



PHARMAC
TE PĀTAKA WHAIORANGA

YEAR IN REVIEW
2018/2019

Cover photo: Hazel Heal, Seed the Change,
and Hep C Action Aotearoa
Photo by Andi Crown Photographer
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Chief Executive's foreword



Sarah Fitt, Chief Executive

Tēnā koutou katoa,

I'm proud to introduce PHARMAC's 2018/2019 Year in Review. This year we are focusing on how we have made a difference in our community, sharing some of our recent funding highlights and explaining how we make our funding decisions.

Medicines

In 2018/2019 PHARMAC used the medicines budget of \$985 million to maintain the supply of medicines we currently subsidise, as well as to fund ten new medicines, including Maviret, a treatment for hepatitis C and widen access to a further ten medicines. As with every year, every dollar in our fixed budget was used to fund medicines for New Zealanders. Where we were able to reduce the cost of medicines to make savings, we funded more medicines.

Medical devices

PHARMAC is continuing to support more consistent access to medical devices for New Zealanders across the country and to help District Health Boards (DHBs) manage spending on medical devices. This year's focus has been on bringing all the devices currently used by DHBs under standard contracts and listing them in the Pharmaceutical Schedule. We recognise that the changes ahead represent a significant shift for DHBs and suppliers and we have consulted widely to ensure we are hearing what they are wanting.

Access equity

We know that not all New Zealanders are achieving the best health outcomes from medicines that are already funded by PHARMAC. Due to a range of systemic barriers, Māori are not able to benefit from funded medicines in the community in the same way as non-Māori. Pacific peoples, those experiencing socioeconomic disadvantage, and those in rural locations are likely to face barriers too.

PHARMAC's publication *Achieving medicine access equity in Aotearoa New Zealand: towards a theory of change* (published in April 2019) outlines the scope

of our current and future equity work. It includes a Medicine Access Equity outcomes framework that recognises there are multiple reasons for medicines access inequities and most require a system-level response. This helps us to understand where to invest resource and to influence change with health sector players, and with communities. We are now developing appropriate indicators and undertaking baseline analysis informed by a range of perspectives we have gained through engagement in the sector, including Māori, clinical and population health expertise.

PHARMAC supports Māori health workforce development by funding annual study awards through our four Māori health professional partners: Te ORA (Māori Medical Practitioners Association), Ngā Kaitiaki o te Puna Rongoā o Aotearoa (Māori Pharmacists Association), Te Rūnanga o Aotearoa, NZNO/Topūtanga Tapuhi Kaitiaki o Aotearoa (New Zealand Nurses Organisation) and Ngā Pou Mana (Māori Allied Health Professionals of Aotearoa).

Transparency

We've listened to the public and to our colleagues in the health care sector. We've heard people want to know more about how PHARMAC works and to understand how funding decisions are made.

To help with this, we're making clearer what stage applications are at in the funding process and how decisions are made. On page 24 you will see an illustration of the application process. This sets out the usual steps for a new medicine going through our funding decisions process. We're working to publish recommendations from our expert clinical advisors faster and, also, to give people more clarity about what we may - and may not - fund, we are identifying inactive applications that we can remove from our waiting list. We have heard that people want certainty and timeliness in our assessment and decision-making processes, even if this means declining a funding application.

We've reviewed how we communicate with the public and our partners in the health care sector to ensure that New Zealanders know about our processes and decisions. The nature of our work means a lot of our documents contain technical jargon and terms. We are now using plain language and removing, where possible, jargon in our writing to help ensure New Zealanders understand and can have trust and confidence in our funding decisions. We are refreshing our website with relevant and easy to understand information. This work will continue next year.

“ We've heard people want to know more about how PHARMAC works and to understand how funding decisions are made. ”

Thanks

I would like to thank the health care professionals who provide us with their expert advice. They come from all over New Zealand as well as a small number from Australia and from a variety of health care roles. Their advice and consideration is invaluable and we are grateful for their efforts to ensure that New Zealanders can access medicines and medical equipment to help them live healthy lives.

Thank you also to all those who have responded to our requests for consultation feedback. We are working hard to better incorporate New Zealanders' views in our decisions and make our processes faster, clearer and simpler - consultation feedback is crucial to help us with that.

Looking forward

As the Year in Review references 2018/2019 it doesn't include the many more recent funding decisions that have been made since July 2019. We are working hard to make more medicines available for more New Zealanders, this year and into the future. Since 1 July 2019 we have made decisions to fund 7 new medicines and to widen access to another 20 medicines.

Nāku iti noa, nā

Sarah Fitt

2018/2019

Highlights



2018/2019 in numbers

Combined Pharmaceutical Budget 2018/2019

\$985m

DHBs' combined pharmaceutical expenditure



Hospital medical devices 2018/2019

29,880

additional line items added to the Pharmaceutical Schedule



10

number of medicines with widened access



10

number of new medicines funded



\$76m

value of medical devices secured under national contracts during 2018/2019



47.2m

number of funded prescription items



3.77m

number of New Zealanders receiving funded medicines (2.5 percent increase on previous year)



106,628

total line items on the Pharmaceutical Schedule under national contracts



\$75.4m

amount of savings achieved to reinvest in medicines



138,346

estimated number of additional patients benefitting from new funded medicines



\$255m

total value of medical devices under PHARMAC contract



A cure for hepatitis C



Hazel Heal, (Seed the Change and Hep C Action Aoteroa) advocate

Hazel Heal is a mother, a wife, a newly qualified lawyer, and no longer has hepatitis C. This is a message she is proud to share with everyone.

A routine blood test in the 80s turned Hazel's life upside down: "I was diagnosed with hepatitis C when five months pregnant, told that there was no cure, and that I was likely to die within ten years".

More than 20 years later, and on the verge of needing a liver transplant, Hazel learnt there was a treatment option that could potentially offer her a cure, but that it was unfunded in New Zealand and would cost her more than \$250,000.

The huge burden of the cost, as well as the stigma she and others with hepatitis C faced, inspired her to share her story, setting up Hep C Action Aoteroa to support and advocate for others with the disease.

In February this year, PHARMAC started funding Maviret, a cure for those with chronic hepatitis C.

There are an estimated 50,000 people with hepatitis C in New Zealand, many of them undiagnosed.

"Three tablets a day for up to 12 weeks is all it takes. People who think they could have been exposed to the hepatitis C infection should speak to their doctor about getting tested and, if they need it, getting the treatment that is potentially a cure for 99% of people."

Hazel is ecstatic that PHARMAC is now funding Maviret: "Since completing my treatment, life is amazing. I have recently qualified as a lawyer and am working hard in my own time as an advocate with Hep C Action Aoteroa to continue to spread the word about Maviret.

"I want all those living with it to feel the way I do! I want everyone to be able to say that they are hepatitis C free!"

Access to medicines for everyone



Sandy Bhawan, Manager, Access Equity

Sandy Bhawan has been made a Fellow of the Pharmaceutical Society of New Zealand. Sandy, Manager of PHARMAC's Access Equity team, reflects on what this means for her work.

"I am proud to have been awarded this prestigious title. I was chosen for my contribution to the pharmaceutical profession. And in my role in PHARMAC, I am continuing to contribute with a new focus – medicine access equity".

"I believe that everyone should have an equal opportunity to access funded medicines to reach their full health potential."

Sandy was the lead author of PHARMAC's publication – *Achieving medicine access equity in Aotearoa New Zealand: towards a theory of change*. This discussion piece, published in April 2019, has already been sparking conversations between different individuals and organisations with a role in the health sector, about actions they can take and collaborate on to help achieve equity.

"As far as we know, this is the first New Zealand publication that discusses medicine access equity and brings together expert opinion and evidence to build a theory about how to improve it. While there is always a lot of discussion in the media about funding new medicines, we believe New Zealand can gain much more by improving access to medicines we already fund. These funded medicines can help make a difference to New Zealanders and help them live better and healthier lives."

Valuing the mahi of Māori nurses



Tee Jay Ranga, recipient of the Tapuhi Kaitiaki award

Tee Jay Ranga was one of the recipients of the inaugural PHARMAC Tapuhi Kaitiaki Awards in August 2018. She is now well on her way to completing her prescribing qualification.

These awards are a collaboration between PHARMAC and Te Rūnanga o Aotearoa/Tōpūtanga Tapuhi Kaitiaki o Aotearoa (NZNO) and Te Poari o Te Rūnanga o Aotearoa, which represents the interests and concerns of their Māori members.

The awards recognise and provide a small amount of funding to Māori nurses who are pursuing study, clinical practice or professional development.

Working at Kokiri Marae since becoming a nurse several years ago, Tee Jay didn't think she was likely to win an award: "I do this job to help others, it would never have occurred to me that I could ask for support for myself.

"I was overwhelmed when it was confirmed that I was one of the first recipients and very grateful to PHARMAC and the New Zealand Nurses Organisation for creating an award specifically for Māori nurses.

"The scholarship funding gave me opportunities I would never have considered possible.

