (as suggested in the discussion paper), ARPHS proposed that applied types of research should be considered, as this type of research is important to public health. • The multidisciplinary/interdisciplinary nature of research and practice in public health is important.
10 June	*Auckland Council Trade Waste Bylaw 2013 Review* Trade business sites discharge trade waste into the public waste water system every day. Under the Trade Waste Bylaw 2013, the Council can require trade premises to hold agreements to discharge trade waste and it can set conditions based on risk. ARPHS' interests in this area relates to its role as the auditor and regulator of networked drinking water and tankered drinking water suppliers, and working relationships with Watercare and Council around issues such as recreational and groundwater quality, and the public's exposure to contaminated water. ARPHS' submission fully supported Auckland Council's move towards making the Bylaw easier to understand, and also supported Council's approach to include a comprehensive list of what is prohibited to be discharged into the public wastewater system under the bylaw. ARPHS also recommended that associated guidance material should promote discharge of low risk waste into the wastewater system, and away from inappropriate discharge elsewhere.
16 June	*Proposed Waste Management and Minimisation Bylaw 2019* The current rules around waste are set out in Te Ture Ā Para Māro 2012 / Solid Waste Bylaw 2012. The Council wants to create a new bylaw to better manage and minimise waste, protect the public from health and safety risks, and manage the use of council-controlled public spaces. The proposed Bylaw will help achieve the nine key actions set out in the Waste Management and Minimisation Plan. ARPHS' submission included: • Identified that there were several sections in the bylaw that could be simplified, to support making waste disposal as seamless and straight forward as possible. • Recommended the existing cost recovery structures (i.e. contribution through annual rates) be kept in place to ensure households have equitable access to

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	waste removal. • Recommended the inclusion of a legionella warning in the bylaws definition of 'composting'. • Recommended that the requirement for a waste management and minimisation plan should apply to all events, rather than just events held on council-controlled public places.
16 July	*Proposed Climate Change Response (Zero Carbon) Amendment Bill submission* The Climate Change Response (Zero Carbon) Amendment Bill seeks to set new greenhouse gas emissions reduction targets, provides for the Minister to set a series of emissions budgets, requires the Government to develop and implement policies for climate change adaptation and mitigation, and establishes an independent Climate Change Commission to provide expert advice and monitoring. ARPHS' main submission points included: • Outlining the progress Auckland's three metro DHBs have made in reducing greenhouse gas emissions, but recognising that major investment in health sector infrastructure and services is needed over the coming 20-30 years. • Endorsement of the framework, purpose and intent of the amendments made in the Bill. • Support for coherent policy and cross-government action to enable long-term change. The RMA restricting regional council's ability to consider the effects of greenhouse gas emissions on the climate when developing rules/considering discharge consents was used as an example to highlight this point. • The intergenerational impact of climate change on health will depend on the extent and sequence of action. • Support for the amendments relating to Te Tiriti o Waitangi.
31 July	*Review of the Campylobacter Regulatory Limits for Meat Chickens* The Ministry for Primary Industries (MPI) currently has three regulatory limits for Campylobacter that apply to meat chickens. A discussion paper was prepared that reviewed these limits. The paper noted that, although improvements have been made and maintained by the poultry industry, to both the presence and levels of campylobacter in chickens at the end of primary processing, the reduction to the rate of human notifications has plateaued in recent years. ARPHS' submission supported the measures outlined in the discussion paper, particularly the proposed tightening of the Campylobacter Performance Target (CPT) detection target, and reduction of the CPT enumeration target. ARPHS noted that it would not support dosing feed with antibiotics as a strategy due to the potential for development of antibiotic resistance. ARPHS also raised a concern that the message, about treating chicken as potentially contaminated until it is thoroughly cooked, appears to have lost its impetus.
8 August	*Smoke-free Environments (Prohibiting Smoking in Motor Vehicles Carrying Children) Amendment Bill* The bill amends the Smoke-free Environments Act 1990 to prohibit smoking in motor vehicles carrying children and young people under 18 years of age. ARPHS' submission welcomed the proposed amendments and also recommended that: • Any compliance and enforcement measures should take an educational approach in the first instance. • The provision that allows a person to smoke in a motor vehicle if it is stationary on a road and is in use as a dwelling be reworded to more specifically identify the

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	type of vehicles to be exempt from the bill (it was understood that this provision was to cater for motor homes/tiny homes). • If possible, the proposed 18 month transitional implementation period should be reduced to a shorter time period.
14 August	*'Road to Zero', the 2020-2030 Road Safety Strategy* The Ministry of Transport released a consultation document outlining proposals for a new road safety strategy, which will replace the previous Safer Journeys strategy. The government is setting a target to reduce death and serious injuries on our roads by 40% over the next decade. ARPHS' submission advocated for the strategy adopting a more ambitious target and recommended: • Refocusing the strategy from being primarily focused on private vehicle use to include other transport modes. • Including an explicit focus on achieving equitable outcomes for Maori under the strategies principle *"Our road safety action support health, wellbeing and liveable places",* and ensuring the inclusion of mana whenua representation in decision-making. • Ensure that safety will be a critical decision-making priority, through reviewing project and programme prioritisation and funding models. • Ensure equitable access to transport options when the safety standards for imported vehicles are being regulated. • Include indicator and performance measures for all transport modes.
16 August	*Draft National Hepatitis C Action Plan* The draft National Hepatitis C Action Plan aims to provide a framework to enable limited resources to be focused on key priorities that would have the greatest impact on improving outcomes for people with hepatitis C, while simultaneously working towards the WHO goal of elimination of viral hepatitis by 2030. ARPHS' submission focused on two populations in the draft plan that have special significance in the Auckland context. These were migrants from higher prevalence countries and men who have sex with men. ARPHS advocated for including these groups in the draft plan as priority groups. The submission also highlighted the need to strengthen the draft plan's narrative on prevalence rates for Māori, and to consider the opportunity to implement Treaty-consistent control of decision-making to guide the elimination of hepatitis C as a public health threat. Furthermore, ARPHS advocated for an exploration of opportunities to address stigma and discrimination among migrants from higher prevalence countries. Feedback from the MoH on the ARPHS submission noted it was well researched and comprehensive and will be useful for the development of an improved version for final publication.
20 August	*Moving the light vehicle fleet to low-emissions: discussion paper on a Clean Car Standard and Clean Car Discount* The Government has developed a discussion document to seek feedback on two policies to reduce emissions in the light vehicle fleet. The first policy is the Clean Car Standard. This policy would require vehicle importers to bring in progressively more fuel efficient and electric vehicles (applies to new and used vehicles), based on vehicles' CO_2 emissions. The second policy is the Clean Car Discount (which is a feebate scheme). Consumers would either receive a discount or pay a fee, or avoid both, depending on

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	the CO_2 emissions of the vehicle they are buying. ARPHS' submission recommended that the Standard be formulated and implemented in a way that does not increase air pollution by increasing the number and proportion of diesel vehicles in the fleet. Diesel engines produce less CO_2 per km than petrol engines, but increase air pollution from oxides of nitrogen, ground-level ozone and particulates, with consequent health harm. It was recommended that New Zealand's 2007 vehicle exhaust emission standard be updated by adopting the *Euro 5* (for imported used vehicles) and *Euro 6* (for new vehicles) standards. It was also recommended that regular vehicle emission testing is linked to Warrant of Fitness testing.
23 August	*Draft Alcohol Advertising and Promotion Code* The Advertising Standards Authority (ASA) is currently reviewing the standards for alcohol advertising and promotion. See alcohol update (section 6.3).
31 August	*New Zealand Health Survey* Ministry of Health is seeking to update the NZ Health Survey (child and adult) content so that it better meets users' needs, while shortening the survey's length to minimise burden on respondents. ARPHS provided feedback on health survey questions pertaining to alcohol, tobacco, Body Mass Index (BMI), physical activity and nutrition.

4.2 Health Needs Assessments Update 2019

Recommendation:

That the report be received.

Prepared by: Jean Wignall (Health Outcomes Analyst) and Wendy Bennett (Manager, Planning and Health Intelligence)
Endorsed by: Dr Debbie Holdsworth (Director Funding) and Dr Karen Bartholomew (Director Health Outcomes)

Glossary

HNA - Health Needs Assessment
SNZ - Statistics New Zealand

1. Executive Summary

District Health Boards (DHBs) are required to regularly investigate, assess and monitor the health status of their resident population, and their need for services. The health needs assessment (HNA) forms an integral part of the overall planning cycle, informing both funding decisions and the strategic planning process. We have used data from a wide range of sources to provide a picture of the health status and needs of our populations. With this information, District Health Boards (DHBs) can plan future health services and health programmes to ensure the best health outcomes for all the people in our region.

The HNAs that we produced in 2015 are updated from time to time and re-published on DHB external websites. This version has had some more substantial updates, including a new section on climate change, updates from the Global Burden of Disease report, further information on alcohol and drug use, and additional information on the levels of use of hospital services. The purpose of this paper is to provide information on the changes and updates to these documents.

2. Strategic Alignment

Intelligence and insight	The HNA provides a detailed description of the population that we serve, their health status, and the extent to which that status is improving or declining.
Evidence informed decision making and practice	A key purpose of the HNAs is to provide quantitative and qualitative background data to support evidence-based decision making. Sections of HNAs are regularly used to support business cases and project plans.
Emphasis and investment on both treatment and keeping people healthy	The HNA also provides important information about service use, in particular preventative services such as immunisation, and pro-active services such as screening and dental checks.

3. Background

Waitematā DHB has previously produced HNAs in 2001, 2005 and 2009. Auckland DHB produced an on-line version in 2002. The current format available in both DHBs was developed in 2015, overseen by the Director of Health Outcomes and the public health physicians in the Health Gain Team. These are currently available on respective websites:

Auckland DHB	https://adhb.health.nz/assets/Documents/About-Us/Planning-documents/ADHB-Health-Needs-Assessment-2017.pdf
Waitematā DHB	http://www.waitematadhb.govt.nz/assets/Documents/health-needs-assessments/WDHBHealthNeedsAssessment2017.pdf

The 2015 publication was the first time that the same format was used for both DHBs. The reports presented today follow that format, updating key data such as population, life expectancy and mortality, and background information, such as the findings of the global burden of disease reports.

The Planning and Health Intelligence Team also produces a range of HNA related reports including updated census data for Māori Health HNA and Pacific Health HNA, and a range of targeted HNA reports such as the Asian Health Benchmarking Report, area-based Health Profiles, issue-specific Health Profiles (e.g. diabetes, cancer, cardiovascular disease), and bespoke HNA analysis e.g. the recent Ngati Whatua rohe based HNA.

4. Risks/Issues

Out of date figures, while still useful, reduce trust in business cases and project plans, therefore it is important to provide up to date information at intervals of not more than five years. Research moves on and new data sources become available. While the documents are unlikely to become misleading as they age, it is helpful to include current knowledge and data, and to update trends.

Statistics New Zealand (SNZ) reported in November 2018 that there would be a delay to the first release of the Census 2018 population (expected in December 2018). The reason for the delay is that the 2018 online census have resulted in lower than expected participation (full or partial information for around 90% of individuals, which is 4.5% lower than previous 2013 census). Some of the information included in these HNAs is dependent on Census data and this is updated annually when new population projections are released by SNZ. The relevant updates therefore rely on the SNZ released updates that project population based on the 2013 Census. Updated estimates at DHB level, based on the 2018 Census are expected by March 2020.

It should be noted that data included in the HNAs is obtained from a range of sources, including the Ministry of Health and other Ministries, World Health Organization, Accident Compensation Corporation and service providers.

5. Activity

There are a few areas where additional material has become available for inclusion. The environmental health section has been supplemented with a section on climate change, in line with requirements to include this topic in annual plans and annual reports. We have made other updates

to reflect some key items of new research, for example, The Lancet reports that there is no safe level of alcohol consumption which has led us to include overall rates of drinking alcohol, in addition to rates of hazardous drinking. The NZ Health Survey has published reports regarding drug use and these findings are now included, albeit at national level rather than at DHB level. The introduction of System Level Measures (SLMs), particularly those relating to youth, have increased the availability of data on some topics such as rates of chlamydia amongst our young people.

Wherever data are available, the HNAs report by ethnicity and are regularly used in planning interventions to address inequities.

The key health and equity messages in the reports are not greatly changed from the 2015 publication. Many of the measures presented will only change slowly; nevertheless it is helpful for staff and other users to know that the information is current and to be able to present proposals and inform funding decisions based on up-to-date information.

6. Conclusion

The purpose of this paper, and the presentation of the updated versions, is to provide visibility of the changes and updates to the Committee, and receive any feedback.

Attachments:

Appendix 1 Draft Auckland DHB Health Needs Assessment 2019
Appendix 2 Draft Waitematā DHB Health Needs Assessment 2019

Appendix 1

Auckland District Health Board

Health Needs Assessment | 2019

AUCKLAND
DISTRICT HEALTH BOARD
Te Toka Tumai

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1 Executive Summary

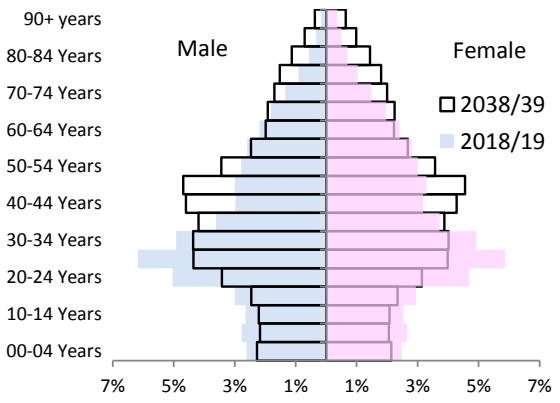
DHBs are required to regularly investigate, assess and monitor the health status of their resident population, and their need for services. The health needs assessment forms an integral part of the overall planning cycle, informing both funding decisions and the strategic planning process. We have used data from a wide range of sources to provide a picture of the health status and needs of our population. With this information, the District Health Board (DHB) can plan future health services and health programmes to ensure the best health outcomes for all the people in our region.

1.1 Our population is diverse and growing

Auckland DHB serves the population resident on the Auckland isthmus and the islands of Waiheke and Great Barrier. It is an area of stunning natural beauty. Residents enjoy the easy access to green spaces, parks and beaches and Auckland ranks highly among surveys of the world's most liveable cities.

The Auckland DHB contains approximately 542,000 people, making it the fourth largest of New Zealand's DHBs. We have an ethnically diverse population with 8% Māori, 10% Pacific, 34% Asian and 48% European/Other. Over 40% of our population were born overseas. The age composition of Auckland residents is somewhat different from the national picture, with 35% in the 25-44 age group, compared with 27% in this age group nationally. Auckland has 11% of its population in the 65+ age group, compared with 15% nationally.

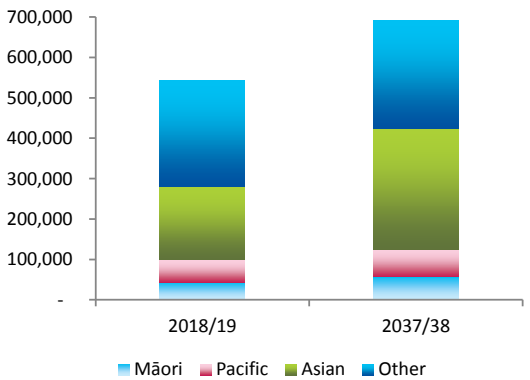
Our population includes large numbers of young adults



Many factors affect the health of individuals and communities. Whether people are healthy or not is determined for the most part by an individual's socio-economic circumstances and their environment. While Auckland's population enjoys a high median income, home ownership is increasingly unaffordable. Over-crowding is more common than in New Zealand overall, especially for Māori and Pacific families. Our Māori and Pacific populations have lower rates of educational achievement and high unemployment. Air pollution from motor vehicles and domestic fires causes around 100 premature deaths per year. Improving the wider determinants of health requires a co-ordinated approach between many agencies and services.

Significant population growth is expected in the future. The population is projected to increase by more than a quarter, reaching 698,000 by 2038/39. The population will also be considerably older with the number of people aged 65 years and older expected to increase from the current 60,670 to approximately 115,000, and making up 17% of our population, compared with 11% at present. Our Māori and Asian populations will also grow, our Māori population by 33% and Asian by 64%. The Pacific population is projected to grow by 21%. We need to plan and develop our services to meet the needs of this expanding and changing population. We also need to work with other public agencies and services to improve the wider determinants of health such as housing, education and the physical environment, as well as improving access to health services.

Our population will grow by more than a quarter over the next 19 years

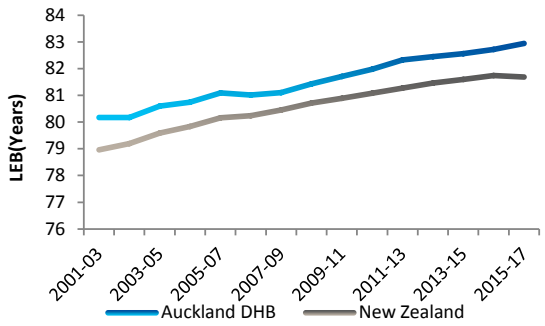


1.2 Our population is healthy and health is improving

We have similar health outcomes to New Zealand as a whole, with a life expectancy of just under 83 years. The self-reported health status of our population is 'excellent' and we continue to see positive health

outcomes overall. Our mortality rates from cardiovascular disease and cancer, the two biggest causes of avoidable deaths, have declined steadily over the last decade.

Life expectancy continues to increase



The children in our area are experiencing a great start to life with a much lower rate of infant mortality than is observed nationally and our immunisation rates are very high, with nearly 95% of our 8 month old children and 96% of our two year old children, fully immunised.

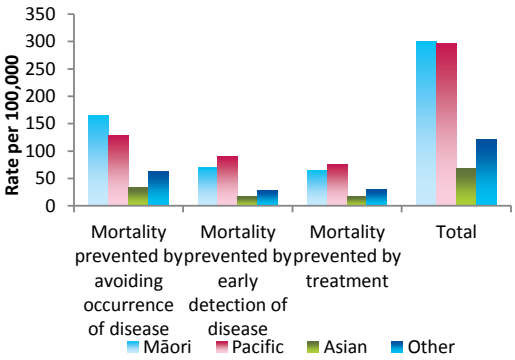
We are seeing positive improvements in many lifestyle risk factors, and identifying these risks earlier. Smoking, the largest cause of preventable ill health, declined substantially between 2006 and 2013, with rates falling from 16.5% to 11% of adults. We now have the lowest rate of smoking of any DHB in the country. This will support improvements in health for many years to come.

Our population experiences more positive mental health than New Zealand as a whole, with our self-reported diagnosed rate of anxiety and depression lower than the national rate. Our older population also experience positive health outcomes. The majority of our older population are able to live unassisted in their own homes. Many older people continue to work after reaching the age of 65 which is reflective of an overall positive health status.

1.3 Our key health challenges

Although the majority of our people enjoy very good health, particular population groups in our district experience inequalities in health outcomes. With better prevention of ill health, we could further reduce avoidable deaths and increase healthy years of life for our residents. In 2013, there were 556 potentially avoidable deaths of Auckland residents (23% of the total), 30% of which are amongst our Māori and Pacific populations. Of these deaths, half could have been avoided through primary prevention, for example through adopting healthier lifestyles; a quarter could have been prevented by identifying and managing problems like hypertension before they caused illness; and a quarter could have been avoided through prompt identification and treatment. We also need to plan and develop health services to respond to the significant growth and changes to the population in our district.

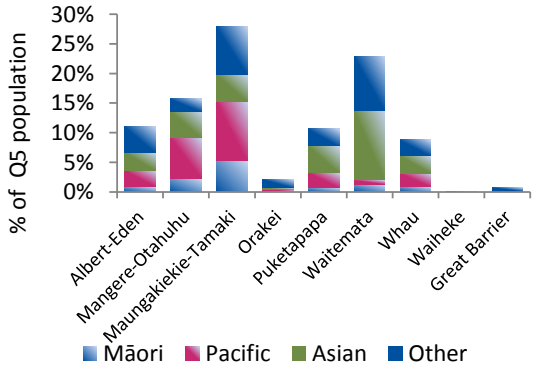
Avoidable deaths affect Māori and Pacific disproportionately



1.3.1 *Reduce inequalities in health*

Our Māori and Pacific population live on average six to seven years less and have hospitalisation and mortality rates from many chronic diseases two to three times higher than our European/ Other population. Although overall life expectancy is rising for Māori and Pacific people, the increase is similar to that for Europeans/Others. As a result, there remains a gap between Māori and Pacific life expectancy and that of Europeans/Others. The main drivers of this equity gap are circulatory disease, cancer, diabetes, respiratory disease and injuries. Nearly 20% of our population lives in areas ranked as highly deprived (Quintile 5 of the NZ deprivation score), concentrated in Rosebank/ Avondale in the west, Mt Roskill and the CBD and the eastern and southern areas from Glen Innes to Mt Wellington and Otahuhu. These people experience poorer health outcomes than those in more affluent areas.

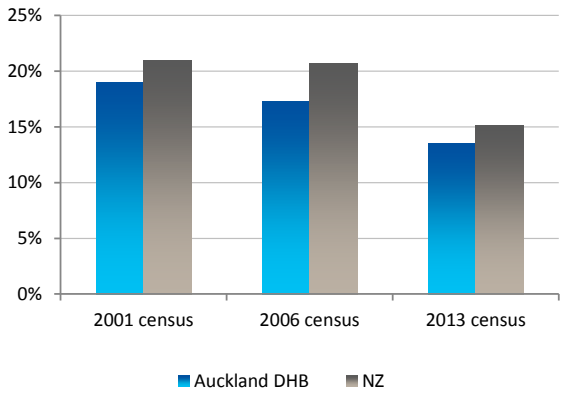
One in five of our people live in highly-deprived areas



1.3.2 *Support healthier lifestyles*

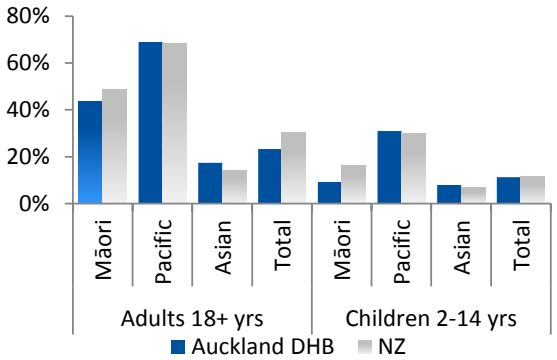
Although smoking rates are declining, 11% of our adult population are regular smokers of cigarettes, with higher rates in our Māori (26%) and Pacific (22%) populations. Progress has been made with over 90% of all smokers accessing health services receiving brief advice to quit, however more can be done to back this up with effective support.

Smoking rates are low and declining



Data from the New Zealand Health Survey reports one in five of our adults are obese and over half are overweight with very little change within the past ten years. The rate of childhood obesity in our Pacific populations is high with 32% of Pacific 2-14 year olds considered obese. Fewer than half of our population are meeting daily exercise recommendations and two in three are not meeting daily fruit and vegetable consumption guidelines. Our district's rate of hazardous alcohol consumption when compared with the national rate is slightly lower across all ethnicities except for European/Other.

One in five adults and one in ten children are obese



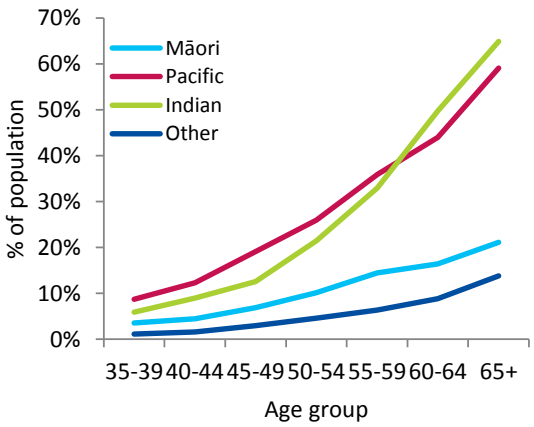
1.3.3 *Effective management of cardiovascular disease and diabetes*

Cardiovascular diseases are the largest cause of death and as much as 70% of cardiovascular disease is avoidable. Although our risk assessment rates are high (90% of eligible adults), only 51% of eligible cardiovascular disease patients are on triple therapy. Although the rate of triple therapy is increasing, many more patients could potentially benefit from pharmacological treatment than is currently the case. We need to ensure that those identified as being at high risk of disease, as well as those with existing disease, are well-managed and receive prompt treatment.

In 2013, nearly 700 Auckland residents were admitted to hospital following a stroke. The mortality rate from stroke is 25 per 100,000 which is similar to New Zealand as a whole. Prompt assessment together with effective targeted treatment and rehabilitation is essential in providing the best outcomes for these patients.

The number of people with diabetes has almost doubled since 2003 and this is now estimated to affect 4.7% of our population. There is room for improvement in supporting people with diabetes to manage their key risk factors, such as blood pressure and blood sugar levels, and to attend retinal screening. Around 62% people with diabetes aged 15-74 years are known to be well-managed (defined as having an HbA1c of <64 mmol/mol). Within the last two years, only 52% of diabetics have had the recommended retinal screening in the public sector. In 2016, 19.5% of medical/surgical bed-days were for people with diabetes. For both cardiovascular disease and diabetes, Māori and Pacific carry a heavier burden than other ethnicities.

Diabetes affects 4.7% of our population overall, but 11% of our Pacific and 9% of our Indian people



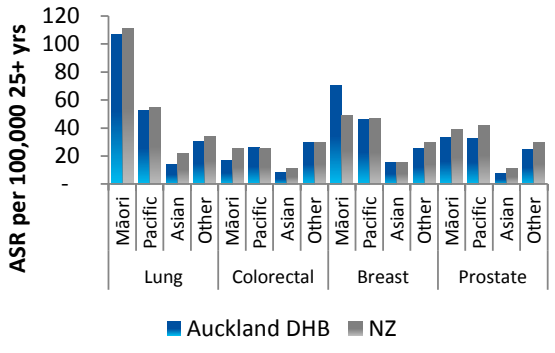
1.3.4 *Rapid identification and treatment of cancer*

There are 1,860 new cancer registrations in Auckland every year. Cancer causes 28% of all deaths with the most significant being breast (in women), lung and colorectal cancers, and prostate cancers in men. Around 30-35% of cancers are caused by modifiable risk factors and are avoidable. Early detection and prompt diagnosis and treatment can reduce mortality and morbidity from cancers. Our five year survival rate from all cancers is 69%, the highest in the country. However, if Auckland DHB had the same five-year survival rates as Australia, 25% of women who die of breast cancer within five years would survive for longer (7 per year). Similarly, 13% who die of bowel cancer within five years would survive for longer (8 per year). For melanoma the difference is 46% (11 per year) and for non-Hodgkin lymphoma it is 25% (5 per year).

Public screening programmes for breast and cervical cancer are well-established; despite this, one quarter of all eligible women do not participate. Screening rates are low in Māori with only 53% of eligible women participating in cervical screening and 59% in breast screening. Asian women also have low rates of cervical screening at 51%.

To support continued improvement in services and waiting times for people with cancer, accessing faster cancer treatment is a key priority and forms an integral part of the national health targets. As at March 2019, 92% of cancer patients wait less than 62 days for treatment or other care to commence compared with the target of 90%.

Lung, colorectal, breast and prostate cancer are major killers



1.3.5 *Access to Mental Health services*

Mental ill-health affects one in five people each year and the New Zealand health survey identified one in eight of our residents (equivalent to around 43,000 people) as suffering from common mental illnesses. Around 3.5% of our population (17,000 people) are accessing secondary mental health services with this rate increasing yearly. Māori are particularly affected by mental health conditions, being twice as likely as Europeans/Others to access services. Pacific people report anxiety and distress twice as often as Europeans/Others, but do not access mental health services proportionately. While our suicide rate is lower than the national rate, we still lost 41 people in 2011 to suicide.

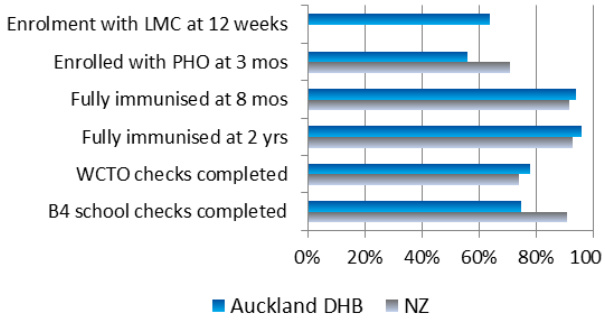
Mental illness is also associated with reduced life expectancy, with sufferers at increased risk of other illnesses particularly cancer and cardiovascular disease. Even when these disorders are recognised, rates of intervention are lower for this population compared with people without mental illness.

1.3.6 *Give children the best start in life*

The well-being of children is critical to the well-being of the population as a whole. Healthy children are more likely to become healthy adults. Our overall infant mortality rate is lower than the national rate, however rates in Māori and Pacific are nearly twice that of European/Others. One-third of our pregnant mothers are not enrolled with a lead maternity carer (LMC) at 12 weeks of pregnancy and addressing this would improve outcomes for mothers and babies. The percentage of children enrolled with a PHO by three months of age (56%) is lower than the national figure (63%), and further lower in Māori children (47%). The national target is 88%.

We are close to achieving our immunisation target of 95% at 8 and 24 months, with 94% of children fully immunised at 8 months of age and 96% of children fully immunised at 24 months of age. However, immunisation rates are not as high for Māori as for non-Māori. We are below target for completion of core Well Child/Tamariki Ora checks in the first year of life and the percentage of four-year-olds receiving comprehensive health checks before school entry.

Healthy children become healthy adults

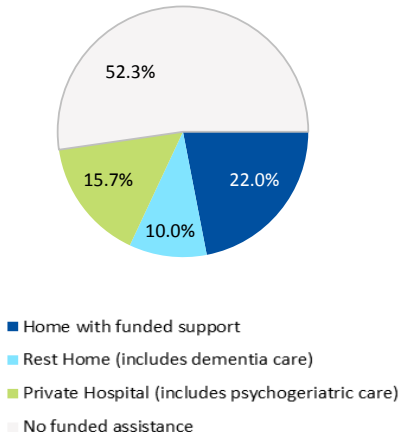


Children are admitted to hospital most commonly for injuries, gastroenteritis, asthma and infections. In 2012/13, there were 21.5 admissions per 100,000 population aged 0-14 for injuries resulting from domestic assault, neglect or maltreatment of children. The incidence of rheumatic fever (3.5 per 100,000 population) is lower than the national average, however significant inequalities are present for Māori and Pacific populations.

1.3.7 *Older people*

The large majority of older people in Auckland DHB are able to live unassisted in their own homes. Over half (52%) of people who are 85 years or older receive no funded living assistance, while 26% are funded to live in a rest home or private hospital and 22% have some funded support at home. Older people have greater needs for health services and hospital care and occupy about 45% of our medical/surgical beds. With the projected increase in the population aged 65 and over, meeting the associated increase in demand for health care will be challenging.

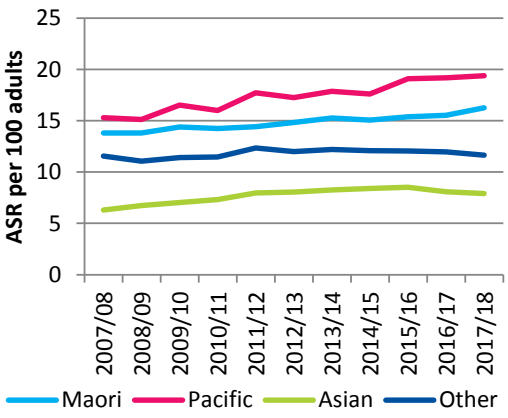
Over half of people aged 85+ live with no funded support



1.3.8 *Meeting future health needs*

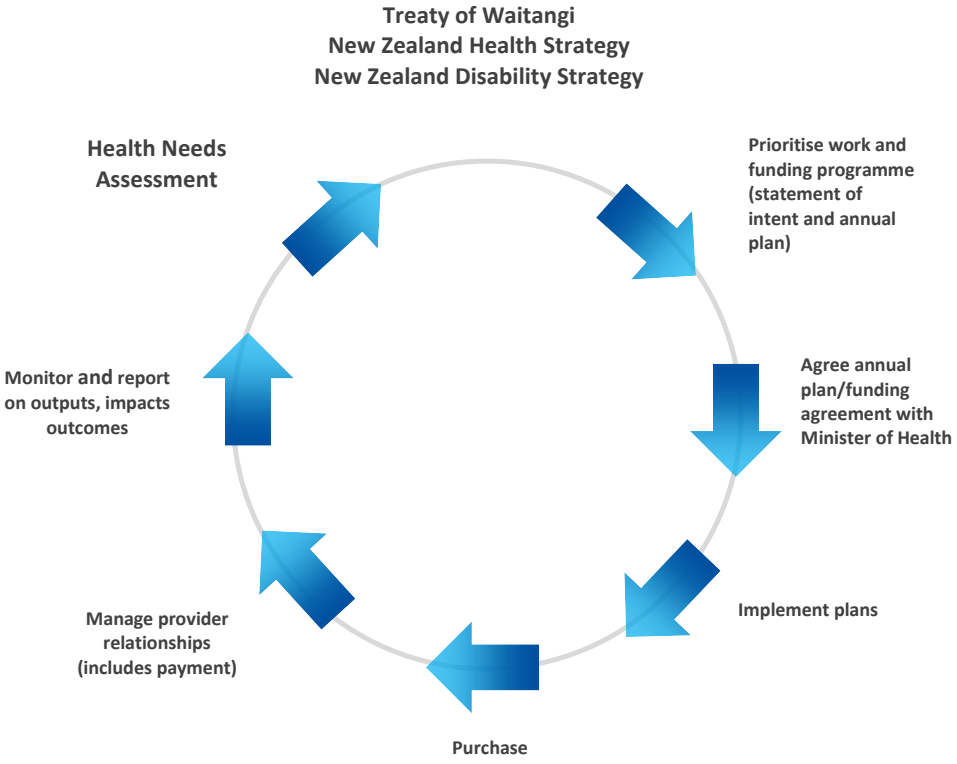
Between 2007/08 and 2017/18, acute admissions remained the same and people attending ED increased by 8% for Auckland residents, after allowing for population ageing and growth. However the absolute numbers increased by 23% and 33% respectively. Future population growth and constraints on funding will place pressure on hospital services. Furthermore, climate breakdown has serious implications for our health, wellbeing, livelihoods, and the structure of organised society. We therefore need to plan and develop hospital services to manage this demand. Fully integrated services with a focus on prevention and good access to primary care services will be essential to meet the future health needs of the population.

Demand for emergency department services is increasing



2 Introduction

DHBs are required to regularly investigate, assess and monitor the health status of their resident population, and their need for services. The purpose of needs assessment is to bring about change beneficial to the health of the population. The needs assessment forms an integral part of the overall planning cycle, informing both funding decisions and the strategic planning process.



Through assessing the health needs of our population we can both identify and reduce inequalities and produce better health outcomes for the population as a whole. In this assessment we have concentrated on describing the health of Auckland residents compared to that of New Zealand overall, and on highlighting inequalities within the district and between particular groups of the population.

It is envisaged that this needs assessment will be a living document and its content regularly updated as new statistics become available. It forms part of a suite of resources which includes needs assessments and health plans for population subgroups.

For key topic areas, we will undertake more detailed assessments and these will be published as separate documents. For further information, contact the Planning and Health Intelligence Department, Auckland and Waitemata DHBs.

2.1 Needs assessment and Māori

The New Zealand Health Strategy includes a set of principles to guide health sector development. These include acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi. In Auckland this is particularly recognised in the relationship between the DHB and Te Rūnanga o Ngāti Whātua. The three principles of the Treaty of Waitangi - partnership, participation and active protection apply to health and health service provision. The Treaty of Waitangi in Article 3 provides for equal rights for Māori with non-Māori. While many Māori within Auckland enjoy better health than Māori in other parts of New Zealand and Māori life expectancy in Auckland DHB is almost 80 years, 3.8 years above the national average for Māori across New Zealand (76 years) at birth (2015-17), inequalities in health outcomes for Māori are still apparent in this DHB when compared to non-Māori. The New Zealand Health Strategy specifically provides that Māori health outcomes will be addressed and health inequalities eliminated.

In undertaking health needs assessments this has a number of implications:

- *Wherever possible we provide information on Māori health needs as well as the health needs of the general population*
- *We need to ensure that collection of data about Māori is as accurate as possible. In particular this means we need to ensure that ethnicity recording is accurate. This is an area of on-going work and improvement for Auckland DHB*
- *We need to report information that describes health from a Māori world view as well as a mainstream world view. This is very challenging because nearly all of the information in this document is derived from routinely collected data sources. These data sources have limited information on a broad perspective of health (rather than disease) and even more limited information that describes some perspectives that are important to Māori. We recognise this limitation and the need to attempt to address this in on-going work*
- *We need to specifically address Māori health needs rather than simply doing so in the context of assessing the needs of the overall population*
- *We need to involve the Māori community in the development of health needs assessments. This has not been done in the development of this document but development of Māori Health Needs Assessment for Auckland DHB in the future would need to factor in the engagement and involvement of Māori in the community.*

3 Our Population

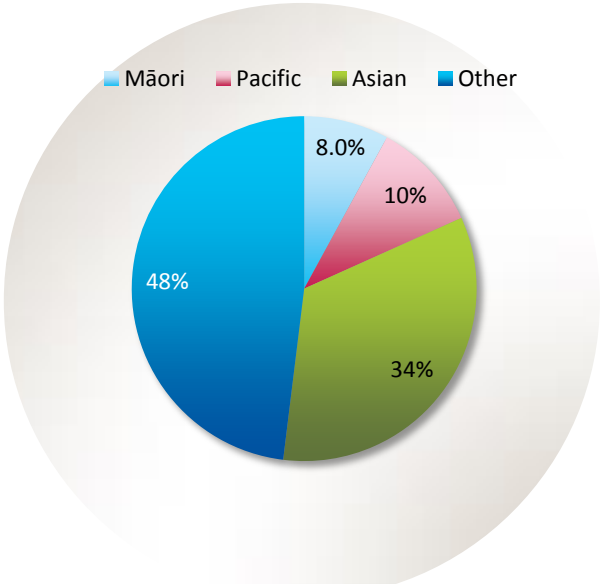
Auckland DHB serves the population resident on the Auckland isthmus and the islands of Waiheke and Great Barrier. It is an area of stunning natural beauty. Residents enjoy easy access to green spaces, parks and beaches and Auckland ranks highly among surveys of the world's most liveable cities. At the same time, it ranks as the fourth least affordable city in the world for housing (Demographia 2017). The Auckland Council divides the area between a number of local boards. These are:

- **Waitemata,** *stretching from Westmere in the west to Parnell in the east and including the central business district and the suburbs of Western Springs, Grey Lynn, Arch Hill, Newton, Herne Bay, Ponsonby, St Marys Bay, Freemans Bay, Eden Terrace, Grafton and Newmarket;*
- **Albert-Eden,** *covering from coastal Pt Chevalier in the west across to Greenlane and including Mt Albert, Mt Eden, Waterview, St Lukes, Balmoral, Sandringham, Morningside, Kingsland, and Epsom;*
- **Orakei,** *covering Remuera, Ellerslie, Meadowbank, St Johns, Ōrākei, Mission Bay, Kohimarama, Saint Heliers and Glendowie;*
- **Puketapapa,** *bordering the Manukau Harbour, including Three Kings, Mt Roskill, Hillsborough, Waikowhai, Lynfield and Wesley;*
- **Maungakiekie-Tāmaki** *which covers an area from the Tamaki estuary west across to the inner Manukau Harbour and includes Glen Innes, Point England, Tamaki, Panmure, Mount Wellington, Penrose, Onehunga, Te Papapa and Royal Oak;*
- **Whau (part)** *in the west of the isthmus, with the suburbs of Kelston, Rosebank, New Lynn, Avondale, New Windsor, Blockhouse Bay and Green Bay;*
- **Otahuhu,** *part of the Otahuhu-Mangere local board area;*
- **Waiheke;**
- **Great Barrier.**

There are 542,240 people living in the Auckland district in 2018/19, accounting for approximately 11% of the national population. The age composition of Auckland residents is somewhat different from the national picture, with 35% in the 25-44 age group, compared with 27% in this age group nationally. Auckland has 11% of its population in the 65+ age group, compared with 15% nationally.

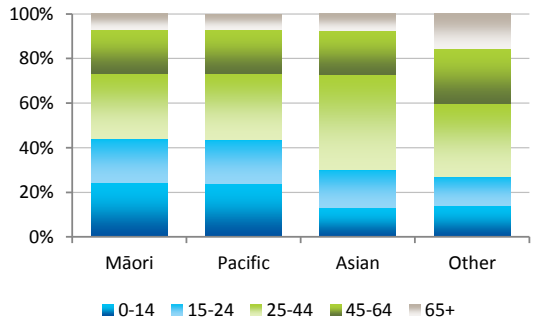
By ethnicity, our population is 8% Māori, 10% Pacific, 34% Asian and 48% European/Other. Just over one-third of Māori and Pacific people live in the south-east of the district in Maungakiekie-Tamaki with two-thirds spread across the remainder of the district. Half of our Indian population lives in the south-west in Puketapapa and Whau, while our Chinese and other Asian population is fairly evenly spread but sparser in the south-west. Two-thirds of the European/Other population live in the north/central wards of Waitemata, Orakei and Albert/Eden. Our Pacific population is predominantly Samoan (44%), Tongan (31%) and Cook Island Māori (17%). Our Asian population is diverse but is predominantly Chinese (41%) and Indian (33%). Auckland's population is urban with only 0.2% of our population living in rural areas (Great Barrier Island). (Source: Statistics New Zealand, population projections based on 2013 census, updated 2018.)

Figure 3.1: *Ethnicity of our population 2016/17*



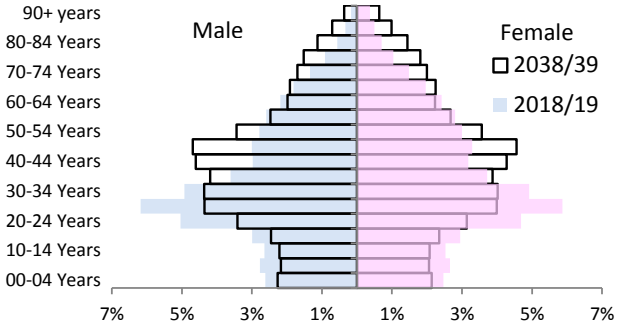
By age group, our population is 16% children (under 15 years), 16% young people (15-24 years), and 11% older people (65 years or older). However our Māori, Pacific and Asian populations are considerably younger with 44% of Māori and Pacific and 30% of Asians under the age of 25, compared with 27% for European/Other people. These populations are also notable for the small proportion of older people they contain (8% or less of their total populations).

Figure 3.2: *Age structure by ethnic group*



By 2038/39 Auckland's population is projected to increase by 156,000 people, making it 29% larger than it is now. The population will also be considerably older with the number of people aged 65 years and older expected to increase from the current 60,670 to approximately 115,000, and making up 17% of our population, compared with 11% at present. Our Māori and Asian populations will also grow, our Māori population by 33% and Asian by 64%. The Pacific population is projected to grow by 21%. We need to plan and develop our services to meet the needs of our changing population.

Figure 3.3: *Age structure of Auckland DHB in 2018/19 and 2038/39*



Source: Statistics NZ Population projections based on 2013 census

Figure 3.4: *Projected change in Auckland DHB population aged > 65 years, 2038/39*

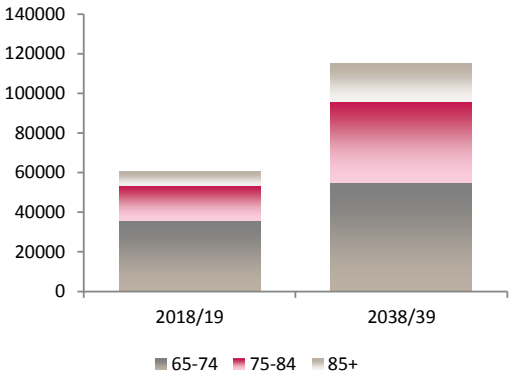
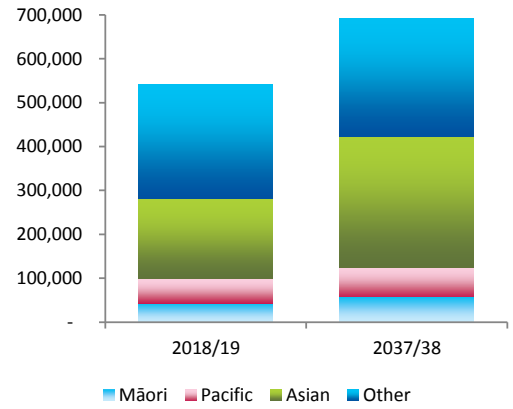


Figure 3.5: *Projected change in Auckland DHB population by ethnicity, 2037/38*



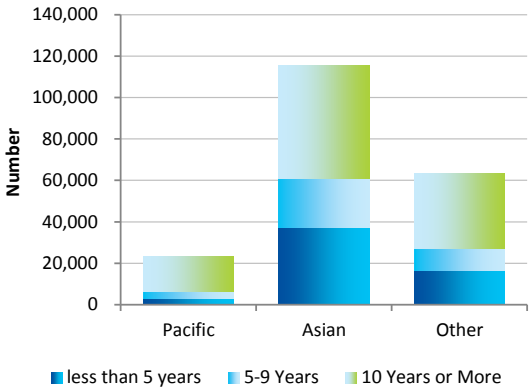
Source: Statistics NZ Population projections, 2018 set based on Census 2013

3.1 Migrants

Auckland has a large migrant population. Two out of five (42%) Auckland residents were born overseas (compared to 25% nationally). This includes 63,113 people of European/Other ethnicity, 23,486 Pacific people and 115,700 Asian people; as a percentage, 82% of Asian people, 45% of Pacific people and 27% of people of European/Other ethnicity. Of these migrants, 28% have lived in New Zealand less than 5 years.

English language ability is important in order to participate in New Zealand society. Among Auckland's adults in 2013, it was estimated that 4.8% could not hold a conversation in English about everyday things. The Auckland DHB Interpreting Service provides face-to-face and telephone conference call interpreting, appointment confirmation and document translation, in both primary and secondary health care settings, to assist this group to access health services.

Figure 3.1.1: *Number of migrants living in Auckland by duration of residence, 2013*



Source: Census 2013 Usually Resident population

4 Population Health Drivers

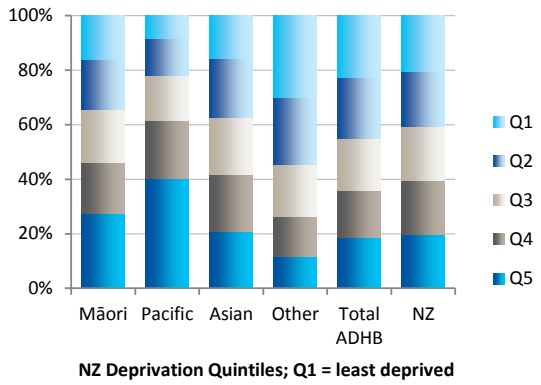
Many factors affect the health of individuals and communities. Whether people are healthy or not, is determined, for the most part, by an individual's socio-economic circumstances and their environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level and our relationships with friends and family all have considerable impact on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact. Most of the information in this section is taken from the 2013 census, NZ Health Survey pooled results for 2011-2013, and from the Quality of Life (QoL) Survey 2012 (note: QoL data includes all of Whau ward and all of Mangere-Otahuhu ward).

4.1 Deprivation

The index by which we measure the relative prosperity or deprivation of our population is calculated from census information. It is based on averaged information about the households and individuals in the area and incorporates factors such as income, employment, qualifications, internet access, home and car ownership, overcrowding and single parent households. The ranked categories are calculated so that as nearly as possible, one-tenth of the population of New Zealand falls into each. (University of Otago, NZDep13 deprivation index by census area unit based on 2013 census).

On this basis, Auckland has a similar profile to New Zealand as a whole. Almost one in five (19%) of our total population, and 22% of children under five years, live in the poorest areas (NZDep13 decile 9 and 10, or Quintile 5), and 23% of our population live in areas of the wealthiest two deciles. Māori and Pacific people are much more likely to live in NZDep13 Quintile 4 and 5 areas. The most deprived areas are concentrated in Rosebank/Avondale in the west, Mt Roskill and the CBD, and the eastern and southern areas from Glen Innes to Mt Wellington and Otahuhu. The least deprived areas are Orakei, Glendowie, Remuera, Herne Bay and Mt Eden.

Figure 4.1.1: *Deprivation by ethnicity*



The chart of deprivation by ethnicity is approximate only and is calculated from Census Area Unit data.

Figure 4.1.2: *Proportion in each NZ deprivation quintile, by local board area*

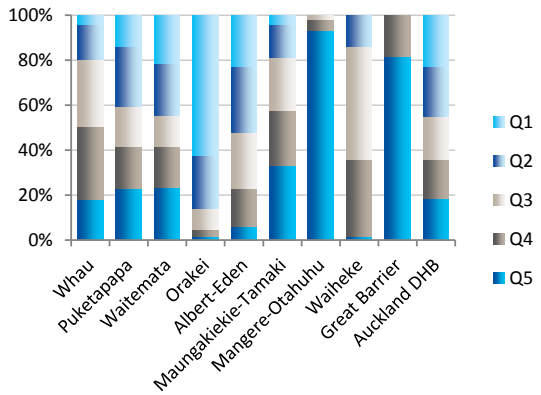
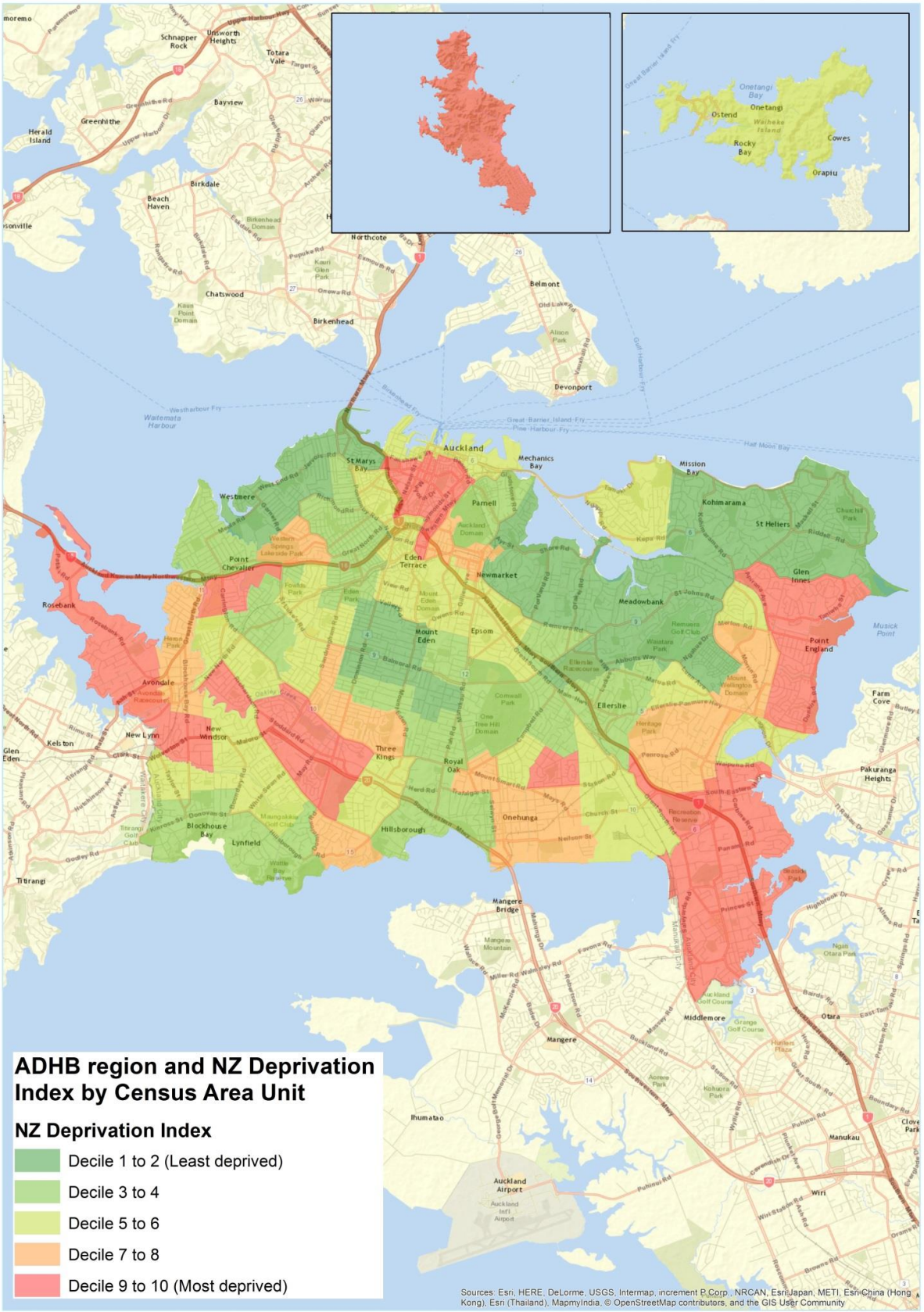


Figure 4.1.3: *Geographic spread of deprived areas, Auckland DHB*



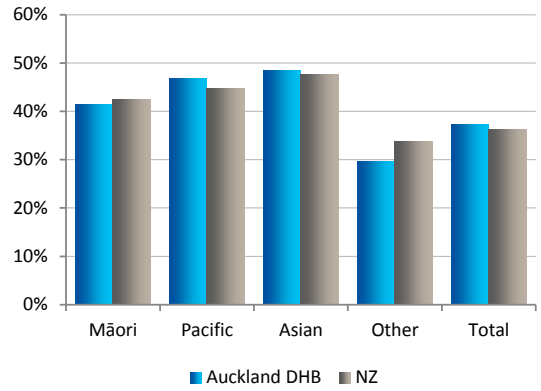
4.2 Income, Education and Employment

Economic factors such as income, occupation and education are powerful determinants of health. The median annual income for Auckland individuals aged 15 years and over in 2013 was $31,500, higher than the national figure of $28,500. When the high cost of housing in the Auckland region is taken into account, disposable income is lower than this figure suggests. While 29% of European/Other people have an income of under $20,000 per year, the percentage is much higher for Māori (41%), Pacific (47%) and Asian people (48%). Women are much more likely to be on low incomes than men. However, the figures should be treated with caution because many people did not respond to census questions about income. The Quality of Life survey in 2012 found that almost one in four people (24%) felt they did not have enough income to meet their everyday needs.

Overall 12% of people in Auckland left school with no qualification, but this figure is much higher for Pacific people (30%) and Māori (24%). By contrast, 10% of Asians have no qualifications. At the high end of educational achievement, 38% of Asian people have tertiary or higher qualifications and 39% of European/ Other people, but only 20% of Māori and 10% of Pacific people.

At the time of the 2013 census, Māori and Pacific people were more than twice as likely to be unemployed as other ethnicities, at 14% and 16% respectively, compared with 5% of Europeans/ Others and 10% of Asian people.

Figure 4.2.1: *Percentage of population aged 15+ years with income under $20,000 by ethnicity, 2013*

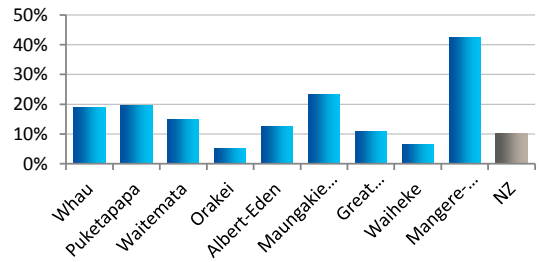


Source: Census 2013

4.3 Housing

Poor quality housing, including poor physical living conditions, overcrowding and lack of heating constitutes a significant health risk particularly for the young and old. In Auckland region, crowding is much more common amongst Māori (25% living in overcrowded houses), Pacific (45%) and Asians (19%) than Europeans/Others (6%) (Census 2013). Within Auckland DHB, overcrowding is most common in Mangere-Otahuhu (43% of people living in overcrowded houses) and Maungakiekie-Tamaki (23%), but in every board except Waiheke Island and Orakei, the proportion of people living in crowded housing is higher than the national average. Across the region, 22% of children aged under 15 years live in crowded houses. Nationally 3% of households use no heating fuel, however in Auckland DHB the figure is 7.6%. A high proportion of households in Waitemata board area (15.8%) report using no fuel, possibly reflecting a large number of apartments. There are also high proportions using no fuel in Mangere-Otahuhu (12.3%), Great Barrier (7.6%), Maungakiekie-Tamaki (7.1%) and Whau (6.3%). The Auckland region has the least affordable housing for purchase in New Zealand, with an affordability index (the ratio of cost to income) of 31.7, 43% higher than the New Zealand average of 22.2 (Massey affordability index report May 2019). Auckland region is also the least affordable region for renters, with households on average paying 35% of income on rent, compared with a national average of 31%. Renting is common in Auckland, with 40% of households living in rented housing, compared with 29% nationally. The 2013 census recorded 2,040 Auckland residents as homeless (living in mobile and improvised dwellings, roofless or rough sleepers, or living in boarding house, night shelter or welfare institution).

