PHARMAC
Pharmaceutical Management Agency

YEAR IN REVIEW
2016

New Zealand Government

TOP 20 THERAPEUTIC GROUPS

GROUP NAME	MAIN USE	2013	2014	2015	2016
Immunosuppressants	Organ transplants, arthritis	$128.67	$140.33	$154.54	**$162.29**
Vaccinations	Vaccinations	$42.37	$42.57	$91.37	**$97.98**
Chemotherapeutic Agents	Cancer	$67.86	$70.68	$63.98	**$75.42**
Antithrombotic Agents	Stopping blood clots	$32.14	$41.48	$50.88	**$63.51**
Inhaled Long-acting Beta-adrenoceptor Agonists	Asthma	$43.48	$48.37	$54.13	**$55.41**
Diabetes	Diabetes	$39.60	$43.07	$46.99	**$50.62**
Antiepilepsy Drugs	Epilepsy	$28.63	$30.49	$32.23	**$33.91**
Antipsychotics	Mental health (psychoses)	$30.34	$32.89	$31.34	**$33.30**
Antiretrovirals	HIV/AIDS, viral infections	$21.04	$26.41	$29.53	**$32.72**
Endocrine Therapy	Hormone therapy	$10.48	$10.98	$12.83	**$28.20**
Analgesics	Pain relief	$24.99	$22.42	$20.98	**$20.41**
Multiple Sclerosis Treatments	Multiple Sclerosis	$8.51	$9.24	$11.36	**$20.14**
Diabetes Management	Diabetes	$23.12	$17.96	$18.59	**$19.12**
Anticholinergic Agents	Allergies	$15.42	$16.45	$17.23	**$18.44**
Treatments for Substance Dependence	Addiction	$23.25	$16.84	$15.66	**$15.18**
Antivirals	Viral infections	$14.88	$14.96	$16.64	**$14.76**
Antibacterials	Bacterial infections	$14.46	$13.59	$13.41	**$14.24**
Trophic Hormones	Hormone deficiency	$12.38	$13.56	$13.94	**$13.95**
Antidepressants	Mental health (depression)	$24.13	$16.76	$15.21	**$13.34**
Antianaemics	Anemic conditions	$9.71	$10.12	$11.62	**$12.35**

(Gross cost $millions ex GST and rebates)

YEAR IN REVIEW 2016

CONTENTS

2016 YEAR HIGHLIGHTS

HIGHLIGHTS OF 2016

- Major budget boost from the Government ($124M over 4 years)
- Two breakthrough cures funded for hepatitis C
- Two new treatments funded for advanced melanoma
- Medicines for rare disorders funded through pilot scheme
- Over 100,000 extra people benefit from recent vaccines decisions
- Significant cost savings for DHBs from progress in medical devices work
- New partnership with the Health Research Council to support research
- New Factors for Consideration implemented to ensure the best possible decisions
- New approach to supporting health professionals through BPAC and the Goodfellow unit
- New on-line tender system to benefit PHARMAC and suppliers
- New partnerships with Whānau Ora Collectives and the Māori Doctors Association
- Work with Pacific communities on a new Pacific responsiveness strategy
- PHARMAC forums held across the country
- Six new respiratory treatments funded
- New treatments funded for multiple sclerosis (MS)

HOSPITAL MEDICINES

- **13 new medicines funded**
- **$6.69 million in savings to DHB hospitals**

HOSPITAL MEDICAL DEVICES

- **Work is underway in 11 categories (25% of market)**
- **20,000 line items on the Schedule, six times the number of medicines**
- **34 contracts in place**

COMMUNITY MEDICINES

- **15 new medicines funded**
- **$79 million savings**
- **Access widened to 6 medicines**
- **44.4 million prescription items funded**

VACCINES

- **Listed HPV vaccine for boys (from January 2017)**
- **Listed varicella (chickenpox) for all children (from June 2017)**

YEAR IN REVIEW 2016

FROM THE CHIEF EXECUTIVE

2016 was a big year for PHARMAC with a relentless focus on evidence-based decision-making. We received one of the biggest budget increases in PHARMAC's history; we funded a break through cure for Hepatitis C; we funded one of the biggest bundles of medicines PHARMAC has ever negotiated; and we deepened our commitment to research with a new research partnership.

