

Quality Accounts 2016

**PATIENT SAFETY &
QUALITY IMPROVEMENT
DIRECTORATE**



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Foreword

Kia ora, welcome to Northland DHB's Quality Accounts for the year to 30 June 2016. It gives you a snapshot of how we support the health needs of the people in our community.

These Quality Accounts are an annual report about new quality initiatives we introduce to help improve patient safety and care.

We aim to deliver a first-class service which is patient and whānau focused and provides the right care and support when and where it is needed.

Statement of Endorsement

As an organisation that strives to achieve a healthier Northland and safe patient care our staff are to be congratulated for the difference they are making to the health and wellbeing of Northlanders. Northland DHB is proud to highlight some of the recent initiatives delivered by our staff and their healthcare colleagues in this 2016 Quality Accounts report.

The initiatives are many and varied. Some involve improving the care of young children. Highlighted in this area are improvements in dental care and respiratory disease. Some involve older people; the quality improvements which have been supported in aged residential care facilities during 2016 have been particularly successful.

Throughout the report it is clear that staff have put the values and needs of patients and their families at the centre of all they have done. The ongoing work of our

Consumer Council and the presence of consumers on many of our committees highlights our belief in patient and whānau centred care.


Elsewhere in the report projects which aim to measure the quality of care have been highlighted – these include our tracer audits and the CRAB software.

Lastly, a great deal of work has gone in to ensuring that when a safety issue has been identified it is carefully analysed and actions are taken to minimise risk of future harm to patients.

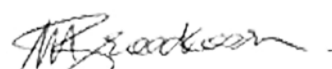
Northland DHB has experienced significant increases in demand for its services over the past year; that so many of our busy staff have dedicated time to improving quality and safety for patients is an enormous credit to them and an inspiration for us all as we look to the future.



Dr Nick Chamberlain
Chief Executive



Dr Mike Roberts
Chief Medical Officer



Margareth Broodkoorn
Director of Nursing & Midwifery

Our Role

Northland DHB, established under the New Zealand Public Health and Disability Act (2000), is categorised as a Crown Agent under section 7 of the Crown Entities Act 2004.

Responsible for providing or funding the provision of health and disability services for the people of Northland, the DHB covers a large geographical area from Te Hana in the south to Cape Reinga in the north.

The DHB employs around 2,711 staff. Acute services are provided through the DHB's four hospitals, based at Whangarei, Dargaville, Kawakawa and Kaitaia, with elective surgery performed at Whangarei and Kaitaia. These services are supplemented by a network of community-based, outpatient and mental health services, a range of allied health services and a public and population health unit.

Some specialist services, like radiation treatment and rheumatology services, are provided from Auckland or through visiting specialists travelling to Northland.

The DHB allocates funding across the health sector in Northland, contracting with a range of community-based service providers such as primary health organisations (PHOs), dentists, pharmacies and other non-government organisations.

Our Communities

Population

Northland's population at the 2013 Census was 164,700, representing 3.6 percent of New Zealand's total population. About half live within the Whangarei District Council area, 37 percent within the Far North District Council area and 13 percent within the Kaipara District Council area.

Māori

Nga Iwi o Te Tai Tokerau comprises 32.4 percent of Northland's population. Out of the total Māori population, about half live in the Far North District, 40 percent in Whangarei, and 10 percent in Kaipara. Iwi in Northland include Ngati Kuri, Te Aupouri, Ngaitatoko, Te Rarawa, Ngati Kahu, Whaingaroa, Ngapuhi, Ngati Wai and Ngati Whatua.

Ageing population

Northland's population is 'ageing' because the number of children is decreasing while the older population is increasing significantly. The child population (0–14 years), is projected to drop from 21.6 percent in 2012 to 19.7 percent by 2026.

Northland's older population (65-plus years) is projected to grow from 16.9 percent to 24.5 percent over the same period.

Socio-economic status

Northland has one of the most deprived populations in the country. While 20 percent of New Zealand's population is in the lowest quintile of the deprivation index, the equivalent measure for Northland is 35 percent.

The most deprived local authority area is the Far North District Council with 51 percent of the population in the lowest quintile; within this district the most deprived areas are Hokianga (83 percent), Whangaroa (41 percent) and north of the Mangamukas (55 percent).

Rurality

The only true urban area in Northland is Whangarei, containing about one-third of the region's population. Kaitaia, Kerikeri, Kaikohe and Dargaville are rural centres with populations of about 5,000 each. Northland's population is distributed across a vast region. It takes over five hours to travel from its northern to southern extremities and up to two hours west to east. Northland has the highest proportion of unsealed roads in New Zealand and public transport is limited.



Our Health Profile

Māori

Māori experience low levels of health status across a range of health and socio-economic statistics. They comprise 32.4 percent of Northland's total population, but 52 percent of the child and youth population, a key group for achieving long-term gains. Māori experience early onset of long-term conditions like cardiovascular disease and diabetes, presenting to hospital services on average about 13 years younger than non-Māori.

Child and Youth

The child and youth proportion of Northland's population is projected to decline over the coming years, but remains a priority because healthy children make for healthy adults and because children are more vulnerable than adults.

The deprivation index, which divides New Zealanders into ten groups according to their deprivation scores, placed 70 percent of Northland adults and 85 percent of Northland children on the most deprived half of the index.

Older People

Our ageing population is placing significant demands on health services provided specifically for older people (residential care, home and community support services, day care). It also increases the prevalence of long-term conditions which become more common with age.

Long-Term Conditions

About three-quarters of deaths in Northland are from cardiovascular disease (heart disease and stroke) or cancer (the most common sites are trachea-bronchus-lung, colorectal, prostate and breast).

Twenty-one percent of adult Northlanders have been told they have high blood pressure and 13 percent that they have high cholesterol, both known risk factors for cardiovascular disease.

While diabetes is not a major killer in itself, it is a primary cause of heart disease. A great deal of unnecessary illness and hospitalisation is related to poor management of diabetes.

Oral Health

Northland's five-year-olds have repeatedly had the country's highest average score of damaged (decayed, missing or filled) teeth and one of the lowest percentages of teeth without tooth decay (33 percent compared with the national 41 percent). Data for adolescent oral health is limited, but it suggests a similar, if not worse, picture.

Lifestyle Behaviours

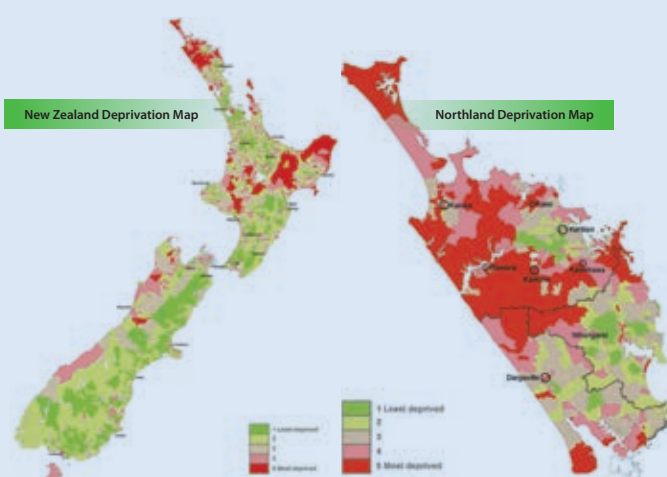
The way people live their lives and the behaviours they exhibit have an enormous effect on health status. There are a wide range of influences, but key ones are smoking, diet, alcohol and other drugs, and lack of physical activity.

Mental Health

'Rising to the Challenge', the national plan for mental health and addictions, outlines priorities for achieving further system-wide changes to improve service provision and outcomes. The plan covers both people who use primary and specialist mental health and addiction services, and their families and whānau.

Social Influences

Many of the causes of ill health rest with social and economic factors such as housing, education and economic prosperity. The health sector cannot affect these directly, but as a district health board we work collaboratively with other Government and local body organisations to achieve a healthier Northland.



Our Vision, Mission & Values

Our Vision:

A Healthier Northland
He Hauora Mo Te Tai Tokerau

Our Mission:

Achieved by working together in partnership under the Treaty of Waitangi to:

- Improve population health and reduce inequities
- Improve the patient experience
- Live within our means.

Mahi tahi te kaupapa o Te Tiriti o Waitangi he whakapopoto nga whakaaro o te Whare Tapa Wha me te whakatuturutahi i te tino rangatiratanga te iwi whanui o Te Tai Tokerau.

Our Values:

People First - Taangata i te tuatahi – People are central to all that we do.

Respect - Whakaute (tuku mana) – We treat others as we would like to be treated.

Caring - Manaaki – We nurture those around us, and treat all with dignity and compassion.

Communication - Whakawhitiwhiti korero – We communicate openly, safely and with respect to promote clear understanding.

Excellence - Taumata teitei (hiranga) – Our attitude of excellence inspires success, competence, confidence and innovation.

Enriching and Embedding our VALUES

Our Values

Living our **Values** for Patient and Whānau Centred Care

People First - Taangata i te tuatahi
People are central to all that we do

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A Healthier Northland
He Hauora Mo Te Tai Tokerau

NORTHLAND DISTRICT HEALTH BOARD

Where the Money Goes

Whangarei, Dargaville, Bay of Islands and Kaitiaki Hospitals (surgical and medical services, emergency departments, imaging, laboratories, maternity), public health	\$277m
Primary Health (general practitioners, community dental services, radiology)	\$60m
Health of older people (including residential care, rehabilitation)	\$59m
Mental health services	\$53m
Māori health services	\$7m
Community pharmacies	\$39m
Community laboratory services	\$8m
Inter-district flows (publicly-funded health services paid to other district health boards and others for services provided to Northland patients)	\$73m
TOTAL	\$576m

EACH DAY IN NORTHLAND

On average, each day in Northland there are:

