

Targeting Shorter Waits for Cancer Treatments

Shorter Waits for Cancer Treatment Radiotherapy


Our target: Everyone needing radiation treatment will have this within four weeks of the first specialist radiation oncology assessment.

Increased

Immunisation

Better
help for

Smokers to Quit

Better

Diabetes and
Cardiovascular
Services

Shorter
stays in

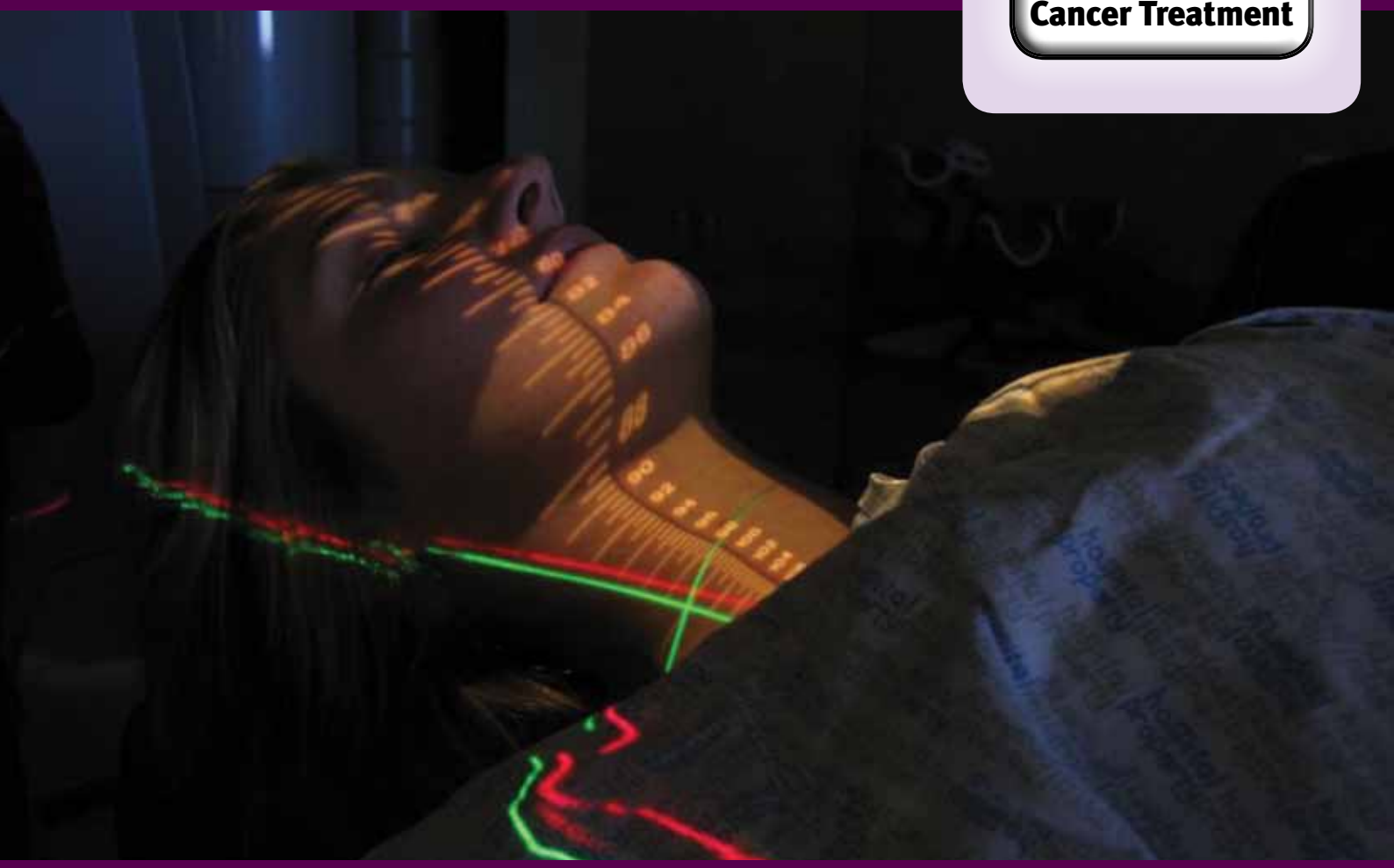
Emergency
Departments

Improved
access to

Elective Surgery

Shorter
waits for

Cancer Treatment



Providing shorter waits for cancer treatment radiotherapy



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Shorter waits for cancer treatment radiotherapy is a Government health target

Each year more than 19,000 New Zealanders are diagnosed with cancer and, for half of them, the appropriate treatment is radiation therapy (radiotherapy).