The injection of new funding from the Government of $124 million over four years allowed PHARMAC to fund exciting new medicines, including new generation treatments for hepatitis C and advanced melanoma. In the case of hepatitis C, we expect to see large numbers of people cured – an amazing treatment breakthrough.

For melanoma, an issue of high public interest during the year, two new funded treatments are now available. Late last year, we also announced funding of a significant bundle of medicines supplied by Roche, which included pertuzumab for breast cancer. This package will, as uptake grows, see nearly 2000 people getting access to medicines for indications such as oncology, haematology and respiratory conditions.

We have also made great progress across other areas of our work, particularly vaccines where we approved extended funding of HPV vaccine for males, and we funded the chicken pox vaccine (varicella) for infants. Our medical devices work reached an important milestone in 2016; our first 'market share' arrangements, where suppliers compete for the right to supply. Implementing these decisions effectively – related to wound care products – is a key priority for PHARMAC and DHBs.

Our transition during the year to using Factors for Consideration – replacing our previous Decision Criteria – was also important; the biggest change to PHARMAC's decision-making in 23 years. This is a much clearer framework, developed with our stakeholders, and provides much greater visibility of the wide range of factors we use in our decisions. You can read more about the Factors for Consideration on page 3-4.

Evidence is everything

Across our work, we've been able to make the important decisions above (and others) through the flexibility of the PHARMAC model; our strong focus on evidence; by taking an even-handed approach to all treatment areas; and the willingness of suppliers to offer good value-for-money for their products.

A cornerstone of our approach is the importance of clinical evidence. Combined with robust advice from independent clinical experts, and constructive negotiations with suppliers, we ensure that we make high quality decisions. I hope you enjoy reading about our evidence-based approach on page 10.

During the year we also struck an exciting new partnership with the Health Research Council, establishing a research fund. This underscores our commitment to expanding the evidence base on pharmaceutical use in New Zealand. We are looking forward to the insights the research will provide us.

We also agreed to a 10-year sponsorship of the Young Researcher Award at the New Zealand Society for Oncology Conference. There are two awards for a clinical researcher and a laboratory based researcher, every year. PHARMAC is very happy to support a long-term commitment to high quality evidence-based research, in an important therapeutic area.

Sector engagement

PHARMAC works closely with health system partners to assist patients to get medicines at the right time and in the right place. We play an important role in a wide range of issues facing the health system, and meet regularly with the Minister, the Ministry, New Zealand Health Partnerships, DHBs, pharmacy sector leaders, clinicians, wholesalers, suppliers, and patient and community groups. You will see a central theme of engagement in all our articles as a core part of PHARMAC's work.

In any year, there are always challenges requiring professional and supportive collaboration. During the year, we faced significant challenges related to the supply of a heart medication (metoprolol succinate). The response required extensive collaboration amongst (in particular) pharmacists, suppliers, Medsafe and wholesalers to ensure we met the needs of patients. Supply challenges affect all countries, but not all countries enjoy the level of professionalism, goodwill and cooperation in their system to effectively manage the risks.

Looking forward

We have a lot to look forward to in 2017. New medicines will be funded; our Pacific Responsiveness Strategy will be launched; and we will evaluate the Rare Disorders pilot initiative. We remain committed to robust and fair assessment of all funding applications to help New Zealanders live healthier and longer lives.