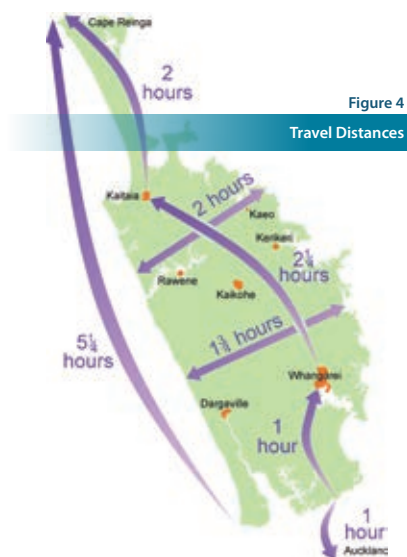
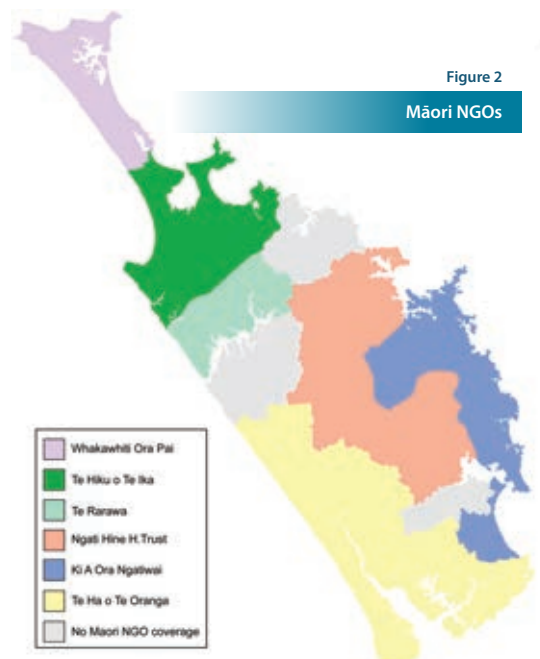
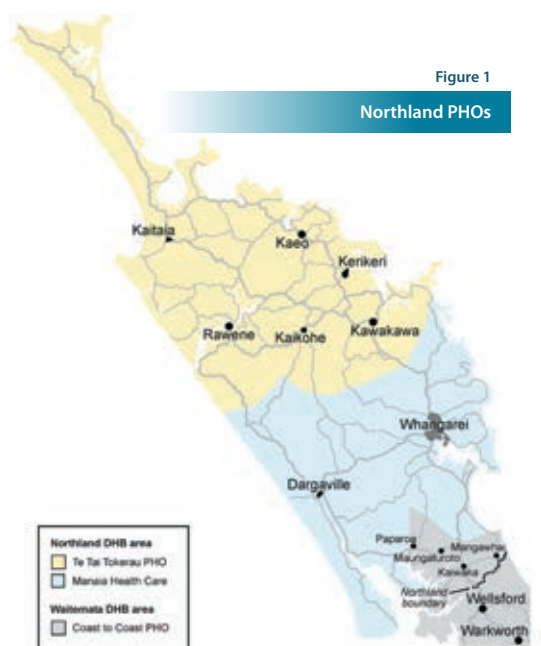
- 128 Emergency Department presentations
- 107 Inpatient discharges
- 2,133 Outpatient attendances
- 72 Outpatient missed appointments
- 14 Northland patients discharged by other DHBs
- 14 Chemotherapy attendances
- 52 Renal dialysis
- 46 Theatre events
- 256 Radiology exams
- 3,491 Lab test results – Hospital
- 3,690 Lab test results – Community
- 5 Babies born in hospital
- 5 Deaths in Northland
- 3 Mental health hospital admissions
- 506 Mental health community visits
- 1,891 General practice consultations
- 7,418 Prescription items processed by pharmacies
- 79 Community visits by allied health services
- 195 District nursing visits
- 192 Oral health visits in primary schools
- 8 Immunisations for 2-year-olds
- 8 Immunisations for 8-month-olds
- 40 Breast screens
- 927 Subsidised bed days in aged residential care
- 1,641 Hours of home-based support services for older people
- 17 People assessed by hospice services nursing teams

And we do much more!

Our Services

There are currently 160 GPs and 163 practice nurses across 37 general practices providing primary healthcare to Northlanders enrolled with Northland PHOs, and non-enrolled and non-resident patients.

Northland DHB has 245 contracts with 127 non-government organisations (NGOs) including Māori health providers and Whānau Ora collectives that provide a range of public health, primary healthcare and community services across Northland.



National Health Targets

These targets focus on improving the health sector's performance, and ensure our health and disability system is contributing to maintaining and improving health outcomes in these important areas.

Northland health targets results 2015/16 (average over four quarters)

	Shorter stays in emergency departments	Increased access to elective surgery	Faster Cancer Treatment	Increased immunisation (8-month-olds)	Better help for smokers to quit – hospitals	Better help for smokers to quit – primary care	More heart & diabetes checks
Ranking quarter 4, 2015/16	15	1	10	18	11	13	10
Result	92.2%	122.3%	73.9%	89.2%	95.4%	87.3%	91.3%
National goal	95.0%	100.0%	85.0%	95.0%	95.0%	90.0%	90.0%

The DHB ranking shows the DHB's relative performance compared with that of other DHBs. In most cases a rank of one represents comparatively good performance, but when all DHB are close to target, a lower rank doesn't necessarily mean poorer performance.

Shorter stays in Emergency Departments (DHB)



The target is 95 percent of patients will be admitted, discharged, or transferred from an Emergency

Department (ED) within six hours. The target is a measure of the efficiency of flow of acute (urgent) patients through public hospitals, and home again.

We continue to work on measures to address acute patient flow and to work in a more integrated way across the health sector. We are particularly focusing on acute general medicine and reviewing the Site Master Plan for a revamped ED and a new Acute Assessment Unit.

Improved access to elective surgery (DHB)



The target is an increase in the volume of elective surgery by at least 4,000 discharges nationally per year.

Northland DHB has achieved its 2015/16 health target with improved access to elective surgery reaching 122.3 percent. For the full year, 10,123 people have been provided with elective surgery, which is 1,848 patients more than planned.

This is now the ninth year in a row that Northland DHB has exceeded our full year health target and we have consistently been the top-performing DHB.

Faster Cancer Treatment (DHB)



The target is 85 percent of patients receive their first cancer treatment (or other management) within 62 days

of being referred with a high suspicion of cancer and a need to be seen within two weeks by July 2016, increasing to 90 percent by June 2017. Results cover those patients who received their first cancer treatment between October 2014 and March 2015.

Northland's performance in starting treatment within 62 days for patients referred with a high suspicion of cancer continues to improve. This year's performance of 73.9 percent is about eight percent better than last year's.

A key focus is to improve the early stages of the lung cancer pathway so that there is no more than ten days from referral to tissue biopsy. This time incorporates the first specialist appointment, lung function tests, chest CT, and follow-up and bronchoscopy or CT guided biopsy in a single day. A Ministry-funded three-year Faster Cancer Treatment improvement project is in progress. Northland DHB is working with northern regional DHB colleagues on this.

National Health Targets (cont.)

Increased immunisation (DHB)



The target is 95 percent of eight-month-olds will have their primary course of immunisation at six weeks, three months and five month events) on time.

Immunisation protects people against harmful infections which can cause serious complications, including death. It is one of the most effective and cost-effective medical interventions to prevent disease.

Our immunisation health target results have been improving, although they are still below target. Northland DHB achieved 89.2 percent to June 2016; below the target of 95 percent, but better than last year's 86.3 percent. There is an immense amount of work being done in this area with renewed initiatives and a steering group chaired by the chief executive. Northland has a challenging environment, particularly because of our rate of people declining immunisation (over eight percent, compared with the national average of about four percent).

Better help for smokers to quit (DHB and PHO)



The target is 95 percent of patients who smoke and are seen by a health practitioner in public hospitals, and 90

percent of enrolled patients who smoke and are seen by a health practitioner in general practice, are offered brief advice and support to quit smoking.

Our performance on the hospital target is still over the 95 percent target at 95.4, similar to last year's 95.6 percent. Northland's PHOs had a mixed result on the primary care measure, with Manaia Health PHO exceeding the 90 percent target with a performance of 94.2 percent and Te Tai Tokerau below target at 78.9 percent.

Primary Health Organisations Health Targets (2015/16)

Increased immunisation

The national immunisation target is 95 percent of eight-month-olds have their primary course of immunisation at six weeks, three months and five months on time.

Manaia Health PHO reached 91 percent and Te Tai Tokerau PHO reached 90 percent, both below the target of 95 percent.

(The PHO coverage for increased immunisation only includes those eight-month-olds that are enrolled in a PHO. Consequently the DHB coverage will be different to the combined PHO coverage.)

Better help for smokers to quit (PHO)

The national target is that 90 percent of patients who smoke and are seen by a health practitioner in primary care are offered brief advice and support to quit smoking.

The Manaia Health PHO result was better than target at 94.2 percent.

Te Tai Tokerau PHO's result of 78.9 percent was below target by about 11 percent.

More heart and diabetes checks (PHO)

This target is 90 percent of the eligible population will have had their cardiovascular risk assessed in the last five years by July 2015.

Manaia Health PHO has met this target reaching 92.3 percent, whereas Te Tai Tokerau PHO was close at 89.9 percent.

Primary Health Organisations health targets (2015/16)

	Increased Immunisation	Better help for smokers to quit	More heart and diabetes checks
Manaia Health PHO Limited	91%	94.2%	92.3%
Te Tai Tokerau PHO Limited	90%	78.9%	89.9%
Northland	89% ²⁶	87.3%	91.3%
National goal	95%	90%	90%

Adverse Events Report 2015-2016

Background

DHBs are responsible for publicly releasing a summary of each Serious Adverse Event case in 2015-2016. In all of this work the emphasis is on improvement and reducing preventable harm in the future. The following context is important to understand when interpreting the data in this report.

- Adverse Events (previously known as serious adverse events, and serious and sentinel events) are incidents which have generally resulted in harm to patients
- The title has changed to signal a new direction in the programme, with a greater emphasis on learning from all events – not only the serious adverse events, but also near misses – as learning about these events can be as powerful
- The emphasis is on improvement, and reducing preventable harm in the future. Northland District Health Board reports 18 Adverse Events for 2014-2015.

Northland District Health Board reports 17 Adverse Events for 2015-2016

Main Summary	Findings	Progress on recommendations
Falls with Harm Six patients, aged 53-93, experienced falls with harm. Harm included fractured hip, fractured humerus, fractured pubic rami, fractured nose and head injuries.	Four of the patients had been identified as being at high risk of a fall. Two of these patients had been risk assessed, and plans had been completed to minimise their risk of falling. One patient who fell had not been identified as high risk. One patient who fell was an out-patient.	All patient falls with harm are reviewed by a specialist team which focuses on falls prevention. The case reviews contribute to hospital policies to minimise the risk of patient falls. As a result of the reviews during 2015-2016, new guidelines have been developed and implemented to guide and monitor the use of bedrails. The use of medications which may increase the risk of falls is also being carefully monitored.
Thrombolysis (blood thinner) administered on old cardiac condition.	Old ECGs were not electronically available at the time of this emergency. Therefore it was not possible to identify that the cardiac condition was old. 'Clot busting' treatment was given unnecessarily.	Enhancements are in progress to enable old ECGs to be stored on electronic patient record.
Medication error – high dose of thrombolytic (blood thinner) given to patient who had suffered a stroke.	Specialist stroke physician not available overnight. Unavailability of specialist staff leading to misinterpretation of the guideline. Staff unfamiliar with the medication due to very infrequent use in the area. Similar packaging of medications increased potential for error.	Stroke thrombolysis is now only administered by a specialist physician. Stroke and cardiac thrombolysis medications now kept in separate rooms in clearly marked containers.
Leakage of intravenous antibiotics into tissues around vein.	Securing the intravenous line prevented visual inspection of the insertion site. No guidance to the frequency the site was required to be inspected.	Policy and guideline developed with education for the securing of intravenous lines to enable visual site checks to occur every hour for paediatric patients.

Adverse Events Report 2015-2016 (cont.)

Main Summary	Findings	Progress on recommendations
Empyema developed secondary to chest drain insertion.	Absence of a formal insertion and management guideline for chest drains. The use of chest drains from multiple different suppliers increased the risk of complications as staff were not familiar with equipment. No senior medical oversight at weekends on some high risk patients.	Working toward implementation of simulation training for chest drain insertion and management. Standardisation of the chest drain equipment used throughout the organisation is in progress. Weekend on call senior handover of all high risk patients in medicine is being introduced.
Unrecognised narcosis	Reduced number of clinical staff available over public holiday weekends. Sub-optimal communication hindered the transfer of essential information. Poor use of early warning score escalation protocol.	Rostering changes to ensure safe staffing levels maintained. Enhancements have been implemented to both medical and nursing communication systems. A clinical audit has been requested across the organisation to identify barriers to escalating patient care.
Route of sedative medication adjusted without changes to dose.	Absence of clear guidelines for use and monitoring of sedative medications within low acuity areas.	Recommendation for organisation wide project to enable the safe use of the sedative medication across the organisation.
Early discontinuation of treatment to enable patient transfer to a ward.	Multiple unclear guidelines and inexperience with treatment.	Organisation wide single policy to be developed. Simulation training to be provided with competencies in line with the policy.
Retained surgical swab.	Not all aspects of the swab count policy were adhered to. The responsibilities for monitoring staff under supervision were unclear.	Swab count policy reinforced and audited. Responsibilities of supervisors to be clearly documented.
High risk patient, post-partum haemorrhage, cervical/uterine tear requiring hysterectomy and ICU admission.	Required much earlier input of care from consultant.	Pathways for shared care developed.
Accidental full thickness skin graft taken partial thickness was intended.	Second check for equipment use not in place. Distraction due to educating new staff at time of equipment assembly.	Responsibility of second check given to surgeon prior to use of equipment. Education not to be performed at time of equipment assembly in theatres. Manufacturer contacted.
Medications were given to the wrong patient resulting in a decreased level of consciousness.	Medication management system and mismatch of care availability to meet the needs of patients.	Review of medication management processes. Embed a culture of medication safety.