"I have been able to complete the majority of the nursing papers towards the prescribing qualification and am excited that next year, when my patients need a prescription for asthma medication, I will be able to get that for them then and there; that will make a massive difference for my patients and their whānau."

Fairer access to hospital medical devices



Examination equipment is one of the many types of devices within PHARMAC's scope.

PHARMAC, DHBs, suppliers, and the broader health sector are working together to deliver fairer access to publicly funded medical devices that are purchased by DHBs for use in hospitals or in the community.

This year we consulted on the next phase of our management of medical devices. Under the new approach, PHARMAC would be responsible for deciding which devices are able to be used by DHBs, taking into account expert advice. DHBs would decide what devices are needed to deliver their local services, choosing the most appropriate devices from a national medical devices list.

We received 74 submissions from a range of DHBs, professional organisations, other health service providers, suppliers, and consumer health organisations.

"We recognise that the changes ahead represent a significant shift for DHBs and suppliers," says Fiona Rutherford, PHARMAC's Devices Programme Manager.

"We are committed to working collaboratively with the health sector to ensure a successful transition to PHARMAC management of hospital device funding.

"The feedback on the "managing fairer access" consultation was constructive, and we agree with many of the points raised," says Fiona. "We are now working on an implementation plan, which will be informed by previous sector engagement, feedback from this consultation and further engagement with the sector.

"In the first half of 2020, we will engage further with the health sector on operational details and an implementation timetable for the PHARMAC management of hospital devices. The "fairer access" approach will not start until 2021, at the earliest."

What are the benefits?

The new approach is about:

- supporting more consistent access to medical devices for consumers, regardless of where they live
- helping DHBs manage spend on medical devices in a sustainable way
- freeing up funding which may be used for new technology or other health initiatives
- ensuring there's a high level of transparency around funding decisions.

2018/2019

Top 20 therapeutic groups by gross spend

Ranking	Therapy area	Main indication	2017 (\$m)	2018 (\$m)	2019 (\$m)
1	Immunosuppressants	Autoimmune conditions, arthritis, transplant and biologics for cancer	192.1	217.0	247.2
2	Antivirals	Hepatitis C	124.8	84.3	151.5
3	Vaccinations	Vaccine preventable diseases	97.4	131.1	118.7
4	Chemotherapeutic agents	Cancer	83.4	86.1	93.5
5	Antithrombotic agents	Stopping blood clots	53.0	56.0	66.1
6	Diabetes	Diabetes	53.9	57.5	63.4
7	Inhaled long-acting beta-adrenoceptor agonists	Respiratory conditions	53.0	55.8	58.5
8	Endocrine therapy	HRT	32.0	35.9	38.0
9	Anti-epilepsy drugs	Epilepsy	35.5	37.5	36.4
10	Antipsychotics	Mental health	35.7	37.0	33.1
11	Multiple sclerosis treatments	Multiple sclerosis	24.6	28.5	30.0
12	Antifibrinolytics, haemostatics and local sclerosants	Haemophilia	33.0	28.1	29.0
13	Anticholinergic agents	Respiratory conditions	18.6	22.7	25.9
14	Diabetes management	Blood glucose monitors and strips	20.6	22.2	24.8
15	Antiretrovirals	HIV/AIDS	27.8	30.5	24.5
16	Analgesics	Pain relief	19.2	18.1	17.9
17	Oral supplements/complete diet (nasogastric/gastrostomy tube feed)	Special food	13.0	15.7	16.7
18	Treatments for substance dependence	Addiction	14.9	16.3	16.4
19	Antibacterials	Bacterial infections	13.9	13.5	12.9
20	Agents affecting the renin-angiotensin system	Blood pressure, heart failure, kidney failure and effects of diabetes	11.8	12.3	12.5

2018/2019

Top 20 medicines groups by prescription volume

Ranking	Medicine	Prescriptions
1	Paracetamol	2,940,000
2	Atorvastatin	1,430,000
3	Omeprazole	1,410,000
4	Amoxicillin	1,210,000
5	Aspirin	1,180,000
6	Ibuprofen	1,120,000
7	Metoprolol succinate	950,000
8	Salbutamol	930,000
9	Cilazapril	830,000
10	Colecalciferol	790,000
11	Prednisone	690,000
12	Amoxicillin with clavulanic acid	630,000
13	Metformin hydrochloride	620,000
14	Levothyroxine	610,000
15	Zopiclone	590,000
16	Loratadine	570,000
17	Cetirizine hydrochloride	530,000
18	Codeine phosphate	510,000
19	Docusate sodium with sennosides	490,000
20	Fluticasone propionate	480,000

2018/2019

Top 20 medicines by gross cost

Ranking	Medicine	Gross Cost (NZD\$)
1	Glecaprevir and pibrentasvir (Maviret)	106,920,000
2	Adalimumab	89,090,000
3	Dabigatran	43,930,000
4	Trastuzumab	37,300,000
5	Pembrolizumab	33,400,000
6	Insulin glargine	31,380,000
7	Paritaprevir with ritonavir and ombitasvir copackaged with dasabuvir	30,870,000
8	Etanercept	30,310,000
9	Pneumococcal (PCV10) conjugate vaccine	30,230,000
10	Fluticasone with salmeterol	25,070,000
11	Abiraterone	24,770,000
12	Lenalidomide	22,280,000
13	Human papillomavirus vaccine	21,500,000
14	Diphtheria, tetanus, pertussis, polio, hepatitis B and haemophilus influenzae type B vaccine	21,110,000
15	Budesonide with eformoterol	20,540,000
16	Rituximab	20,340,000
17	Varicella zoster virus vaccine (shingles vaccine)	14,690,000
18	Bortezomib	14,060,000
19	Paliperidone	13,990,000
20	Dolutegravir	13,270,000

Long-term prescribing and funding trends



This section of our 2018/2019 Year in Review focuses on long term prescribing and funding trends.

To stay within budget, we constantly monitor medicine usage and forecast future expenditure before deciding which new medicines we can afford to fund. This involves making a range of assumptions about factors such as demand trends for existing medicines and likely future use of newly funded medicines. When we're thinking about subsidising a new medicine, we need to weigh up future cost implications against budget projections to ensure we can continue to subsidise that medicine for New Zealanders that might need to use it now and into the future.

This section also shows some of our key funding decisions from 2018/2019 in the context of longer term trends in the anti-infectives, blood and blood forming products, rare disorders, and vaccines therapeutic groups.



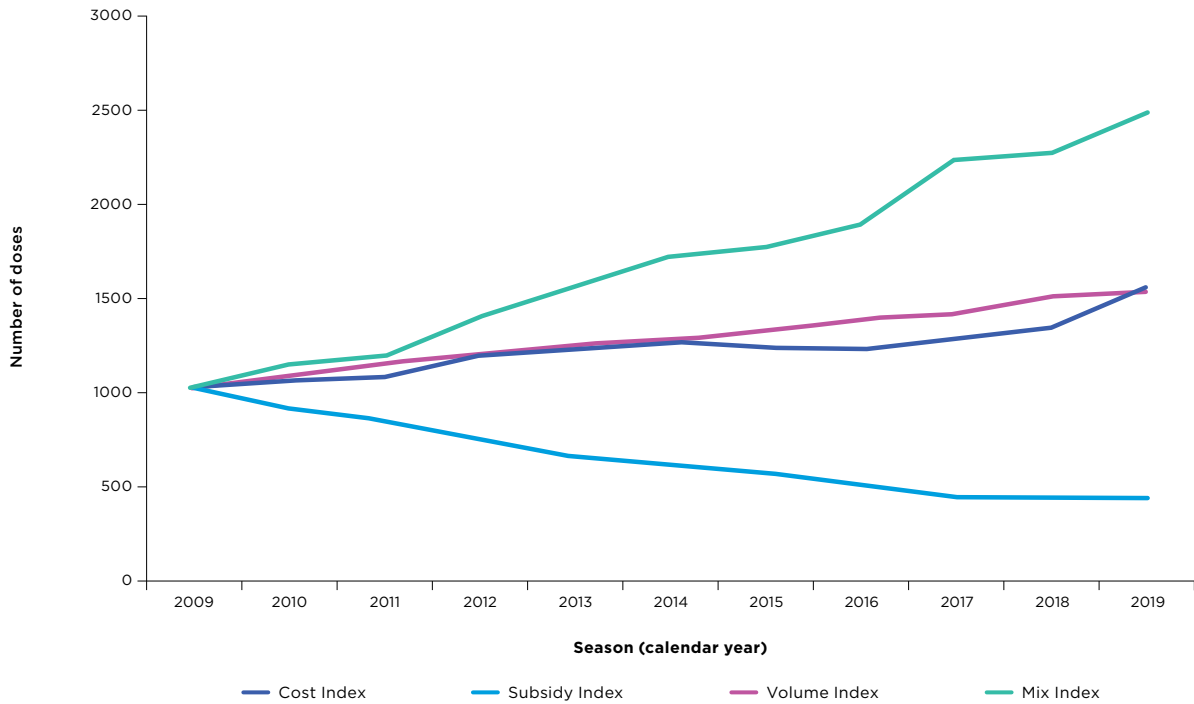
Measuring our impact

New Zealanders are getting more medicines and paying less for them.