APPLYING 'FACTORS FOR CONSIDERATION' TO MAKE

THE BEST POSSIBLE DECISIONS

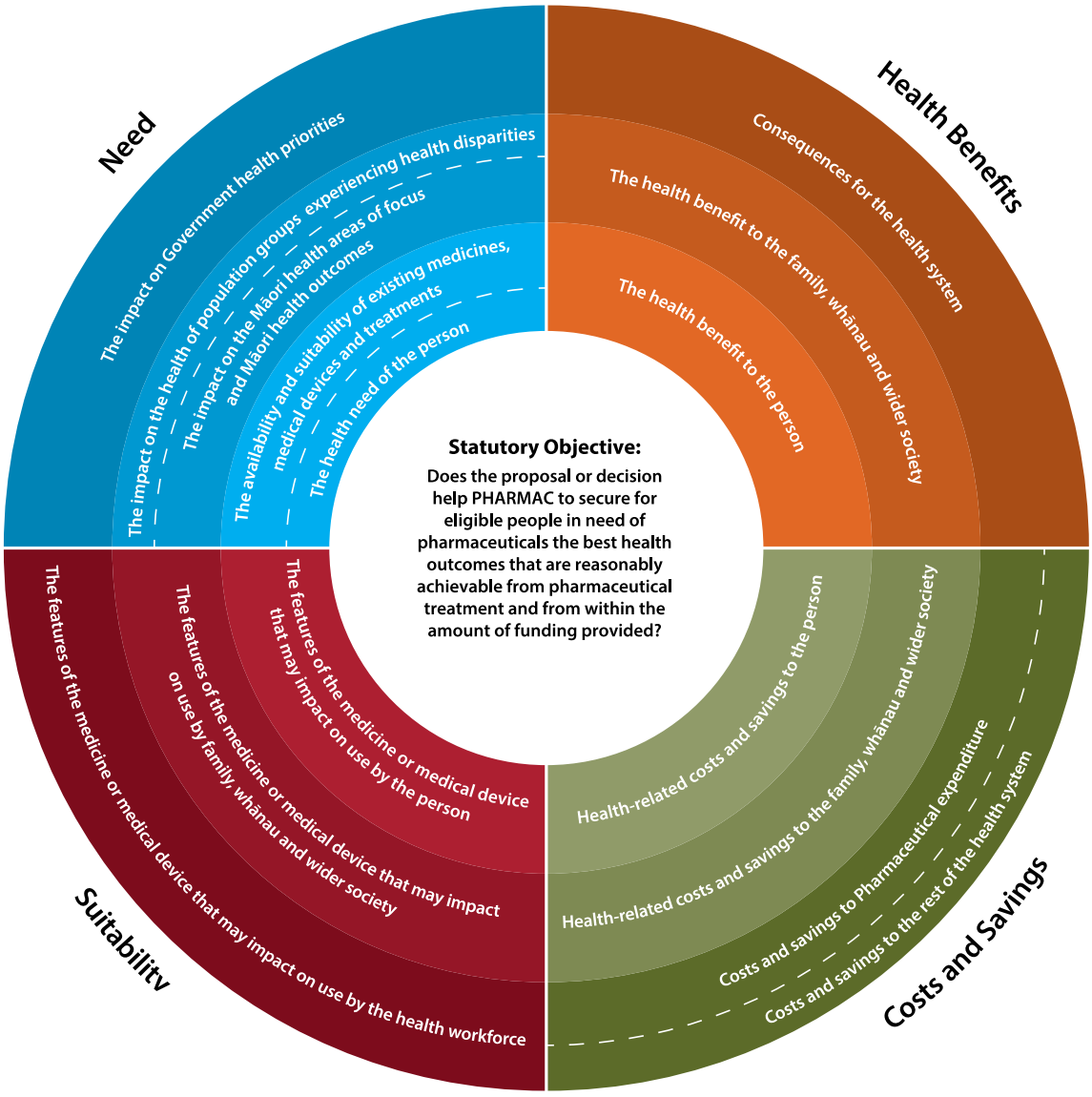
After meetings across the country to discuss what's relevant when assessing pharmaceuticals, in 2016 we changed the way we make decisions; the most significant change to PHARMAC's decision-making in 23 years.

Building off what we previously used – Decision criteria – our review identified that a clearer framework was required to increase transparency of how we make decisions. We also needed to ensure greater visibility of all considerations important to funding decisions.

The three circular rings – 'the layers' – ensure we think carefully and broadly about the pros and cons of funding choices for (1) people who may benefit from treatment; (2) their family/whānau and wider society; and (3) the wider health system.

The four segments – 'the dimensions' – ensure we group similar considerations together and undertake a robust assessment of everything relevant to a dimension.

Some of the factors may be more or less relevant depending on the nature of the decision being made. Judgement is always required to ensure we respond appropriately to different situations. We also always consider one funding option relative to others – to ensure we make the best choices for New Zealand.



TONY WANG

HEALTH ECONOMIST

Tony Wang may be relatively young but he's already experienced many sides of the pharmaceutical world.

Tony is one of 16 pharmacists at PHARMAC and a trained health economist, a member of PHARMAC's health economics team which provides advice on the balance between the clinical effectiveness and costs of medicines.

Originally from Christchurch, his journey to PHARMAC includes working as a clinical pharmacist at Middlemore Hospital in South Auckland, at the New Zealand medicines regulatory authority Medsafe, backed up by studies from the University of Otago School of Pharmacy and Monash University.