Quality Accounts

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Improving Patient and Whānau Experience

Patient and Whānau Centred Care

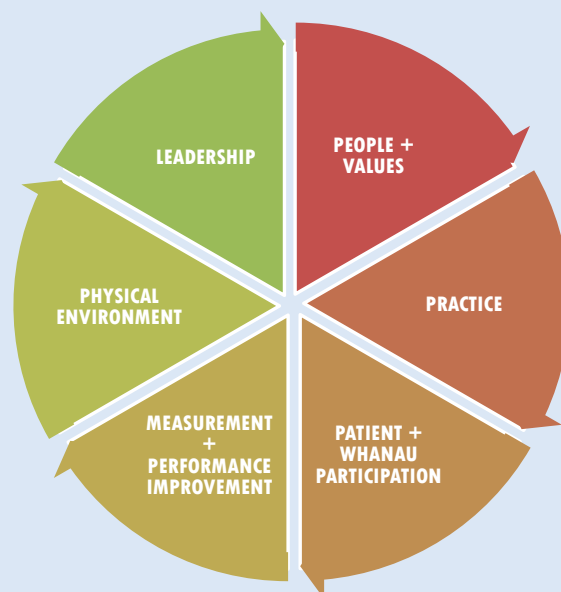
Patient and whānau centred care is about providing care that is respectful of, and responsive to, the needs, preferences and values of patients and family. We do this by working together with consumers, family and carers at all levels to design and deliver care that optimises their experiences.

Internationally there has been a focus on patient centred (or patient and family centred) care for some time, and it is a widely recognised dimension of high-quality care. A number of leading patient centred care organisations provide guidance, frameworks and tools to help healthcare services change the way they deliver care. Key strategies often include committed senior leadership, routine monitoring and reporting of patient feedback, engaging patients and families as partners, developing staff capacity and supportive work environments, accountability at all levels for improving patient experience, and having an organisational approach that supports learning and improvement.¹

Northland DHB's patient and whānau centred care programme is guided by these key strategies and frameworks and through sharing best practice initiatives with our national counterparts.

The Patient and Whānau Centred Care Framework diagram illustrates key elements of the programme and describes how we will become a patient and whānau centred, values-led organisation. It recognises the need for an integrated and

multidisciplinary approach and acknowledges the important link between the wellbeing and experience of staff and positive patient experiences.



Patient and Whānau Centred Care Framework



The 15 Steps Challenge is a tool we are using to help staff and patients to work together to identify improvements that can enhance the patient experience.

¹ Reference: Australian Commission on Safety and Quality in Health Care (2011), *Patient-centred care: Improving quality and safety through partnerships with patients and consumers*, ACSQHC, Sydney.

Improving Patient and Whānau Experience

Patient and Whānau Centred Care (cont).

	Explanation	Location	Examples
Individual experience level	Care provided is respectful and supports patient and whānau to be better informed and actively involved	Bedside, exam room, in the home	Access to patient records Shared decision making and care planning Open or flexible visiting hours
Microsystem	Patients, family or service users participate in the overall design of services, departments or programmes	Clinic, ward, unit, emergency department	Patient advisors or advisory councils Family participation in doctors' rounds Service design and improvement projects using participatory (co-design) design approaches
Organisation	Patients, family or service users influence organisational strategy	DHB, hospital, general practice	Patient advisory councils Patient experience surveys and feedback Consumer resource centres and online access to information, e.g. patient portals
Environment	The perspectives of patients, family or services users inform local, regional and national policy	Community, region, nation	Care coordination across organisational boundaries

Source: Adapted from the *Institute for Healthcare Improvement (Balik et al 2011)*²

Creating a system where working together with patients and whānau becomes a natural way of working requires action across four levels as described above: Individual experience level, Microsystem, Organisation and Environment.

Various initiatives are occurring across all four levels and much more is planned for the year ahead. The focus to date has been on consumer engagement (the active involvement of consumers in how services are planned, delivered and evaluated) and patient experience – how we measure,

understand and improve on what care feels like for our patients.

The patient and whānau centred care programme of work will continue as awareness grows and initiatives expand across all areas of the organisation. Patient experience data will help to guide our ongoing efforts toward quality improvement while activities that address the key drivers will contribute positive and sustainable change.

Patient's story

My experience of physiotherapy for my daughter has been a very positive one ... physiotherapy appointment times were set around my busy family's needs, down to a specific time and day of the week that worked best for us ... furthermore, at times that my other child needed to be with me when we were attending a physiotherapy appointment, she was warmly welcomed and fully included in the session.

The centre of conversations during physiotherapy appointments was what our family's experience and perception of our child's development had been. All conversations were positive and aspirational ... the physiotherapist offered advice and guidance (not instructions – note the difference!) after careful listening and observation and was encouraging at all times regarding

the strategies developed within our family for supporting our daughter's specific needs.

As the physiotherapist was so attentive to my own views, ideas, experiences and observations (as the mother of the patient), it definitely contributed positively to my level of participation and involvement in appointments. This means I felt it worthwhile to observe my child carefully and prepare for appointments; I also acted on the advice and guidance given by the physiotherapist because I was confident that it came as a result of a communion between the physiotherapist's expertise and experience and my knowledge of my own child.

Client of Community and Outpatient Paediatric Therapy, 2016

² Balik B, Conway J, Zipperer L, Watson J. Achieving an exceptional patient & family experience of inpatient hospital care. IHI Innovation series white paper, Cambridge, Massachusetts: Institute for Healthcare Improvement; 2011 (Available on www.IHI.Org).

Improving Patient and Whānau Experience

Respiratory Fast Track Service – High Suspicion of Lung Cancer

‘One Stop Shop’ Concept

The Ministry of Health tracks the progress of those investigated for lung cancer to ensure timely diagnosis and first treatment. However, the tracking only starts when a GP refers a patient to a lung specialist.

Our aim was that 100 percent of patients triaged as High Suspicion of Lung Cancer and seen in the Respiratory Fast Track Service (RFTS) would take a maximum of 20 days from receipt of referral to diagnosis. Our objectives are to coordinate and improve diagnostic services in a single day of assessment and investigations to hasten time to diagnosis and expedite treatment and care for the patient and whānau.

The purpose of the One Stop Shop concept is for one appointment that covers off a First Specialist Assessment, CT (computed tomography) scan, follow-up (F/U) and diagnostics. For instance: bronchoscopy, CT guided biopsy or ultrasound (US) guided biopsies. Normally this process would require the patient to attend four to five appointments on separate days.

Institute for Healthcare Improvement (IHI) methodology and PDSA cycles were used throughout this process, which was done in two phases

Phase One – began 3 May 2016

The patient attends the First Specialist Assessment followed by CT of chest and follow-up appointment to discuss the results.

Planning and development of Phase One included development of:

- A local Health Pathway for Primary Care – to support the appropriate investigations and management of a patient with ‘suspected lung cancer’
- A patient information sheet about the Respiratory Fast Track Service
- Patient Survey questions for feedback on the Respiratory Fast Track Service
- A ‘check sheet’ to identify where improvements could be made to the process
- Radiology reserved 3 CT slots for Respiratory Fast Track Service.

Phase Two – introduced on 5 July 2016

We looked at incorporating either a Bronchoscopy or CT Guided Biopsy to be done in the afternoon session, which involved planning with additional and different services such as Theatre, Surgical Admission staff and Endoscopy Waitlist clerk.

Activity for Phase Two included development of:

- Patient information sheets on both procedures, to be given out on the day if the decision was made to progress to the Bronchoscopy or CT guided biopsy
- A process map which incorporated the two implementation phases and the services involved in maintaining the concept.

Outcomes from Phase Two included:

- A consumer representative ensured the one-page Patient Information Sheet on Bronchoscopy and CT Guided biopsy could be easily understood by patient/whānau
- Improvements in collaboration between all participating services

- Patient experience survey results were collated showing that the concept was efficient and positive, proving that the process was patient centred
- Shortened timeframe from 2 hours to 1 hour for chest X/rays completed post-CT guided biopsy
- Discharge Summary completed by Physician resulting in the GP being updated on their patient’s outcome the same day
- Medical Outpatients nurse-led supervision of the RFTS concept was exceptional – well organised, with provision of feedback and improvements to the process provided. Also provision of three clinic rooms allowed a more streamlined approach to patient management
- Māori inequity was addressed by involving our Northland DHB Māori and Pacific Island Navigator who identified all Māori patients beforehand and contacted them to ensure attendance.

This initiative demonstrated that the services involved had a ‘can do attitude’ that ensured the process worked. Staff made sure that it was all about the patient and making improvements to their journey.

As a result of this initiative the Respiratory Fast Track Service has been accepted as business as usual at Northland DHB.

Other improvements that came out of the process included:

- We incorporated a ‘lung function test’ appointment @ 13:00 every Tuesday with a physiologist available to prevent the patient going on a waiting list to come back at a later date
- The physician only has to dictate one letter post-clinic instead of the up to four letters that were needed previously.

Examples of Patient Survey feedback on the new service:

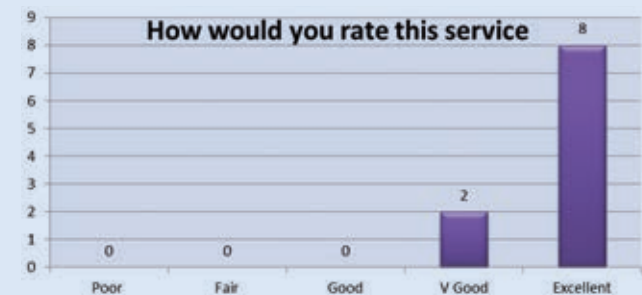
- Excellent service today
- Better than four-five visits. Thank you
- Found Fast Tack very efficient and helpful, great to have services done so quick, stress was only minimal, instead of having to wait
- No improvements as far as we are concerned – found everyone caring and efficient, and ready to explain all procedures. Congratulations to all
- Very happy with service and new procedures.

Benefits to Consumers

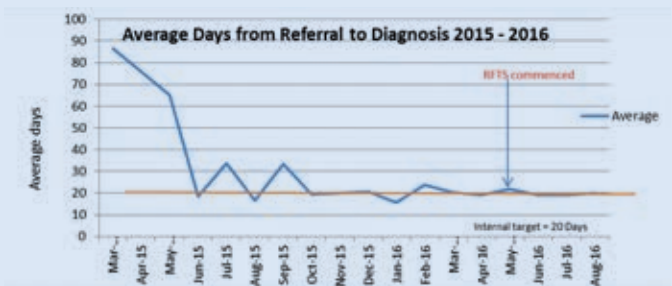
- Reduce anxiety and stress to patients and whānau by attending a one stop shop and leaving with a diagnosis and treatment plan
- Reduce travel time to attend separate clinics up to four-five times
- Collaboration and open communication between services towards the success of this service improvement
- Patients who attended the clinic for ‘suspected lung cancer’ post-CT, to find out that this was not the case, meant that they did not have to wait a long time for the outcome. This led to lots of hugs and emotional feedback from patients to physician and staff.

