

PHARMACEUTICAL MANAGEMENT AGENCY

YEAR IN REVIEW

2017



TOP 20 THERAPEUTIC GROUPS BY SPEND

GROUP NAME	MAIN USE	2014	2015	2016	2017
Immunosuppressants and biologics	Autoimmune conditions, arthritis, transplant and biologics for cancer	\$140.33	\$154.54	\$162.29	\$191.78
Antivirals	Viral infections	\$14.96	\$16.64	\$14.76	\$118.52
Vaccinations	Vaccinations	\$42.57	\$91.37	\$92.33	\$97.61
Chemotherapeutic agents	Cancer	\$70.68	\$63.98	\$75.13	\$83.16
Diabetes	Diabetes	\$43.07	\$46.99	\$50.62	\$53.87
Inhaled long-acting beta-adrenoceptor agonists	Asthma	\$48.37	\$54.13	\$55.40	\$52.99
Antithrombotic agents	Stopping blood clots	\$41.48	\$50.88	\$63.51	\$52.94
Antiretrovirals	HIV/AIDS, viral infections	\$26.41	\$29.53	\$32.72	\$36.66
Antipsychotics	Mental health (psychoses)	\$32.89	\$31.34	\$33.33	\$35.58
Antiepilepsy drugs	Epilepsy	\$30.49	\$32.23	\$33.91	\$35.51
Endocrine therapy	Hormone therapy	\$10.98	\$12.83	\$28.20	\$31.96
Multiple sclerosis treatments	Multiple sclerosis	\$9.24	\$11.36	\$20.18	\$24.31
Diabetes management	Blood glucose monitors	\$17.96	\$18.59	\$19.12	\$20.59
Analgesics	Pain relief	\$22.42	\$20.98	\$20.40	\$19.16
Anticholinergic agents	Allergies	\$16.45	\$17.23	\$18.43	\$18.54
Treatments for substance dependence	Addiction	\$16.84	\$15.66	\$15.17	\$14.85
Antibacterials	Bacterial infections	\$13.59	\$13.41	\$14.24	\$13.90
Oral supplements/complete diet (nasogastric/gastrostomy tube feed)	Special food	\$9.50	\$10.05	\$10.77	\$12.93
Antidepressants	Mental health (depression)	\$16.76	\$15.21	\$13.34	\$12.91
Antianaemics	Anaemic conditions	\$10.12	\$11.62	\$12.31	\$12.51

(Gross spend \$millions ex GST and rebates)

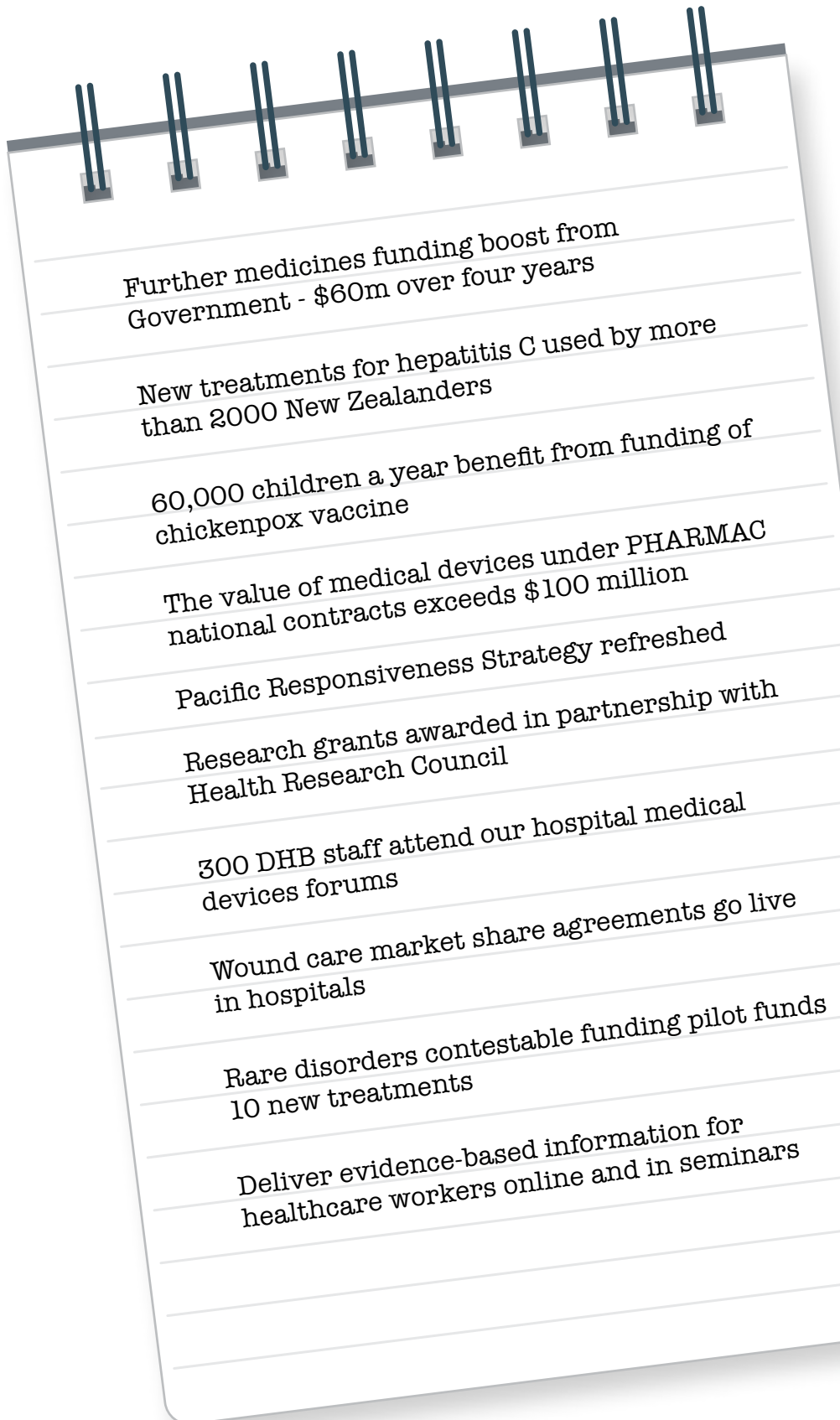
YEAR IN REVIEW 2017

CONTENTS

HIGHLIGHTS FOR 2017	02
CHIEF EXECUTIVE'S REVIEW	03
THE VACCINES STORY	04
CANCER MEDICINES	06
LET'S BE BOLD	08
BETTER VALUE IN HOSPITALS	14
COMMUNITY ENGAGEMENT	16
PRICING IN THE LIMELIGHT	18
FREEING UP RESOURCES FOR DHB HOSPITALS	20
THERAPEUTIC GROUP SUMMARIES	21
DIRECTORY OF COMMITTEES	31

YEAR IN REVIEW 2017

2017 YEAR HIGHLIGHTS



Further medicines funding boost from Government - \$60m over four years

New treatments for hepatitis C used by more than 2000 New Zealanders

60,000 children a year benefit from funding of chickenpox vaccine

The value of medical devices under PHARMAC national contracts exceeds \$100 million

Pacific Responsiveness Strategy refreshed

Research grants awarded in partnership with Health Research Council

300 DHB staff attend our hospital medical devices forums

Wound care market share agreements go live in hospitals

Rare disorders contestable funding pilot funds 10 new treatments

Deliver evidence-based information for healthcare workers online and in seminars



COMMUNITY MEDICINES

- 18 new medicines funded
- \$52 million savings achieved
- 8 medicines with access widened
- 3.6 million New Zealanders received a funded medicine
- 45.8 million prescriptions subsidised – an all-time high



HOSPITAL MEDICINES

- 4 new medicines funded
- 2 medicines with access widened
- \$8.98 million full-year savings to DHB hospitals
- \$8.42 million reinvested in hospital medicines



HOSPITAL MEDICAL DEVICES

- 29,000 new line items added to the Pharmaceutical Schedule – total now 45,000
- \$17.07 million – net savings over five years from contracts negotiated during the year
- \$39.42 million savings over five years from all contracting to date
- \$109 million – total value of medical devices under PHARMAC contracts



“As PHARMAC approaches a quarter of a century serving New Zealanders, we think the time is right to set some intentionally difficult targets to work towards.

From Chief Executive Steffan Crausaz

The year began with a significant increase in PHARMAC's budget - \$124 million over four years, giving PHARMAC additional scope for making new investments in medicines. We funded 18 new medicines, including new treatments for hepatitis C, advanced melanoma, breast cancer, and vaccines. With cure rates of up to 95%, the hepatitis C treatments are an important advance over the previously funded treatments.

A further funding lift occurred in 2017, securing a strong platform for medicine investments. One of these has seen better access to medicines for HIV, so that people can get them much earlier in the progress of the disease.

There was significant progress in PHARMAC's management of hospital medical devices. By year-end we had negotiated national agreements worth about \$109 million of DHB expenditure. To date, savings from national contracts are a minimum of \$39 million over five years. But we're ambitious about our ability to achieve greater savings in future – aiming for \$1 billion in savings by 2025. We're encouraged by the track this is already taking – savings in devices are similar to the savings we generated in community medicines and hospital medicines in the early years.

We were also very encouraged by the feedback people gave us at our DHB Devices Forums in the first half of 2017. People now understand we're in the hospital medical devices space, and are working in partnership with us to implement contracts as we move towards our long-term goal of budget management. This is a significant shift and represents good engagement and hard work with our sector partners.

This year also provided us with the opportunity to reflect what we have achieved for New Zealanders in key areas of therapy new to PHARMAC budget management – cancer treatments and vaccines. The stories on pages 4 and 6 show not only the new medicines we have funded but how care has changed for patients. We have done that by using the PHARMAC model – increasing choices for prescribers and offering more treatments for more people, while avoiding many of the prices charged internationally for the same medicines. Read more about international pricing on page 18.

Bold goals

As PHARMAC approaches a quarter of a century serving New Zealanders, we think the time is right to set some intentionally difficult targets to work towards. Our new strategy, reflected in our refreshed Statement of Intent for the next four years, will ensure we can make an even bigger contribution to the New Zealand health system, and to the health of all New Zealanders.

The Strategy includes three bold goals which will be our focus over the coming years. They are:

1. **Eliminate inequities in access to medicines**
2. **Generate \$1 billion of savings from medical device management to reinvest in health outcomes for New Zealanders**
3. **Create systems that enable the best investment choices to be implemented across all PHARMAC activities.**

In this Year in Review, we take a close look at each of these bold goals on pages 8 - 13. We know these are challenging, but in striving to meet them working alongside our partners, we will have a positive impact on the health system and improve the lives of all New Zealanders.

ADDING VALUE - PHARMAC'S IMPACT ON NEW ZEALANDERS' LIVES

THE VACCINES STORY



PHARMAC began managing the national immunisation schedule in 2012. Since then, PHARMAC has added four new vaccines and given New Zealanders greater access to 13 already funded vaccines. In late 2017 we also proposed funding for a vaccine for zoster (shingles) for those aged 65, while those up to the age of 80 would take part in a catch-up programme, benefitting up to 600,000 people.