What attracted Tony to PHARMAC is the opportunity to significantly contribute to the health of New Zealanders and to make a difference to people's lives and wellbeing.

"PHARMAC is filled with passionate people, and it's a stimulating and challenging place to work. Our days are so often varied. We can be analysing new funding applications for medicines one day, then spend the next couple of days meeting with pharmaceutical suppliers and clinical experts, then switch back to supporting our colleagues in commercial negotiations."

"This job really puts things into perspective. With the pool of money we've got, not only are we required to assess the relative effectiveness of medicines but we've also got to ask ourselves the question of 'at what cost?'," says Tony.

In considering need, we focus on how valuable a new or additional treatment would be. In 2016, treatment for Hepatitis C – an area without good treatments previously – was a good example of addressing a clear health need.

We think hard about all the benefits of funding a medicine, whether for an individual, their family and/or the wider health system. Understanding all these benefits, and their likelihood of eventuating, is central to our assessment work.

Just as benefits need to be identified, so too do all the costs and savings of a funding option. We often hear that PHARMAC doesn't include costs and savings of its decisions to the wider health sector (including DHBs) but we certainly do factor these into our assessments.

We've all had times when something we wanted to use had potential but wasn't ultimately fit-for-purpose. We avoid such situations by carefully assessing the suitability of pharmaceuticals, including a number of important practical considerations.

"The three circular rings – 'the layers' – ensure we think carefully and broadly about the pros and cons of funding choices for (1) people who may benefit from treatment; (2) their family/whānau and wider society; and (3) the wider health system."

WORK IN

MEDICAL DEVICES

THE DHB VIEW

Dr Nigel Murray, Chief Executive Waikato District Health Board, is responsible for leading the Procurement Strategy at NZHPL and is a PHARMAC Board Observer. He writes below on PHARMAC's medical devices work.

PHARMAC's work in medical devices gives DHBs options they wouldn't otherwise have. It's a move that is strongly supported by DHBs as this work helps DHBs meet the needs of their populations. The savings give DHBs an opportunity to do things they wouldn't otherwise be able to do, such as spending more in areas like mental health or public health.

PHARMAC's move into devices is strongly supported by DHBs, and endorsed in the Joint Procurement Strategy. The creation of the Joint Procurement Authority means we can really work together in an integrated way.

PHARMAC's approach has been very positive, involving our clinicians here at Waikato in discussions and consultation as they have progressed. They understand the benefits of PHARMAC's work in medicines and now in devices. We're ready for national standardisation, and market share procurement gives all DHBs the opportunity to leverage our position, to be price makers not price takers.

What we see heading into the future is a powerful partnership between DHBs and PHARMAC. We're very committed to the PHARMAC approach. DHBs want to use PHARMAC's expertise to an even greater degree, with more standardisation as well as innovation. Transforming will require some change for both DHBs and PHARMAC but I think we're already seeing an impact. We're totally committed, there's no going back.

PHARMAC's medical devices work continued with strong momentum in 2016. By late 2016, the Pharmaceutical Schedule included 20,000 line items, across 34 contracts with an estimated value of $66- 72 million. PHARMAC's activity means that savings for DHBs are forecast to exceed $30 million over 5 years – money DHBs retain and can reinvest into other health services.

The story so far

In 2013/14, we started work in six categories, negotiating national contracts for DHBs in wound care, sutures, disposable laparoscopic equipment, orthopaedic implants (spine and, trauma), cranio-maxillofacial implants interventional cardiology and sterile wraps and consumables. We added six more categories in 2015, and have more recently confirmed a further 11 following consultation to begin work in 2017.

Given progress in the wound care category, in 2016 we were able to progress to 'market share procurement' for some products. This is where suppliers complete for the ability to sell products, with greater certainty of their market share. For PHARMAC and DHBs, the result is typically significantly lower prices. PHARMAC listened to DHB feedback about the potential costs of change for some products and made changes accordingly. We have subsequently provided strong implementation support to DHBs and have allowed an eight-month transition period to help with the change.

Working with DHBs and other stakeholders

PHARMAC's success to date has been underpinned by extensive engagement with a wide range of DHB staff. We attend regular meetings, run workshops, travel to DHBs and present at Forums, attend conferences and provide information via targeted communications so that DHB staff and other stakeholders have opportunities to hear about and provide input into our work.