Improving Patient and Whānau Experience

Respiratory Fast Track Service – High Suspicion of Lung Cancer (cont).



Patient Experience Survey rating for Phase Two; 18 patients received a Patient Survey and 10 completed them = 56 percent return.



Hard data about improvements in outcomes is difficult to show at this stage as the change is newly embedded. However, early improvements in time to diagnosis can be seen (above).



Respiratory Fast Track Service team

Keeping Patients Safe

A Systems Approach to Keeping Patients Safe

Reportable Event Process

The US Institute of Medicine's 1999 report 'To err is human' was a stark, lucid and unarguable plea for action on patient safety at all levels of the healthcare system. Without doubt the publication of this report was the single most important spur to the development of patient safety, catapulting it into public and political awareness and galvanizing political and professional will at the highest level.³

Patient safety is our top priority

Patient safety can, at its simplest, be defined as: The avoidance, prevention and improvement of adverse outcomes or injuries stemming from the process of healthcare.⁴

The DHB has many projects related to improving patient safety; this is one of them.

When patient safety is seriously compromised at Northland DHB, the Reportable Events Committee becomes involved. The group is led by Dr Jenny Walker, Associate Chief Medical Officer and Renal Physician. Other members of the team comprise senior doctors and nurses as well as management staff.

The aim of the Reportable Events Committee is to maintain the quality of the safety reviews, ensuring they are standardised and follow a method of investigation that looks at all aspects of the patient pathway. The investigation should not only focus on the staff that cared for the patient, but most importantly on the systems that support the staff and patients. The Reportable Events Committee ensures that the quality of the recommendations provided by the investigative team meet our own internal standard.

Although the aim of the Reportable Events Committee remains unchanged, the introduction of a more robust process would ensure a consistently better safety review. With an improved process it was anticipated that the number of serious adverse events would decrease as a direct result of high quality, sustainable recommendations being implemented. The implementation of the recommendations would then be followed up by the team in the Quality & Improvement Directorate to ensure they have been sustained.

When a serious event occurred there were variations in the standards of investigation reports. This was due to inconsistencies with the methods used between team leaders completing investigations. These inconsistencies and variations resulted in a large number of weak recommendations being produced. Weak recommendations like education were often used; we know however, that with a high movement of staff throughout the organisation the 'education' provided leaves the area with that employee, increasing the risk that the event could occur again.

Recommendations were often not discussed with those who worked in the clinical areas or the managers of the service, and were therefore not always realistic or practical for implementation within the environment.

Without a mechanism for following up on recommended improvements, there were inconsistencies with the implementation. This led to poor sustainability, potentially resulting in a cycle of repetition with the risk the adverse event could recur.

Progress to date

- Investigation teams always have a lead who has been trained in the investigation process, ensuring the process is maintained as intended
- An investigation guide has been developed to provide the required tools and templates needed in the investigation process
- Causation statements are used to establish the system cause and its direct effect
- Recommendations are required to be intermediate or strong. Weak recommendations can only be used if supported by stronger recommendations
- All recommendations are required to be 'signed off' by the service leaders (clinical and non-clinical) to ensure recommendations are achievable, have buy-in from service leaders and are aligned with accountability
- Investigations are approved by the Reportable Events Committee to ensure the above criteria has been met and the report has clearly identified what happened, why it happened and what improvements are required to prevent reoccurrence
- Recommendations are entered into a database and followed up for compliance and sustainability at 3 and 12-month intervals
- Any non-compliance is escalated through the Reportable Events Committee to the Clinical Governance Board.

What we achieved so far with a new standardised process

- The number of adverse events being reported has increased, showing that staff are more willing to report adverse events than before. Conversely the number of serious reportable adverse events has reduced. This could be attributed to several factors. More robust analysis is required.
- The number of recommendations resulting from investigations has reduced from an average of seven mainly weak recommendations to an average of four intermediate or strong recommendations. This increases the chances of success with implementation and sustainably.
- To date, 100 percent of recommendations have been followed up since the start of the process at the 3-month review and all the recommendations have been implemented. We are yet to meet any recommendations that have been in place for 12 months, but feel reassured the process is robust.

There has been a reduction in the number of serious adverse events, with an increase in the number of adverse events reported.

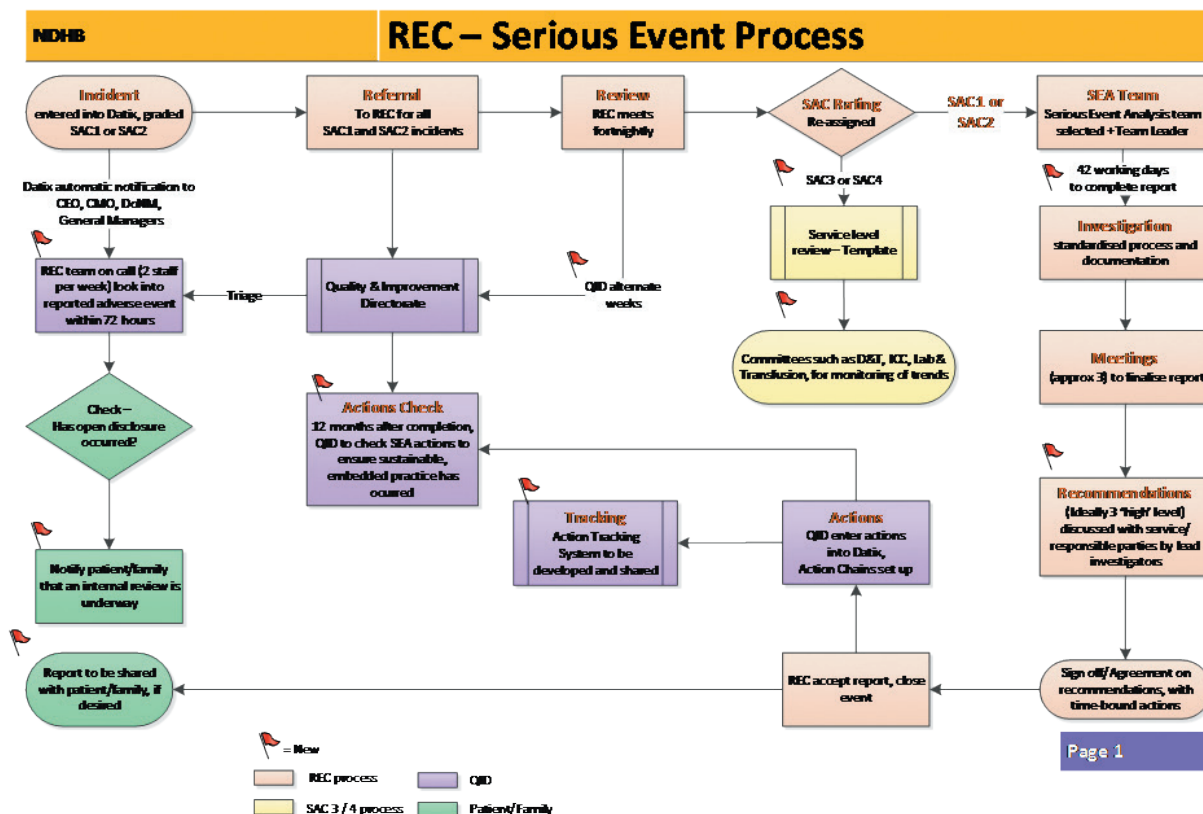
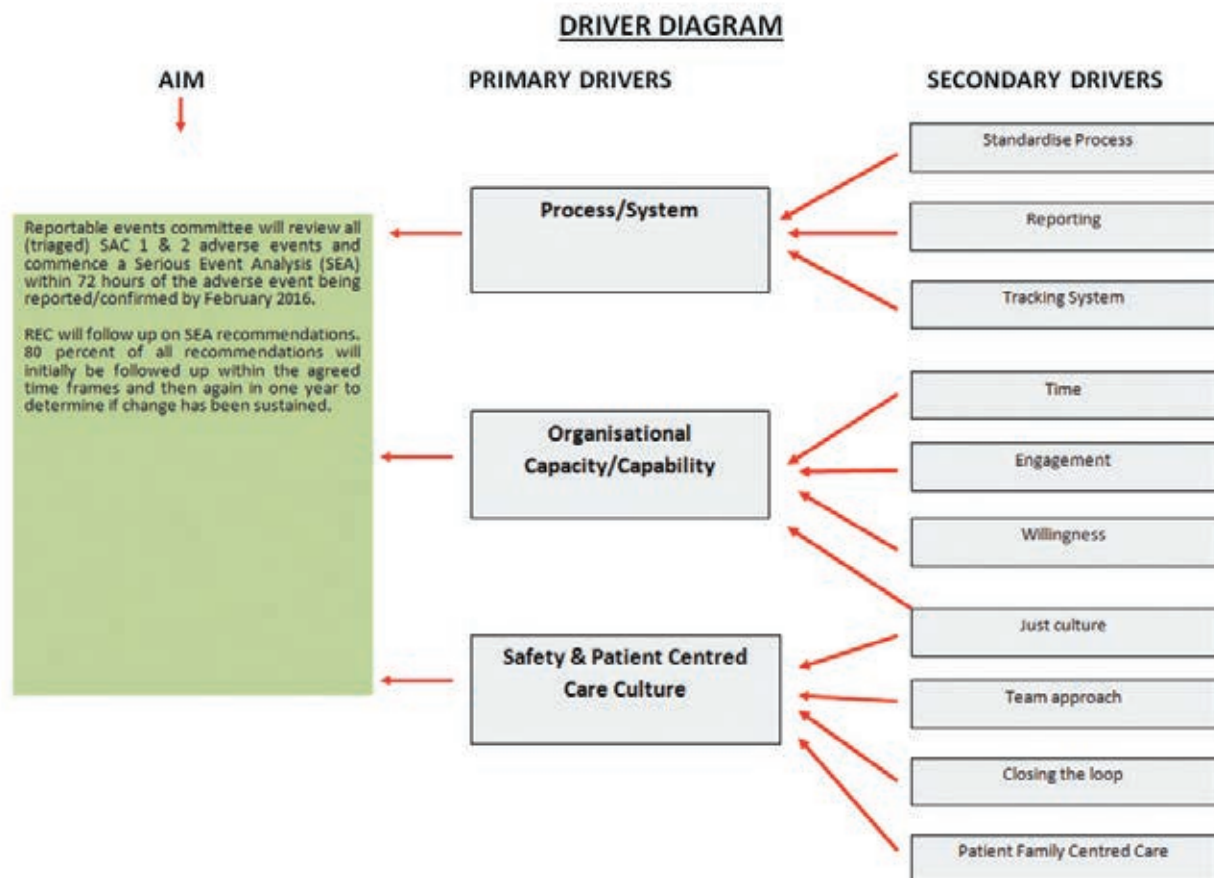
The process developed has been aimed solely for reportable events; Northland District Health is aware that less serious, or near-miss events are those that have the potential to cause serious harm in the future. For this reason we are now turning our attention to aligning the process of dealing with these events. Preventing near-miss events from occurring now will reduce the occurrence of more serious events in the future.

³ Patient Safety. Vincent 2010

⁴ Vincent 2006

Keeping Patients Safe

A Systems Approach to Keeping Patients Safe (cont).



Keeping Patients Safe

CRAB (Copeland's Risk Adjusted Barometer)

Patient safety and quality of care is a priority at all our hospitals. We need to be certain we do not unduly put patients at risk, so it is important that we are able to identify and mitigate any risk as soon as possible.