Radiotherapy is the use of high-energy radiation to target cancer sites in a patient's body. The aim is to cure or control the disease, or relieve pain and symptoms in cases of advanced cancer.

Treatment of this type requires expensive equipment and specialised staff, including radiation oncologists, medical physicists and radiation therapists.

Increasing numbers of people are being diagnosed with cancer as a result of population growth and ageing. Likewise, the demand for radiation treatment has increased, but services have not kept pace. This, combined with shortages of specialised staff and ageing equipment, has led to delays for people needing radiation therapy.

Having to wait longer for radiotherapy treatment may lead to worse outcomes for some cancer patients and create stress for them and their families.

The Government has identified reducing waiting times for radiotherapy as one of its priority health targets.

Published in April 2011 by the Ministry of Health
PO Box 5013, Wellington 6145, New Zealand
ISBN 978-0-478-37448-3 (online)
HP 5317

This document is available on the Ministry of Health
website <http://www.moh.govt.nz>



The Ministry of Health is working with the six centres that provide radiation oncology services (Auckland, Hamilton, Palmerston North, Wellington, Christchurch and Dunedin) to ensure that:

Everyone needing radiation treatment will have this within four weeks of the first specialist radiation oncology assessment, from January 2011.

Why this is important

Once cancer is diagnosed, delays in treatment can have negative effects, such as:

- poorer clinical outcomes
- undue stress and anxiety for patients and their families
- reduced quality of life for patients with advanced disease.

The four-week timeframe for radiation treatment as specified in the health target is based on international best practice guidelines and recommendations that have been endorsed by The Royal Australia and New Zealand College of Radiologists Faculty of Radiation Oncology and the National Cancer Treatment Working Party (now the Cancer Treatment Advisory Group).

What is being done

In this publication, we look at how the country's six cancer centres are working to achieve this health target and discuss the real gains that are being made thanks to the creativity, teamwork and dedication of staff.

The process for planning radiation treatment

Patients referred to radiation oncology services are assessed by a specialist radiation oncologist. This is a doctor who specialises in using radiotherapy to treat cancer.

Once assessed, the patient is prioritised based on need and is booked for a CT scan. These provide images of the patient's body and tumour.

The radiation oncologist works alongside radiation therapists to use the information provided in the CT scan to work out the best treatment for the patient. This process is called treatment simulation and planning.

Some patients also need to see other specialists or have further tests and scans before they can begin treatment simulation. Once a patient has undergone treatment simulation, they are booked to start treatment, which is given over a number of days or weeks.

Shorter waits for cancer treatment radiotherapy: the Ministry of Health's role



Imagine a smart machine that breathes with you, that stops and starts with the rhythm of your breath so it zaps a lung tumour only as it appears on the inward breath. Imagine being able to direct a pinprick of high-dose radiation to a melanoma on the eye yet not touch the surrounding tissue. These are some of the cancer radiotherapy treatments available in New Zealand today – high-tech, sophisticated, highly accurate and increasingly accessible.

It's a very different picture to the one that greeted cancer specialist Dr John Childs when he returned to New Zealand in 1991 after working overseas.

'Back then, we had insufficient numbers of machines and a lot of old machines that needed replacing because they were unreliable and couldn't support newer treatment techniques. As a result, many patients had to wait longer for treatment, and this became steadily worse over the following 15 years or so.'

As the clinician now responsible for overseeing New Zealand's cancer control programme, Dr Childs is delighted to be presiding over a very different scene.

'It's really gratifying to see how services have improved and how work around the target has accelerated those improvements.'