This year we signed a Memorandum of Understanding (MoU) with New Zealand Health Partnerships Limited (NZHPL); an organisation established to create financial efficiencies for DHBs and help them meet increasing demands on the health system. Working collaboratively with NZHPL is a key focus for PHARMAC

ahead. Our Chief Executive sits on a key advisory group of the Joint Procurement Authority (JPA) and PHARMAC staff are involved in other forums supporting the DHB Procurement Strategy.

PHARMAC is working with a wide range of medical device suppliers, some of whom we have not worked with before. We have been impressed by the strong commitment to the New Zealand market suppliers have demonstrated.

Clinical engagement

Engagement with clinicians is at the heart of our work. To ensure PHARMAC makes the right decisions, we seek specialist advice and support from clinicians. The Wound Care Advisory Group, consisting of eight clinical experts, played a critical role in determining which products were suitable for our first market share agreements. An Interventional Cardiology Advisory Group is also up and running, made up of 10 clinicians appointed on the advice of the Cardiac Society of Australia and New Zealand. Members who sit on these Advisory Groups are listed at the back of this review.

In addition to these specialist groups, PHARMAC consults widely to get other stakeholder views, including from other clinicians, before making decisions. The wound care consultation was a great example – concerns raised in feedback about implementation challenges meant we provided DHBs with longer transition arrangements; increased flexibility in discretionary purchasing amounts; and made other changes to the original proposal.

2017 and beyond

PHARMAC has been working well with NZHPL and the JPA to coordinate the pace and coverage of our medical devices work.

As we move ahead, we are firmly focused – as are DHBs – on successfully implementing the market share arrangements for wound care products. There have been a number of important foundations and 'beachheads' in our devices work; implementing market share arrangements are another. Effective implementation will build further confidence in PHARMAC's decision-making and in the benefits of a highly collaborative and consultative approach.

Work ahead will have new challenges, along with different impacts for different parties. What all parties can expect, however, is a careful approach from PHARMAC built on rigorous assessment and effective engagement. And amongst the challenges, we need to keep coming back to making the best use of health system resources to benefit the New Zealand public.

STAFF PROFILE

RYAN GRAVES

DEVICES CATEGORY MANAGER

A career in science is taking a different direction for Dr Ryan Graves, one of PHARMAC's team developing national contracts for hospital medical devices.

Ryan's pathway to PHARMAC has involved seven years in the UK, including stints working as a scientist at pharmaceutical companies, a PhD at Queen Mary, University of London and a postdoctoral at King's College London. More recently, he's been a science investment manager at the Ministry of Business, Investment and Employment in Wellington, part of the team deciding where science funding is allocated.

Having a strong foundation in science is definitely helpful to his PHARMAC work.

"I like strategic long-term projects and problems to solve, being really open and inquisitive. That's what struck me about this role – it's big and complex. Our team has a long-term strategy to oversee funding of medical devices and it's great to be part of that."

"My background in science has definitely come in handy in helping to understand the clinical literature and it's also useful for taking a creative approach to solving long-term problems."

Ryan is a relative newcomer to PHARMAC, joining in late 2015. He's an integral part of the team making strong inroads to national hospital medical devices contracting. Ryan is responsible for two areas where PHARMAC is exploring new contracts – thermometry and venous thromboembolism prevention (compression devices).

As part of the role Ryan likes to get out and about to see how his work can make a difference to DHB staff and patients.

"That's really stimulating to see that the work we're doing has a flow-on effect, and how it affects people," he says. "This can generate opportunities for clinicians in how they are able to treat a patient, and help patients towards health and wellbeing. This is ultimately the driver of my work".