The CRAB Clinical Informatics system allows us to accurately assess patient risk at the point of admission, and therefore optimise the patient experience for better outcomes. When patients are undergoing treatment at the hospital it is possible to compare their outcomes with a carefully matched control group. We can use this information to mitigate any risk and optimise their outcomes.

In 2008, Stephen Mackenney launched CRAB in the UK assisted by Mr Graham Copeland, Consultant Surgeon. Mr Copeland is the architect of the POSSUM surgical audit system, now a world-renowned methodology for assessing clinical performance against expected outcomes. The system delivers tools for predicting and monitoring clinical outcomes. It builds on nearly 30 years of research and practice and a dataset of over 14 million patient records.

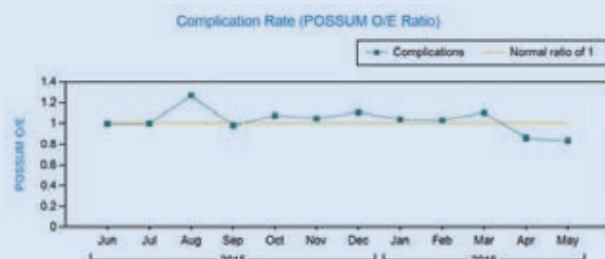
Northland, Auckland and Counties Manukau DHBs are currently implementing CRAB. We are the first sites in New Zealand to implement the system.

Although the principals surrounding mortality and morbidity are essentially the same worldwide, New Zealand has some different clinical coding definitions that had to be worked through with the developers of CRAB. We worked hard in the first part of this year to iron out translation differences between New Zealand and UK definitions. We are now able to use our own data for monitoring.

A benchmarking group has been set up to review trends on a monthly basis. Membership of the group includes the Chief Medical Officer and senior clinicians. We are already using data to make sure we provide the best care. The system is currently

“We benchmark to ensure that we are providing safe and high-quality care”

Risk Adjusted Mortality



in the implementation phase. It is planned to go live in the later part of this year.

Once the system is fully implemented, we aim to assist doctors to use their own data to help and support them with good clinical practices. The potential of the system extends beyond hospital care into primary care so that GPs can also be supported to make good referral decisions.

The Trend charts above show O/E (Observed/Expected) rates for fatalities and complications. A POSSUM O/E of 1 is where the actual number of fatalities or complications is the same as the expected number.



The CRAB Benchmarking group - from left: Rowan Croft, Dr Christopher Harmston, Dr Ian Page, Dr Jenny Walker, Dr Michael Roberts and Dr Margaret Pohl.

Keeping Patients Safe

Classic Safety Thermometer

Working with the Patient Safety and Quality Improvement Directorate, District Nursing Services Whangarei agreed to participate in a national project to test the classic safety thermometer – led by the Health Quality and Commission (HQC) and The Halo Institute from the National Health Service (NHS) UK.

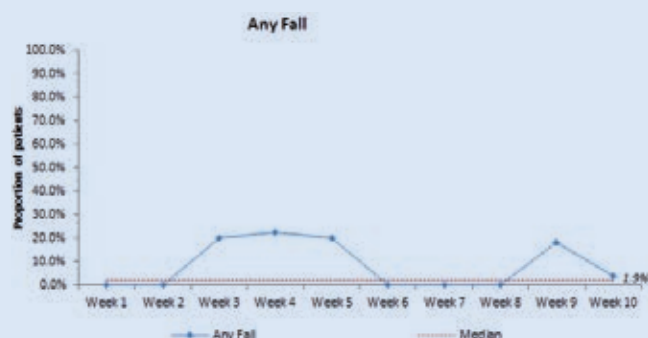
The classic safety thermometer is used for measuring ‘harm-free care’ and can be used in many settings across health care. Four District Health Boards across New Zealand were accepted to participate. Initially, Northland was the only DHB to have a community focus rather than a hospital focus.

The aim of the safety thermometer is to identify patients entering the district nursing service who may be at risk of four key harms associated with health care. The four harms are:

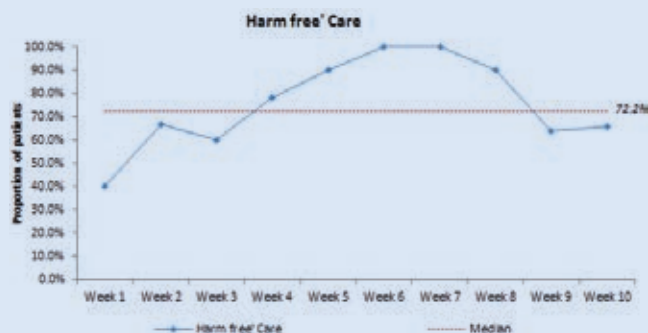
- pressure injury (PI)
- catheter associated urinary tract infection (CAUTI)
- falls
- venous thrombo-embolism (VTE, commonly known as blood clots).

To identify these four harms, the NHS Classic Safety Thermometer point-of-care survey is conducted by the nurse for each contact with a patient in the community on a given day. Analysing the data gathered aims to identify areas for improvement, guide assessment, treatment, planning of care and potential new pathways of care. The Classic Safety Thermometer will measure the impact of improvement work that is undertaken by the district nurses to align with the organisational harm reduction strategies.

We started small. Initially one nurse tested the safety thermometer data collection sheet on a small group of patients. The recording data log was trialled and adjusted and reformatted for ease of use and clarity. Further wider testing occurred. After several weeks a further five to seven nurses were introduced to the classic safety thermometer and were taught the definitions of each harm. The nurses took the data log and collected the measurements in their daily work at each contact with a patient, asking questions about the four identified harms. We have built on this to include all nurses in the service who now ask all patients the four harm questions; this data is captured in run charts (see examples below).



Falls identified by completing the safety thermometer



Percentage of harm-free care for patients in our community

We have now built the ‘will’ of the nurses to participate. The project has encouraged nurses to question and assess risk to patients more holistically. This allows proactive identification of risks to establish prevention strategies. It has also led to us developing pathways more congruent with the organisational harm reduction strategies.

Identification of risks in the hospital setting is not readily relayed to the community setting when the patient transitions from hospital to home. Once this was identified, we found there were inadequate care pathways for the community. There is now greater community nursing involvement in the DHB harm reduction programmes. This has led to improved harm reduction initiatives for the patient journey through hospital and transition back into the community setting.

Harm reduction strategies need to be across the patient continuum of care – not just hospital focused. Breaking down silos in services improves patient centred care. This project has allowed us to identify the breadth of patient needs regardless of location. For instance, inpatient or community settings.

Working with the hospital harm reduction groups for example, the falls prevention and pressure injury prevention groups are proving beneficial. The community team now have a role in ongoing injury prevention planning and projects.

We also need to understand that organisations such as ACC can play a huge role in preventative health care, and be alert to possibilities to partner with them to provide comprehensive risk reduction programmes.



Our District Nursing Team circa 2013

Keeping Patients Safe

By building on what we have already achieved and embedding the classic safety thermometer into our normal practice so that it is part of everyday discussions or conversations when completing a nursing assessment or having patient contact, we aim to develop clear pathways to assist nurses in identifying and initiating prevention strategies for patients to remain harm free.

Health Quality and Safety Commission recognised the added value District Nursing involvement brought to this pilot project and are recommending the classic safety thermometer as a tool that could be used nationally in the community.

“Embedding this into everyday conversation on every contact with every patient to build a more holistic nursing service.”



Patient's story

The nurse came to visit me and asked me some questions which she hadn't asked me before. One of those questions was "Had I had a fall?" I said to her I had not fallen over but had had a little tumble. She asked me some more questions and although I hadn't hurt myself I had however managed to give myself quite a scare. I therefore listen to her advice. She advised me to consider having a nightlight in my room for when I needed

to get up to go to the bathroom at night. She also advised me to ensure that the cat was secured in the lounge area or outside so that the cat wouldn't trip me over. She talked about things like moving rugs and carpets around so that I had no trip hazards. I found it to be very sensible advice. I was also advised about ACC programmes to develop my balance such as Tai Chi classes.



Keeping Patients Safe

Little Teeth Matter

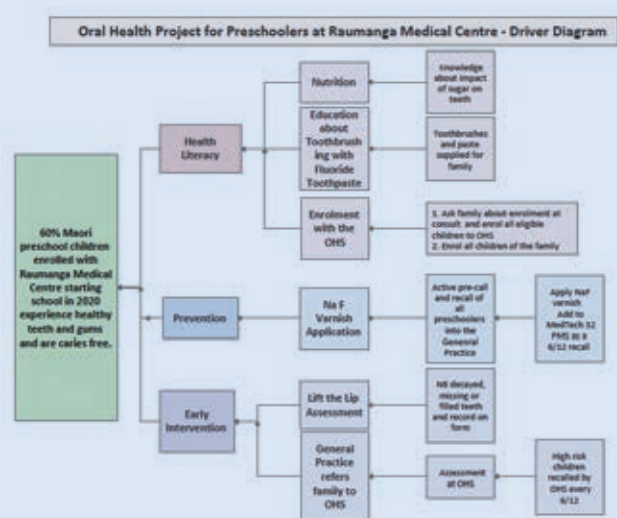
A collaborative project between Northland DHB's Oral Health Services and the Raumanga Medical Centre to improve the oral health of children.

The project aims to prevent tooth decay among the children enrolled and seen by Raumanga Medical Centre.

The oral health of children in Northland is one of the poorest in the country, especially among our Māori population and those from highly deprived areas. Several initiatives are being implemented by Northland DHB's Oral Health Services to improve the oral health of children in Northland. This includes the advocacy of community water fluoridation, implementing tooth brushing programmes in schools, promoting healthy diet, advocating for healthy beverage and food policies and more. Besides these initiatives, all high-risk children receive regular six-monthly fluoride varnish applications that prevent tooth decay. However, the children who are not enrolled with the Oral Health Services miss out on this preventive intervention.

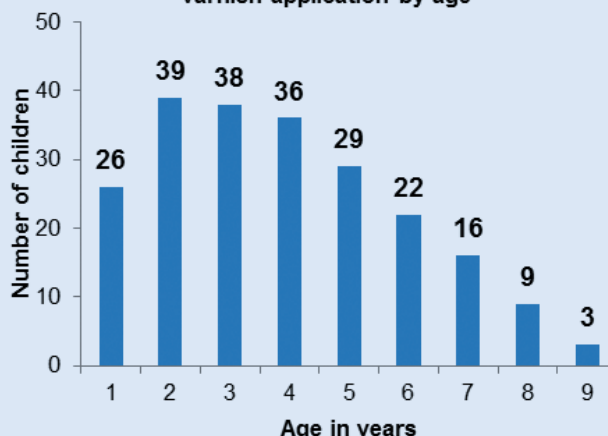
In 2015, the General Practitioner from Raumanga Medical Centre approached Northland DHB's Oral Health Service with a proposal to implement a locally-based programme of oral health promotion. This promotion targets families of enrolled pre-schoolers and includes fluoride varnish application to 0–5-year-olds enrolled at the practice. The collaborative result is the pilot 'Fluoride Varnish' project.

The 18-month pilot project began in November 2015, following a workforce education programme. The pilot is currently being implemented at Raumanga Medical Centre through active pre-call and opportunistic engagement. The graph below summarises the key activities undertaken and the expected outcomes for children enrolled at the Raumanga Medical Centre.