Figure 4.3.1: *Proportion of people living in a crowded house by local board, 2013*



Source: Statistics NZ. Overcrowding is defined as a deficit of one or more bedrooms on the Canadian National Occupancy Standard.

4.4 Environmental factors

Auckland has relatively good air quality compared with other cities and towns in New Zealand. However, some parts experience quite high air pollution, which is primarily generated by motor vehicle emissions and by indoor heating fires. The Health and Air Pollution in New Zealand report 2012 estimated that in 2006, amongst adults aged over 30 years, Auckland DHB had 56 premature deaths per year due to motor vehicle pollution and 37 due to pollution from domestic fires. Māori made up 11% of these deaths (6 and 4 respectively). Air pollution also causes hospital admissions for cardiac and respiratory problems. In Auckland in 2006, motor vehicle pollution caused 9 cardiac admissions; it also caused 18 respiratory admissions, of which 6 were for children under 5 years old and 4 were for children aged 5-14 years. Indoor heating fires caused 7 cardiac admissions; they also caused 12 respiratory admissions, of which 4 were for children under 5 years old and 3 were for children aged 5-14 years. The Quality of Life Survey 2012 found that 22% of Auckland residents considered air pollution to be a problem.

Greater use of public transport would contribute to reducing air pollution. Car transport remains the dominant mode of travel to work in Auckland with 83% of employed people travelling to work by car. Bus or train is the mode for 8% of people (Census 2013). Means of travel to work has been relatively stable since 1996 although there has been a slight increase in use of public transport and slight decrease (three percentage points) in car use.

Most people living in Auckland have access to safe reticulated sources of drinking water. However, 35% of Auckland residents felt that there was pollution of lakes, streams or the sea (Quality of Life Survey 2012).

4.5 Climate Breakdown

Climate change has serious implications for our health, wellbeing, livelihoods, and the structure of organised society. Its direct effects result from rising temperatures and changes in the frequency and strength of storms, floods, droughts, and heat waves—with physical and mental health consequences. The impacts of climate change will also be mediated through less direct pathways, including changes in crop yields, the burden and distribution of infectious disease, and in climate-induced population displacement and violent conflict. Many of these effects are already seen (Lancet 2017).

Global average temperatures have been more than one degree Celsius higher than the 20th century average for the past three years. Temperature increase could pass 1.5 degrees, at least temporarily, in the next five years. The most recent research suggests that a sustained increase of 2 degrees will result in at least 6m of sea level rise (Nature Geoscience July 2018).

4.5.1 Rapid-onset climate breakdown events

- Increased frequency of fires, floods, storm tides and extreme rainfall events will affect public health. Apart from risks of direct injury, these events can also result in:
  - disease outbreaks,
  - toxic chemical contamination,
  - effects of damp buildings and
  - mental health issues, particularly anxiety and depression.
- The impact will include destruction of infrastructure including housing, roads, water supply, waste water, electricity and communication networks, and this will also reduce access to health care. In 2017, an extreme rainfall event disrupted water processing and reduced Auckland's water supply by 20%, coming close to triggering a "boil water" notice. A storm in 2018 cut electricity to 180,000 homes and businesses.

4.5.2 Slow-onset impacts of climate breakdown

- Food production will become more difficult as temperature and rainfall patterns change, pollinators reduce, and pests and diseases increase, resulting in reduced availability and affordability. This is likely to impact more heavily on poorer people. Flooding is already affecting food production and prices. Efforts to reduce greenhouse gas emissions are likely to result in reduced production of ruminant meats and dairy products. Consumption of red meat has known associations with adverse health outcomes and a reduction in supply and consumption could produce health benefits in terms of reduced colorectal cancer and heart disease.
- Warmer water, both sea and fresh, will lead to an increase in harmful algal blooms with potential risks to drinking water supplies. Toxic marine algae can contaminate shellfish and cause gastrointestinal and neurological problems if consumed.
- Bacterial growth also increases in warmer sea and fresh water, and can lead to infected wounds from water contact or recreational swimming. Increased concentrations of salmonella and E coli in freshwater

streams, due to high runoff or low (drought) water flow, can cause illness in humans ranging from nausea to renal failure.

- A doubling in the number of hot days (above 25C) is expected by 2100. Hotter weather will particularly affect people with diabetes, cardiovascular disease and mental health issues, resulting in increased attendances at emergency departments and higher mortality rates. Outdoor workers may experience an increase in incidents of heat stroke and rates of kidney impairment.
- Outdoor air quality may be affected by reduced rainfall and wind, leading to air stagnation, which allows pollutants to build up. Mitigating this, there will be a reduction in emissions from vehicles as electrification of the transport system continues.
    - NIWA predicts a reduction in cold nights and frosts which may reduce emissions from wood-fired heating of homes in winter, with resulting improvements to air quality.
    - Drought may lead to an increase in air-borne soil particles.
    - Earlier growing seasons may increase the duration of high pollen counts in the air, increasing the period and rates of allergic illnesses such as asthma.
- The number of organisms that transmit infectious diseases, such as ticks, fleas and mosquitos, is likely to increase (although currently the number of flying insects is declining sharply). Warmer conditions may increase the rates of breeding for disease carriers, and for the infectious agents themselves. Emerging diseases such as chikungunya and zika viruses are already present in the Pacific Islands and could become a risk to New Zealand if warmer temperatures allow disease-transmitting mosquitos to become established here.
- The population of New Zealand and particularly of Auckland will increase when the country begins to receive climate change refugees. Several Pacific Islands are already experiencing problems with extreme weather events, which have destroyed housing and crops, fresh water supply and coastal flooding of farm land. Fiji, Papua New Guinea and Bougainville and the Solomon Islands, collectively representing 85% of the total Pacific population, are already struggling to manage internal climate-related displacement and resettlement.

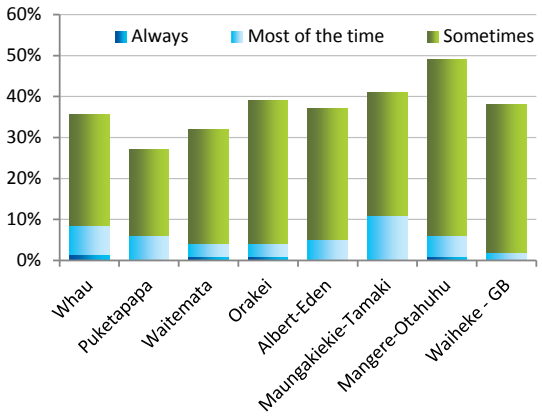
4.6 Social factors

Social support and good social relations make an important contribution to health. Social support helps give people the emotional and practical resources they need. Belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued. This has a powerful protective effect on health. Supportive relationships may also encourage healthier behaviour patterns. (WHO 2003).

The Quality of Life survey reports that about half (48%) of people in Auckland feel that there is a sense of community where they live and 62% feel that people can usually be trusted. Over one-third (38%) of people feel isolated some of the time. Many older people, and older women in particular, live alone. Four out of five people (80%) are happy with their quality of life but only 58% with their work/life balance.

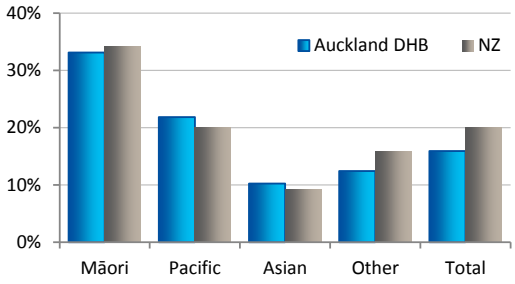
Internet access, which is now a cornerstone measure of opportunity, information and communication, is available in 84% of Auckland DHB households compared with 77% of households nationally. A mobile phone is available in 86% of Auckland households. Single parenting is an issue that affects almost every part of the population. While single-parent homes exist in significant numbers across nearly all ethnicities (15%), some ethnicities have higher rates than others, for example 33% of Māori children live in single parent families. Single parent homes often have lower socio-economic status and children are at an increased risk of emotional and behavioural problems and more likely to have poor school performance.

Figure 4.5.1: *Proportion of people who feel isolated by ward, 2012*



Source: NZ Quality of Life Survey 2012

Figure 4.5.2: *Proportion of children living in single parent families, 2013*



Source: Census 2013

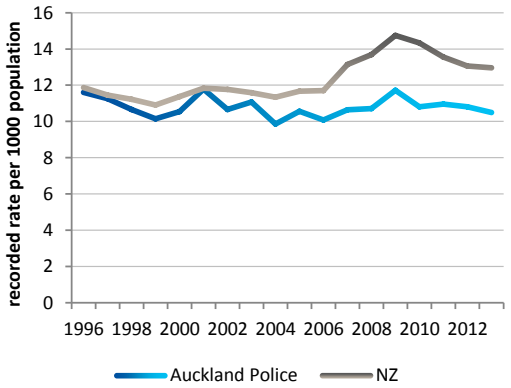
4.7 Violence and crime

Crime affects not only the health of individual victims but also community life. Fear of crime can also influence the health and well-being of individuals and communities. People may make adjustments to their lifestyles and behaviour as a result of an experience of crime or fear of crime for example, not going out after dark, not using public transport and avoiding certain areas. The concentration of crime in particular neighbourhoods means that the adoption of avoidance measures can weaken social ties and undermine social cohesion.

Three quarters of people (74%) think unsupervised children are safe in their area, but 42% do not feel safe walking alone at night in their neighbourhood. Police records of offences in general and of violent offences peaked in 2009 and have declined since, but have not dropped back to pre-recession levels. This is in line with national trends.

There were 29 hospitalisations per 100,000 population for domestic violence in Auckland in 2014. The rates were very different between ethnic groups, with 135 per 100,000 population for Māori, 58 per 100,000 population for Pacific people and 14 per 100,000 population for Europeans/ Others. These figures are not age-standardised and the difference between ethnic groups partly reflects the age distribution of each population.

Figure 4.6.1: *Recorded rates of violent offences 1996-2013*



Source: Statistics NZ, Offences recorded by NZ police authorities

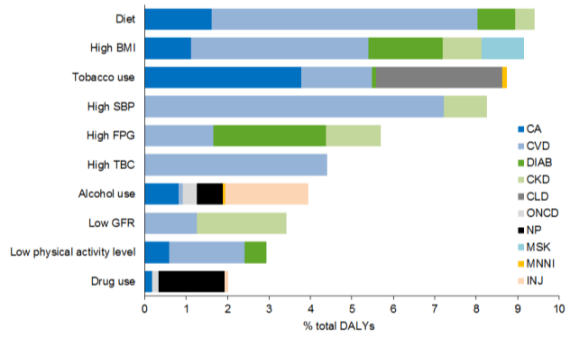
4.8 Cultural factors

Culture and cultural beliefs to explain ill health can have a profound effect on health, acceptance of treatment and use of services. For example, Māori views on health are framed by an holistic approach that encompasses four key elements, wairua (spiritual), hinengaro (psychological), tinana (physical) and whanau (extended family). Karakia (blessing or prayer) plays an essential part in protecting and maintaining these four key elements of health. Amongst Māori people in Auckland, 21% do not know their Iwi and approximately 82% cannot speak Te Reo Māori. Many people in Auckland are immigrants and may be dislocated from their culture. This is particularly the case for Asians, of whom 81% are immigrants, and Pacific people (43% are immigrants) but is also common amongst other ethnicities.

5 Modifiable Risk Factors

Lifestyle factors have a significant impact on overall health and well-being and are key contributors to cancer, cardiovascular disease and diabetes, which are major causes of death and poor health in our population. The Ministry of Health has reported the burden of disease across New Zealand based on data from the Global Burden of Disease study 2013. They use a measure called disability-adjusted life years (DALYs) that includes burden from early death and from lives led with disability. In terms of modifiable risk factors that drive this health loss, five lifestyle factors have a major impact: poor diet (9.4% of health loss), obesity (9.2%), tobacco use (8.7%), alcohol use (4.0%) and low physical activity (3%). Three further factors can be modified by lifestyle changes and by pharmaceuticals: high blood pressure (8.3% of health loss), high blood glucose (5.7%) and high cholesterol (4.5%) (Health Loss in New Zealand 1990-2013, pub 2016). Obesity may be reduced by surgery. These risk factors are present in the Auckland population at rates of 10.1% medicated for high blood pressure, 8.3% medicated for high cholesterol and 6% with diabetes (NZ Health Survey 11/13, VDR 2013).

Figure 5.1: *Attributable burden of disease (percentage of total DALYs) for selected risk factors, 2013*



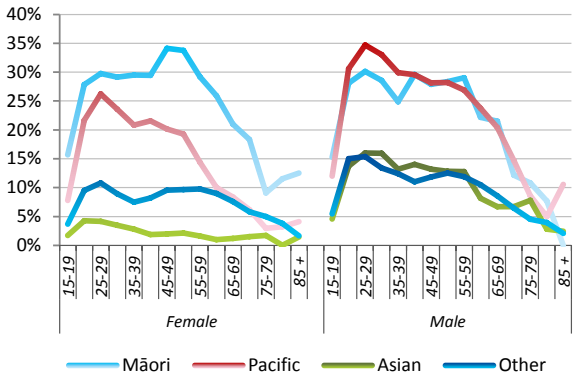
Key: CA = cancers; CVD = cardiovascular disorders; DIAB = diabetes; CKD = chronic kidney disease; CLD = chronic lung disease; ONCD (which here includes chronic liver disease) = other non-communicable diseases; NP = neuropsychiatric disorders; MSK = musculoskeletal disorders; MNNI = maternal, neonatal, nutritional deficiency and infectious disorders plus birth defects; INJ = injuries, unintentional and intentional; BMI = body mass index; SBP = systolic blood pressure; FPG = fasting plasma glucose; TBC = total blood cholesterol; GFR = glomerular filtration rate.

Source: Health Loss in New Zealand 1990- 2013

5.1 Smoking

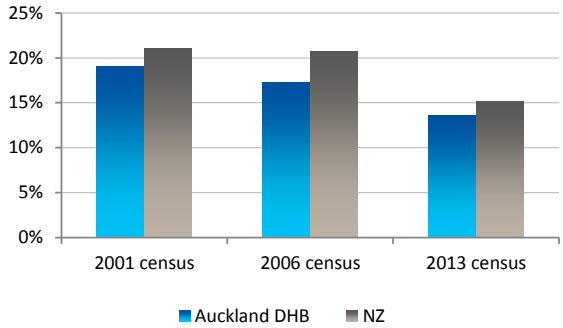
Smoking is the most significant cause of premature and preventable death in New Zealand. Eleven per cent of Auckland adults are regular smokers of cigarettes (one or more per day). This is considerably lower than for New Zealand as a whole (15%) and has reduced from 16% in 2006. However, rates are higher amongst some groups, notably Māori (26%), Pacific people (22%) and younger adults. The proportion of Year 10 students who smoke has declined dramatically over the last 10 years, from 16% in 2003 to 5.5% in 2013 (ASH Year 10 surveys). For all ethnicities except Māori, women have lower smoking rates than men. In the quarter July to September 2014, nearly all smokers who are admitted to hospital (96%) and all those who see their family doctor receive brief advice to quit smoking. Auckland DHB bans smoking on all of its premises.

Figure 5.1.1: *Proportion of people who are regular smokers of cigarettes by age group and ethnicity, Auckland DHB*



Source: Census 2013

Figure 5.1.2: *Proportion of adults aged 15+ years who were regular smokers of cigarettes*



Source: Census 2013

5.2 Diet and Physical Activity

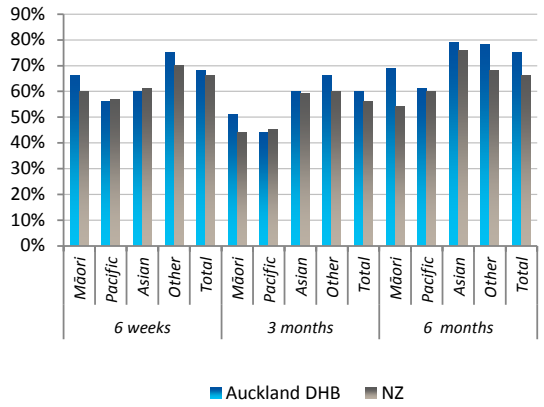
Over-consumption of fats and sugars leads to excess weight and high cholesterol levels, while too much salt can contribute to high blood pressure. These are risk factors for cardiovascular disease and diabetes.

Nutrition is complex and we only have limited information at DHB level. In Auckland DHB, 58% of adults eat the recommended daily intake of vegetables, 54% eat the recommended daily intake of fruit, and only 36% eat the recommended amounts of both fruit and vegetables. Women have a healthier diet than men. Pacific and Asian people are also less likely to have the recommended intake of vegetables. Children in Auckland are more likely than adults to eat recommended servings of fruit and vegetables (43%). Seven out of ten eat fast food at least once a week, and half have fizzy drink at least once a week. At three months of age, 60% of babies seen by Plunket in Auckland are fully breastfed, compared with 56% nationally. European/ Other babies are more likely to be breastfed than Māori, Pacific and Asian babies, in Auckland DHB and New Zealand.

Physical activity is protective against health conditions such heart disease, type 2 diabetes and certain cancers. It also helps to reduce the prevalence of overweight and obesity. Fewer than half (47%) of Auckland adults are regularly physically active and undertake at least 30 minutes of exercise five days a week. Asian people are the least likely to be physically active (43%). Active travel to work or school is a good source of physical activity. Just under half (48%) of Auckland DHB school children walk, cycle or otherwise travel actively to school. Māori (48%) and Pacific (51%) are a more likely to travel actively to school than Asian children (45%; NZ Health Survey 2014-17). Amongst employed adults, 6.5% in Auckland Region biked, walked or jogged to work (Census 2013).

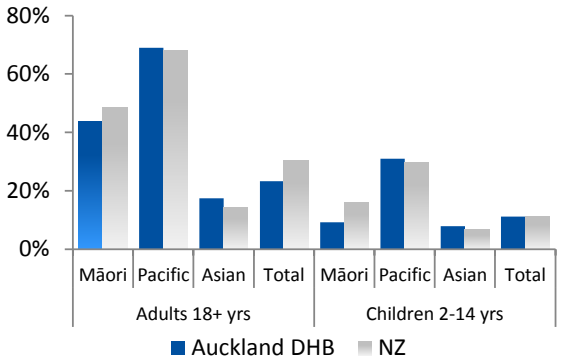
Obesity is associated with a wide range of health conditions including cardiovascular disease, various types of cancer, type 2 diabetes, kidney disease, osteoarthritis, gout, gallstones, complications of pregnancy and mental health issues. For adults, obesity is defined here as a body mass index (BMI) of 30 or above, and for children obesity is defined as a BMI above Cole cut-offs (international standard reference points for BMI by age and gender). Half (51%) of women and 62% of men in Auckland are overweight or obese. One in five of our adult population is obese (similar to the rate in 2003), compared to 30% of the national population. However, obesity is much more common in our Māori (44%) and Pacific (69%) populations and much less common in our Asian population (17%). Amongst children aged 2-14 years, 11% are obese overall, but 32% of Pacific children. Overall, 31% are overweight or obese, but 63% of Pacific children. Māori (39%) and Asian children (27%) also have high rates.

Figure 5.2.1: *Proportion of Plunket babies fully breastfed at 6wks/3mths or partially breastfed at 6mths, 2014*



Source: Plunket NZ

Figure 5.2.2: *Obesity (age-standardised) by age group and ethnicity, 2014-17*



Source: NZ Health Survey 2014-2017; obesity defined as body-mass index >= 30 (adults) or above Cole cut-offs (children)

5.3 Alcohol and Drugs

There is no safe level of alcohol consumption (Lancet 2018). As well as its acute and potentially lethal sedative effect at high doses, alcohol has effects on every organ in the body (Health Promotion Agency). Alcohol use accounts for 4% of health loss, mainly through injuries, cancers and psychiatric disorders (Health Loss in New Zealand 1990-2013). Amongst those aged 15-49, it is the leading cause of health loss.

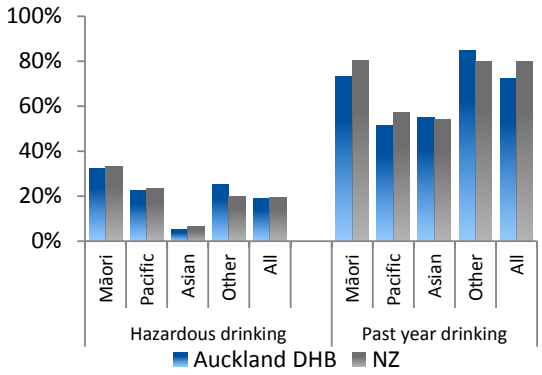
Drinking any alcohol during pregnancy is harmful to the foetus and may result in fetal alcohol spectrum disorder (FASD). In New Zealand, the evidence indicates that:

- at least one in two pregnancies are exposed to alcohol; one in ten are exposed at high-risk levels
- two in five pregnancies are unplanned, increasing the chance they will be exposed to alcohol.

(MoH 2018, *Taking Action on Fetal Alcohol Spectrum Disorder)*

Almost three in four (72%) of adults and young people in Auckland DHB drink alcohol. Moreover, 19% of adults drink alcohol in a way that is classified as hazardous. Men are far more likely to be hazardous drinkers (27%) than women (11%). The rate for Māori (32%) is much higher than for Pacific (22%), Asian (5%) and European/Other (25%) ethnicities. The Global Burden of Disease study found that for New Zealand in 2016, alcohol is the biggest risk factor for health loss among people aged 15-49 years.

Figure 5.3.1: *Proportion of adults who are hazardous or past year drinkers (age-standardised), 2015-17*



Source: NZ Health Survey 2015-2017

Illicit drugs account for 2.3% of health loss from all causes (Health Loss in New Zealand 1990-2013), but approximately 6.5% of loss in youth (ages 15-24 years). The New Zealand Health survey 2012/13 found that:

"*Eleven percent of adults aged 15 years and over reported using cannabis in the past 12 months. Cannabis was used by 15% of men and 8% of women. …. Māori adults and adults living in the most deprived areas were more likely to report using cannabis in the last 12 months. … Six percent of cannabis users reported harmful effects on work, studies or employment opportunities, 4.9% reported difficulty learning, and 1.7% reported absence from school or work in the last 12 months due to cannabis use. … Eight percent of cannabis users reported a time in the last 12 months that cannabis use had a harmful effect on their mental health."*

The 2015/16 health survey found that 1.1% of adults aged 16-64 years reported using amphetamines in the 2015/16 year. Men were more likely to have used amphetamines (1.7% compared with 0.6% of women). Younger adults, aged 25-34, had the highest reported rates at 2.4%. The rates for each ethnicity were 2.9% for Māori, 1.2% for Pacific, 0.2% for Asian and 1.3% for European/Other adults.

The 2007/08 survey of drug use in New Zealand found that marijuana was the most commonly used illegal drug in Auckland and New Zealand.

Nationally other drugs most commonly used are nitrous oxide, Kava, Ecstasy and amphetamines; but each of these was tried by less than 4% of people in the last year. Party pills were commonly used in 2006, however since this survey party pills have been made illegal. Police offences records show that possession of marijuana constituted 68% of recorded illicit drug possession offences in Auckland in 2013, and amphetamine/meth-amphetamine constituted 22%. In the 2013 New Zealand Arrestee Drug Use Monitoring System (NZADUM) survey, 50% of the police detainees had tried methamphetamine in their lifetimes, 30% had used it in the past year and 19% had used it in the past month. Detainees in Auckland Central were more likely to have recently used methamphetamine than those in Christchurch Central and Whangarei.

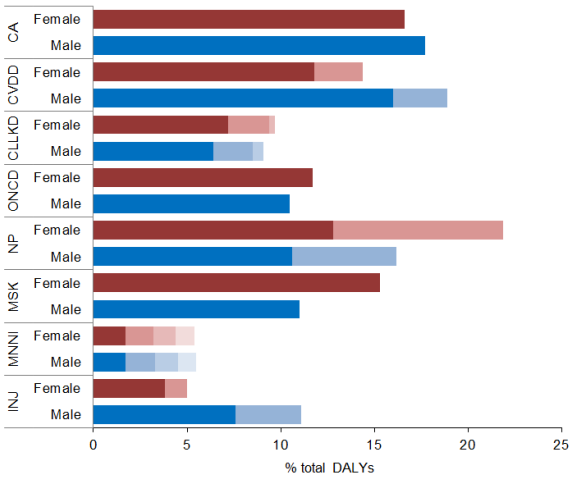
6 Health Status

6.1 Overall health

Overall, the self-reported health status of Auckland residents is excellent. More than 89% of adults in Auckland report that their overall health is excellent, very good or good. (New Zealand Health Survey 2011-13) The following sections look at how long we are living and at the key diseases which shorten our lives through avoidable deaths, and those causing avoidable hospital admissions.

The most significant disease groups causing health loss, measured in DALYs, are neuropsychiatric disorders including mental illness, addictions and dementia (19% of the total burden), cancers (17%), cardiovascular diseases including diabetes (17%), musculoskeletal disorders (13%), and chronic lung, liver and kidney disease (~10%). Together these conditions account for over three-quarters of health loss (76%) (Health Loss in New Zealand 1990-2013).

Figure 6.1.1: *Percentage of DALYs by condition group, New Zealand, 2013*



Key

CA = cancers
CVDD = cardiovascular disorders (dark shade) and diabetes (light shade)
CLLKD = chronic lung (dark shade), kidney (mid shade) and liver disease (light shade)
ONCD = other non-communicable diseases
NP = neuropsychiatric disorders: mental disorders (dark shade), neurological disorders including dementia (light shade)
MSK = musculoskeletal disorders
MNNI = birth defects, maternal and neonatal disorders, infectious disorders, nutritional deficiency disorders (in that order from left to right)
INJ = injuries, unintentional (dark shade) and intentional (light shade)

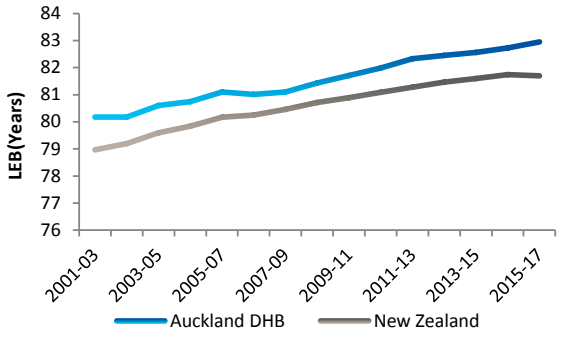
Source: Health Loss in NZ 1990-2013

6.1.1 *Life expectancy*

In 2015-17 life expectancy at birth in the Auckland DHB area was 82.9 years, a little higher than the national figure of 81.7 years. For New Zealand as a whole, life expectancy increased by 1.5 years over the last decade. For Auckland, the increase was 1.8 years.

Life expectancy varies across ethnic groups with Māori living 79.5 years on average and Pacific people 76.1 years, while non-Māori non-Pacific people live 84.1 years. Women live 3.0 years longer than men. While total life expectancy for Māori and Pacific has increased, there remains a gap compared with non-Māori non-Pacific people, of 4.6 years for Māori, and 8.0 years for Pacific people.

Figure 6.1.1.1*: Life expectancy at birth*

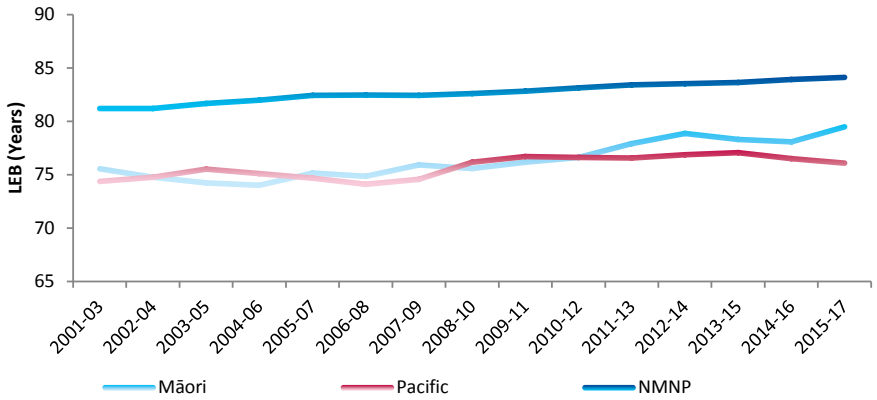


Source: Ministry of Health mortality data collection, local calculation

6.1.2 *Life expectancy (continued)*

Circulatory disease, cancer and diabetes accounted for over half the difference in life expectancy between Māori and Pacific people when compared to European/Other ethnicities in Auckland. Accidents were also a large contributor to the gap for Māori men and respiratory diseases were important for Māori women.

Figure 6.1.1.2: *Average life expectancy at birth in Auckland DHB (years) by ethnicity; male and female combined*



Source: Ministry of Health mortality collection; Statistics NZ population estimates based on census 2013

Figure 6.1.1.3: *Life expectancy gap between Māori and non-Māori/non-Pacific by leading causes of mortality in Auckland DHB, 2012-14*

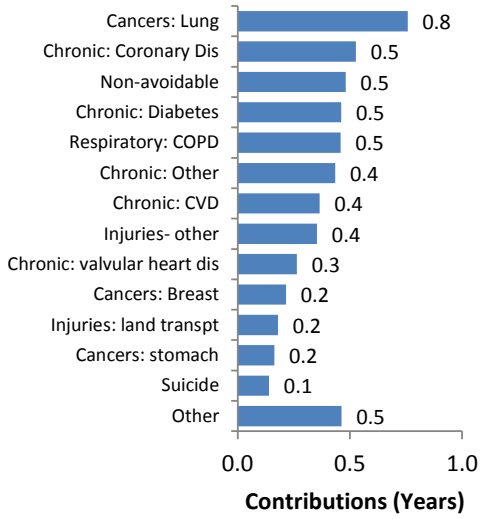
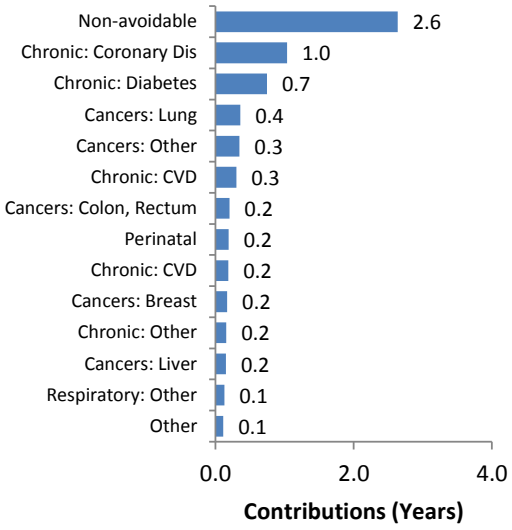


Figure 6.1.1.4: *Life expectancy gap between Pacific and non-Māori/non-Pacific by leading causes of mortality in Auckland DHB, 2012-14*



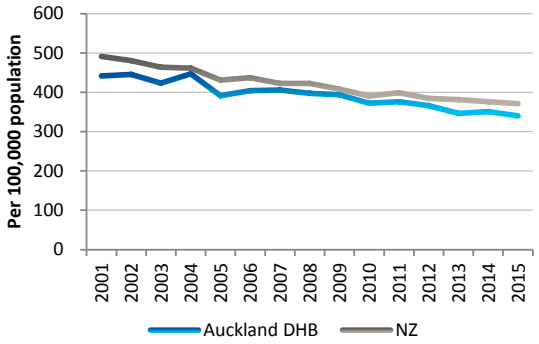
Māori develop lung cancer 6-8 years earlier than non-Māori and at lower exposure to smoking. With the incidence of lung cancer for Māori women continuing to rise steeply and an on-going very high death rate from the disease, it is likely that differences in mortality from lung cancer will persist for some time.

6.1.3 *Total Mortality*

About 2,500 people die each year in Auckland and 82% of these are aged over 65 years. The most common causes of death are cardiovascular disease (31%), cancers (28%), respiratory diseases (9%) and nervous system diseases (5%). The age-standardised mortality rate in 2015 was 340 deaths per 100,000 population, compared with 371 for New Zealand as a whole. Mortality rates are highest in Mangere-Otahuhu (age-standardised 850 per 100,000 population, standardised to Auckland Region) and Mangakiekie-Tamaki (790 per 100,000 population).

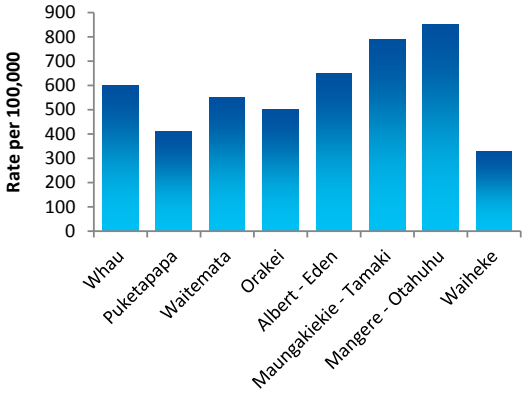
As well as looking at mortality rates, it is helpful to measure how many years of life are lost for each person who dies before the age of 65. This calculation gives more weight to the deaths of younger people. The age-standardised rate of potential years of life lost (PYLL) per 1,000 people was 18 for Auckland, compared with 25 for New Zealand as a whole. This suggests that Auckland is doing better than average at avoiding mortality amongst younger people. Māori and Pacific lose three times as many years of life as European/Others per 1,000 population.

Figure 6.1.2.1: *All deaths, age standardised mortality rate per 100,000 population, 2001-2015*



Source: Ministry of Health Mortality Collection, standardised to WHO population

Figure 6.1.2.2: *All deaths, age-standardised mortality rate per 100,000 population by local board, 2011*



Source: StatPlanet, standardised to Auckland Region population

Figure 6.1.2.3: *ASR of Potential Years of Life Lost per 1,000 population, 2013*

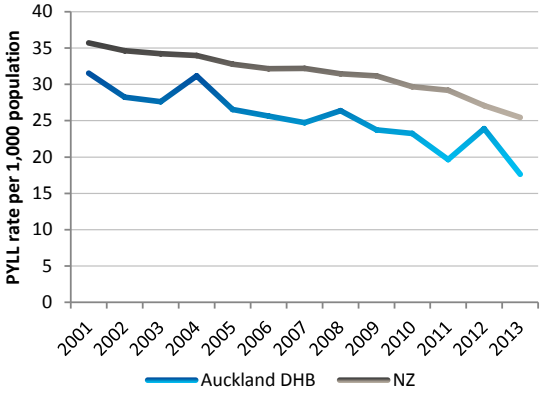
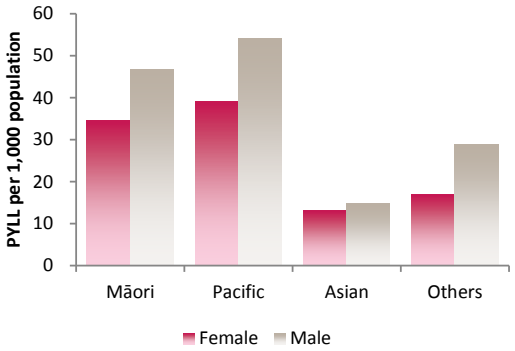


Figure 6.1.2.4: *ASR of Potential Years of Life Lost per 1,000 population, by ethnicity and gender, Auckland DHB residents, 2011-2013*



6.1.4 *Avoidable causes of mortality*

Avoidable mortality includes deaths occurring in those aged 0-75 years (excluding stillbirths) that could potentially have been avoided through population-based interventions or through preventive and curative interventions at an individual level. Prevention includes successful public health promotion (including lifestyle changes) and injury prevention.

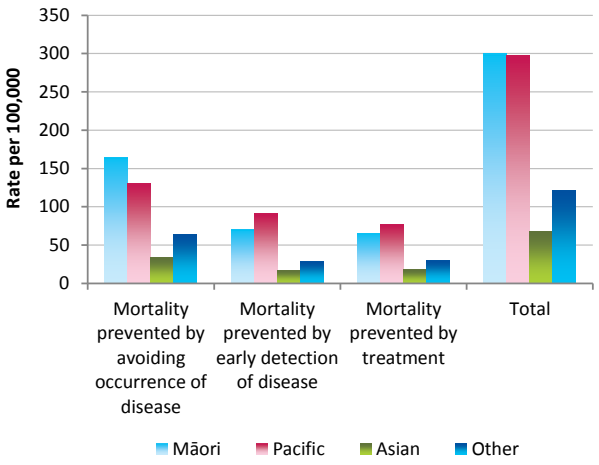
In 2013, 556 deaths (23% of the total) were considered potentially avoidable. The leading causes of avoidable mortality in Auckland are ischaemic heart disease (IHD), lung cancer, unintentional injuries, colorectal cancer, diabetes, stroke and chronic obstructive pulmonary disease (COPD). For women breast cancer is also important and for men intentional injuries are important.

The very marked differences between groups highlight the opportunity for reduction in health inequalities. Men have a 36% higher avoidable mortality rate than women. Māori and Pacific avoidable mortality rates are more than double that of European/Other ethnicities. The chart below shows the rates that could be avoided through primary prevention (avoiding occurrence of disease eg through immunisation or lifestyle related interventions), secondary prevention (detecting and addressing disease before the appearance of symptoms eg by treating hypertension) and tertiary prevention (treatment and rehabilitation eg by surgery).

Figure 6.1.3.1: *Most common causes of avoidable mortality, 2011-2013 combined*

	Cause	Age-standardised rate per 100,000 population
Female	*Breast Cancer*	12.2
	Lung Cancer	11.6
	Ischaemic heart disease	8.8
	Colorectal cancer	6.8
	COPD	5.7
	Diabetes	5.5
Male	*Ischaemic heart disease*	29.4
	Unintentional injuries	14.3
	Intentional injuries	13.4
	Lung cancer	12.5
	Colorectal cancer	9.6
	Diabetes	8.2
	Cerebrovascular disease	7.0
	COPD	6.9

Figure 6.1.3.2: *Avoidable mortality by ethnic group (age-standardised per 100,000 population), 2009-2011*



6.2 Specific conditions

6.2.1 *Cardiovascular disease*

Cardiovascular diseases (CVD) are diseases affecting the heart and circulatory system. They include ischaemic heart disease, rheumatic heart disease, cerebrovascular disease and other forms of vascular and heart disease. Cardiovascular disease is the leading cause of death in Auckland DHB. It is also the leading cause of years lost to premature mortality. The main risk factors for cardiovascular disease including stroke are high blood pressure, high body mass index, high cholesterol, tobacco use and low physical activity (Health Loss in New Zealand 2013). These risk factors interact with each other, for example low physical activity contributes to high body mass index, high blood pressure and high cholesterol. Cardiovascular disease is exacerbated and compounded by diabetes. Overall, around 70% of the burden of cardiovascular disease is attributed to modifiable risk factors and is preventable through adopting a healthy lifestyle, and manageable with lifestyle change, early intervention and effective management.

The age-standardised mortality rate (ASR) from CVD of the Auckland DHB population was slightly lower than the New Zealand rate (105 per 100,000 population vs 118 per 100,000 population). The rate for men (128 per 100,000 population) was much higher than for women (85 per 100,000 population). Amongst men, it was more common in Māori (193 per 100,000 population) and Pacific (205 per 100,000 population) than Asian (84 per 100,000 population) and European/Other ethnicities (121 per 100,000 population). The rates for Māori and Pacific women were also high at 142 and 130 respectively per 100,000 population. For both Auckland and the country as a whole, the mortality rate for CVD has reduced from over 140 per 100,000 population since 2007.

Figure 6.2.1.1: *Age standardised mortality rate per 100,000 population for cardiovascular disease, male and female, all ages*

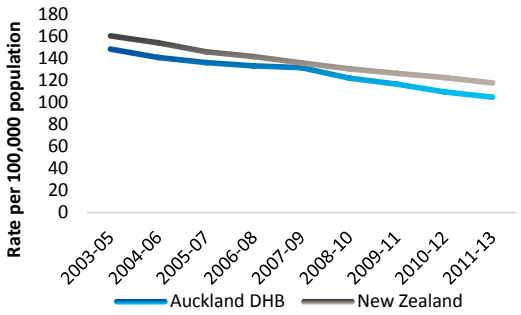
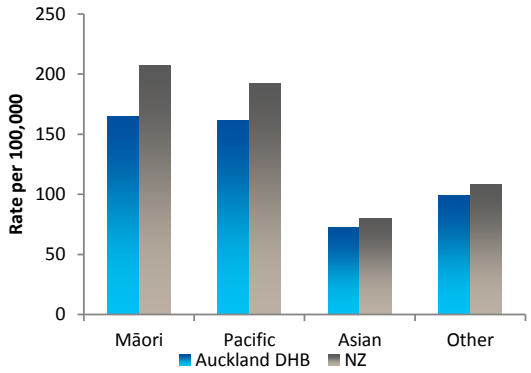


Figure 6.2.1.2: *Cardiovascular disease mortality by ethnic group (ASR per 100,000 population), 2011-13 combined*

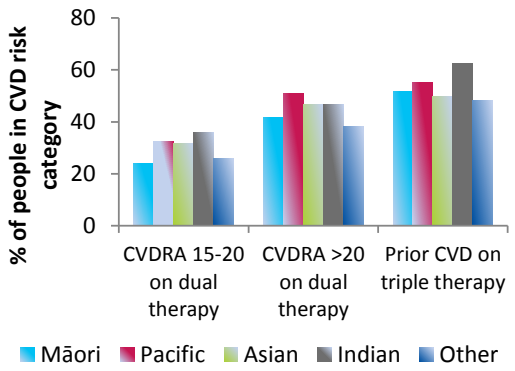


Source: Ministry of Health Mortality data collection

Within Auckland DHB, 92% of eligible adults have been assessed within the five years to December 2018 for their risk of cardiovascular disease, but only 68% of Māori men aged 35-44 years.. One in nine Auckland adults takes medication for high blood pressure, and one in 11 takes medication for high cholesterol (NZ Health Survey 2011-13). A higher proportion of Māori and Pacific people are on these medications than European/Other and Asian people, reflecting higher rates of cardiovascular disease (CVD) within these populations.

Current New Zealand guidelines recommend that people who have had a heart attack or stroke should be treated with a combination of medications also known as "triple therapy". These medications include anti-coagulant/antiplatelet, a cholesterol-lowering drug and a blood pressure-lowering drug. People with a high risk score but no previous CVD should be treated with cholesterol- and blood pressure-lowering drugs (dual therapy). Of Auckland residents who have been admitted to hospital with CVD in the previous 10 years, 52% are on triple therapy. This rises to 63% amongst people who also have diabetes. Rates of cardiac investigation and surgery carried out in public hospitals for Auckland residents are similar to the national average.

Figure 6.2.1.3: Cardiovascular risk and medication dispensing rates, March 2019



Source: Northern Region Cardiac KPIs

6.2.2 *Stroke*

Stroke is a sudden interruption of blood flow to a part of the brain, causing damage to the brain cells. The impact of stroke and transient ischemic attack (TIA) can be catastrophic for the individual and family/whanau and is resource intensive for health services. Management of high blood pressure through medication reduces the risk of stroke as well as of cardiac disease (see rates above).

The age-standardised mortality rate from stroke is 25 per 100,000 which is similar when compared to 28 per 100,000 for New Zealand as a whole. There were 695 strokes leading to hospital admission in Auckland DHB residents in the year to March 2014. Approximately 18% of these patients died within 30 days of admission.

For patients admitted acutely, the risk of dying is higher if the admission takes place at the weekend, resulting in five excess stroke deaths per year for Auckland DHB.

Managing these events according to the New Zealand Stroke Management Guidelines (2012) is essential for improving and maximising health outcomes for people after a stroke, or who are at risk of stroke. It is also important to commence rehabilitation promptly as delays in acute wards may inhibit the crucial motor recovery process taking place shortly after a stroke. 7.9% of eligible stroke patients received thrombolysis (breaking down blood clots using medication), above the national target of 6%. This has ranged between 5% and 14% over the past two years. Four out of five patients (80%) were cared for on a dedicated stroke unit, achieving the national target. Around one in four stroke patients is transferred from acute care to rehabilitation, and of these, between a half and two-thirds are transferred within 10 days of having a stroke which is a similar rate to the Regional average.

6.2.3 *Diabetes*

Diabetes is a disease which affects the body's ability to control blood glucose. Type 1 diabetes is primarily an inherited condition generally diagnosed in childhood/adolescence. Type 2 diabetes is usually thought of as an adult disease, but is increasingly being diagnosed in children. We estimate that over 24,500 people in Auckland have some form of diabetes, 4.7% of the population (Virtual Diabetes Register 2017; PHO records of patients identified as diabetic gives a lower estimate than this). The number has doubled since 2003.

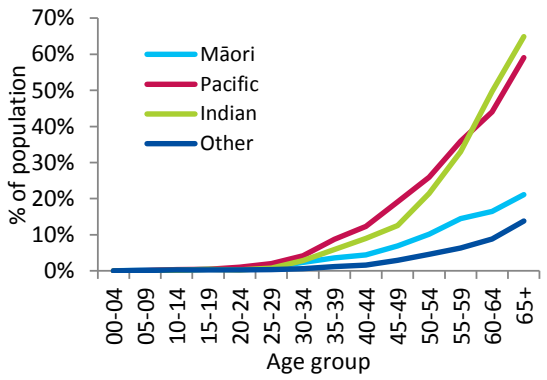
Diabetes prevalence increases dramatically with age reaching 14% of the population for European/ Other/ Asian people by the time people are in their 60s. From the age of 30, prevalence in Māori is increasingly higher than in European/Other/Asian and is even higher for Pacific people and Indian people.

The presence of diabetes can lead to cardiovascular disease, blindness, dementia, kidney disease and foot problems which may lead to amputations. Early detection and good management can delay or avoid the onset of these problems. Risk assessment for CVD and diabetes has been mentioned above. We need to provide more support to people with diabetes to manage their risk factors such as high blood pressure and blood sugar levels, and to encourage them to attend retinal screening. Of the estimated number of people with diabetes in Auckland aged 15-74 years, around 62% are known to be well-managed (defined as having HbA1c of <64 mmol/mol in the 15 months to May 2018). Within the last two years, 52% of people with diabetes have had the recommended retinal screening in the public sector.

Type II diabetes, which makes up 90% of diabetes, can be managed by diet alone or by oral medication or insulin. Prescribing rates given here are therefore only a partial indication of the quality of management. Auckland's rate of dispensing regular insulin or metformin in people with diabetes aged 25 and over was 59%, similar to the national rate of 61%. 21% filled at least one insulin prescription, 67% filled a metformin prescription and 29% filled a sulfonylurea prescription.

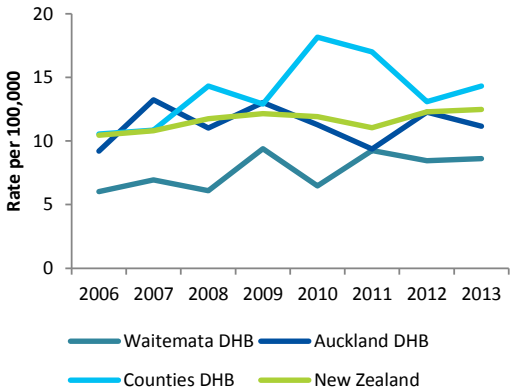
Auckland has below average rates of admission for diabetic ketoacidosis (49 admissions, 0.2% of people with diabetes) and average rates of admissions for hypoglycaemia (68 admissions, 0.3% of people with diabetes) (Atlas of Healthcare Variation 2016). Admission rates may be an indicator of the quality of management in primary care and/or Emergency departments. In total, people with diabetes used 32,380 medical/surgical bed days in 2016, which was 19.5% of all medical/surgical bed days. Between 2006 and 2013, Auckland has seen the rate of lower limb amputations rise from 9 per 100,000 population to 11 per 100,000 population. This increase reflects the growing number of diabetics in the population, and increasing time with diabetes at patient level. Rates of amputation per medicated diabetic person are relatively stable between 0.1% and 0.2%. In 2016 the actual number of amputations was 40.

Figure 6.2.3.1: *Diabetes prevalence in Auckland DHB, 2017*



Source: Ministry of Health Virtual Diabetes Register, 2017

Figure 6.2.3.2: *Diabetes-related non-traumatic lower limbs amputation age standardised rate, Auckland region District Health Boards and New Zealand, 2006-2013*



6.2.4 *Cancer*

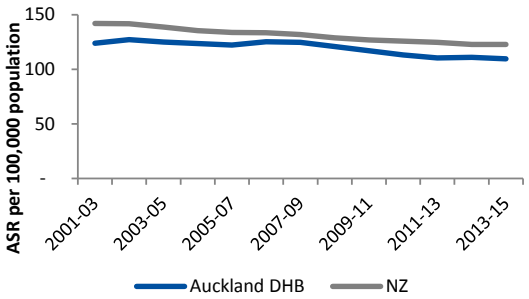
Cancer is an abnormal growth of cells that can result in the invasion of normal tissues and which may spread to other parts of the body (metastasis). The main risk factors for cancer are tobacco use, high body mass index, physical inactivity, alcohol use, low fruit and vegetable intake and unsafe sex. For melanoma, sun exposure is also important. (Health Loss in New Zealand 2013). Overall, around 30-35% of the burden of cancer is attributed to modifiable risk factors and is preventable through adopting a healthy lifestyle, and manageable with lifestyle change, early intervention and effective management.

Cancer is the second highest cause of death in Auckland DHB, accounting for 28% of deaths. Amongst our residents, the age-standardised mortality rate (ASR) from cancer for 2013-15 was 109 per 100,000. This is lower than the national ASR of 123 per 100,000 population. The Māori mortality rate (177 per 100,000 population) and Pacific mortality rate (168 per 100,000 population) are substantially higher than that of European/Other ethnicities (112 per 100,000 population), whilst Asian people have the lowest rate at 55 per 100,000 population. Since 2009, the ASR for Auckland fell faster than for New Zealand as a whole.

The table to the right shows the ten most common cancers causing death in the Auckland DHB for the 3 year period 2013-2015. Sixty-seven per cent of all cancer deaths in Auckland are covered in the top 10 and 38% are due to lung, colorectal and breast cancer. Just over half of all cancer deaths (54%) occur in the people aged under 75 years, but almost three-quarters of those dying of breast and liver cancer are aged under 75 years, as are 81% of those dying of brain cancer.

The most significant causes of cancer mortality in adults are lung cancer (33 per 100,000 population aged 25 years and over), colorectal cancer (25 per 100,000 population aged 25 years and over), breast cancer (41 per 100,000 women aged 25 years and over) and prostate cancer (34 per 100,000 men aged 25 years and over). The lung cancer mortality rates for Māori women and men (110 and 102 per 100,000 population aged 25 years and over) and Pacific men (70 per 100,000 population aged 25 years and over) are two to three times the rates for European/Other men (33 per 100,000 population aged 25 years and over). Māori develop lung cancer 6-8 years earlier than non-Māori and at lower exposure to smoking. With the incidence of lung cancer for Māori women continuing to rise steeply and an on-going very high death rate from the disease, and it is likely that differences in mortality from lung cancer will persist for some time.

Figure 6.2.4.1: *Age standardised mortality rate per 100,000 population all cancers, three year rolling average, 2001-03 to 2013-15*



Source: Ministry of Health Mortality data collection; ICD codes C00-C96, D45-D47

Figure 6.2.4.2: *Top 10 causes of cancer mortality by major site in Auckland DHB for 2013-2015**

Cancer type	Age (years)		
(ICD 10 code)	<75	75+	Total
Lung cancer *(C33-C34)*	201	142	343
Colorectal and anal cancer (C18-C21)	117	165	282
Female breast cancer (C50)	112	39	151
Prostate cancer (C61)	31	89	120
Pancreatic cancer (C25)	67	36	103
Liver cancer *(C22)*	57	25	82
Leukaemia *(C91-C95)*	45	35	80
Malignant melanoma of skin (C43)	50	27	77
Ovary & other uterine adnexa (C56,C57)	49	27	76
Brain tumour (C71)	55	13	68
All other cancer	329	353	682
Total	**1,113**	**951**	**2,064**

** Data represent the number of deaths for a 3 year period*

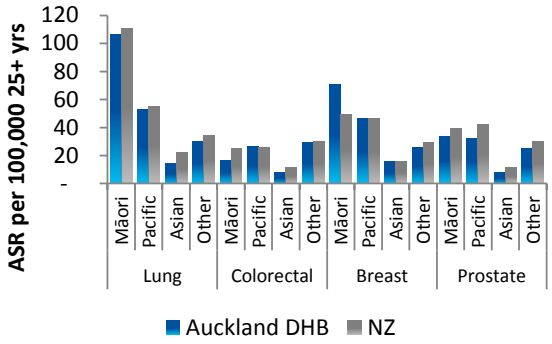
On average, 1,860 people are diagnosed with cancer per year in Auckland DHB, some of whom have more than one cancer. The age-standardised rate of cancers registered in the period 2014-2016 was 289 per year per 100,000 female population (NZ 316) and 335 per 100,000 male population (NZ 358). The most commonly registered cancers were breast, prostate, colorectal, melanoma and lung. Within these total figures, Māori and Pacific have higher rates of lung and breast cancer but very low rates of melanoma, compared with European/Others. Asian people have generally low rates of cancer registration except for lung cancer, where Asian people have similar rates to European/Other people. Cancer hospitalisation rates tend to mirror the pattern for mortality, but skin cancer is the top cancer for hospitalisations.

The five-year relative survival rate for cancer in Auckland DHB is 69%, which is the highest in New Zealand. However, Australia performs better than New Zealand in treating cancers. If Auckland DHB had the same five-year survival rates as Australia, 25% of women who die of breast cancer within five years would survive for longer (7 per year). Similarly, 13% who die of bowel cancer within five years would survive for longer (8 per year). For melanoma the difference is 46% (11 per year) and for non-Hodgkin lymphoma it is 25% (5 per year).

Rapid diagnosis and treatment of cancer increases the options for treatment and the chances of survival. In Auckland DHB we undertake routine screening for cervical and breast cancers. Cervical screening is offered every three years and 63% of eligible women (25-69 year olds) have taken this up, but this varies from 53% for Māori, and 51% for Asian women to 62% for Pacific women and 75% for European/Other women. Breast screening is offered every two years and 64% of eligible women (45-69 year olds) have taken this up, although Pacific women have a higher rate at 71%.

To support continued improvement in services and waiting times for people with cancer, accessing faster cancer treatment is a key priority and forms an integral part of the national health targets. As at March 2019, 92% of cancer patients wait less than 62 days for treatment or other care to commence, compared with the target of 90%.