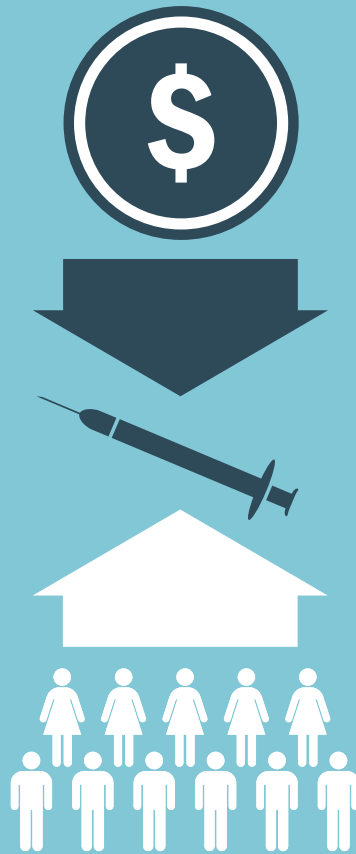
We have achieved these results despite the potential impacts on our fixed budget. While the gross expenditure on vaccines has increased, PHARMAC's approach means that actual expenditure, via confidential rebates, is well managed.

Highlights of our management of vaccines include:

- Listing of rotavirus vaccine for all children, from 1 July 2014. Rotavirus is a significant cause of gastric illness in young children, and the listing of the vaccine was linked with a 75% reduction in children up to 2 years being admitted to Auckland hospitals for the illness.
- Listing of varicella (chickenpox) vaccine. This was first listed in 2013 for children with compromised immune systems. In 2017 access was widened to all eligible children, when chickenpox vaccine was included in the national immunisation schedule.
- Funding HPV vaccine for males up to 26. As well as causing cervical cancer in women, human papilloma virus (HPV) is associated with other cancers such as throat, head and neck cancers.
- From 2013, pregnant women were able to obtain the funded pertussis vaccine against whooping cough, ensuring an estimated 30,000 women and their newborn babies are protected against this disease.
- The awarding of sole supply, to Mylan, for the influenza vaccine from 2017-19 and enabling pharmacists to administer the flu vaccine to people aged 65 and over, and pregnant women, means more people can access the flu vaccine.

VACCINE NET PRICE FALLING

NEW ZEALANDERS WITH ACCESS GROWING



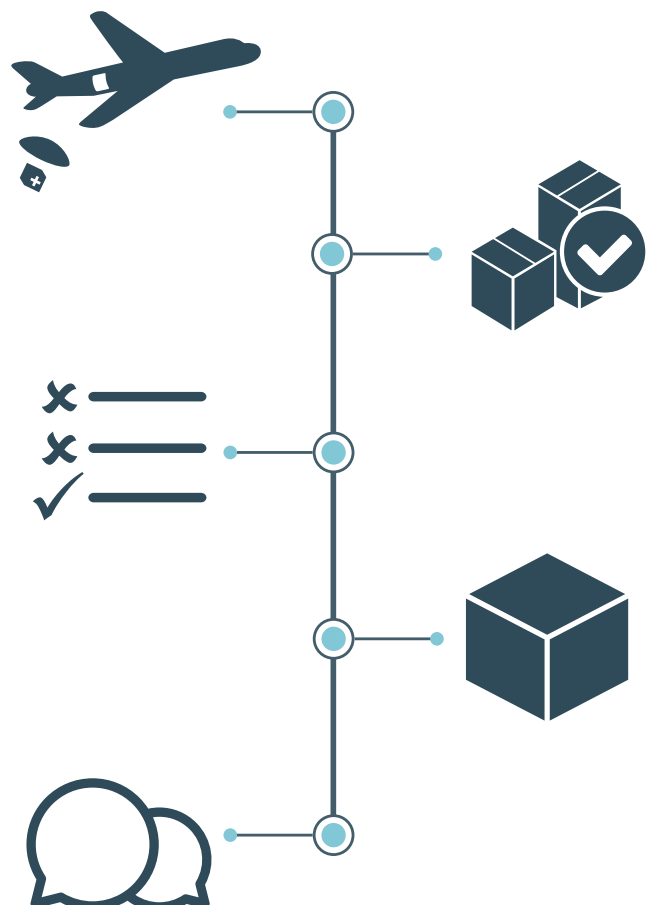
The number of New Zealanders who have access to funded vaccines grew from 1.75 million in 2013 to an anticipated 2.05 million in 2018. At the same time, the net price paid for vaccines is falling.

The number of New Zealanders who have access to funded vaccines grew from 1.75 million in 2013 to an anticipated 2.05 million in 2018. At the same time, the net price paid for vaccines is falling.

Distribution efficiencies

Unlike most medicines used in the community, PHARMAC manages the distribution of most vaccines from the manufacturer to vaccinators. It inherited this approach in 2012 when responsibility for vaccines management was transferred from the Ministry of Health. PHARMAC streamlined the vaccine distribution systems from 2014 and signed new agreements for national and regional storage and distribution services. This has resulted in improved stock management, reduced wastage and improved reporting to enable greater oversight by PHARMAC. As well as driving more savings in our operational budget through these agreements, PHARMAC is better placed to respond to supply issues, or issues that may occur in the environment.

The vaccines story demonstrates the power of the PHARMAC model - improving access to vaccines, listing more vaccines and streamlining distribution, all while containing the fiscal impacts, so that more New Zealanders can live longer and healthier lives.



IMPACT ON ACCESS TO

CANCER MEDICINES

PHARMAC assumed responsibility for managing the funding of all cancer medicines from July 2011. Prior to that, PHARMAC managed the funding of cancer medicines dispensed in the community, but hospital cancer treatments were funded by DHB hospitals, up to an agreed amount in a separate fund they held.

The benefit of making the next best funding decision within the larger Combined Pharmaceutical Budget has meant that

since 2011 there has been considerable expansion in access to cancer medicines in New Zealand. About 50% more New Zealanders are treated with funded cancer medicines now, compared to 2011.

We've listed 12 new cancer medicines since 2011, and enabled 12 others to be funded for more types of cancer. This has widened the choice of cancer medicines available for clinicians to treat their patients. These treatments are available to all eligible people regardless of where they live.

At the same time, PHARMAC has helped to influence the model of care for cancer patients by funding new types of cancer medicines that can be given in the community, mainly oral treatments like tablets. An example is

More choice

- growth in cancer medicines

Injections

bortezomib	blood cancer
biosimilar filgrastim	neutropenia in cancer treatment
gemcitabine	various cancers
azacitidine	blood cancer
vinorelbine	various cancers
oxaliplatin	various cancers

Infusions

nivolumab	melanoma
pembrolizumab	melanoma
pertuzumab	breast cancer
obinutuzumab	blood cancer
rituximab	blood cancer
docetaxel	various cancers
irinotecan	various cancers
oxaliplatin	various cancers

Tablets

erlotinib	lung cancer
sunitinib	kidney cancer
capecitabine	colon cancer
lapatinib	breast cancer
pazopanib	kidney cancer
gefitinib	lung cancer
abiraterone	prostate cancer
everolimus	brain tumours

Capsules

thalidomide	blood cancer
temozolomide	brain tumours
anagrelide	various cancers
lenalidomide	blood cancer
nilotinib	blood cancer



2017 CANCER MEDICINES SNAPSHOT

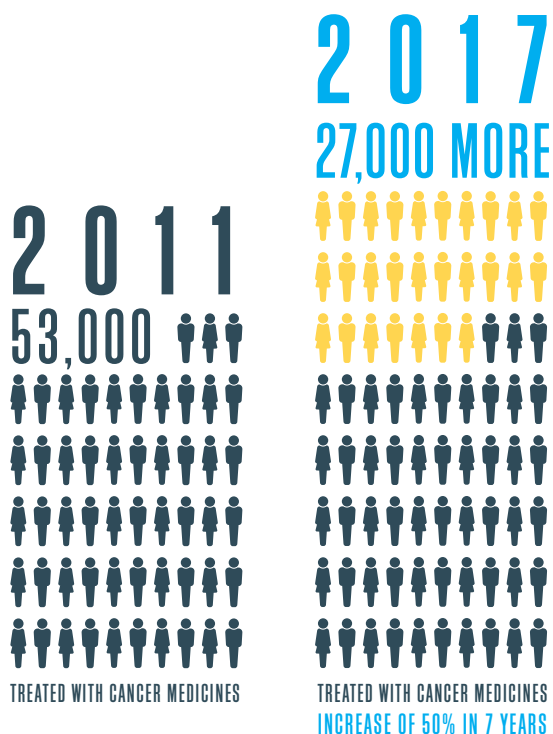
capecitabine, which moved from being an infusion of another agent given in hospitals, to a tablet people can take at home. This reduces costs and frees up capacity in hospitals, so that more people can be treated overall. And receiving cancer treatments at home can be less disruptive for patients and their families and whānau.

New cancer medicines continue to be a large area of PHARMAC's expenditure. In the year to June 2017 the total spend on cancer medicines was \$203.8 million, or 17% of total spending on all medicines. Of the nearly 46 million prescription items funded last year 250,000 were for cancer medicines. However, the number of people receiving cancer medicines has risen about 50%, whilst spending on cancer drugs nearly doubled since 2011. This reflects the very high cost of new cancer treatments for small groups of patients. More than a quarter of the spending was on two medicines – trastuzumab (Herceptin), and pembrolizumab (Keytruda).

CANCER MEDS SINCE 2011



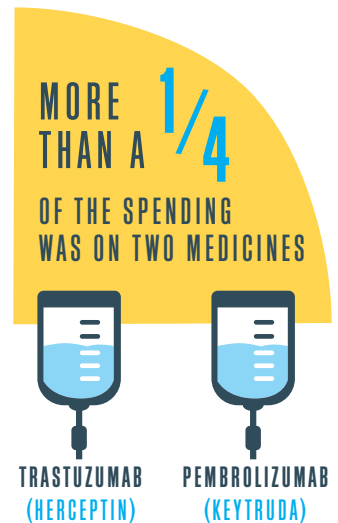
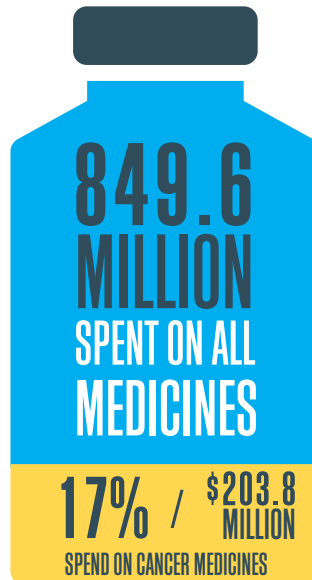
\$92 MILLION
SPENDING INCREASE IN 7 YEARS
ON CANCER MEDICINES



OF ALL **45.8 MILLION**
FUNDED PRESCRIPTION ITEMS

0.6% / 250,000
WERE FOR FUNDED CANCER
PRESCRIPTIONS

IN THE YEAR TO JUNE 2017



LET'S BE BOLD

Eliminate inequities in access to medicines

Some of us, as people and groups of people in our community, face barriers to good healthcare. We need to do more to focus on these people and groups to help make sure everyone gets the medicines they need, when they need them. Our new Access Equity team will focus initially on particular medicines and how they are accessed, and by targeting in this way, we hope that we can learn lessons we can apply to other medicines and other settings. We can't achieve this bold goal alone – it will require committed collaboration with others across the health system and across New Zealand.



Dr Scott Metcalfe is a Deputy Medical Director at PHARMAC



Te Ropu Poa, a member of PHARMAC's Consumer Advisory Committee, is General Manager of Te Hau Ora O Ngāpuhi, a Far North Māori health service provider based in Kaikohe



Dr Pauline Norris is Professor of Social Pharmacy at University of Otago School of Pharmacy



Looking at inequities in access

Dr Scott Metcalfe

One of the biggest concerns facing our health sector is waste. I'm not talking about the overuse of treatments unnecessarily and wastefully. Rather, I'm talking about the waste of human life and potential when not everyone gets the healthcare they are entitled to. As a society, we lose opportunities when people don't get to live, thrive and participate. This is especially when the causes or symptoms are preventable, treatable or curable. Individual pain and loss (now, past and future), caregiver burden and grieving families/whānau, impacted communities, and fairness, matter.