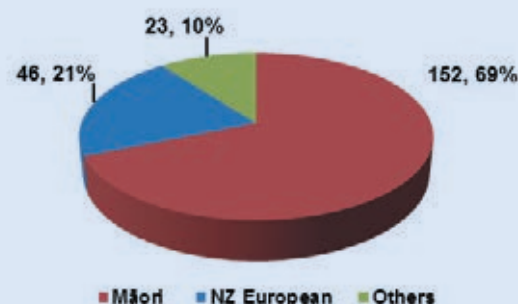


Oral health project for pre-schoolers at Raumanga Medical Centre.

Number of children who received Fluoride varnish application by age



Children who received Fluoride varnish application by ethnicity



During the first nine months of the programme, 218 children had fluoride varnish applications, and five children had a second round of fluoride varnish application. Thirty-three new enrolments in the Northland DHB's Oral Health Services were completed at the Raumanga Medical Centre. The graphs below presents data on the number of children who had fluoride varnish application at Raumanga Medical Centre by age and the breakdown by ethnicity.

Children who received fluoride varnish application at Raumanga Medical Centre by age and ethnicity.



This photo is typical of the poor state of some preschoolers' teeth.



A happy child with a great set of healthy teeth.

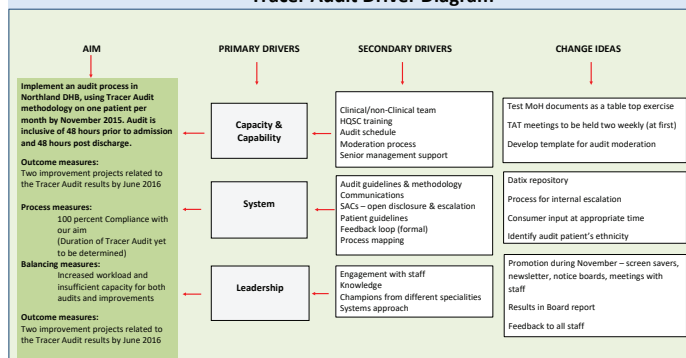
The project is expected to continue and increase the Northland DHB's Oral Health Services enrolments of children aged 0–18 from Raumanga, resulting in a potential decrease in the prevalence and severity of tooth decay.

Keeping Patients Safe

Tracer Audit Programme

In an individual Patient Tracer Audit, trained auditors follow the experiences and journey of a (consenting) patient through the hospital system. The standard of care the patient received can then be compared with NZ Health and Disability standards and our organisation can discover what we need to improve on.

Tracer Audit Driver Diagram



Northland DHB's aim is that auditing:

- supports patient care, treatment and safety
- meets NZ Health & Disability (Ministry of Health) standards
- stands up to regular, consistent scrutiny
- facilitates continuous quality improvement.

A driver diagram (above) was developed early in the process to guide the Tracer Audit planning and implementation.

Specifically trained Tracer Auditors review information related to a patient's journey such as organisational policies/procedures, patient files, adverse events and complaints. Auditors also interview staff (doctors, nurses, healthcare assistants etc.) the patient, and sometimes the whānau/caregiver on the patient's experience of hospital services. The patient is thanked and provided with feedback and an audit report is given to the ward/department team. Suggestions for improvements are offered to the team and then the responsibility for change lies with the service, just as it would do after certification.



Tracer Audit involves listening to a patient.

Tracer audits were until recently carried out by external audit groups as part of the certification process. However Northland DHB took a proactive stance to develop a robust process for completing auditing internally. This included training 15 staff

to carry out Tracer Audits. Plan, Do, Study, Act cycles (IHI Science for Improvement methodology) were used to ensure a robust, efficient and workable process – one that evaluated a (consenting) patient's journey throughout admission, treatment, transfers up to and including discharge (closing of this loop is usually completed by a phone call to the patient's home).

Benefits for patients and staff:

We have received favourable comments from patients who expect the concerns they raise at the audit to be actioned:

- The process gained approval from an external certification group who recently completed an audit in our DHB
- Feedback from Clinical Nurse Managers on the wards has been positive
- Further Tracer Audits were requested by the service General Manager
- Staff begin to see Tracer Audits as a normal, regular activity
- This supports other work and improvement projects either underway or planned for the future
- Northland DHB's Tracer Audit process has recently been endorsed during Northland DHB Certification (June 2016), with direct credit attributed to the Tracer Audit Team for a job well done.

The Patient Information pamphlet (below) was developed to inform patients of what to expect from a Tracer Audit:



Patient Tracer Auditors ready to audit Ward 2.

Northland DHB is currently exploring ways to connect Tracer Audits with another concept, the '15 Steps Challenge', which is a way for staff and patients to work together to understand a patient's first impressions of a service/department. 15 Steps focuses on the patient's voice, allowing it to be heard clearly to identify what is working well. Then, in collaboration with staff, measures are planned and implemented to increase a patient's confidence and improve their healthcare experience.



We believe that the synergies between Patient Tracer Audits and the 15 Steps Challenge are clear and that aligning both processes will provide a more holistic perspective of a patient's journey and hospital stay. Audit outcomes may provide the audit team with more accurate information on the care received and the improvements that might be of most benefit to patients.

Keeping Patients Safe

Safe Surgery



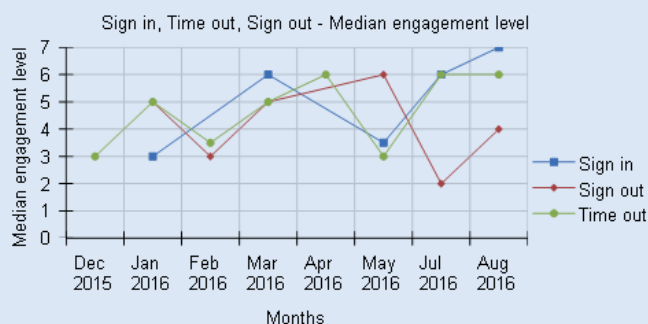
In 2015, a Health Quality & Safety Commission (HQSC) national quality and safety initiative to reduce perioperative harm was introduced to DHBs. This involved the national implementation of a paperless surgical checklist, theatre team briefing (staff introduction and review of each patient on the list with requirements and expected difficulties) and debriefing (identification of any issues). Northland DHB was selected to be in the first tranche of DHBs to implement this initiative.

The World Health Organisation preoperative checklist had been in place for several years. This strategy was designed to reduce perioperative harm by ensuring the correct patient for the correct procedure and that everything was in place. Over the years, internationally, it was thought that the checklist had become a matter of ticking the boxes and staff were not engaged in the process. The paperless checklist focus is on all staff in theatre being engaged at the key times of 'sign in', 'time out' and 'sign out', rather than just ticking the boxes in the checklist.

The priority is to reduce perioperative harm. The paperless checklist increases the focus on the patient and the processes to maintain patient safety.

A core project group was established to partner nominated clinical leads from each department to design an implementation plan that would work best with each department to achieve success. Northland DHB has gone live with its audit of these three components and reporting to HQSC from July 2016 across both Whangarei and Kaitiaki operating sites. HQSC has expected DHBs work with any private facilities in their region to assist them in implementing these initiatives. Kensington Hospital has been involved closely with the core project group and has made positive progress in introducing these initiatives.

Staff engagement in the checklist completion, briefing and debriefing processes is a key measure of audit success. The emphasis is on all staff having the permission to contribute and speak up, enabling a robust communication net to be formed around each patient having a surgical procedure.



Included in the project is Briefing and Debriefing. Briefing is well established in theatre. Debriefing happens after untoward events during the day and continues to develop as a routine way of working.

Developing the audit process in a sustainable fashion is essential; training further auditors and freeing their time to complete 50 moments each of sign in, time out, and sign out each quarter is in development.

Currently the use of the 'app' is free for the next two years. Its continued use as a means of supporting the audit process is recommended.

Continued focus on the paperless checklist is a new concept and it will take time to imbed practice. Focus on debriefing, following lists as part of business as usual, and the engagement of clinicians in the importance of briefing at the start of the theatre process and start time is essential and ongoing.

The core project group thanks the clinical leads Chris Harmston, Tony Nixon, Subhasch Shetty, Rob Coup, David Bailey, Andrew Watts and Ellen Clarke for their leadership in assisting with the ongoing success of the initiative as business as usual, and all the perioperative teams for their support and commitment to the implementation of this in Northland DHB.

Keeping Patients Safe

Keeping Kids Safe

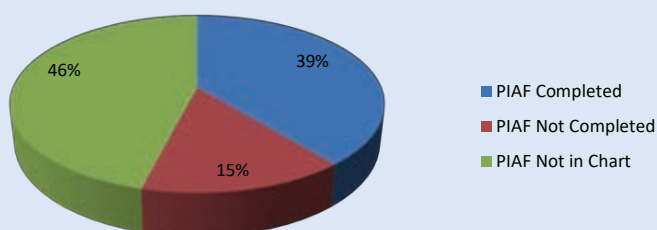
Improving Assessment for Child Abuse and Neglect in Emergency Department

The aim of this initiative is to improve assessment for indicators of child abuse and neglect in Emergency Department (ED) by supporting the consistent use of an assessment tool.

Background

- A. The Ministry of Health recently published a new guideline - Family Violence Assessment and Intervention Guideline: Child Abuse and Intimate Partner Violence (Fanslow & Kelly 2016) which recommends the use of an assessment tool (Child Protection Checklist) for all children under the age of two years presenting to the emergency department. The new Child Protection Checklist replaces a previous version called the Paediatric Injury Assessment Flowchart (PIAF) and is designed as a tool to support safe, structured clinical assessment of children.
- B. In 2014 recommendations from a root cause analysis into injured children resulted in re-implementation of the PIAF in the emergency department. A revision of the form was also recommended to encourage consultation with the paediatric service regarding concerns around indicators of non-accidental injury. These changes were subsequently implemented.
- C. A clinical audit was undertaken in May 2016 to determine whether children presenting to the emergency department with injuries were assessed for indicators of non-accidental injury using the PIAF. A total of 100 charts of children aged 0 – 12 years who presented to the emergency department with injuries were audited. The analysis showed that: 39 percent of the charts assessed had a completed PIAF; 46 percent of the charts did not have a PIAF form in the chart; 15 percent had a PIAF form in the chart but it was not completed. These findings indicated room for further improvement and provided an opportunity to consider implementation of the new Child Protection Checklist.

Baseline Data for Paediatric Injury Assessment Flowchart Use in ED



Progress to Date

On 24 August 2016 a meeting was held in ED to present the findings of the clinical audit and review information supporting the parameters for a proposed quality improvement project. This information included the new MOH Family Violence Assessment and Intervention Guidelines. Participants were also invited to form a working group for this project.



These posters have been distributed throughout the DHB to inform our clients and families that Northland DHB staff ask about family violence because they understand the negative impact it has on families.



Billboards on the Northland DHB Whangarei Campus displaying child protection measures.



White Ribbon Day in Dargaville where community participation on this day was excellent with the presence of many families and children.

References

- Ministry of Health (2002). Family Violence Intervention Guidelines – Child and Partner Abuse.
- Fanslow, J., & Kelly, P. (2016). Family Violence Assessment and Intervention Guideline- Child Abuse and Intimate Partner Violence. Wellington: Ministry of Health.

Northland Health Services Plan: Timeliness of Access to Primary Care

Highly accessible primary care is widely recognised as leading to improved health outcomes and a reduction in health inequities. One measure of accessibility is the availability of appointments in general practice.

The Northland Health Services Plan sets a headline target of same-day access to primary care for all Northlanders with urgent need. Appointment availability may be constrained in Northland as indicated by patient survey findings, increasing White Cross and emergency department attendances and a high ambulatory sensitive hospitalisation rate. However, availability of general practice appointments is not routinely measured. So we measured routine and urgent general practice appointment availability in Northland to better understand this aspect of accessibility.