Dr Childs, who also practices as a radiation oncologist in Auckland, is the clinical director of a Ministry of Health team charged with driving the Government health target of reducing waiting times for radiotherapy.

This has required a multi-pronged approach of encouraging district health boards (DHBs) to progressively replace and upgrade linear accelerator machines and to put more effort into attracting and training specialised staff, such as radiation therapists and medical physicists, and streamlining systems and processes to improve productivity.

A couple of years on, Dr Childs is happy to report things are progressing well.

'It's really gratifying to see how services have improved and how work around the target has accelerated those improvements.' – Dr John Childs

‘Our six cancer centres have really taken on this challenge, and it’s hugely satisfying to see progress in all areas. Last quarter, all our centres achieved the target of no patient waiting longer than six weeks for treatment, and four achieved the four-week target.

‘Work is progressing well on replacing old linear accelerator machines in a timely fashion, and IT solutions are being introduced to enhance treatment planning and manage patients as they move through the treatment process.

‘New Zealand also now has two private cancer treatment centres, and we are seeing increasing

collaboration between the private and public sector.’

Dr Childs says the key lies with maintaining that momentum, and he is confident that DHBs are developing strategies to ensure that happens. In today’s much improved cancer treatment climate, he says, New Zealanders can have every confidence in the services on offer.

‘We know that patients will be seen and treated within internationally accepted timeframes, that people who have urgent requirements will start treatment sooner and that once people get access to treatment it will be to the highest standard.’



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New software saves time for Christchurch patients

Staff at the Canterbury Regional Cancer Centre used to have to constantly check a whiteboard to find out where things were at with their patients. Now they use their laptops, which are both faster and more efficient.

Canterbury has been using the MOSAIQ system since February 2010, and Centre Manager Lisa Brennan says it's more than proving its worth.

'It allows us to plan and communicate better, organise work flow and share information, and it's saving so much time.'

The MOSAIQ software has been specially developed for oncology centres where health professionals work in teams on complex treatment plans.

'Oncologists, radiation therapists and medical physicists are all involved in a patient's treatment journey. This system allows team members to see what's been done, what still needs to be done

and to sign off tasks as they complete them,' Ms Brennan explains.

The new software system is part of a two-year development plan that aims to achieve better and faster treatment outcomes.

'We are making a significant investment in new equipment, facilities and staff as well as enhanced patient care processes,' says Ms Brennan. 'Our service is being extensively upgraded and modernised at all levels, and I'm sure staff won't be sad to see that old whiteboard go!'

'It allows us to plan and communicate better, organise work flow and share information, and it's saving so much time.' – Lisa Brennan



Doubling the number of new patients who can start treatment

In meeting the target to reduce waiting times for radiation therapy, the challenge for the Southern Cancer Service was to reduce times without compromising the quality of patient care.

‘That just wasn’t an option,’ says Noelle Bennett, Clinical Charge Radiation Therapist and Professional Director.

Ms Bennett, who previously worked in the United Kingdom, had seen patients whisked through in efficiency drives there, and she didn’t want to work in that environment again.

‘Having to undergo cancer treatment is scary enough – the last thing people need is to feel they’re being rushed.’

The only option was to work smarter. The service commissioned an independent review of its systems to see what it could do better and has since made changes that have enhanced services, boosted staff morale and reduced waiting times for treatment.

One solution was to book patients for their CT planning session the day after their first specialist appointment.

‘This has sped up the whole process and sliced four to eight days off waiting times,’ Ms Bennett says.

The service has also increased the number of experienced radiation therapists working permanently in planning. Planning is the step in the treatment process when a tailored treatment plan is worked out for each patient – and it’s where most of the bottlenecks occur.

‘By putting more resources into planning, we’ve been able to get patients started on their treatments sooner and, as a result, we’ve almost doubled the number of new patients able to start their treatment each month.’

The Southern Cancer Service, which provides some of the most advanced and technically challenging radiation treatments in New Zealand, has also reduced the workloads of specialists by training other staff to do routine jobs that can tie up specialists’ time.

Ms Bennett says this initiative has not only reduced workloads for radiation oncologists but has also increased job satisfaction for radiation therapists and nurses.