The graph below shows that from 2009 the 'number of medicines' (volume) and 'variety of medicines' (mix) has increased over time, meaning we are seeing more, and varied, medicines in New Zealand.

Over the same period, subsidies paid ('subsidy') have gone down, signalling that PHARMAC is achieving savings in the face of medicines costs ('cost') increasing.

Price, Volume, Mix
(actual 2009-2019)

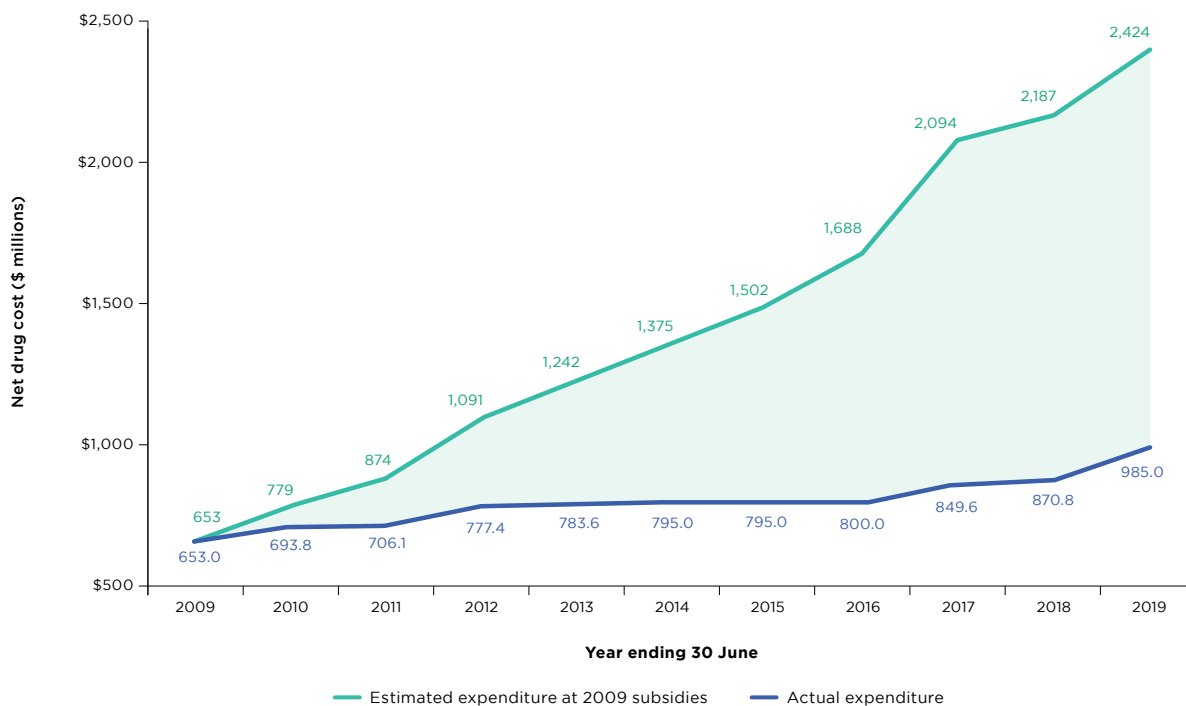


New Zealand is making large medicines savings over time.

New Zealand is controlling medicines expenditure over time. The graph below shows PHARMAC’s impact on medicines spending using 2009 prices as a baseline. PHARMAC has avoided \$7.20 billion in net medicine

costs, with the gap between the two lines highlighting how much money the health system would have had to spend on medicines if PHARMAC wasn’t working hard to manage costs.

Impact of PHARMAC on predicted CPB drug expenditure over time
(actual 2009-2019)



Vaccines

PHARMAC has been involved in the procurement of vaccines since 2004 and has been managing the National Immunisation Schedule since 2012.

During the 2018/2019 financial year, there were two significant infectious disease outbreaks: a meningococcal W outbreak in Northland in November 2018, and a measles outbreak in Canterbury in March 2019.

In the 2018/2019 financial year, PHARMAC secured over 25,000 meningococcal W vaccines for the Northland outbreak, with approximately 15,000 used in the outbreak response.

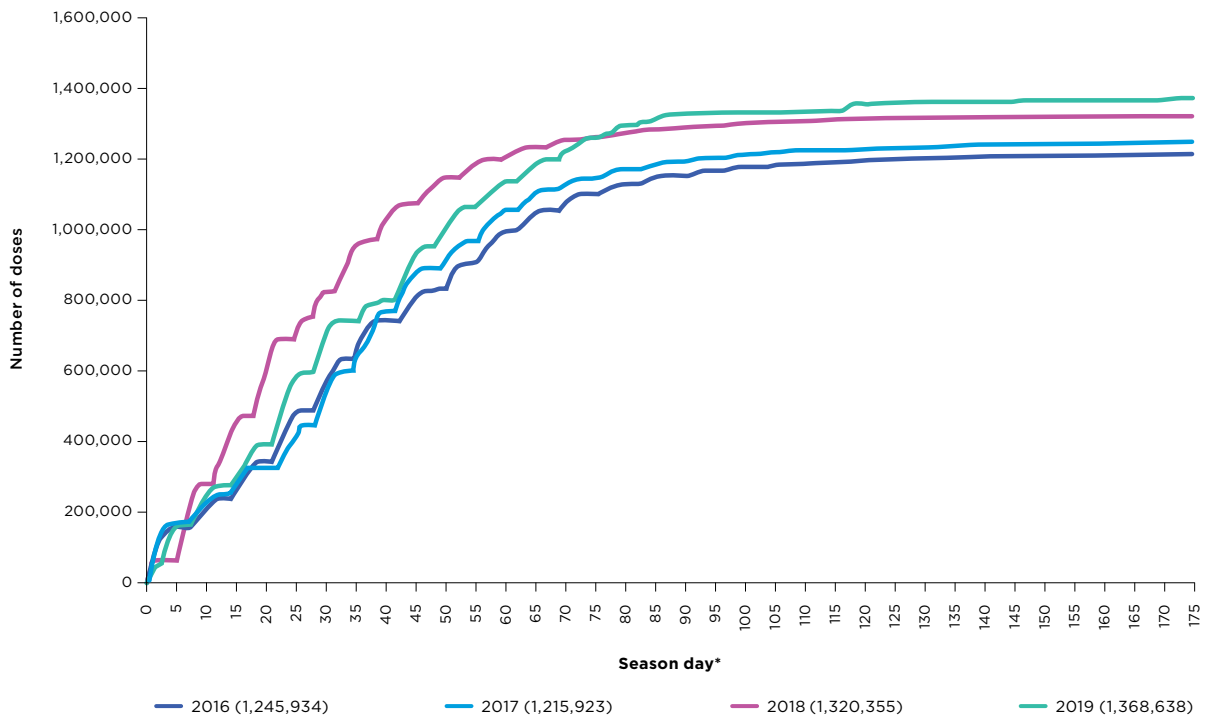
In the 2018/2019 financial year, PHARMAC distributed 230,000 Measles, Mumps and Rubella (MMR) vaccines

around the country, including 54,000 to Canterbury. The amount typically used in New Zealand is 144,000 per annum.

In the 2018/2019 financial year, funding of the pertussis (whooping cough) vaccine was widened to include pregnant women in the second and third trimester of their pregnancy, as well as parents or primary caregivers of infants admitted to a Neonatal Intensive Care Unit or Specialist Care Baby Unit for more than 3 days. Infants cannot be vaccinated against pertussis until 6 weeks of age, but they can get some protection against pertussis from maternal antibodies if their mother was vaccinated during pregnancy.

There was a record demand for influenza vaccines, with 1.33 million vaccine doses being distributed by the end of June 2019. This was the highest number of influenza vaccines ever to have been distributed so early in winter.

Influenza doses distributed by season day, cumulative all brands
2016-2019



*The Ministry of Health defines the "influenza season" as the period between 1 April and 31 December. Prior to 2019 there wasn't a standard definition of "influenza season" and so we worked on the basis that the season started the day that the vaccine arrived in New Zealand from the supplier.

Anti-infectives

Anti-infectives are medicines that work to treat infections. Antibiotics, anti-fungals, and anti-virals are examples of anti-infective medicines. This financial year PHARMAC funded new treatments for HIV and hepatitis C.

In December 2018, PHARMAC awarded sole supply for seven antiretroviral treatments used in the treatment of HIV infection and, in January 2019, PHARMAC approved a multiproduct agreement with Merck Sharp & Dohme resulting in the listing of a new, once-daily presentation of raltegravir for the treatment of HIV.