DELIVERING VALUE IN

HOSPITALS

TOP 20 HOSPITAL MEDICINES	2012/13	2013/14	2014/15	2015/16
Infliximab	$9,520,000	$15,180,000	$15,490,000	**$17,970,000**
Rituximab	$3,060,000	$4,790,000	$7,040,000	**$7,970,000**
Enoxaparin sodium	$4,490,000	$4,270,000	$4,190,000	**$4,260,000**
Clostridium botulinum type A toxin	$2,980,000	$3,300,000	$3,440,000	**$3,790,000**
Ferric carboxymaltose	$10,000	$10,000	$1,320,000	**$3,570,000**
Zoledronic acid	$2,270,000	$2,150,000	$2,220,000	**$2,980,000**
Ranibizumab	$200,000	$340,000	$1,260,000	**$2,820,000**
Total parenteral nutrition (TPN)	$2,320,000	$2,370,000	$2,160,000	**$2,690,000**
Sevoflurane	$2,480,000	$2,530,000	$2,760,000	**$2,660,000**
Tocilizumab	$380,000	$470,000	$1,290,000	**$2,340,000**
Flucloxacillin	$2,420,000	$2,320,000	$2,120,000	**$2,220,000**
Bupivacaine hydrochloride with adrenaline	$1,860,000	$1,890,000	$2,060,000	**$2,150,000**
Alteplase	$1,660,000	$1,620,000	$2,180,000	**$2,110,000**
Heparin sodium	$1,780,000	$1,870,000	$2,000,000	**$2,080,000**
Morphine sulphate	$1,460,000	$1,490,000	$1,720,000	**$1,730,000**
Sugammadex	$270,000	$550,000	$1,000,000	**$1,730,000**
Bevacizumab	$880,000	$1,050,000	$1,200,000	**$1,620,000**
Desflurane	$1,720,000	$1,720,000	$1,610,000	**$1,480,000**
Lidocaine [Lignocaine] hydrochloride	$1,160,000	$1,150,000	$1,330,000	**$1,370,000**
Levonorgestrel	$1,300,000	$1,190,000	$1,270,000	**$1,310,000**

Gross cost excluding GST and rebates.

Since July 2013, PHARMAC has been responsible for deciding which medicines can be used in public hospitals. This means PHARMAC assesses and makes choices about all new investments in medicines funded by DHB hospitals along with carrying out some national procurement for them. Our activity in hospital medicines drives significant savings for Vote Health - in the 2015/16 financial year, PHARMAC's decisions created $25.37 million savings over 5 years, and returned net savings to DHBs in that year of $6.69 million.

Cementing great relationships

Establishing close working relationships with leaders in the health sector is a critical part of PHARMAC's success. We rely on expert advice from PTAC and its sub-committee members to inform funding decisions, and we also engage extensively with clinical networks and senior management in DHBs. We also attend other sector meetings, such as the Ministry of Health's Medical Oncology Working Group and the Haematology-

Oncology Working Group to explore the implications of potential funding decisions we may make.

In 2016 PHARMAC enhanced the information it provided to DHBs on the impacts of proposed funding decisions on them and their patients. This work, which included workshop discussions, has been well received and will continue as a means of engagement in the future where a funding decision is likely to have significant impacts on DHBs.

PHARMAC's work is also a regular point of discussion at DHB senior management meetings. We meet with Chief Executives, Chief Medical Officers, Chief Operating Officers, Chief Finance Officers as well as the national meetings of General Managers, Planning and Funding and Chief Pharmacists. PHARMAC appreciates the valuable discussion that occurs in these meetings.

Expenditure information

Since PHARMAC's hospital medicines work began, we have been working hard with DHBs to improve the flow of data between us – and improve the insights generated from data. The purchasing data we now receive allows us to provide enhanced management reports to DHBs to assist with forecasting and monitoring.