Dunedin may be the country’s smallest cancer service, but it has established itself as a centre of excellence. It offers sophisticated radiotherapy techniques that can target tumours with sub-millimetre accuracy and match radiation beams to the exact shape of the organ being treated. Ms Bennett says that such sophistication makes the service a very exciting place to work.

‘We may be small, but we’re a solid team, and it’s because of that teamwork between radiation oncologists, radiation therapists, medical physicists, oncology nurses and administrative staff that we’ve been able to work together to increase our efficiency and productivity.’

‘We may be small, but we’re a solid team, and it’s because of that teamwork ... that we’ve been able to work together to increase our efficiency and productivity.’
– Noelle Bennett



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Action plan delivers shorter waiting times

‘Project 28 days’ was the Auckland Oncology Service’s response to the Government’s national ‘call to action’ to reduce radiotherapy waiting times.

The plan involved reviewing processes and systems, finding efficiencies and ultimately cutting waiting times from over six weeks at the start of 2010 to a maximum of four weeks by November 2010, in preparation for the introduction of the new Government target. Dr Andrew Macann, Radiation Oncology Clinical Director, says staff worked hard to achieve those results.

‘Staff across all sub-specialties took on the challenge and came up with some creative solutions that have streamlined our processes, increased our productivity and ultimately

allowed us to offer more timely treatment to our patients.’

Dr Macann says these measures, as well as limited use of private facilities in Auckland, mean patients no longer have to be sent out of the region or, in some cases, to Australia for treatment.

‘The impact of these changes is extremely important for our patients and families who, understandably, become additionally anxious when waiting times for treatment extend beyond clinically recommended levels’, says Dr Macann.

He says it was a combination of a lot of little improvements rather than a ‘seismic shift’ that led to efficiencies – improvements such as streamlining patient referrals, using staff more efficiently and ensuring machines were always being used.

Dr Macann says the productivity gains have benefited not only patients but also staff.

‘Everybody has a better insight and understanding of the whole patient journey and the respective roles they play. A good example is in the treatment planning area where a large number of specialist groups have to interact. By improving our procedures, we have managed to reduce the whole planning process from 15 days to 8 days.’

‘The impact of these changes is extremely important for our patients and families who ... become additionally anxious when waiting times for treatment extend beyond clinically recommended levels.’
– Dr Andrew Macann



Continuous improvement delivers results

The Waikato Cancer Centre has been working consistently hard over the past few years to make sure people who need radiotherapy treatment get it without delay. The centre's linear accelerators operate from 8 am to 6.30 pm weekdays, including most public holidays.

The centre extended its hours five years ago to keep pace with a growing demand for radiotherapy services. It regularly meets the Government target of having no patient waiting longer than four weeks for treatment.

Clinical Director Dr Leanne Tyrie says staff have embraced the challenge to make sure people get the treatment they need when they need it.

'We don't see it as a burden. We really hum here. We're very proud of what we do because what we do makes such a big difference to people's lives.'

Dr Tyrie says the centre has recently made further changes to ensure it continues to meet the target.