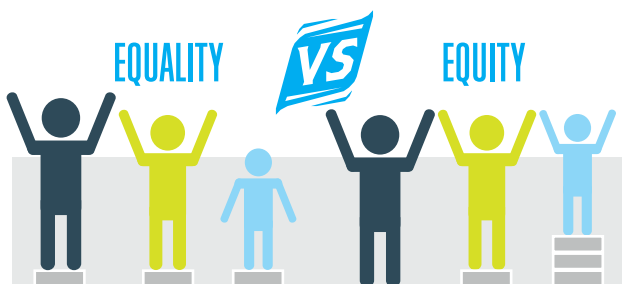
PHARMAC's challenge, when deciding which medicines to fund, is to work out the best health gains we can secure from each proposal and then make responsible choices within the available budget while considering a wide range of factors. We then want to make sure that those people who could benefit from funded medicines are able to get and use them well.

Wasted potential includes health conditions that can be treated with medicines currently funded for that use. Not all New Zealanders get these medicines at the same rate. We know that there are differences in the use of medicines by some population groups, particularly when looked at by ethnicity. We have been working on updating our earlier research that shows significant differences in the way Māori receive medicine, in comparison with other New Zealanders. This is even before we consider that Māori have a higher burden of disease than others, particularly for heart disease, respiratory conditions, mental health and diabetes, so we would ordinarily expect a higher use of medicine in those areas to begin with.

When burden of disease is considered, there's a significant amount of medicine that Māori are not getting. In other words, many New Zealanders are missing out on the opportunity to improve their health through the use of medicines – which is a big waste, and a serious health sector concern. This is also likely for Pacific peoples.

The bottom line is, we don't think this situation is right, or sustainable, nor anywhere near getting the best health outcomes. That's why we've adopted the bold goal of eliminating inequities in access to medicines by 2025. We have formed an Access Equity team examining why these inequities exist and to test a range of solutions.

We cannot cast-iron guarantee that we'll achieve full equity in that timeframe. But the more progress we can make, the more New Zealanders will get better health from funded medicines. And that's got to be good for all of us.



Inequities in access – a community view

Te Ropu Poa

There's no need to convince Te Ropu Poa about inequities in healthcare. She sees them every day.

Te Ropu runs a health service in Kaikohe in the Far North, Te Hau Ora O Ngāpuhi. There's one health practice in town, serving a large and geographically spread, mainly Māori, population. Meanwhile, up the road in Kerikeri, there are four GP practices alone.

"We have skin infections, preventable illness because of low vaccination rates, rheumatic fever, respiratory illness from poor housing, you name it," she says.

"Access and cost are the two big factors. If you live out in the country and there's no public transport, no bus service, getting into town is hard. Then there's the cost of a doctor's visit, or the prescription charge. A \$17 doctor visit is a lot if you are on a benefit."

This can mean that people often don't seek medical care until they are very sick – "it's a last resort."

A 15-minute doctor's appointment may not be enough time for people to talk through complex issues and understand what a medicine is for or how to use it. As a result, people don't fully understand the medicine and don't take it as intended.

Te Ropu says much of her focus is on offering people practical help and helping them understand the need to seek early intervention to better manage their health, and children's health.

Inequities in access – a researcher's view

Dr Pauline Norris

The first step towards reducing inequities is to understand why they occur, which is where researchers like Dr Pauline Norris come in.

Professor of Social Pharmacy at the University of Otago school of pharmacy, Dr Norris has conducted research into differences in medicine use across ethnic groups in New Zealand.

"There is a growing body of research showing there are ethnic disparities in access to medicines," says Dr Norris.

"There has been some work done in Pacific communities, but mainly among Māori, showing that despite a higher level of need there is not the high level of pharmaceutical use you would expect to see associated with that."

Dr Norris says the differences are not limited to pharmaceutical access, and are the result of multiple and complex factors – not all of them specifically related to health. These include geographical, financial and other barriers to healthcare, people's understanding of what medicines are and what they are for, language barriers, and family influences.

Research and acknowledging the issue is a first step towards effecting a positive change.

"We need research and policy working together," she says. "There are a lot of things affecting this, a lot of processes, and we really need to be working out where we can intervene to make a difference. That's where research is really important."

LET'S BE BOLD

Generate \$1 billion of savings from medical device management to reinvest in health outcomes for New Zealanders

This area of our work has high potential to free up funding for other health and government services while still meeting patient needs. Reaching \$1 billion of savings is a bold target, but well worth pursuing given the importance of ensuring government funding is spent as effectively as possible.

Hospital medical devices savings – the PHARMAC story

Andrew Davies

We're really pleased with the progress we've made in national contracting for hospital medical devices. Since announcing our first national contract in 2014, we now have more than \$100 million of DHB devices spending under PHARMAC-negotiated national contracts.

There's still a long way to go, but we are committed to completing national contracting across all device categories over the next two years.

Nationally-consistent access to hospital medical devices is the core aim. National contracting means consistent prices and terms negotiated for the same devices and device categories across all DHBs.



We're also seeing savings emerging from this work not just in DHB staff time and effort, but in better pricing overall, while still allowing all existing suppliers to be used. This is even before we look at applying more competitive commercial processes across device categories as we have done in wound care. In return for a share of the wound care market and offers of more competitive pricing, we have awarded contracts to a limited group of suppliers. This approach has been implemented successfully this year. We are looking for more opportunities to leverage competitive pressure in this way, thus freeing up even more savings for Vote Health.

To date, the pattern of savings is similar to what we've seen in our early work on community medicines and hospital medicines. This is encouraging in light of PHARMAC's bold goal of achieving \$1 billion in savings by 2025.

The savings in themselves are only part of the goal. Because these savings are in the form of price reductions on existing products, they release funding for DHBs to reinvest in other healthcare. In other words, we help DHBs achieve more with their hospital funding.

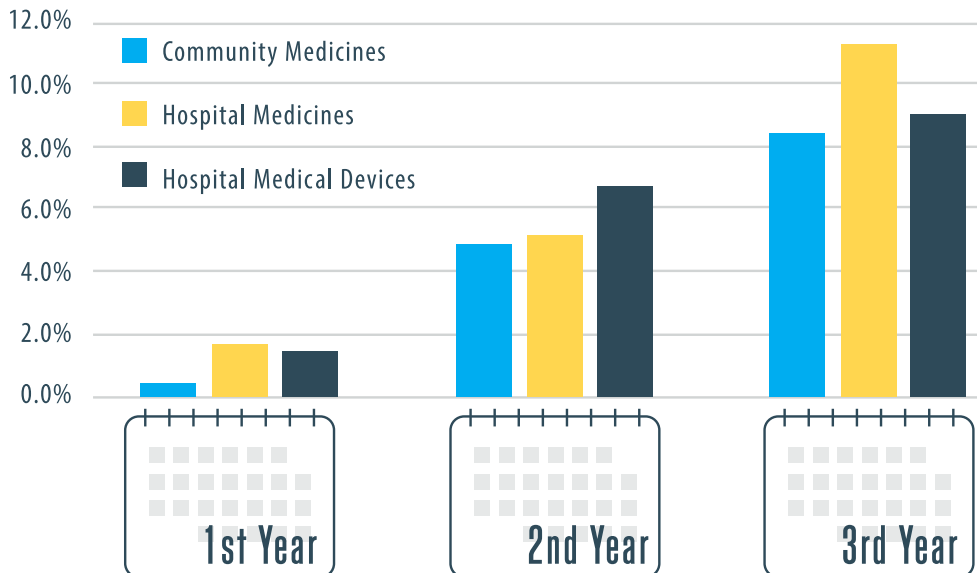
Our ability to do this requires a lot of engagement across DHBs, including with clinical and product assessment staff, DHB executives, and the medical devices industry. We've been heartened by the feedback we received in our devices forums over the past year. We'll continue to seek feedback as we progress, using those views to inform decisions that can be implemented by DHB hospitals.



Andrew Davies manages PHARMAC's hospital medical devices team

Devices

- the first three years



Savings from medical devices are on a similar track to our work in community medicines and hospital medicines, over the first three years

A DHB view

Carolyn Gullery

DHBs are 100 percent behind efforts to increase efficiencies in hospitals, including the work being led by PHARMAC, says Canterbury and West Coast DHBs' General Manager Planning & Decision Support Carolyn Gullery.

PHARMAC's work in hospitals – both in medicines and medical devices – provides savings for hospitals that can be reinvested into other therapies or hospital services.

"The reality of any health system is constrained resources," says Carolyn. "It's up to all of us to use those as wisely as we can."

PHARMAC's track record in medicines gives DHBs confidence that PHARMAC can bring the same discipline and value to the hospital sector.

"PHARMAC has been very successful in the community pharmaceuticals world, and has made significant savings there.

"Saving money by making better purchasing decisions is great because it means you can fund something else. Demand is infinite and resources are finite, so we have to get better value.

"There's two parts to that. Firstly, there's better value for money through getting better prices. The second part is knowing we're getting better value evidence-based tools and interventions to get the best possible health outcomes."

Carolyn Gullery says PHARMAC's continued engagement with DHBs, and particularly clinical staff, will be important to ensure success, although this will be helped by the on-going shift in thinking around value.

"I know how challenging it was in the early days of PHARMAC, when many clinicians didn't see their role in the value for money argument, as it was often seen as being more about cost than value. That's changed a lot. I think clinicians now see it as part of their role to think about using resources wisely.

"That's why the Choosing Wisely campaign led by clinicians, which promotes good treatment choices by clinicians, has gained such support. That wouldn't have happened so easily in the 1990s, so that's quite a change."

"DHBs are confident in PHARMAC's ability to make progress in this area and appreciate PHARMAC's willingness to work with clinicians, so that the broader impact on hospital workload and flow can appropriately be taken into account in its decisions."



Carolyn Gullery was an early member of the PHARMAC Board.

LET'S BE BOLD

Create systems that enable the best investment choices to be implemented across all PHARMAC activities

Longer-term, the ability to make the best possible investment decisions across all the different roles we have, would generate the best health outcomes for New Zealand. There are a number of analytical, process and system design issues to consider – but well worth developing to generate more value from government funding of PHARMAC's work.



Michael Johnson is Director of Strategic Initiatives at PHARMAC



Making best choices

Michael Johnson

The decisions we make are only as good as our ability to put them into practice, which makes this bold goal very important.

Sometimes within our health system we come across barriers that can get in the way of people getting medicines, medical devices, or other health services. These can be related to funding streams, or how the different structures within the health system currently work together.

Here's an example: Some injected medicines need to be given by a doctor, but dispensed by a pharmacist first. In some cases, this could mean the patient needing to see a doctor for a prescription, taking the prescription to a pharmacy for dispensing, then returning to the doctor to receive the injection. There might even be a service cost at the doctor's, for receiving the injection.

We need to identify these 'accidental barriers' that can get in the way of people receiving funded medicines or devices.

Part of the answer lies in making better use of the skills already present in the health workforce. We've already begun moving in that direction. This year we worked with the Ministry of Health to enable trained pharmacists to give the funded influenza vaccine to people aged 65 and over. Another example is our decision to allow pharmacists to claim reimbursement for the medicine cost when dispensing the emergency contraceptive.

We want people to get the benefit of our decisions, which means breaking down some of the silos that exist within health. This includes things like funding streams, data availability, structures and accountability lines. This will likely mean some system changes, or innovative responses to make the system work better for patients.