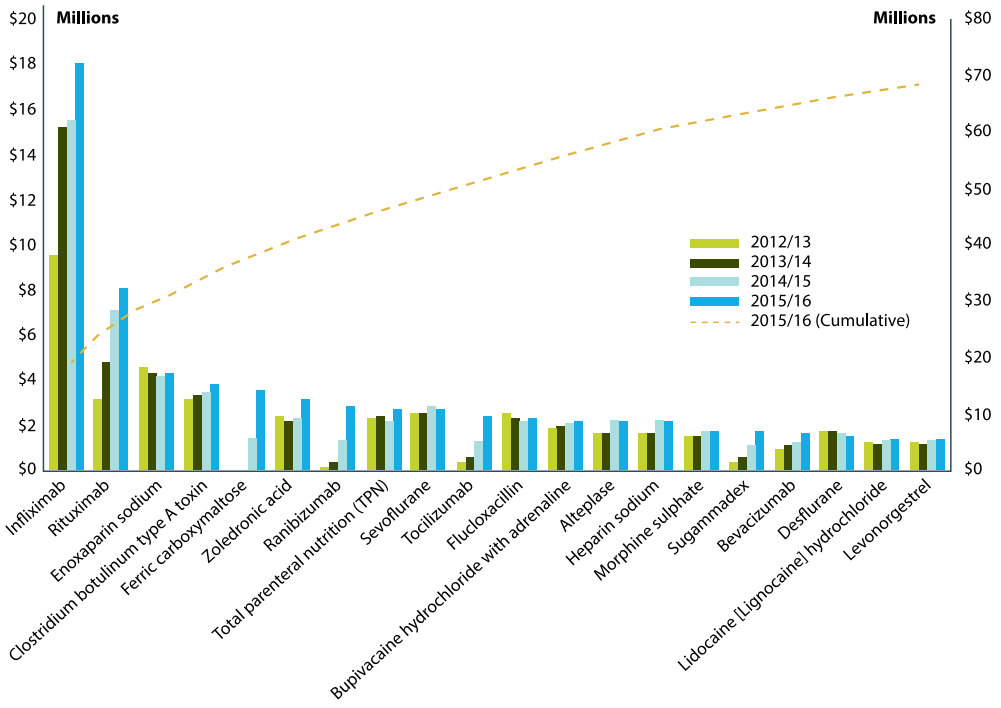
A breakthrough in 2016 was a report on the top 20 medicines used in hospitals, by spend. This has enabled each DHB to compare usage against the national average, and demonstrates the value of PHARMAC's cost saving and reinvestment activities. PHARMAC continues to work hard to negotiate better prices on existing medicines and monitor and apply our evidence based model in the constantly evolving world of medicines.

Next steps

PHARMAC is committed to working closely with DHBs to generate further value from our hospital medicines work. In the year ahead we are planning on setting up a working party, with DHBs, to provide advice on a range of important matters related to hospital medicines management.

PHARMAC is also keen to support different models of service delivery that involve pharmaceuticals. This includes moving care from hospitals into the community where that makes sense. Such arrangements need careful selection and testing to ensure that all necessary system changes, particularly related to how claiming works, can be made. We look forward to work with DHBs to explore such positive developments for the health system.

Gross cost of top 20 hospital pharmaceuticals



Please note that:

- purchasing data is only a proxy for usage in DHBs;
- cost is calculated using gross expenditure. PHARMAC collects rebates (which are then distributed to DHBs) for some pharmaceuticals. These are marked with an "*" in the following pages; and
- this report excludes expenditure on PCTs which are part of the CPB

DELIVERING VALUE IN

VACCINES

2004

First vaccine contract negotiated – influenza vaccine

2012

Management of NZ Immunisation Schedule shifts to PHARMAC

2014

Listed varicella vaccine (for at-risk patients)

ROTAVIRUS VACCINE SHOWS IMMEDIATE IMPACTS

Vaccines have long-term benefits for populations but in one case, there's a short-term benefit that's already being recognised.

PHARMAC funded the rotavirus vaccine from July 2014. Within a year of its introduction, Ministry of Health figures showed the number of children hospitalised for gastrointestinal illness nearly halved. Rotavirus is the leading cause of gastrointestinal illness in children.

The data showed that in 2010, 2487 children aged 0–2 were admitted to hospital with gastroenteritis and in 2015, that number had dropped to 1289.

GP Graham Loveridge told the Nelson Mail: "Rotavirus is an ongoing problem and this vaccine seems to be doing a really good job at reducing incidence of gastroenteritis."

2014

Rotavirus vaccine funded

★ **Outcome:** by 2015, number of children hospitalised with gastric problems nearly halved. By 2016, Auckland hospitals report 75% reduction in hospitalisations of under-2s with gastric problems

2014-15

Shifted bulk storage and distribution of vaccines to Healthcare Logistics

★ **Outcome:** Savings

2016

Listed HPV vaccine for boys (from January 2017)

DR PETER MURRAY

MEDICAL ADVISOR REGISTRAR

Dr Peter Murray never seems to be too far from the beach – perhaps a product of his growing up on the beaches of Mt Maunganui.

These days home is Island Bay on Wellington's south coast, where he arrived after studying medicine and initial practice in Newcastle, New South Wales.

He still likes a good surf, but it's the public health medicine training that has brought him and his young family to Wellington and the opportunity to work at PHARMAC was one not to be missed.

Public health, he says, is "often about the things you don't notice when they work well, but which make the news when they don't."