From 1 February 2019, PHARMAC started funding glecaprevir and pibrentasvir (Maviret), a lifesaving

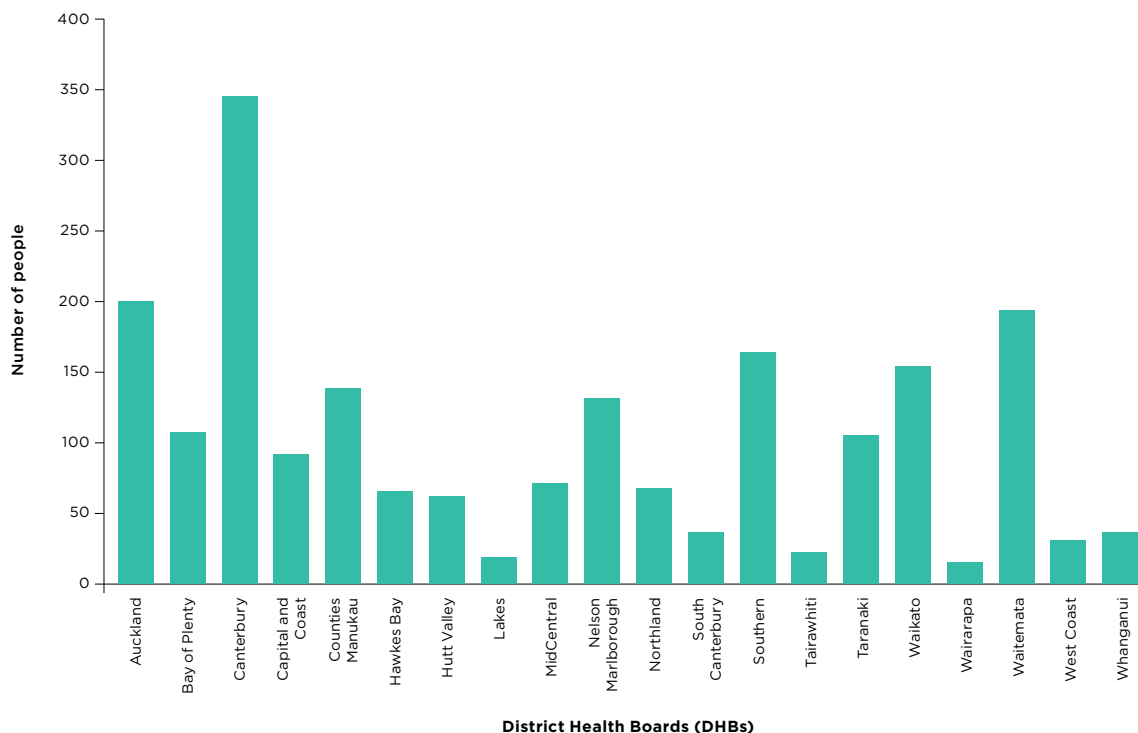
treatment and cure for those in New Zealand living with hepatitis C. In many instances this treatment can lead to fewer cases of liver cancer, reduce the need for liver transplants or prevent early death. This is a major step forward for the treatment and cure of hepatitis C, with estimates that up to 50,000 New Zealanders could benefit.

Within the first three months of funding starting, over 1500 New Zealanders had started treatment with Maviret. The uptake has been at expected levels, but we know that a large proportion of people with hepatitis C don't know they have it. PHARMAC is working with the wider health care sector on initiatives to identify those infected with hepatitis C.

Expenditure in the anti-infectives therapeutic group has risen due to the listing of additional hepatitis C treatments in the past three years, however, expenditure on other anti-infective medicines has remained steady.

Total number of people dispensed Maviret by each DHB

1 February 2019 to 30 June 2019*



*Maviret was first dispensed in February 2019

Rare disorders

PHARMAC understands that people living with rare disorders in New Zealand face challenges accessing suitable health care, including access to effective medicines.

To improve funded access to medicines for this group of patients, PHARMAC established an expert clinical subcommittee for rare disorders in 2018. This group of experts considers funding applications for medicines that meet PHARMAC's definition of 'rare', which is that the medicine treats a clinically defined disorder affecting less than 1 in 50,000 people in New Zealand.

In July last year, PHARMAC made changes in the treatment of the genetic disorder Gaucher's disease. Gaucher's disease is a rare, inherited enzyme deficiency disorder which causes increased quantities of lipids (fats) to build up in the body, leading to a wide variety of symptoms. We changed infusion treatments from imiglucerase (Cerezyme) to taliglucerase alfa (Elelyso), so that patients could have funded access to higher dosing.

In September last year, PHARMAC listed sapropterin (Kuvan), a treatment for phenylketonuria (PKU), for women who are pregnant or planning a pregnancy and require pharmacological support to manage their PKU during their pregnancy.

PHARMAC is committed to continuing our engagement with people who have rare disorders, as well as their representative groups, to better understand their views and continue our work to fund more medicines for people with rare disorders and deliver the best health outcomes for New Zealanders.

PHARMAC staff meet with the New Zealand Organisation of Rare Disorders (NZORD) four times a year to discuss our work in this area. In February this year, senior staff also attended and presented at the NZORD consumer support and education forum to 50 consumers and their families, about the work PHARMAC is doing.

PHARMAC will continue making the best choices we can, expanding available treatments for all New Zealanders using a robust, evidence-based approach.

Blood and blood forming products

In 2018/2019 PHARMAC took an important step forward for people with severe haemophilia.

Haemophilia is a condition where a person's blood does not clot normally, due to lacking one or more of the plasma proteins needed.

From 1 May 2019, around 160 people with severe haemophilia in New Zealand have had some of the broadest access in the world to two new long-acting medicines.

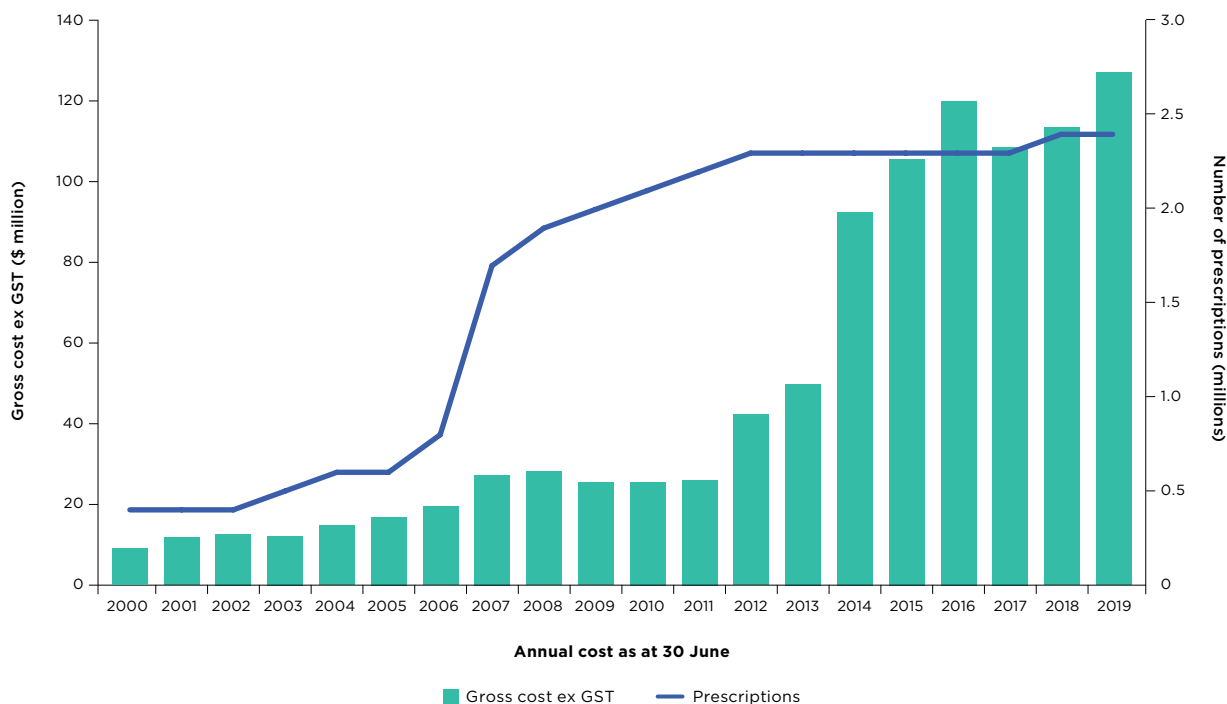
PHARMAC funded two medicines - extended half-life Factor VIII (Adynovate) and Factor IX (Alprolix) - which reduce the number of injections people need to administer to themselves each week.

The new longer acting treatments provide protection against bleeding episodes for longer.

Previous treatments for haemophilia required a patient to self-administer (or have a parent, carer or nurse administer) an injection up to three times per week to be protected from bleeding.

The data below shows that since haemophilia products were included in PHARMAC's remit in 2014, the amount of expenditure on blood and blood forming products has risen steadily, increasing 12% to \$126.9M in 2019. Prescription volumes are up 1.2%.

Blood and blood forming products: comparison of gross cost and number of prescriptions



How we make decisions



PHARMAC leadership

The Board

The PHARMAC Board consists of up to 6 members, including the Chair and up to 5 directors who have a mix of skills and experience. The Board is appointed by the Minister of Health and is ultimately responsible for all PHARMAC's decisions.

Steve Maharey (Chair), MA (Hons), CNZM, independent director and consultant.