If we can make progress in this goal, we'll be enabling people to get the health gains from the medicines and medical devices intended for them.

Strategy by 2025



VISION

Critical to the health system delivering better health for all New Zealanders

MISSION

Best health outcomes from New Zealand's investment in medicines and medical devices

CORE COMPETENCY

The distillation of diverse information to make and implement difficult choices



GOALS

Eliminate inequities in access to medicines

Generate \$1 billion of savings from medical device management to reinvest in health outcomes for New Zealanders

Create systems that enable the best investment choices to be implemented across all PHARMAC activities



IN ORDER TO ACHIEVE OUR VISION AND GOALS, WE WILL NEED ...

ENABLING STRATEGIES

... investment in our capability to generate better outcome information and insights

To demonstrate our impact and delivery of great health outcomes through the funding choices we make, and the equitable access that is provided, we have to be able to monitor outcomes. This is an enhancement to our core competency, and will create future opportunities to engage, inform and equip others in the health system to better deliver for patients' needs.

... relentless focus on delivering reliable results, whilst avoiding undue system impacts

A health system that delivers great results for patients needs a reliable partner that earns the confidence of stakeholders and patients. "On or under budget every time" is essential to the system as a whole delivering the best outcomes for patients. We need to increase our integration with DHBs and the wider health system to understand sectoral issues and minimise adverse impacts.

... new approaches to delivering funding benefits to patients

The current delivery models for pharmaceutical subsidies and products will need to be adapted to ensure they deliver to the varying needs of people. Health gains and equity can only be achieved if the pathway to accessing the benefits of the PHARMAC model is smooth and tailored. Our work will be informed by Te Whaioranga (our Māori Responsiveness Strategy) and our Pacific Responsiveness Strategy.

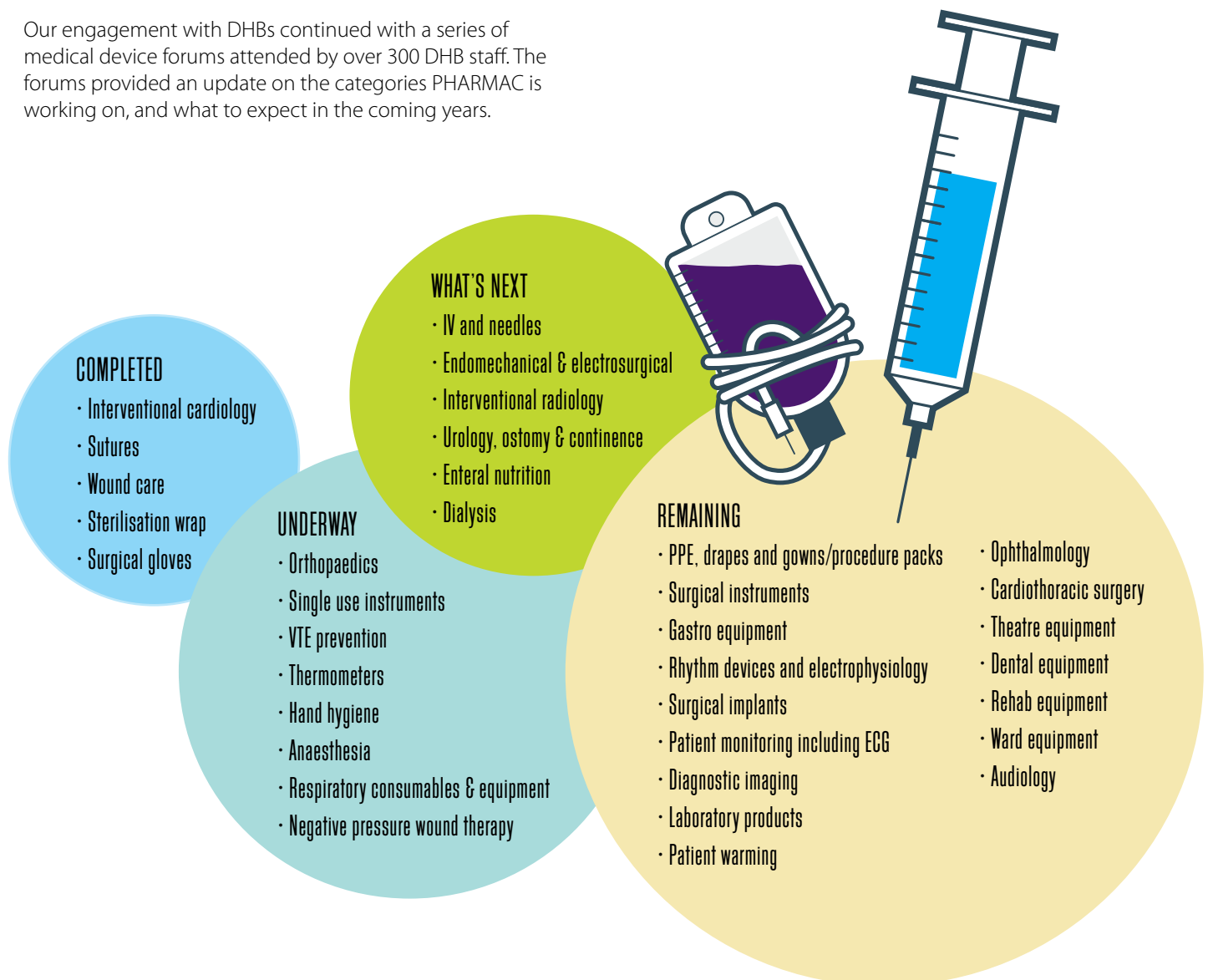
... redevelopment of core systems for technology assessment and implementation of decisions

Sound evidence evaluation, and the delivery of benefits through independent decisions, are essential. We will need to develop new processes and systems to replace or supplement our existing practices, in order to meet the challenges of increasing scope and a changing environment.

BETTER VALUE IN HOSPITALS

Hospital engagement

Our engagement with DHBs continued with a series of medical device forums attended by over 300 DHB staff. The forums provided an update on the categories PHARMAC is working on, and what to expect in the coming years.



Our intention is to have all of these categories under PHARMAC management by the end of 2019.

Change is not going to happen all at once. We're taking a carefully planned and staged approach as we work to bring the full scope into PHARMAC, obtaining clinical advice and consulting widely with the sector as we go.

We've also taken steps to explore how promoting greater competition might work with medical devices. We did this initially with a small group of wound care products,

negotiating 'market share' contracts which guaranteed a portion of the market to the successful suppliers. Though small, this process was successful in extracting further savings from the products chosen.

In order to agree the list of wound care products, we formed our first devices advisory group made up of clinical experts from DHBs. We've also formed an interventional cardiology advisory group to look at devices used in interventional cardiology.

Hospital medical devices progress

AS OF **1** JULY 2017

\$20.8 MILLION
NET SAVINGS OVER 5YRS
FROM CONTRACTS IN 2016/17

8 CATEGORIES
 **33**
SUPPLIERS

45,000

NUMBER OF LINE ITEMS ON THE
PHARMACEUTICAL SCHEDULE

\$39.42 MILLION
TOTAL VALUE OF SAVINGS OVER 5YRS
FROM ALL CONTRACTING TO DATE

WORTH **\$109**
MILLION


Hospital medicines

We're continuing to make investments in hospital medicines where we see good value opportunities.

Over the past year we've made savings of nearly \$9 million available through our commercial activities around hospital medicines. Through our agreement with DHBs, we've been able to reinvest nearly all of this funding - \$8.42 million - into new investments in hospital medicines.

This includes four new medicines, like plerixafor for stem cell mobilisation, and idarucizumab, which is used to treat bleeding in patients using dabigatran.

These figures don't include hospital-administered cancer medicines, such as treatments for advanced melanoma, or for advanced breast cancer, which were also funded through the Combined Pharmaceutical Budget.



COMMUNITY ENGAGEMENT

Our partnerships with Whānau Ora Collectives are going from strength to strength. We now have agreements with 12 Whānau Ora Collectives, including our first with a South Island Collective, and an even spread of rural (6) and urban (6) Collectives.

Our agreements are high trust evergreen relationships with seed funding available for each Collective to conduct annual initiatives for their community. There have been a broad range of activities completed within the Māori health areas of focus, such as wānanga, educational workshops for whānau in mental health, heart disease, respiratory and diabetes. Other events include health promotion and prevention community events, One Heart Many Lives heart checks in Te Tai Tokerau and Te Arawa, gout workshops for Te Ao Marama and more.

Our agreements with Te ORA Māori doctors' association and the Māori Pharmacists' Association have led to scholarships and professional development opportunities for Māori doctors and pharmacists. This assists our goal in working with the Māori health workforce.



Our agreements with Te ORA Māori doctors' association and the Māori Pharmacists' Association have led to scholarships and professional development opportunities for Māori doctors and pharmacists.



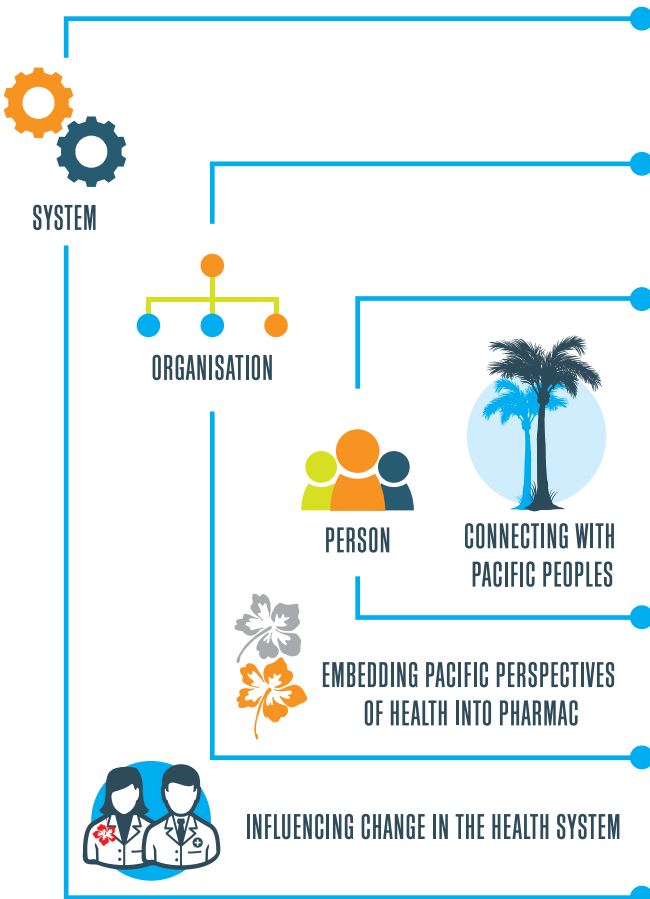
Our Pacific Responsiveness strategy is also rolling out a series of actions and we have appointed a Pacific Responsiveness Adviser to activate and coordinate these.

Following on from our consultation fono to refresh the strategy in 2016, we have returned to seven Pacific communities. As well as actions to enhance our own cultural competency, PHARMAC will identify the areas of health need that are most important across Pacific communities. We have taken on board the community's suggestions on how to do this and work is underway to compile the Pacific health areas of focus.

Another action is to support the formation of a Pacific pharmacists' group to further enhance the role of Pacific leadership in the pharmacy sector. We have identified interested Pacific pharmacists who have a strong passion in supporting the formation of a group. We are currently working with them and pharmacy organisations to support the development of this initiative.