6.2.4.3: *Cancer mortality by ethnic group (ASR per 100,000 aged 25+ years) 2013-15 combined*



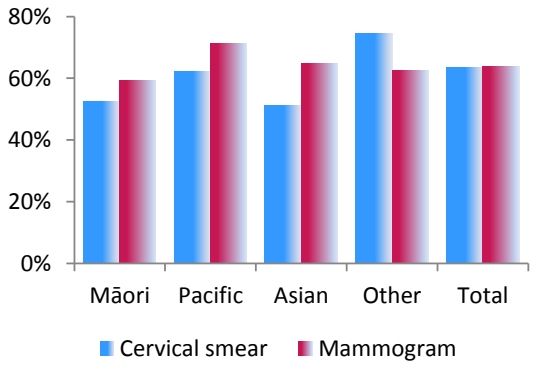
Source: Ministry of Health mortality data collection

Figure 6.2.4.4: *Most common causes of cancer registrations for Auckland DHB residents, 2014-2016 and five-year survival rates for 2012-13 registrations*

Type	Registrations	Five-year relative survival rate	Deaths (13-15)
Female breast cancer	840	93%	151
Colorectal cancer	705	72%	282
Prostate cancer	699	93%	120
Melanoma	589	95%	77
Lung cancer	474	17%	343
Other	2,271		1,091
Total	**5,578**	**69%**	**2,064**

Source: NZ Cancer Registry, NZ Mortality data collection

Figure 6.2.4.5: Percentage of women up to date with cervical and breast screening March 2019, Auckland DHB



Source: National Screening Unit

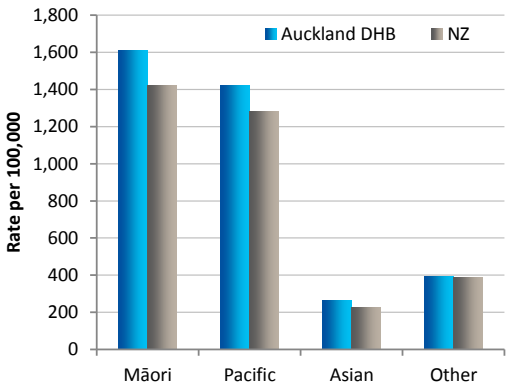
6.2.5 *Respiratory disease*

Respiratory diseases are those conditions that impact the lungs and the airways. They range from acute infections, such as pneumonia and bronchitis to chronic conditions such as asthma and chronic obstructive pulmonary disease (COPD). Respiratory disease accounts for about 200 deaths per year, or 8% of the total in Auckland DHB.

Whilst the prevalence of asthma for Māori (14%) and Pacific (11%) is slightly higher than that of European/Other ethnicities (8%) found by the NZ Health Survey 11/13, Māori and Pacific hospitalisation rates are more than four times that of Asians and Europeans/Others, at 240 and 283 admissions, compared with 51 admissions per 100,000 population aged 15 years and over for European/Other and Asian people. Women have more than double the hospitalisation rate of men. Asian people had both a low asthma prevalence (4%) and low hospitalisation rates (51 admissions per 100,000 population aged 15 years and over). Around 10% of non-Asian Auckland residents are taking medication for asthma. Amongst people admitted to hospital with a primary diagnosis of asthma (or wheeze in children aged 0-14 years), Auckland had significantly lower rates than average for dispensing one or more asthma inhalers in the year following their admission (63 compared with the New Zealand average of 81 per 1,000 population).

COPD is a particular burden for Māori and Pacific people. Age-standardised hospitalisation rates (ASR) per 100,000 for these groups are 1,611 (Māori) and 1,419 (Pacific), more than three times as high as those of European/Other ethnicity (394 per 100,000 population), and higher than for Māori and Pacific in New Zealand as a whole. One of the main risk factors for COPD is smoking.

Figure 6.2.5.1: *COPD hospitalisation (ASR per 100,000 aged 35+), 2013*



6.2.6 *Mental Health*

Mental ill-health is one of the leading causes of disability and overall health loss. Mental health encompasses an array of disorders including but not limited to: depression, schizophrenia, dementia, intellectual disabilities and developmental disorders including autism. Nationally one in five people have suffered some kind of mental illness in the last year and 3% have suffered from a serious mental illness. Half of those who develop mental health disorders have problems evident by the age of 15 years. Three out of four people who develop a substance use disorder do so by the age of 24 years.

Mental illness is also associated with reduced life expectancy of ten or more years resulting from other illnesses, particularly cancer and cardiovascular disease. Even when these disorders are recognised, rates of intervention are lower for this population compared with people without mental illness.

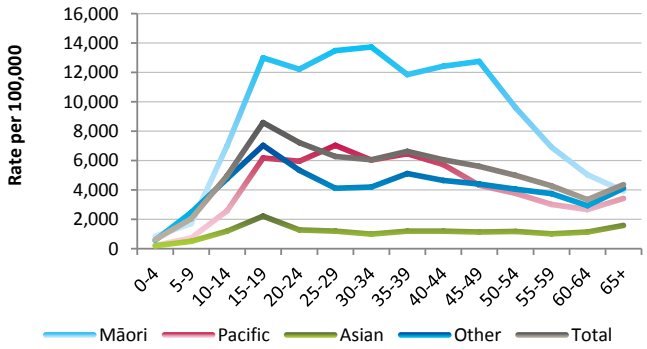
There were on average 41 suicides per year in Auckland DHB over the five years to 2011, a disproportionate number of whom were young and Māori. Auckland's age-standardised suicide rate of 8.5 per 100,000 population is slightly lower than the national rate of 10.6 per 100,000 population. People who make an unsuccessful suicide attempt are at high risk of making further attempts and an estimated 9% die within five years. The New Zealand Mental Health survey (2006) found that 0.4% of adults had attempted suicide in the previous year.

Twelve per cent of adults in Auckland DHB report that they have depression, anxiety or bi-polar disorder (equivalent to around 43,000 people), compared with 16% in New Zealand as a whole (NZ Health Survey 2011-2013). Women reported these conditions almost twice as often as men. In the Auckland DHB population, 3.6% (approximately 17,000 people) used secondary mental health services in 2013. Utilisation rates were higher amongst young people (15-24 years) although rates remained high in later adulthood (25-49 years) for Māori and Pacific. Māori have double the utilisation rates of Pacific and European/Other ethnicities in all age groups except children aged 0-9 years and people aged over 65 years. Asian people have very low utilisation rates.

There are wide differences in the rates at which people of different ethnicities are diagnosed and access secondary services for the various types of mental illness. In particular, the prevalence of schizophrenia is more than double in Māori (1,996 per 100,000 population) compared with European/Other ethnicities (733 per 100,000 population). Conversely, European/Other people have a higher prevalence of depression (1,117 per 100,000 population) than do Māori (800 per 100,000 population), Pacific (345 per 100,000 population) and Asian (252 per 100,000 population). Given the higher prevalence of psychological distress for Pacific people, of whom 10% experience distress compared with 5% of European/Other people, the low treatment rate for Pacific people may indicate poor access to services.

Almost nine out of ten (89%) adults accessing non-urgent mental health services were seen within 3 weeks and 96% accessed services within 8 weeks. For those aged 0-19 years, a smaller proportion (70%) accessed non-urgent services within 3 weeks and 96% accessed services within 8 weeks. Amongst older adults, 70% accessed non-urgent services within 3 weeks and 94% accessed services within 8 weeks. Two-thirds (66%) of Auckland DHB residents who are admitted acutely to hospital have had pre-admission care (compared to 56% for NZ as a whole) and 78% receive post-discharge care (compared to 62% for NZ as a whole). Auckland DHB also has lower readmission rates than the national average, although rates have been steadily increasing between 2009/10-2012/13, from 6% to 12%. Auckland DHB has the longest mean length of stay in the country at 30 days but this has reduced from 46 days in 2009/10 and continues to decrease. It remains substantially longer than the national average of 18 days.

Figure 6.2.6.1: *Rate per 100,000 population seen by secondary Mental Health services by age and ethnicity, 2013*



Source: Programme for the Integration of Mental Health Data (PRIMHD)

6.2.7 *Injury*

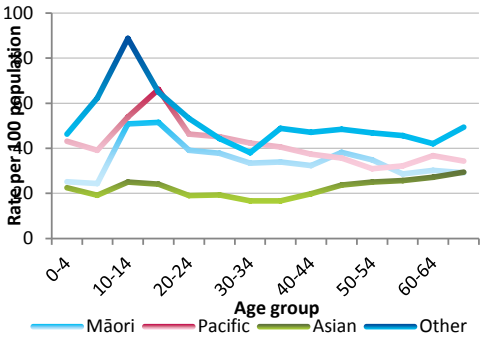
Injuries have a substantial impact on the health of the population, both as a leading cause of premature death and through disability following an injury. The age-standardised mortality rate from unintentional injury is 13 per 100,000 population, compared with 18 per 100,000 population for New Zealand as a whole. The rate for men is higher than for women (17 vs 9 per 100,000) and the rates for Māori and Pacific men are particularly high at 58 and 27 per 100,000 population respectively. For older people, falls are the largest cause of injury-related deaths, while for adults aged 45-64 years, suicide is the largest cause. For younger adults, road traffic accidents and suicide dominate.

Injury is also an important cause of hospitalisation. The age-standardised rates for Māori (5,600) and Pacific (5,500) people per 100,000 population are considerably higher than for Asians (1,800 per 100,000) and Europeans/Others (4,100 per 100,000 population). Injury is the leading cause of mortality and hospitalisation for children and young people aged between 1 and 24 years.

In 2013/14, Auckland residents made 184,000 claims to the Accident Compensation Corporation (ACC) for injury, an average of five claims for every ten people. The highest rates of claim occur amongst youths and young adults.

European/Other people have higher rates than Pacific people and Māori and Asian people have the lowest rates of claim. Soft tissue injuries make up 64% of claims, and 19% are for lacerations and puncture wounds. Fractures and dislocations account for 7% of claims. Most injuries occur at home (45%) or during sport or recreation (27%).

Figure 6.2.7.1: *ACC claims for injury per 100 population 2013/14 financial year*



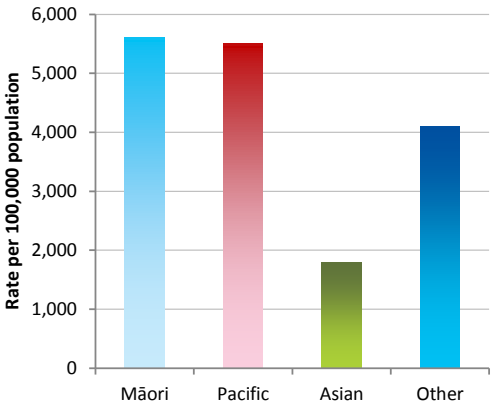
Source: Accident Compensation Corporation

Figure 6.2.7.2: *Mortality from injury by cause and age group, Auckland DHB, 2011*

Source: Ministry of Health mortality data collection

Type	Under 15	15-24	25-44	45-64	65+	Total
Other accident	1	1	1	2	8	**13**
Accidental poisonings	0	1	2	8	2	**13**
Burns	0	0	1	0	0	**1**
Drownings	0	1	2	0	1	**4**
Falls	0	2	2	3	44	**51**
Intentional self-harm	0	9	6	14	1	**30**
Road traffic injuries	1	6	7	2	3	**19**
Violence	3	0	2	1	0	**6**
Total	**5**	**20**	**23**	**30**	**59**	**137**

Figure 6.2.7.3: *Hospitalisations for all injuries per 100,000 population, Auckland DHB residents, 2012/13*



Source: Ministry of Health national data collection

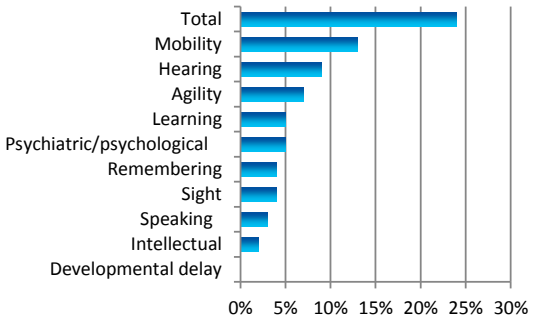
6.2.8 *Disability*

Disability is a broad term and covers a range of conditions. These are broadly grouped into sensory (hearing and vision impairment), physical (mobility and agility), intellectual, psychiatric/psychological, and other disabilities (impaired speaking, learning and developmental delay in children aged 0-14 years, and impaired speaking, learning and remembering for adults).

Only regional and national data is available from the 2013 New Zealand Disability Survey. One in five (19%) of the Auckland population had a disability, which was lower than the New Zealand average (24%). Nationally, amongst adults the percentage with a disability increases from 16% amongst young adults (15-44 years) to 59% in older people (65 years and older). Māori and Europeans have higher rates of disability and Asians low rates (26% and 25% vs. 13%).

Mobility, agility, hearing, sight and remembering are the most common disabilities in adults while learning, speaking and psychological/psychiatric disabilities are the most common in children. Multiple disabilities are common and over half of those with disabilities report more than one problem. In children disabilities present at birth are the commonest type In middle ages, disease and illness and accidents are important and aging processes impact disabilities in older people.

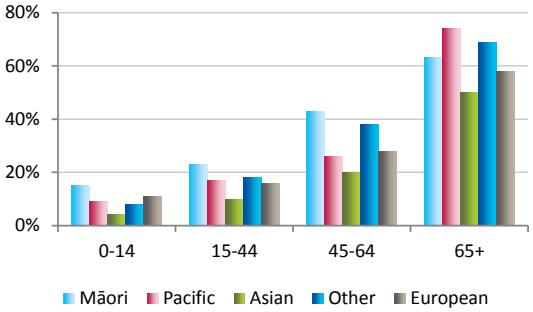
Figure 6.2.8.1: *Prevalence of disability by type of impairment (National)*



Note: any individual may appear in more than one disability type

Source: NZ Disability Survey, 2013

Figure 6.2.8.2: *Prevalence of disability 2013 (National)*



Source: NZ Disability Survey 2013

6.2.9 *Sexual Health*

Information on sexually transmitted diseases is limited in New Zealand. Sexually transmitted infections (STIs) with the exception of AIDs were not notifiable in 2016. Surveillance efforts are based on the voluntary provision of data from sexual health clinics (SHCs), family planning clinics (FPCs) and laboratories. Sexual health services in the Auckland region are provided through primary health care, including Family Planning and regional sexual health clinics and youth clinics.

In 2016, the Auckland region chlamydia rate was 643 cases per 100,000 population (651 nationally), and has been increasing since 2014 although it is still lower than the 2011 peak rate.

More than two-thirds of laboratory-diagnosed cases of chlamydia in 2016 were females but this partly reflects the fact that 80% of tests were for females, suggesting many infections in males remain undiagnosed and untreated. Chlamydia is most commonly diagnosed in females in the 15–19 years age group and in males in the 20–24 years age group in both the laboratory and clinic settings. Overall, there were 2.2 cases per 100 people amongst 15-19 year olds and 2.7 cases per 100 people amongst 20-24 year olds in Auckland in 2016. If the rates for females were replicated for males, which is likely the case, around 5 cases per 100 people in the 15-24 age group occur each year. (ESR, Sexually transmitted infections in New Zealand 2016)

In Q4 2018, 10% of youth aged 15-24 years in Auckland DHB were tested for chlamydia.

6.3 Infants, Children and Young People

6.3.1 *Births*

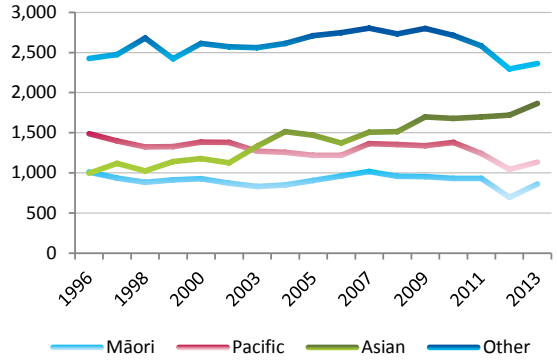
There has been a gradual increase in the number of births in Auckland, from 6,000 in 2003 to more than 6,500 per year (Statistics NZ Registered Births 2012). The increase has not been steady, with the year-on-year change in live births ranging from a drop of 340 to an increase of 460. The general fertility rate is 40 per 1,000 population of European/Other women aged 15-49 years. It is much higher for Māori (86 per 1,000 women aged 15-49) and Pacific (88 per 1,000 women aged 15-49) than for Asian (42 per 1,000 women aged 15-49).

In 2012, 208 babies were born to young women aged 15-19, an overall rate of 14.5 per 1,000 women in this age group, compared with a national rate of 25 per 1,000 women aged 15-19 years. Again the rate was higher for Māori (62 per 1,000 women aged 15-19) and Pacific (38 per 1,000 women aged 15-19). The rate for European/Other and Asians was less than 3 per 1,000 women aged 15-19. There were 16 terminations of pregnancy per 1000 women aged 15-44 in 2013 in the Auckland Region, compared with 15 per 1,000 for New Zealand as a whole (Statistics NZ). If these follow national patterns, just over half of women having a termination would have used no contraception. Nationally, looking at all age groups, 19% of pregnancies (excluding miscarriages) are terminated.

In 2013, 6.1% of babies born had low birth weight in Auckland DHB, compared with 6.0% nationally. There were 36 admissions for pregnancy complications for every 100 live births in Auckland (23% higher than for New Zealand as a whole). Pacific mothers were more likely to be admitted, with a complication rate of 45 per 100 live births. In Auckland's hospitals, 30% of all births were by caesarean section. Māori and Pacific mothers were more likely to have normal deliveries.

Poor outcomes for pregnant women and their babies are associated with later engagement with health professionals, smoking during pregnancy and obesity, amongst other factors. Earlier access to a range of health advice, information and interventions can improve health outcomes. Two-thirds (64%) of women were enrolled with a LMC at 12 weeks of pregnancy (2012). In 2013, 42% of women birthing at Auckland facilities were overweight or obese, including 18% who were obese. This varied across ethnicities, with 60% of Māori and 80% of Pacific mothers being overweight or obese. In the same period, 5.7% of mothers reported that they were smoking at the time of booking with an LMC, and 4.5% at the time of giving birth. Again this varied with higher smoking rates amongst mothers under 26 years old, mothers living in areas of high socioeconomic deprivation, and Māori and Pacific mothers. Gestational diabetes also varies across ethnic groups with the highest rates found in Indian mothers (19%), Asian mothers (14%), Pacific mothers (10%) and Māori mothers (8%), compared with 4% in NZ European mothers. (National Women's annual clinical report 2013)

Figure 6.3.1.1: *Trends in live births for Auckland DHB by ethnicity, 1996-2013*



Source: Statistics New Zealand registered births

6.3.2 *Infants and Children*

Infant mortality rates in Auckland were similar to New Zealand as a whole at 4.5 per 1,000 live births, compared with the NZ figure of 5.0 per 1,000 live births in 2013-15. However, infant mortality rates were higher for Māori and Pacific (3.6 and 11.4 per 1,000 live births) and than European/Other (1.7 per 1,000 live births) ethnic groups. The rate of sudden unexpected death in infancy (SUDI) at 0.4 per 1,000 live births in 2011-15 is lower than the national average of 0.7 per 1,000 live births although the difference is not statistically significant.

The death of a child under 14, after the first month of life, is a rare event with an average of 22 deaths a year in Auckland, with half of these being under one year of age. The most common causes of death in infants were perinatal (the period immediately before and after birth) conditions, congenital anomalies, accidental injuries and sudden infant death syndrome (SIDS). In children older than one year, the most common causes were accidents, suicide, heart diseases, cancer and congenital anomalies.

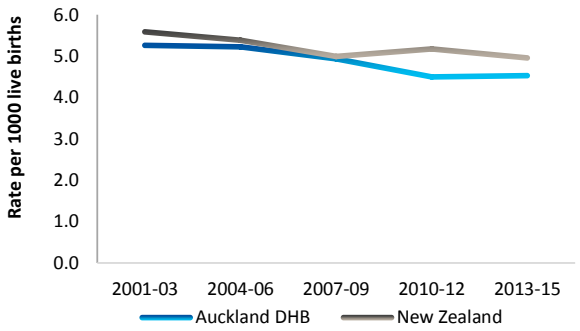
In New Zealand we have some of the highest rates of rheumatic fever of any developed country, particularly amongst Māori and Pacific children. The incidence of rheumatic fever in Auckland DHB was 3.5 per 100,000 population, lower than the national incidence of 4.1 per 100,000 population.

There were 195 admissions to hospital in 2013 for every 1,000 Auckland children aged 0-14 years for medical or surgical reasons. The most common acute admissions were for respiratory infections, gastroenteritis, injury, asthma, viral infections and skin infections. In 2012/13, there were 21.5 admissions per 100,000 population aged 0-14 for injuries resulting from domestic assault, neglect or maltreatment of children.

A General Practitioner (GP) is often the first point of contact when a child becomes unwell. Enrolling with a Primary Health Organisation (PHO) not only ensures that access to a GP can be quick and easy, but also that the PHO has a history of the child's health ensuring the best possible care. PHO enrolment has a number of other benefits including, but not limited to, reminders regarding routine health checks and upcoming vaccination events. The percentage of children enrolled with a PHO by the age of three months was much lower than average (56% in Auckland DHB against a target of 88% and a national average of 63%). Māori infant enrolment was significantly lower at 47%. The rate of referral by LMCs to a Well Child/Tamariki Ora (WTCO) provider was 99% (59% for New Zealand). Completion of core WCTO contacts within the first year of life was 78%, which was below the target of 86% but a little above the national average of 74%.

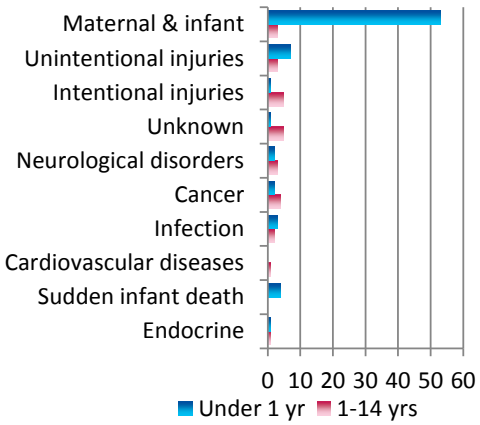
Auckland is close to achieving the immunisation target of 95% at 8 and 24 months, with 94% of children fully immunised at 8 months of age and 96% fully immunised at 24 months of age. Overall, 75% of four-year-olds received a comprehensive health check before school entry, compared with the target of 90% and the national average of 91%.

Figure 6.3.2.1: *Trend in infant mortality rate per 1,000 live births, 2001-2015, three-year averages*



Source: Ministry of Health 2018

Figure 6.3.2.2: *Numbers of deaths amongst Auckland DHB children aged 0-14, 2009-11*



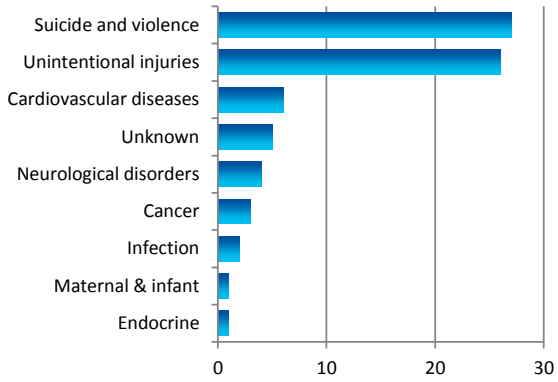
Source: Ministry of Health mortality data collection

6.3.3 *Young people*

In 2014, there were 77,000 young people aged 15-24 living in Auckland DHB, including 8,000 Māori, 10,000 Pacific, 26,000 Asian and 33,000 European/Others. During 2009-2011, an average of 25 young people died each year in Auckland. Most of these died from injury or suicide.

There were 116 admissions to hospital for every 1,000 young people in Auckland. The most common admissions were for injury, complications of pregnancy, undiagnosed signs and symptoms, and digestive system disorders.

Figure 6.3.3.1: *Numbers of deaths amongst Auckland DHB young people aged 15-24, 2009-11 combined*



Source: Ministry of Health mortality data collection

Figure 6.3.3.2: *Most common causes of hospitalisation amongst Auckland DHB young people aged 15-24, 2013*

Cause	Rate per 1,000 population
Injury	28.4
Complication of pregnancy	24.3
Non-specific conditions	13.9
Other digestive system	9.1
Diseases of skin	5.0
Other kidney diseases	5.0
Infectious Diseases	4.7
Other respiratory	3.9
Other diseases nervous system	2.8
Diseases of kidney	2.7
Diseases of musculoskeletal system	2.4
Alcohol abuse	1.8

Source: Ministry of Health data collection (NMDS)

6.3.4 *Older people*

There are over 50,000 people aged 65 years or older in Auckland and of these, 6,500 are aged 85 years and older (population projection based on 2013 census). Our older population is predominantly made up of European/Other ethnicities, with 13% of those aged 85 years and older being Māori, Pacific or Asian.

The most common causes of mortality and hospitalisation for older people are similar to the population as a whole. In Auckland the leading causes of death amongst older people are IHD, stroke, COPD, lung cancer and diabetes. Cancers altogether account for 25% of deaths. In winter the number of deaths increases and Auckland DHB records 63 extra deaths compared with the number that we expect during the warmer months.

The leading causes of hospitalisation are for injuries, IHD and angina, respiratory infections, musculoskeletal diseases and diabetes. In 2013, there were 444 hospital admissions for every 1,000 older people in Auckland.

Figure 6.4.1: *Hospital discharges per 1,000 Auckland DHB people aged 65+ years, 2013*

	Condition	Rate
Female	Injury	67.5
	Non-specific conditions	47.6
	Musculoskeletal diseases	18.2
	Ischaemic heart diseases	12.3
	Chronic lower respiratory diseases	13.7
	Diabetes	11.4
Male	Injury	60.3
	Non-specific conditions	56.9
	Musculoskeletal disease	21.1
	Ischaemic heart disease	20.0
	Chronic lower respiratory diseases	15.0
	Diabetes	14.3

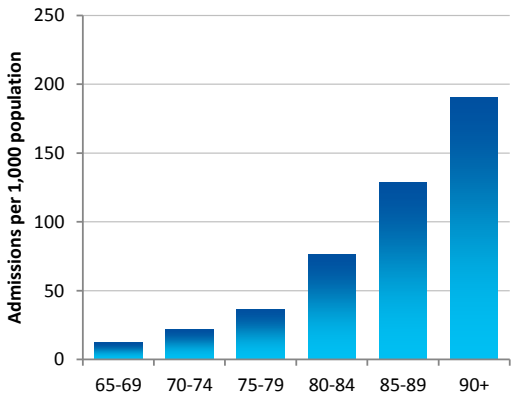
Source: Ministry of Health data collection (NMDS); not age-standardised

Older people have higher levels of health need and often have multiple health problems. The NZ Disability Survey 2013 found that nationally 59% of people aged 65 years and over have a disability, with 46% having mobility problems, 28% agility problems, 28% a hearing disability, 11% a sight problem and 10% having difficulty with remembering. In Auckland DHB, 18% of older people have ischaemic heart disease, 24% have diabetes, 43% have arthritis and 11% have a mental health disorder (NZ Health Survey 2011-2013). Around 7% of those aged over 65 years have dementia and this rises to over 25% in people aged 85 years and over.

Falls are a common cause of hospital admissions for injuries, causing 45 admissions per 1,000 people aged 65 years and over. Older people are more at risk, with the rate ranging from 12 admissions per 1,000 people aged 65-69 years rising to 191 admissions per 1,000 people aged 90 years and over. Of the patients admitted with a fractured neck of femur, 89% are aged 65 years and over.

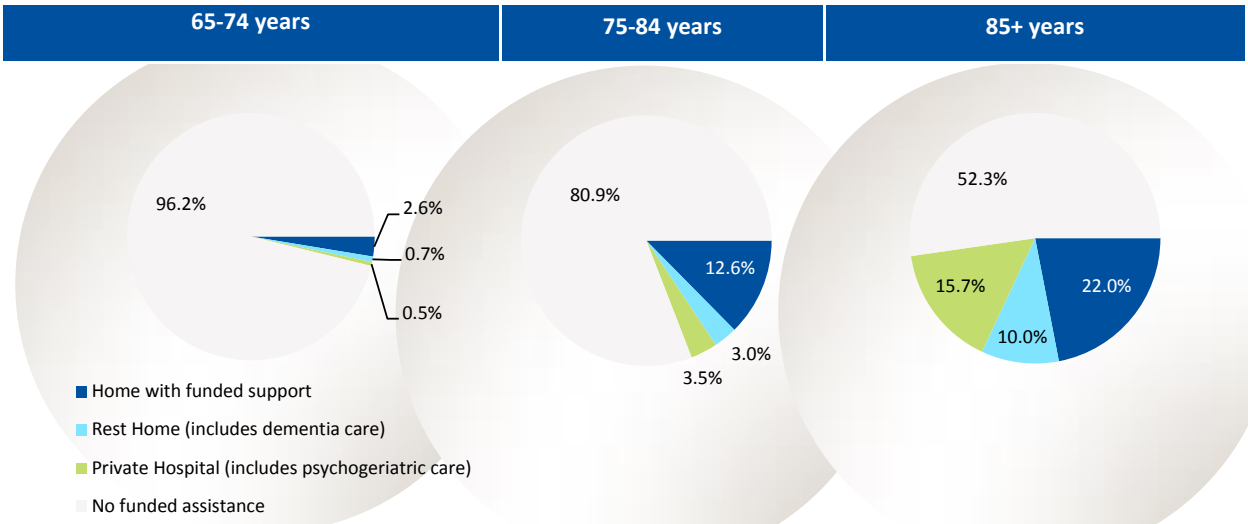
The large majority of older people in Auckland are able to live unassisted in their own homes. Over half (52%) of people who are 85 years or older receive no funded living assistance, while 26% are funded to live in a rest home or private hospital and 22% have some funded support at home. Many older people continue to work or do voluntary work. Auckland DHB offers free influenza vaccinations to those aged 65 years and over. Almost two-thirds (63%) of people over the age of 65 have received an influenza vaccine in the last year. Evidence suggests the effectiveness of influenza vaccination in the community-dwelling elderly is modest. There is some evidence that in long-term care facilities, influenza vaccination is effective against complications. (National Specialist Influenza Group 2014).

Figure 6.4.2: *Falls admissions for Auckland residents per 1,000 population aged 65 years and over, 2013/14*



Source: Ministry of Health data collection (NMDS)

Figure 6.4.3: Proportion of older people receiving support, Auckland DHB, 2013



Source: HealthPac data collection for residential care claims

7 Health services

7.1 Community health care

Primary medical care services are often the first point of contact with health services. General practices undertake a number of recommended preventive health interventions including smoking cessation advice and support, CVD risk screening, cervical screening and vaccinations.

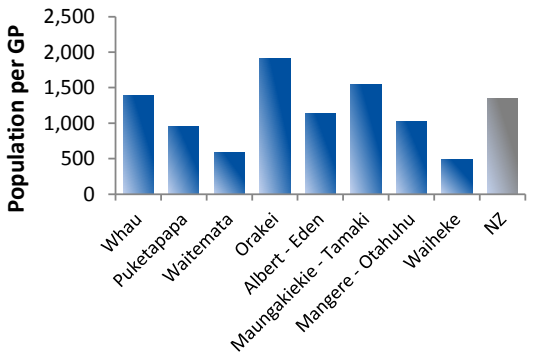
There are five Primary Health Organisations (PHOs) operating within the Auckland district with 137 general practices and 490 GPs. There are 94 GPs (full-time equivalent) per 100,000 population in Auckland DHB in 2014, considerably higher than the national average of 75 per 100,000 population. This varies across the district with 1,900 people per GP in Orakei and 1,500 per GP in Maungakiekie-Tamaki, but only 581 people per GP in the central Waitemata board area. The ratio of GPs per 100,000 population has fallen slightly over the past five years.

Overall, 88% of residents are enrolled with a PHO. While people are free to enrol in any practice in the country, 84% of people within Auckland DHB are enrolled with practices in Auckland DHB based PHOs. Only a small proportion of the Auckland DHB population (0.2%) are enrolled outside of the greater Auckland area.

The recording of ethnicity in PHO enrolment data contains some errors, but it is clear that Māori and Asians have lower enrolment rates than average with possibly 18% not enrolled, compared with 5% of European/Others not enrolled. Enrolment rates also vary by age with 29% of 15-24 year olds and 17% of 25-44 year olds not being enrolled with a PHO. (Source: Ministry of Health enrolment data.)

Three out of four (77%) of the Auckland DHB population have seen a general practitioner (GP) in the last year. Asian people are less likely to have seen their GP and/or the practice nurse. Most people in Auckland DHB (89%) are able to get an appointment with their GP within 24 hours, compared with 86% nationally. One in five people (20%) report problems accessing a GP because of cost, availability of appointments, or transport issues. Overall 11% of adults reported that the cost had prevented them, on at least one occasion in the past year, from visiting a GP. For Māori and Pacific people the figure was much higher at 16% and 18% respectively. Similarly, although overall 4.8% said that cost had prevented them from filling a prescription, the figure was 13% for Māori and Pacific people. (NZ Health Survey)

Figure 7.1.1 Population per GP by local board, 2011



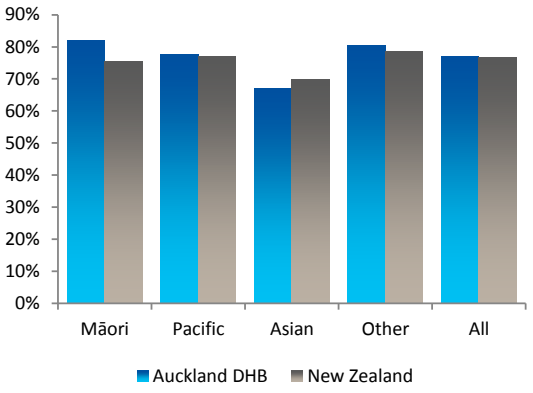
Source: Statplanet

Figure 7.1.2: *Enrolment by PHO, October-December 2015*

PHO Name	% of Auckland DHB population enrolled with PHO
Procare Networks Limited	58%
Auckland PHO Limited	10%
National Māori PHO Coalition Incorporated	9%
Other	10%
Not enrolled	12%

Source: Ministry of Health enrolment data

Figure 7.1.3: *Utilisation of General Practitioner in the past year, 2011/12 - 2012/13*



Source: NZ Health Survey

Information about the nature and quality of GP consultations is only available at a national level. Most consultations (88%) are with a GP that the person has seen before. The average consultation lasted 15 minutes and the large majority of people felt their doctor listened to them well and discussed their healthcare with them. Half of the problems GPs were seen for were new problems or short term problems being followed up, about a third were long term problems with only 5% being for preventive care. Two-thirds of people received a prescription from their visit, nearly a third had some form of test and one in six was referred to another health professional.

7.1.1 *Oral health*

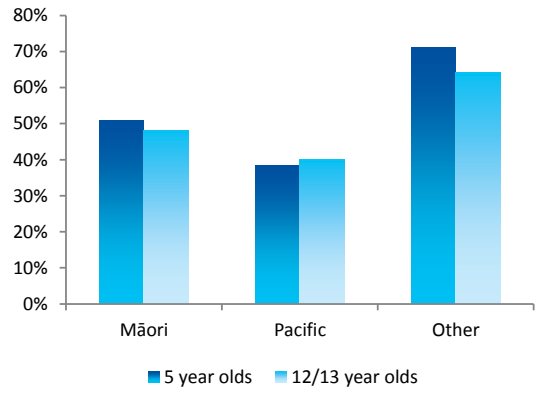
Poor oral health and chronic pain from oral health conditions can negatively affect child growth and development and reduce people's quality of life. Good nutrition and oral health during pregnancy and the establishment of sound oral health behaviours for the infant in the first year of life may prevent childhood dental caries and improve overall child and adult oral health.

Auckland children have better oral health than New Zealand children as a whole. However, Māori and Pacific children have poorer oral health than those of other ethnicities. Three out of four pre-school children are enrolled with oral health services in Auckland DHB, which is above the national average although less than the national target of 86%. At five years of age, three-quarters (72%) of children are accessing free school dental care. Access rates are lower for Māori (52%). For European/Other five-year-olds, Auckland exceeds the Ministry of Health target for 65% to be caries-free, achieving 71%. We do not meet the target for Māori children (51%) or Pacific children (38%). Five-year-olds in Auckland have an average of 1.6 decayed, missing or filled teeth (dmft). Māori children have an average of 1.9 dmft and Pacific children have an average of 2.9 dmft while European/Other children have an average of 1.2 dmft. Nationally, approximately 66% of children aged 2-11 years brush their teeth twice daily. This is lower for Māori and for those living in in NZDep06 quintile 3-5 areas.

Utilisation of community oral health services by adolescents aged 13 -17 years is approximately 73% for Auckland and Waitemata DHBs combined. National data shows that approximately 13% of adolescents aged 12-17 years have dental decay. Dental decay is more prevalent in Māori and Pacific adolescents and those living in quintile 5 areas. The proportion of adolescents in Auckland and Waitemata DHBs who are caries-free is 45%. Year eight children (12/13- year-olds) in Auckland DHB have an average of 1.0 decayed, missing or filled teeth (dmft). Māori children have an average of 1.3 dmft and Pacific children have an average of 1.6 dmft while European/Other children have an average of 0.7 dmft. Approximately 59% of adolescents brush their teeth twice daily. This is lower for Māori, and those living in quintile 3-5 areas. Approximately one in four adolescents experiences trauma to the upper front six teeth.

About 6% of adults have had one or more teeth removed in the past 12 months (due to decay, an abscess, infection or gum disease). Just over half (57%) of European/Other adults, 45% of Māori, 32% of Pacific and 41% of Asian adults have seen an oral health worker in the last year. About half of Auckland residents only visit a dental health care worker for toothaches/dental problems or never. This varies across ethnic groups, with a smaller proportion of European/Other adults (49%) than of Asian (60%), Māori (60%) and Pacific (78%) adults likely to only visit a dental health care worker for toothaches/dental problems or never. Approximately 65% of adults brush their teeth twice daily.

Figure 7.1.1.1: *Proportion of Auckland DHB children examined who were caries-free, 2013*



Source: Ministry of Health Quarterly Non-Financial Indicators

7.2 Hospital-based health care

Auckland DHB has three major facilities: Auckland City Hospital, Greenlane Clinical Centre and the Buchanan Rehabilitation Centre in Pt Chevalier. We provide emergency, medical, surgical, maternity, community health and mental health services. More than half the work done within Auckland DHB hospitals is for people who live outside Auckland DHB. It is the regional provider for kidney transplantation, neurosurgery, cardiothoracic surgery, ophthalmology, most paediatric surgery, and it is the hub of the regional cancer network. Some specialist services are provided to the whole of New Zealand. These include: organ transplants (heart, lung and liver), specialist paediatric services, epilepsy surgery and high-risk obstetrics.

7.2.1 *Emergency Departments*

About one in eight of our adult population and one in five of our child population visited a hospital Emergency Department (ED) in 2017/18. The age-standardised rate of ED attendances by Auckland adult residents has increased over the ten-year period by 18-27% for non-Europeans, but has not increased for European people. Access to emergency department care is good although in 2018/19, 91% of patients were either discharged or moved to a ward within six hours of presenting to the emergency departments, which was lower than the Ministry of Health target of 95%.

Figure 7.2.1.1: *Emergency Department attendances, adult, age-standardised rate per 100,000 population*

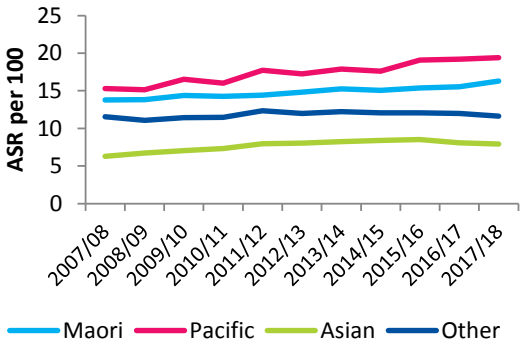
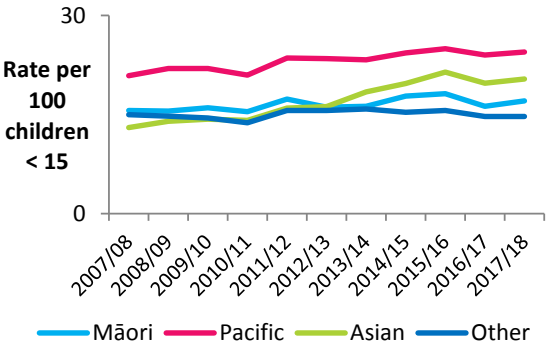


Figure 7.2.1.2: *Emergency Department attendances, children, rate per 100 population aged <15 years*



Source: Ministry of Health national collection (NNPAC)

7.2.2 *Outpatient services*

For every 100 adults in Auckland DHB there were 11.7 outpatient first specialist assessments (FSAs) for medical, surgical and obstetric specialties in 2017/18. Pacific people have the highest rates of FSA (16.0 per 100 age-standardised population) and Asian people the lowest (9.5 per 100 age-standardised population)..

Figure 7.2.2.1: *Outpatient FSA, adults, medical, surgical and obstetric, age-standardised rate per 100 population*

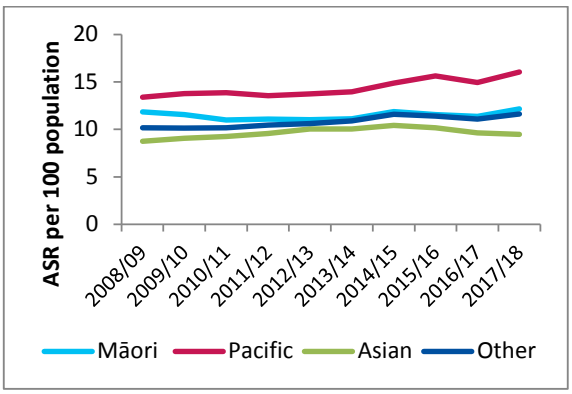
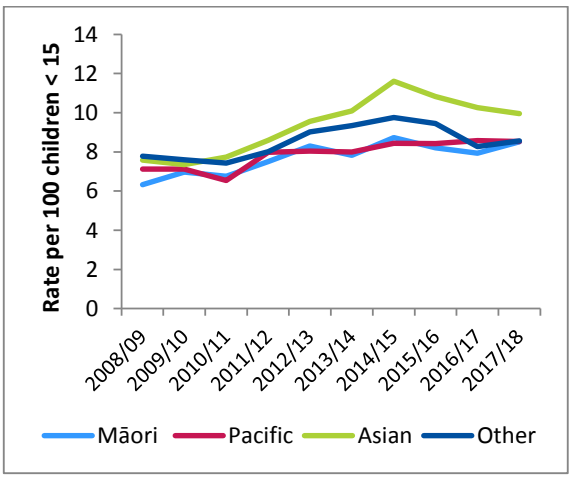


Figure 7.2.2.2: *Outpatient FSAs, children, medical and surgical, rate per 100 children aged < 15 years*



Source: NNPAC, StatsNZ population estimates 2018

7.2.4 *Admitted patients*

In 2017/18, Auckland regional public hospitals provided over 201,000 bed days of service for Auckland DHB residents (medical/surgical/maternity, ie excluding mental health and disability support/rehabilitation). This is an average of 550 patients in beds each day. Ninety one per cent of this was provided by Auckland DHB, with 6% provided by Counties Manukau DHB, 2% by Waitemata DHB and 1% by agencies outside the Auckland region. People aged 65 and over make up 11% of the population but account for 31% of medical/surgical admissions and 46% of beds used. The number of people aged 65 years and over is projected to double over the next twenty years and this will cause a large increase in demand for hospital beds.

Compared with the New Zealand average, Auckland has a lower admission rate for adults, but a higher rate for children. The figures for elective admissions exclude patients who funded their own treatment (through insurance or direct payment). Although the number of admissions per head of population has increased over time, the number of beds used has remained stable, because lengths of stay have reduced, from an average of 3.3 days in 2006 to 2.7 days in 2013.

Admissions for both adults and children have increased over the last five years. Hospitalisations for medical services are very much dominated by older people, whereas surgical hospitalisation is distributed amongst different age groups fairly evenly. Māori people have lower rates of hospitalisation for elective services, at about 90% of the rate for Pacific and European/Other people while the rate for Asian people is half the rate for Europeans/Others.

Figure 7.2.3.1: *Admission rate, adults, age-standardised per 100 population, medical and surgical specialties, 2008-2018*

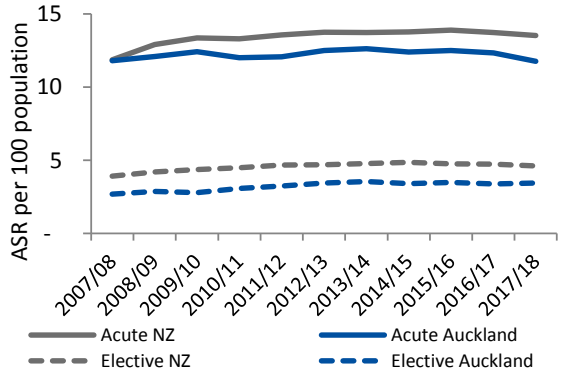


Figure 7.2.3.2: *Admission rates, children, rate per 100 population < 15 years, medical and surgical specialties, 2008-2018*

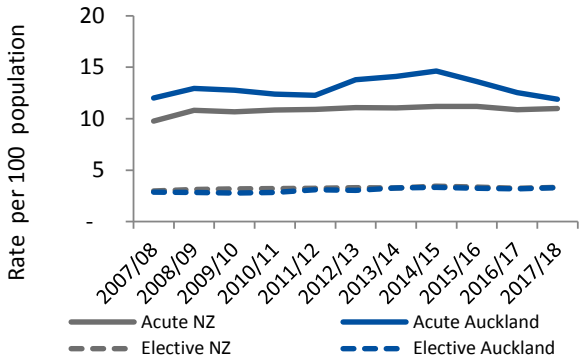


Figure 7.2.3.3: *Admission rate, adults, age-standardised per 100 population, by ethnicity, 2008 – 2018*

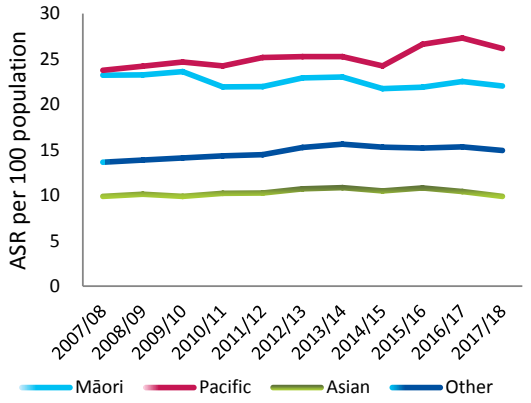
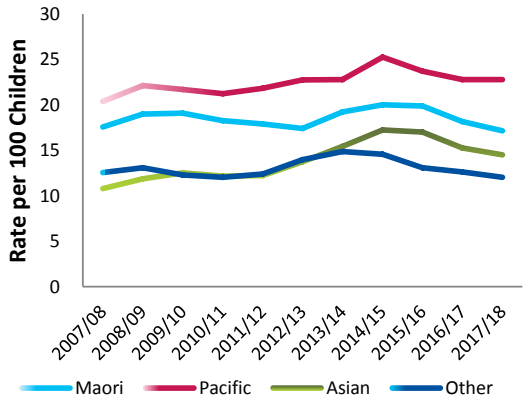


Figure 7.2.3.4*: Admission rate, children, per 100 population aged < 15 years, by ethnicity, 2008 – 2018*



Source: Ministry of Health national data collection (NMDS) Public hospitals

7.2.5 *Access to publicly-funded elective surgery*

The Ministry of Health has set a goal of improving access to elective surgery and equalising access across DHBs. The target for Auckland residents is 19,272 elective surgery discharges for 2018/19. As noted above, the elective hospitalisation rate is still lower than the average for New Zealand, but the gap has been closing since 2007.

A more tightly-defined measure of access is the Ministry of Health report for selected surgical procedures. This compares the rate for each DHB with the overall rate for New Zealand by calculating standardised discharge ratios. A ratio higher than 1.0 indicates that access is better than the national average. Access to publicly funded cataract surgery for Auckland DHB residents is 28% above the national average, but access to hip and knee replacement surgery respectively is 71% and 90% of the national average. Access to hernia repair is also low at 75% of the national average rate. Access to elective heart valve replacements and repair is also lower than the national average, at 83% but the rate for coronary artery bypass grafts was 5% higher than the national average in 2017/18.

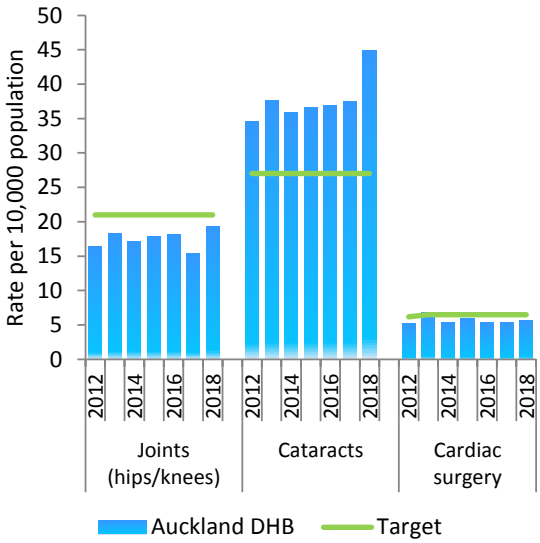
Figure 7.2.4.1: Standardised discharge ratios for selected surgical procedures, 2012/13-2014/15

Surgical procedure	Discharge ratios		
	2014/15	2016/17	2017/18
Coronary artery bypass grafts (CABG)	0.90	0.78	1.05
Angioplasties	0.91	0.9	0.93
Heart valve replacements and repair	0.85	0.94	0.83
Total hip replacement	0.67	0.5	0.71
Total knee replacement	0.89	0.81	0.9
Cataracts	1.12	1.11	1.28
Repairs of hernia	0.86	0.75	0.75

Source: Ministry of Health Standardised Discharge Ratios for selected elective surgical procedures)

The Ministry also sets target intervention rates for a small number of common, effective procedures, in order to improve equity of access across DHBs. Auckland DHB has a higher than average rate of cataract surgery after standardising for age, gender, ethnicity and NZDep06 quintile, at 45 operations per 10,000 population. This exceeds the national target of 27 per 10,000 population. For cardiac surgery, Auckland DHB has consistently delivered below the target, delivering 5.6 operations against a target of 6.5 per 10,000 population. Hip and knee operation rates continue to fall short of the target, with 19 per 10,000 population against a target of 21.

Figure 7.2.4.2: Surgical Intervention rates per 10,000 population, Auckland DHB residents, 2011/12 – 2017/18

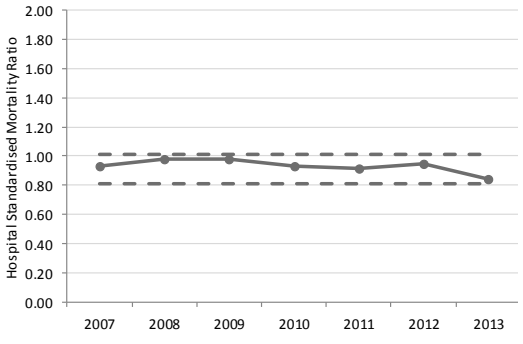


Source: Ministry of Health non-financial indicators

7.2.6 *Hospital quality and safety*

Our hospital services monitor a number of measures of quality and safety. Key amongst these is the hospital standardised mortality ratio (HSMR). For Auckland Hospital, this has remained stable for the past four years at around the average level for comparable hospitals. Hand hygiene in Auckland hospitals is similar to the national average with 76% compliance with the five moments for hand hygiene in 2014. The rate of falls in hospital was 4.3 per 1,000 occupied bed days. We also ask patients about their care in hospital and 85% rate it as excellent or very good.

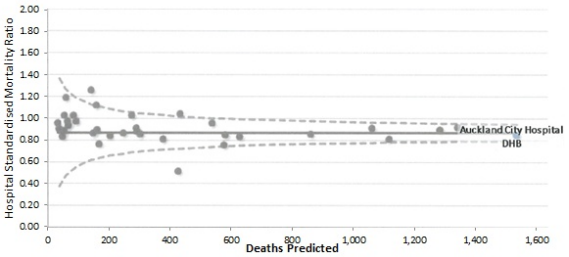
Figure 7.2.5.1: *Auckland City Hospital standardised mortality ratio trend*



	2007	2008	2009	2010	2011	2012	2013
Observed Deaths	1,252	1,257	1,331	1,321	1,302	1,389	1,270
Predicted Deaths	1,346	1,284	1,354	1,420	1,421	1,471	1,502

Source: Ministry of Health

Figure 7.2.5.2: *Auckland City Hospital standardised mortality ratio compared with other New Zealand facilities, 2013*



7.2.7 *Avoidable causes of hospitalisation*

Avoidable hospitalisation (AH) is a useful measure for examining our ability to improve health and reduce inequalities. Hospitalisation can be avoided by injury prevention, by good quality primary care including management and prevention and by population-based health promotion (such as anti-smoking education).

The most common avoidable hospitalisations are for angina, cellulitis, and upper respiratory infections. For women, kidney and urinary tract infections are common. Asthma and diabetes are also common causes amongst Māori and Pacific people.

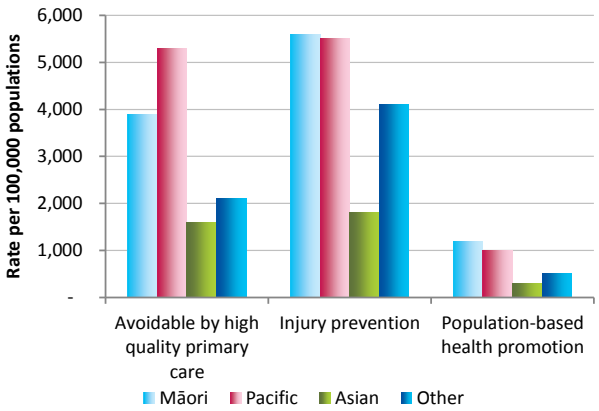
Auckland has a similar avoidable hospitalisation rate to New Zealand as a whole. The Māori avoidable hospitalisation rate is double that of other ethnicities and the Pacific rate is more than double. Asian is lower than European/Other ethnicities. Rates are higher amongst residents of Whau and Maungakiekie-Tamaki than in other local boards.

Figure 7.2.6.1: *Age-standardised avoidable hospitalisations per 1,000 population, 2013*

	Māori	Pacific	Asian	Other
Angina and chest pain	4.9	5.8	3.2	3.0
Cellulitis	7.3	9.7	1.5	3.2
Upper respiratory infection	3.2	3.6	1.0	2.5
Gastroenteritis	1.8	1.9	0.7	1.7
Kidney/UTI	2.2	3.4	1.0	1.3
Dental conditions	*<1.8*	2.4	1.4	1.1
Respiratory infection	2.3	4.4	*<0.7*	0.9
Asthma	2.3	3.1	0.8	0.8
Diabetes	2.8	7.1	1.8	0.8

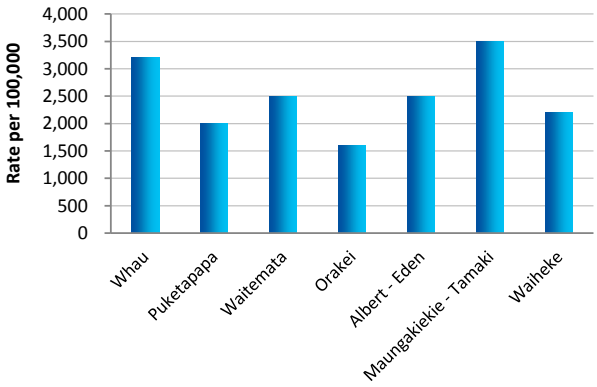
Source: Ministry of Health national data collection (NMDS)

Figure 7.2.6.2: *Avoidable hospitalisation by ethnic group (age-standardised per 100,000 population), Auckland DHB, 2013*



Source: Ministry of Health national data collection (NMDS)

Figure 7.2.6.3: *Avoidable hospitalisations by local board area (age-standardised per 100,000 population), 2013*



8 Data and information sources

This section describes the key data sources used in this report. A number of surveys and studies that are specific to certain sections of the report are described in the relevant section.

8.1 Major data sources

Ministry of Health

The New Zealand Ministry of Health (MoH) manages a number of databases including the Mortality Data Collection, National Minimum Data Set (NMDS), National Non-Admitted Patient Data Collection (NNPAC), Cancer Registration data collection and Programme for the Integration of Mental Health Data (PRIMHD). All diagnoses are classified according to the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-AM).

Hospital discharge data

The Ministry of Health collects data on every discharge from a public hospital, in a collection called the National Minimum Data Set (NMDS). Day cases are included in this data but attendances at outpatient clinics or emergency department attendances for care lasting under three hours are not included. Hospital data include patients who die in hospital after formal admission. A general issue with using hospitalisation rates for outcome measures is that reductions in such rates can reflect either a real decrease in incidence, improved primary health care (thus reducing the need for hospital care), or a decrease in access to (or provision of) hospital services. The relative importance of these factors is often not known. This collection is updated continuously.

Outpatient data

The National Non-Admitted Patient Data Collection (NNPAC) provides nationally consistent data on non-admitted patient activity. Information about the Auckland population's use of outpatient clinics is drawn from this source.