We aimed to provide information to support general practices to consider ways in which they could improve appointment availability. To measure appointment availability we measured the time to the third next available appointment (TNAA). This is a statistical measure that can be used as a proxy indicator of same-day access. TNAA is preferred over the time to the next available appointment as it is less subject to random variations such as appointment cancellations. The TNAA was automatically calculated through an electronic query which remotely analysed Northland general practice appointment books contained within the patient management system. The query generated a list of doctors working at each practice and their associated TNAA.

Practices were rung on each day of the TNAA audit and asked when the practice could accommodate a patient with urgent need, to be seen by a GP. The time to the appointment was recorded along with the type of appointment, for example: an available routine appointment, reserved urgent appointment, double booked appointment, a walk-in clinic or lunch break.

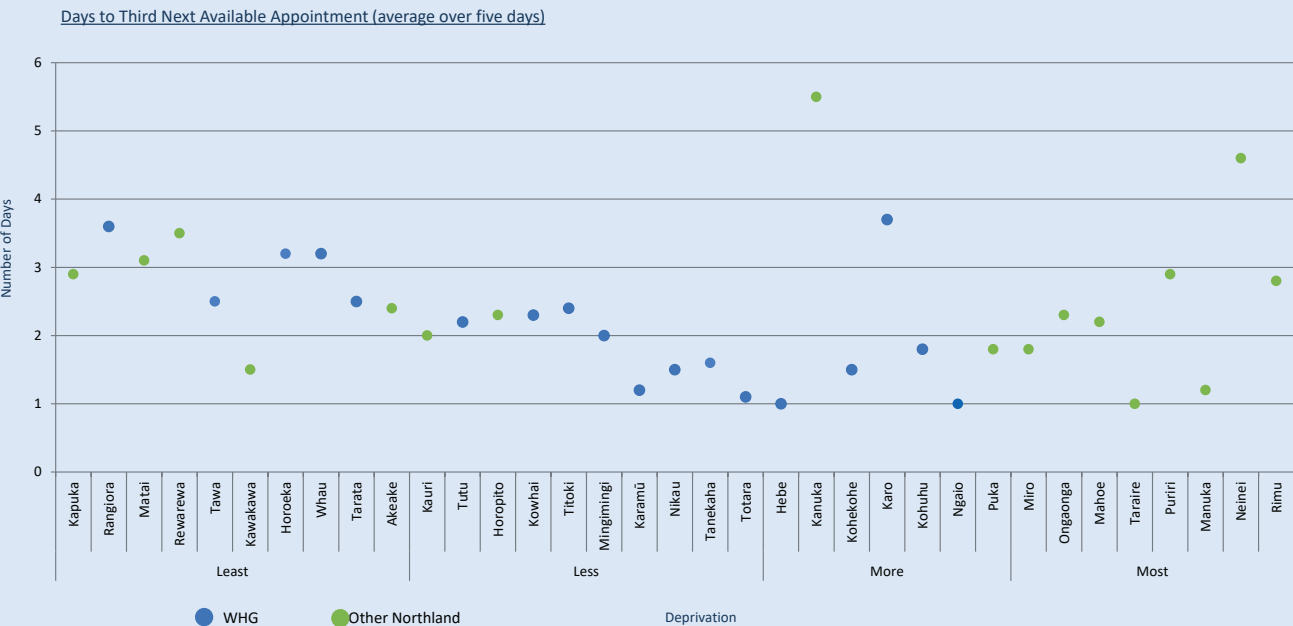
“Highly accessible primary care is widely recognised as leading to improved health outcomes and a reduction in health inequities.”

TNAA results for Northland Practices ranged between 1 day and 5.5 days. The average TNAA of 2.5 days indicates that a significant proportion of patients in Northland will struggle to get a timely routine appointment. Urgent appointments were available within 24 hours at most practices by blocking out urgent appointments in the schedule or double booking GPs. This system for managing urgent demand can miss urgent cases if the patient is not adept at negotiating the reception and nurse triage process. It can also become unsustainable for the Practice team and can block up routine appointment availability.

A report was provided to each general practice showing their practice appointment availability. Appendices provided advice on how they might manage their appointment scheduling and urgent demand differently by better matching capacity to demand.

Northland PHOs are reporting on general practice change as a result of the Timeliness of Access to Primary Care reports through the Clinical Governance Committee.

The Neighbourhood Healthcare Homes Programme is continuing to support practices with implementing a new model of care. It is designed to better meet urgent demand and generally improve access to the right care at the right time and in the right place.



Northland Health Services Plan: General Practice Information Reports

The Northland health system performs well, but is under pressure. Population ageing, increasing prevalence of long-term conditions and enduring inequalities exert significant pressure on existing models of health care. An ageing workforce also threatens sustainability. These factors signal a need for change. Ensuring sustainability and elimination of inequalities requires redesign of models of care to bolster system capacity and capability, and lift performance.

Neighbourhood Healthcare Homes (NHH) is a programme designed to improve the quality of primary care and promote the coordination of services for improved equitable population health outcomes. The NHH offers a new model of care and involves:

- Better equity management
- The consumer voice in planning and evaluation
- Coordinated networks of providers and consumers clustered around general practices delivering a unique Northland healthcare home model of care
- Strengthening the use of data, including risk stratification to provide proactive planned care to the highest need patients
- Innovative use of e-Health
- Enabling same-day access to primary care, effectively managing urgent demand.

Much of this work relies on the timely provision of robust and meaningful data. Collecting the right data, using the right

analysis and monitoring outcomes over time can help us better understand the health needs of our population, and better plan for their care.

Provision of General Practice Information Reports is a response to data requirements to support the NHH model of care development for quality improvement in primary care. To ensure robust and meaningful data is available to support sustainability and quality improvement in primary care, Northland DHB has worked with the PHOs and General Practices to establish a primary care data warehouse. We have merged multiple datasets that provide health status and utilisation information across the sector, including those from: PHO registers, individual primary care practices, White Cross and Emergency Department, secondary care, allied health, and hospitalisation records.

As part of the Neighbourhood Healthcare Homes Programme we have used the information to provide selected general practices with a data package and interpretation report. The information supports practices to understand the health and healthcare utilisation of their enrolled population and enables practices to compare their indicators against those of other similar practices (their 'peer group' based on deprivation). Measures are adjusted for age and ethnicity, to maximise the validity of these comparisons. The graphs below provide examples of the indicators included in the dataset, and the ability of practices to compare their estimates.

High Intensity Emergency Department Users

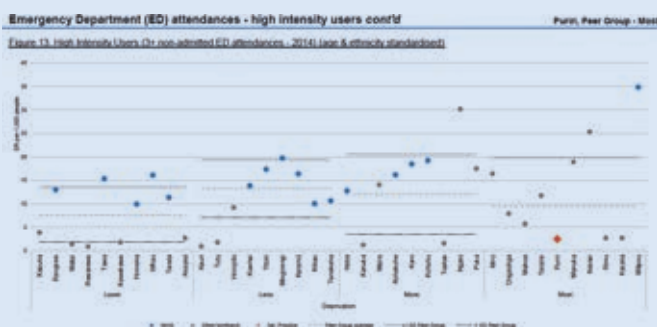


Table 16: AOR ED attendances for high intensity users

Practice	Peer Group	Northland	Percent Difference
AOR ED Attendances (all age groups)			
Asthma	7	76	478
Cardiac	1	180	782
CVD	8	142	749
Diabetes	6	29	179
Infections	9	305	2,431
Other	2	181	783
Total	27	943	8,321
AOR ED per 1,000 people (all age groups)			
Asthma	0.8	1.9	3.1
Cardiac	0.5	4.4	4.9
CVD	0.5	3.8	4.8
Diabetes	0.0	0.4	0.8
Infections	1.5	8.2	15.6
Other	1.5	4.1	6.0
Weighted average	7.0	9.7	8.6

We have also used the data warehouse to provide all general practices with information about their enrolled population's use of Accident & Medical and Emergency Department (ED) services as part of the same-day access to primary care project.

We are preparing to use the data to provide all general practices with information about their high intensity users of primary care, ED and acute hospitalisations. This is intended to support practices to stratify their enrolled population according to need.

We will continue to work with PHOs and Practices to develop and refine the datasets and provide meaningful reports that support quality improvement.



Liane Penney, Eric Riddle, Rowen Croft, Lisa Wickham (absent) and Dr Juliet Rumball-Smith (insert) who have been developing the primary care data warehouse and GP Information Reports.

"To ensure robust and meaningful data is available to support sustainability and quality improvement in primary care, we have built a primary care data warehouse and are providing general practice with a range of information about their enrolled population."

Reduction of Respiratory Ambulatory Sensitive Hospitalisations (ASH) Readmissions to the Children's Ward

All children in Northland between 0 and 4 years will have their respiratory illness well managed. This will be evidenced by a 10 percent reduction in readmissions within 28 days to the children's ward for the same coded respiratory event. Working with key services across primary and secondary care, the project aims to reduce readmissions to the children's ward within 24 hours, 28 days and one year post initial admission for the same coded respiratory ASH event.

Overall, ASH admissions are acute admissions that are considered potentially preventable through appropriate and effective interventions. Hospital admissions due to ASH are affected by various conditions such as social, personal and geographical factors. To have an impact on readmission rates, an inter-disciplinary and across-sector approach to system improvement is required.

When compared with similar profile DHBs, Northland has higher rates of admission and readmission within 24 hours and 28 days for paediatric respiratory ASH.

A recent case review revealed an 11-year-old male with asthma had 15 admissions to hospital, four of those to the Intensive Care Unit. There was no asthma action plan, nor had the GP received one following each admission.

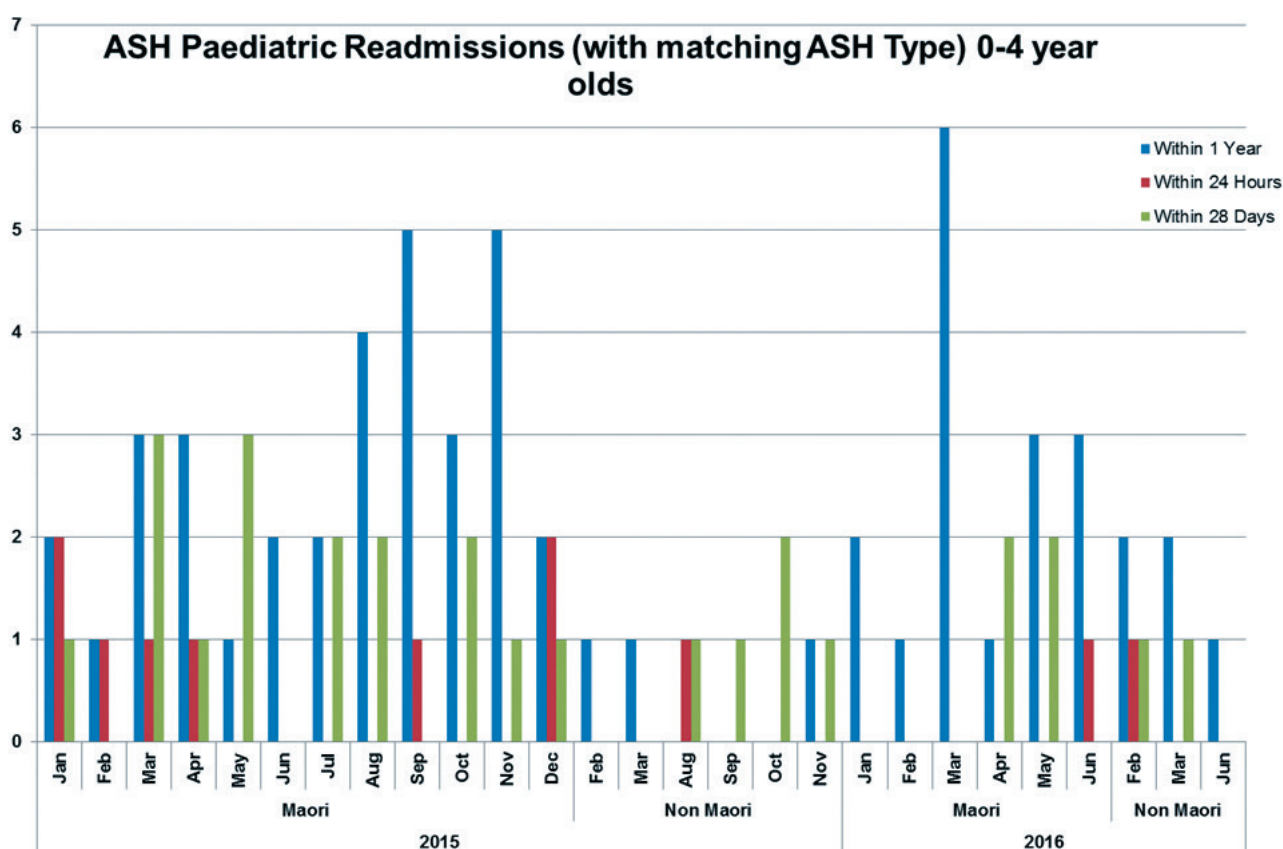
This boy had never been referred to the Public Health Nursing team to ensure that the school was educated on his plan and the appropriate use of his medication. He also had three interim discharge summaries sitting in the system – this means that these letters didn't ever go to the GP. This boy was also not consistently referred to the Paediatric Community Nursing team or the respiratory nurse practitioner. Nursing assessments on each hospital admission were incomplete.