PHARMAC FORUM

In late 2016 we met with around 300 people at 20 meetings and public forums to obtain feedback on how PHARMAC could meet the Trans-Pacific Partnership obligations. These views were considered fully when making final decisions in December 2016. A range of other issues were also discussed with communities.



PRICING IN THE LIMELIGHT



In almost every area of technology we expect that as products mature, prices will drop. Think of early TVs, calculators, mobile phones. But that's not the case with medicines, where prices seem to drop more slowly or even increase with age.

Companies came under the spotlight for ratcheting up the price of older drugs, for no apparent reason. The most high profile example came from US-based Mylan for its adrenaline injector Epipen, which had increased the price by 500% over a decade.

PRICING PROBE RATTLES PHARMA INDUSTRY

The Italian Competition Authority **fined South African-based Aspen 5.2 million euros** after it increased the price of some cancer drugs it had acquired from GlaxoSmithKline. The Italian case sparked the European Commission to open an investigation into pharmaceutical pricing.

News reports also highlighted that some companies – including US company Valeant – had made it their central business strategy to buy older drugs then rapidly increase the price.

In Europe, **British regulators fined American multinational Pfizer** a record £84.2 million (\$US107 million) for increasing the price of an epilepsy drug by up to 2600 percent.

In the face of ongoing cost pressures, there continued to be debate over policy responses.

The **New England Journal of Medicine** reported that 10 US states introduced Bills to require pharmaceutical companies to disclose their R&D costs, and Vermont passed into law a requirement for companies to justify their prices.

In the UK, concern about a **cost blowout in the Cancer Drugs Fund** led to reforms, although criticism remained that the fund undermined mainstream decision-making.



CANADA LOOKS TO PHARMAC MODEL

Canadian media looked at New Zealand's funding model amid an ongoing debate about medicine prices in Canada. The story identified a system that saw Canada paying up to 1200% more than New Zealand for drugs made by the Canadian firm, Apotex.

And in Australia, **the New Zealand model** was examined as concerns about high spending on medicines in Australia continued.

Covering the many, and caring for the few

Most patients have their medicines funded with just a fraction of the Combined Pharmaceutical Budget (CPB). This means that last year, half of gross medicine spending in the CPB went to just 2% of patients. These are people with high health needs requiring in many cases highly expensive medicines. PHARMAC is able to provide these people with fully funded access to effective, expensive medicines.

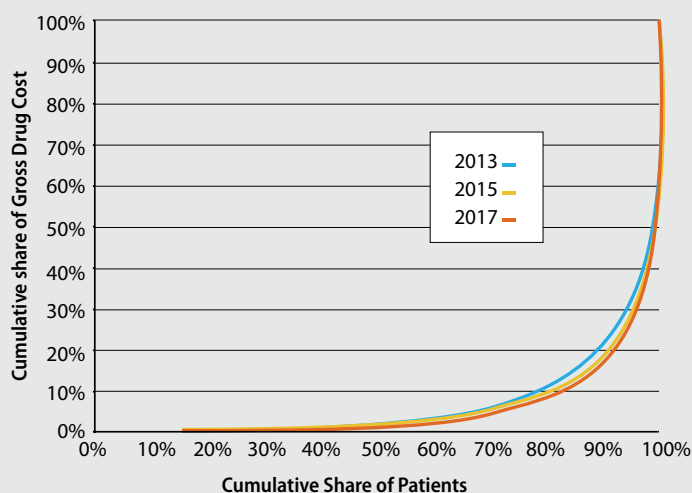
This is possible because the vast majority of people have their medicine needs met very efficiently. 80% of patients receiving funded medicines at a cost of just 9% of all spending. This extremely broad coverage of medicines for New Zealanders is made possible by the low prices negotiated by PHARMAC. New Zealand has some of the lowest medicine prices in the world, achieved through commercial negotiations and mechanisms such as the PHARMAC Tender for off-patent medicines.

This efficient use of the budget means PHARMAC has more funding available for more highly-priced medicines.

The chart below illustrates how a comparatively small portion of the CPB covers very large numbers of patients, while highly priced medicines are still available to comparatively small numbers of people.

The chart below also shows that over time PHARMAC is continuing to improve this low-price coverage for people. In 2013, 10% of the CPB covered 77% of all patients. By 2017, 10% of the CPB covered 81% of patients.

Medicine cost vs patient numbers



TOP 20 COMPANIES BY GROSS SPEND

COMPANY NAME	GROSS SPEND	COMPANY NAME	GROSS SPEND
1 Abbvie	\$201,682,029	11 AstraZeneca	\$34,465,575
2 Roche	\$114,513,805	12 Gilead Sciences	\$31,684,731
3 GlaxoSmithKline	\$106,039,117	13 Bristol-Myers Squibb	\$24,637,523
4 Pfizer	\$95,655,140	14 CSL Pharmaceuticals NZ Ltd	\$24,474,777
5 Janssen	\$71,089,225	15 Actavis Pty Limited	\$22,415,632
6 Novartis Consumer	\$70,962,878	16 Pharmaco (NZ) Ltd	\$21,756,993
7 Sanofi-Aventis	\$50,864,718	17 AFT	\$18,785,961
8 Mylan New Zealand Ltd	\$42,549,762	18 Eli Lilly & Company (NZ) Limited	\$18,569,818
9 Merck, Sharp & Dohme	\$42,498,886	19 Novo-Nordisk Pharmaceuticals Ltd	\$17,810,868
10 Douglas Pharmaceuticals Ltd	\$37,202,054	20 Nutricia Ltd	\$15,510,875

TOP 20 MEDICINES BY PRESCRIPTIONS

CHEMICAL NAME	PRESCRIPTION ITEMS	RANKING
Paracetamol	2,740,000	1
Omeprazole	1,340,000	2
Amoxicillin	1,260,000	3
Atorvastatin	1,260,000	4
Aspirin	1,260,000	5
Ibuprofen	1,060,000	6
Metoprolol succinate	970,000	7
Salbutamol	920,000	8
Cilazapril	790,000	9
Colecalciferol	740,000	10
Amoxicillin with clavulanic acid	710,000	11
Prednisone	670,000	12
Metformin hydrochloride	580,000	13
Zopiclone	570,000	14
Simvastatin	570,000	15
Levothyroxine	560,000	16
Loratadine	550,000	17
Codeine phosphate	500,000	18
Diclofenac sodium	490,000	19
Tramadol hydrochloride	460,000	20

TOP 20 MEDICINES BY SPEND

CHEMICAL NAME	SPEND	RANKING
Paritaprevir, ritonavir and ombitasvir with dasabuvir +/- ribavirin	\$98,560,000	1
Adalimumab	\$76,670,000	2
Trastuzumab	\$37,900,000	3
Dabigatran	\$36,590,000	4
Pneumococcal (PCV13) conjugate vaccine	\$34,220,000	5
Fluticasone with salmeterol	\$29,150,000	6
Etanercept	\$26,450,000	7
Insulin glargine	\$24,980,000	8
Diphtheria, tetanus, pertussis, polio, hepatitis B and haemophilus influenzae type B vaccine	\$23,350,000	9
Lenalidomide	\$19,840,000	10
Abiraterone acetate	\$19,160,000	11
Budesonide with eformoterol	\$18,060,000	12
Rituximab	\$17,460,000	13
Bortezomib	\$14,230,000	14
Pembrolizumab	\$13,830,000	15
Blood glucose diagnostic test strip	\$13,140,000	16
Erythropoietin alfa	\$12,240,000	17
Efavirenz with emtricitabine and tenofovir disoproxil fumarate	\$11,930,000	18
Fingolimod	\$11,790,000	19
Paliperidone	\$11,470,000	20

Gross spend excluding GST and rebates.

FREEING UP RESOURCES FOR DHB HOSPITALS

Ferric carboxymaltose

PHARMAC's management of pharmaceutical spending in hospitals and the community helps create new service delivery opportunities for District Health Boards.

A recent example is PHARMAC's listing of intravenous ferric carboxymaltose (Ferrinject) for use in the community. This is an infusion which requires people, who are iron deficient, to spend time in a hospital or a local clinic to receive an infusion.

The decision had two implications for DHB hospitals. Firstly, it provides options for people to receive the treatment in the community if this is available in their region. This would potentially make it easier for people to get access to this treatment, and free up capacity in the hospital for other infusion services, for example for multiple sclerosis or arthritis. Secondly, the listing of Ferrinject in the community schedule enabled a shift of spending into the PHARMAC-managed Combined Pharmaceutical Budget, freeing up funds from the hospital's budget for other services.

Ferric carboxymaltose continues to be available through hospitals, who can provide this service to people where there aren't community-based services. Where services are available in the community, these could be accessed by people requiring iron infusions prior to surgery, meaning they need to spend less time in hospital overall.

While PHARMAC is working towards managing a budget for hospital medicines, in the meantime it can still have a significant impact on helping DHBs manage their expenditure on medicines.



THERAPEUTIC GROUP SUMMARIES

INFECTIONS - ANTIVIRALS

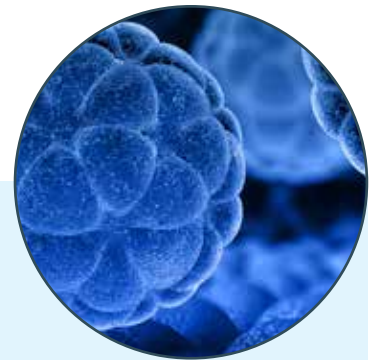
Major decisions

Two new treatments (Harvoni, and Viekira Pak and Viekira Pak-RBV) were funded. These are major advancements in the treatment of hepatitis C, with cure rates of up to 95%. The funding of these treatments at a list price of \$24,363 per bottle is managed through a confidential pricing arrangement.

SPENDING



USAGE



New treatments for hepatitis C are well tolerated and there is support available like good training, say health professionals who have been treating patients with the new drugs.

Staff at the Calder Centre in central Auckland have been one of the practices pioneering treatment approaches with Viekira Pak, one of the new direct-acting anti-virals for hepatitis C.



It's been a successful transition to the new medicine, and the clinic has also established a once-a-week clinic with a specialist hepatitis C nurse to screen patients.

GP Richard Davies says he had no trouble coming up to speed with the new treatment.

"The guidelines and protocols are straightforward," says Dr Davies. "You have to understand the significance of the blood tests. I would start off by viewing one of Ed Gane's presentations. It's very clear and it helps you to know what to do and how to do it."

Hepatitis nurse Victoria Oliver agrees, and says the medicine is well-tolerated by patients.

"It's quite amazing really. We have people who have issues with adherence, they are sleeping rough or under bridges. But they take their Viekira Pak and ribavirin. People don't generally have any problems on it at all."

And staff are already seeing the results.

"When I started my nursing career there was the shock horror of the blood-borne virus, but now in the later stages of my nursing career, 30 years on, to be able to say there's a cure, we can offer you a treatment and cure, they're amazed by that. And when three months after they've stopped their medication you can say here's the laboratory form, there's no virus, they are just amazed. It's a very positive thing."



Pharmacist Anthony Zhang, of Hobson St Pharmacy, has seen significant results in some of his patients.

"As a pharmacist, usually when you dispense pharmaceuticals you're not really giving people a cure. Hopefully with all the patients that we've treated with these medicines, the disease will be gone. And that's not just helping them, it's helping the future and stopping them spreading it to other people, so that's good for the community."



THERAPEUTIC GROUP SUMMARIES

INFECTIONS – ANTIVIRALS

New direct-acting anti-viral drugs are a major step forward for treating hepatitis C, says PHARMAC’s deputy medical director Dr Bryan Betty.