Mortality data

The mortality statistics maintained by the MoH are based on death certificates completed by medical practitioners, post-mortem reports, coroners' certificates, and death registration forms completed by funeral directors. Supplementary data are obtained from a variety of other sources (such as public hospitals and the National Cancer Registry). While the total numbers of deaths is available to 2013, detailed information about causes of death is only complete up to 2011. Mortality data for 3 years was used in an attempt to ensure sufficient numbers for analysis.

Cancer registration data

The National Cancer Registry (NCR) was established in 1948 and is now maintained by the MoH. It is a register of people who develop all types of cancer except basal and squamous cell skin cancers. The Cancer Registry Act 1993 requires all pathology laboratories to supply the NCR with a copy of any pathology report with a diagnosis of cancer and related conditions.

Programme for the Integration of Mental Health Data (PRIMHD)

The information collected by PRIMHD relates to the provision of secondary mental health and alcohol and other drug services, which are funded by the government. Providers include DHBs and, to a limited degree, non-government organisations (NGOs). The collection does not include information on primary mental health services.

The 2011/12 and 2012/13 New Zealand Health Surveys

This national face-to-face survey was completed in both 2011/12 and 2012/13. The results for the two years were combined to give larger samples and more robust information (Ministry of Health 2013). In 2011/12, the survey had a sample size of 12,370 adults (15 years and older) and 4,478 children (0-14 years). The response rate was 79% for adults and 85% for children.

In 2012/13, the survey had a sample size of 13,009 adults (15 years and older) and 4,485 children (0-14 years). The response rate was 80% for adults and 85% for children. Approximately 2000 adults were sampled in the Auckland district for the two surveys.

The survey provides information on:

- selected health risk behaviours (eg smoking, diet, physical activity, alcohol and drug use)
- the health status of New Zealanders, including their self-reported physical and mental health status and the prevalence of selected conditions including diabetes
- the utilisation of health services
- a number of demographic characteristics such as age, gender, ethnicity and income.

Where estimates are provided for Auckland populations they may be either direct survey estimates or synthetic estimates. Since the sample sizes for the overall Auckland population was reasonably large direct estimates can be calculated using only the respondents from Auckland DHB. However, for ethnic-specific estimates, sample sizes were too small so estimates were derived by the Health & Disability Intelligence Unit (HDIU), Ministry of Health from a statistical regression model. These estimates were only available for adults. The main results by DHB (but not by ethnicity within DHB) are available on the Ministry of Health website

http://www.health.govt.nz/publication/regional-results-2011-2013-new-zealand-health-survey

The Quality of Life Survey

This survey was undertaken in 2012 with a sample size of 2,585 adults (18 years and older) across the Auckland Council area. Of these just under 1,000 lived in Auckland DHB wards including Whau and Mangere-Otahuhu. The overall response rate was 57%. The information is available by ward, by age or by ethnicity. The survey covers a wide range of questions on topics that are important to wellbeing.

Virtual diabetes register 2013

The Ministry of Health has used data from the community laboratory testing claims system, community pharmaceutical dispensing claims system and from NMDS and NNPaC to construct an anonymised register of individuals diagnosed with diabetes. This can be used to estimate prevalence of diabetes and methods of management.

Census and demographic data

A New Zealand Census of Population and Dwellings is normally held every five years, but the planned 2011 census was delayed until 2013 because of the Christchurch earthquake. Everyone in the country on census night, including visitors to the country, must fill out an individual census form. This census was carried out in March 2013.

The New Zealand Census collects limited health information but contains much social and economic information that was useful in describing the factors that determine health. In addition, the census forms the basis for determining Auckland's and New Zealand's denominator populations when calculating rates.

Projections of population sizes for the years after 2013 and estimates of population sizes between the 2006 and 2013 censuses have been made. Projections are made on the basis of assumptions about a number of factors including migration, fertility and mortality. However, projections are not always accurate. Some of the detailed analysis of the 2013 census is not yet available and data from 2006 is shown where this is the case.

Birth registrations

This includes all live and still birth registrations from Births, Deaths, and Marriages.

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Appendix 1: Data table

Section	Indicator	Auckland DHB	Māori	Pacific	Asian	European/ Other	NZ
Our Population	Population projection 2018/19	542,240	43,230	55,840	182,590	260,580	4,925,195
	% of population	100%	8.0%	10.3%	34%	48%	
	National proportions	100%	15.7%	6.5%	15%	63%	
	Annual growth %	1.7%					1.4%
	Under 5 years - number	27,560	3,880	4,250	9,620	9,810	307,270
	Under 5 years - %	5.1%	9.0%	7.6%	5.3%	3.8%	6.2%
	65+years - number	60,670	2,940	3,800	13,640	40,290	760,370
	65+ years - %	11.1%	6.8%	6.8%	7.5%	15.5%	15.4%
	75+ years - number	24,880	1,020	1,280	4,570	18,010	320,185
	75+ years - %	4.6%	2.1%	2.4%	2.3%	6.9%	6.5%
	Under 25 years - %	31%	44%	44%	30%	27%	33%
	Projected pop'n in 2037/38	691,800	57,430	67,420	298,540	268,410	5,737,125
	Projected 75+ in 2037/38	57,820	3,950	2,630	17,920	33,320	681,930
Population health drivers							
Deprivation	% living in NZDep13 Quintile 5 (most deprived) areas	18%	27%	40%	21%	12%	20%
Income, education, employment	% leaving school with qualification	88%	76%	70%	90%		79%
	Unemployment rate	7.9%	14%	16%	10%	5%	7%
	Median income	$31,500					$28,500
Housing	Housing affordability (house price vs income - Massey index)	29.9					21.8
	House over-crowding (% people needing 1+ bedrooms)	15.5%	25%	45%	19%	6%	10%
Air pollution	Annual deaths due to air pollution 2006 estimate	93					
Social factors	% of children living in single parent households	16%	33%	22%	10%	12%	20%
	Violent offences per 1,000 people	11					13
	Feel safe walking alone at night	58%					
	Internet access	84%					77%
Modifiable risk factors	Smoking - % of adults	12%	29%	23%	8%		17%
	Obesity - % of adults	23%	44%	69%	17%		31%
	Overweight or obese - % of adults	56%	72%	89%	52%		64%
	Obesity - % of children	11%	9%	31%	8%		11%
	Overweight or obese - % of children	32%	39%	63%	27%		33%
	Healthy diet: % eating recommended servings fruit & veges - adults	36%	38%	29%	25%		38%
	- children	46%	44%	32%	33%		51%

Section	Indicator	Auckland DHB	Māori	Pacific	Asian	European/ Other	NZ
	Physical activity: active 30 minutes per day: % of adults	47%	49%	49%	43%		50%
	Breast feeding (Exclusive at 3 months) - %	60%	51%	44%	60%	66%	56%
	Past year drinking - % of adults	72%	73%	52%	55%	85%	80%
	Hazardous drinking - % of adults	19%	32%	22%	5%	25%	20%
Health Status							
Overall health	Self-reported health good, v. good, excellent	89%	81%	84%	87%		89%
Life Expectancy	LE Total population 2015-17	82.9	79.5	76.1	86.6	83.5	81.7
	LE Male	81.4					
	LE Female	84.4					
Avoidable mortality	Avoidable deaths per year	556	73	92	65	326	
	Avoidable mortality rate ASR per 100,000, 2011-2013	120	272	252	63	106	143
	Potential years of life lost per 100,000	17.6					25
Cardio-vascular disease	CVD Hospitalisation ASR per 100,000	997					985
	CVD mortality ASR per 100,000, 2011-13	105	165	162	73	99	118
	IHD mortality ASR per 100,000	54	87	86	32	52	62
	% of pop'n with IHD on triple therapy Mar 2019	51%	52%	55%	50%	48%	
	% of adults medicated for high cholesterol	8.3%	10.5%	9.9%	11.7%	6.9%	8%
	% of adults medicated for high blood pressure	10.1%	14.6%	14.7%	10.6%	8.7%	11.7%
Stroke	Stroke mortality ASR per 100,000, 2011-13	25	22	32	25	24	28
Diabetes	Estimated population with diabetes 2017	24,586	1,802	5,991	Indian: 3,964	12,829	
	% of population with diabetes	4.7%	4.3%	11%	Indian: 9.2%	3.3%	6%
	% of diabetics having annual check	72%					
	% of diabetics on diabetes medication	59%					61%
	% of diabetics well-managed (HbA1c <64 mmol/mol) May 2018	62%					
	% of diabetics receiving retinal screening	52%					
Cancer	Mortality ASR per 100,000 2013-15	109	177	168	55	112	123
	Average Deaths per year 2013-15	688	50	77	65	496	
	Hospitalisation ASR per 100,000	595					766

Section	Indicator	Auckland DHB	Māori	Pacific	Asian	European/ Other	NZ
	Mortality rate ASR per 100,000 25+ yrs, lung cancer	33	106	53	14	30	40
	Mortality rate ASR per 100,000 25+ yrs, colorectal cancer	25	17	26	8	29	28
	Mortality rate ASR per 100,000 25+yrs, breast cancer	28	70	46	15	25	31
	Mortality rate ASR per 100,000 25+yrs, prostate cancer	23	34	32	8	25	30
	Five-year relative survival rate for 2012-2013 registrations	69%					
	Breast screening uptake (% of eligible women) Mar 2019	64%	59%	71%	65%	62%	
	Cervical screening uptake (% of eligible women) Mar 2019	63%	53%	62%	51%	75%	
Respiratory disease	% of adults on asthma medication	8.1%	13.5%	11.0%	3.9%	9.7%	11.1%
	COPD hospitalisation ASR per 100,000		1,611	1,419	262	394	
Mental Health	Population 12-19 (PM's Youth MH Project)	47,644					
	Suicide ASR per 100,000, 2011-13	8.0	13.4	8.1	4.2	8.6	11.5
	Annual suicides (average 2011-13)	40					
	Diagnosed with mental health conditions (NZ Health Survey)	11.8%					16%
Injury	Injury hospitalisation ASR per 100,000		5600	5500	1800	4100	
Sexual health	Chlamydia (regional figures)	634					633
Infants, children and young people	Births, 2014	6,074					
	Infant mortality rate per 1,000 live births, 2010-2012	4.5	4.7	7.5		3.6	5.2
	Fertility rate (births per 1,000 women aged 15-49)	49	86	88	42	40	58
	% of babies with low birth weight	6.1%					6%
	% of mothers enrolled with LMC at 12 weeks	64%					
	Teenage pregnancy rate (births per 1,000 women aged 15-19)	14.5	62	38	2	2	25
	Caesarean sections as % of deliveries at Auckland City Hospital	30%					
	Rheumatic fever incidence per 100,000 pop'n	3.5					4
	% fully immunised at 8 months Q1 2014/15	95.6%	94.7%	97.9%	97.0%	94.1%	92%
	% fully immunised at 24 months Q1 2014/15	95.9%	95.9%	98.6%	98.6%	92.8%	93%
Older people	% aged > 65 with a disability						59%
	% aged > 65 with IHD	18%					
	% aged > 65 with diabetes	24%					

Section	Indicator	Auckland DHB	Māori	Pacific	Asian	European/ Other	NZ
	% aged > 65 with arthritis	43%					
	% aged > 65 with a mental health disorder	11%					
	% aged > 85 years receiving funded support at home	22%					
	% aged > 85 years funded for rest home/private hospital	26%					
	% of pop'n aged 65+ receiving influenza vaccination	63%					
Health services							
Community services	GPs per 100,000 population, 2014	94					75
	% of adults who visited GP in last 12 months	78%	77%	76%	70%		77%
	% of adults unable to visit GP (due to transport, cost, availability)	23%	30%	25%	19%		29%
Hospital-based care	Acute hospital discharge rate	12,109					11,475
	Elective hospital discharge rate	2,724					2,922
	Avoidable hospitalisations ASR per 100,000		1,200	1,000	300	500	
Health targets achievement summary Q1 2014/15	Shorter stays in ED: % admitted or discharged within 6 hours	93%					93%
	Improved access to electives	100%					105%
	Cancer: % commencing treatment/care within 62 days of referral (Q3 2018/19)	92%					88%
	Increased immunisation: % fully immunised at 8 months	96%					92%
	% of smokers receiving advice to quit (Hosp/GP)	96%/100 %					95%/88%
	% eligible adults having heart and diabetes checks	92%					86%

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Appendix 2

Waitematā DHB
Health Needs Assessment 2019

Waitematā District Health Board

Best Care for Everyone

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1 Executive Summary

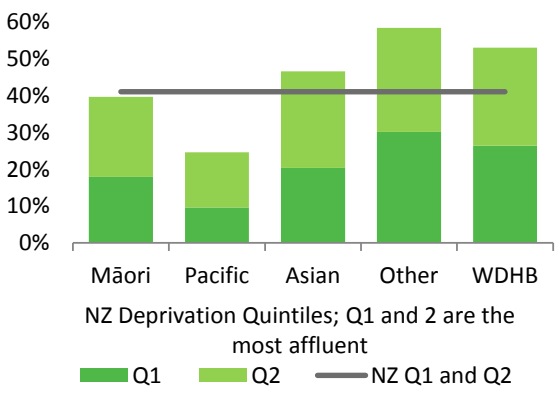
DHBs are required to regularly investigate, assess and monitor the health status of their resident population, and their need for services. The health needs assessment does not include planned actions to meet health needs but forms an integral part of the overall planning cycle, informing both funding decisions and the strategic planning process. This document updates key information from the full Health Needs Assessment (HNA) produced in 2009. We have used data from a wide range of sources to provide a picture of the health status and needs of our population in Waitematā district. With this information, the District Health Board (DHB) can plan future health services and health programmes to ensure the best health outcomes for all the people in our region.

1.1 Our population is large, growing and diverse

Waitematā DHB serves the areas of the North Shore, Waitakere, and Rodney extending to Wellsford in the north and as far south as the Auckland Harbour Bridge, incorporating Whangaparaoa in the east and the west coast beaches of Muriwai, Piha and Karekare in the west. It is an area of stunning natural beauty. Residents enjoy easy access to green spaces, parks and beaches and Auckland ranks highly among surveys of the world's most liveable cities.

Waitematā DHB contains approximately 627,000 people making it the largest population of all New Zealand's DHBs. We have an ethnically diverse population with 10% Māori, 7.0% Pacific, 22% Asian and 61% European/Other. The region contains a large migrant population with over one third of our population born overseas. We are a relatively affluent population, with a large proportion living in areas with high socio-economic standards. The median personal income of our population is fourth-highest amongst DHBs in New Zealand.

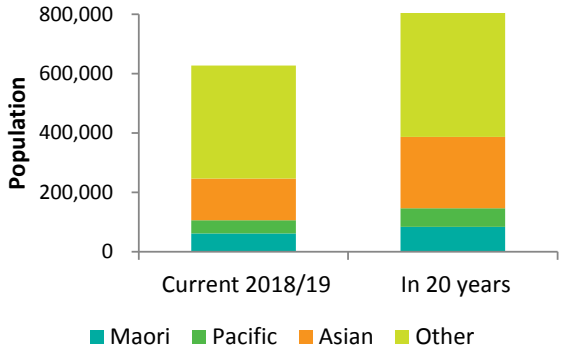
Our population is relatively affluent



Many factors affect the health of individuals and communities. Whether people are healthy or not is determined for the most part by an individual's socio-economic circumstances and their environment. While Waitematā's population enjoys a high median income, home ownership is increasingly unaffordable. Over-crowding is more common than in New Zealand overall, especially for Māori and Pacific families. Our Māori and Pacific populations have lower rates of educational achievement and high unemployment.

Significant population growth is expected in the future. Our population is projected to increase by 30%, reaching 818,000 by 2038/39. It will also be an older population with the number of people aged 65 years and older expected to almost double, increasing from the current 88,000 to 168,000, and making up 21% of the total, compared with 14% at present. Our Māori, Pacific and Asian populations will also grow, our Māori population by 36%, Pacific by 41% and our Asian population by 71%. We need to plan and develop our services to meet the needs of this expanding and changing population. We also need to work and coordinate with other public agencies and services to improve the wider determinants of health such as housing, education and the physical environment, as well as improving access to health services.

Our population will grow by a third over the next 20 years

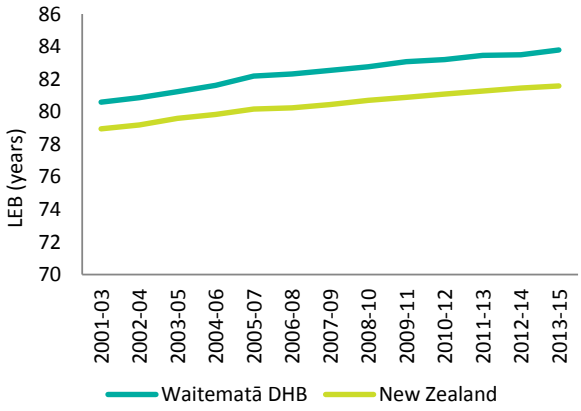


1.2 Our population is healthy and health is improving

As a population, the people living in our district are the healthiest and longest-lived in New Zealand. The self-reported health status of our population is 'excellent' and we continue to see positive health outcomes overall.

Our population live on average to the age of 84.1 years, 2.4 years higher than the national figure, having increased by 1.9 years of life over the past ten years. Our mortality rates from cardiovascular disease and cancer, the two biggest causes of avoidable deaths, have declined steadily over the years and are the lowest in New Zealand.

Our population enjoys the highest life expectancy in NZ



The children in our district are experiencing a great start in life with a much lower rate of infant mortality than is observed nationally. Our immunisation rates are very high with nearly 95% of our eight month and two year old children fully immunised.

We are seeing positive improvements in many lifestyle risk factors, and identifying these risks earlier. Smoking, the largest cause of preventable ill health, has declined substantially between 2006 and 2013, falling from 17.4% to 12% of adults. This will support improvements in health for many years to come.

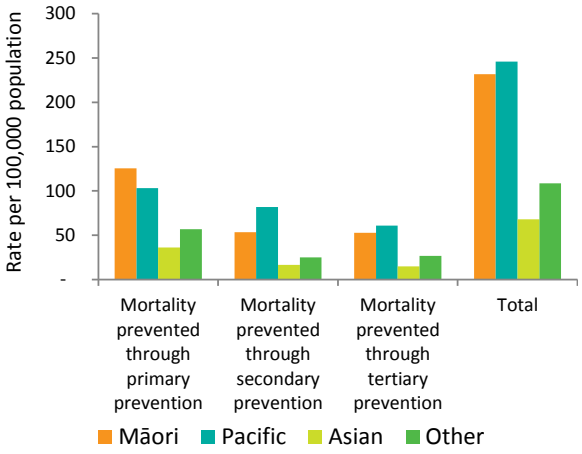
Our population experiences more positive mental health than New Zealand as a whole, with our self-reported diagnosed rate of anxiety and depression lower than the national rate. Our older population also experience positive health outcomes. The majority of our older population are able to live unassisted in their own homes. Many older people continue to work after reaching the age of 65 which is reflective of an overall positive health status.

Access to health services for Waitematā residents has improved over the years, with 89% able to see their GP within 24 hours. Emergency departments discharge, admit or transfer 95% of patients within six hours, a major improvement from 61% five years ago, and achieved in an environment of increasing population size and increasing rates of presentation to hospital. Elective surgery volumes have increased by 40% in the past five years. Our population experience short waiting times between a decision to start cancer treatment and the actual commencement of treatment. However, the overall pathway from referral to the start of treatment or other care is too long for 12% of patients. Our hospitals have also improved on basic safety measures such as hand hygiene, assessing older people for their risk of falling and use of the surgical checklist. Similarly, our hospital standardised mortality ratio is decreasing and is now the lowest in New Zealand, indicating that our services are very safe.

1.3 Our key health challenges

Although the majority of our people enjoy very good health, particular population groups in our district experience inequalities in health outcomes. With better prevention of ill health, we could further reduce avoidable deaths and increase healthy years of life for our residents. In 2013, there were 620 potentially avoidable deaths of Waitematā residents (23% of the total), 22% of which were amongst our Māori and Pacific populations. Of these deaths, half could have been avoided through primary prevention, for example through adopting healthier lifestyles; a quarter could have been prevented by identifying and managing problems like hypertension before they caused illness; and a quarter could have been avoided through prompt identification and treatment. We also need to plan and develop health services to respond to the significant growth and changes to the population in our district.

Avoidable deaths affect Māori and Pacific disproportionately

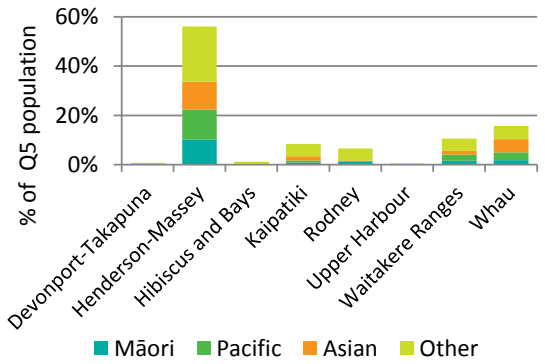


1.3.1 Reduce inequalities in health

Our Māori and Pacific populations live on average four to six years less and have hospitalisation and death rates from many chronic diseases two to three times higher than our European/Other population. Although overall life expectancy is rising for Māori and Pacific

people, the increase is smaller than for Europeans/Others. As a result, there is an increasing gap between Māori and Pacific life expectancy and that of Europeans/Others. The main drivers of this equity gap are cardiovascular disease, cancer, diabetes, respiratory disease and injuries. One in twelve of our population live in areas ranked as highly deprived (Quintile 5 of the NZ deprivation score), concentrated in the Waitakere and Henderson areas. These people experience poorer health outcomes than those in more affluent areas.

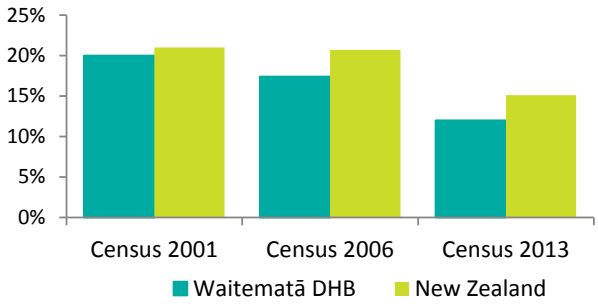
Our highly-deprived people are concentrated in the west



1.3.2 Support healthier lifestyles

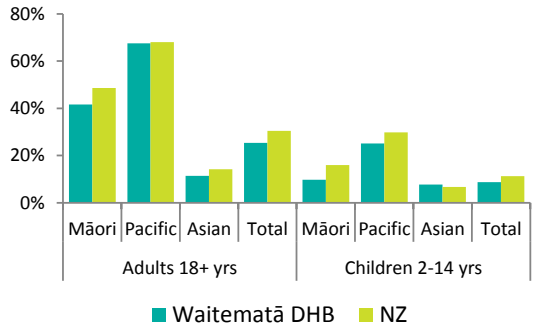
Smoking rates are declining rapidly though there is room for improvement, with 12% of our adult population being regular smokers of cigarettes and higher rates in the Māori (27%) and Pacific (20%) populations. Amongst pregnant women, 14% were smokers at the time of delivery. Again the rate was higher in Māori (53%) and Pacific (19%) mothers. Progress has been made with over 90% of all smokers accessing health services receiving brief advice to quit, however more can be done to back this up with effective support.

Smoking rates are low and declining



Data from the New Zealand Health Survey reports that one in four of our adults are obese and over half are overweight with very little change within the past ten years. The rate of childhood obesity in our Māori and Pacific population is high with 10% of Māori and 25% of Pacific 2-14 year olds considered obese. Fewer than half of our population are meeting daily exercise recommendations and 65% are not meeting daily fruit and vegetable consumption guidelines. One in five of our adult men is at risk from hazardous drinking.

One in four adults and one in twelve children are obese



1.3.3 Effective management of cardiovascular disease and diabetes

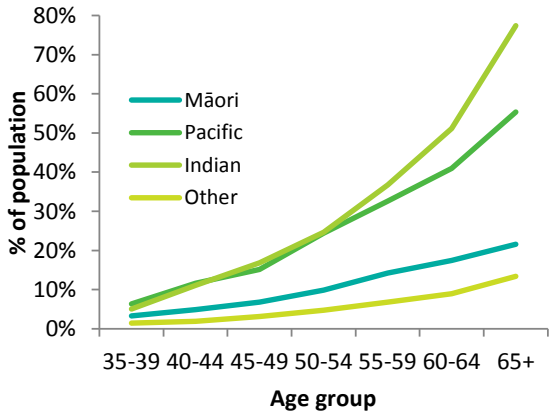
Cardiovascular diseases cause the second highest number of deaths in Waitematā and as much as 70% of cardiovascular disease is avoidable. Although our risk assessment rates are high (88% of eligible adults), only 52% of eligible cardiovascular disease patients are on triple therapy. Although the rate of triple therapy is increasing, many more patients could potentially benefit from pharmacological treatment than is currently the case. We need to ensure that those identified as being at high risk of disease, as well as those with existing disease, are well-managed and receive prompt treatment.

In 2013, 754 Waitematā residents were admitted to hospital following a stroke. The mortality rate from stroke is 25 per 100,000, lower than the rate for New Zealand as a whole. Prompt assessment together with effective treatment and rehabilitation is essential in providing the best outcomes for these patients.

The number of people with diabetes has almost doubled since 2003 and this is now estimated to affect 28,000 (4.6%) of our population. There is room for improvement in supporting people with diabetes to manage their key risk factors, such as blood pressure and blood sugar levels and to attend retinal screening. Of the estimated number of people with diabetes in Waitematā, 63% aged 15-74 years are known to be well-managed (defined as having an HbA1c of <64

mmol/mol). Within the last two years, only 54% of diabetics have had the recommended retinal screening in the public sector. In 2016, 17.5% of medical/surgical bed-days were for people with diabetes. For both cardiovascular disease and diabetes, Māori and Pacific carry a heavier burden than other ethnicities.

Diabetes affects 4.6% of our population, increasing with age



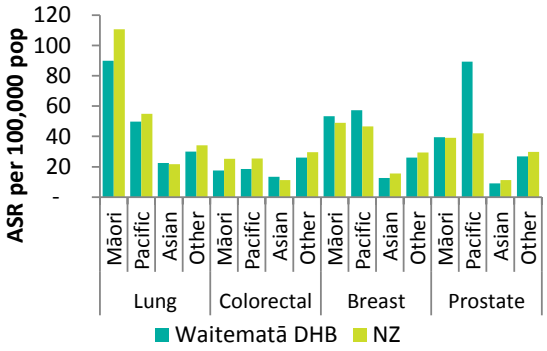
1.3.4 Rapid identification and treatment of cancer

There are 2,600 new cancer registrations in Waitematā every year. Cancer causes 32% of all deaths with the most significant being breast (in women), lung and colorectal cancers, and prostate cancers in men. Around 30-35% of cancers are caused by modifiable risk factors and are avoidable. Early detection and prompt diagnosis and treatment can reduce deaths and illness from cancers. Our five year survival rate from all cancers is 68%, one of the highest in the country. However, if Waitematā DHB had the same five-year survival rates as Australia, 32% of women who die of breast cancer within five years would survive for longer (15 per year). Public screening programmes for breast and cervical cancer are well-established; despite this, one quarter of all eligible women do not participate in the public programmes. Cervical screening rates are lowest in Māori with only 61% of eligible women participating.

The national pilot for bowel cancer screening in Waitematā has now moved to implementation. At December 2017, 58% of those invited have been screened (higher than participation rates in many other countries). There is room for further improvement, however, with Māori and Pacific screening coverage lower overall. Improving the uptake of bowel screening has the potential to save more lives.

To support continued improvement in services and waiting times for people with cancer, accessing faster cancer treatment is a key priority and forms an integral part of the national health targets. As at March 2019, 88% of cancer patients wait less than 62 days for treatment or other care to commence compared with the target of 90%.

Lung, colorectal, breast and prostate cancer are major killers



1.3.5 Access to Mental Health services

Mental ill-health affects one in five people each year and the New Zealand health survey identified one in eight of our residents (equivalent to around 50,000 people) as suffering from common mental illnesses. Around 3% of our population (17,000 people) are accessing secondary mental health services. Māori are particularly affected by mental health conditions, being twice as likely as Europeans/Others to access services. Pacific people report anxiety and distress twice as often as Europeans/Others, but do not access mental health services proportionately. While our suicide rate is low compared with the national rate, we still lost 54 people in 2011 to suicide.

Mental illness is also associated with reduced life expectancy, with sufferers at increased risk of other illnesses particularly cancer and cardiovascular disease. Even when these disorders are recognised, rates of intervention are lower for this population compared with people without mental illness.

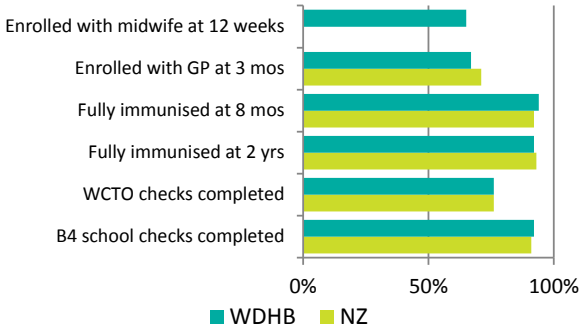
1.3.6 Give children the healthiest start to life

The well-being of children is critical to the well-being of the population as a whole. Healthy children are more likely to become healthy adults. Our overall infant death rate is lower than the national rate, however rates in Māori and Pacific are nearly twice that of European/Others. One-third of our pregnant mothers are not enrolled with a midwife at 12 weeks of

pregnancy and addressing this would improve outcomes for mothers and babies. The percentage of children enrolled with a PHO by three months of age (57%) is lower than the national figure (63%). The national target is 88%.

We are close to achieving our immunisation target of 95% at 8 and 24 months, with 94% of children fully immunised at 8 months of age and 92% of children fully immunised at 24 months of age. However, immunisation rates are not as high for Māori as for non-Māori. We are also below target for completion of core Well Child/Tamariki Ora (WCTO) checks in the first year of life.

Healthy children become healthy adults

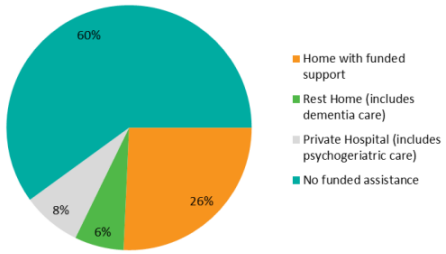


Children are admitted to hospital most commonly for injuries, gastroenteritis, asthma and infections. In 2012/13, there were 16 admissions per 100,000 population aged 0-14 for injuries resulting from domestic assault, neglect or maltreatment of children. The incidence of rheumatic fever (2.3 per 100,000 population) is the lowest in the country, however significant inequalities are present for Māori and Pacific populations.

1.3.7 Older people

The large majority of older people in Waitematā DHB are able to live unassisted in their own homes. Six out of ten people (60%) who are 85 years or older receive no funded living assistance, while 14% are funded to live in a rest home or private hospital, and 26% have some funded support at home. Older people have greater need for health services and hospital care and occupy about 45% of our medical/surgical beds. With the projected increase in the population aged 65 and over, meeting the associated increase in demand for health care will be challenging.

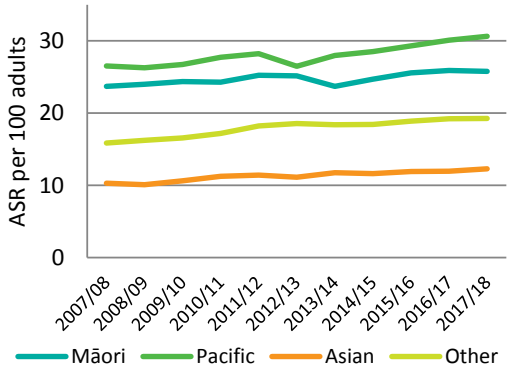
60% of people aged 85+ live with no funded support



1.3.8 Meeting future health needs

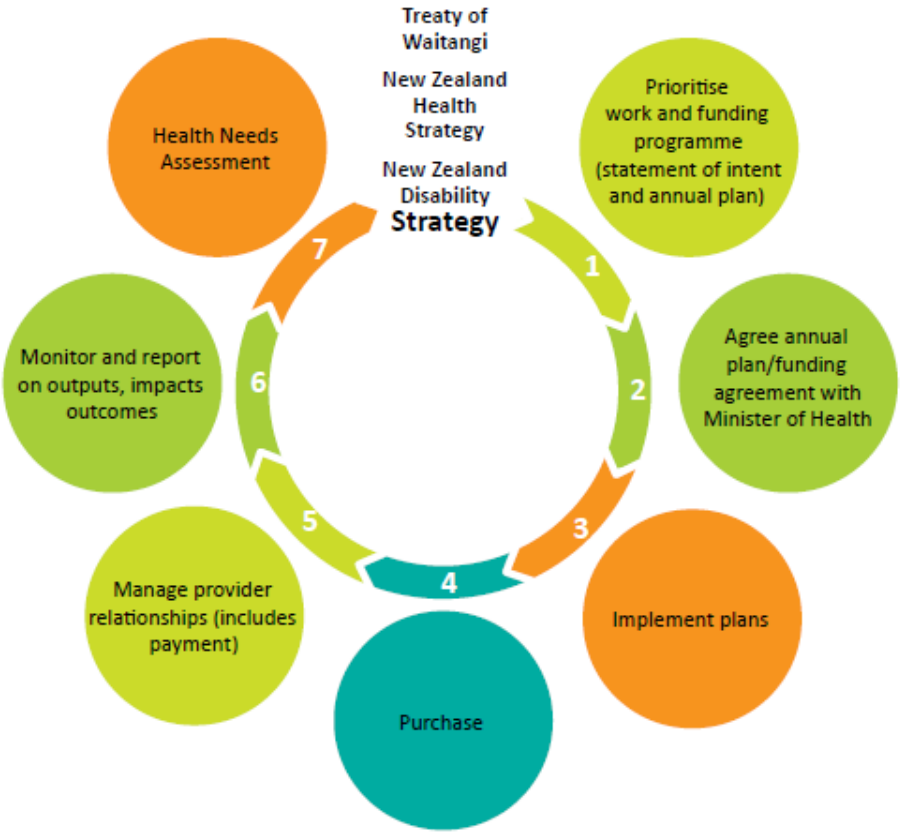
Between 2007/08 and 2017/18, acute admissions to hospital increased by 10% and emergency department attendances have increased by 12% for Waitematā residents, after allowing for population ageing and growth. Future population growth and constraints on funding will place pressure on hospital services. We therefore need to plan and develop hospital services to manage this demand. Furthermore, climate breakdown has serious implications for our health, wellbeing, livelihoods, and the structure of organised society. Fully integrated services with a focus on prevention and good access to primary care services will be essential to meet the future health needs of the population.

Demand for hospital services is increasing



2 Introduction

DHBs are required to regularly investigate, assess and monitor the health status of their resident population, and their need for services. The purpose of needs assessment is to bring about change beneficial to the health of the population. The needs assessment forms an integral part of the overall planning cycle, informing both funding decisions and the strategic planning process.



Through assessing the health needs of our population we can both identify and reduce inequalities and produce better health outcomes for the population as a whole. In this assessment we have concentrated on describing the health of Waitematā residents compared to that of New Zealand overall, and on highlighting inequalities within the district and between particular groups of the population.

It is envisaged that this needs assessment will be a living document and its content regularly updated as new statistics become available. It forms part of a suite of resources which includes needs assessments and health plans for population subgroups.

For key topic areas, we will undertake more detailed assessments and these will be published as separate documents.

We have used a wide variety of data sources for this needs assessment, which are set out in Section 10.

2.1 Needs assessment and Māori

The New Zealand Health Strategy includes a set of principles to guide health sector development. These include acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi. In Waitematā this

is particularly recognised in the relationship between the DHB and Te Rūnanga o Ngāti Whātua. The three principles of the Treaty of Waitangi - partnership, participation and active protection apply to health and health service provision. The Treaty of Waitangi in Article 3 provides for equal rights for Māori with non-Māori. While Māori within Waitematā enjoy better health than Māori in other parts of New Zealand and Māori life expectancy at birth in Waitematā DHB is almost 81 years, 5 years above the national average for Māori across New Zealand (76 years, 2015-17), inequalities in health outcomes for Māori are still apparent in this DHB when compared to non-Māori. The New Zealand Health Strategy specifically provides that Māori health outcomes will be addressed and health inequalities eliminated.

In undertaking health needs assessments this has a number of implications:

- *Wherever possible we provide information on Māori health needs as well as the health needs of the general population*
- *We need to ensure that collection of data about Māori is as accurate as possible. In particular this means we need to ensure that ethnicity recording is accurate. This is an area of on-going work and improvement for Waitematā DHB*
- *We need to report information that describes health from a Māori world view as well as a mainstream world view. This is very challenging because nearly all of the information in this document is derived from routinely collected data sources. These data sources have limited information on a broad perspective of health (rather than disease) and even more limited information that describes some perspectives that are important to Māori. We recognise this limitation and the need to attempt to address this in on-going work*
- *We need to specifically address Māori health needs rather than simply doing so in the context of assessing the needs of the overall population. For this reason we have undertaken a Māori health needs assessment in the past in addition to needs assessments such as this one. We plan to review and update this document*
- *We need to involve the Māori community in the development of health needs assessments. This has not been done in the development of this document but has been done in the development of the Māori Health Needs Assessment completed in 2009. Review and update of the Māori Health Needs Assessment would need to factor in the engagement and involvement of Māori in the community.*

3 Demography

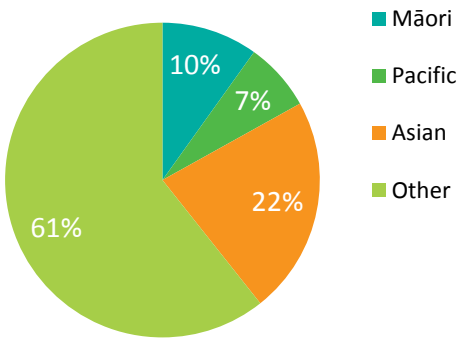
Waitematā DHB serves the areas of the North Shore, Waitakere, and Rodney extending to Wellsford in the north and as far south as the Auckland Harbour Bridge, incorporating Whangaparaoa in the east and the West Coast beaches of Muriwai, Piha and Karekare in the west. The Auckland Council divides the area between eight local boards. These are:

- Rodney, which covers the rural areas north to Warkworth and Wellsford, stretching west to the southern shores of the Kaipara Harbour, Helensville and Kumeu;
- Hibiscus and Bays, incorporating Whangaparaoa, Orewa and the East Coast Bays;
- Devonport/Takapuna;
- Kaipatiki covering Glenfield, Northcote, Birkenhead, Birkdale and Beachhaven;
- Upper Harbour, covering Albany, Greenhithe and Hobsonville;
- Henderson/Massey including Lincoln, Te Atatu and Ranui;
- Waitakere ranges including Titirangi;
- Whau board (part), which includes Kelston, Fruitvale and Green Bay in Waitematā DHB, as well as Avondale, Rosebank, Blockhouse Bay and New Windsor in Auckland DHB.

There are 627,000 people living in the Waitematā DHB area in 2018/19, accounting for approximately 12.7% of the national population. Both the age and gender composition of Waitematā residents is similar to the New Zealand population (New Zealand census 2013). Waitematā's population is predominantly urban with only 6% of our population living in rural areas but the district covers a large geographical area.

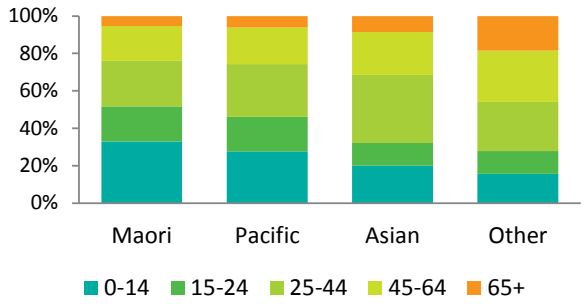
By ethnicity, our population is 10% Māori, 7.0% Pacific, 22% Asian and 61% European/Other. The majority of our Māori population (45%) and the large majority of our Pacific population (62%) live in West Auckland (Henderson-Massey, Waitakere Ranges or Whau boards[2]). Our Pacific population is predominantly Samoan (52%), Tongan (17%) and Cook Island Māori (15%). Our Asian population is diverse but is predominantly Chinese (40%), Indian (23%) and Korean (14%). (Source: Statistics New Zealand, population projections based on 2013 census.)

Figure 3.1:
Ethnicity of our population 2016/17



By age group, our population is 19% children (under 15 years), 13% young people (15-24 years) and 14% older people (65 years or older). However our Māori, Pacific and Asian populations are considerably younger with 52% of Māori, 46% of Pacific and 32% of Asians under the age of 25. These populations are also notable for the small proportion of older people they contain (9% or less of their total populations).

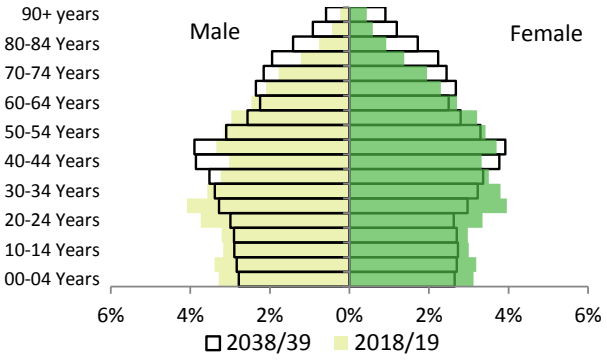
Figure 3.2:
Age structure by ethnic group



By 2038/39 Waitematā's population is projected to increase by 191,000 people making it a 30% larger than it is now. The population will also be considerably older with the number of people aged 65 years and older expected to almost double, increasing from the current 88,000 to 168,000, and making up 21% of the total, compared with 14% at present. Our Māori, Pacific and Asian populations will also grow, our Māori population by 36%, Pacific by 41% and our Asian population by 71%. We need to plan and develop our services to meet the needs of this expanding and changing population.

2 Note: Whau ward incorporates both Auckland DHB and Waitematā DHB residents. The ward has not however been split for the purposes of this analysis

Figure 3.3:
Age structure in 2018/19 and 2038/39



Source: Statistics NZ population projection based on 2013 census

Figure 3.4:
Projected change in Waitematā DHB population aged > 65 years, 2038/39

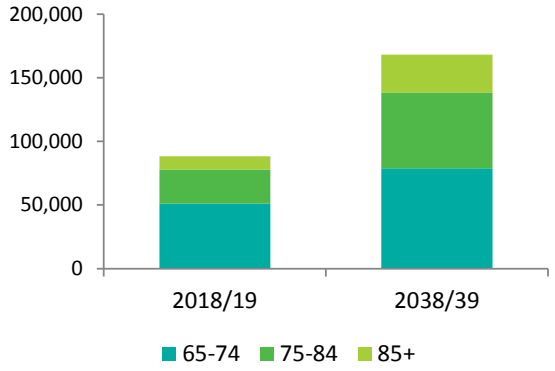
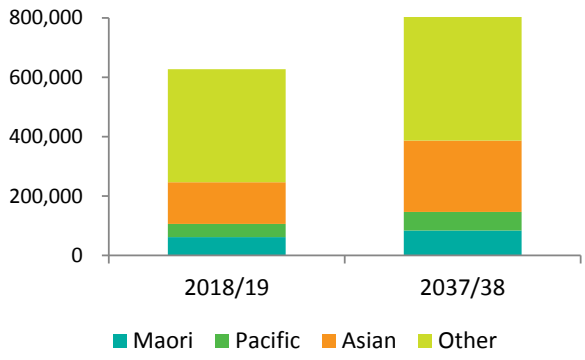


Figure 3.5:
Projected change in Waitematā DHB population by ethnicity, 2037/38



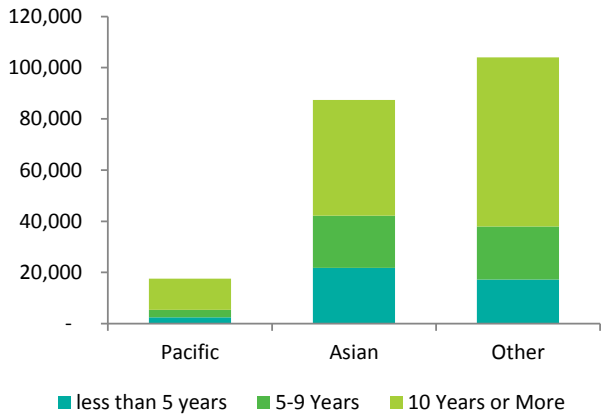
Source: Census 2013

3.1 Migrants

Waitematā DHB has a large migrant population. Over a third (37%) of Waitematā residents were born overseas (compared to 25% nationally). This includes 104,077 people of European/Other ethnicity, 17,539 Pacific people and 87,356 Asian people; as a percentage, 81% of Asian people in Waitematā were born overseas, 43% of Pacific people and 29% of people of European/Other ethnicity. Of these migrants, 20% have lived in New Zealand less than 5 years.

English language ability is important in order to participate in New Zealand society. Among Waitematā's adults in 2013, it was estimated that 3.5% could not hold a conversation in English about everyday things (Census 2013). The Waitematā Auckland Translation and Interpreting Service provides face-to-face and telephone conference call interpreting, appointment confirmation and document translation, in both primary and secondary health care settings, to assist this group to access health services.

Figure 3.1.1: Number of migrants living in Waitematā by duration of residence 2013



Source: Census 2013 Usually Resident population

4 Population Health Drivers

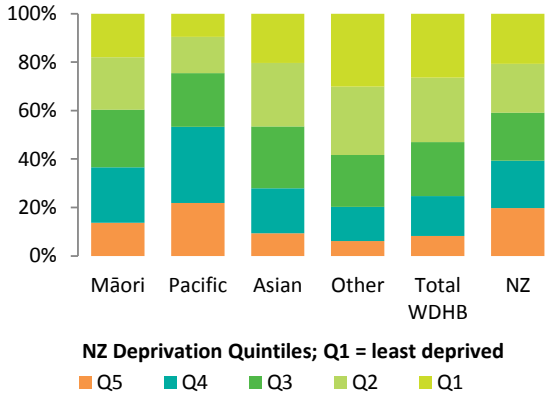
Many factors affect the health of individuals and communities. Whether people are healthy or not, is determined, for the most part, by an individual's socio-economic circumstances and their environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level and our relationships with friends and family all have considerable impact on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact. Most of the information in this section is taken from the 2013 census and from the Quality of Life (QoL) Survey 2012 (note: QoL data includes entire Whau ward).

4.1 Deprivation

The index by which we measure the relative prosperity or deprivation of our population is calculated from census information. It is based on averaged information about the households and individuals in the area and incorporates factors such as income, employment, qualifications, internet access, home and car ownership, overcrowding and single parent households. The ranked categories are calculated so that as nearly as possible, one-tenth of the population of New Zealand falls into each. (University of Otago, NZDep13 deprivation index by census area unit based on 2013 census))

On this basis, Waitematā has a relatively prosperous population compared to New Zealand as a whole, with only two other DHBs ranked as more prosperous. Only 8% of our population and 11% of children under five years live in the poorest areas (NZDep13 decile 9 and 10, or Quintile 5), compared to 20% of New Zealand as a whole. In contrast 26% of our population live in areas of the wealthiest two deciles, compared to 21% of New Zealand as a whole. Māori and Pacific people are much more likely to live in NZDep13 Quintile 4 and 5 areas, which are the poorest areas. West Auckland has much higher proportions of its population living in more deprived areas than the North Shore, Rodney and Hibiscus and Bays wards (Figure 4.3). There are also pockets of deprivation around Wellsford and Helensville. The least deprived areas are Devonport, Northcote Point, Birkenhead, parts of the East Coast Bays and the rural areas surrounding the urban fringe.

Figure 4.1.1:
Proportion in each NZ deprivation quintile, by ethnicity*



**The chart of deprivation by ethnicity is approximate only and is calculated from Census Area Unit data.*

Figure 4.1.2:
Proportion in each NZ deprivation quintile, by local board area

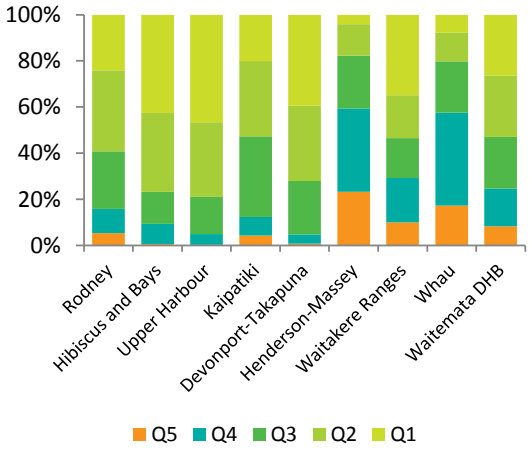
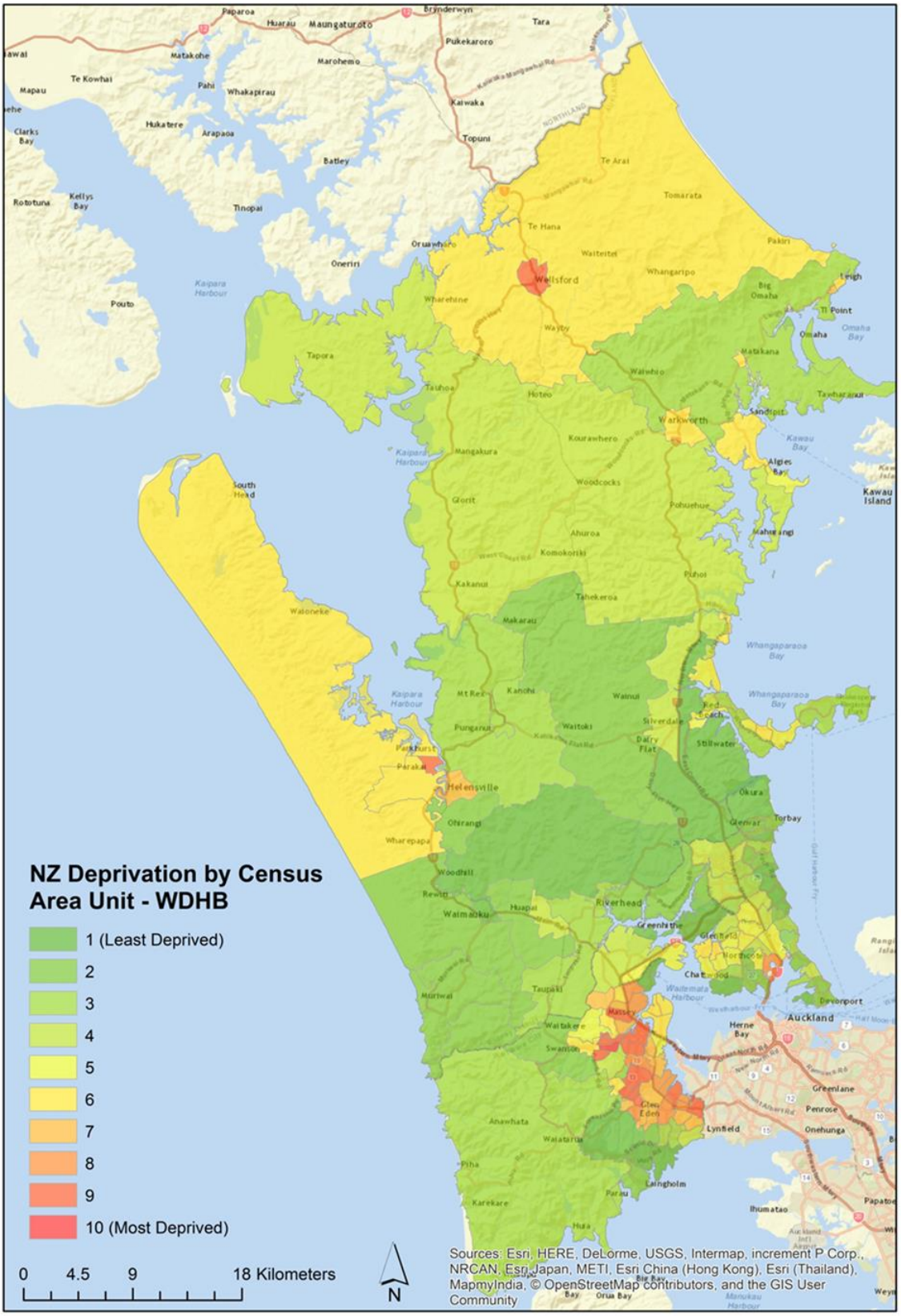


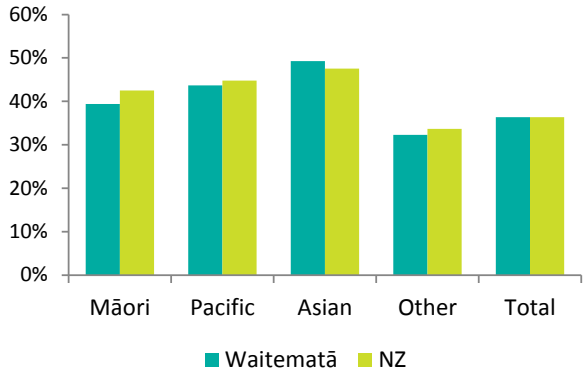
Figure 4.1.3:
Geographic spread of deprived areas, Waitematā DHB



4.2 Income, Education and Employment

Economic factors such as income, occupation and education are powerful determinants of health. The median annual income for Waitematā adults in 2013 was $30,600, higher than the national figure of $28,500 and the fourth-highest amongst DHBs. When the high cost of housing in the Auckland region is taken into account, disposable income is lower than this figure suggests. While 32% of European people reported an income of under $20,000 per year, the percentage is much higher for Māori (39%), Pacific (44%) and Asian people (49%). Women are much more likely to be on low incomes than men. However, the figures should be treated with caution because many people did not respond to census questions about income. The Quality of Life survey in 2012 found that almost one in four people (23%) felt they did not have enough income to meet their everyday needs.

Figure 4.2.1:
Proportion of population aged 15+ years with income under $20,000 by ethnicity, 2013



Source: Census 2013

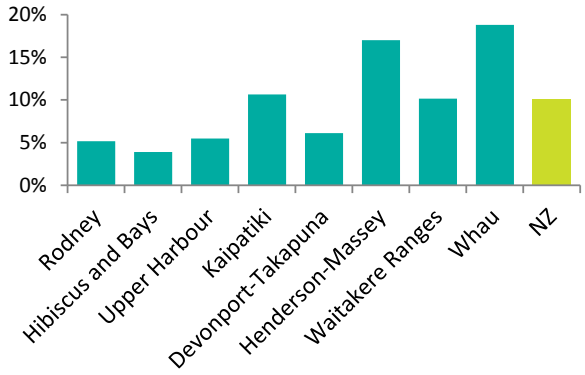
Overall 16% of people in Waitematā left school with no qualification, but this figure is almost double for Pacific people (28%) and Māori (27%). By contrast, 10% of Asians have no qualifications. At the high end of educational achievement, 34% of Asian people have tertiary or higher qualifications, 22% of Europeans/Others, 12% of Māori and 9% of Pacific people.

At the time of the 2013 census, Māori and Pacific people were more than twice as likely to be unemployed as other ethnicities, at 13% and 14% respectively, compared with 5% of Europeans/Others and 9% of Asian people.

4.3 Housing

Poor quality housing, including poor physical living conditions, overcrowding and lack of heating constitutes a significant health risk particularly for the young and old. In 2013 for Auckland region, crowding is much more common amongst Māori (25% living in overcrowded houses), Pacific (45%) and Asians (19%) and Europeans (6%) (Census 2013). Within Waitematā, overcrowding is most common in Whau (19% of people living in overcrowded houses) and Henderson-Massey (17%). Across the region, 22% of children aged under 15 years live in crowded houses. Nationally 3% of households use no heating fuel, however in Waitematā the figure is 4.2%. Henderson-Massey and Whau board areas have the highest proportions of households using no fuel, at 5.6% and 6.3%.

Figure 4.3.1:
Proportion of people living in a crowded house by local board, 2013



Source: Statistics NZ. Overcrowding is defined as a deficit of one or more bedrooms on the Canadian National Occupancy Standard.

The Auckland region has the least affordable housing for purchase in New Zealand, with an affordability index (the ratio of cost to income) of 31.7, 43% higher than the New Zealand average of 22.2 (Massey affordability index report May 2019). The Auckland region is also the least affordable region for renters, with households on average paying 35% of income on rent, compared with a national average of 31%. One quarter of Waitematā households live in rented housing, compared with 29% nationally. The 2013 census recorded 1,959 Waitematā residents as homeless (living in mobile and improvised dwellings, roofless or rough sleepers, or living in boarding house, night shelter or welfare institution).