Dr Jan White (Deputy Chair), MBBS, MHP, FRACMA, FNZIM, medical practitioner.

Nicole Anderson, DipAcc, DipBus, DipMgt, PGDPH, consultant with a background in accountancy, health, and business development.

Prof Ross Lawrenson, MBBS, MD, DRCOG, DipComm Health, FPCert, DHMSA, FAFPHM, FFPH, FRCGP, medical practitioner and Professor of Population Health at Waikato University with a special interest in primary care and health services research.

Prof Jens Mueller PhD, MSAM, LLM, JurDr, MBA, Professor of Management Practice at Massey University and Shantou University.

This Board membership is accurate as at 30 June 2019. Note that Prof Jens Mueller's appointment ended in September 2019.

The Senior Leadership Team

The Senior Leadership Team runs the day to day operations of PHARMAC. More information about the Senior Leadership Team is available on our website.

Sarah Fitt, Chief Executive

Dr Kenneth Clark, Acting Medical Director (from August 2019)

Alison Hill, Director of Engagement and Implementation

Michael Johnson, Director of Strategic Initiatives

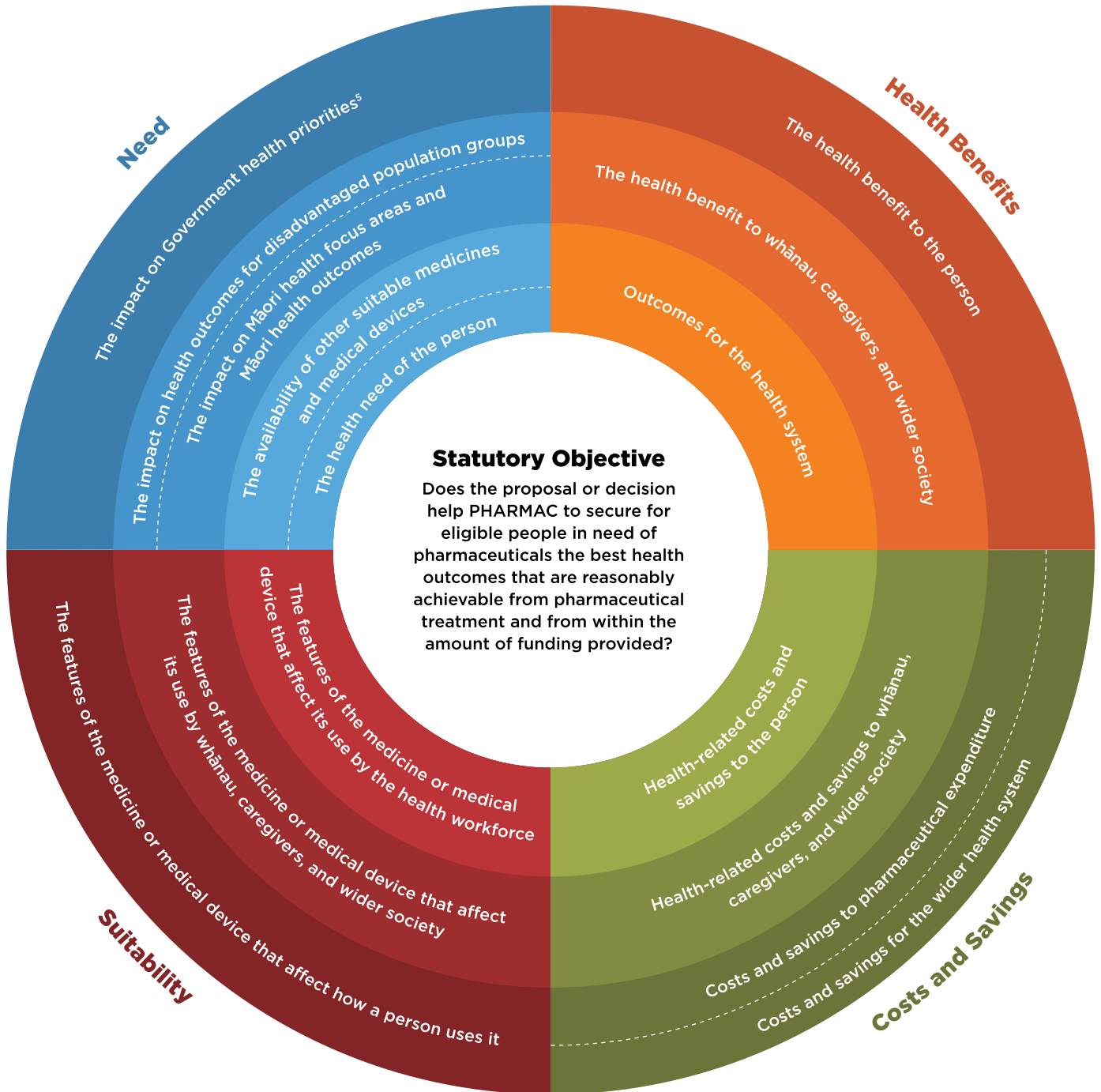
Lisa Williams, Director of Operations

Mark Woodard, Director of Corporate Services and Chief Financial Officer

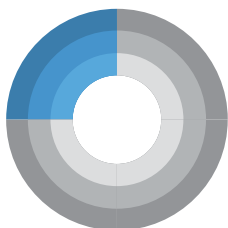


The Senior Leadership Team, left to right: Lisa Williams, Michael Johnson, Sarah Fitt, Alison Hill, Mark Woodard. Not pictured Dr Kenneth Clark.

Factors for Consideration

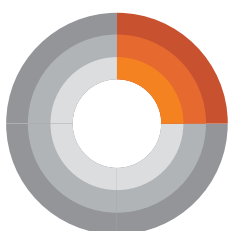


Need



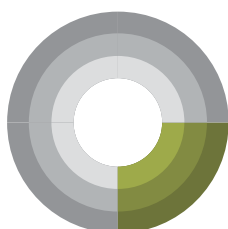
We consider how unwell people who need the medicine or medical device are. We look at the availability and effectiveness of already funded treatments and the health impacts of the person's illness on their caregivers, whānau, and wider society. We also focus on whether any specific population groups are inequitably impacted by the particular illness and whether the treatment would help support a government health priority.

Health Benefits



We consider the health benefits for the person who would receive the medicine or medical device and for their whānau, and the flow on impacts for the wider health system (such as pressure on infusion services or requirement for support services).

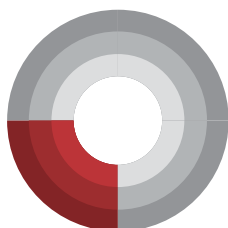
Costs and Savings



We assess all the costs and savings related to funding a medicine or medical device. This includes looking at whether funding the medicine or medical device would add to wider health system costs or reduce them (for example through shorter hospital stays or increased doctor visits).

Whenever we make a decision that reduces the cost of a medicine or medical device that's already funded, we use the money saved to fund new medicines, medical devices or to expand the use of existing medicines or medical devices. PHARMAC does not keep the savings or make a profit.

Suitability



When we assess suitability, we consider the features of a medicine or medical device that might affect how and whether people, caregivers, whānau, and health care professionals use it. Suitability could relate to features of the medicine or device, including size, shape, taste, method of delivery (eg oral vs injection), ease of use, time required to administer, packaging, supporting information, and training.



PHARMAC Factors for Consideration

are used throughout



PHARMAC Factors for Consideration

are used throughout



The journey of a funding application

A medicine supplier, health professional or an everyday New Zealander can apply for a medicine or medical device to be funded.

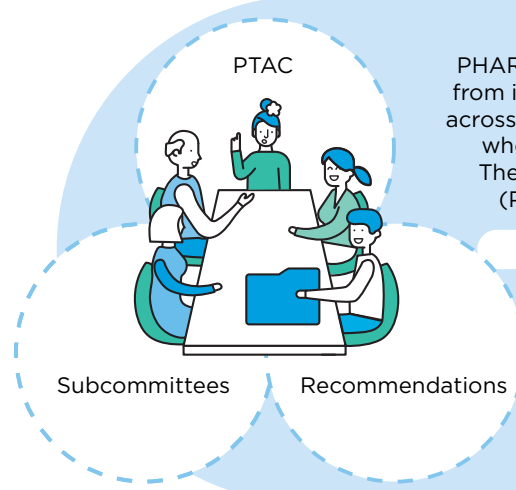
Prepare

your application by collating all relevant information



Advice

PHARMAC receives recommendations from independent clinical experts from across New Zealand's health care sector who sit on the Pharmacology and Therapeutics Advisory Committee (PTAC) and its subcommittees



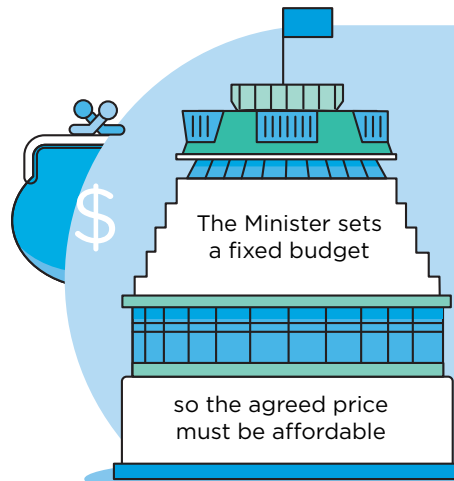
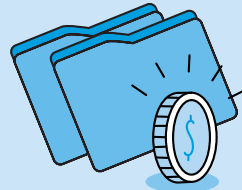
Assess