New generation hepatitis C treatments have the potential to significantly reduce the impact of this infectious disease which affects approximately 50,000 New Zealanders.

Until this year, the available treatments for hepatitis C such as interferon injections were difficult for patients to tolerate, because of their side effects, and they had a lower success rate.

This meant that many people with hepatitis C then progressed to end stage liver disease, liver cancer, or required a liver transplant.

The new direct-acting anti-virals like Viekira Pak and Harvoni, represented a breakthrough. These are oral treatments, much better tolerated than previous treatments, and with much higher cure rates – up to 95%.

The problem was that they came at a very high cost. So PHARMAC worked hard with suppliers and with our clinical advisers, to find a way to reduce the cost and identify the people who most needed them. People with advanced disease have funded access to Harvoni, while people with the most common genotype of hepatitis C in New Zealand (genotype 1) have unrestricted funded access to Viekira Pak. Importantly, funded access to Viekira Pak can be initiated by general practitioners, moving care closer to home, taking the pressure off specialist hospital services and, potentially, reducing the number of cases of liver cancer and the demand for liver transplants in future.

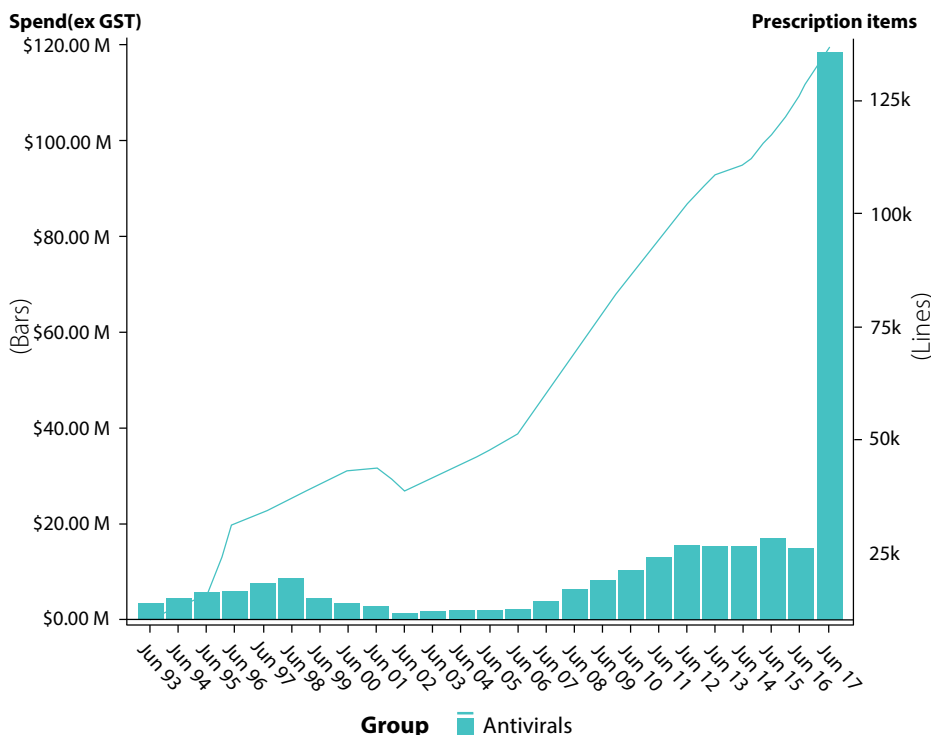
In the first year since funding, more than 2000 New Zealanders have been treated with these new treatments.

PHARMAC is now working with others to find ways to identify and treat even more people in general practice and primary care.



Dr Bryan Betty
PHARMAC’s deputy medical director

Antivirals



Therapeutic Group Summaries

INFECTIONS - ANTIBACTERIALS

Our role in antimicrobial stewardship

Resistance to antibiotics continues to be a significant source of concern, internationally and in New Zealand.

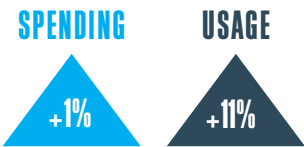
PHARMAC was part of a cross-agency group of stakeholders, led by the Ministries for Primary Industries and Health, that developed the New Zealand Antimicrobial Resistance Action Plan.

PHARMAC has always supported the responsible use of antimicrobials through various activities including education for health professionals, the Wise Use of Antibiotics campaign, and through our funding decisions. These activities are well aligned with the national Action Plan. We know that providing information to health professionals can make a difference.

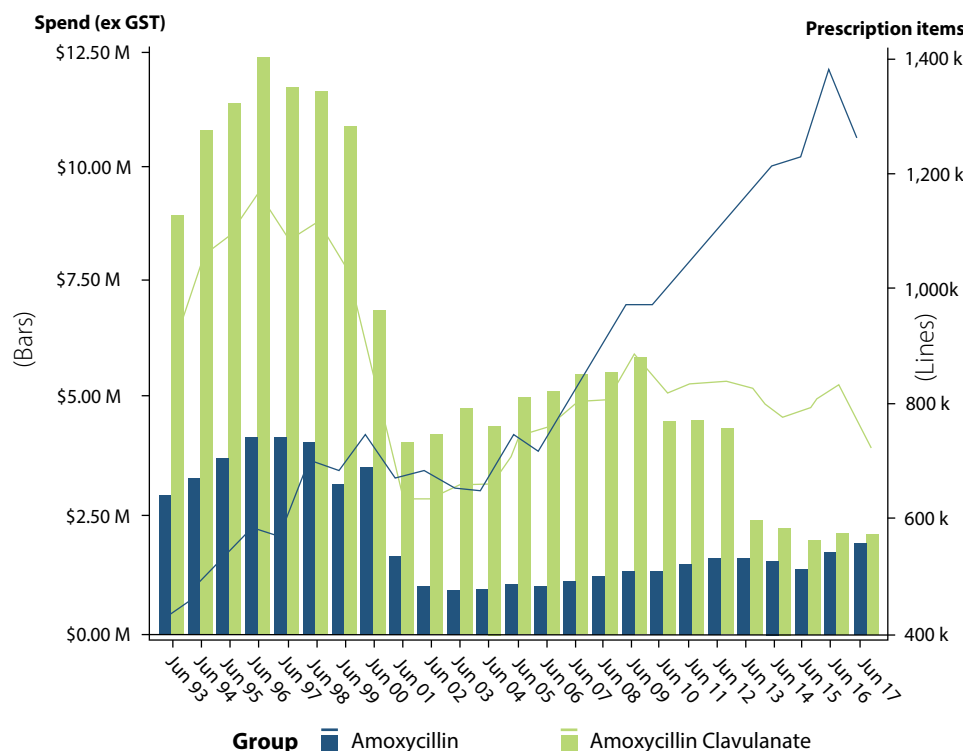
We provide prescribers with the evidence-based information needed to do their job. Our contracts for the responsible use of pharmaceuticals are a long-standing initiative to support health professionals in primary care with evidence-based information on prescribing medicines. The services include the provision of educational best practice information on funded pharmaceuticals, tools to encourage debate, reflect on practice and implement change. PHARMAC Seminars are also available.

We have already taken some steps to address concern about growing resistance in secondary care, drawing heavily on advice from our clinical committees.

As part of the work to implement a hospital medicines list in 2013, many of the funded antimicrobials are now accompanied with restrictions on use for stewardship reasons. This has provided secondary care with a framework for prescribing and auditing. All DHB hospitals must comply with the Pharmaceutical Schedule restrictions.



Antibiotics



THERAPEUTIC GROUP SUMMARIES

CANCER MEDICINES

Major decisions

- **Nivolumab and pembrolizumab** funded for people with advanced melanoma. The new medicines are used by about 350 New Zealanders diagnosed with advanced melanoma every year.
- **Pertuzumab** - This is used with other medicines to treat a certain type of advanced breast cancer.
- **Obinutuzumab** - This is used for chronic lymphocytic leukaemia, a cancer that affects a type of white blood cell in the bone marrow.
- **Rituximab** - Funding has been extended to include treatment of hairy cell leukaemia; re-treatment of chronic lymphocytic leukaemia.
- See the story on page 6 on cancer medicines

SPENDING



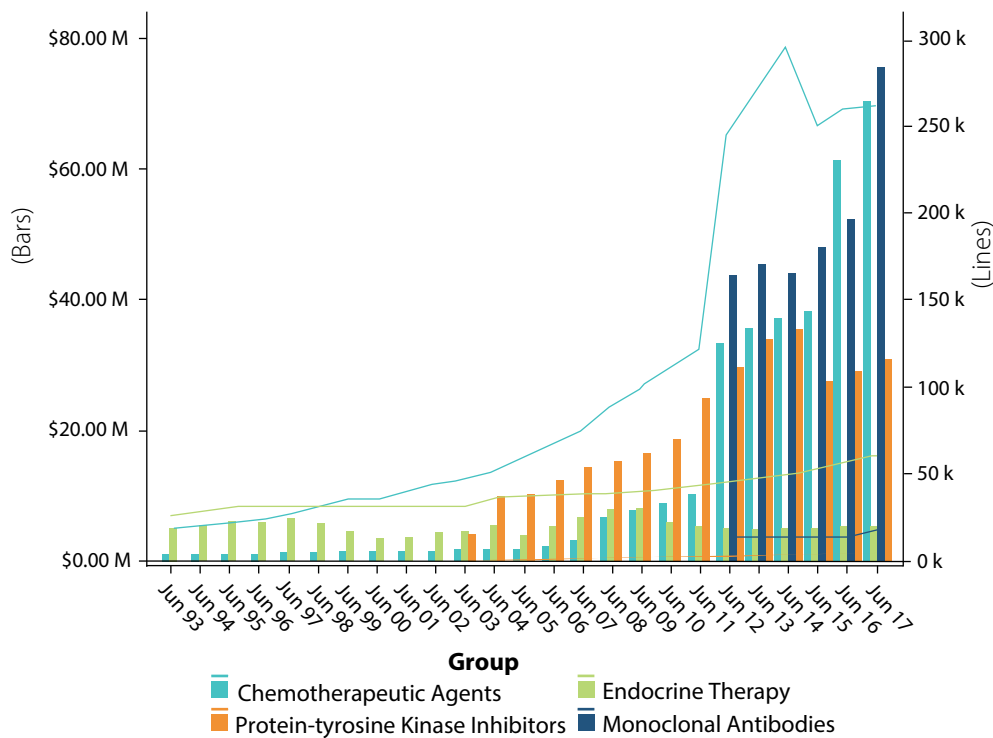
USAGE



Cancer treatments

Spend (ex GST)

Prescription items



THERAPEUTIC GROUP SUMMARIES

VACCINES

Major decisions

PHARMAC made significant changes to funded vaccines that will benefit a further 100,000 people each year. Changes that took effect in 2016/17 included:

- **Human papillomavirus (HPV) vaccine** - This is now available to all children and adults up to the age of 26 years. Boys are now also included in the HPV school vaccination programme.
- **Influenza (flu) vaccine** - Pregnant women and people aged 65 years and over can now get a funded flu vaccine from pharmacists who are trained vaccinators.
- **Chickenpox vaccine** - Available to all children at 15 months, as part of the childhood Immunisation Schedule from 1 July 2017. The chickenpox vaccine is available to all eligible children, approximately 60,000 each year.
- See the story on page 4-5 on vaccines.

THERAPEUTIC GROUP SUMMARIES

RESPIRATORY

Major decisions

- **Pirfenidone** - This medicine is used to slow the damage to the lungs from a chronic irreversible condition called idiopathic pulmonary fibrosis.
- **Dornase alfa** - This medicine is now funded for children with cystic fibrosis under the age of 5 years.