4.4 Environmental factors

Auckland Region has relatively good air quality compared with other cities and towns in New Zealand. However, some parts experience quite high air pollution, which is primarily generated by motor vehicle emissions and by indoor heating fires. The Health and Air Pollution in New Zealand report 2012 estimated that in 2006, amongst adults aged over 30 years, Waitematā had 39 premature deaths per year due to motor vehicle pollution and 43 due to pollution from domestic fires. Māori made up 12% of these deaths (4 and 5 respectively).

Air pollution also causes hospital admissions for cardiac and respiratory problems. In Auckland in 2006, motor vehicle pollution caused 11 cardiac admissions; it also caused 18 respiratory admissions, of which 6 were for children under 5 years old and 4 were for children aged 5-14 years. Indoor heating fires caused 11 cardiac admissions; they also caused 20 respiratory admissions, of which 6 were for children under 5 years old and 4 were for children aged 5-14 years. The Quality of Life Survey 2012 found that 22% of Auckland region residents considered air pollution to be a problem.

Greater use of public transport would contribute to reducing air pollution. Car transport remains the dominant mode of travel to work in Auckland region with 83% of employed people travelling to work by car. Bus or train is the mode for 8% of people (Census 2013). Means of travel to work has been relatively stable since 1996 although there has been a slight increase in use of public transport and slight decrease (three percentage points) in car use.

Most people living in Auckland region have access to safe reticulated sources of drinking water. However, 35% of Auckland residents felt that there was pollution of lakes, streams or the sea (Quality of Life Survey 2012).

4.5 Climate Breakdown

Climate change has serious implications for our health, wellbeing, livelihoods, and the structure of organised society. Its direct effects result from rising temperatures and changes in the frequency and strength of storms, floods, droughts, and heat waves—with physical and mental health consequences. The impacts of climate change will also be mediated through less direct pathways, including changes in crop yields, the burden and distribution of infectious disease, and in climate-induced population displacement and violent conflict. Many of these effects are already seen (Lancet 2017).

Global average temperatures have been more than one degree Celsius higher than the 20th century average for the past three years. Temperature increase could pass 1.5 degrees, at least temporarily, in the next five years. The most recent research suggests that a sustained increase of 2 degrees will result in at least 6m of sea level rise (Nature Geoscience July 2018).

4.5.1 Rapid-onset climate breakdown events

- Increased frequency of fires, floods, storm tides and extreme rainfall events will affect public health. Apart from risks of direct injury, these events can also result in:
  - disease outbreaks,
  - toxic chemical contamination,
  - effects of damp or destroyed buildings and
  - mental health issues, particularly anxiety and depression.
- The impact will include destruction of infrastructure including housing, roads, water supply, waste water, electricity and communication networks, and this will also reduce access to health care. These events are already occurring. In 2017, an extreme rainfall event disrupted water processing and reduced Auckland's water supply by 20%, coming close to triggering a "boil water" notice. A storm in 2018 cut electricity to 180,000 homes and businesses.

4.5.2 Slow-onset impacts of climate breakdown

- Food production will become more difficult as temperature and rainfall patterns change, pollinators reduce, and pests and diseases increase, resulting in reduced availability and affordability. This is likely to impact more heavily on poorer people. Flooding is already affecting food production and prices. Efforts to reduce greenhouse gas emissions are likely to result in reduced production of ruminant meats and dairy products. Consumption of red meat has known associations with adverse health outcomes and a reduction in supply and consumption could produce health benefits in terms of reduced colorectal cancer and heart disease.
- Warmer water, both sea and fresh, will lead to an increase in harmful algal blooms with potential risks to drinking water supplies. Toxic marine algae can contaminate shellfish and cause gastrointestinal and neurological problems if consumed.
- Bacterial growth also increases in warmer sea and fresh water, and can lead to infected wounds from water contact or recreational swimming. Increased concentrations of salmonella and E coli in freshwater streams, due to high runoff or low (drought) water

flow, can cause illness in humans ranging from nausea to renal failure.

- A doubling in the number of hot days (above 25C) is expected by 2100. Hotter weather will particularly affect people with diabetes, cardiovascular disease and mental health issues, resulting in increased attendances at emergency departments and higher mortality rates. Outdoor workers may experience an increase in incidents of heat stroke and rates of kidney impairment.
- Outdoor air quality may be affected by reduced rainfall and wind, leading to air stagnation, which allows pollutants to build up. Mitigating this, there will be a reduction in emissions from vehicles as electrification of the transport system continues.
    - NIWA predicts a reduction in cold nights and frosts which may reduce emissions from wood-fired heating of homes in winter, with resulting improvements to air quality.
    - Drought may lead to an increase in air-borne soil particles.
    - Earlier growing seasons may increase the duration of high pollen counts in the air, increasing the period and rates of allergic illnesses such as asthma.
- The number of organisms that transmit infectious diseases, such as ticks, fleas and mosquitos, is likely to increase (although currently the number of flying insects is declining sharply). Warmer conditions may increase the rates of breeding for disease carriers, and for the infectious agents themselves. Emerging diseases such as chikungunya and zika viruses are already present in the Pacific Islands and could become a risk to New Zealand if warmer temperatures allow disease-transmitting mosquitos to become established here.
- The population of New Zealand and particularly of Auckland will increase when the country begins to receive climate change refugees. Several Pacific Islands are already experiencing problems with extreme weather events, which have destroyed housing and crops, fresh water supply and coastal flooding of farm land. Fiji, Papua New Guinea and Bougainville and the Solomon Islands, collectively representing 85% of the total Pacific population, are already struggling to manage internal climate-related displacement and resettlement.

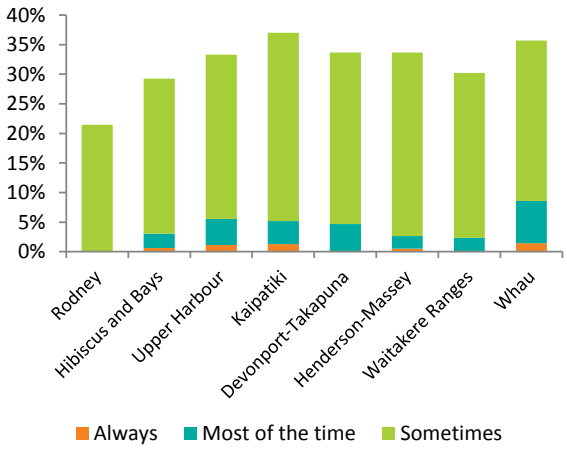
4.6 Social factors

Social support and good social relations make an important contribution to health. Social support helps give people the emotional and practical resources they need. Belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued. This has a powerful protective effect on health. Supportive relationships may also encourage healthier behaviour patterns. (WHO 2003)

The Quality of Life survey reports nearly half of people in Waitematā feel that there is a sense of community where they live and around 60% feel that people can usually be trusted. People in West Auckland are less likely to be positive than people in other areas within the district. Around one in three people (35%) feel isolated at least some of the time. Many older people and older women in particular, live alone. Three-quarters of people (77%) are happy with their quality of life but only 58% with their work/life balance.

Internet access, which is now a cornerstone measure of opportunity, information and communication, is available in 84% of Waitematā households compared with 77% of households nationally. A mobile phone is available in 85% of Waitematā households.

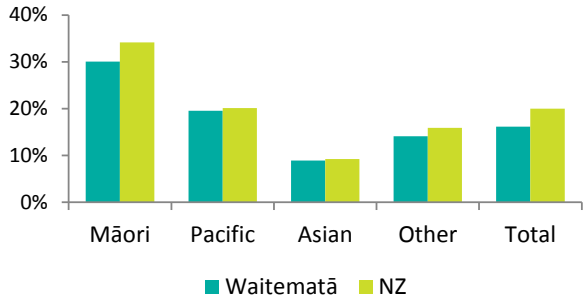
Figure 4.5.1:
Proportion of people who feel isolated by ward, 2012



Source: NZ Quality of Life Survey 2012

Single parenting is an issue that affects almost every part of the population. While single-parent homes exist in significant numbers across nearly all ethnicities (15%), some ethnicities have higher rates than others, for example 30% of Māori children live in single parent families. Single parent homes often have lower socio-economic status and children are at an increased risk of emotional and behavioural problems and more likely to have poor school performance.

Figure 4.5.2:
Proportion of children living in single parent families, 2013



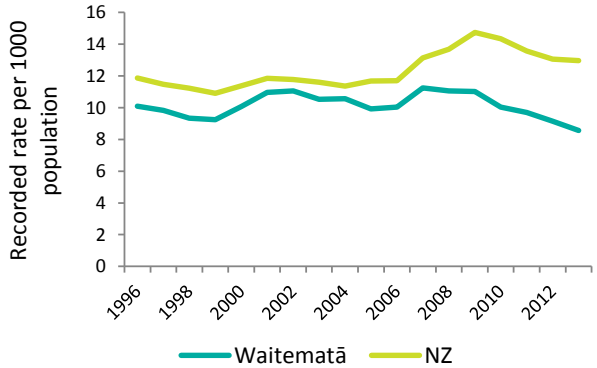
Source: Census 2013

4.7 Violence and Crime

Crime affects not only the health of individual victims but also community life. Fear of crime can also influence health and well-being of individuals and communities. People may make adjustments to their lifestyles and behaviour as a result of an experience of crime or fear of crime, for example not going out after dark, not using public transport and avoiding certain areas. The concentration of crime in particular neighbourhoods means that the adoption of avoidance measures can weaken social ties and undermine social cohesion.

Over a third of people do not feel safe walking alone at night in their neighbourhood, but this rises to more than 50% for those in West Auckland. Four out of five people (80%) people think unsupervised children are safe in their area. Police records of violent offences in the district peaked in 2009 and have begun to decline since. There is a similar pattern for non-violent offences. This is in line with national trends.

Figure 4.5.1:
Recorded rates of violent offences 1996-2013



Source: Statistics NZ, Offences recorded by NZ police authorities

There were 20 hospitalisations per 100,000 population for injuries attributable to domestic violence in Waitematā in 2013. The rates were very different between ethnic groups, with 82 per 100,000 population for Māori, 52 per 100,000 population for Pacific people and 11 per 100,000 population for Europeans. These figures are not age-standardised and the difference between ethnic groups partly reflects the age distribution of each population.

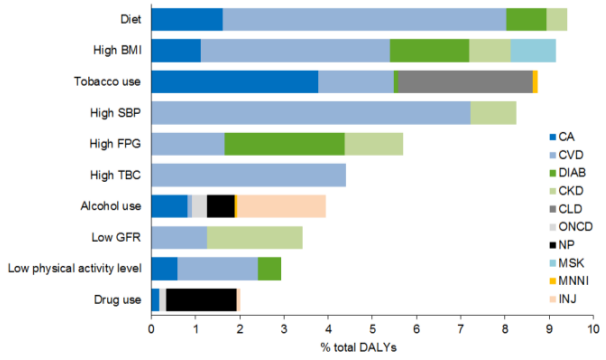
4.8 Cultural factors

Culture and cultural beliefs to explain ill health can have a profound effect on health, acceptance of treatment and use of services. For example, Māori views on health are framed by an holistic approach that encompasses four key elements, wairua (spiritual), hinengaro (psychological), tinana (physical) and whanau (extended family). Karakia (blessing or prayer) plays an essential part in protecting and maintaining these four key elements of health. Amongst Māori people in Waitematā, 24% do not know their Iwi and approximately 85% cannot speak Te Reo Māori. Many people in Waitematā are immigrants and may be dislocated from their culture. This is particularly the case for Asians, of whom 82% are immigrants, and Pacific people (44% are immigrants) but is also common amongst other ethnicities.

5 Modifiable Risk Factors

Lifestyle factors have a significant impact on overall health and well-being and are key contributors to cancer, cardiovascular disease and diabetes, which are major causes of death and poor health in our population. The Ministry of Health has reported the burden of disease across New Zealand based on data from the Global Burden of Disease study 2013. They use a measure called disability-adjusted life years (DALYs) that includes burden from early death and from lives led with disability. In terms of modifiable risk factors that drive this health loss, five lifestyle factors have a major impact: poor diet (9.4% of health loss), obesity (9.2%), tobacco use (8.7%), alcohol use (4.0%) and low physical activity (3%). Three further factors can be modified by lifestyle changes and by pharmaceuticals: high blood pressure (8.3% of health loss), high blood glucose (5.7%) and high cholesterol (4.5%) (Health Loss in New Zealand 1990-2013, pub 2016). Obesity may be reduced by surgery. These risk factors are present in the Waitematā population at rates of 10.5% medicated for high blood pressure, 8% medicated for high cholesterol and 5.5% with diabetes (NZ Health Survey 11/13, VDR 2013).

Figure 5.1:
Attributable burden of disease (percentage of total DALYs) for selected risk factors, 2013



Key: CA = cancers; CVD = cardiovascular disorders; DIAB = diabetes; CKD = chronic kidney disease; CLD = chronic lung disease; ONCD (which here includes chronic liver disease) = other non-communicable diseases; NP = neuropsychiatric disorders; MSK = musculoskeletal disorders; MNNI = maternal, neonatal, nutritional deficiency and infectious disorders plus birth defects; INJ = injuries, unintentional and intentional; BMI = body mass index; SBP = systolic blood pressure; FPG = fasting plasma glucose; TBC = total blood cholesterol; GFR = glomerular filtration rate.

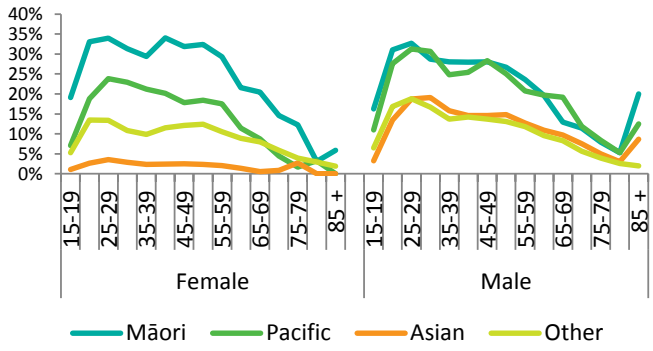
Source: Health Loss in New Zealand 1990-2013

5.1 Smoking

Smoking is the most significant cause of premature and preventable death in New Zealand. Twelve per cent of Waitematā adults are regular smokers of cigarettes (one or more per day). This is considerably lower than for New Zealand as a whole (15%) and is down from 17% in 2006 (Census 2006 and 2013). Of major significance is the decline that has occurred in Māori smoking, from 37% to 27% and Pacific from 27% to 20%. Although this is still higher than rates for Asian and European/Other people, the gap is decreasing. Further focus is required. The proportion of Year 10 students who smoke has declined dramatically over the last 10 years, from 17% in 2003 to 3.8% in 2013 (ASH Year 10 surveys). For all ethnicities except Māori, women have lower smoking rates than men. Smoking rates amongst pregnant women remain worryingly high at 14% overall, but 53% amongst Māori and 22% amongst Pacific women. Providing support for these women to quit is a high priority.

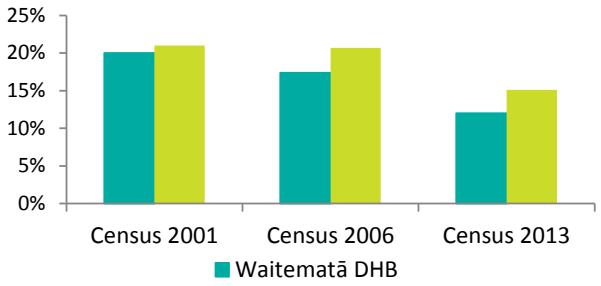
In the quarter July to September 2014, nearly all smokers (97%) who are admitted to hospital, and 99% who see their family doctor, receive brief advice to quit smoking. Waitematā DHB bans smoking on all of its premises.

Figure 5.1.1:
Proportion of people who are regular smokers of cigarettes by age group and ethnicity, Waitematā DHB



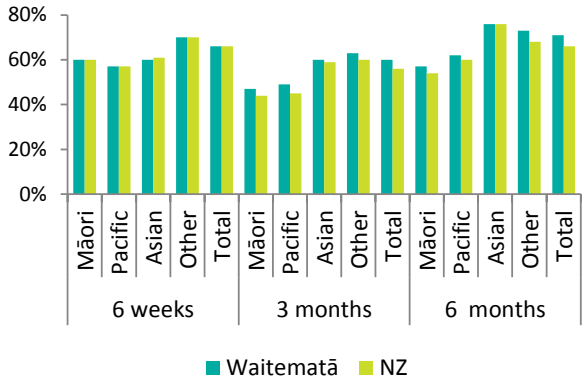
Source: Census 2013

Figure 5.1.2:
Proportion of adults aged 15+ years who were regular smokers of cigarettes



Source: Censuses

Figure 5.2.1:
Proportion of Plunket babies fully breastfed at 6wks/3mths or partially breastfed at 6mths, 2014



Source: Plunket NZ Annual Reports

5.2 Diet and Physical Activity

Over-consumption of fats and sugars leads to excess weight and high cholesterol levels, while too much salt can contribute to high blood pressure. These are risk factors for cardiovascular disease and diabetes.

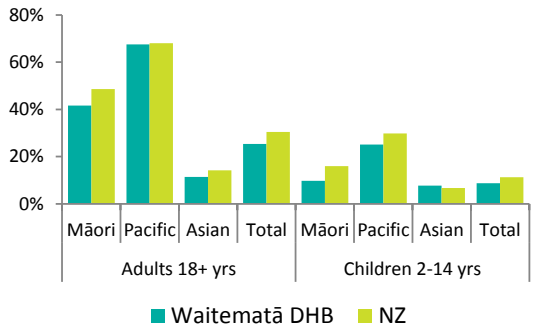
Nutrition is complex and we only have limited information at DHB level. In Waitematā, 51% of adults eat the recommended daily intake of vegetables and 58% eat the recommended daily intake of fruit, while only 35% eat the recommended amounts of both fruit and vegetables. Women have a healthier diet than men. Māori, Pacific and Asian people are also less likely than European/Other people to meet the recommended daily intake fruit and vegetables. Children in Waitematā are more likely than adults to eat recommended servings of fruit and vegetables (43%). Seven out of ten eat fast food at least once a week, and half have fizzy drink at least once a week (NZHS 2014-17).

At three months of age, 60% of babies seen by Plunket in Waitematā are fully breastfed, compared with 56% nationally. Europeans and Others are more likely to be breastfed than Māori, Pacific and Asian babies, in Waitematā and New Zealand.

Physical activity is protective against health conditions such heart disease, type 2 diabetes and certain cancers. It also helps to reduce the prevalence of overweight and obesity. Fewer than half of Waitematā adults are regularly physically active and undertake at least 30 minutes of exercise five days per week. Asian people were the least likely to be physically active (39%). Active travel to work or school is a good source of physical activity. Fewer than two in five children use active transport to school. Māori (54%) are a more likely to travel actively to school than Pacific (41%) and Asian children (39 %; NZ Health Survey 2014-17). Amongst employed adults, 6.5% in Auckland Region biked, walked or jogged to work (Census 2013).

Obesity is associated with a wide range of health conditions including cardiovascular disease, various types of cancer, type 2 diabetes, kidney disease, osteoarthritis, gout, gallstones, complications of pregnancy and mental health issues. For adults, obesity is defined here as a body mass index (BMI) of 30 or above, and for children obesity is defined as a BMI above Cole cut-offs (international standard reference points for BMI by age and gender). Over half (54%) of women and 68% of men in Waitematā are overweight or obese. One in four (25%) of our adult population is obese (up from 20% in 2006/07), compared to 31% of the national population. Obesity is much more common in our Māori (42%) and Pacific (68%) populations and much less common in our Asian population (11%). Amongst children aged 2-14 years, 10% of Māori children and 25% of Pacific children are obese, and 8% of Asian children. Overall, 9% of Waitematā children are obese and 26% are overweight or obese (NZ Health Survey 2014-17).

Figure 5.2.2:
Obesity (age-standardised) by age group and ethnicity, 2014-17



Source: NZ Health Survey 2014-2017; obesity defined as body-mass index >= 30 (adults) or above Cole cut-offs (children)

5.3 Alcohol and Drugs

There is no safe level of alcohol consumption (Lancet 2018). As well as its acute and potentially lethal sedative effect at high doses, alcohol has effects on every organ in the body (Health Promotion Agency). Alcohol use accounts for 4% of health loss, mainly through injuries, cancers and psychiatric disorders (Health Loss in New Zealand 1990-2013). Amongst those aged 15-49, it is the leading cause of health loss.

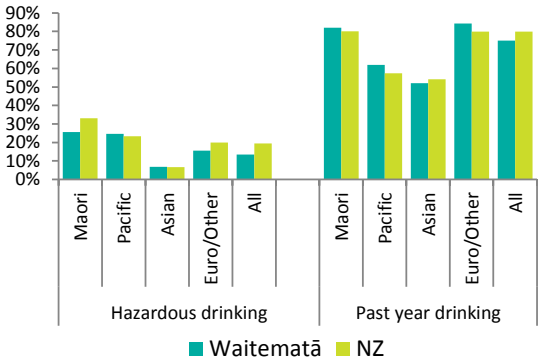
Drinking any alcohol during pregnancy is harmful to the foetus and may result in fetal alcohol spectrum disorder (FASD). In New Zealand, the evidence indicates that:

- at least one in two pregnancies are exposed to alcohol; one in ten are exposed at high-risk levels
- two in five pregnancies are unplanned, increasing the chance they will be exposed to alcohol.

(MoH 2018, *Taking Action on Fetal Alcohol Spectrum Disorder*)

Four out of five (79%) adults and young people in New Zealand drink alcohol. In Waitematā, 14% of adults drink alcohol in a way that is classified as hazardous. Men are far more likely to be hazardous drinkers (18%) than women (9%). The rate for Māori (26%) and Pacific (25%) is much higher than for Asian (7%) and European/Other (16%) ethnicities. The Global Burden of Disease study found that for New Zealand in 2016, alcohol is the biggest risk factor for health loss among people aged 15-49 years.

Figure 5.3.1:
Proportion of adults who are past-year or hazardous drinkers (age-standardised), 2015-17



Source: NZ Health Survey 2015-2017

Illicit drugs account for 2.3% of health loss from all causes (Health Loss in New Zealand 1990-2013), but approximately 6.5% of loss in youth (ages 15-24 years). The New Zealand Health survey 2012/13 found that:

"*Eleven percent of adults aged 15 years and over reported using cannabis in the past 12 months. Cannabis was used by 15% of men and 8% of women. …. Māori adults and adults living in the most deprived areas were more likely to report using cannabis in the last 12 months. … Six percent of cannabis users reported harmful effects on work, studies or employment opportunities, 4.9% reported difficulty learning, and 1.7% reported absence from school or work in the last 12 months due to cannabis use. … Eight percent of cannabis users reported a time in the last 12 months that cannabis use had a harmful effect on their mental health.*"

The 2015/16 health survey found that 1.1% of adults aged 16-64 years reported using amphetamines in the 2015/16 year. Men were more likely to have used amphetamines (1.7% compared with 0.6% of women). Younger adults, aged 25-34, had the highest reported rates at 2.4%. The rates for each ethnicity were 2.9% for Māori, 1.2% for Pacific, 0.2% for Asian and 1.3% for European/Other adults.

The 2007/08 survey of drug use in New Zealand found that marijuana was the most commonly used illegal drug in Waitematā and New Zealand. Nationally other drugs most commonly used are nitrous oxide, Kava, Ecstasy and amphetamines; but each of these was tried by less than 4% of people in the last year. Party pills were commonly used in 2006, however since this survey party pills have been made illegal. Police offence records show that possession of marijuana constituted 70% of recorded illicit drug possession offences in Waitematā in 2013 and amphetamine/

methamphetamine constituted 20%. In the 2013 New Zealand Arrestee Drug Use Monitoring System (NZADUM) survey, 50% of the police detainees had tried methamphetamine in their lifetimes, 30% had used it in the past year and 19% had used it in the past month. Detainees in Auckland Central were more likely to have recently used methamphetamine than those in Christchurch Central and Whangarei.

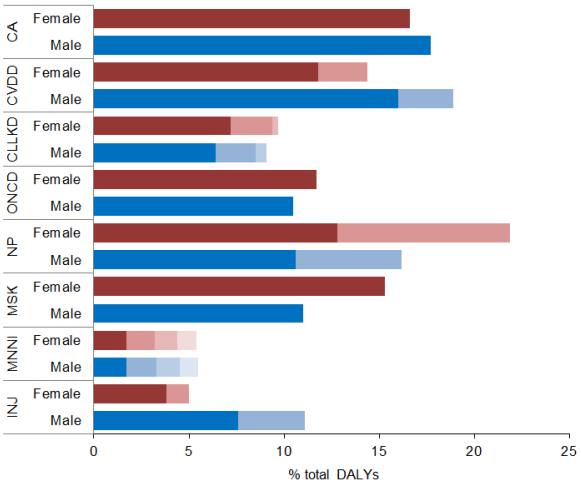
6 Health Status

6.1 Overall health

Overall, the self-reported health status of Waitematā residents is excellent. More than 90% of adults in Waitematā report that their overall health is excellent, very good or good, although this is lower for Māori (84%) and Pacific (82%). (New Zealand Health Survey 2011-2013) The following sections look at how long we are living and at the key diseases which shorten our lives through avoidable deaths, and those causing avoidable hospital admissions.

The most significant disease groups causing health loss, measured in DALYs, are neuropsychiatric disorders including mental illness, addictions and dementia (19% of the total burden), cancers (17%), cardiovascular diseases including diabetes (17%), musculoskeletal disorders (13%), and chronic lung, liver and kidney disease (~10%). Together these conditions account for over three-quarters of health loss (76%) (Health Loss in New Zealand 1990-2013).

Figure 6.1.1
Percentage of DALYs by condition group, New Zealand, 2013



Key

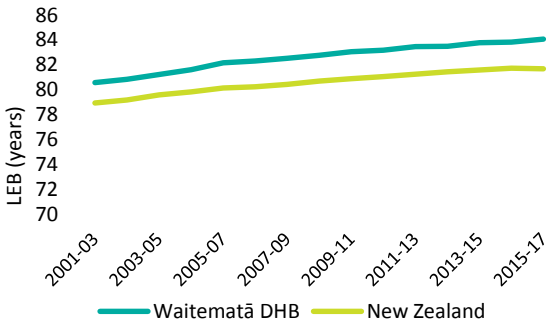
CA = cancers
CVDD = cardiovascular disorders (dark shade) and diabetes (light shade)
CLLKD = chronic lung (dark shade), kidney (mid shade) and liver disease (light shade)
ONCD = other non-communicable diseases
NP = neuropsychiatric disorders: mental disorders (dark shade), neurological disorders including dementia (light shade)
MSK = musculoskeletal disorders
MNNI = birth defects, maternal and neonatal disorders, infectious disorders, nutritional deficiency disorders (in that order from left to right)
INJ = injuries, unintentional (dark shade) and intentional (light shade)

Source: Health Loss in NZ 1990-2013

6.1.1 Life expectancy

Waitematā has the highest life expectancy in New Zealand, at 84.1 years (2015-2017), 2.4 years longer than the national figure of 81.7 years. In Waitematā, life expectancy has increased by 1.9 years over the last decade which is 0.4 years more than New Zealand as a whole.

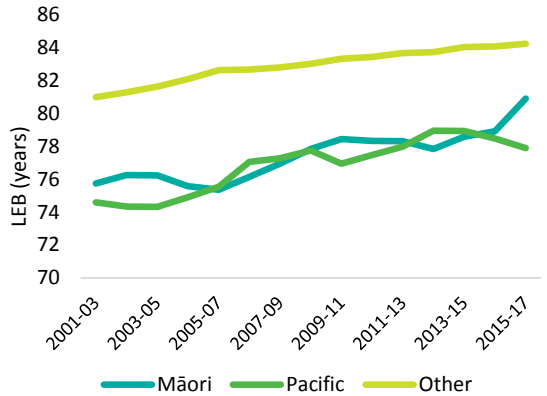
Figure 6.1.1.1:
Life expectancy at birth



Source: Ministry of Health mortality data collection
Note: Graph displays three year rolling life expectancy calculated using Chiang II methodology. Other published estimates may differ depending on the methodology used.

Life expectancy varies across ethnic groups with Māori living 80.9 years on average and Pacific people 77.9 years, while Europeans/Others live 84.2 years. Women live 2.9 years longer than men. While total life expectancy for Māori and Pacific has increased, a gap reamins of 5.1 years for Māori and 5.7 years for Pacific peoples, compared with European people.

Figure 6.1.1.2:
Average life expectancy at birth in Waitematā (years) by ethnicity; male and female combined



Source: Ministry of Health mortality collection; Statistics NZ population estimates based on census 2013

Māori life expectancy in Waitematā DHB has consistently outstripped Māori life expectancy in New Zealand as a whole although the rest of New Zealand is catching up with Waitematā. Similarly, Pacific life expectancy is higher in Waitematā than in the rest of New Zealand, although the gap is not as great as for Māori.

Figure 6.1.1.3:
Average Māori life expectancy in Waitematā DHB and New Zealand

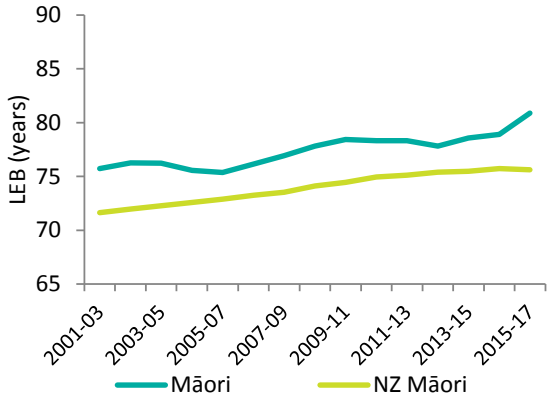
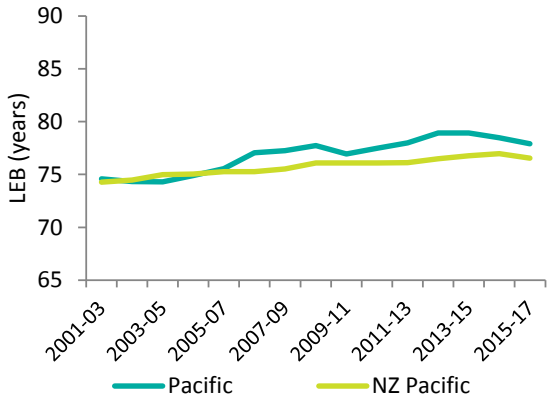


Figure 6.1.1.4:
Average Pacific life expectancy in Waitematā DHB and New Zealand



Circulatory system diseases and cancers accounted for almost half the difference in life expectancy between Māori and Pacific people when compared to non-Māori, non-Pacific people in Waitematā.

Figure 6.1.1.5:
Causes of life expectancy gap between Māori and non-Māori non-Pacific in Waitematā DHB, 2012-2014

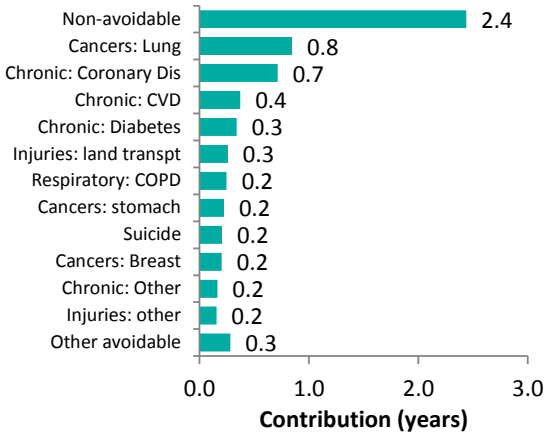
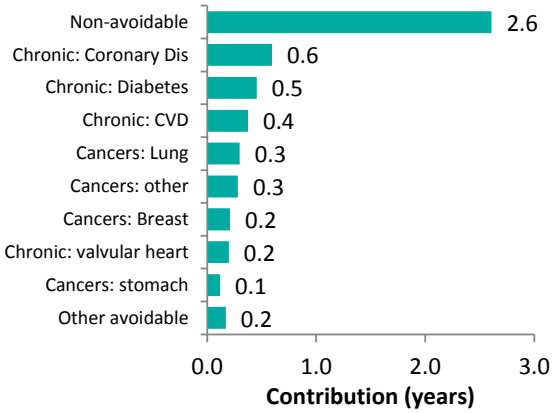


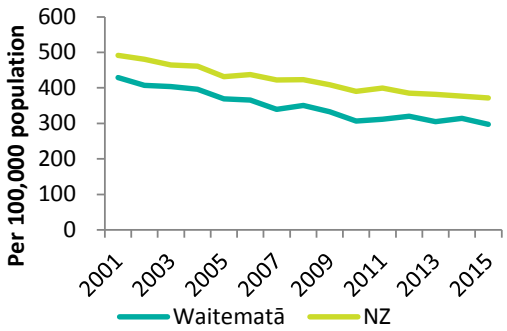
Figure 6.1.1.6:
Causes of life expectancy gap between Pacific and non-Māori non-Pacific in Waitematā DHB, 2012-2014



6.1.2 Total Mortality

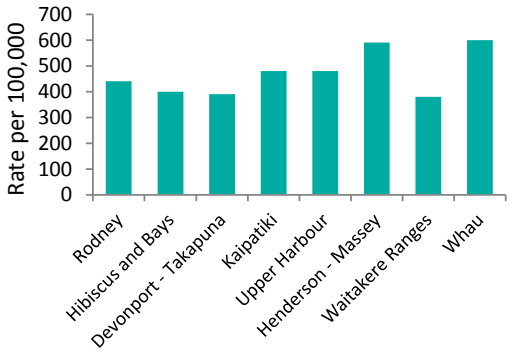
Just over 3,000 people died in Waitematā in 2015 and 82% of these were aged over 65 years. The most common causes of death are cancers (31%), cardiovascular diseases (29%) and respiratory disease (10%). Waitematā has the lowest age-standardised mortality rate of any DHB in New Zealand, with an overall rate of 297 deaths per 100,000 population, compared to 371 for New Zealand as a whole. Mortality rates are highest in West Auckland (age-standardised 590 per 100,000 population, standardised to Auckland Region), followed by Upper Harbour and Kaipatiki (both 480 per 100,000).

Figure 6.1.2.1:
All deaths, age standardised mortality rate per 100,000 population, 2001-2015



Source: Ministry of Health Mortality Collection, standardised to WHO population

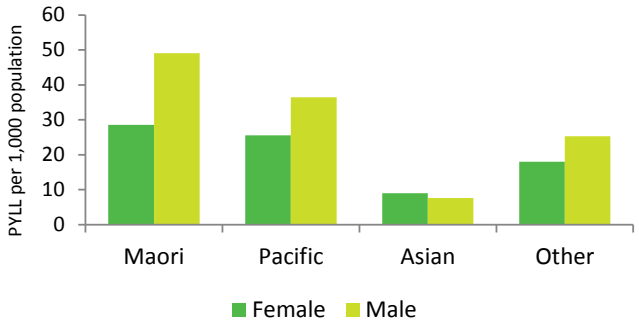
Figure 6.1.2.2:
All deaths, age-standardised mortality rate per 100,000 population by local board, 2011



Source: StatPlanet, standardised to Auckland Region population

As well as looking at mortality rates, it is helpful to measure how many years of life are lost for each person who dies before the age of 65. This calculation gives more weight to the deaths of younger people. The potential years of life lost (PYLL) per 1,000 people was 18 for Waitematā, compared with 25 for New Zealand as a whole. This suggests that Waitematā is doing better than average at avoiding mortality amongst younger people. Across most age groups, Māori and Pacific lose about twice as many years of life as European/Asian/Other people.

Figure 6.1.2.3:
Potential Years of Life Lost age-standardised per 1,000 population, by gender and ethnicity, 2011-2013



6.1.3 Avoidable causes of mortality

Avoidable mortality includes deaths occurring in those aged 0-75 years (excluding stillbirths) that could potentially have been avoided through population-based interventions or through preventive and curative interventions at an individual level. Prevention includes successful public health promotion (including lifestyle changes) and injury prevention.

In 2013, 670 deaths (23% of the total) were considered potentially avoidable. The leading causes of avoidable mortality in Waitematā are ischaemic heart disease (IHD), lung cancer, colorectal cancer, suicide, COPD and stroke. For women breast cancer is also important and for men unintentional injuries are important. For Māori and Pacific diabetes is important.

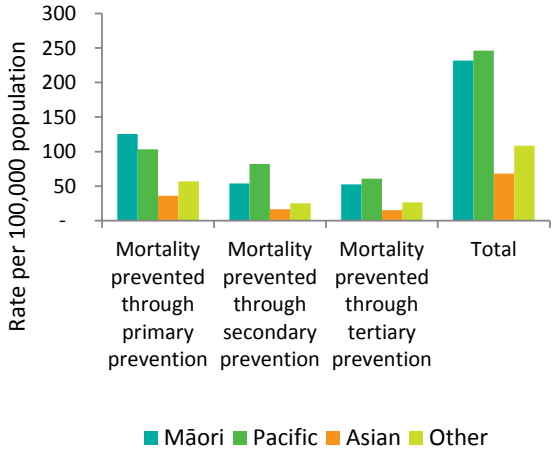
Figure 6.1.3.1:
Most common causes of avoidable mortality, 2011-2013 combined

Gender	Cause	Age-standardised rate per 100,000 population
Female	Breast Cancer	16.1
	Lung Cancer	12.4
	Ischaemic heart disease	7.7
	Unintentional injuries	6.1
	Cerebrovascular disease	5.8
	Colorectal cancer	5.4
	COPD	5.3
Male	Ischaemic heart disease	27.7
	Intentional injuries	16.2
	Lung cancer	14.2
	Unintentional injuries	13.4
	Colorectal Cancer	8.9
	Cerebrovascular disease	7.0
	COPD	4.6

Source: Ministry of Health mortality data collection

The very marked differences between groups highlight the opportunity for reduction in health inequalities. Men have a 36% higher avoidable mortality rate than women. Māori and Pacific avoidable mortality rates are more than double that of European/Other ethnicities. The chart below shows the rates that could be avoided through primary prevention (avoiding occurrence of disease eg through immunisation or lifestyle related interventions), secondary prevention (detecting and addressing disease before the appearance of symptoms eg by treating hypertension) and tertiary prevention (treatment and rehabilitation eg by surgery).

Figure 6.1.3.2:
Avoidable mortality by ethnic group (age-standardised per 100,000 population), 2009-2011



Source: Ministry of Health Mortality data collection

6.2 Specific conditions

6.2.1 Cardiovascular disease

Cardiovascular diseases (CVD) are diseases affecting the heart and circulatory system. They include ischaemic heart disease, rheumatic heart disease, cerebrovascular disease and other forms of vascular and heart disease. Cardiovascular disease is the second largest cause of death in Waitematā DHB, causing 828 deaths in 2013. It is also a leading cause of years lost to premature mortality. The main risk factors for cardiovascular disease including stroke are high blood pressure, high body mass index, high cholesterol, tobacco use and low physical activity (Health Loss in New Zealand 2013). These risk factors interact with each other, for example low physical activity contributes to high body mass index, high blood pressure and high cholesterol. Cardiovascular disease is exacerbated and compounded by diabetes. Overall, around 70% of the burden of cardiovascular disease is attributed to modifiable risk factors and is preventable through adopting a healthy lifestyle, and manageable with lifestyle change, early intervention and effective management.

The age-standardised mortality rate (ASR) from CVD of the Waitematā population much lower than the New Zealand rate (92 per 100,000 population vs 118 per 100,000 population). The rate for men (109 per 100,000 population) was much0 higher than for women (76 per 100,000 population). Amongst men, it was more common in Māori (196 per 100,000 population) and Pacific (215 per 100,000 population) than Asian (58 per 100,000 population) and European/Other (104 per 100,000 population). The rates for Māori and Pacific women were also high at 111 and 125 respectively per 100,000 population. For both Waitematā and New Zealand as a whole, the mortality rate for CVD has decreased since 2006.

Figure 6.2.1.1:
Age standardised mortality rate per 100,000 population for cardiovascular disease by year, male and female, all ages

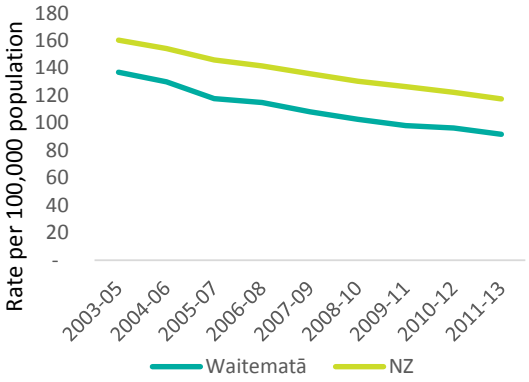
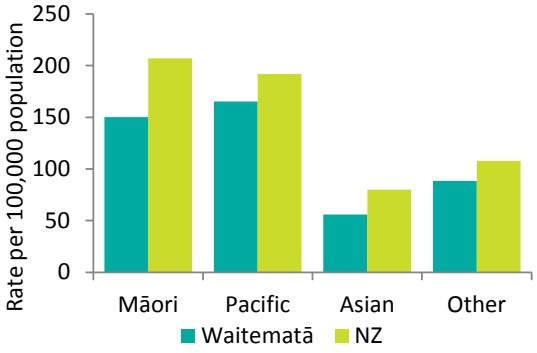


Figure 6.2.1.2:
Cardiovascular disease mortality by ethnic group (ASR per 100,000 population), 2011-13
Male and female, all ages

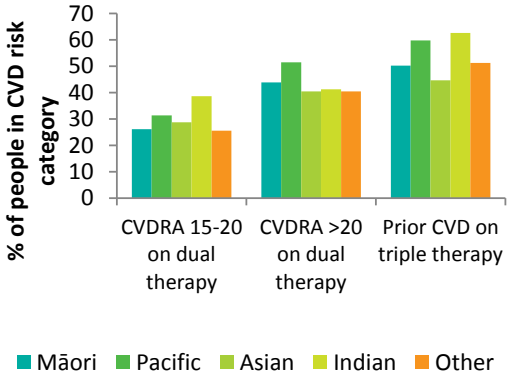


Source: Ministry of Health Mortality data collection

Within Waitematā DHB, 88% of eligible adults have had their risk factors for CVD assessed within the five years to December 2018, but only 75% of Māori men aged 35-44 years. One in ten Waitematā adults takes medication for high blood pressure and one in 12 takes medication for high cholesterol (NZ Health Survey 2011-2013). A higher proportion of Māori and Pacific people are on these medications reflecting higher rates of cardiovascular disease within these populations.

Current New Zealand guidelines recommend that people who have had a heart attack or stroke should be treated with a combination of medications also known as "triple therapy". These medications include anti-coagulant/antiplatelet, a cholesterol-lowering drug and a blood pressure-lowering drug. People with a high risk score but no previous CVD should be treated with cholesterol- and blood pressure-lowering drugs (dual therapy). Of Waitematā residents who have been admitted to hospital with CVD in the previous 10 years, 52% are on triple therapy. This rises to 63% for people who also have diabetes. Rates of cardiac investigation are 20% higher than the national average and rates of cardiac surgery carried out in public hospitals are similar to the national average.

Figure 6.2.1.3:
Cardiovascular risk and medication dispensing rates, March 2019



Source: Northern Region Cardiac KPIs

6.2.2 Stroke

Stroke is a sudden interruption of blood flow to a part of the brain, causing damage to the brain cells. The impact of stroke and transient ischemic attack (TIA) can be catastrophic for the individual and family/whanau and is resource intensive for health services. Management of high blood pressure through medication reduces the risk of stroke as well as of cardiac disease (see rates above).

The mortality rate from stroke is 25 per 100,000 population, which is lower than New Zealand as a whole at 28 per 100,000 population. There were 754 strokes leading to hospital admission in Waitematā residents in the year to March 2014. Approximately 16% of these patients died within 30 days of admission. For patients admitted acutely, the risk of dying is higher if the admission takes place at the weekend, resulting in four excess stroke deaths per year for Waitematā.

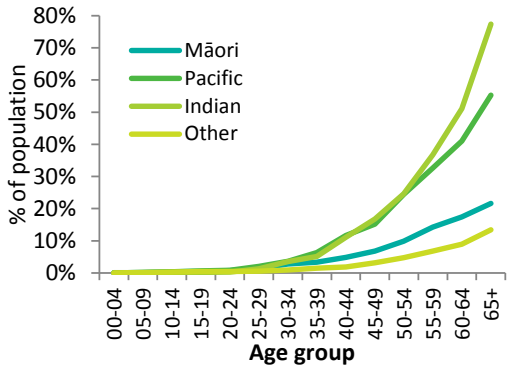
Managing stroke admissions according to the New Zealand Stroke Management Guidelines (2012) is essential for improving and maximising the health outcomes for people after a stroke, or who are at risk of stroke. It is also important to commence rehabilitation promptly as delays in acute wards may inhibit the crucial motor recovery process taking place shortly after a stroke. 5.8% of eligible stroke patients received thrombolysis (breaking down blood clots using medication), lower than the national target of 6%. The rate of thrombolysis is variable, having dipped to 0.7% in June 2013 before returning to the current level. Three out of four patients (75%) were cared for on a dedicated stroke unit, a little lower than the national target of 80%. Between 25% and 30% of stroke patients are transferred from acute care to rehabilitation and of these, about half are transferred within 10 days of having a stroke which is a similar rate to the Regional average.

6.2.3 Diabetes

Diabetes is a disease which affects the body's ability to control blood glucose. Type 1 diabetes is primarily an inherited condition generally diagnosed in childhood/adolescence. Type 2 diabetes is usually thought of as an adult disease, but is increasingly being diagnosed in children. We estimate that over 28,000 people in Waitematā have some form of diabetes, 4.6% of the population. This figure has almost doubled since 2005 when the estimated number of people with diabetes was 15,000 (3% of the population).

Diabetes prevalence increases dramatically with age reaching 13% of the population for European/non-Indian Asian/Other people, 77% for Indian and 55% for Pacific by the time people are in their 60s. From the age of 30, prevalence in Māori is increasingly higher than in European/Others and is even higher for Pacific and Indian people.

Figure 6.2.3.1:
Diabetes prevalence in Waitematā DHB 2017



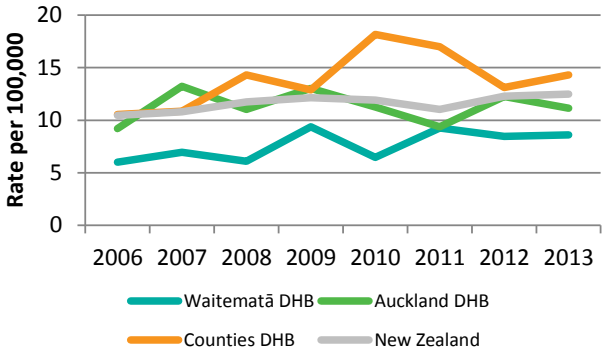
Source: Ministry of Health Virtual Diabetes Register, 2017

The presence of diabetes can lead to cardiovascular disease, blindness, dementia, kidney disease and foot problems which may lead to amputation. Early detection and good management can delay or avoid the onset of these problems. Risk assessment for CVD and diabetes has been mentioned above. We need to provide more support to people with diabetes to manage their risk factors such as high blood pressure and blood sugar levels, and to encourage them to attend retinal screening. Of the estimated number of people with diabetes in Waitematā, 63% had an HbA1c test in the 15 months to May 2018. Of the estimated number of people with diabetes in Waitematā aged 15-74 years, around 63% are known to be well-managed (defined as having HbA1c of <64 mmol/mol in the 15 months to May 2018). Within the last two years, 54% of people with diabetes have had the recommended retinal screening in the public sector.

Type II diabetes, which makes up 90% of diabetes, can be managed by diet alone or by oral medication or insulin. Prescribing rates given here are therefore only a partial indication of the quality of management. Waitematā's rate of dispensing regular insulin or metformin in people with diabetes aged 25 and over was 60%, similar to the national rate of 61%. This is made up of 22% who filled at least one insulin prescription, 66% filled a metformin prescription and 28% filled a sulfonylurea prescription.

Waitematā has below average rates of admission for diabetic ketoacidosis (62 admissions, 0.2% of people with diabetes) and average rates of admissions for hypoglycaemia (81 admissions, 0.3% of people with diabetes) (Atlas of Healthcare Variation 2016). Admission rates may be an indicator of the quality of management in primary care and/or Emergency departments. In total, people with diabetes used 42,500 medical/surgical bed days in 2016, which was 17.5% of all medical/surgical bed days. Between 2006 and 2013, Waitematā has seen the rate of lower limb amputations rise from 9 per 100,000 population to 11 per 100,000 population. This increase reflects the growing number of diabetics in the population, and increasing time with diabetes at patient level. Rates of amputation per medicated diabetic person are relatively stable between 0.1% and 0.2%. In 2016 the actual number of amputations was 32.

Figure 6.2.3.2:
Diabetes related non-traumatic lower limbs amputation age standardised rate, Auckland region District Health Boards and New Zealand, 2006-2013



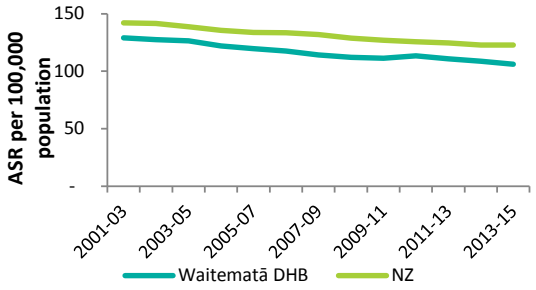
6.2.4 Cancer

Cancer is an abnormal growth of cells that can result in the invasion of normal tissues and which may spread to other parts of the body (metastasis). The main risk factors for cancer are tobacco use, high body mass index, physical inactivity, alcohol use, low fruit and vegetable intake and unsafe sex. For melanoma, sun exposure is also important. (Health Loss in New Zealand 2013). Overall, around 30-35% of the burden of cancer is attributed to modifiable risk factors and is preventable through adopting a healthy lifestyle, and manageable with lifestyle change, early intervention and effective management.

Cancer is the leading cause of death in Waitematā, causing 969 deaths in 2015, 32% of all deaths. Amongst our residents, the age-standardised mortality rate (ASR) from cancer was 106 per 100,000 population, compared with 123 nationally, over the period 2013-2015. The Māori mortality rate (174 per 100,000 population) and Pacific mortality rate (162 per 100,000 population) are substantially higher than that of European/Other ethnicities (107 per 100,000 population), whilst Asian people have the lowest rate at 59 per 100,000 population. The total cancer

mortality rate for Waitematā fell slightly between 2003 and 2011, rose slightly and then fell again in 2013.

Figure 6.2.4.1:
Age standardised mortality rate per 100,000 population aged 25+ for all cancers, three year rolling average, 2001-03 to 2013-15



The table below shows the ten most common cancers causing death in the Waitematā region for the 3 year period 2013-2015. Sixty-nine per cent of all cancer deaths in Waitematā are covered in the top 10 and 38% are due to lung, colorectal and breast cancer. Just over half of all cancer deaths (52%) occur in people aged under 75 years. Breast and brain cancer affect predominantly people aged under 75 years, with 71% breast cancer deaths and 77% brain cancer deaths being among those aged under 75 years.

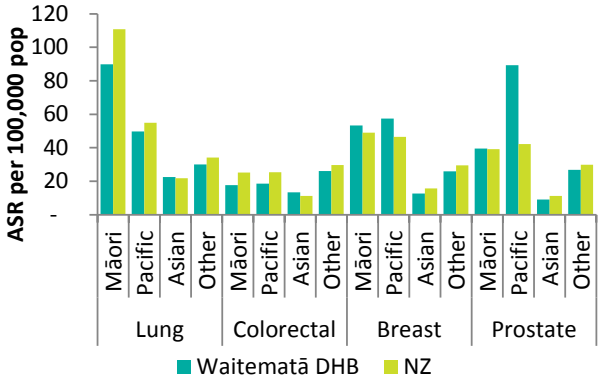
Figure 6.2.4.2:
Top 10 causes of cancer mortality by major site in Waitematā for 2013-2015*

Cancer type (ICD 10 code)	Age (years)		
	<75	75+	Total
Lung cancer (C33-C34)	264	229	493
Colorectal & anal cancer (C18-C21)	169	209	378
Female breast cancer (C50)	146	60	206
Prostate cancer (C61)	61	138	199
Pancreatic cancer (C25)	85	73	158
Malignant melanoma of skin (C43)	64	62	126
Oesophagus (C15)	56	50	106
Leukaemia (C91-C95)	46	49	95
Brain tumour (C71)	73	22	95
Non-Hodgkin lymphoma (C82-C85,C96)	42	49	91
All other cancer	455	412	867
Total	**1,461**	**1,353**	**2,814**

** Data represent the number of deaths for a 3 year period*
Source: Ministry of Health mortality data collection

Waitematā has lower rates of lung and colorectal cancer mortality than New Zealand as a whole. However, the lung cancer mortality rates for Māori men and women (109 and 75 per 100,000 population aged over 25 years) and for Pacific men (76 per 100,000 population aged over 25 years) are more than double the rates for European/Other men (33 per 100,000 population aged over 25 years).

Figure 6.2.4.3:
Cancer mortality by ethnic group (ASR per 100,000 population aged 25+ yrs) 2013-15



Source: Ministry of Health Mortality data collection

On average, 2,600 people are diagnosed with cancer per year in Waitematā, some of whom have more than one cancer. The age-standardised rate of cancers registered in the period 2011-2013 was 346 per year per 100,000 male population (NZ 358) and 296 per 100,000 female population (NZ 316). The most commonly registered cancers were breast, colorectal, prostate, melanoma and lung. Within these total figures, Māori and Pacific have higher rates of lung and breast cancer but very low rates of melanoma, compared with European/Others. Asian people have generally low rates of cancer registration, except for lung cancer where Asian people have similar rates to European/Other people.

Cancer hospitalisation rates for different cancers tend to mirror the pattern for mortality, but skin cancer is the top cancer for hospitalisations. Waitematā had a higher rate of colorectal cancer hospitalisation than New Zealand in 2013 (104 vs 100 per 100,000 population), which might be explained by the Bowel Screening Programme which is being piloted in Waitematā.

Figure 6.2.4.4:
Most common causes of cancer registrations for Waitematā DHB residents, 2014-2016 combined and five-year relative survival rates for 2012-13 registrations

Type	Registrations	Five-year relative survival rate	Deaths (13-15)
Colorectal cancer	1,055	71%	378
Female breast cancer	1,151	93%	206
Prostate cancer	1,062	93%	199
Melanoma	976	93%	126
Lung cancer	703	19%	493
Other	2,947		1,412
	7,894	**68%**	**2,814**

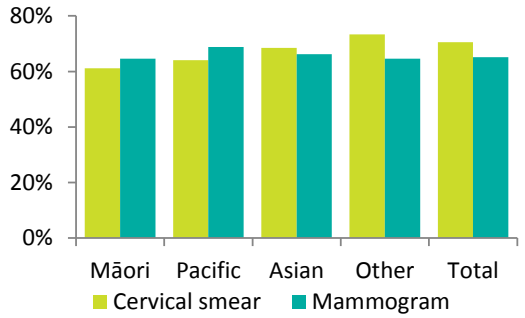
Source: NZ Cancer Registry, NZ Mortality data collection

The five-year relative survival rate for cancer in Waitematā DHB is 69%, which is the highest in New Zealand. However, Australia performs better than New Zealand in treating cancers. If Waitematā DHB had the same five-year survival rates as Australia, 32% of women who die of breast cancer within five years would survive for longer (15 per year).

Rapid diagnosis and treatment of cancer increases the options for treatment and the chances of survival. In Waitematā DHB we undertake routine screening for cervical and breast cancer. A pilot programme is also underway to screen for bowel cancer. Cervical screening is offered every three years and 71% of eligible women (25-69 year olds) have taken this up, but this varies from 61% for Māori and 64% for Pacific women to 68% for Asian women and 73% for European/Other women. Breast screening is offered every two years and 65% of eligible women (45-69 year olds) have taken this up, although Pacific women have a higher rate at 69%. At December 2017, 57% of those offered bowel screening have accepted. The bowel screening programme commenced in 2011/12, so the impact is not yet reflected in mortality rates for cancer.