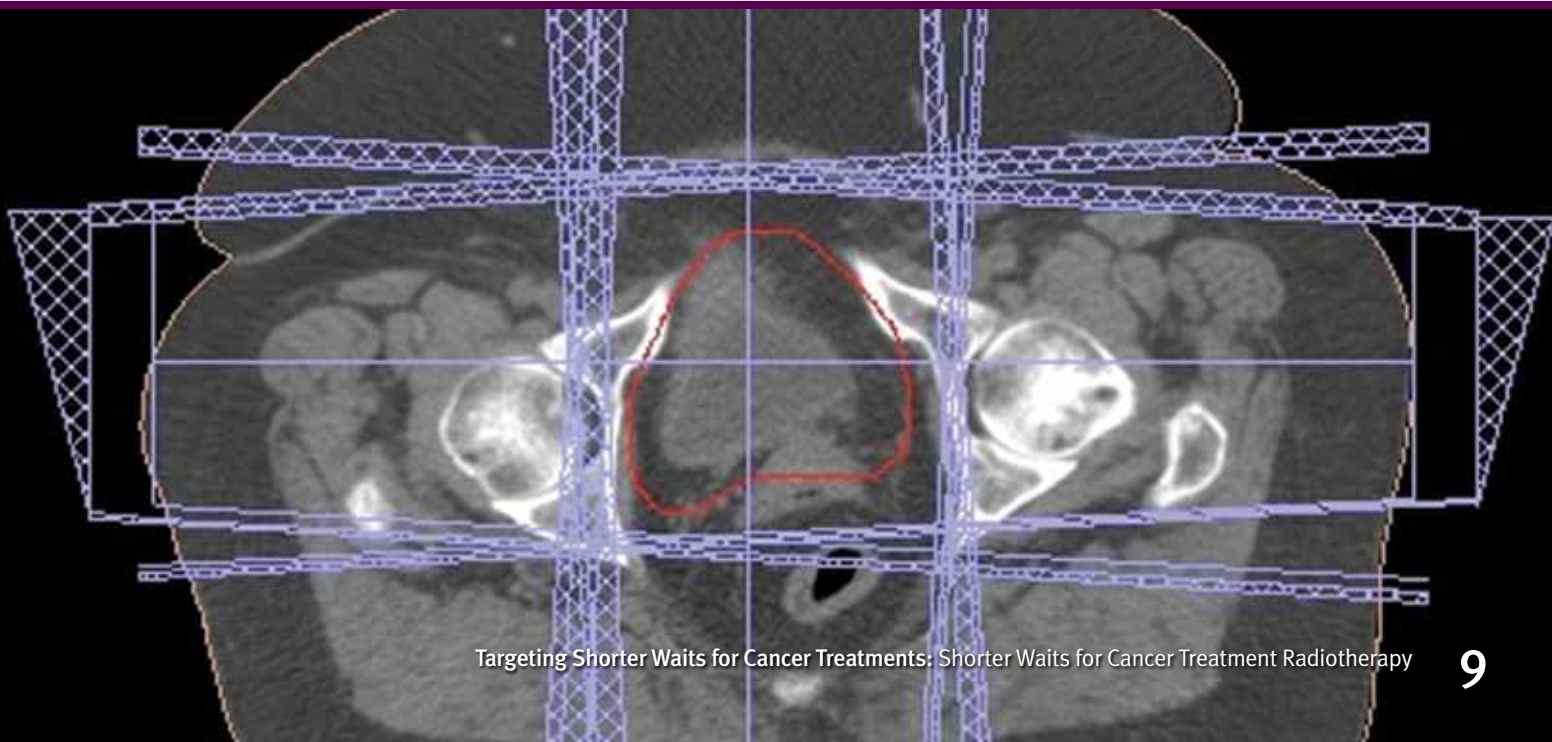
In January 2010, an audit identified areas where the service could do even better. Deputy Charge Radiation Therapist Michael Taylor says this involved 'breaking down the patient journey into steps' to see where bottlenecks were occurring. As a result, the centre addressed backlogs in the treatment planning area by having some radiation therapists start at 7 am.

'We're squeezing as much capacity out of our treatment planning systems as we can,' says Mr Taylor. 'The upshot is that patients start their treatments earlier, and the benefits flow through the whole system.'

With these improvements, and the arrival of a new advanced linear accelerator, the Waikato Cancer Centre will soon be shaving even more time off patient treatment times.

Dr Tyrie says staff at the centre have always had a 'can do' attitude, and she's proud of the way they have responded to the challenges of the past few years to provide the region's cancer patients with 'gold standard' service.

'We really hum here. We're very proud of what we do because what we do makes such a big difference to people's lives.' –
Dr Leanne Tyrie



When wishes come true

Two years ago the MidCentral Regional Cancer Treatment Service in Palmerston North was struggling to meet increasing demands for radiotherapy services. Despite the centre's best efforts, patient waiting times were long and staff morale affected.

Part of the problem was that the centre had only five treatment planning workstations. These are highly sophisticated computers which are used to develop individual treatment plans once cancers have been identified. Centre Manager, Cushla Lucas says, 'We had eight or nine radiation therapists needing to access five machines at various times and this created bottlenecks. It was very frustrating for staff but, worse, it meant patients had to wait longer for treatment. The situation was unsustainable.'