PHARMAC considers the clinical advice and assesses the medicine. Research and economic analysis take place



Negotiate

PHARMAC negotiates price with suppliers



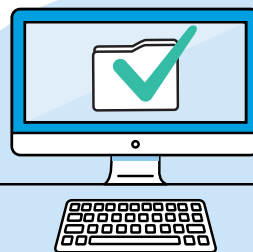
Provisional agreement

PHARMAC and the supplier confirm a provisional agreement



Final decision

The PHARMAC board or delegate makes a final decision



Notification

PHARMAC notifies the decision to health professionals and the public

Listed

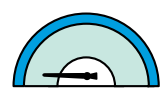
If approved, the medicine or medical device is listed on the Pharmaceutical Schedule






Discuss
your application with someone from PHARMAC

Submit
your application via PHARMConnect

Application Tracker
See your application status online

Review
PHARMAC reviews and evaluates the evidence, including others' submissions on the same medicine or medical device



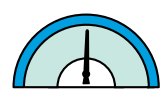

Compare options
PHARMAC compares and ranks medicines



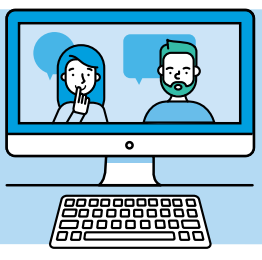
Identify
PHARMAC identifies which medicines on the list to take forward



Prioritise
A prioritised list of medicines for funding is created



Consult
We ask New Zealanders what they think



Final changes
PHARMAC staff make any changes necessary following the consultation submissions



Application Tracker
See your application status online

PHARMAC
TE PĀTAKA WHAIORANGA

For further information visit pharmac.govt.nz

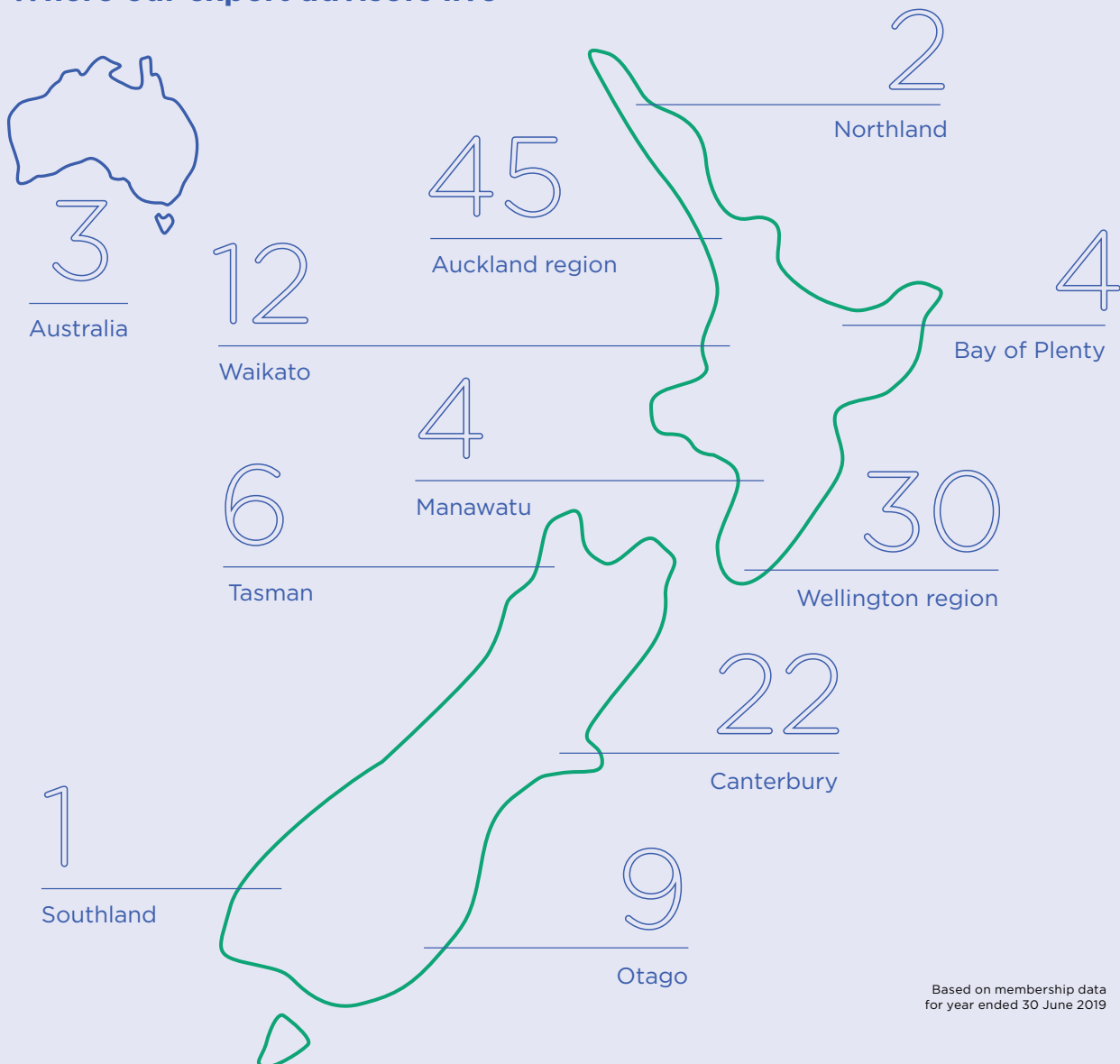
The process set out in this diagram is intended to be indicative of the process that may follow where a supplier or other applicant wishes a pharmaceutical to be funded on the Pharmaceutical Schedule. PHARMAC may, at its discretion, adopt a different process or variations of the process. For example, we decide whether or not it is appropriate to undertake consultation on a case-by-case basis.

Expert advice

We work with over 140 independent health sector professionals around New Zealand who are specialists in their fields. They provide our Board with expert clinical advice when it makes funding decisions about medicines or medical devices.

If you are a health professional and would like to join one of our specialist committees or advisory groups, please contact ptac@pharmac.govt.nz. We are always interested in hearing from medical professionals from areas of New Zealand that are under-represented on our committees.

Where our expert advisors live



Based on membership data for year ended 30 June 2019

Pharmacology and Therapeutics Advisory Committee (PTAC)

PTAC's members are senior health practitioners from a range of specialities. Their role is to provide objective clinical advice to PHARMAC to inform its funding decisions. The terms of reference, current membership and records of PTAC meetings are published on our website.

The list of PTAC members is accurate as at 30 June 2019. The appointments that ended during 2018/2019 are marked with an asterisk ().*

Prof Mark Weatherall (Chair, geriatrician) BA, MBChB, MAppStats, FRACP

Dr Marius Rademaker (Deputy Chair, dermatologist) BM (Soton), MRCP (UK), JCHMT Accreditation, DM, FRCP (Edin), FRACP

Prof Brian Anderson (paediatric anaesthetist/intensivist) MB ChB, Dip Obst, FANZCA, FCICM, PhD

Dr Melissa Copland (pharmacist) PhD, BPharm(Hons), RegPharmNZ, FNZCP

Dr Stuart Dalziel* (paediatrician) MBChB, PhD, FRACP

Assoc Prof Alan Fraser (gastroenterologist) MB, ChB, MD, FRACP

Dr Sean Hanna (general practitioner) MB ChB, FRNZCGP, FRACGP, PGDipGP, PGCertClinEd

Dr Ian Hosford (psychogeriatrician) MBChB, FRANZCP

Prof Jennifer Martin (clinical pharmacologist) MBChB, MA(Oxon.), FRACP, PhD

Prof Stephen Munn (transplant surgeon) MB, ChB, FRACS, FACS

Dr Giles Newton-Howes (psychiatrist) BA, BSc, MBChB, MRCPsych, PostDip BD, FRANZCP

Prof Tim Stokes (general practitioner) MA, MB, ChB, MPH, PhD, FRCP, FRCGP, FRNZCGP

Dr Matthew Strother (medical oncologist) MD (USA), FRACP

Dr Jane Thomas (paediatric anaesthetist) MB ChB, FANZCA, FFPANZCA

Dr Simon Wynn Thomas (general practitioner) BMedSci (UK), MRCP (UK), MRCGP (UK), DFFP, FRNZCGP

PTAC subcommittees

There are 21 specialist committees, which are all subcommittees of PTAC. The subcommittee members are registered clinicians from all around New Zealand and are experts in their field. They provide clinical advice to PHARMAC on funding decisions. The membership and records of PTAC subcommittees are published on our website.