This project is in its beginning stage. A large group of representatives of services and consumers are engaged. Process mapping has identified a significant number of issues and gaps. Some will be relatively easy to fix while others will need an across-sector approach.

A dashboard has been created to enable the working group to analyse by:

1. National Health Index (NHI), ethnicity, gender, date of birth
2. Date of admission, discharge and readmission
3. Timeframe between readmissions.

While this project is initially focused on respiratory ASH readmissions of children aged between 0 and 4 years to the children's ward, it can in future be extended to all ASH readmissions.



This graph shows the number of ASH respiratory readmissions of children aged between 0 and 4 years from January 2015 to June 2016.

Healthier Communities

Where There's a Will There's a Way

Quality Improvement, the partnership approach with Aged Residential Care Facilities (ARC) in Northland.

A key role of quality improvement at Northland DHB is to support the triple aim of population health and align initiatives and projects with the Northland DHB organisational strategic direction. Key guiding documents include the Northland Health Services Plan (NHSP 2012–2017), and the Health of Older People Model of Care (HOP 2013).

In August 2013, the HOP service at Northland DHB offered some senior nurse support for an initiative to establish strategic partnerships and develop collaborative working relationships with ARC in Northland, aiming to improve the safety and quality of care for all clients in ARC.

Analysis of Northland DHB certification results in 2013 demonstrated that Northland ARC facilities required improvement. Findings showed:

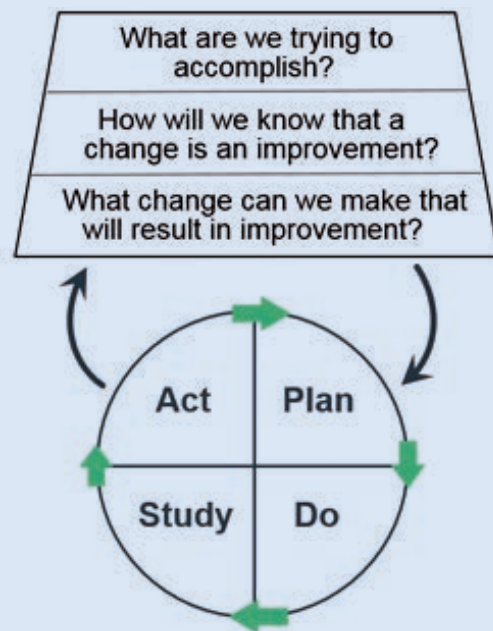
- significant variations in practice across the facilities
- lack of standardisation of risk assessment systems or management and intervention processes
- significant inconsistencies in quality of policies, procedures and guidelines
- limited quality of transparency for measurement and review
- that facilities were achieving shorter periods of certification than their counterparts in the rest of the Northern Region and New Zealand.

To reduce healthcare associated errors and preventable harm, we facilitated comprehensive improvement methodology training. This included: improving processes and systems; improving knowledge, skills and care to develop fundamental standards and principles promoting safety; and facilitating comprehensive evidence-based practice.

Using Institute of Health Improvement methodology, we developed a set of fundamental standards and principles to promote client safety and facilitate comprehensive evidence-based practice, thus developing a culture that values older people and places the safety of clients and quality of care at the centre of all practice.

The Model for Improvement

(Institute for Healthcare Improvement)

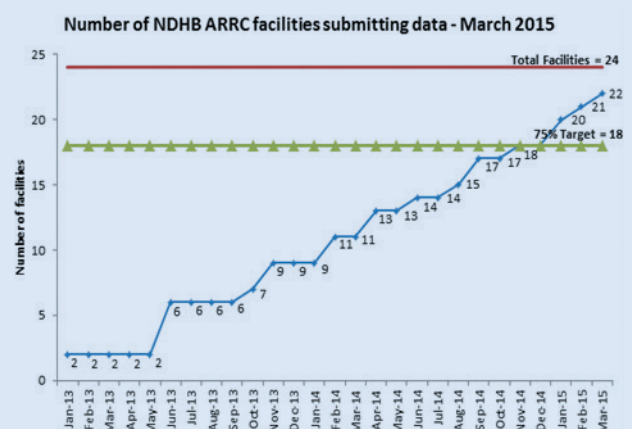


Measures of improvement

- Certification periods and results demonstrate continuous improvement
- Monitoring engagement of facilities
- Quantitative reporting from ARC facilities increased
- Positive qualitative feedback from ARC providers continues and sustains relationships.



This graph shows 2013–2015, the years of certification allocated to Northland Facilities.



This graph shows the engagement of Northland facilities in formal reporting of falls and pressure injury data.

Healthier Communities

Effects of Changes

- Empowered, motivated and proud staff making ongoing quality improvements
- Reduction in Corrective Actions (CARs)
- Reduction in healthcare associated harm
- Improved systems, communications and relationships
- Collaborative teamwork.

Lessons Learned

Understanding evidence-based measures must be combined with the knowledge and methodology of Improvement Science to implement effective and sustainable change.

- Training in improvement science is important; leadership and teamwork are vital for engaging people with a coherent and key message.
- Identifying with ARC and their perspectives
- Commitment to change often requires a change in the organisation's culture (the beliefs and assumptions people have about 'the way things are round here')
- Sharing and learning from the success of others
- Small scale, rapid testing with measurement and analysis
- Key messages to convey the work must be in short, memorable statements.
- Involve all staff, clients and their families – their views, their success stories and celebrate successes.

"Northland has demonstrated a committed approach to improving safe care and is leading the way in reporting their data in the region."



'Celebration Day' held with the ARC facilities

What more do we need to do? Further improve the safe transition of care.



Photo: Guy Robinson

Update on the Contribution of Clinical Audit to Hospital Quality Improvement

Following up from last year's Quality Accounts article detailing the successful rollout of Northland DHB's clinical audit programme, this updates on clinical audit activity recorded in the 2015/2016 financial year. In this period, there were a total of 38 new clinical audit projects initiated throughout the organisation, bringing the total number of projects initiated since the launch of the programme to 53.

Clinical audit projects registered during the 2015/2016 financial year

During the 2015/2016 period, further improvements were made to improve the programme including a review of the

communication and governance structures involved in clinical audit and the re-design of our main educational resource 'Success to Clinical Audit'. In line with these changes, Northland DHB's Clinical Governance Board has taken on the role of the executive leadership group for the programme.

The aim is to ensure there is significant executive leadership support for clinical improvement including reorganisation of resources, involvement of general management, quality facilitators and improvement advisors to support healthcare professionals in the improvement of the clinical practice, recognising that multi-disciplinary team-led improvements are critical for the success of these initiatives.

No	Department	Clinical Audit Title
1	Anaesthesia	Rate of General Anaesthesia for Caesarean Section at Whangarei Hospital.
2	Anaesthesia	Review of the clinical management of pre-operative anaemia (pre-operative optimisation of Haemoglobin).
3	Anaesthesia	Oxycodone prescribing at Whangarei Hospital.
4	Anaesthesia	Peripheral Nerve Blocks: Are we doing the Stop Before You Block?
5	Anaesthesia	Extended Stay in Post Anaesthesia Care Unit (PACU).
6	ED	Re-Audit: Compliance rates of Emergency Department doctors with completing provisional X-ray reports.
7	ED	Paediatric presentations to ED with injury: Are we using the Paediatric Injury Assessment form?
8	ED	Emergency Department Resuscitation Team Call-out Attendance.
9	ED	Out of Meds? Repeat prescriptions in the Emergency Department.
10	Kaitia	Medical interventions to reduce falls risk: Are we playing our part?
11	Medicine	Prevention of glucocorticoid induced osteoporosis.
12	Medicine	Analysis of appropriate antibiotic prescribing in Whangarei Hospital for community acquired pneumonia.
13	Medicine	Loose bowels due to loose prescribing? A retrospective audit of clostridium difficile infections and antibiotics implicated in causing these.
14	Medicine	Referral guidelines for ambulatory cardiac monitoring (telemetry).
15	O&G	Gynaecological cancer pathway times – for faster cancer treatment.
16	O&G – Students	3rd degree perineal tears and outpatient follow-up.
17	O&G – Students	Category 1 caesarean section – Are we prepared?
18	O&G – Students	Screening for gestational diabetes in Northland DHB.
19	O&G – Students	Optimisation of antenatal anaemia in the third trimester.
20	O&G – Students	Category 1 caesarean section re-audit – What's the delay?
21	O&G – Students	Re-Audit of post-partum haemorrhage guideline adherence.
22	O&G – Students	Adherence to protocol with IV syntocinon use in induction and augmentation of labour.
23	O&G – Students	Neonatal resuscitation – Are we following the guidelines?
24	Orthopaedics	Neck of femur fracture pathway at Whangarei Hospital.
25	Orthopaedics	ERAS for total knee joint replacements at Whangarei Hospital.
26	Orthopaedics	Necrotising fasciitis.
27	Paediatrics	Opportunistic immunisation of children (<5 years) in Ward 2, Whangarei Hospital.
28	Paediatrics	Investigating the intrauterine growth restricted infant – a Northland perspective.
29	Paediatrics	Time to antibiotic delivery in paediatric oncology patients with suspected febrile neutropenia.
30	Paediatrics	Management of acute asthma exacerbations in Whangarei Hospital.
31	Paediatrics	Paediatric anaphylaxis: Are we managing appropriately?
32	Paediatrics	Clinical management of paediatric diabetes (type 1) in Northland DHB.
33	Psychiatry	The diagnosis and management of ADHD in children (5–18 years of age) in Northland DHB.
34	Radiology	Audit of image guided lung and liver biopsies.
35	Radiology	Vestibular schwannoma: Is diagnostic MRI scanning meeting international criteria?
36	Surgery	Resection margins in cutaneous basal cell carcinoma.
37	Surgery	Resection margins in cutaneous squamous cell carcinoma.
38	Surgery	Improving VTE assessment in adults admitted under a general surgeon.

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