To support continued improvement in services and waiting times for people with cancer, accessing faster cancer treatment is a key priority and forms an integral part of the national health targets. As at March 2019, 88% of cancer patients wait less than 62 days for treatment or other care to commence, compared with the target of 90%.

Figure 6.2.4.5:
Percentage of women up to date with cervical and breast screening March 2019, Waitematā



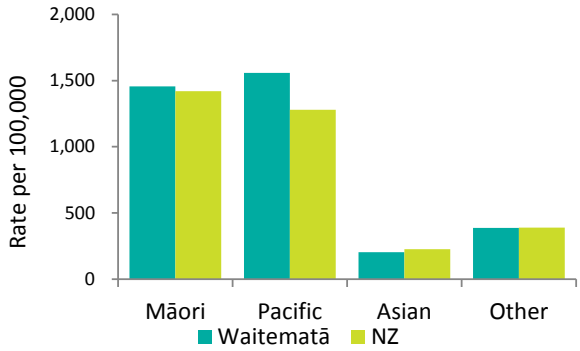
Source: NSU

6.2.5 Respiratory disease

Respiratory diseases are those conditions that impact the lungs and the airways. They range from acute infections, such as pneumonia and bronchitis to chronic conditions such as asthma and chronic obstructive pulmonary disease (COPD). Respiratory disease accounts for about 250 deaths per year, or 9% of total deaths in Waitematā.

Whilst the prevalence of asthma for Māori (15%) and Pacific (10%) people in Waitematā is similar to that of European/Other ethnicities (11%) found by the NZ Health Survey 11/13, Māori and Pacific age-standardised hospitalisation rates are more than three times that of European/Other people, at 198 and 260 admissions, compared with 64 admissions per 100,000 population aged 15 years and over for European/Other people. Asian people have low asthma prevalence (4%) and low hospitalisation rates (36 admissions per 100,000 population aged 15 years and over). Women have more than double the hospitalisation rate of men at 114 compared with 40 admissions per 100,000 population aged 15 years and over (Ministry of Health NMDS collection). Nearly 10% of Waitematā adults are taking medication for asthma (NZ Health Survey 2011/13). Amongst people admitted to hospital with a primary diagnosis of asthma (or wheeze in children aged 0-14 years), Waitematā had significantly lower rates than average for dispensing one or more asthma inhalers in the year following their admission (73 compared with the New Zealand average of 81 per 1,000 population) (Atlas of Healthcare Variation 2011).
COPD is a particular burden for Māori and Pacific people. Age-standardised hospitalisation rates (ASR) per 100,000 population for these groups are 1,457 (Māori) and 1,558 (Pacific), nearly three times as high as those of European/Other ethnicity (387) and higher than for Māori and Pacific in New Zealand as a whole. One of the main risk factors for COPD is smoking.

Figure 6.2.5.1:
COPD hospitalisation (ASR per 100,000 population aged 35+), 2013



6.2.6 Mental Health

Mental ill-health is one of the leading causes of disability and overall health loss. Mental health encompasses an array of disorders including but not limited to: depression, schizophrenia, dementia, intellectual disabilities and developmental disorders including autism. Nationally one in five people have suffered some kind of mental illness in the last year and 3% have suffered from a serious mental illness. Half of those who develop mental health disorders have problems evident by the age of 15 years. Three out of four people who develop a substance use disorder do so by the age of 24 years.

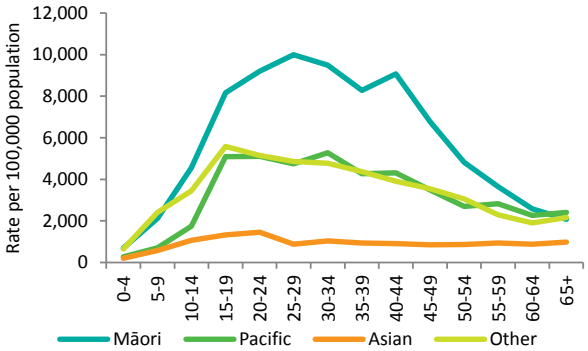
Mental illness is also associated with reduced life expectancy of ten or more years resulting from other illnesses, particularly cancer and cardiovascular disease. Even when these disorders are recognised, rates of intervention are lower for this population compared with people without mental illness.

There were on average 53 suicides per year in Waitematā over the five years to 2011. Waitematā's age-standardised suicide rate of 9.3 per 100,000 population was slightly lower than the national rate of 10.6 per 100,000 population. People who make an unsuccessful suicide attempt are at high risk of making further attempts and an estimated 9% die within five years. The New Zealand Mental Health survey (2006) found that 0.4% of adults had attempted suicide in the previous year.

Twelve per cent of adults report that they have depression, anxiety or bi-polar disorder diagnosed by a doctor (equivalent to around 50,000 people), compared with 16% in New Zealand as a whole (NZ Health Survey 2011-2013). Women reported these conditions almost twice as often as men. About 1 person in 33 in Waitematā (17,000 people) used secondary mental health services in 2013. Utilisation rates were higher amongst young adults (15-44 years) although rates remained high in later adulthood for Māori. Māori have higher utilisation rates than European/Other and Pacific people. Asian people have very low rates.

There are wide differences in the rates at which people of different ethnicities are diagnosed and access secondary services for the various types of mental illness. In particular, the prevalence of schizophrenia is more than double in Māori (723 per 100,000 population) compared with European/Other ethnicities (349 per 100,000 population). Conversely, European/Other people have a higher prevalence of depression (757 per 100,000 population) than do Māori and Asian (333 per 100,000 population) and Pacific people (187 per 100,000 population). Given the higher prevalence of psychological distress for Pacific people, of whom 8.2% experience distress compared with 4.6% of European/Other people, the low treatment rate for Pacific people may indicate poor access to services.

Figure 6.2.6.1:
Rate per 100,000 population seen by secondary Mental Health services by age and ethnicity, 2013



Source: Programme for the Integration of Mental Health Data (PRIMHD)

Four out of five clients (81%) accessing non-urgent mental health services were seen within 3 weeks and 94% accessed services within 8 weeks. Furthermore, 80% per cent of Waitematā residents who are admitted acutely to hospital have had pre-admission care (compared to 56% for NZ as a whole) and 84% receive post-discharge care (compared to 62% for NZ as a whole). Waitematā DHB also has lower readmission rates than the national average, although rates have been steadily increasing between 2009/10-2012/13, from 7.5% to 13%. Waitematā DHB has longer mean length of stay than NZ as a whole (23 days vs 18 days).

6.2.7 Injury

Injuries have a substantial impact on the health of the population, both as a leading cause of premature death and through disability following an injury. The age-standardised mortality rate from unintentional injury is 12 per 100,000 population, compared with 18 per 100,000 population for New Zealand as a whole. The rate for males is higher than for females (15 per 100,000 population vs 9 per 100,000 population). Māori and Pacific men have the highest rates at 23 and 26 deaths per 100,000 population, compared with 9 per 100, 000 population for Asian males and 16 per 100,000 population for European/other males. For older people, falls are the largest cause of injury-related deaths, while for adults aged 15-64 years, suicide is the largest cause. For younger adults, road traffic accidents are also important.

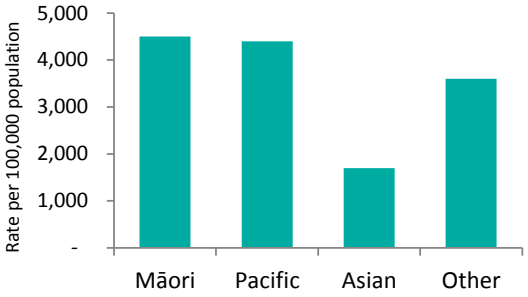
Figure 6.2.7.1:
Mortality from injury by cause and age group, 2011

	Under 15	15-24	25-44	45-64	65+	Total
Other accidents	1	0	7	5	9	22
Accidental poisonings	0	1	2	10	1	14
Drownings	2	0	2	3	1	8
Falls	0	0	0	2	32	34
Iatrogenic conditions	0	0	0	0	2	2
Intentional self-harm	0	14	15	18	7	54
Road traffic injuries	2	5	8	2	3	20
Violence	1	2	1	1	0	5
Total	6	22	35	41	55	159

Source: Ministry of Health mortality data collection

Injury is also an important cause of hospitalisation with Waitematā having slightly higher rates than nationally. Māori and Pacific men have high rates of injury hospitalisations, respectively 2,300 and 2,100 per 100,000 population compared with 1,800 per 100,000 population for European/Other men. Injury is the leading cause of mortality and hospitalisation for children and young people aged between 1 and 24 years.

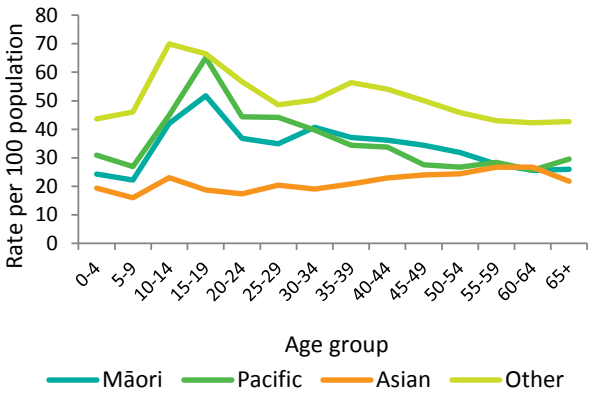
Figure 6.2.7.2:
Age-standardised hospitalisations for injuries per 100,000 population, Waitematā, 2012/13



Source: Ministry of Health national data collection

In 2013/14, Waitematā residents made 239,000 claims to the Accident Compensation Corporation (ACC) for injury, an average of four claims for every ten people. The highest rates of claim occur amongst youth and young adults. Pacific and European/Other people have higher rates than Māori, and Asians have the lowest rates of claim. Soft tissue injuries make up 65% of claims and 18% are for lacerations and puncture wounds. Fractures and dislocations account for 7% of claims. Most injuries occur at home (46%) or during sport or recreation (25%).

Figure 6.2.7.3:
ACC claims for injury per 100 population, 2013/14 financial year

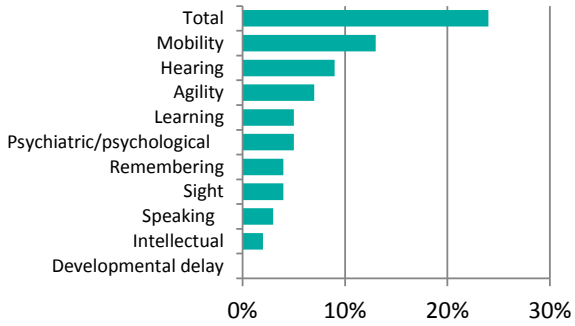


Source: Accident Compensation Corporation

6.2.8 Disability

Disability is a broad term and covers a range of conditions. These are broadly grouped into sensory (hearing and vision impairment), physical (mobility and agility), intellectual, psychiatric/psychological and other disabilities (impaired speaking, learning and developmental delay in children aged 0-14 years, and impaired speaking, learning and remembering for adults).

Figure 6.2.8.1:
Prevalence of disability by type of impairment (National)



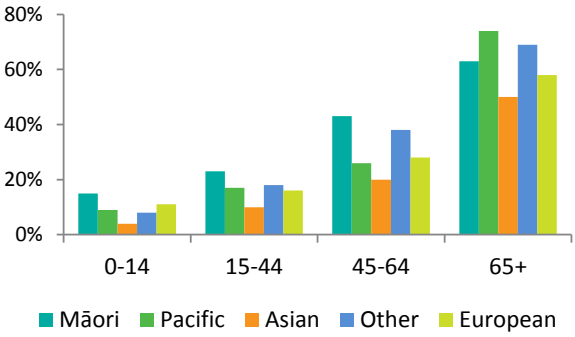
Note: any individual may appear in more than one disability type

Source: NZ Disability Survey 2013

Only regional and national data is available from the 2013 New Zealand Disability Survey. One in five (19%) of the Auckland region population had a disability, which was lower than the New Zealand average (24%). Nationally, amongst adults the percentage with a disability increases from 16% amongst young adults (15-44 years) to 59% in older people (65 years and older). Māori and Europeans have higher rates of disability and Asians low rates (26% and 25% vs. 13%).

Mobility, agility, hearing, sight and remembering are the most common disabilities in adults while learning, speaking and psychological/psychiatric disabilities are the most common in children. Multiple disabilities are common and over half of those with disabilities report more than one problem. In children disabilities present at birth are the commonest type. In middle age, disease and illness and accidents are important and aging processes impact disabilities in older people.

Figure 6.2.8.2
Prevalence of disability 2013 (National)



Source: NZ Disability Survey 2013

6.2.9 Sexual Health

Sexually transmitted infections (STIs) with the exception of AIDs were not notifiable in 2016. Surveillance efforts are based on voluntary provision of data from sexual health clinics (SHCs), family planning clinics (FPCs) and laboratories. Sexual health services in the Auckland region are provided through primary health care, including Family Planning and regional sexual health clinics and youth clinics.

In 2016, the Auckland region chlamydia rate was 643 cases per 100,000 population (651 nationally), and has been increasing since 2014 although it is still lower than the 2011 peak rate. More than two-thirds of laboratory-diagnosed cases of chlamydia in 2016 were females but this partly reflects the fact that 80% of tests were for females, suggesting many infections in males remain undiagnosed and untreated. Chlamydia is most commonly diagnosed in females in the 15–19 years age group and in males in the 20–24 years age group in both the laboratory and clinic settings. Overall, there were 2.2 cases per 100 people amongst 15-19 year olds and 2.7 cases per 100 people amongst 20-24 year olds in Auckland in 2016. If the rates for females were replicated for males, which is likely the case, around 5 cases per 100 people in the 15-24 age group occur each year. (ESR, Sexually transmitted infections in New Zealand 2016)

In Q4 2018, 11% of youth aged 15-24 years in Waitematā DHB were tested for chlamydia.

6.3 Infants, Children and Young People

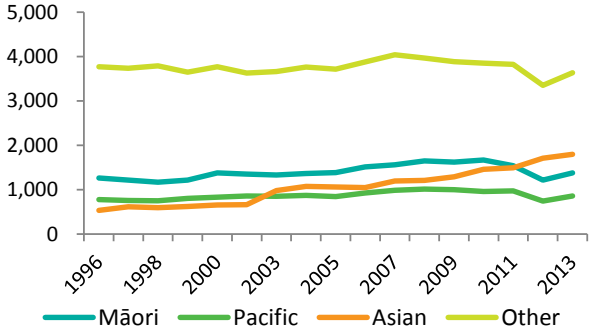
6.3.1 Births

There has been a gradual increase in the number of births in Waitematā, from 6,400 in 2001 to close to 7,600 in 2013. (Statistics NZ Registered Births). The increase has not been steady, with the year-on-year change in live births ranging from a drop of 280 to an increase of 500. The general fertility rate is 45 per 1,000 population for European/Other women aged 15-49. It is much higher for Māori (109 per 1,000 women aged 15-49), Pacific (88 per 1,000 women aged 15-49) and Asian (58 per 1,000 women aged 15-49).

In 2012, 284 babies were born to young women aged 15-19, an overall rate of 15 per 1,000 women in this age group, compared with a national rate of 25 per 1,000 women aged 15-19 years. Again the rate was higher for Māori (63 per 1,000 women aged 15-19) and Pacific (30 per 1,000 women aged 15-19). The rate for European/Other young women was 6 per 1,000 women aged 15-19 and for Asians it was less than 2 per 1,000 women aged 15-19. There were 16 terminations

of pregnancy per 1,000 women aged 15-44 in 2013 in the Auckland Region, compared with 15 per 1,000 for New Zealand as a whole (Statistics NZ). If these follow national patterns, just over half of women having a termination would have used no contraception. Nationally, looking at all age groups, 19% of pregnancies (excluding miscarriages) are terminated.

6.3.1.1:
Trends in live births for Waitematā DHB by ethnicity, 1996-2013



Source: Statistics New Zealand registered births

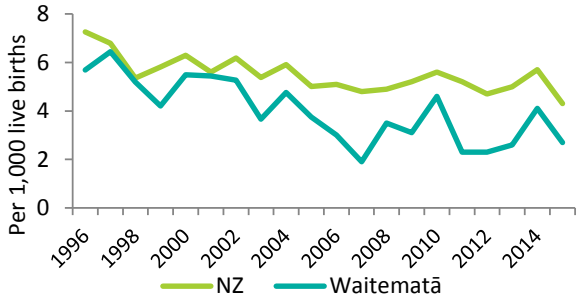
In 2013, 5.5% of babies born had low birth weight in Waitematā DHB, compared with 6.0% nationally. There were 27 admissions for pregnancy complications for every 100 live births in Waitematā (9% lower than for New Zealand as a whole). Pacific mothers were more likely to be admitted. In Waitematā's hospitals, 29% of all births are by caesarean section and a further 10% were assisted (e.g. forceps delivery). Māori and Pacific mothers were more likely to have normal deliveries.

Poor outcomes for pregnant women and their babies are associated with later engagement with health professionals, smoking during pregnancy and obesity, amongst other factors. Earlier access to a range of health advice, information and interventions can improve health outcomes. Two-thirds of women (65%) were enrolled with a lead maternity carer (LMC) at 12 weeks of pregnancy (2012). In 2013, 14% of mothers reported that they were smoking at the time that they were admitted for delivery. This varied across ethnicities, with 53% of Māori and 19% of Pacific mothers smoking, compared to 13% of NZ European mothers and 1% of Asian mothers. Younger mothers were more likely to smoke than older mothers, with the rate for those aged under 26 years being 29% but only 10% for mothers aged 26 years and over.

6.3.2 Infants and Children

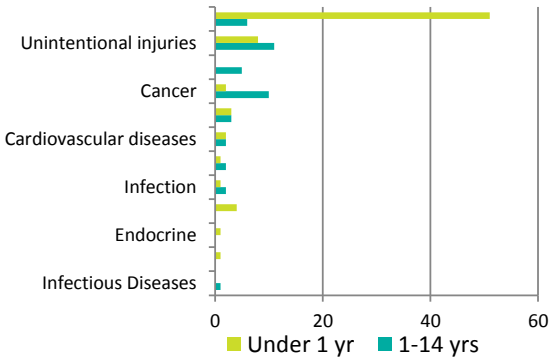
Infant mortality rates in Waitematā were lower than New Zealand as a whole at 2.7, compared with the national rate of 4.3 per 1,000 live births in 2015. Nationally, infant mortality rates were higher for Māori and Pacific people (4.9 and 7.1 per 1000 live births), than for Asian and European/Other ethnic groups (4.3 and 3.2 per 1,000 live births). For Waitematā, the rates for Māori and Pacific in 2015 (2.7 and 2.3 per 1000 live births) were lower than for Asian (4.7) but higher than European/Other rates (1.7 per 1000, live births). The rate of sudden unexpected death in infancy (SUDI) at 0.2 per 1,000 live births is lower than the national average of 0.7 per 1,000 live births in 2011-15.

Figure 6.3.2.1:
Trend in infant mortality rate per 1,000 live births, 1996-2015



The death of a child under 14, after the first month of life, is a rare event and accounts for on average 20 deaths a year in Waitematā, almost half being aged under one year. The most common causes of death in infants were perinatal (the period immediately before and after birth) conditions, congenital anomalies and sudden infant death syndrome (SIDS). In children older than one year, the most common causes were injury, cancers and congenital anomalies.

Figure 6.3.2.2:
Numbers of deaths amongst Waitematā children aged 0-14 years, 2009*-11*



Source: Ministry of Health mortality data collection

In New Zealand we have some of the highest rates of rheumatic fever of any developed country, particularly amongst Māori and Pacific children. The incidence of rheumatic fever in Waitematā is 2.3 per 100,000 population, one of the lowest in the country, compared with 4.1 per 100,000 population nationally.

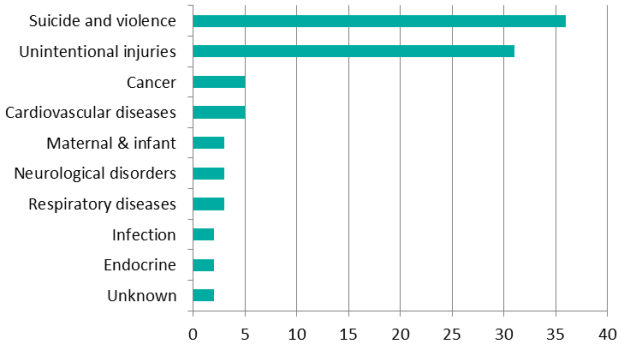
There were 119 admissions to hospital each year for every 1,000 Waitematā children aged 0-14 years for medical or surgical reasons. The most common acute admissions were for injuries (from all causes), gastroenteritis, asthma, viral infections, respiratory infections and skin infections. Admissions for infectious disease, skin infections and respiratory infections have all increased over the last 10 years. The most common waiting list admissions were for ear-nose-throat (ENT) infections and dental conditions. Henderson – Massey and Waitakere Ranges have higher avoidable hospitalisation rates than the rest of Waitematā DHB boards for those aged under 5 years. In 2012/13, there were 16 admissions per 100,000 population aged 0-14 for injuries resulting from domestic assault, neglect or maltreatment of children.

A General Practitioner (GP) is often the first point of contact when a child becomes unwell. Enrolling with a Primary Health Organisation (PHO) not only ensures that access to a GP can be quick and easy, but also that the PHO has a history of the child's health ensuring the best possible care. PHO enrolment has a number of other benefits including but not limited to, reminders regarding routine health checks and upcoming vaccination events. The percentage of children enrolled with a PHO by the age of three months was lower than average (67% in Waitematā, against a target of 88% and a national average of 71%). The rate of referral by LMCs to a Well Child/Tamariki Ora (WTCO) provider was 97% for Waitematā (98% for New Zealand). Completion of core WCTO contacts within the first year of life was 76% overall but 62% for Māori children and 64% for Pacific children. This was below the target of 86%, however this is the same as the national average. Waitematā is close to achieving the immunisation target of 95% at 8 and 24 months, with 94% of children fully immunised at 8 months of age and 92% fully immunised at 24 months of age. Overall, 92% of four-year-olds received a comprehensive health check before school entry, a little higher than national average of 91%. However, rates were much lower for Māori (85%) and Pacific (81%) children.

6.3.3 Young people

In 2014, there were 79,000 young people aged 15-24 living in Waitematā, including 11,000 Māori, 7,000 Pacific, 17,000 Asian and 44,000 European/Others. During 2009-2011, an average of 28 young people died each year in Waitematā. Most of these died from intentional and unintentional injury.

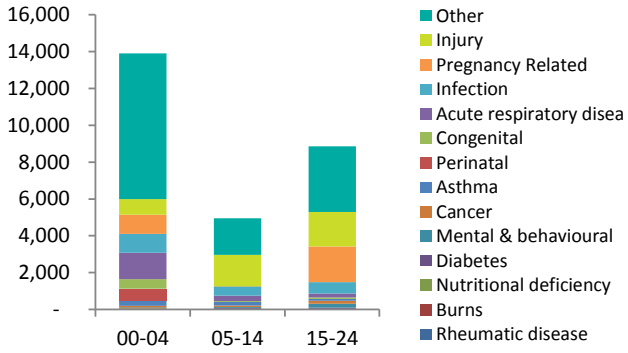
Figure 6.3.3.1:
Numbers of deaths amongst Waitematā young people aged 15-24 years, 2009-11 combined



Source: Ministry of Health mortality data collection

There were 100 admissions to hospital for every 1,000 young people in Waitematā (excluding pregnancy related admissions). The most common acute admissions were for injury, abdominal or pelvic pain and skin infections.

Figure 6.3.3.2:
Most common causes of hospitalisation for children and young people, Waitematā DHB, 2013



Source: Ministry of Health national data collection (NMDS)

6.4 Older people

There are 74,000 people aged 65 years or older in Waitematā in 2014, and of these almost 9,000 are aged 85 years and older (population projection based on 2013 census). Our older population is predominantly made up of European and Other ethnicities with much

smaller proportions being of Māori, Pacific or Asian ethnicity.

The most common causes of mortality and hospitalisation for older people are similar to the population as a whole. In Waitematā the leading causes of death amongst older people are IHD, stroke, COPD, lung cancer and diabetes. Cancers together also account for 16% of deaths. In winter the number of deaths increases and Waitematā records 75 extra deaths compared with the number that we expect during the warmer months.

The leading causes of hospitalisation are for IHD and angina, respiratory infections and musculoskeletal diseases. There were 519 medical/surgical hospital admissions for every 1,000 older people in Waitematā in 2013/14. Henderson-Massey and Waitakere Ranges wards have higher avoidable hospitalisation rates amongst older people than other Waitematā DHB wards.

Figure 6.4.1.1:
Most common causes of hospitalisation amongst Waitematā people aged 65+years, 2013

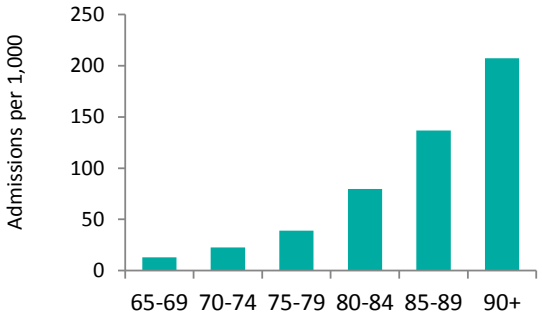
	Condition	Rank
Female	Injury (intentional and unintentional)	1
	Non-specific conditions	2
	Musculoskeletal diseases	3
	Ischaemic heart diseases	4
	Chronic lower respiratory diseases	5
	Rheumatoid arthritis and osteoarthritis	6
Male	Non-specific conditions	1
	Injury (intentional and unintentional)	2
	Ischaemic heart diseases	3
	Musculoskeletal diseases	4
	Chronic lower respiratory diseases	5
	Pneumonia	6

Source: Ministry of Health data collection (NMDS); not age-standardised

Older people have higher levels of health needs and often have multiple health problems. The NZ Disability Survey 2013 found that nationally 59% of people aged 65 years and over have a disability, with 46% having mobility problems, 28% agility problems, 28% a hearing disability, 11% a sight problem and 10% having difficulty with remembering. In Waitematā, 15% of older people have ischaemic heart disease, 18% have diabetes, 40% have arthritis and 12% have a mental health disorder (NZ Health Survey 2011-2013). Around 7% of those aged over 65 years have dementia and this rises to over 25% in people aged 85 years and over.

Falls are a common cause of hospital admissions for injuries, causing 46 admissions per 1,000 people aged 65 years and over. Older people are more at risk, with the rate ranging from 13 admissions per 1,000 people aged 65-69 years rising to 207 admissions per 1,000 people aged 90 years and over. Of the patients admitted with a fractured neck of femur, 91% are aged 65 years and over.

Figure 6.4.2:
Falls admissions for Waitematā residents per 1,000 population aged 65 years and over, 2013/14

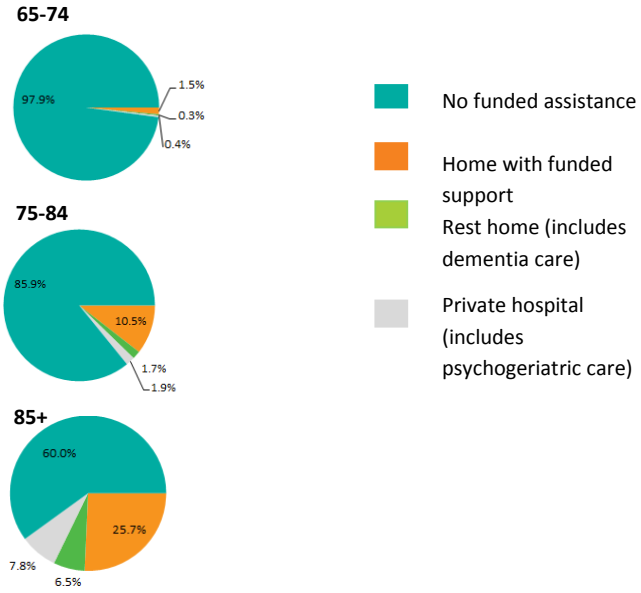


Source: Ministry of Health data collection (NMDS)

The large majority of older people in Waitematā are able to live unassisted in their own homes. Six out of ten people (60%) who are 85 years or older receive no funded living assistance, while 14% are funded to live in a rest home or private hospital, and 26% have some funded support at home. Many older people continue to work or do voluntary work after reaching the age of 65.

Waitematā DHB offers free influenza vaccinations to those aged 65 years and over. Almost two-thirds (63%) of people over the age of 65 had received an influenza vaccine in 2013. Evidence suggests the effectiveness of influenza vaccination in the community-dwelling elderly is modest. There is some evidence that in long-term care facilities, influenza vaccination is effective against complications. (National Specialist Influenza Group 2014).

Figure 6.4.3:
Proportion of older people needing support, Waitematā, 2013



Source:
HealthPac data collection for residential care claim

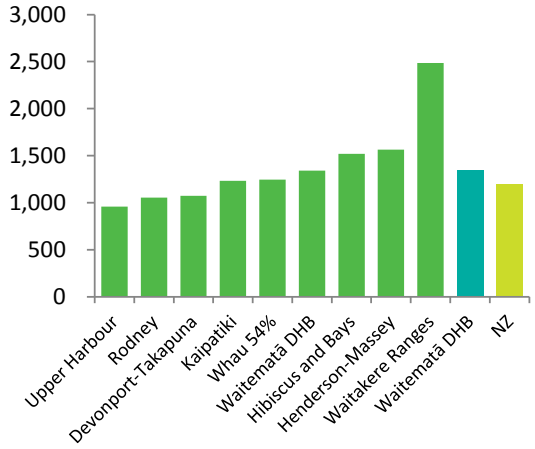
7 Health services

7.1 Community health care

Primary medical care services are often the first point of contact with health services. General practices undertake a number of recommended preventive health interventions including smoking cessation advice and support, CVD risk screening, cervical screening and influenza vaccination.

There are two Primary Health Organisations (PHOs) operating within the Waitematā district with 104 general practices and 434 GPs. There are 64 GPs (full-time equivalent) per 100,000 population in Waitematā, considerably fewer than the national average of 75. The ratio of GPs per 100,000 population has remained static over the past five years. However, this varies across the district, with 2,500 people per GP in Waitakere Ranges and 1,500 people per GP in Hibiscus and Bays and Henderson-Massey, compared with 960 people per GP in Upper Harbour.

Figure 7.1.1
Population per GP by local board, 2015

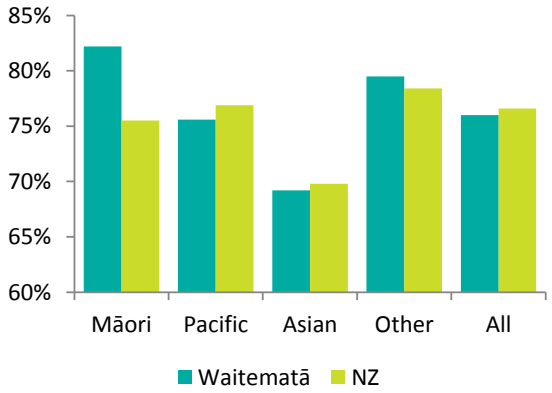


Source: Healthpoint data on GP practices; Stats NZ

Overall, 96% of residents are enrolled with a PHO. While people are free to enrol in any practice in the country, most people within Waitematā are enrolled with practices in Waitematā-based PHOs. Only a small proportion of the Waitematā population (0.1%) are enrolled outside of the Auckland region. The recording of ethnicity in PHO enrolment data contains some errors, but it is clear that Māori and Asians have lower enrolment rates than average (approximately 9% and 17% respectively are not enrolled). Enrolment rates also vary by age with 12% of 15-24 year olds and 6% of 25-44 year olds not being enrolled with a PHO. (Source: Ministry of Health enrolment data.)

Three out of four (76%) of the Waitematā population have seen a general practitioner (GP) in the last year. This varies from 70% for Asian people to 82% for Māori people. Most people in Waitematā (89%) are able to get an appointment with their GP within 24 hours, compared with 86% nationally. Almost one in five (17%) people report problems accessing a GP, because of cost, availability of appointments, or transport issues. Overall 14% of adults reported that the cost of a GP visit had prevented them, on at least one occasion in the past year, from visiting a GP. For Māori and Pacific people, the figure was much higher at 18% and 21% respectively. Similarly, although overall 4.5% said that cost had prevented them from filling a prescription, the figure was 12% for Māori and 11% for Pacific people. (NZ Health Survey 2011-2013)

Figure 7.1.2:
Utilisation of General Practitioners 2011/13



Source: NZ Health Survey

Information about the nature and quality of GP consultations is only available at a national level. Most consultations (88%) are with a GP that the person has seen before. The average consultation lasted 15 minutes and the large majority of people felt their doctor listened to them well and discussed their healthcare with them. Half of the problems GPs were seen for were new problems or short term problems being followed up, about a third were long term problems with only 5% being for preventive care. Two thirds of people received a prescription from their visit, nearly a third had some form of test and one in six was referred to another health professional.

7.1.1 Oral health

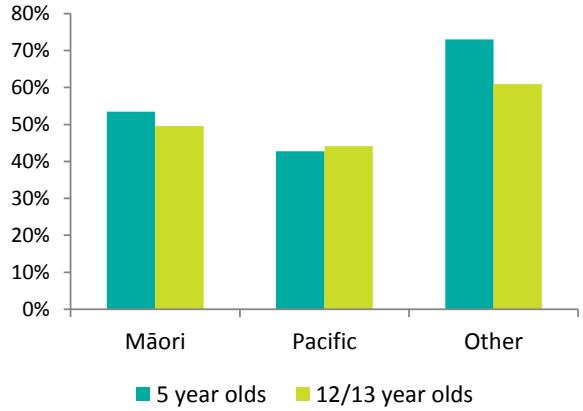
Poor oral health and chronic pain from oral health conditions can negatively affect child growth and development and reduce people's quality of life. Good nutrition and oral health during pregnancy and the establishment of sound oral health behaviours for the infant in the first year of life may prevent childhood dental caries and improve overall child and adult oral health. Waitematā DHB provides school dental services to the residents of the overall Auckland region. At the end of 2013/14 we had set up 11 fixed clinic sites and 21 mobile clinics as well as 47 mobile clinic sites.

Waitematā children have better oral health than New Zealand children as a whole. However, Māori and Pacific children have poorer oral health than those of other ethnicities. Four out of five pre-school children are enrolled with oral health services in Waitematā, which is above the national average although less than the national target of 86%. At five years of age, three-quarters (76%) of children are accessing free school dental care. Access rates are lower for Māori (62%) and Pacific (57%). For European/Other five-year-olds, Waitematā exceeds the Ministry of Health target for 65% to be caries-free, achieving 73%. We do not meet the target for Māori children (53%) or Pacific children (43%). Five-year-olds in Waitematā have an average of 1.3 decayed, missing or filled teeth (dmft). Māori children have an average of 2.0 dmft and Pacific children have an average of 2.6 dmft while European/Other children have an average of 1.0 dmft.

Nationally, approximately 66% of childr1en aged 2-11 years brush their teeth twice daily. This is lower for Māori and for those living in NZDep06 quintile 3-5 areas. Utilisation of community oral health services by adolescents aged 13 -17 years is approximately 73% for Auckland and Waitematā DHBs combined. National data shows that approximately 13% of adolescents aged 12-17 years have dental decay. Dental decay is more prevalent in Māori and Pacific adolescents, and those living in quintile 5 areas. The proportion of adolescents who are caries free is 45%. Year eight children (12/13- year-olds) in Waitematā have an average of 0.9 decayed, missing or filled teeth (dmft). Māori children have an average of 1.2 dmft and Pacific children have an average of 1.5 dmft while European/Other children have an average of 0.8 dmft. Approximately 59% of adolescents brush their teeth twice daily. This is lower for Māori, and those living in quintile 3-5 areas. Approximately one in four adolescents experiences trauma to the upper front six teeth.

About 6% of adults have had one or more teeth removed in the past 12 months (due to decay, an abscess, infection or gum disease). Half of European/Other adults and a third of Māori, Pacific, and Asian adults have seen an oral health worker in the last year. Just over half of Waitematā residents only visit a dental health care worker for toothaches/ dental problems or never. This varies across ethnic groups, with a smaller proportion of NZ European adults (37%) than of Asian (61%), Māori (70%) and Pacific (77%) adults likely to only visit a dental health care worker for toothaches/dental problems or never. Approximately 65% of adults brush their teeth twice daily.

Figure 7.1.1.1:
Proportion of Waitematā children examined who were caries-free, 2013



Source: Ministry of Health Quarterly Non-Financial Indicators

7.2 Hospital-based health care

Waitematā DHB operates North Shore Hospital, on the shores of Lake Pupuke in Takapuna, and Waitakere Hospital in West Auckland. Locally we provide emergency, medical, surgical, maternity, community health and mental health services. We also provide a range of services for the overall Auckland region, including child rehabilitation and respite at Takapuna's Wilson Centre as well as forensic psychiatric services at the Mason Clinic in Point Chevalier, and community alcohol and drug services. We also contract other DHBs, particularly Auckland DHB, to provide some tertiary services, eg cardiac surgery and radiation oncology services.

7.2.1 Emergency Departments

About one in seven of our population has visited a hospital Emergency Department in the last year. The age-standardised rate of ED attendances by Waitematā residents has increased by 20% in ten years, rising from 17.4 per 100 population in 2007/08, to 20.7 per 100 population in 2017/18. This may be partly due to

increases in ED capacity. Waitakere ED began providing 24/7 children's services in June 2010, and 24/7 adult services in June 2011. Access to emergency department care is good and in quarter 3 of 2018/19, 96% of patients were either discharged or moved to a ward within six hours of presenting to the emergency departments.

Figure 7.2.1.1:
Emergency Department attendances, adults, age-standardised rate per 100 population. 2007/08-2017/18

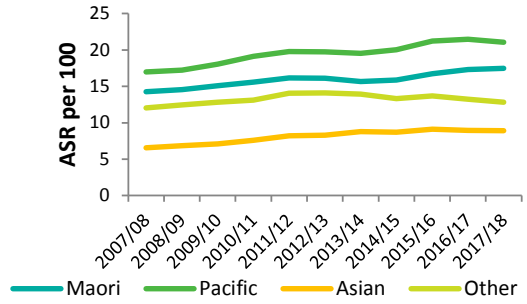
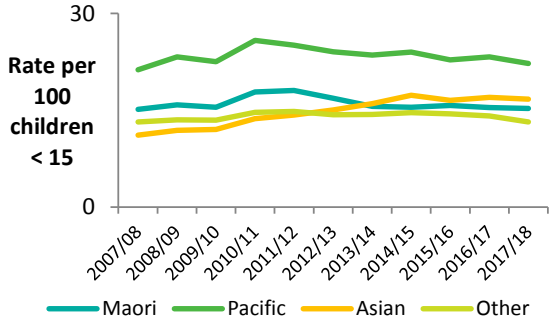


Figure 7.2.1.2:
Emergency Department attendances, children, per 100 population. 2007/08-2017/18



Source: Ministry of Health national collection (NNPAC) count of people attending ED in a year

7.2.2 Outpatient services

For every 100 adults in Waitematā there were 13 first specialist outpatient assessments (FSAs) in 2017/18. Pacific people have the highest rates of FSAs at 16 per 100 population, followed by Māori (13 FSAs per 100 population), European/Others (12 FSAs per 100 population), and Asian people with 10 FSAs per 100 population. Waitematā residents have generally similar patterns of use of different outpatient services as residents in other parts of Auckland.

For children, the FSA rate per 100 was highest for European/Other children (8.6 FSAs per 100 population), followed by Asian, Pacific and Māori rates (7.7, 7.0 and 6.4 FSAs per 100 respectively).

Figure 7.2.2.1:
Outpatient FSAs, adults, age-standardised rate per 100 population. 2008/09-2017/18

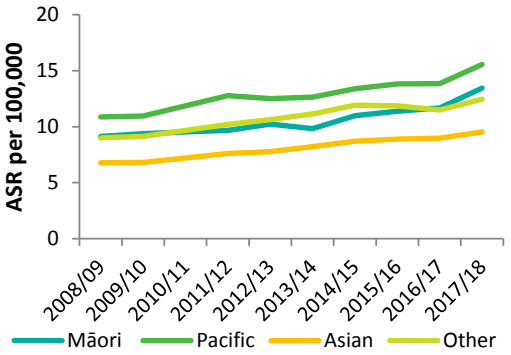
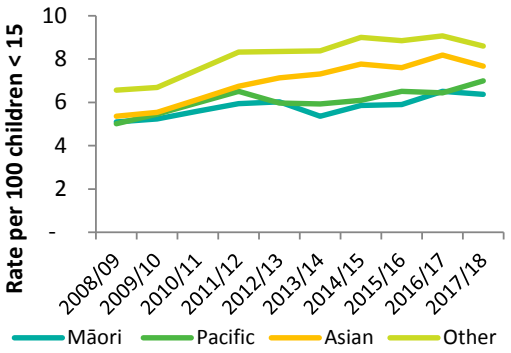


Figure 7.2.2.2:
Outpatient FSAs, children, rate per 100 population. 2008/09-2017/18



7.2.3 Admitted patients

In 2017/18, Auckland regional public hospitals provided 282,000 bed days of service for Waitematā residents (medical/surgical/maternity, i.e. excluding geriatrics, mental health and disability support/rehabilitation). This is an average of 774 patients in beds each day. Waitematā DHB facilities provided 81% of these, with 17% provided by Auckland DHB (mostly to children), 1% by Counties Manukau DHB and 1% by agencies outside the Auckland region. People aged 65 and over make up 14% of the population but account for 37% of medical/surgical discharges and 50% of beds used.
Compared with the New Zealand average, Waitematā has a higher admission rate for patients presenting acutely to medical and surgical specialties, but a lower rate for elective admissions. The figures for elective admissions exclude patients who funded their own treatment (through insurance or direct payment).

Total admissions increased by 42% between 2007/08 and 2017/18, while bed days increased by 19%,

reflecting reductions in length of stay and increased rates of same-day treatment.

Figure 7.2.3.1:
Acute and elective admissions, adults, age-standardised rates per 100 population, medical and surgical specialties, 2008-2018

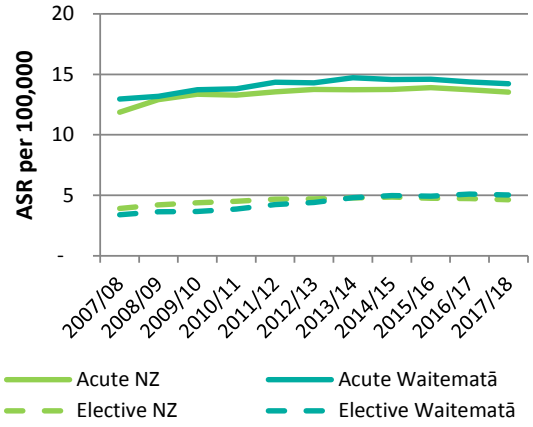
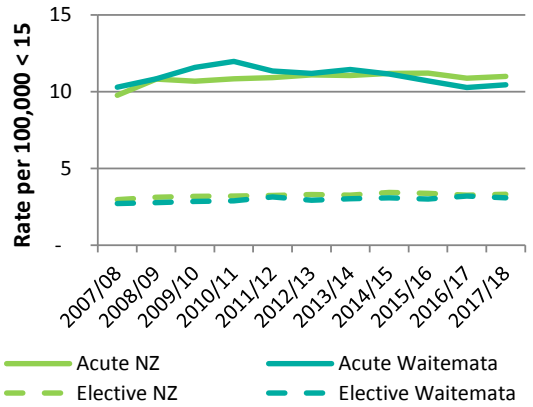


Figure 7.2.3.2:
Acute and elective admissions, children, rates per 100 population, medical and surgical specialties, 2008-2018



Source: Ministry of Health national data collection (NMDS)

For both adults and children, and for acute and elective, admission rates closely match NZ rates. Admission rates for adults and children have increased over the last ten years.

Rates have reduced for Māori and Pacific children although they remain higher than those for Asian and European/Other children. The rates of hospitalisation for Asian adults is substantially lower than for other ethnicities. Hospitalisations for medical services are very much dominated by older people, whereas surgical hospitalisation is distributed across different age groups fairly evenly. Māori and Pacific people have higher rates of hospitalisation for elective services and Asians have low rates.

Figure 7.2.3.3:
Medical/surgical discharges, adult, age-standardised per 100 population, by ethnicity, 2008 – 2018

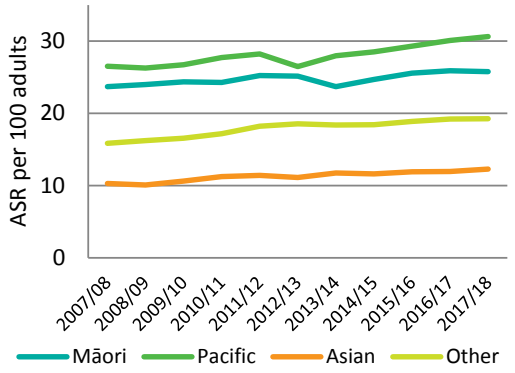
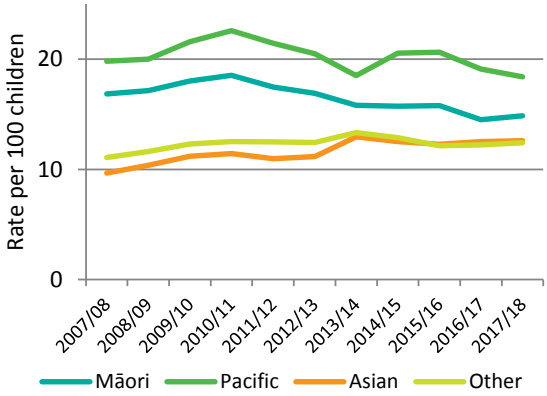


Figure 7.2.3.4:
Medical/surgical discharges, children, per 100 population, by ethnicity, 2008 – 2018



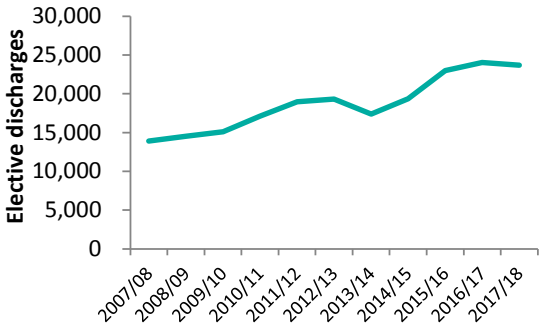
Source: Ministry of Health national data collection (NMDS)
(Adult figures age-standardised to WHO 15+ pop)

7.2.4 Access to publicly-funded elective surgery

The Ministry of Health has set a goal of improving access to elective surgery, both in terms of volumes of operations and speed of access, and of equalising access across DHBs. From 2000 until June 2013, all patients needing first specialist assessment in outpatients or needing elective surgery had to be treated within six months. Between July 2013 and December 2014, the target waiting time reduced to a maximum of four months. Waitematā services have consistently treated patients within the waiting time targets, substantially reducing the length of time that patients wait for consultations and surgery.

The elective hospitalisation rate for adults was historically lower than the average for New Zealand but has been similar since 2013/14. This reflects a large increase in the numbers of elective surgical procedures over this period.

Figure 7.2.4.1
Elective surgical and cardiology discharges for Waitematā residents, 2008-2018



Source: NMDS

A more tightly-defined measure of access is the Ministry of Health report for selected surgical procedures. This compares the rate for each DHB with the overall rate for New Zealand by calculating standardised discharge ratios. A ratio higher than 1.0 indicates that access is better than the national average. Access to heart valve replacement and to hip replacement surgery is around four-fifths of the national average, while access to knee replacement surgery is 11% above the national average. Discharge ratios are also substantially higher for angioplasty (a reflection of the cardiac services available in the metro Auckland area).

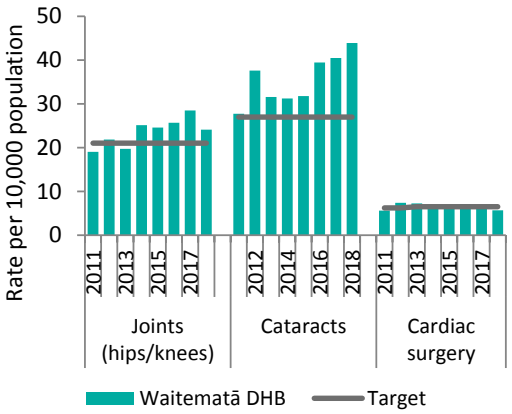
Figure 7.2.4.2:
Standardised discharge ratios for selected surgical procedures, 2014/15-2017/18

Surgical procedure	Discharge ratios		
	2014/15	2016/17	2017/18
Coronary artery bypass grafts (CABG)	1.06	1.02	1.01
Heart valve replacements and repair	1.09	0.98	0.82
Angioplasties	1.26	1.25	1.2
Total hip replacement	0.95	0.99	0.8
Total knee replacement	1.16	1.28	1.11
Cataracts	0.93	1.14	1.18
Repairs of hernia	0.92	0.98	1.06

(Source: Ministry of Health Standardised Discharge Ratios for selected elective surgical procedures.)

The Ministry also sets target intervention rates for a small number of common, effective procedures, in order to improve equity of access across DHBs. Waitematā residents have a rate of cataract surgery after standardising for age, gender, ethnicity and NZDep06 quintile of 44 operations per 10,000 population. This exceeds the national target of 27 per 10,000 population, is higher than the national rate of 36. For cardiac surgery, Waitematā met the target in 2013-201 but fell just short in 2017 and 2018, funding 5.7 operations against a target of 6.5 per 10,000 population, and in 2018 our residents received treatment at a lower rate than the national average. Hip and knee operation rates exceeded the target, with 24 per 10,000 population against a target of 21.

Figure 7.2.4.3:
Surgical Intervention rates per 10,000 population, Waitematā residents, 2010/11 – 2017/18



Source: Ministry of Health non-financial indicators

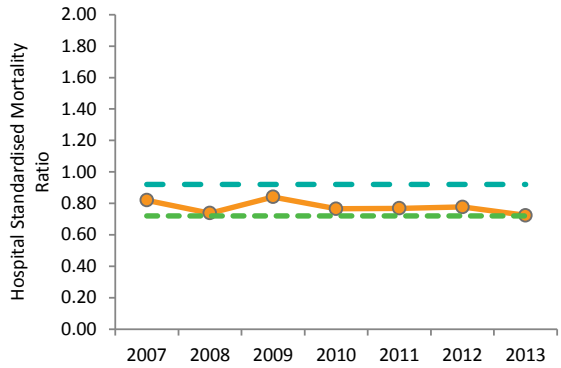
7.2.5 Hospital quality and safety

Compared to other DHBs, Waitematā does well on a range of hospital quality and safety markers. Hand hygiene in Waitematā hospitals is good with 89% compliance with the five moments for hand hygiene in 2019, improved from 80% in 2014. Our hospitals assess most of our older patients (97%) for their risk of falling, a rate which has been maintained for five years. Operating theatres use all three parts of the surgical safety checklist in 99% of operations. We also ask patients about their care in hospital and 88% rate it as excellent or very good.

The Ministry of Health monitors the hospital standardised mortality ratio (HSMR), as an early-warning mechanism of deterioration in the quality of care. For Waitematā DHB hospitals, the HSMR has been stable or decreasing for the past four years and is now 72% of the New Zealand average in 2007. For Waitakere hospital, the HSMR level is substantially

lower than the average for comparable hospitals and may indicate that complex patients are transferred to North Shore hospital. Overall Waitematā DHB has the lowest hospital standardised mortality ratio in the country.

Figure 7.2.5.1:
Waitematā DHB hospital standardised mortality ratio trend



Source: Ministry of Health

Figure 7.2.5.2:
North Shore Hospital and Waitakere Hospital standardised mortality ratio compared with other New Zealand facilities, 2013

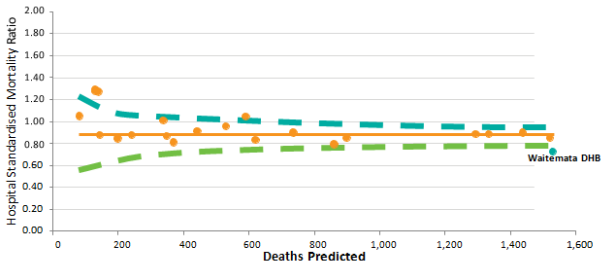


Figure 7.2.5.3
Performance on hospital quality and safety markers 2014-2019

Quality and Safety Markers		Q4 2014	Q1 2019
Falls	% older patients assessed for falls risk (*target 90%)* (rank amongst DHBs)	**97%**	**97%** (2=)
	% older patients assessed as significant risk of falling with an individualised care plan (*target 90%)*	**96%**	**94%**
Hand Hygiene	% of compliant HH moments (*target 70%*) (rank amongst DHBs)	**80%**	**89%** (2nd)
SSI	Surgical Site Infections rate per 100 hip and knee procedures [*target has not been set by HQSC.* National Q2 2014 rate 1.2-1.3 infections per 100 ops)	*1.0*	0.0
	100% primary hip and knee replacements antibiotic given 0-60 minutes before 'knife to skin' [1st incision] (*target 100%*)	**97%** (3=) Q2	**97%** (13=)
	Primary hip and knee replacements right antibiotic in the right dose - Cefazolin 2g or more *target 95%*)	**97%** (4=) Q2	**98%** (11=)
Surgical Safety	% operations all 3 parts of surgical safety checklist used (*target 100%*) % of audits with engagement scores of 5 or higher (target 95%)	**98%** **91% (Q2 2017**	**99%** **96%**
Pressure Injury	% of patients with a documented and current pressure injury risk assessment % of at-risk patients with a documented and individualised care plan Outcome: %of patients with hospital-acquired pressure injury % of patients with non-hospital-acquired pressure injury		**85%** **68%** **0.6%** **2.1%**

Source: Hospital Quality and Safety Commission; Waitematā DHB

7.2.6 Avoidable causes of hospitalisation

Avoidable hospitalisation (AH) is one measure for examining our ability to improve health and reduce inequalities. Hospitalisation can be avoided by injury prevention, by good quality primary care including management and prevention and by population-based health promotion (such as anti-smoking education).

The most common avoidable hospitalisations are angina, respiratory infections, cellulitis, road traffic injuries and ear, nose, and throat infections. For women, kidney and urinary tract infections are common. Asthma and diabetes are also common amongst Māori and Pacific people.

8 Data and information sources

This section describes the key data sources used in this report. A number of surveys and studies that are specific to certain sections of the report are described in the relevant section.

8.1 Major data sources

Ministry of Health

The New Zealand Ministry of Health (MoH) manages a number of databases including the National Minimum Data Set (NMDS), the Mortality Data Collection, National Non-Admitted Patient Data Collection (NNPAC), Cancer Registration data collection and the Programme for the Integration of Mental Health Data collection (PRIMHD). All diagnoses are classified according to the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-AM).

Hospital discharge data

Data on the morbidity of various diseases and conditions are primarily based on all discharges from public hospitals. This is also called the NMDS. Day cases are included in this data but attendances at outpatient clinics or emergency departments are not included. Analysis of hospitalisation data focuses on the number of episodes of care rather than the number of individual people. Hospital data include patients who die in hospital after formal admission. A general issue with using hospitalisation rates for outcome measures is that reductions in such rates can reflect either a real decrease in incidence, improved primary health care (thus reducing the need for hospital care), or a decrease in access to (or provision of) hospital services. The relative importance of these factors is often not known.

Outpatient data

The National Non-Admitted Patient Data Collection (NNPAC) provides nationally consistent data on non-admitted patient activity. Information about Waitematā's population's use of outpatient clinics is drawn from this source.

Mortality data

The mortality statistics maintained by the MoH are based on death certificates completed by medical practitioners, post-mortem reports, coroners' certificates, and death registration forms completed by funeral directors. Supplementary data are obtained from a variety of other sources (such as public hospitals and the National Cancer Registry). While the total numbers of deaths is available to 2013, detailed information about causes of death is only complete up to 2011. Mortality data for 3 years was used in an attempt to ensure sufficient numbers for analysis.

Cancer data

The National Cancer Registry (NCR) was established in 1948 and is now maintained by the MoH. It is a register of people who develop all types of cancer except basal and squamous cell skin cancers. The Cancer Registry Act 1993 requires all pathology laboratories to supply the NCR with a copy of any pathology report with a diagnosis of cancer and related conditions. This data is somewhat older than other NMDS data but is the most recent available.