The list of subcommittee members is accurate as at 30 June 2019. The appointments that ended during 2018/2019 are marked with an asterisk ().*

Analgesic subcommittee

Dr Giles Newton-Howes (Chair, PTAC member, psychiatrist)

Dr Tipu Aamir (pain medicine specialist)

Dr Rick Acland (rehabilitation specialist)

Prof Brian Anderson (paediatric anaesthetist/intensivist)

Dr Christopher Jephcott (anaesthetist)

Dr Christopher Lynch (neurologist)

Dr Jane Thomas (PTAC member, paediatric anaesthetist)

Dr Alana Wilson (specialist general practitioner)

Dr Howard Wilson (general practitioner/pharmacologist)

Anti-infective subcommittee

Dr Sean Hanna (Chair, PTAC member, general practitioner)

Dr Emma Best (paediatric infectious diseases consultant)

Dr Simon Briggs (infectious diseases physician)

Dr Steve Chambers (clinical director/infectious disease physician)

Dr James Chisnall (general practitioner)

Prof Ed Gane (hepatologist)

Dr Tim Matthews (general physician)

Dr Graham Mills (infectious disease physician)

Dr Jane Morgan (sexual health physician)

Dr Nigel Patton* (haematologist)

Dr Anja Werno (medical director microbiology)

Dr Howard Wilson (general practitioner/pharmacologist)

Cancer treatments subcommittee

Dr Marius Rademaker (Chair, PTAC member, dermatologist)

Dr Jonathon Adler* (palliative medicine specialist)

Dr Scott Babington (radiation oncologist)

Dr Peter Ganly (haematologist)

Dr Tim Hawkins (haematologist)

Dr Richard Isaacs (medical oncologist)

Dr Allanah Kilfoyle (haematologist)

Dr Anne O'Donnell (medical oncologist)

Dr Matthew Strother (PTAC member, medical oncologist)

Dr Lochie Teague (paediatric haematologist/oncologist)

Dr Michelle Wilson (medical oncologist)

Cardiovascular subcommittee

Prof Tim Stokes (Chair, PTAC member)
 Dr Andrew Aitken (cardiologist)
 Dr John Elliott (cardiologist)
 Prof Jennifer Martin (PTAC member, clinical pharmacologist)
 Dr Richard Medlicott (general practitioner)
 Dr Clare O'Donnell* (paediatric congenital cardiologist)
 Dr Mark Simmonds (cardiologist)
 Dr Martin Stiles* (cardiologist)
 Prof Mark Webster (consultant cardiologist)
 Dr Samuel Whittaker (general practitioner)

Dermatology subcommittee

Dr Melissa Copland (Chair, PTAC member, pharmacist)
 Ms Julie Betts (wound care nurse)
 Dr Martin Denby (general practitioner)
 Dr Paul Jarrett (dermatologist)
 Dr Sharad Paul (general practitioner)
 Dr Diana Purvis (dermatologist/paediatrician)
 Dr Marius Rademaker (PTAC member, dermatologist)

Diabetes subcommittee

Dr Sean Hanna (Chair, PTAC member, general practitioner)
 Dr Melissa Copland (pharmacist)
 Dr Nic Crook (diabetologist)
 Dr Helen Lunt (adult diabetes specialist)
 Dr Diana McNeill (general physician/diabetes specialist)
 Dr Bruce Small* (general practitioner)
 Ms Kate Smallman (diabetes nurse specialist/prescriber)
 Dr Esko Wiltshire (paediatric endocrinologist)
 Dr Dougal Thorburn (general practitioner)

Endocrinology subcommittee

Dr Simon Wynn Thomas (Chair, PTAC member, general practitioner)
 Dr Anna Fenton (endocrinologist)
 Assoc Prof Andrew Grey (endocrinologist)
 Prof Alistair Gunn (paediatric endocrinologist)
 Dr Stella Milsom (endocrinologist)
 Dr Bruce Small (general practitioner)
 Dr Jane Thomas (PTAC member, paediatric anaesthetist)
 Dr Esko Wiltshire (paediatric endocrinologist)

Gastrointestinal subcommittee

Dr Simon Wynn Thomas (Chair, PTAC member, general practitioner)
 Dr Murray Barclay (clinical pharmacologist/gastroenterologist)
 Dr Simon Chin (paediatric gastroenterologist)
 Dr Sandy Dawson (general practitioner)
 Assoc Prof Alan Fraser (PTAC member, gastroenterologist)
 Assoc Prof Michael Schultz (gastroenterologist)
 Assoc Prof Catherine Stedman (gastroenterologist/hepatologist and clinical pharmacologist)
 Dr Russell Walmsley (gastroenterologist)

Haematology subcommittee

Prof Mark Weatherall (Chair, PTAC Chair, geriatrician)
 Prof Brian Anderson (PTAC member, anaesthesia and intensive care medicine specialist)
 Prof John Carter* (haematologist)
 Dr Nyree Cole* (paediatric haematologist)
 Dr Paul Harper (haematologist)
 Dr Tim Hawkins (haematologist)
 Dr Eileen Merriman (haematologist)
 Assoc Prof Paul Ockelford (haematologist)
 Dr Nigel Patton* (haematologist)
 Dr Julia Phillips (haematologist)

Immunisation subcommittee

Dr Sean Hanna (Chair, PTAC member, general practitioner)
 Dr Stuart Dalziel (paediatrician)
 Assoc Prof Cameron Grant (paediatrics)
 Prof Karen Hoare (nurse practitioner/senior lecturer)
 Assoc Prof Lance Jennings (clinical virologist)
 Dr Osman Mansoor (public health physician/Medical Officer of Health)
 Dr Stephen Munn (PTAC member, transplant surgeon)
 Dr Gary Reynolds (general practitioner)
 Dr Michael Tatley (Director of New Zealand Pharmacovigilance Centre)
 Assoc Prof Nikki Turner (Director of Immunisation Advisory Centre)
 Dr Ayesha Verrall (adult infectious diseases specialist)
 Dr Tony Walls (paediatrician/infectious diseases specialist)
 Dr Elizabeth Wilson (paediatric infectious diseases specialist)

Mental health subcommittee

Dr Sean Hanna (Chair, PTAC member, general practitioner)
 Dr David Chinn (child and adolescent psychiatrist)
 Dr Ian Hosford* (psychogeriatrician)
 Dr Verity Humberstone (psychiatrist)
 Dr Jeremy McMinn (consultant psychiatrist addiction specialist)
 Assoc Prof David Menkes (psychiatrist)
 Dr Giles Newton-Howes (PTAC member, psychiatrist)
 Dr Cathy Stephenson (general practitioner/sexual assault medical examiner)

Nephrology subcommittee

Dr Jane Thomas (Chair, PTAC member, paediatric anaesthetist)
 Assoc Prof John Collins (renal physician)
 Dr Nick Cross (nephrologist)
 Dr Malcom Dyer (general practitioner)
 Dr Maggie Fisher (specialist/renal physician)
 Dr Colin Hutchison (nephrologist)
 Assoc Prof Helen Pilmore* (renal physician)
 Dr Richard Robson* (clinical pharmacologist, consultant physician in nephrology)
 Dr William Wong (paediatric nephrologist)

Neurological subcommittee

Prof Mark Weatherall (Chair, PTAC member, geriatrician)
 Dr John Fink (neurologist)
 Dr Richard Hornabrook (general practitioner)
 Dr Ian Hosford* (psychogeriatrician)
 Dr John Mottershead (neurologist)
 Dr Giles Newton-Howes (psychiatrist)
 Dr Ian Rosemergy (neurologist)
 Dr Paul Timmings (neurologist)

Ophthalmology subcommittee

Dr Stephen Munn (Chair, PTAC member, transplant surgeon)
 Dr Marius Rademaker (PTAC member, dermatologist)
 Mr Peter Grimmer (optometrist)
 Dr Malcolm McKellar (ophthalmologist)
 Dr Jo Sims (ophthalmologist)
 Dr David Squirrell (ophthalmologist)
 Dr Samuel Whittaker (general practitioner)
 Dr Rose Dodd* (general practitioner)

Rare disorders subcommittee

Prof Tim Stokes (Chair, PTAC member, general practitioner)
 Dr James Cleland (neurologist and neurophysiologist)
 Dr Melissa Copland (PTAC member, pharmacist)
 Dr Janice Fletcher (clinical geneticist and metabolic physician)
 Prof Carlo Marra (Dean of the School of Pharmacy, University of Otago)
 Dr Dylan Mordaunt (clinical geneticist)
 Dr Humphrey Pullon (haematologist)
 Dr Howard Wilson (general practitioner)
 Dr William Wong (paediatric nephrologist)

Reproductive and sexual health subcommittee

Dr Melissa Copland (Chair, PTAC member, pharmacist)
 Dr Mira Harrison-Woolrych* (obstetrician and gynaecologist)
 Dr Debbie Hughes (general practitioner)
 Dr Jane Morgan (sexual health physician)
 Dr Ian Page (obstetrician and gynaecologist)
 Dr Helen Paterson (obstetrician and gynaecologist)
 Dr Christine Roke (sexual health physician)
 Dr Simon Wynn Thomas (general practitioner)