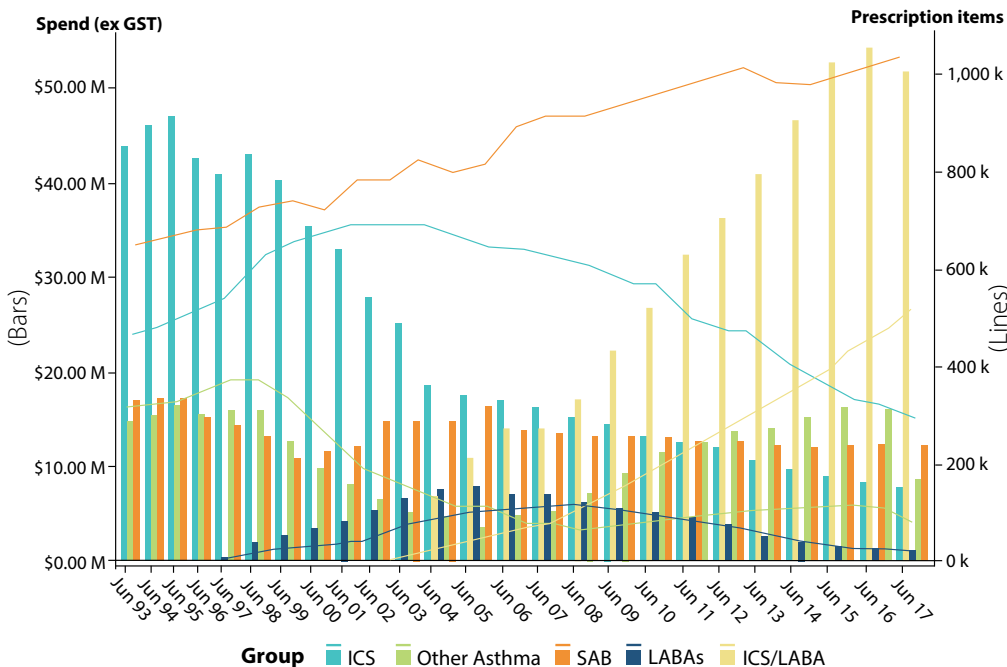
SPENDING

-11.4%

USAGE

+0.4%

Asthma treatments



THERAPEUTIC GROUP SUMMARIES

AUTOIMMUNE CONDITIONS

Major decisions

- **Tocilizumab** - Funded access to this medicine was widened to include polyarticular juvenile idiopathic arthritis; and idiopathic multicentric Castleman's disease.

Treatments for autoimmune conditions like rheumatoid arthritis continue to be areas of high expenditure (adalimumab gross expenditure is more than \$70 million). However, high expenditure in this area is managed through confidential rebates with suppliers, which lowers the actual price paid by DHBs.

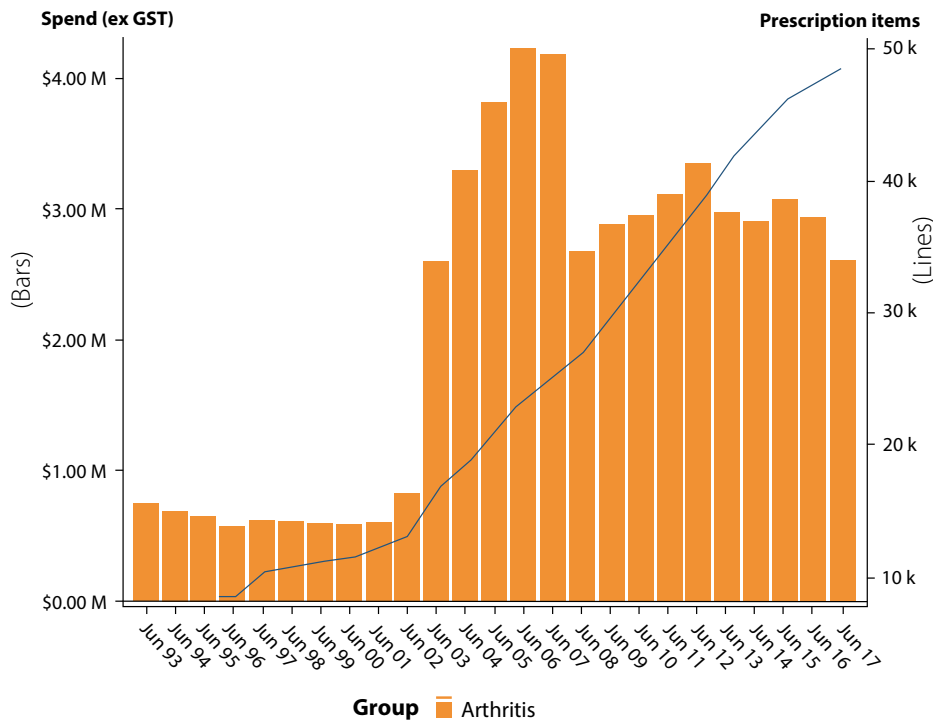
SPENDING



USAGE



Arthritis



THERAPEUTIC GROUP SUMMARIES

HEART DISEASE

Major decisions

- Metoprolol succinate sole supply** - After a period of supply uncertainty, PHARMAC negotiated a new arrangement with AstraZeneca for the Betaloc brand. This enabled PHARMAC to reinstate stat (3-monthly) dispensing and provides certainty for pharmacists and the 200,000 - plus patients who are prescribed metoprolol succinate.

Statins

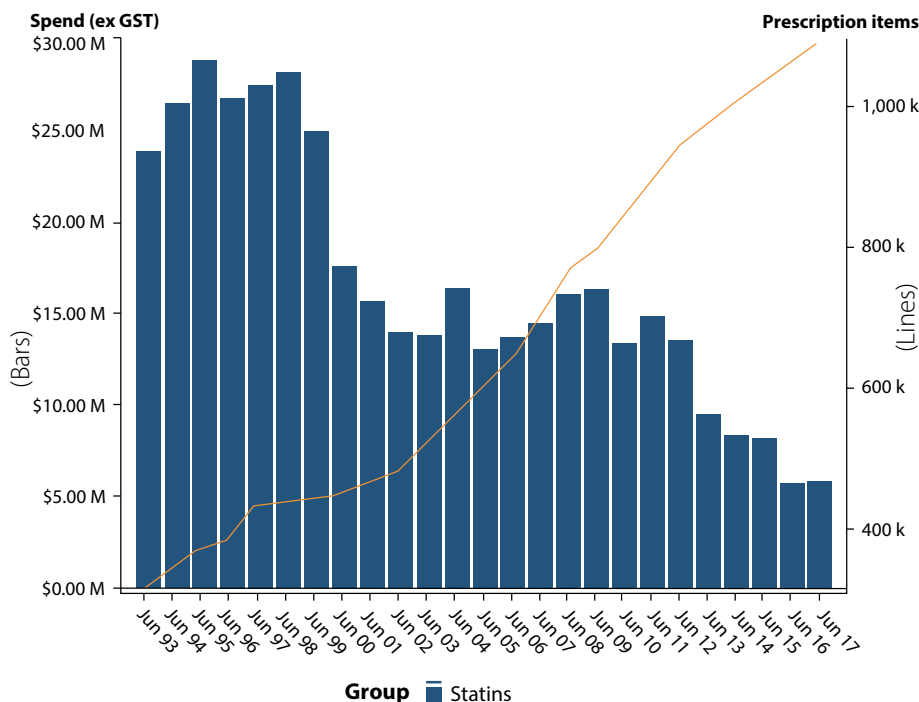
SPENDING



USAGE



Statins



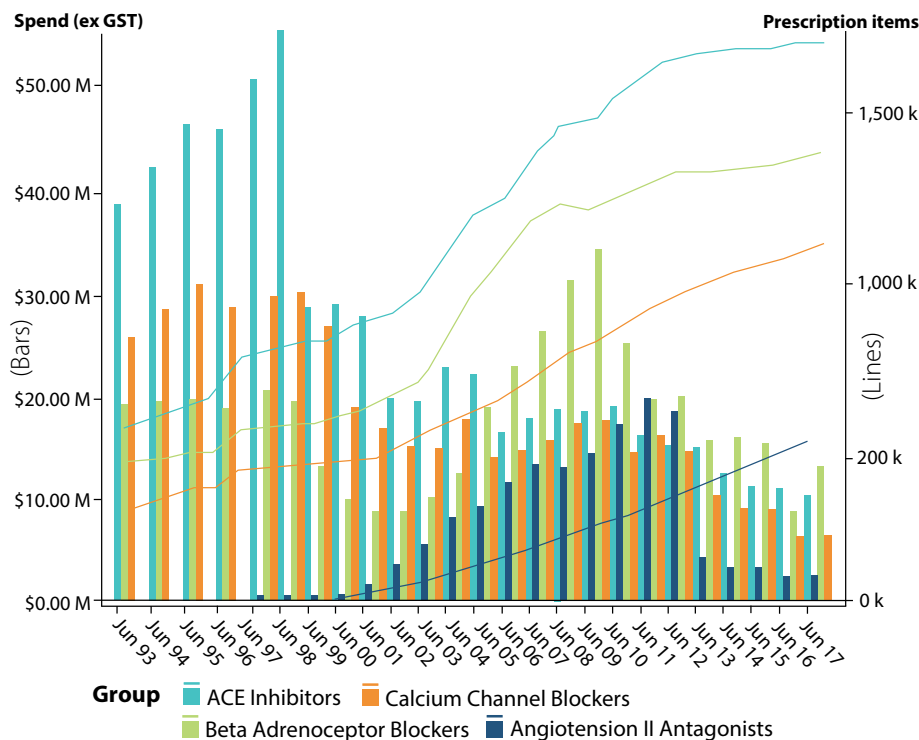
Blood pressure management

Blood pressure management

SPENDING



USAGE



THERAPEUTIC GROUP SUMMARIES

MENTAL HEALTH

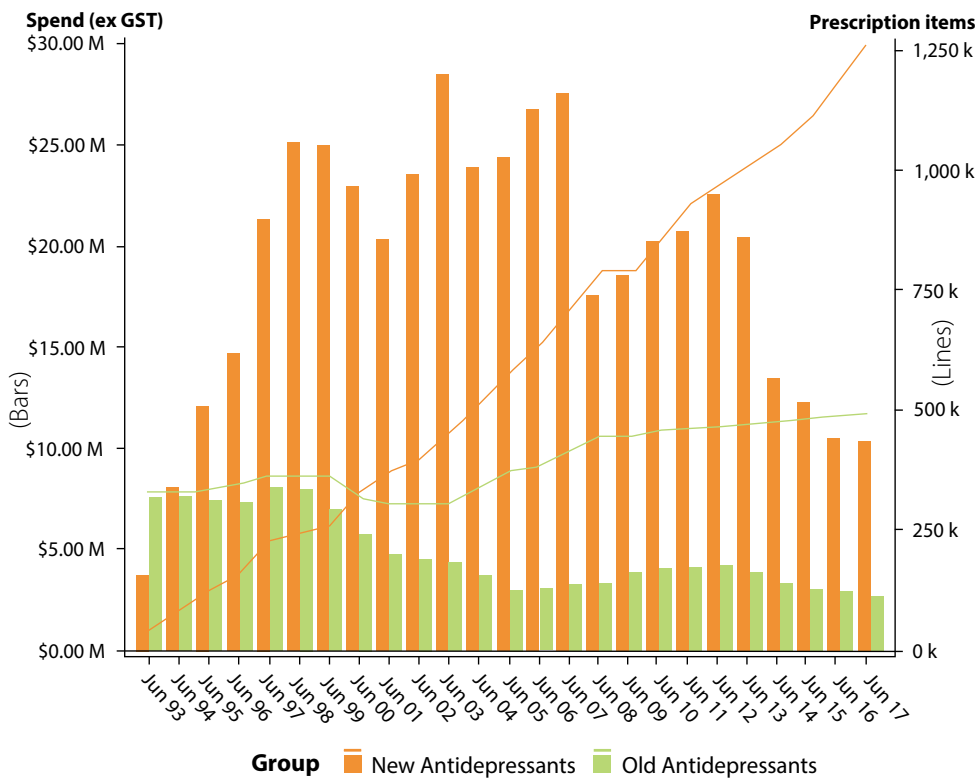
Antidepressants

Major decisions

Venlafaxine brand change - PHARMAC decided to move to sole supply for the antidepressant venlafaxine. This medicine is used by about 45,000 New Zealanders with severe depression, anxiety, and/or panic disorders. PHARMAC's decision came after seeking advice from our clinical committees and is supported by an implementation programme involving information for consumers, prescribers and pharmacists. The brand change is anticipated to release \$5 million per year, which PHARMAC uses to fund other medicines for New Zealanders.