In 2009, in response to the Government health target to reduce radiotherapy waiting times, the centre developed a Radiation Oncology Development Plan. The purchase of more treatment planners was high on the list.

The Ministry of Health agreed to provide the funding and at the end of last year the centre took possession of the new workstations, which included specialised software to allow faster planning for complex techniques.

With the additional treatment planning workstations the turnaround time for planning is much shorter which has contributed to the

Centre meeting the Government target of having no patients waiting longer than four weeks for treatment.

'We're delighted,' says Operations Director, Nicholas Glubb. 'It's great to have put in place a plan that has had such a positive impact on the services we deliver in such a crucial area of health.'

Cushla Lucas says the benefits of the development plan, which included the new workstations, have 'rippled through' the entire radiotherapy service. The staff have made an extraordinary effort to eliminate bottlenecks, create flexibility in organising workflow and have made huge productivity and efficiency gains in all areas of the treatment journey. Importantly, she says, the needs of patients are much better served.

Not content to rest on its laurels the centre is now looking at the need for a new linear accelerator machine – its fourth – and a building to house it at a total cost of over \$6 million.

'It's great to have put in place a plan that has had such a positive impact on the services we deliver in such a crucial area of health.' – Nicholas Glubb





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CASE STUDY: Capital & Coast DHB Wellington Regional Oncology Centre

New service enables Wellington to deliver on targets

Prostate cancer patients from the lower North Island and the whole of the South Island now have access to world-class radiotherapy treatment at Wellington Hospital. The new technology has enabled the centre to reduce patient waiting times.

Last year, the hospital's Cancer Centre began offering High Dose Rate Brachytherapy (or HDR Brachytherapy). This advanced form of radiotherapy involves placing a set of small plastic tubes directly into the prostate to deliver high-dose radiation from inside. It's more effective and less likely to cause side effects, such as impotence and incontinence.

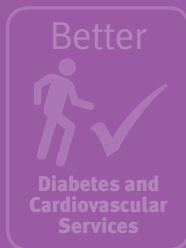
Clinical Leader Radiation Oncology Carol Johnson says it's been an exciting development.

'With this service we are better able to offer state-of-the-art technology to tackle one of New Zealand's most common cancers and to do so quickly and effectively. It also means we've made significant inroads into reducing radiotherapy waiting times in line with the Government health targets.'

Wellington is the second centre in New Zealand to offer HDR Brachytherapy, after Waikato, but the service initially had to share space with a linear accelerator machine, which meant both machines could only run half the time.

That problem was solved with the opening of a \$2.5 million bunker to house the new service. An added benefit is that the linear accelerator is also now able to work to full capacity, and this has further reduced waiting times.'

'With this service we are able to offer state-of-the-art technology to tackle one of New Zealand's most common cancers and to do so quickly and effectively.' – Carol Johnson



The last word –

Kevin Woods, Director-General of Health



As incoming Director-General of Health, I'm delighted to see the way clinicians around the country are working together to improve the care provided to New Zealanders in a number of key health target areas.

The process of changing the way we work to improve quality and efficiency in a tight fiscal environment challenges the ingenuity and creativity of health professionals. It's clearly paying dividends, with various initiatives making a positive difference to improve DHBs' performance against the health targets.

The innovations and stories featured in this publication are part of an integrated health care system that continues to deliver results for patients.

There are significant challenges, and no 'one size fits all' solutions, which is why it's so heartening to read about how local health communities are working collaboratively to deliver good health and independence outcomes for New Zealanders.

Health targets provide a clear and specific focus for action.

People in New Zealand have high expectations that they will have good access to health care services when they need them. This is as it should be – which is why it's so important that we continue to evaluate performance and report on our progress.

While substantial success has been achieved, I look forward to working with you to see continued improvements that will benefit all New Zealanders.

Additional information

More information on health targets can be found at www.govt.nz/healthtargets

More information on cancer can be found at www.moh.govt.nz/cancercontrol

Clinicians and those involved with the target can access further resources and tools relating to the target on the Health Improvement and Innovation Resource Centre website – www.HIIRC.org.nz