Respiratory subcommittee

Dr Matthew Strother (Chair, PTAC member, medical oncologist)
 Dr Tim Christmas (respiratory physician)
 Dr Andrew Corin (general practitioner)
 Dr Stuart Dalziel (paediatrician)
 Dr Greg Frazer (respiratory physician)
 Dr David McNamara (paediatric respiratory physician)
 Dr Ian Shaw (paediatrician)
 Prof Tim Stokes (PTAC member, general practitioner)
 Dr Justin Travers (respiratory physician)
 Dr Neil Whittaker (general practitioner)

Rheumatology subcommittee

Dr Marius Rademaker (Chair, PTAC member, dermatologist)
 Dr Priscilla Campbell-Stokes (paediatrician)
 Dr Keith Colvine (rheumatologist and general physician)
 Dr Michael Corkill (rheumatologist)
 Assoc Prof Alan Fraser (PTAC member, gastroenterologist)
 Assoc Prof Andrew Harrison (rheumatologist),
 Dr Janet Hayward (general physician)
 Dr Haseena Hussain (general practitioner)
 Prof Lisa Stamp (rheumatologist)
 Assoc Prof Will Taylor (rheumatologist)

Special foods subcommittee

Prof Jennifer Martin (Chair, PTAC member, clinical pharmacologist)
 Dr Simon Chin (paediatric gastroenterologist)
 Assoc Prof Alan Fraser (PTAC member, gastroenterologist)
 Mrs Kim Herbison (paediatric dietitian)
 Mrs Julie Hollingsworth (nurse practitioner)
 Dr Kerry McIlroy* (dietician)
 Dr Jan Sinclair (paediatric allergy and clinical immunologist)
 Dr Moira Styles* (community dietician)
 Dr Russell Walmsley (gastroenterologist)
 Dr Jocy Wood (general practitioner)
 Ms Victoria Woollett (community dietitian)

Transplant immunosuppressant subcommittee

Dr Marius Rademaker (Chair, PTAC member, dermatologist)
 Dr Helen Evans (paediatric hepatologist/gastroenterologist)
 Dr Peter Ganly (haematologist)
 Dr Tanya McWilliams (respiratory physician)
 Dr Stephen Munn (PTAC member, transplant surgeon)
 Dr Grant Pidgeon (renal physician)
 Dr Richard Robson* (nephrologist)
 Dr Peter Ruygrok (cardiologist)

Tender medical and evaluation subcommittee

The tender medical and evaluation subcommittee advises on our annual tender process for sole supply and/or hospital supply status for 400-600 pharmaceutical items.

Dr Melissa Copland (Chair, PTAC member, pharmacist)
 Prof Brian Anderson (PTAC member)
 Ms Laura Clunie (hospital pharmacist)
 Dr Ben Hudson (general practitioner)
 Craig MacKenzie (hospital pharmacist)
 Dr John McDougall (anaesthetist)
 Clare Randall (palliative care clinical pharmacist)

Geoff Savell (pharmacist)
 Dr David Simpson (haematologist)
 Ms Amanda Stanfield (community pharmacist)
 Prof Tim Stokes (Professor of General Practice)
 Helen Topia (nurse practitioner/clinical educator)
 Lorraine Welman (pharmacist)

Medical device advisory groups

We take advice from two specialist advisory groups for our work relating to hospital medical devices.

Interventional cardiology

Dr Scott Harding (Chair, interventional cardiologist)
 Dr Seif El-Jack (interventional cardiologist)
 Dr Sandi Graham (cardiology interventional nurse rep)
 Dr Barry Kneale (interventional cardiologist)
 Dr Madha Menon (interventional cardiologist)
 Dr Rajesh Nair (structural interventional cardiologist)
 Dr David Smyth (structural interventional cardiologist)
 Dr Mark Webster (structural interventionalist)
 Dr Gerard Wilkins (interventional cardiologist)
 Dr Nigel Wilson (paediatric cardiologist)

Wound care

Julie Betts (Chair, wound care nurse practitioner)
 Catherine Hammond (wound care clinical nurse specialist and educator)
 Jonathan Heather (plastic surgeon)
 Wendy Mildon (clinical nurse specialist wound care)
 Amanda Pagan (wound care specialist nurse)
 Emil Schmidt (nurse specialist wound care)
 Alan Shackleton (nurse consultant – wound care service clinical lead)
 Susie Wendelborn (specialty clinical nurse wound care)

Exceptional circumstances framework

When a clinician applies for funding for an individual patient for a medicine that isn't on the Pharmaceutical Schedule, we apply our Exceptional Circumstances Framework. We take advice from a panel of expert clinicians – the “Named Patient Pharmaceutical Assessment” (NPPA) Advisory Panel, which consists of clinicians in a range of specialties.

The list of members is accurate as at 30 June 2019. The appointments that ended during 2018/2019 are marked with an asterisk ().*

NPPA panel

Dr George Laking* (Chair, oncologist)
 Dr Paul Timmings (deputy chair, neurologist)

Dr Christina Cameron (consultant general physician and clinical pharmacologist)
 Dr Malcolm Dyer (general practitioner)
 Dr Dylan Mordaunt (clinical geneticist)
 Dr John Mottershead (consultant neurologist)
 Dr Paul Ockelford (clinical haematologist)
 Dr Nina Sawicki* (general practitioner)
 Dr Janet Titchener (general practitioner)
 Dr Justin Travers (general and respiratory physician)
 Dr Rachel Webb (paediatric infectious disease physician)

Special access panels

These are the panels which are responsible for assessing applications under Board-approved Special Authority criteria for a number of high-cost specialised medications. The members are experts in their fields. The panels meet to assess applications when required.

Cystic fibrosis panel

Dr Cass Byrnes (respiratory paediatrician)
 Dr Richard Laing (respiratory physician)
 Dr Mark O'Carroll (respiratory physician)
 Dr Ian Shaw (paediatrician)

Gaucher treatment panel

Dr Ian Hosford (Chair, consultant psychogeriatrician)
 Dr Colin Chong (radiologist)
 Dr Tim Hawkins (haematologist)
 Dr Callum Wilson (metabolic consultant)

Hepatitis C treatment panel

Prof Ed Gane (hepatologist)
 Prof Catherine Stedman (gastroenterologist and clinical pharmacologist)
 Dr Campbell White (consultant physician and gastroenterologist)
 Dr Jeffrey Wong (gastroenterologist)
 Sarah Fitt (Chief Executive, PHARMAC)

Multiple sclerosis treatment assessment committee

Dr Ernie Willoughby (Chair, neurologist)
 Dr David Abernethy (neurologist)
 Dr John Mottershead (neurologist)
 Dr Alan Wright (neurologist)

Pulmonary arterial hypertension panel

Dr Andrew Aitken (cardiologist)
 Dr Lutz Beckert (respiratory physician)
 Dr Clare O'Donnell (paediatric congenital cardiologist)
 Dr Kenneth Whyte (respiratory physician)
 Dr Howard Wilson (general practitioner/pharmacologist)

Listening to consumers

The Consumer Advisory Committee (CAC) gives PHARMAC advice from a patient or health consumer point of view. The committee is made up of people from a range of backgrounds and interests, including Māori people, Pacific peoples, older people, and people with chronic diseases.

The CAC advises PHARMAC on many areas including:

- our strategies, policies and operational activities around funding, access to, and optimal use of medicines
- how we can best communicate our decisions, policies and strategies
- how the CAC can engage with consumers to ensure it gives quality advice to PHARMAC.

The CAC does not give PHARMAC advice on specific funding applications. The CAC is an advisory committee to the PHARMAC Board. It provides written reports to the Board and the CAC Chair attends Board meetings as an observer. The New Zealand Public Health and Disability Act 2000 establishes the CAC. The terms of reference and records of CAC meetings are published on our website.

Membership

The list of CAC members is accurate as at 30 June 2019. Appointments which ended during 2018/2019 are marked with an asterisk ().*

Chair

David Lui – Pacific health consultant, Mental Health Foundation of NZ Board member, Auckland

Deputy chair

Stephanie Clare – Chief Executive, Age Concern NZ, Wellington

Members

Key Frost – mental health advocate, Invercargill

Francesca Holloway – Northern Regional Manager of Arthritis NZ, Auckland

Lisa Lawrence – Kaiwhakahaere, Motueka Family Service Centre, Nelson

Te Ropu Poa – General Manager of Te Hau Ora O Ngāpuhi, Kaikohe

Tuiloma Lina Samu – Pacific health advocate, Auckland

Adrienne von Tunzelmann – Board member, Age Concern NZ and Osteoporosis NZ, Tauranga

Neil Woodhams* – Vice President, Multiple Sclerosis NZ, Auckland







PHARMAC

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If you are interested in working for PHARMAC
please register on our careers site
www.careers.pharmac.govt.nz

Pharmaceutical Management Agency
Level 9, 40 Mercer Street, PO Box 10254,
Wellington 6143, New Zealand
Email: enquiry@pharmac.govt.nz
www.pharmac.govt.nz
Phone: +64 4 460 4990
 @PHARMACnz

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