Programme for the Integration of Mental Health Data (PRIMHD)

The information collected by PRIMHD relates to the provision of secondary mental health and alcohol and other drug services, which are funded by the government. Providers include DHBs and, to a limited degree, non-government organisations (NGOs). The collection does not include information on primary mental health services.

The New Zealand Health Surveys

This national face-to-face survey was completed annually since 2011/12. The results for the two years were combined to give larger samples and more robust information (Ministry of Health 2013). In 2011/12, the survey had a sample size of 12,370 adults (15 years and older) and 4,478 children (0-14 years). The response rate was 79% for adults and 85% for children.
In 2012/13, the survey had a sample size of 13,009 adults (15 years and older) and 4,485 children (0-14 years). The response rate was 80% for adults and 85% for children. Approximately 2000 adults were sampled in the Waitematā district for the two surveys.
The survey provides information on:

- selected health risk behaviours (eg smoking, diet, physical activity, alcohol and drug use)
- the health status of New Zealanders, including their self-reported physical and mental health status and the prevalence of selected conditions including diabetes
- the utilisation of health services
- a number of demographic characteristics such as age, gender, ethnicity and income.

Where estimates are provided for Waitematā populations they may be either direct survey estimates or synthetic estimates. Since the sample sizes for the overall Waitematā population was reasonably large direct estimates can be calculated using only the respondents from Waitematā district. However, for ethnic-specific estimates, sample sizes were too small so estimates were derived by the Health & Disability Intelligence Unit (HDIU), Ministry of Health from a statistical regression model. These estimates were only available for adults.

The Quality of Life Survey

This survey was undertaken in 2012 with a sample size of 2,585 adults (18 years and older) across the Auckland Council area. Of these just over 1,000 lived in Waitematā wards including Whau. The overall response rate was 57%. The information is available by ward, by age or by ethnicity. The survey covers a wide range of questions on topics that are important to wellbeing.

Virtual diabetes register 2013

The Ministry of Health has used data from the community laboratory testing claims system, community pharmaceutical dispensing claims system and from NMDS and NNPaC to construct an anonymised register of individuals diagnosed with diabetes. This can be used to estimate prevalence of diabetes and methods of management.

Census and demographic data

A New Zealand Census of Population and Dwellings is normally held every five years, but the planned 2011 census was delayed until 2013 because of the Christchurch earthquake. Everyone in the country on census night, including visitors to the country, must fill out an individual census form. This census was carried out in March 2013.
The New Zealand Census collects limited health information but contains much social and economic information that was useful in describing the factors that determine health. In addition, the census forms the basis for determining Waitematā's and New Zealand's denominator population when calculating rates.
Projections of population sizes for the years after 2013 and estimates of population sizes between the 2006 and 2013 Censuses have been made. Projections are made on the basis of assumptions about a number of factors including migration, fertility and mortality. However, projections are not always accurate. Some of the detailed analysis of the2013 Census is not yet available and data from 2006 is shown where this is the case. The projections in this report were prepared in 2018.

Birth registrations

This includes all live and still birth registrations from Births, Deaths, and Marriages.

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Appendix 1: Data table

Section	Indicator	Waitematā Total	Māori	Pacific	Asian	European /Other	NZ
Our Population	Population 2018/19	626,990	61,990	44,150	140,380	380,470	4,925,000
	% of population	100%	9.9%	7.0%	22%	61%	
	National proportions	100%	16%	6.5%	15%	63%	
	Annual growth %	2.3%					1.4%
	Under 5 years - number	40,170	6,910	40,60	11,150	18,050	307,270
	Under 5 years - %	6.4%	11.1%	9.2%	7.9%	4.7%	6.4%
	65+years - number	88,360	3,270	2,740	11,990	70,360	760,400
	65+ years - %	14.1%	5.3%	6.2%	8.5%	18.5%	15.4%
	75+ years - number	37,430	1,080	810	3,820	31,720	320,200
	75+ years - %	6.0%	1.7%	1.8%	2.7%	8.3%	6.5%
	Under 25 years - %	32%	52%	46%	32%	28%	33%
	Projected pop'n in 2037/38	809,710	84,480	62,260	240,260	422,710	5,737,125
	Projected 75+ in 2037/38	86,020	4,390	2,520	19,300	59,810	681,930
Population health drivers							
Deprivation	% living in NZDep13 Quintile 5 (most deprived) areas	8%	14%	22%	9%	6%	20%
Income, education, employment	% leaving school with qualification 2013	84%	73%	72%	90%	85%	79%
	Unemployment rate 2013	6.9%	13%	14%	9%	5%	7.1%
	Median income 2013	$30,600					$28,500
Housing	Housing affordability (house price vs income - Massey index)	31.7 (May 2019)					22.2
	House over-crowding (% people needing 1+ bedrooms)	9.6%	25%	45%	19%	6%	10.1%
Modifiable risk factors 2014-17	Smoking - % of adults	13%	30%	30%	8%		17%
	Obesity - % of adults	25%	42%	68%	11%		31%
	Overweight or obese - % of adults	61%	74%	90%	45%		64%
	Obesity - % of children	9%	10%	25%	8%		11%
	Overweight or obese - % of children	26%	39%	55%	21%		33%
	Healthy diet: % eating recommended servings fruit & veges - adults	35%	31%	31%	23%		38%
	Healthy diet: % eating recommended servings fruit & veges - children	43%	45%	35%	32%		51%
	Physical activity: active 30 minutes per day: % of adults	43%	54%	41%	39%		50%
	Active travel to school: % of children	37%	29%	40%	39%		44%
	Breast feeding (Exclusive at 3 months) - %	60%	47%	49%	60%	63%	56%
	Past year drinking - % of adults	75%	82%	62%	52%	84%	80%
	Hazardous drinking - % of adults	14%	26%	25%	7%	16%	20%

Section	Indicator	Waitematā Total	Māori	Pacific	Asian	European /Other	NZ
Health Status							
Overall health	Self-reported health good, v. good, excellent	90	84	82	89		89%
Life Expectancy	LE Total population 2015-17	84.1	80.9	77.9	90.3	84.2	81.7
	LE Male	82.5					
	LE Female	85.5					
Avoidable mortality	Avoidable deaths per year	721	93	66	48	514	
	Avoidable mortality rate ASR per 100,000, 2011-13	109	234	216	56	103	143
	Potential years of life lost per 100,000	17.6					25.4
Cardio-vascular disease	CVD Hospitalisation ASR per 100,000	980					985
	CVD mortality ASR per 100,000, 2011-13	92	150	165	56	89	118
	Heart failure hospitalisation ASR per 100,000	94					103
	IHD mortality ASR per 100,000 2011-13	47	72	84	25	46	62
	IHD Hospitalisation ASR per 100,000	380					320
	Revascularisation (CABG + angioplasty) ASR per 100,000	71					76
	Angiography / IHD ratio	0.54					47%
	% of pop'n with IHD on triple therapy	52%	50%	60%	45%	51%	
	% of adults medicated for high cholesterol	8.0%	14.4%	8.1%	9.3%	7.1%	8%
	% of adults medicated for high blood pressure	10.5%	15.5%	12.2%	10.8%	9.4%	11.7%
Stroke	Stroke mortality ASR per 100,000, 2011-13	25	36	43	20	24	28
	Stroke hospitalisation ASR per 100,000	112					122
Diabetes	Estimated population with diabetes 2017	28,173	2,341	3,993	Indian: 2,477	19,362	
	% of population with diabetes	4.6%	3.9%	9.3%	Indian: 11%	4.0%	
	% of diabetics having annual check	43%					
	% of diabetics on diabetes medication	60%					61%
	% of diabetics well-managed (HbA1c <64 mmol/mol) May 2018	63%					
	% of diabetics receiving retinal screening	54%					
Cancer	Mortality ASR per 100,000 2013-15	106	174	162	59	107	123
	Average Deaths per year 2013-15	938	61	49	52	776	
	Hospitalisation ASR per 100,000	697					766

Section	Indicator	Waitematā Total	Māori	Pacific	Asian	European /Other	NZ
	Mortality rate ASR per 100,000 25+ yrs, lung cancer	32	90	50	22	30	40
	Mortality rate ASR per 100,000 25+ yrs, colorectal cancer	24.1	18	19	13	26	28.2
	Mortality rate ASR per 100,000 25+yrs, breast cancer	27.6	53	57	13	26	30.7
	Mortality rate ASR per 100,000 25+yrs, prostate cancer	27	40	89	9	27	29.5
	Five-year survival rate for patients diagnosed 2012-2013	68%					
	Breast screening uptake (% of eligible women) Mar 2019	65%	65%	69%	66%	65%	
	Cervical screening uptake (% of eligible women) Mar 2019	71%	61%	64%	68%	73%	
	Colorectal screening uptake (% of eligible people)	60%					N/A
Respiratory disease	% of adults on asthma medication	9.5%	15.0%	10.0%	4.0%	10.7%	11%
	COPD hospitalisation ASR per 100,000		1,457	1,558	204	387	
Mental Health	Population 12-19 (PM's Youth MH Project)	61,976					
	Suicide ASR per 100,000, 2011-13	9.4	15.7	6.8	5.3	9.8	11.5
	Annual suicides	56					
	Diagnosed with mental health conditions (NZ Health Survey)	12.3%					16%
Injury	Injury hospitalisation ASR per 100,000		4,500	4,400	1,700	3,600	
Sexual health	Chlamydia (regional figures)	634					633
Infants, children and young people	Births 2014	7,737					
	Infant mortality rate per 1,000 live births, 2012	2.3					4.7
	Fertility rate (births per 1,000 women aged 15-49)	57					57.7
	% of babies with low birth weight	5.5%					6.0%
	% of mothers enrolled with LMC at 12 weeks	65%					
	Teenage pregnancy rate (births per 1,000 women aged 15-19)	14.6					25
	Caesarean sections as % of deliveries at Auckland City Hospital	29%					
	Rheumatic fever incidence per 100,000 pop'n	2.3					4.1
	% fully immunised at 8 months Q1 2014/15	92%	90%	95%	96%	90%	92%
	% fully immunised at 24 months Q1 2014/15	92%	90%	95%	96%	91%	93%
Older people	% aged > 65 with a disability						59%
	% aged > 65 with IHD	15%					19%

Section	Indicator	Waitematā Total	Māori	Pacific	Asian	European /Other	NZ
	% aged > 65 with diabetes	18%					
	% aged > 65 with arthritis	40%					44%
	% aged > 65 with a mental health disorder	12%					15%
	% aged > 85 years receiving funded support at home	26%					
	% aged > 85 years funded for rest home/private hospital	14%					
	% of pop'n aged 65+ receiving influenza vaccination	63%					
Health services							
Community services	GPs per 100,000 population	62					74
	% of adults who visited GP in last 12 months	79%	77%	75%	70%		77%
	% of adults unable to visit GP (due to transport, cost, availability)	25%	30%	36%	17%		29%
Hospital-based care	Acute hospital discharge rate	12,304					11,475
	Elective hospital discharge rate	2,448					2,922
	Avoidable hospitalisations ASR per 100,000	1,941					1,971
Health targets achievement summary Q1 2014/15	Shorter stays in ED: % admitted or discharged within 6 hours	95%					93%
	Improved access to electives	109%					105%
	Cancer: % commencing treatment/care within 62 days of referral (Q3 2018/19)	88%					88%
	Increased immunisation: % fully immunised at 8 months	92%					92%
	% of smokers receiving advice to quit (Hosp/GP)	97%/99%					95%/88%
	% eligible adults having heart and diabetes checks	90%					86%

This document was prepared by the Planning and Health Intelligence and Health Gain teams led by Simon Bowen, Director of Health Outcomes for Auckland and Waitematā DHBs, with input from:

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Waitematā
District Health Board

Best Care for Everyone

4.3 Healthy Babies Healthy Futures Programme

Recommendation:

That the report be received.

Prepared by: Shayne Wijohn (Acting Manager Māori Health Gain), Lifeng Zhou (Senior Epidemiologist) and Nelson Wahanui (Programme Manager)
Endorsed by: Dr Debbie Holdsworth (Director Funding) and Dr Karen Bartholomew (Director Health Outcomes)

Glossary

HBHF	-	Healthy Babies Healthy Futures
CNSST	-	CNSST Foundation (Formally the Chinese New Settlers Services Trust)
TANI	-	The Asian Network Incorporated
TextMATCH	-	Text Messages Maternal and Child

1. Executive Summary

Childhood obesity is a significant health issue in New Zealand with substantial ethnic inequities[a] [b]. Successful lifestyle weight management programmes, that aim to change diets and physical activity behaviours, have a number of critical success factors. The most effective programmes deliver nutrition and physical activity advice in a way that is valuable and targeted to specific communities and groups. Successful components include a focus on behaviour change through learning and coaching, whānau inclusion and social support.[c] [d]

This paper provides an overview and progress update on the Healthy Babies Healthy Futures Programme (HBHF) which is providing pregnant mothers, and mothers of at-risk children a multi-faceted learning and engagement intervention aimed at changing their dietary and physical activity behaviours. The HBHF programme is funded by the Ministry of Health, hosted by Waitematā DHB and delivered to the specific communities through four community providers: HealthWEST, The Fono, The Asian Network Incorporated, and the Chinese New Settlers Services Trust Foundation. The service includes the following key elements: recruitment, engagement, community learning programme (practical) with review and the TextMATCH service.

The programme has been well received with 95% of mothers who have completed the HBHF programme having had a positive learning experience, and most committing to making healthy lifestyle changes. Key success factors are detailed in the paper and include targeted approaches and engagement with communities, expertly facilitated and designed group based learning experiences for whānau, a highly trained workforce with the ability and credibility to engage with whānau, and collaboration between clinical and community experts to co-design and manage the service.

[a] Ministry of Health, New Zealand Health Survey 2017/18
[b] Ministry of Health and W. Parnell, Scragg, R., Wilson, N., Schaaf, D., Fitzgerald, E., NZ Food NZ Children: Key results of the 2002 National Children's Nutrition Survey. 2003, Ministry of Health: Wellington.
[c] H.E.D. Burchett et al. (2018). *Preventive Medicine 106 (2018) 1–12.*
[d] World Health Organisation. 2015. *Interim Report of the Commission on Ending Childhood Obesity.* Geneva: World Health Organisation.

2. Strategic Alignment

The HBHF programme aligns with the board's priorities, strategic themes, and values by:

Community, whānau and patient centred model of care	HBHF engages whānau to give feedback on how improvements can be made to our existing processes. This informs what changes are necessary and what new ideas are worth trying for the benefit of the community. Changes we made as a result of whānau feedback have been strategies to address transport needs, childcare needs and including subject matter experts in workshops.
Emphasis and investment on both treatment and keeping people healthy	HBHF targets healthy families to educate and promote health and wellbeing for baby and mother. For those parents engaged in the workshops they complete a lifestyle assessment, plan for positive lifestyle change and review their lifestyle six weeks after the final workshop (post intervention) so that we all can measure change (or not) and where we make a difference.
Service integration and/or consolidation	HBHF strives to embed new initiatives into existing frameworks and establish linkages across services and sectors to ensure continuity of care, efficiency gains and contribute to shared outcomes. A key feature of the program is a requirement to promote collaboration and/or integration opportunities within and between the different target population groups and external services. Indeed, this was a strength of the original proposal which showed how it would build upon, and enhance existing service, that are already being delivered to the target audiences (for example Plunket, midwives, Maternity Services, Family Start, out-reach immunisation and so on).

3. Introduction

The New Zealand Health Survey 2017/18 reports that 1 in 8 children (aged 2–14 years) were obese (a rate of 12% that increased from 8% in 2006/7), while the rates for Māori (17%) and Pacific (30%) children are much higher. Data provided by the 'Healthy Auckland Together' Programme shows childhood obesity is getting worse in Auckland, with 1 in 7 Auckland children now obese.[e] While, positively, pre-school aged obesity rates for Auckland children are coming down. Between 2013 and 2017, obesity amongst Māori and Pacific pre-school aged children has dropped 9% and 11% respectively.

In addition to ethnic inequities, obesity is also linked to poverty. Children living in the most deprived areas are 2.1 times more likely to be obese than children living in the least deprived areas of New Zealand.[f] For Auckland, this is similar with 26% of children living in the most deprived areas reported as obese, compared to 3% in the least deprived Auckland suburbs.[g] Overweight and obese children face considerable immediate and long term health risks. This contributes to poorer social and health outcomes as they develop and grow.

[e] Auckland Regional Public Health Service (2019) Healthy Auckland Together Scorecard 2019.
[f] Ministry of Health, New Zealand Health Survey 2017/18
[g] Auckland Regional Public Health Service (2019) Healthy Auckland Together Scorecard 2019.

Waitematā DHB has hosted the Ministry of Health funded HBHF programme since 2014. Over the past three years, the programme has engaged with 4,896 (1,382 Māori, 1,071 Pacific, 959 South Asian, and 1,198 East Asian) mothers (a small portion are support people including fathers and grandparents). A further 2,906 individuals (parents and grandparents) have utilised our TextMATCH service. The vast majority of these engagements have been through four coordinators based within four community providers – Te Puna Manawa HealthWest, The Fono Health and Social Services, The Asian Network Incorporated (TANI) and Chinese New Settlers Services Trust Foundation (CNSST Foundation).

Each coordinator focuses on one of our specific priority populations; Māori, Pacific and new migrants (Asian/East Asian and South Asian). The prioritisation process took in to account inequity in obesity between Māori/Pacific and non-Māori/Pacific communities, and also the paucity of healthy lifestyle programmes available to new migrant families moving into Auckland City. The result is a programme that provides an overarching framework within which specific community values and needs can be included and provided for, ensuring impact within these groups.

Objectives of the programme

- Improve women's health during antenatal and postnatal periods through promotion of healthy eating and keeping physically active.
- Promote healthy feeding of babies including encouraging and supporting exclusive breastfeeding to at least six months.
- Promote healthy feeding (including the introduction of healthy first foods) and physical activity of children at pre-school age.
- Support mothers to be confident with cooking skills to enable healthy eating choice.
- Introduce mothers to fun and enjoyable physical activities suited to their levels of fitness and their health goals.

Interventions of the Programme

- **Community Learning Programme**
  This is a pre-organised and facilitated group-based interactive learning programme for parents featuring six learning modules addressing important nutrition and activity topics. Childcare is offered for children to ensure their parents can participate fully in the learning activities. However, older children are encouraged to participate. Support to attend workshops across Auckland is also provided for mothers and whānau who require it.

  Facilitation of these sessions is provided by one of our programme coordinators who are experienced community workers – some of whom have recent experience as mothers themselves giving their messages more impact

  Coordinators are employed by our four provider partners who specifically target at-risk populations (Māori, Pacific, and refugee and new migrant families):
  - Te Puna Manawa HealthWEST (Māori health provider)
  - The Fono Health and Social Services (Pacific health provider)
  - CNSST Foundation (East Asian)
  - The Asian Network Incorporated (South Asian)

  A further 1,204 mothers have completed the six modules of our Community Learning Programme, with 85% reporting that have gained new knowledge, 84% reported feeling

confident to use their new knowledge and skills at home and 95% reported being "satisfied" or "very satisfied" with their experience.

- **Community Partnership Grants ($3,500) – Community Learning Programme**
  This is similar to the above programme, however, this programme allows for community groups (kohanga reo, churches, mums groups, and coffee groups) to approach our coordinators to request a facilitated learning programme for their group. Community groups source an appropriate venue that is paid for by our programme, including healthy catering for participants. This is a new programme and to date, we have supported 4 of these programmes for Māori (in Wellsford) and Pacific groups (Church group in West Auckland), and we have set targets for our providers to promote this programme to their networks

- **TextMATCH**
  TextMATCH provides parents (or any other whānau members) with text messages that contain valuable healthy lifestyle information related to their stage of pregnancy or their child's age (up to two years old)**.** The programme is broken down into two components 'TextMATCH Birth to 2' and 'TextMATCH Pregnancy'**.** Information provided in text messages is clinically and culturally reviewed by our expert advisory group.

  A total of 2,906 mothers (and a small portion of fathers and grandparents) have used our TextMATCH service in the past three years, with Māori making up 276, and Pacific making up 703.

4. Key success factors

4.1 Targeted approach and engagement

The target population of HBHF is Māori, Pacific and mothers from other at risk communities (new migrant communities, and South Asian) with children under the age of four years, as well as mothers who are pregnant, living in the Auckland and Waitematā DHB catchment areas. These are the populations identified in 2012, when our proposal to the Ministry of Health was written, as at risk and experiencing unmet need.

4.1.1 Targeted approach and engagement - Through community partners

Barriers around access to the HBHF programme have been addressed through strong collaboration and engagement with cultural based community providers. Early in the development of the programme, Waitematā DHB undertook a co-design process with representatives from community providers with strong links to our at-risk communities. Many of these organisations have remained as partners including The Fono Health and Social Services for Pacifica communities, CNSST Foundation for new migrant communities from East Asia (Chinese, Japanese and Korean), HealthWEST for Māori communities, and The Asian Network Incorporated for South Asian communities. Each partner is funded a single coordinator position, who is a highly trained and skilled individual who engages with mothers from their community about the programme and its service offerings. From January to June 2019, 532 (177 Māori, 131 Pacific, 115 Asian and 108 South Asian) individuals completed our promotion forms which act as an initial assessment of eligibility for our programme, which prompts contact from one of our coordinators.

Our Community Learning Programme has multiple points of entry including self-referral, midwives, health professionals and through applications for our Community Partnership Grant. The following results were achieved:

Table 1. Number of participants in the Community Learning Programme from January 2019 to June 2019

Ethnicity	Mothers engaged in healthy conversations	Mothers that have completed our Community Learning Programme (Enrol, complete and review)
Māori (mother or child)	117	61
Pacific	70	91
Asian	106	84
South Asian	106	21
TOTAL	**399**	**257***

**Made up of 23 programmes hosted in Waitematā DHB and 7 hosted in Auckland DHB*

4.1.2 Targeted approach and engagement - Through technology

The use of technology to engage with whānau has proved extremely successful for the HBHF programme. The TextMATCH[h] programme received a Waitematā DHB Health Excellence Award in 2018, with the judges noting the excellent mix of clinical information distilled down to informative text messages and the reach of the programme, having engaged over 2,900 individuals.

Text messages sent out to whānau have undergone development and review by a consortium of health professionals for clinical integrity and community individuals for cultural integrity. Texts are translated to ten different languages including English, Māori and multiple Pacific and Asian languages.

The TextMATCH Pregnancy and TextMATCH Birth to 2 programmes send up to three text messages per week to achieve the following objectives;

- Increase awareness of the importance of diet and activity
- Increase understanding of healthy diet and activity for pregnancy, infants and toddlers
- Provide relevant and practical suggestions of how to improve diet and increase activity
- Increase parental motivation to make healthy behaviour changes
- Provide links to other support services.

Table 2. Number of participants in the TextMATCH programme from 2018 – 2019

Ethnicity	Individuals registered to TextMATCH Pregnancy	Individuals registered to TextMATCH Birth to 2
Māori (mother or child)	43	120
Pacific	62	183
Asian	58	212
South Asian	61	154
TOTAL	**224***	**669***

** 10% of this total is "support people"*
NOTE: 51 of the total enrolled were self-referrals.

HBHF encourages all support people to enrol on the appropriate TextMATCH programme. Our experience shows that when people receive the text message multiple times, it increases the

[h] Landing pages https://textmatch2019.launchaco.com/

likelihood of that message being acted upon. Parents give positive feedback about the messages, namely that these messages support to clarify what they need to know, who they need to talk to for more support and to dispel any myths they may have heard.

In addition to the TextMATCH, HBHF uses Facebook groups[i] and advertising to engage directly with whānau and target promotional material about the programme to relevant individuals. Recent changes to Facebook advertising algorithms have hampered our efforts, with decreasing flows of traffic being directed from that platform. However, large numbers of individuals continue to enrol in our programmes. Whānau who access our electronic promotional material (including Facebook ads, e-newsletters and our website) are directed to an online enrolment form where we securely collect their information for contact by one of our Coordinators (depending on their ethnicity).

4.2 Interactive and targeted education

Our Community Learning Programme has two multiple points of entry: through self-referral, midwives, health professionals and through applications for our Community Partnership Grant, in which case, we fund and resource groups to host their own Community Learning Programme. This programme aims to engage over 400 mothers every year in a six module course. The modules are delivered by one of our four coordinators and are designed to be fun, interactive, culturally safe, and teach practical skills for eating healthy and moving often. The Community Learning Programme is applied differently in each community, based largely on the values and most effective learning approaches for those communities. While on the ground there is variation, the content of the course and resources are uniform – this keeps control of the messaging and information to mothers, while allowing for unique approaches to emerge in each community.

The six modules are:

- **Being healthy for you and baby** – Where parents are able to discuss and describe the importance of being healthy, describe preventable lifestyle related disease, develop reasons to pursue healthy lifestyle and confidently promote healthy lifestyle changes at home.
- **Making healthy food choices** – Where parents are able to describe the four food groups, the benefits of breastfeeding, where to get breastfeeding support, baby's first foods and the recommended daily amounts of sugar, salts and fats for adults and toddlers.
- **Practical food preparation** – Where parents are able to describe how to store food safely, describe common bacteria and virus and develop cooking skills for modified popular meals.
- **Reading food labels** – Where parents are able to describe what food labels are used for, what to look for in the ingredients list, compare foods based on health star ratings and describe the nutrition information panel.
- **Shopping smarter** – Where parents are able to plan meals ahead of time, describe five smarter shopping techniques, describe which ingredients substitute for expensive ingredients, how to save time and money and where to get financial support.
- **Keeping active** – Where parents are able to describe the benefits of exercising, what activities are sustainable for them, the difference between moderate and vigorous physical activity, how to stay safe while exercising and which free community services are available to use.

The overall aim of the Community Learning Programme is to support attendees with information to make their own decision to change. Each module is designed to illicit discussion from attendees, where our coordinators can draw out strengths from each individual to offer specific solutions that are relevant to their whānau and community context.

[i] Facebook page https://www.facebook.com/healthybabieshealthyfutures

4.3 Highly trained workforce

The HBHF coordinators are the face and frontline of the programme. Our programme respects the commitment that our coordinators have to their communities as much as their qualifications. Each coordinator has a different mix of skills (social work and community support work) and experience, yet each have the ability and credibility to engage with mothers in their community. Our Community Learning Programme can be provided by the coordinators in their native language if preferred, along with translated resources. Cultural protocols are also observed by our coordinators to ensure en environment of safety and comfort is created for mothers.

Our coordinators play a vital role of coaching mothers to change their unhealthy lifestyle behaviours for their children. This can be extremely challenging requiring anything from unpacking myths that they had heard from other whānau members, to increasing knowledge and awareness. Our coordinators, although excellent support workers, are also aware of additional support services available in their communities (and within their own community provider/employer), that they can refer whānau to, if a greater degree of support is required. Their role focuses on healthy lifestyle promotion, coaching and education. Anything beyond this is picked up in assessment, first conversation or training and referred to the appropriate service at the time it is uncovered.

Through the HBHF programme each coordinator has been trained in:

- Healthy Conversations Skills by Gravida
- Motivational Interviewing by Abacus Institute of Training
- Evaluation Skills by Shore Whariki
- Privacy and confidentiality online by Privacy Commission
- Healthy Start Workforce by Gravida

In addition to programme specific training, some coordinators have sought further development depending on the needs within their community. We have supported breastfeeding support training in La Leche League, baby and toddler active movement by Sports Waitakere, First Aid training and Triple P Parenting Training funded by Waitematā DHB.

4.4 The culture of collaboration

The group of provider executives and DHB management who lead this service have, over several years, created an enduring culture of collaboration, support, encouragement and learning. There is a genuine desire and intent to galvanise resource and expertise behind a common goal, to engage at risk mothers/whānau early in their pregnancy to give their baby the best start to life, and develop an action oriented agenda to achieve this goal.

We have also created an environment of learning and innovation. Innovation is encouraged amongst our provider network. This has given rise to new approaches for engaging with mothers and whānau, improved teaching methods and investment in workforce development. Innovative ideas are developed into provider specific pilots, tested, and brought back to the group for further analysis. If successful and adaptable to other providers, pilots are scaled up and rolled out accordingly.

4.4.1 Relationships

Co-design of the overall programme and interventions
Co-design with community partners saw the development of the two core components of the HBHF Programme – TextMATCH and the Community Learning Programme that were specifically designed

with at-risk populations in mind. The programmes are unique to each community to align to their own cultural values, while the content of the messages and modules remain consistent.

Programme/intervention level collaboration
Our TextMATCH programme draws on expertise and guidance from across Auckland and Waitematā DHB Planning, Founding and Outcomes Department, nutrition services, Waitematā DHB's Institute for Innovation and Improvement (i3), community providers and the National Institute of Health Innovations.

Our Community Learning Programme is provided in partnership with The Fono for Pacific communities, CNSST Foundation for Asian communities (Chinese, Japanese and Korean), HealthWEST for Māori communities, and The Asian Network Incorporated for South Asian communities. Each provider brings an immense track record of working within their respective communities which also helps to keep the programme relevant to their people.

On-going oversight and direction
HBHF is overseen by the Kaitiaki Roopu which meets biannually and when urgent issues arise. The Māori Health Gain Manager of Auckland and Waitematā DHBs is the current chair for the Kaitiaki Roopu. Other members of the board include representatives from the Pacific, Asian, South Asian and Māori communities, the Ministry of Health and a community midwife. Support is provided by a Technical Advisory Group, and Operational Group consisting of programme level content experts. Both groups meet often to carry out work directed by the Kaitiaki Roopu, advance innovative ideas, review progress and opportunities, resolve issues within the programme, and make recommendations to the Kaitiaki Roopu based on their in-depth knowledge of the programme and surrounding system.

The Technical Advisory Group played important role particularly at the starting stage of the HBHF project. The group is made up of members from the DHB's maternity service and Plunket who have further enhanced services delivered through the programme, particularly in developing the TextMATCH resources with the National Institute of Healthy Innovation.

5. Experience and Outcomes

Access to the HBHF programme is facilitated through our community based providers with strong links to the priority populations of our programme, and also through self-referral through our accessible website. Our programme has high enrolment and completion rates for our Community Learning Programme with 276 Māori, 314 Pacific and 226 South Asian mothers having completed the six modules of programme in the past three years. Over 619 Māori mothers and 775 Pacific mothers have been engaged in healthy conversations with our coordinators, and a further 276 Māori and 703 Pacific mothers have received TextMATCH, over the same period. This demonstrates the ability of our programme to reach into 'hard to engage' communities and support them to complete a programme designed to illicit personal and whānau health change.

5.1 Community Learning Programme

The HBHF programme had a positive impact on the eating behaviours of participants based on the data of the participants who completed the Community Learning Programme modules:

- 96% of the participants made at least 2 positive changes to eating behaviours, e.g. fewer/no sugary drinks, and eating more fruit/vegetables, beyond the target of 90%.
- 86% of those who completed the modules felt better about themselves and 79% felt more confident about cooking healthy meals (again beyond the target of 75%).
- 74% of the participants were more confident.
- 64% had met new people in the community and 61% received support from the community.

The programme exceeded its target significantly, with 96% of those who completed the modules feeling that they were well-supported by the programme. In addition, 100% of the pregnant women felt well or very well supported by the HBHF programme.

Table 3. HBHF Programme measures for 2018/19

Reach measures	Achieved	Target
Participants making at least 2 positive changes to eating behaviours (e.g. less/no sugary drinks, eating more fruit/veg)	96%	90%
Participants are confident in cooking healthy meals	79%	75%
Participants are physically active more often	65%	75%
Participants selecting "Well or "Very well" supported by the HBHF team	96%	75%

In 2017, our programme was evaluated independently. In a number of follow up interviews with whānau who had previously completed the programme, they found that:

- 75% now drink more water
- 61% eat more vegetables
- 63% reported feeling better about themselves
- 58% feel more confident

The review also found that:

- 54% now eat smaller potions
- 44% now prepare evening meals which is a proxy for fewer takeaways
- 46% drink fewer or no sugary drinks

Although the above three points show good progress, our programme team will look at reorienting our modules to include an emphasis on cooking meals (i.e. offering cooking demonstrations), portion size/control and a focus on sugary drinks.

5.2 TextMATCH

The TextMATCH service is well received by our communities. The high number of individuals currently enrolled, and continuing to enrol, shows a high acceptance amongst, mainly, mothers of our 'at risk' populations. The aim of the services is to continue to provide messages that are well thought out, culturally acceptable, and clinically sound. Our messages are written as brief reminders for parents to think about, while being free of judgement and blame. As for the preliminary assessment of the TextMATCH, participants rated the usefulness of the programme very high (an average rating of 4.5 out of 5 or 'extremely useful') with minor variations by ethnicity of the participants. The comments made by the TextMATCH receivers were also very positive.

The TextMATCH registration cohort of 2016/17 shows the overall completion rate of the TextMATCH was 77%, with pregnancy programme reaching 68% and baby programme 79%. There were also variations by the participant's ethnicity, with South Asian and Asian participants having higher completion rates, which is worth further understanding.

These are some of the feedback, uplifted from our report to the Ministry of Health, received from a whānau using this service:

"I actually love these texts! Little motivation and guidance that I'm on the right path of being an awesome mum and raising a healthy wee man xx thank you!" - Māori

"I find the information that your sending me really useful and good for me as young mother thank you" - Pacific

"*Thank you so much TextMATCH team for being so supportive. I love the messages and found this service very beneficial for myself and my lil one. You guys are rocking" – South Asian*

6. Future improvements

The HBHF team are enthusiastic to improve their delivery and have demonstrated willingness to trial and adapt to change since the programme started in 2014. These are the priority areas for future improvements:

Improve the current intervention:

- **Evaluation and review**
  Undertake an evaluation to inform the programme for future improvements. Every level of the programme will be evaluated to determine programme level improvements also. This will include a review of the Kaitiaki Roopu to determine further improvements that could be made at the relationship level.

- **Improve the modules to address issues already identified by whānau**
  The first priority will be to improve the Community Learning Programme with the addition of cooking demonstrations for attendees to learn, within a guided environment, how to prepare healthy low cost, and easy to make, meals for the whānau. Other components of the programme will also be modified, but an evaluation will further inform these areas.

Grow and develop the HBHF programme:

- **Promotion and presence**
  The programme is seeking more opportunities to engage with our communities, and also other health and social services. This includes placements in maternity suites, birthing centres, Work and Income offices, community NGOs, Tamariki Ora/Well Child providers, parenting programmes and community midwife practices with high numbers of 'at risk' mothers.

- **Enhancing our interventions**
  Clearly our programme has demonstrated ability to reach into 'at risk' communities. Our team are reviewing potential partnerships with other providers and programmes to increase what we offer to mothers. This includes developing a full wrap around service, of which HBHF is a single component, for 'at risk' mothers and whānau to guide them through their pregnancy and first years of their child's life.

7. Conclusion

Healthy Babies Healthy Futures is a successful public health programme that improves year to year. We are awaiting the outcome of a Ministry of Health decision as to the future of the programme funding. The programme is currently operating on a one year contract with the Ministry of Health until June 30 2020.

“Kua tawhiti kē to haerenga mai, kia kore e haere tonu. He nui rawa o mahi, kia kore e mahi tonu."
"You have come too far not to go further, you have done too much not to do more"
– Ta Himi Henare (Sir James Henare)

5.1 Planning, Funding and Outcomes Update

Recommendation:

That the report be received.

Prepared by: Wendy Bennett (Manager Planning and Health Intelligence), Jean-Marie Bush (Senior Portfolio Manager Mental Health and Addiction Services), Ruth Bijl (Funding and Development Manager Child, Youth and Women's Health), Tim Wood (Funding & Development Manager Primary Care), Kate Sladden (Funding and Development Manager Health of Older People), Shayne Wijohn (Manager Māori Health Gain), Leani Sandford (Acting Manager Pacific Health Gain), and Samantha Bennett (Manager Asian, Migrant and Former Refugee Health Gain)
Endorsed by: Dr Debbie Holdsworth (Director Funding) and Dr Karen Bartholomew (Director Health Outcomes)

Glossary

AAA	-	Abdominal Aortic Aneurysm
ACE	-	Angiotensin-converting-enzyme
ARC	-	Aged Residential Care
ARPHS	-	Auckland Regional Public Health Service
BP	-	Blood Pressure
CADS	-	Community Alcohol and Drug Services
CHIL	-	Child Health Information Link
CPHAC	-	Community and Public Health Advisory Committee
CVD	-	Cardiovascular Disease
DHB	-	District Health Board
DSLA	-	Diabetes Service Level Alliance
GP	-	General Practitioner
HbA1c	-	Glycated Haemoglobin
HCSS	-	Home and Community Support Services
HPV	-	Human Papilloma Virus
HQSC	-	Health Quality Safety Commission
IMT	-	Incident Management Team
MACGF	-	Metro Auckland Clinical Governance Forum
MBIE	-	Ministry of Business, Innovation and Employment
MMR	-	Mumps, Measles and Rubella
MoH	-	Ministry of Health
MSD	-	Ministry of Social Development
NCHIP	-	National Child Health Information Platform
NCSP	-	National Cervical Screening Program
NES	-	National Enrolment Service
NGO	-	Non-Government Organisation
NHCC	-	National Health Coordination Centre
NHI	-	National Health Index Number
NHT	-	National Health Target
NICU	-	Neonatal Intensive Care Unit
NIR	-	National Immunisation Register
NZ	-	New Zealand
OIS	-	Immunisation Outreach Service
PFO	-	Planning, Funding and Outcomes Team
PHAP	-	Pacific Health Action Plan

PHO	-	Primary Health Organisation
Q	-	Quarter
RFP	-	Request for Proposals
RUG	-	Resource Utilization Group
SMILE	-	Smoke and Alcohol Free, Mental Health Matters, Immunise, Lie on Your Side, Exercise, Eat Healthy
TUG	-	Time up and go test
UNHCR	-	United Nations High Commission for Refugees

1. Executive Summary

This report updates the Community and Public Health Advisory Committee (CPHAC) on Auckland and Waitematā DHBs' (DHB) planning and funding activities and areas of priority, since its last meeting on 7 August 2019. It is limited to matters not already dealt with by other Board committees or elsewhere on this meeting's agenda.

Highlights

- Kāinga Ora, in partnership with the other Healthy Homes Initiative Services around the country, were the winners of the State Services Commission's Spirit of Service awards, in the category of Better Outcomes. The Healthy Homes Initiative also received the Prime Minister's overall award for the Spirit of Service awards.
- A successful LookUp event for youth mental well-being was held on 15 August 2019. The annual event was held this year at Te Oro Music and Arts Centre in Glen Innes and the theme for 2019 was #connectmewhakawhanaunga. There were over 150 attendees for the day. Feedback was overwhelmingly positive, and the inspirations from the young people about ways to mental well-being are extremely informative.
- Waitematā DHB has, for the first time, reached the national PHO enrolment target of 90% for the Asian population.
- The Ministry have formed a Measles outbreak National Health Coordination Centre (NHCC) and the Metro Auckland area formed an Incident Management Team (IMT) comprised of the three metro Auckland DHBs, Auckland Regional Public Health Service (ARPHS), primary care liaison and supported by communications and emergency management. The IMT group has been managing the limited supply of Measles, Mumps Rubella (MMR) vaccine available. The response is covered further in the ARPHS update.
- Antenatal immunisation coverage to June 2019 demonstrates that the combined strategies have increased uptake, with the greatest improvement in Māori and Pacific women. Uptake in Auckland DHB has almost doubled from 36.3% in Quarter 1 2016 to 62.8% in Quarter 2 2019, with an average coverage of 56.5% in the 12 months to June 2019. A similar trend is shown in Waitematā DHB where coverage has improved from 27.2% in Quarter 1 of 2016 to 56.3% in Quarter 2 of 2019, with an average coverage of 52.2% in the 12 months to June 2019.
- The Aged Residential Care (ARC) Funding Model Review, a comprehensive report prepared by Ernst Young over 18 months, was released in September. The ARC sector has changed significantly since the last funding review almost 20 years ago. The average age of entry to ARC has increased to 85 years, with residents more frail than in the past. Over half of residents have some form of cognitive limitation, and many have multiple co-morbidities. The median length of stay is now around 18 months. A key recommendation from the Review is to expand the levels of care/care categories using an internationally validated approach – the interRAI Resource Utilisation Group (RUG) approach. This approach uses an algorithm to allocate people to

different care categories based on the needs that best predict the level of resource they may require.

- The Māori Health Pipeline projects continue to progress with the lung cancer screening project (Study 1) focus groups completed with a very positive response, and the survey of 300 Māori potentially eligible for screening are due to get underway shortly. An additional survey tool developed for whānau on the basis of the focus group hui feedback has also been finalised. The '500 Māori women' breast screening campaign datamatch is complete, with women being contacted to invite then for screening from 1 October 2019.
- A Pacific Abdominal Aortic Aneurysm (AAA) screening project has been developed and will begin in early November with a pilot for Tongan men.
- The Pacific health pipeline is in early stages of development and continues to be refined.

2. Planning

2.1 Annual Plans

The 2019/20 Waitematā District Health Board (DHB) Annual Plan has now been finalised and will be submitted for final Board approval in the next week, and submitted to the Ministry of Health thereafter, for Ministerial approval and signature. After this, it will be made publically available on the DHB's website. The 2019/20 Auckland DHB Annual Plan is still being finalised, but it is expected that this will also be submitted for Ministerial approval and signature within the next few weeks.

2.2 Annual Reports

Both Auckland and Waitematā DHB 2018/19 Annual Reports are nearly final. We continue to work with the auditors to review performance for the past financial year and respond to Board and Audit and Finance/Finance, Risk and Assurance Committee feedback. The second drafts of respective reports are presented to October Audit and Finance/Finance, Risk and Assurance Committee meetings and will be circulated to respective Boards for final approval, via circular resolution, before being submitted to the Ministry of Health by 31 October 2019.

2.3 Auckland and Waitematā DHB Quarterly Performance Scorecard

The Auckland and Waitematā DHB CPHAC Scorecard is a standardised tool used to internally review and track performance against a range of measures. The Scorecard below shows indicator performance against target for each DHB for Quarter 4 of the 2018/19 year. As noted previously, this scorecard is intentionally reported by ethnicity and in areas of known priority and focus.

Auckland and Waitematā DHB Quarterly Performance Scorecard

CPHAC Outcome Scorecard
June 2019
2018/19

Health Targets - Auckland DHB

	Actual	Target		Trend
a. Better help for smokers to quit - primary care				
Total	*87%*	*90%*	●	▼
Māori	*87%*	*90%*	●	▼
Pacific	*88%*	*90%*	●	--
Other	*87%*	*90%*	●	▼
Increased immunisation (8-month old)				
Total	93%	95%	●	▼
Māori	82%	95%	●	▼
Pacific	92%	95%	●	▼
Asian	97%	95%	●	--
Other	93%	95%	●	▼
Raising Healthy kids				
Total	*100%*	*95%*	●	--
Māori	*100%*	*95%*	●	--
Pacific	*100%*	*95%*	●	--
Asian	*100%*	*95%*	●	--
Other	*100%*	*95%*	●	--

Health Targets - Waitematā DHB

	Actual	Target		Trend
a. Better help for smokers to quit - primary care				
Total	*87%*	*90%*	●	▼
Māori	*86%*	*90%*	●	▼
Pacific	*88%*	*90%*	●	▼
Other	*87%*	*90%*	●	--
Increased immunisation (8-month old)				
Total	93%	95%	●	▲
Māori	85%	95%	●	▼
Pacific	96%	95%	●	▲
Asian	98%	95%	●	--
Other	91%	95%	●	▲
Raising Healthy kids				
Total	*100%*	*95%*	●	--
Māori	*100%*	*95%*	●	--
Pacific	*100%*	*95%*	●	--
Asian	*100%*	*95%*	●	--
Other	*100%*	*95%*	●	--

Child, Youth and Women - Auckland DHB

	Actual	Target		Trend
b. Oral Health - % Infants enrolled at 2 years				
Total	101%	95%	●	▲
Māori	68%	95%	●	▼
Pacific	91%	95%	●	▲
Asian	89%	95%	●	▲
Other	137%	95%	●	▼
Oral Health - % enrolled utilisation at 2 years				
Total	76%	75%	●	▼
Māori	60%	75%	●	▼
Pacific	61%	75%	●	▼
Asian	81%	75%	●	▼
Other	81%	75%	●	▼
c. HPV immunisation coverage - girls				
Total	81%	75%	●	▼
Māori	80%	75%	●	▼
Pacific	85%	75%	●	▼
Asian	68%	75%	●	▼
Other	91%	75%	●	▼

Child, Youth and Women - Waitematā DHB

	Actual	Target		Trend
b. Oral Health - % Infants enrolled at 2 years				
Total	103%	95%	●	▲
Māori	77%	95%	●	--
Pacific	95%	95%	●	▲
Asian	113%	95%	●	▲
Other	108%	95%	●	▲
Oral Health - % enrolled utilisation at 2 years				
Total	71%	75%	●	--
Māori	53%	75%	●	▼
Pacific	51%	75%	●	--
Asian	79%	75%	●	▲
Other	75%	75%	●	--
c. HPV immunisation coverage - girls				
Total	61%	75%	●	▼
Māori	59%	75%	●	▼
Pacific	71%	75%	●	▲
Asian	68%	75%	●	▼
Other	57%	75%	●	▼

Primary Care - Auckland DHB

	Actual	Target		Trend
e. PHO enrolment				
Total	83%	90%	●	▲
Māori	74%	90%	●	--
Pacific	98%	90%	●	▲
Asian	70%	90%	●	▲
Other	90%	90%	●	--
d. Diabetes management				
Total	*61%*	*62%*	●	▲
Māori	*52%*	*62%*	●	▲
Pacific	*48%*	*62%*	●	--
Other	*68%*	*62%*	●	▲

Primary Care - Waitematā DHB

	Actual	Target		Trend
e. PHO enrolment				
Total	92%	90%	●	--
Māori	81%	90%	●	--
Pacific	99%	90%	●	▲
Asian	93%	90%	●	▲
Other	93%	90%	●	--
d. Diabetes management				
Total	*63%*	*62%*	●	▲
Māori	*51%*	*62%*	●	▲
Pacific	*52%*	*62%*	●	▲
Other	*68%*	*62%*	●	▲

Health of Older People - Auckland DHB

	Actual	Target		Trend
a. HBSS clients with Clinical interRAI	*94%*	*95%*	●	▼
ARC residents LTCF interRAI w/in 230 days of previous	90%	90%	●	▲
ARC residents HC interRAIs prior to LTCF interRAI	90%	90%	●	▲

Health of Older People - Waitematā DHB

	Actual	Target		Trend
a. HBSS clients with Clinical interRAI	*98%*	*95%*	●	▼
ARC residents LTCF interRAI w/in 230 days of previous	90%	90%	●	▼
ARC residents HC interRAIs prior to LTCF interRAI	81%	90%	●	▲

How to read

Performance indicators:

- ● Achieved/ On track
- ● Substantially Achieved but off target
- ● Not Achieved but progress made
- ● Not Achieved/ Off track

Trend indicators:

- ▲ Performance ***improved*** compared to previous month
- ▼ Performance ***declined*** compared to previous month
- -- Performance was ***maintained***

Key notes

1. Most **Actuals and targets** are reported for the reported month/quarter (see scorecard header).
2. ***Actuals and targets*** in *grey bold italics* are for the most recent reporting period available where data is missing or delayed.
3. **Trend lines** represent the data available for the latest 12-months period. All trend lines use auto-adjusted scales: the vertical scale is adjusted to the data minimum-maximum range being represented. Small data range may result small variations perceived to be large.

a. Mar 19
b. Denominator - New population projections for new Calendar year reporting. >100% due to mismatch of population projection and ARDS database ethnicity categorisations
c. Annual data Jun 18

d. Mar 19. Aligns with MACGF indicator; differs from MoH indicator
e. Jun 19 - enrolment data now based on National Enrolment System data and new 2019CY population projectons.

A question?

Contact:
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Planning, Funding and Health Outcomes, Waitematā DHB

3. Primary Care

3.1 Focus Area: Better Help for Smokers to Quit

DHB Target: 90% of Primary Health Organisation (PHO) enrolled patients who smoke have been offered help to quit smoking by a health care practitioner in the last 15 months.

The 'Better Help for Smokers to Quit' result is reported as a National Health Target (NHT). In quarter four 2018/19 both DHBs narrowly missed achieving the target with Auckland DHB performance at 89.1% and Waitematā DHB at 88.4%. The national average for quarter four 2018/19 is 86%.
At a PHO-level, only ProCare (for both Auckland and Waitematā DHBs) achieved the primary care 'Better Help for Smokers to Quit' health target. Table 1 below has the results by PHO for quarter four.

Table 1: PHO Results for Better Help for Smokers to Quit 90% Target (Quarter 4, 2018/19)

DHB	PHO	Performance %
Auckland DHB	Auckland PHO	86.1%
	Alliance Health Plus	78.4%
	National Hauora Coalition	87.6%
	ProCare	91.2%
Waitematā DHB	Comprehensive Care	84.1%
	ProCare	91.6%

All PHOs have set up systems and provided support to encourage general practices to provide brief advice directly to patients themselves. The goal has been for general practices to become self-sufficient in the routine provision of brief advice about smoking cessation. For the past several years, in addition to supporting practices to establish and embed this practice, PHOs have also provided direct assistance to general practices that are not meeting the target. PHO staff have done this by contacting patients on behalf of the practice to offer brief advice about smoking cessation. While this approach leads to a higher health target result, it does not, of itself, embed the offer of brief advice into everyday consultations. ProCare is still providing phone and text support on behalf of their practices and has thus achieved a higher result than other PHOs that are no longer doing this or doing less of it.

The results are shown in the Scorecard under Health Targets as well as in Figure 1 below:

- Auckland DHB – 87.3%, ↑1.8% from the previous quarter
- Waitematā DHB – 86.6%, ↑1.8% from the previous quarter

3.2 Diabetes Management

Metro Auckland DHBs and PHOs are committed to improving population health outcomes for people with diabetes. To help achieve this goal, five regionally agreed diabetes and cardiovascular disease (CVD) clinical indicators have been prioritised for monitoring performance. All (seven) metro Auckland PHOs have been reporting anonymised practice level data relating to these five clinical indicators since June 2017. Performance against these indicators is being reported to the Metro Auckland Clinical Governance Forum (MACGF) and the Auckland Waitematā Diabetes Service Level Alliance (DSLA).

Tables 2 and 3 below outline results for the five MACGF diabetes and the CVD clinical indicators as at 30 June 2019 and compare this to the performance as at 31 March 2019 to highlight changes in the intervening quarter.

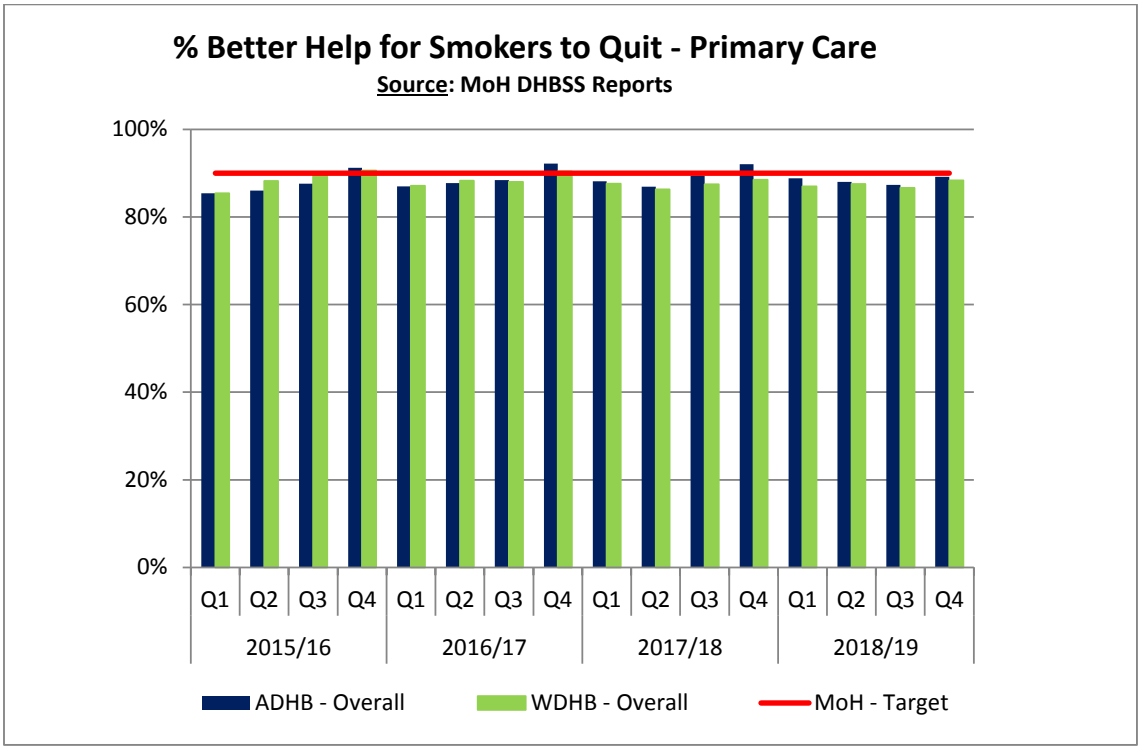

Figure 1: Auckland and Waitematā DHBs 'Better Help for Smokers to Quit' performance (Q4, 2018/19)

3.2.1 Auckland DHB Diabetes Clinical Indicators

It is positive to see that most of Auckland DHB's quarter four 2018/19 results for diabetes and CVD indicators have moved closer to target, compared to the previous quarter's result. Blood pressure control, for example, shows a 4% improvement for Māori, a 9% improvement for Pacific, and a 5% improvement for total population groups. Please refer to Table 2.

3.2.2 Waitematā DHB Diabetes Clinical Indicators

The Waitematā DHB's picture over quarter four 2018/19 shows indicator results falling further behind the target, compared to last quarter, except in microalbuminuria management, which has seen improvement for the Pacific population (Please refer to Table 3). The main driver for this decline relative to target is likely to be a data extraction issue associated with the switchover to using the Ministry of Health National Enrolment Service (NES). One large practice in Waitematā DHB has had difficulty linking the old patient identifiers stored in the Patient Management System (PMS) to the new patient identifier in NES. This has meant that clinical information previously provided in quarterly data uploads is no longer attached to the patient, which has led to a decrease in the numerator across all MACGF indicators. Other practices may also be affected. PHOs are all actively working to identify if this issue affects their PHO and to develop a process for resolving this issue. As a result of this data extraction issue, the data provided for Waitematā DHB in this update needs to be read with caution.

Quarter four 2018/19 is the first time we have received 100% of Comprehensive Care's practice data. The impact of this improvement in data provision has been overshadowed in Waitematā DHB by the above mentioned issue with the switchover to NES.

Table 2: Auckland DHB performance against the MACGF diabetes and CVD clinical indicators as at 30 June 2019[1] compared to performance as at 31 March 2019.

Clinical Indicator	Goal	Auckland DHB			
		Māori	Pacific	Total	Total number required to reach the indicator target
Clinical Indicators – Long Term Conditions Management – Diabetes					
HbA1c Glycaemic control: Percentage of enrolled patients with diabetes (aged 15 to 74 years) who have good or acceptable glycaemic control (latest HbA1c less than or equal to 64mmol/mol) recorded in the last 15 months	**80%**	51% (no change)	49% (↑ 1%)	**61%** (no change)	**4,459**
Blood pressure control: Percentage of enrolled patients with diabetes (aged 15 to 74 years) whose latest systolic blood pressure recorded in the last 15 months is <140mmHg	**80%**	61% (↑ 4%)	64% (↑ 9%)	**66%** (↑ 5%)	**3,430**
Management of Microalbuminuria: Percentage of enrolled patients with diabetes (aged 15 to 74 years) who have microalbuminuria in the last 18 months and are on an ACE inhibitor or Angiotensin Receptor Blocker	**90%**	75% (↑ 2%)	79% (↑ 4%)	**78%** (↑ 5%)	**742**
Clinical Indicators – Long Term Conditions Management – CVD					
CVD Secondary Prevention: Percentage of enrolled patients with known cardio-vascular disease who are on triple therapy (Statin + BP lowering agent + Antiplatelet/Anticoagulant)	**70%**	59% (↑ 3%)	66% (↑ 4%)	**62%** (↑ 3%)	**837**
CVD Primary Prevention[2]: Percentage of enrolled patients with cardio-vascular risk ever recorded >20%, (aged 25 to 74 years, excluding those with a previous CVD event) who are on dual therapy (statin + BP Lowering agent)	**70%**	46% (↑ 2%)	55% (↑ 4%)	**49%** (↑ 2%)	**1,505**

[1] Data Source: Numerator and denominator are extracted from the PHO enrolled data. The denominator is different to denominators provided in previous CPHAC reports and Ministry of Health reports.