Mental health



THERAPEUTIC GROUP SUMMARIES

RARE DISORDERS

PHARMAC ran a pilot Request for Proposals (RFP) in 2014/15 to seek bids for medicines that treat rare disorders, with the first funding decisions made in 2015/16.

This year six more medicines were approved for funding, bringing the total number of medicines funded via this RFP to 10.

- **Alglucosidase** - Funded for infantile-onset Pompe disease – a disease that is associated with skeletal muscle weakness and wasting causing mobility problems, and respiratory function.
- **Betaine** - This medication is used to treat homocystinuria, a metabolic condition that most commonly affects the eyes, central nervous system, skeleton and the vascular system.
- **Cholic acid** - This medicine is used to treat rare forms of bile acid synthesis disorders in infants with metabolic liver disease.
- **Idursulfase** - This medicine is used to stabilise people with Hunter Syndrome (MPS II) who are awaiting stem cell transplant.
- **Laronidase** - This is a medicine used to stabilise patients with Hurler Syndrome (MPS 1-H) who are awaiting stem cell transplant.
- **Sodium phenylbutyrate** - This medicine is used to treat urea cycle disorders, which can lead to a fatal build-up of nitrogen and ammonia in the body.



Evaluation

The RFP has now closed and we published an evaluation of the pilot process in June 2017, along with the submissions received from stakeholders.

The evaluation found that the pilot met most of the criteria set out in the initial discussion document which sought public views on our proposed approach to improving funded access to high cost medicines for rare disorders.

The evaluators found that the value for money of the medicines progressed to funding via the pilot was generally less than what PHARMAC would usually expect through RFPs. However, the process did elicit better commercial proposals than previously received for some of the medicines, and resulted in the funding of medicines that PHARMAC had not previously received funding applications for. The funding decisions made have been welcomed by people with rare disorders and their supporters.

We're grateful for the input from stakeholders into the evaluation process.

The evaluation completes our work on the rare disorders contestable funding pilot. We intend to form a view by the end of the year on future use of similar approaches.

DIRECTORY

AS AT 30 JUNE 2017

Pharmacology and Therapeutics Advisory Committee (PTAC)

Chair

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

Members

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

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

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

Prof Tim Stokes (professor of general practice) 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 sub-committees

Analgesic

Dr Jane Thomas (PTAC, Chair, paediatric anaesthetist), Dr Tipu Aamir (pain medicine specialist), Dr Rick Acland (rehabilitation specialist), Prof Brian Anderson (paediatric anaesthetist / intensivist), Dr Bruce Foggo (palliative medicine consultant), Dr Christopher Jephcott (anaesthetist), Dr Christopher Lynch (neurologist), Dr Giles Newton-Howes (psychiatrist), Dr Howard Wilson (general Practitioner / pharmacologist).

Anti-Infective

Dr Sean Hanna (PTAC, Chair, 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 Jane Morgan (sexual health physician), Dr Nigel Patton (haematologist), Dr Anja Werno (medical director microbiology) Dr Howard Wilson (general practitioner / pharmacologist), Dr Graham Mills (infectious disease physician).

Cancer Treatments (CaTSOP)

Dr Marius Rademaker (Chair, PTAC, dermatologist), Dr Scott Babington (radiation oncologist), Dr Peter Ganly (haematologist), Dr Tim Hawkins (haematologist), Dr Richard Isaacs (medical oncologist), Dr Anne O'Donnell (medical oncologist), Dr Matthew Strother (PTAC, medical oncologist), Dr Lochie Teague (paediatric haematologist / oncologist), Dr Jonathon Adler (palliative medicine specialist).

Cardiovascular

Prof Mark Weatherall (Chair, PTAC, geriatrician), Dr Andrew Aitken (cardiologist), Dr John Elliott (cardiologist), Prof Jennifer Martin (PTAC, 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).

Dermatology

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

Diabetes

Dr Sean Hanna (PTAC, Chair, general practitioner), Dr Melissa Copland (pharmacist), Dr Nic Crook (diabetologist), Dr Graham Mills (infectious disease physician), Dr Bruce Small (general practitioner), Ms Kate Smallman (diabetes nurse specialist / prescriber), Dr Esko Wiltshire (paediatric endocrinologist).

Endocrinology

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

Gastrointestinal

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

Haematology

Prof Mark Weatherall (PTAC, Chair, geriatrician), Prof John Carter (haematologist), Dr Nyree Cole (paediatric haematologist), Dr Paul Harper (haematologist), Dr Tim Hawkins (haematologist), Assoc Prof Paul Ockelford (haematologist), Dr Nigel Patton (haematologist).

Immunisation

Dr Stuart Dalziel (PTAC, Chair, paediatrician), Dr Caroline McElnay (public health medicine specialist / Medical Officer of Health), Assoc Prof Cameron Grant (Assoc. Prof. in paediatrics), Dr Sean Hanna (PTAC, general practitioner), Prof Karen Hoare (nurse practitioner / senior lecturer), Assoc Prof Lance Jennings (clinical virologist), Dr Gary Reynolds (general practitioner), 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

Dr Sean Hanna (PTAC, Chair, 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, psychiatrist), Dr Cathy Stephenson (general practitioner / sexual assault medical examiner).

Nephrology

Dr Jane Thomas (PTAC, Chair, paediatric anaesthetist), Assoc Prof John Collins (renal physician), Dr Malcom Dyer (general practitioner), Dr Tonya Kara (renal paediatrician), 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 (Director, Dept of Nephrology).

Neurological

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

Ophthalmology

Dr Marius Rademaker (PTAC, Chair, dermatologist), Dr Rose Dodd (general practitioner), Mr Peter Grimmer (optometrist), Dr Malcolm McKellar (ophthalmologist), Dr Hussain Patel (ophthalmologist), Dr Jo Sims (ophthalmologist), Dr David Squirrell (ophthalmologist).

Reproductive and Sexual Health

Dr Melissa Copland (PTAC, Chair, pharmacist), Dr Mira Harrison-Woolrych (obstetrician and gynaecologist), Dr Debbie Hughes (general practitioner), Dr Frances McClure (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

Dr Stuart Dalziel (PTAC, Chair, paediatrician), Dr Tim Christmas (respiratory physician), Dr Andrew Corin (general practitioner), Dr Greg Frazer (respiratory physician), Dr Jim Lello (general practitioner), Dr David McNamara (paediatric respiratory physician), Dr Ian Shaw (paediatrician), Prof Tim Stokes (professor of general practice), Dr Justin Travers (respiratory physician).

Rheumatology

Dr Marius Rademaker (PTAC, Chair, dermatologist), Dr Keith Colvine (rheumatologist and general physician), Dr Michael Corkill (rheumatologist), Assoc Prof Alan Fraser (PTAC, gastroenterologist), Assoc Prof Andrew Harrison (rheumatologist), Dr Sy Robertson (general practitioner), Dr Sue Rudge (paediatric rheumatologist), Prof Lisa Stamp (rheumatologist), Assoc Prof Will Taylor (rheumatologist).

Special Foods

Dr Stuart Dalziel (PTAC, Chair, paediatrician), Dr Simon Chin (paediatric gastroenterologist), Mrs Kim Herbison (paediatric dietitian), Mrs Kerry McLlroy (charge dietitian), Dr Jan Sinclair (paediatric allergy and clinical immunologist), Ms Moira Styles (community dietitian), Dr Russell Walmsley (gastroenterologist), Ms Victoria Woollett (community dietitian).

Tender Medical

Dr Melissa Copland (Chair, PTAC, pharmacist), William (Billy) Allan (pharmacist), Dr Ben Hudson (general practitioner), Craig MacKenzie (hospital pharmacist), Dr John McDougall (anaesthetist), Clare Randall (palliative care clinical pharmacist), Geoff Savell (pharmacist), John Savory (pharmacist), Dr David Simpson (haematologist), Prof Tim Stokes (PTAC, professor of general practice), Helen Topia (nurse practitioner/clinical educator), Lorraine Welman (chief pharmacist / President NZHPA).

Transplant Immunosuppressant

Dr Marius Rademaker (PTAC, Chair, dermatologist), Dr Priscilla Campbell-Stokes (paediatrician/paediatric rheumatologist), Dr Helen Evans (paediatric hepatologist/gastroenterologist), Dr Peter Ganly (haematologist), Dr Tanya McWilliams (respiratory physician), Dr Stephen Munn (transplant surgeon), Dr Grant Pidgeon (renal physician), Dr Richard Robson (nephrologist), Dr Peter Ruygrok (cardiologist).

Advisory groups (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), Alan Shackleton (nurse consultant - wound care service clinical Lead), Amanda Pagan (wound care specialist nurse), Catherine Hammond (wound care clinical nurse specialist & educator), Emil Schmidt (nurse specialist wound care), Jonathan Heather (plastic surgeon), Susie Wendelborn (specialty clinical nurse wound care), Wendy Mildon (clinical nurse specialist wound care).

Consumer Advisory Committee (CAC)

Chair

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

Members

Stephanie Clare – Chief Executive, Age Concern NZ, Wellington

Key Frost – mental health advocate, Invercargill

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

Neil Woodhams – vice president, Multiple Sclerosis NZ, Auckland

Francesca Holloway – Northern Regional Manager of Arthritis New Zealand, 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.

Panels

Named Patient Pharmaceutical Assessment Advisory

Dr George Laking (Chair, oncologist), Dr Paul Timmings (Deputy Chair, neurologist), Dr Christina Cameron (consultant general physician and clinical pharmacologist), Dr Rachel Webb (paediatric infectious disease physician), 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 Justin Travers (general and respiratory physician).

Cystic Fibrosis

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

Gaucher Treatment

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

Haemophilia Treatments

Dr Ian Hosford (Chair, consultant psychogeriatrician), Dr Nyree Cole (paediatric haematologist), Dr Paul Harper (haematologist), Dr Paul Ockelford (haematologist), Dr Julia Philips (haematologist), Brian Ramsay (specialist haemophilia nurse).

Hepatitis C Treatment

Prof Ed Gane (hepatologist), Prof Catherine Stedman (gastroenterologist and clinical pharmacologist), Dr Campbell White (consultant physician and gastroenterologist), Dr Jeffrey Wong (gastroenterologist), Sarah Fitt (Director of Operations, PHARMAC).

Multiple Sclerosis Treatment Assessment

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

Pulmonary Arterial Hypertension

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

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

ISSN 1179-3775 (Print)

ISSN 1179-3783 (Online)