Table 3: Waitematā DHB performance against the MACGF diabetes and CVD clinical indicators as at 30 June 2019[2] compared to performance as at 31 March 2019.

Clinical Indicator	Goal	Waitematā DHB			
		Māori	Pacific	Total	Total number required to reach the indicator target
Clinical Indicators – Long Term Conditions Management – total population with diabetes					
HbA1c Glycaemic control: Percentage of enrolled patients with diabetes (aged 15 to 74 years) who have good or acceptable glycaemic control (latest HbA1c less than or equal to 64mmol/mol) recorded in the last 15 months	**80%**	45% (↓5%)	48% (↓3%)	**59%** (↓3%)	**3,504**
Blood pressure control: Percentage of enrolled patients with diabetes (aged 15 to 74 years) whose latest systolic blood pressure recorded in the last 15 months is <140mmHg	**80%**	57% (↓6%)	63% (↓3%)	**61%** (↓4%)	**3,234**
Management of Microalbuminuria: Percentage of enrolled patients with diabetes (aged 15 to 74 years) who have microalbuminuria in the last 18 months and are on an ACE inhibitor or Angiotensin Receptor Blocker	**90%**	74% (↓2%)	79% (↑ 2%)	**75%** (↓1%)	**563**
Clinical Indicators – Long Term Conditions Management – total population with CVD or with a >20% risk of CVD					
CVD Secondary Prevention: Percentage of enrolled patients with known cardio-vascular disease who are on triple therapy (Statin + BP lowering agent + Antiplatelet/Anticoagulant)	**70%**	55% (↓ 4%)	58% (↓ 8%)	**58%** (↓2%)	**1,287**
CVD Primary Prevention: Percentage of enrolled patients with cardio-vascular risk ever recorded >20%, (aged 25 to 74 years, excluding those with a previous CVD event) who are on dual therapy (statin + BP Lowering agent)	**70%**	46% (↓3%)	44% (↓12%)	**45%** (↓2%)	**1,502**

[2] Data Source: Numerator and denominator are extracted from the PHO enrolled data. The denominator is different than that for previous CPHAC reports and Ministry of Health reports.

3.2.3 Activities to improve performance against the MACGF diabetes and CVD clinical indicators
Prior to the June 2019 data upload, which has significant data issues affecting Waitematā DHB, we were starting to gain traction against these clinical indicators. However, improving performance against these clinical indicators requires a multi-pronged long-term approach.

The PHOs have socialised these indicators across primary care, predominantly through the inclusion of these indicators in dashboards. This allows practices to compare their performance against their peers, in their own PHO network, and to identify patients at a National Health Index (NHI) level who require recall and follow up in regard to their diabetes and CVD care.

PHOs are actively supporting their practices to achieve these targets through the use of data to support quality improvement, individualised practice support, especially for those furthest from meeting the clinical targets, and network wide updates as well as education and mentoring. Additional support has been offered including support for nurse led clinics, further data analysis and detailed audits on areas for improvement. Many practices have clinical champions although to date the activity has mostly been focused on both the System Level Measures and National Focus Areas (previously known as Health Targets).

There are significant opportunities for peer discussion and learning as these indicators are also discussed in a number of peer group forums. This allows the opportunity for shared learnings across the practices' PHO network. Opportunities for cross PHO learning are occurring at the Metro Auckland CVD Working Group and the Auckland Waitematā DSLA.

Some practices require additional support to achieve these targets, and this support is often individualised for the needs of each practice/population they serve, but on the whole, this support includes:

- Workforce development, including supporting nurse led care/clinics.
- Use of real time NHI level data to identify patients needing additional support/recall and to identify quality improvement activities.
- Identifying champions within the practice to lead this work and take accountability.
- Discussions on ways to improve patient engagement and health literacy.

3.2.4 Summary of each indicator by DHB and ethnicity
All PHOs are undertaking a number of activities designed to improve equity of health outcomes. These activities are briefly summarised below:

- Providing practices with information on Māori and Pacific who are not reaching the MACGF clinical indicator targets and encouraging practices to focus their efforts on working with these patients.
- Supporting practice staff to complete cultural competency training, including training on the Treaty of Waitangi.
- Support for improving the health literacy of patients and their whānau.
- Implementing nurse led clinics which aim to improve equity specifically by increasing consultation time with the aim of improving patient relationships with health professionals and the general practice.
- Workforce development to recruit Māori clinical staff across the PHO network and support Māori staff into leadership roles.
- Service reviews to understand barriers to achieving equity of outcomes, and updating programmes to address gaps.

As illustrated below in figures 2 to 9, despite PHOs providing strong leadership to improve equity of outcome, there continue, to be disparities in health outcomes by ethnicity across the MACGF diabetes and CVD clinical indicators.

3.2.4.1 Auckland DHB - by Ethnicity

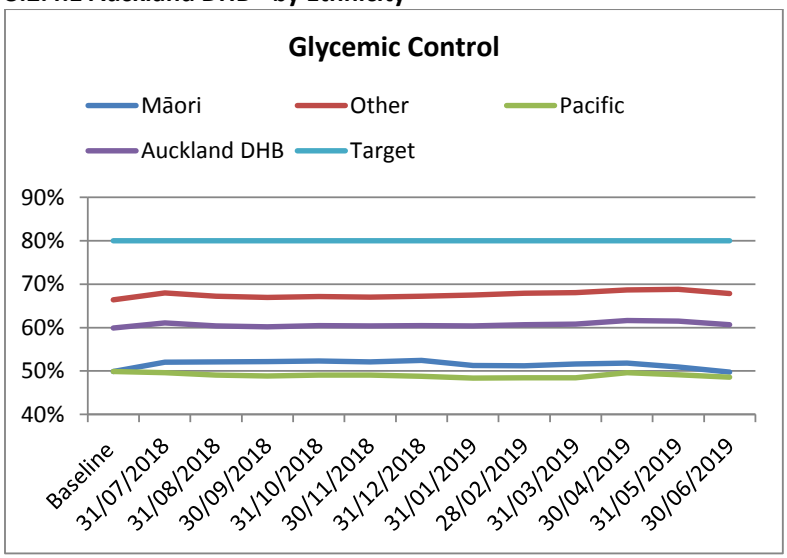

Figure 2: Auckland DHB Glycaemic Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

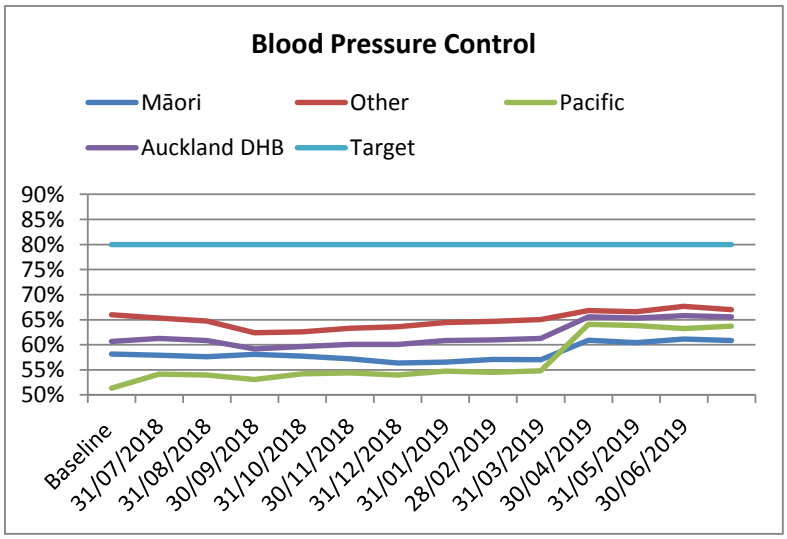

Figure 3: Auckland DHB Blood Pressure Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

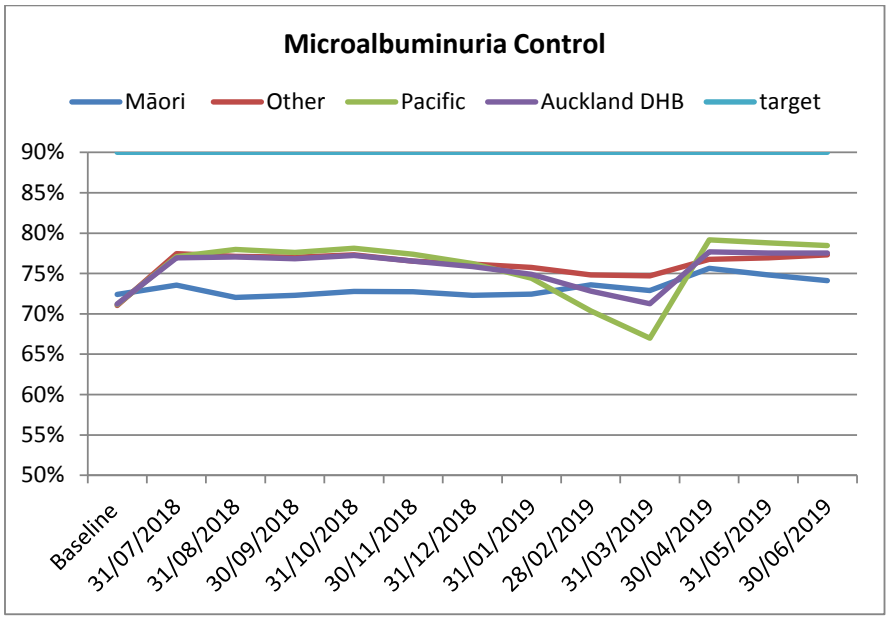

Figure 4: Auckland DHB Microalbuminuria Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

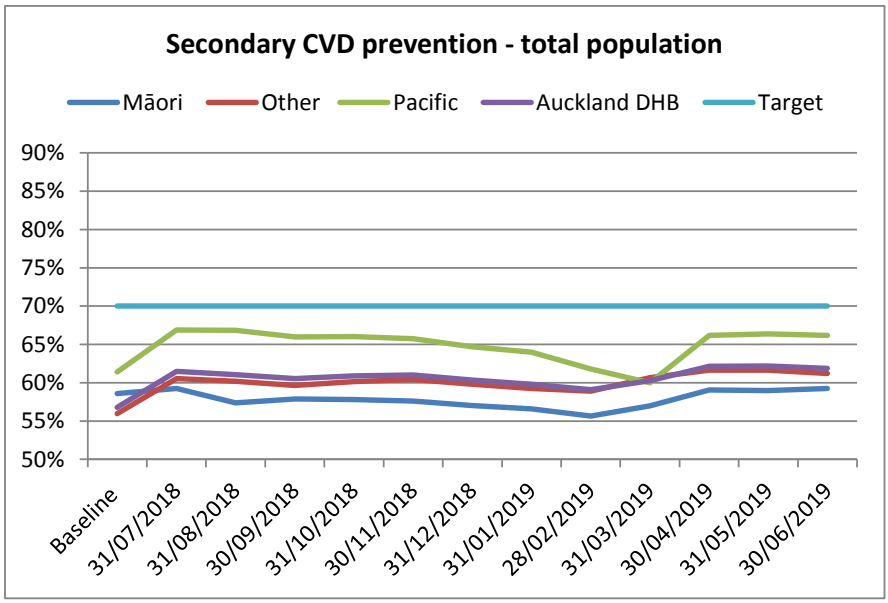

Figure 5: Auckland DHB Secondary CVD prevention, total population, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

3.2.4.2 Waitematā DHB - by Ethnicity

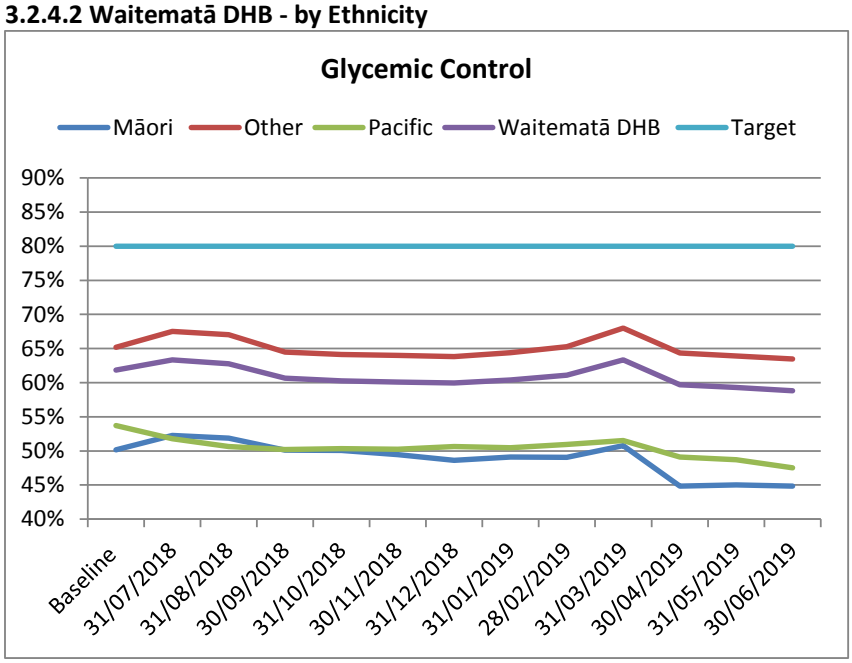

Figure 6: Waitematā DHB Glycaemic Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

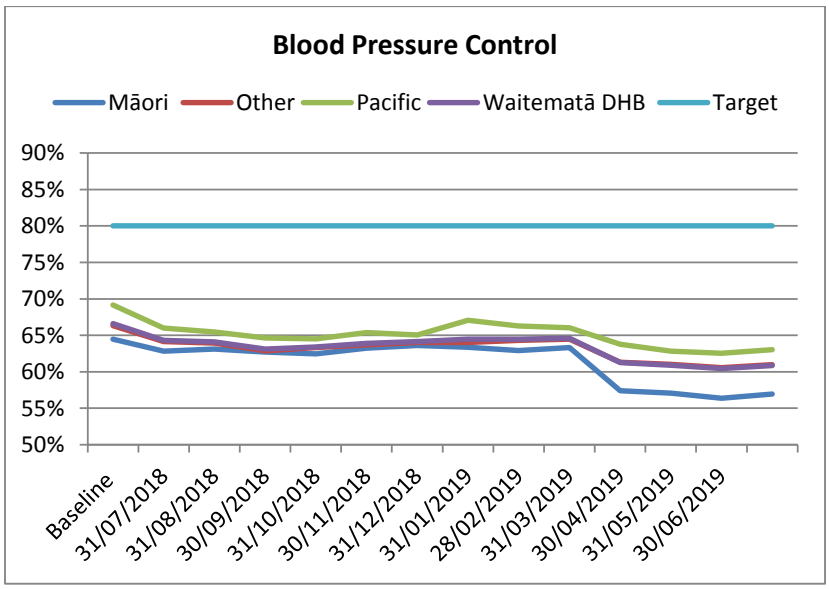

Figure 7: Waitematā DHB Blood Pressure Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

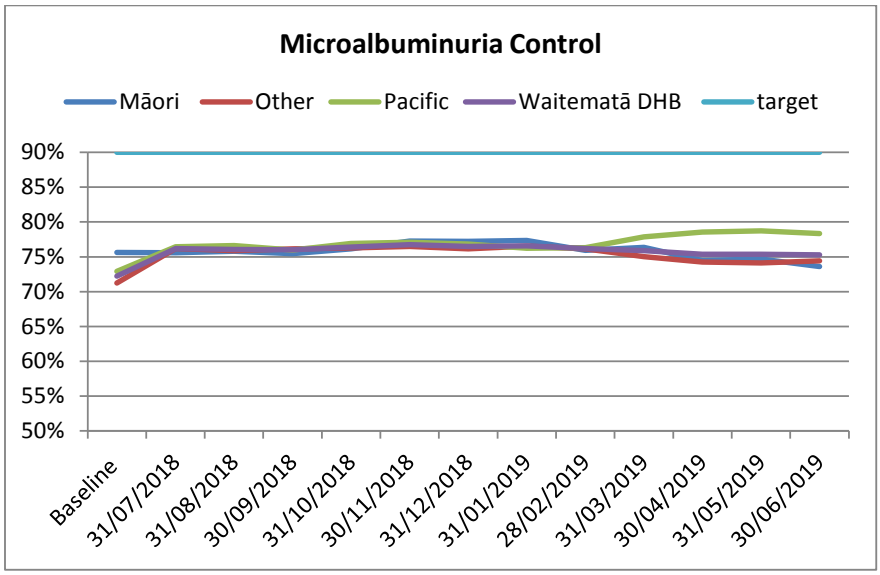

Figure 8: Waitematā DHB Microalbuminuria Control, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

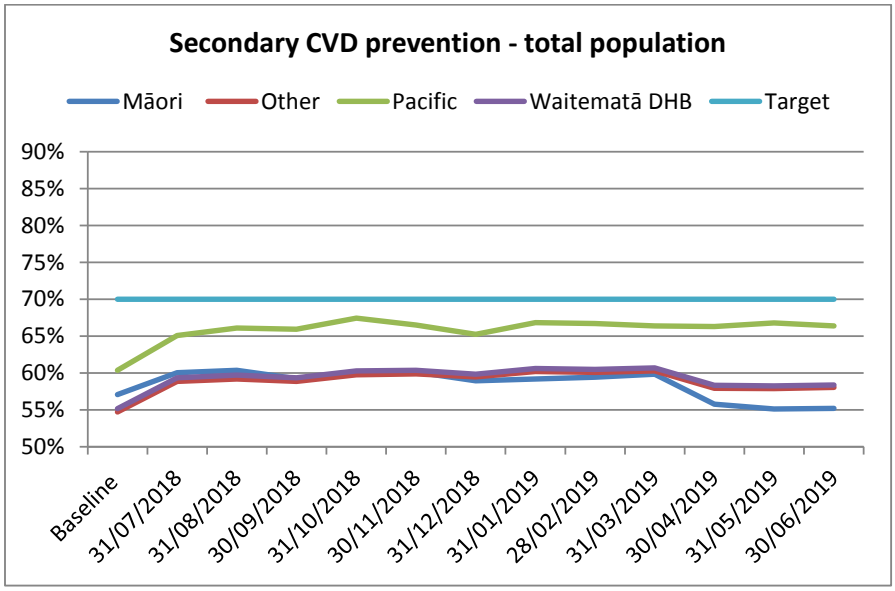

Figure 9: Waitematā DHB Secondary CVD prevention, total population, by ethnicity, against the MACGF diabetes clinical indicator – Glycaemic Control (Baseline (31 December 2017) to June 2019)

3.2.5 Data quality issues affecting this quarter's data

The data capture achieved by primary care continues to improve with each data upload. Quarter 4 2018/19 was the first quarter to include 100% of practice data for Alliance Health Plus and Comprehensive Care. This is reflected on the above graphs as a significant shift in the data, which is a result of an increase in the denominator, which generally makes the indicator appear to shift downwards.

The main data issue clouding the June 2019 upload is the issue with the NES switchover, but it is hoped that this issue will be resolved in time for the September 2019 upload.

There continues to be data extraction issues that have resulted in data not being available for 18 out of 236 (8%) practices across Auckland and Waitematā DHBs. The PHOs are working to resolve these issues, but for a small number of practices, these issues will not be resolved until the practices concerned move to a new practice management system.

3.3 Cardiovascular Disease (CVD) Risk Assessment

The quarter 4 of 2018/19 (April to June 2019) data was reported in the August 2019 CPHAC report. Data for quarter 1 of 2019/20 (July to September 2019) was not available in time for the October 2019 CPHAC report and will therefore be presented in the next CPHAC report.

4. Child, Youth and Women's Health

4.1 Immunisation

4.1.1 Childhood Immunisation Schedule Vaccinations

Provisional results for the former Immunisation Health Target (now being referred to as a Focus Area) for Quarter 1 of 2019/20 indicate that Auckland DHB achieved the 95% target for babies being immunised by 8 months of age, up from 93% last quarter. Māori coverage improved over the quarter to 88%, up from 82% last quarter. Pacific coverage remains stable at 92%.

Coverage improved in Waitematā to 93%, up from 92% in Quarter 4 of 2018/19. This is above the national average of 91% although the 95% target was not attained. Waitematā Pacific children did meet the 95% target and Tamariki Māori coverage was 88%, an improvement from 85% of the last quarter.

Auckland DHB's analysis shows an improvement in vaccine hesitancy for tamariki Māori, halved over the last quarter to 3.1% (4 tamariki), from 6.5% last quarter. Vaccine hesitancy remains high in Waitematā, stable at 6% (18 tamariki). We have undertaken an analysis of each milestone age for Tamariki Māori, to identify practices that have strategies to learn from, and those that need more support. New immunisation posters developed as part of the Māori co-design work have been distributed to primary care practices via the Immunisation Coordinators with positive feedback.

The Ministry of Health has signalled a move in emphasis expecting that in 2019/20 DHBs will contribute to child wellbeing and healthier populations by establishing innovative solutions to improve and maintain high immunisation rates at all childhood milestones from infancy to 6 years of age. Auckland DHB's coverage at 24 months of age is stable at 93% while there has been a slight decrease at 5 years of age to 88% (89% last quarter). Previous improvement in Waitematā DHB has not been sustained this quarter, with coverage at 24 months at 91%, down from 93% last quarter and coverage at 86% for 5 year olds, down from 87% last quarter.

Both DHBs are above the National average coverage at all the key milestones: 24 month (91%), and 5 year old (88%).

Work on the immunisation data clean-up collaboration with PHOs has finished, and the learnings were presented at the Immunisation Conference in September. The report is being finalised.

Papers presented by the team at the New Zealand (NZ) National Immunisation Conference in September 2019 were:

- Why messages don't make it: an National Immunisation Register (NIR) and practice data comparison

- Improving Influenza vaccination coverage in eligible 0-4 year olds in Auckland and Waitematā DHBs
- Giving voice to the silent majority – social media tales from the WEST
- Mumps outbreak immunisation Programme, "Community Immunity" in Auckland and Waitematā DHBs
- Activities to improve antenatal pertussis immunisation coverage (Poster)

4.1.2 Measles

The ARPHS Update paper details the number of confirmed cases in the Auckland region. The majority of cases have been within Counties Manukau, however both Auckland DHB and Waitematā DHB have over 200 cases each. There are now cases throughout the country including Northland and Waikato.

The Ministry have formed a National Health Coordination Centre (NHCC) and the Metro Auckland area an Incident Management Team (IMT). The IMT group has been managing the limited supply of Measles, Mumps Rubella (MMR) vaccine available. Priority is being given to children under 5 years of age obtaining their scheduled immunisations, with children in metro Auckland eligible to have MMR from 12 months of age. There is also a priority for unimmunised people under 30 years of age with a particular focus on Pacific and Māori. Pacific and Māori have experienced the highest rates of hospitalisation, with children, under the age of two years, particularly hard hit. Based on clinical judgement infants aged 6 – 12 months (who would then need two further doses of MMR) and others may also be vaccinated.

Demand for MMR vaccine has been very high, running at nearly double the rate over the same period last year. A community clinic held at Waitakere Hospital in early September had nearly 500 attendees. We are working with our Outreach Immunisation Service to provide opportunistic catch-up measles vaccine for the whānau of children who are being vaccinated in their homes. Starship and Waitakere Hospitals have also been offering MMR vaccines to meet clinical priorities, such as the parents of babies in Neonatal Intensive Care Unit (NICU).

4.1.3 Antenatal Immunisation

The SMILE (Smoke and alcohol free, Mental wellbeing matters, Immunise, Lie on your side and Eat healthily) concept was well received at the NZ National Immunisation conference. The distribution of this resource is being finalised.

Coverage to June 2019 demonstrates that the combined strategies have increased antenatal immunisation uptake. Uptake in Auckland DHB has almost doubled from 36.3% in Quarter 1 of 2016 to 62.8% in Quarter 2 of 2019, with an average coverage of 56.5% in the 12 months to June 2019. A similar trend is shown in Waitematā DHB where coverage has improved from 27.2% in Quarter 1 of 2016 to 56.3% in Quarter 2 of 2019, with an average coverage of 52.2% in the 12 months to June 2019.

The greatest improvement has been for Māori and Pacific, however there remains an equity gap. In the 12 months to June 2019, Māori coverage averaged 32.3% in Auckland DHB and 31.6% in Waitematā DHB. Pacific coverage averaged 37.8% in Auckland DHB and 33.2% in Waitematā DHB in the 12 months to June 2019.

The national shortage of influenza vaccines will have affected antenatal vaccine coverage, despite the Ministry confirming pregnant women were the top priority for remaining stock. The shortage was resolved in early July when further stock was obtained.

4.2 National Child Health Information Platform and NIR Transition

The design phase is progressing to implement the National Child Health Information Platform (NCHIP). NCHIP will provide a point-of-care view of each child's progress through the universal health milestones from 0 to 6 years of age.

Following a consultation process in January this year, Auckland and Waitematā DHB Boards approved proceeding with changes to the coordination support for universal child health services. This includes DHBs forming the Child Health Connection Centre (formerly referred to as Child Health Information Link (CHIL) Hub) to connect health services with families. Te Runanga o Ngāti Whātua have gifted the Centre a name and whakataukī

Uri Ririki – he taura o te ate
The young progeny – the strings to the seat of one's emotions

Uri Ririki – Child Health Connection Centre will become responsible for the local administration of the NIR as well as NCHIP. It is the intention that the Outreach Immunisation Service (OIS) will remain with the current provider, HealthWEST. A transition plan is underway working with key stakeholders to ensure that immunisation coverage for children is not affected by the change in administration.

A communications plan has been developed in conjunction with Northland DHB to inform parents, caregivers and health providers about the launch of Uri Ririki – Child Health Connection Centre. This includes the distribution of posters and information leaflets through health providers, social media and online. Details can be located on the health point page which is being updated with new information for health providers and whānau as the project is rolled out.

A transition group has been formed to oversee the critical success factors for repatriation of the NIR which is scheduled to go live 1 November 2019.

4.3 Maternity

Maternity services remain under pressure for the coming summer period December through January as the availability of self-employed midwives in the community is limited.

The Ministry of Health (MoH) signalled consultation on the primary maternity service commissioning model design, for consumers and the workforce in in July 2019. Outcomes of the consultation and other aspects of the Maternity Improvement Plan from MoH are awaited with interest.

A review of the National Breastfeeding Strategy is underway, led by MoH. Tongue tie guidance for infants is also under development by the MoH with input from clinical leaders. Both of these are expected to be completed late 2019.

4.4 Healthy Housing

Kāinga Ora as part of the Healthy Homes Initiative Services around the country were the winners of the State Services Commission's Spirit of Service awards, in the category of Better Outcomes, Te Tohu mō ngā Hua E Pai Ake Ana. The Healthy Housing Initiative was also the winner of the Prime Minister's overall award, Te Tohu a te Pirimia for the Spirit of Service Awards. This award reflects the whole programme of Healthy Housing Initiatives in 11 DHBs in the North Island. The programme is a collaborative initiative between the Ministry of Health, Housing New Zealand and Ministry of Social Development.

The Auckland and Waitematā DHBs Healthy Housing Initiative, Kāinga Ora, is delivered by a dedicated team in Planning, Funding and Outcomes (PFO) and by social work providers contracted

with Auckland DHB and Waitematā DHB social work teams as well as community provider Te Puna Manawa HealthWEST. Many collaborative relationships have been developed to support the provision of supportive interventions for whānau which all contribute to the success of the programme.

He Kāinga Oranga/Housing and Health Research Programme at Otago University has delivered a first tranche of results of the outcomes evaluation for the Healthy Housing Initiative. The results of the evaluation to date show a dramatic positive impact for the programme across the country. The results for the evaluation of the national programme estimate that for every ten children referred to the programme, there were six fewer filled prescriptions, six fewer General Practitioner (GP) visits and one less child in hospital over the next year, for each child referred to the programme. This results in an overall savings to the health service of around $10.4 million dollars per year. Our Kāinga Ora Healthy Housing Initiative in Auckland and Waitematā DHBs continues to support the national Healthy Homes Initiative evaluation and we look forward to the further research looking into the wider benefits of the programme.

Kāinga Ora continue to focus on supporting pregnant women and new parents as part of an early intervention approach. Work to ensure all eligible pregnant women are referred to the service is on-going, building upon steady referrals over the past 2 years. As at 30 September 2019, Auckland and Waitematā DHBs had received 2,034 referrals to Kāinga Ora. This included 8,163 family members getting access to healthier home interventions. Of the referrals received, nearly 35% (706) were for families with a newborn baby or hāpu woman. As part of the social work interventions, these women may be referred to smoking cessation services or immunisation, amongst other interventions such as entitlements available through the Ministry of Social Development (MSD). E-referrals for primary care are now live and being used.

The PFO Programme Manager covering Kāinga Ora has been seconded to the Ministry of Health to support the national programme.

4.5 Cervical and Breast Screening

The National Cervical Screening Programme (NCSP) is working to implement a change in the age of entry to the programme from 20 to 25 years in November 2019. The increase in age of entry to the screening programme was originally signalled to occur alongside other changes in the screening programme, including test technologies. However, whilst some of those programme changes have been pushed out into later years, the decision to implement the age change is moving forward. Internationally, most programmes now start at 25 or 30 years of age as evidence supports the later starting age. This is because, although cervical screening programmes have been highly successful at reducing cervical cancer incidence and mortality, for the under 25 years age group, the programmes are shown to not demonstrate the same benefits and effectiveness.

Our Coordination service is supporting the change by working alongside the National Screening Unit to provide advice for the implementation of the change programme. We have been able to link the NCSP programme managers in with our Metro Auckland Cervical Screening Operations Group, including primary care and other stakeholders, to feed into the preparations for the change programme. We continue to promote and link communications from the National Screening Unit to primary care and other cervical screening providers and stakeholders.

The Health Promotion Agency has been commissioned to develop an information campaign for the NCSP, which focuses on younger women, to run early next year. This will be the first public promotion campaign for the Cervical Screening Programme in a number of years. Our team have supported the engagement with stakeholders for feedback on the development of the campaign and will continue to provide support as appropriate.

5. Health of Older People

5.1 Aged Residential Care

The Aged Residential Care (ARC) Funding Model Review was released in September; this is a comprehensive report prepared by Ernst Young over a period of 18 months. The ARC sector has changed significantly since the last funding review conducted almost 20 years ago. The average age of entry to ARC has increased to 85 years, with residents more frail than in the past. Over half of residents have some form of cognitive limitation, and many have multiple co-morbidities. The median length of stay is now around 18 months.

Given the changing profile of residents, the existing funding model's four levels of care (rest home, hospital, secure dementia and secure psychogeriatric) are not sensitive to the range of needs in ARC. 90% of residents fall within the rest home and hospital categories with providers expected to manage a diverse range of needs within a single category.

A key recommendation from the Review is to expand the levels of care/care categories using an internationally validated approach – the interRAI Resource Utilisation Group (RUG) approach. This approach uses an algorithm to allocate people to different care categories based on the needs that best predict the level of resource they may require.

Transition to a RUG approach would require reasonably significant work (and change) with the first step being design and modelling of the RUGs. The decision on whether to move to the design stage is currently under discussion with DHBs.

The Report also includes rich information on trends in ARC use and type, and highlights a range of important consideration for DHBs in planning for the ageing population. The full report can be accessed at the link below.

https://tas.health.nz/dhb-programmes-and-contracts/health-of-older-people-programme/aged-residential-care-funding-model-review

5.2 Home and Community Support Services

The national Home and Community Support Services (HCSS) Framework is due to be finalised and DHBs have also agreed to develop a national service specification and case mix algorithm to reduce variation in HCSS across DHBs. Planning and Funding has representatives on the working groups developing these national components of HCSS.

The existing Auckland DHB HCSS model aligns with the proposed approach to the service specification and case mix. However, it will be a significant change for Waitematā DHB, which currently operates a fee for service model.

Planning and Funding has engaged with the Health Quality Safety Commission (HQSC) who will present a workshop to the Auckland DHB HCSS providers in October on 'developing leadership for quality and safety'.

5.3 Family Funded Care

The Government has announced changes to Funded Family Care Policies, including DHB Paid Family Carer Policies, to take effect in 2020. The changes include:

- Repeal of Part 4A of the New Zealand Public Health and Disability Act 2000
- Change to eligibility to allow:
  - Spouses and partners to provide Funded Family Care to people with high or very high support needs
  - Children and young people under the age of 18 with high or very high support needs to receive Funded Family Care from resident parents or family members (who are over 18).

The existing DHB policy enables people with high and very high needs, who are eligible for HCSS, to have a paid family carer. The carer is employed by one of the DHB's contracted HCSS providers. The changes will extend to who is eligible to be a paid family carer under the DHB policy. Currently the MoH is finalising working arrangements with DHBs to deliver these changes in 2020.

6. Mental Health and Addictions

6.1 Government Inquiry into Mental Health and Addiction Services (He Ara Oranga) and the Wellbeing Budget

On 30 May 2019, the Wellbeing budget announced 1.9 billion over four years for mental health and addictions (1.5 billion for Vote Health). These allocations included:

1. $455M for a new frontline service for people with mild to moderate mental health and addiction issues with services to be delivered from GP practices, iwi health services and other health services, and
2. $44M to improve and enhance existing specialist drug addiction services.

Expanding access to primary mental health and addiction support has been identified as a key priority. Both Auckland and Waitematā DHBs have been funding primary mental health initiative pilots with no revenue streams identified. These initiatives have comprised Health Improvement Practitioner, and Health Coach roles delivered by PHOs, and Non-Government Organisations (NGO) primary level support services (Awhi Ora), all in general practice. The MoH has now entered into contracts with the DHBs to fund these pilots, from 1 July 2019 to 30 June 2020.

A Request for Proposal (RFP) was released nationally, for integrated Primary Mental Health Services, with submissions required on 24 October 2019. A requirement of the RFP is that proposed services be developed collaboratively between DHBs, PHOs, NGOs, Māori, Pacific peoples, those with lived experience, and whānau. A metro Auckland approach to the development of the RFP submission has been taken, with a representative regional steering group to oversee the process, and a working group to develop the submission.

The Ministry of Heath have also notified DHBs of the release of $10.5million per annum nationally (of which $3 million is allocated to the Northern region), primarily to fund DHBs to improve the financial sustainability of NGO Alcohol and Drug services. Proposals are required by 31 October 2019. A regional approach is in place to develop this proposal, with collaboration with the Alcohol and Drug sector.

6.2 LookUp 2019

A successful LookUp event for youth mental well-being was held on 15 August 2019. The annual event was held this year at Te Oro Music and Arts Centre in Glen Innes. The event was supported by

the neighbouring Ruapotaka Marae, providing pōwhiri for the visiting groups (see photo below left). The theme for 2019 was #connectmewhakawhanaunga, drawing on the theme of 'Connecting': identified by the Mental Health Foundation as one of the five ways to well-being. Figure 10 below shows the participants' response to LookUp was a deeper understanding of the importance of connection to mental well-being.

Ruapotaka Marae, providing pōwhiri for LookUp

LookUp Support team

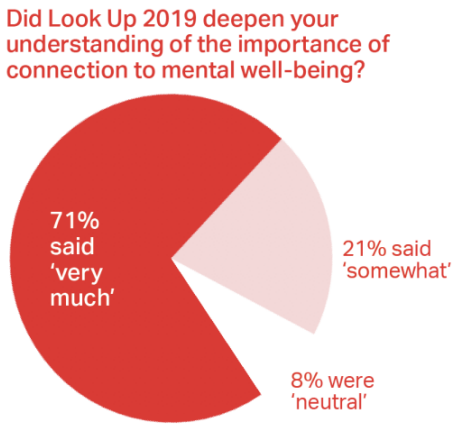

Figure 10: Effect of LookUp on understanding of the importance of Connectedness.

Auckland DHB funds LookUp. NGOs, in particular, Kāhui Te Kaha and Connect Supporting Recovery (now known as Ember) continue to provide great support for the event. Kāhui Te Kaha delivered excellent event management, and a great team of volunteers on the day (see photo above of some of the support team, made up of Kāhui Te Kaha staff volunteers and the Youth Action team).

The day was well attended, with 170 registrations, and 150 attendees on the day There was representation from eleven colleges across Auckland, Odyssey Youth and Emerge Aotearoa Youth Support Service, Auckland University and UNITEC and Figure 11 shows the cultural composition of young people who attended. Twelve service providers held interactive stalls, including Rainbow Youth, Odyssey Youth, Community Alcohol and Drug Services (CADS), Altered High, Youthline and Family Planning.

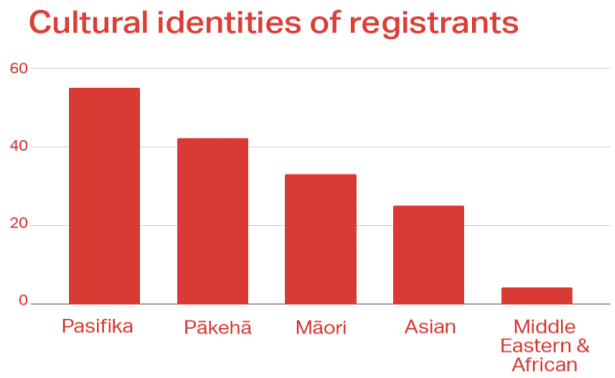

Figure 11: Self-Identified Ethnic Group

The structure of the day included inspirational guest speakers and a series of workshops in the afternoon. See below Figures 12 and 13 for feedback from participants.

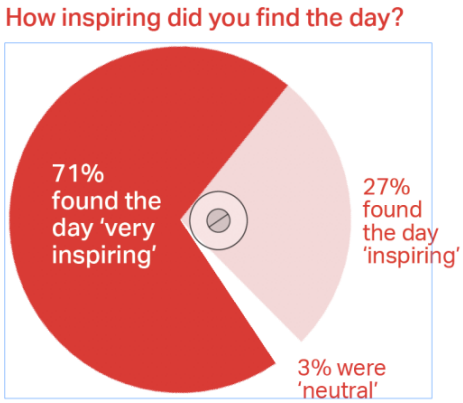

Figure 12: Responses to inspiration

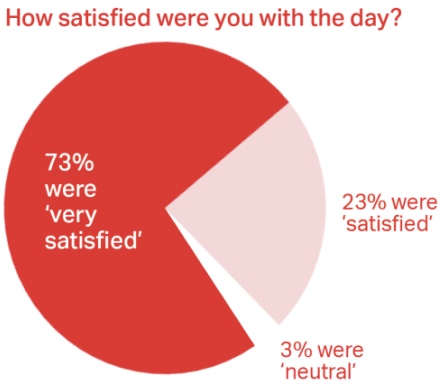

Figure 13: Responses to satisfaction

A number of wellbeing questions were put to the young people on the day including:

1) What do youth do when stressed or upset?
   The key themes which emerged were:
   Relax, Express, Seek support, Keep to self, and Fix.

2) What do youth wish was available?
   A range of responses emerged including:
   "Mental Health Day, time to do stuff, see someone, having a cry room at school, healthy communication with my parents, an emotional/mental support dog since my mental health isn't very stable, chill rooms where they play chilled/relaxing music and it's quiet, anti-stress pills, more acceptance of flexibility in work, support group at school, that Mental Health is seen the same as any physical illness and treated the same, cheaper mental health professional access! Like have people that are really funny, chill spots in school/university."
   "more services at school - staff are busy, probably peer support groups! I feel they are needed in every single cluster of suburbs. They're more accessible and sometimes people are able to speak out more in small group, if I was back at school, I would have loved to have more mindfulness sessions and less assessments!"

3) What is the most useful support for youth mental wellbeing?
From the responses to this question, four key themes emerged. Friends, family and mentors was the most dominant theme (see Figure 14 below)

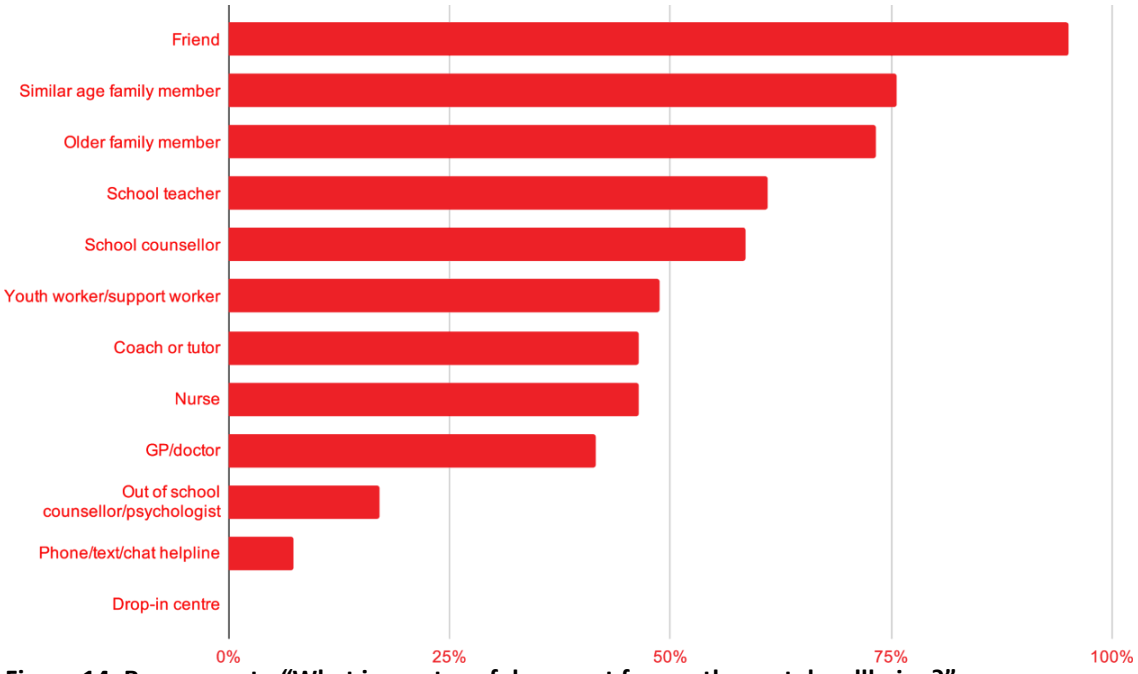

Figure 14: Responses to "What is most useful support for youth mental wellbeing?"

7. Māori Health Gain

7.1 Iwi-DHB Partnership Board

DHB and iwi representatives met in Whangarei in September to agree a partnership between parties, discuss membership for the group, and confirm the process for appointing an independent chairperson to facilitate these forums. From that meeting, a document entitled "Whanaungatanga kī taurangi" was agreed for presentation to respective boards for approval.

This document contains a high level account of the partnership between the DHBs and their iwi partners. Notably the following purpose:

"The purpose of this relationship is to work together based on enduring mutual respect through a shared vision, purpose and goals for mutually beneficial outcomes. With a long term and forward thinking approach we will invest inter-generationally to achieve Māori health outcomes and advance Māori wellbeing across Te Tai Tokerau and Tamaki Makaurau. A partnership based on Te Tiriti o Waitangi enables iwi to express tino rangatiratanga and make decisions that have immediate and enduring positive outcomes.

We will take a whole of system approach to ensure our collective resources are targeted at providing effective and high quality health services of value to whānau Māori. We will work collectively to identify and eliminate barriers experienced by Māori, while improving how decisions are made to fund, design and deliver interventions to achieve long lasting outcomes for Māori. This means that we will not be confined to a particular component of the system, but instead provide a critical and

supportive Māori view across all parts and functions of the health sector, and beyond where necessary. "

The following bold vision and Te Tiriti o Waitangi set of principles, aligned to the recently released *Hauora: Report on Stage One of the Health Services and Outcomes Kaupapa Inquiry* (WAI 2575), were also agreed to by the representatives:

Te Tai Tokerau – the birth place of the nation, a region that leads the way in caring for the wellbeing of its people and its environment

Partnership
Partnership is about mutual good faith, trust and reasonableness. All partners will work together and act in accordance to this.

Equity
At its core, the principle of equity guarantees fairness and freedom from discrimination, whether this discrimination is conscious or unconscious. As we advance Māori wellbeing, we are committed to innovation and change to achieve Māori health equity. This will involve dismantling systems and practices that have maintained or hidden health inequities between Māori and non-Māori.

Options
As Tiriti o Waitangi partners, Māori have the right to choose their social and cultural path to wellbeing. We will protect the rights of Māori to choose health and wellbeing services that value and nurture their beliefs, knowledge and strengths.

Active Protection
Active protection requires full participation in decision-making processes and judgments as to what is reasonable in the circumstances. This relates to Māori interests as part of the promises made in Te Tiriti o Waitangi where there is a commitment that all Māori culture, traditions, and taonga will be protected.

In practice these principles mean:

- The parties, in pursuit of common goals and objectives both agree to work together to uphold the wellbeing of our communities so that none get left behind and all have an equal opportunity to contribute;
- The parties will work in a manner that recognises and respects the:
    - Mana, authority and kaitiakitanga status of iwi and authority of District Health Boards who are parties to this agreement;
    - The desire of the parties to enhance the cultural, social, economic, and environmental wellbeing of all people;
    - Shared desire for effective participation by iwi to provide for empowered and more effective District Health Board governance and strong communities in Tai Tokerau; and,
    - Shared obligation to sustainably manage the Tai Tokerau wellbeing environment for current and future generations.
- The parties will show the highest levels of integrity, transparency and flexibility towards each other;
- The parties will ensure there are no surprises but a proactive intent to engage early, constructively and positively on matters of shared priority and interest; and,
- Rohe: The combined areas of the three District Health Boards of Northland, Waitematā and Auckland, at the time of signing, to now refer to Tai Tokerau District Health Boards.

A unanimous endorsement for the partnership agreement from iwi has been achieved, while we continue to consult with DHB boards for their approval. The appointment of the independent chairperson is tied to this approval process. After which, we will seek formal approval and recognition by the Minister of Health. A follow up meeting is planned for November, and quarterly meetings for 2020.

7.2 Whānau House Health Needs Assessment

7.2.1 The Enhanced Well Child Service

This service enters its second year of operation engaging with at-risk whānau in West Auckland. The model of care offers whānau access to a qualified social worker, while enrolled in Waipareira's Tamariki Ora/Well Child Service (close to 120 whānau), to access and receive additional services they are in need of. The Māori Health Gain will undertake an evaluation of the service to understand what has worked, and where further opportunities for development exist.

7.2.2 Taitamariki Substance Misuse Prevention Service

This service is operational, with formal pathways being developed amongst relevant providers and agencies in West Auckland. An oversight group has been formed between the DHB, Waipareira representatives, rangatahi representatives, and partner services in West Auckland to further drive development of the service.

A third business case is being developed in partnership with Whānau House providers.

7.3 Integrated contracts

The Māori Health Gain Team have worked closely with selected providers in the past three months to reorient their current service contracts, moreover their service specifications, towards outcomes focused contracts that address leading health priorities for their communities. This work has included in-depth analyses of their client populations and communities to determine service gaps and opportunities to further enhance their services. These enhancements will be reflected in newly developed long-term integrated contracts. This project is due to be completed by June 2020, in time for the new financial year.

7.4 Orakei Health Needs Assessment

Representatives from across Planning, Funding and Outcomes are working with Ngāti Whātua ki Orakei – Whai Maia to undertake a health needs assessment for their iwi population of roughly 5,000 registered members. Orakei have approached the DHB to work in collaboration on this project to improve the health and wellbeing of their tribal members. The proposed outcome of this project is the development of a set of interventions that Orakei could undertake and invest in across the life-course that would ensure the wellbeing of their whānau and hapū.

Orakei's population is concentrated in Auckland with members spread widely across New Zealand and in Australia. We are in the very early stages of determining the demographics and health needs of their population before moving into the development of solutions and recommending interventions of value to them.

7.5 Māori Pipeline Projects

The Māori health pipeline is currently progressing proposal development in a range of areas. A summary of recent Māori Health Pipeline activity follows. Additional areas of work will be included over time.

7.5.1 Lung cancer screening

Study 1 (qualitative study) is now underway with the series of focus groups now complete. The team received very positive feedback from key focus group members and whānau participants, and they

have expressed a wish to continue to be involved and kept up to date with developments. The survey has been piloted with Māori staff and also the focus group participants, amendments were made including the use of flash cards to elicit responses based on whānau feedback. The survey is now finalised, and a new survey tool has been added for whānau members seeking their feedback on the intervention but also their views as key collective decision makers, including what information and approaches would be relevant for them. The surveys will be undertaken in hospital and in the community. The workstreams for the broader project (including Study 2, the planned demonstration lung cancer screening project) continue to progress and report regularly to the project governance under the leadership of Associate Professor Dr Sue Crengle (University of Otago) in collaboration with a range of Māori clinicians, academics and other partners. Working with key experts, the Māori health equity re-analysis of the cost effectiveness model for lung cancer screening in New Zealand, is being finalised.

7.5.2 Alternative community cardiac rehabilitation model

Planning for a stakeholder meeting to discuss next steps is underway.

7.5.3 Alternative community pulmonary rehabilitation model

Further planning with leadership from Dr Sandra Hotu, respiratory physician, and a Māori consumer and kapa haka expert has been undertaken. Opportunities to link the work with Te Matatini (kapa haka competition in Auckland 2021) is being developed with a key member of the Te Matatini Board attending the next steering group meeting. Physiotherapist visits to experience kapa haka groups were undertaken and further work is ongoing to determine what options there are for integration of kapa haka and pulmonary rehabilitation in order to achieve the goals of each. Tikanga advice is being sought throughout this process.

7.5.4 Northern region breast screening datamatch ('500 Māori women campaign')

The total number of Māori women either not screened or overdue for screening for the Northern region is 5,274. We have strong positive engagement with the three BreastScreen Aotearoa Lead Providers. The project team, in collaboration with Lead Provider analysts, developed and tested a data collection tool to ensure that the project is able to measure its impact. The contacting of women has been underway since 1 October 2019 and is expected to continue for some months. This will be the first demonstration project nationally, and will have important learnings for the BreastScreen Aotearoa programme.

7.5.5 Māori provider and PHO datamatch

Data sharing agreements with the nominated iwi representatives have been drafted and approved. A privacy impact assessment was completed and approved by DHB and regional privacy groups. The new project Māori data governance group has been established and an initial meeting planned. The data elements have been finalised and analyst and Māori Health Gain Team members have met and planned the approach to data management to be undertake with providers.

7.5.6 Facilitated PHO enrolment

The purpose of this work is to develop a facilitated PHO enrolment process for Māori whānau that touch hospital services and are not currently enrolled with a PHO. A joint project between PFO, the Māori Health provider arm team, primary care and PHOs is under development. Exploratory data analysis are being undertaken for consideration, including data-matching to ascertain PHO enrolment in the maternity services, ED admissions, hospitalisations and for specified services and conditions. Maternity services have been identified as the initial pilot location with the potential for automated data matching to identify women not enrolled in a PHO and develop an offer of service. There are collaborative opportunities with Counties Manukau on this work (as both DHBs have the same practice management system).

7.5.7 High grade cervical screening project

Recruitment of screening operations team is complete, and the project is progressing through various approvals and data requests. The data request to the National Screening Unit (NSU) has been submitted, and the National Kaitiaki Group approval will be sought shortly. With the agreement of Counties Manukau, the project includes data for women in metro Auckland. Design work has been undertaken on the Māori values based approach to offer service to women at high clinical within the project, determination of how this looks in practice and how might be measured is on-going. Quality improvement approaches with general practice are also being developed, tested and refined in preparation for receiving the data. A research sub-project looking at the offer of human papilloma virus (HPV) self-testing for women who decline follow up is also proceeding through ethnical approval. Similar to the breast screening project, this will have important learnings nationally and for the NCSP.

8. Pacific Health Gain

8.1 Pacific Health Action Plan (PHAP) Priority 3 – Pacific people eat healthy and stay active

Seventy-seven Healthy Village Action Zones and Enua ola church and community groups have started their healthy eating and action activities for the next twelve months as set out in their annual plans. These activities include weekly Zumba sessions, walking groups, community volleyball, cooking classes and the development of healthy food policies and guidelines.

8.2 PHAP Priority 4 – Pacific People Get Help Early

The Pacific team is currently working with the Bowel Screening team to collect verbal feedback from Pacific service users about their experience of the bowel screening programme. The information gathered will be analysed and used to inform any necessary changes to improve the Pacific service user experience.

8.3 Diabetes Co-design project

The co-design project on Diabetes Care Improvement support for people with poorly controlled diabetes is currently running interviews and collating information from diabetic patients in the recruited primary care practices for phase 1. Currently, consultation is being sought on the recruitment of the practices for phase 2 of the project. The Pacific Health Gain Team is involved in the interview process with the practices, and will offer best practice ways of engaging with Pacific people, as well as providing connections with pacific communities to provide meaningful feedback to the project in the next phase. Work is on-going.

8.4 Measles outbreak

The number of measles cases across the Auckland region has steadily grown since March this year, and is most severely impacting Pacific people, contributing to nearly half of all identified cases. The Planning, Funding and Outcomes Pacific Health Gain team has supported the metro Auckland IMT in its response to the outbreak. Key messages about measles and the MMR vaccination has been promoted amongst Pacific liaison teams, key Pacific stakeholders and communities. A draft plan designed for the medium term has been developed to communicate and engage with the priority groups.

8.5 Healthy Village Action Zones and Enua ola programmes

Key stakeholder interviews and engagement with focus groups to inform the service review was completed in September. A literature review and analysis of data will be commencing in October, with a final report expected in November.

8.6 Pacific AAA

The Pacific Health Gain Team are involved with the development of a DHB-led AAA screening research project, which has been established to examine specific questions for Pacific, beginning with a pilot for Tongan men. The research team is currently being finalised, and ethical approval is awaited.

8.7 Pacific Pipeline projects

The projects under the metro Auckland Pacific pipeline are in the early stages of development and continue to be refined. One project under the pipeline is being conducted by the Pacific Public Health Registrar and involved work with ARPHS on planning an approach to Pacific communication for emerging and acute disease outbreaks impacting Auckland Pacific communities. This is a collaborative project involving the Pacific, Health gains teams, Auckland Regional Public Health Service (APRHS) and Auckland DHB Communications team.

9. Asian, Migrant and Former Refugee Health Gain

9.1 Increase the DHBs' capability and capacity to deliver responsive systems and strategies to targeted Asian, migrant and former refugee populations

We continue to work on the actions from the Asian, migrant and former refugee health plan 2017-2019. We have developed a targeted new Asian, migrant, and former refugee health plan 2020-2023.

An Asian, migrant and former refugee engagement process 2019/20 has been developed for dissemination across the respective Auckland DHB and Waitematā DHB departments to support information and considerations about engaging in culturally appropriate projects with the team.

9.2 Increase Access and Utilisation to Health Services

Indicators:

- **Increase by 2% the proportion of Asians who enrol with a PHO to meet 71% (Auckland DHB) by 30 June, 2020**
- **80% of eligible Asian women will have completed a cervical sample by 2020**

The Asian PHO enrolment rate for Quarter 4 of 2018/19 was 69% (Auckland DHB) and 91% (Waitematā DHB). Waitematā DHB has for the first time reached the national PHO enrolment target of 90%; targeted effort within Auckland DHB is required. The team continues to provide on-going awareness raising efforts with targeted ethnic groups and new migrants to increase awareness of the New Zealand Health & Disability system, and the use of health services.

The team have been working with Ministry of Business Innovation and Employment's (MBIE) Settlement, Protection and Attraction Branch, Immigration New Zealand to review content on sample off-shore visa immigration communications about the New Zealand Health System information and the NZ Now's new migrant website.

9.3 Indicator: Increase opportunities for participation of eligible former refugees enrolled in participating general practices as part of the *'Improving access to general practice services for former refugees and current asylum seekers' agreement'* (formerly known as Former Refugee Primary Care Wrap Around Service funding)

The team are working with MBIE to share key information (and seek their feedback) with the primary health workforce in metro Auckland about the new national Quota Refugee Health Services Project via:

- Asian & Former Refugee Governance platforms, and
- Auckland Regional Former Refugee Health Network Forum to primary health professionals planned for 14 November.

The team also attended the United Nations High Commission for Refugees (UNHCR) New Zealand Civil Society Meeting on the Global Compact for Refugees and the Global Refugee Forum in Christchurch to input health system and health service experiences for former refugees in metro Auckland last 24 September.