Peter sees PHARMAC as a great example of a public health organisation "because it's concerned with decisions that impact the health of the whole population."

"PHARMAC is making robust decisions that take into account so many different factors – evidence, disparities, system-level factors. There are a lot of smart people sharing ideas and expertise from different points of view – policy, medicine, public health, pharmacy and health economics. There are a lot of different strengths at the decision-making table," he says.

"It's also still able to respond and be flexible to meet individual clinical needs under the exceptional circumstances pathway. We're very involved with these individual funding applications. It's good work, it keeps you clinically grounded."

"We're also working to promote clinical governance within PHARMAC, including to make sure we always get the clinical and patient voice heard in our decisions."

2014

Conjugated meningococcal vaccine funded

2014

Hepatitis A vaccine funded

2016

Listed varicella (chickenpox) for all children (from June 2017)

★ **Outcome:** Forecast to benefit more than 100,000 people

★ **Outcome:** Across the immunisation schedule – saving $5.6 million per year

DELIVERING VALUE THROUGH

OUR USE OF EVIDENCE

Clinical evidence is the foundation of PHARMAC's decisions, including through advice from independent experts on the Pharmacology and Therapeutics Advisory Committee (PTAC) Here's two examples of how PHARMAC uses clinical evidence in its decision-making.

Case study 1: **Cancer comparisons**

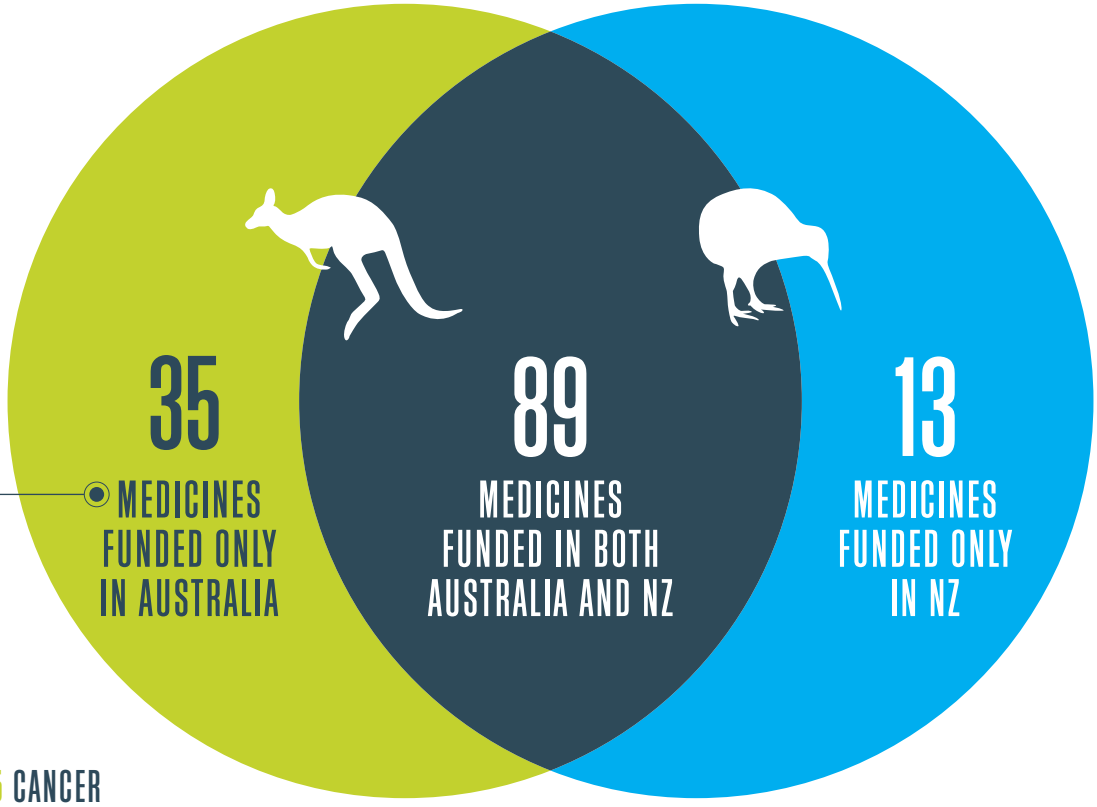
We published the results of a study looking at the funding of cancer drugs in New Zealand, compared with Australia, to see if New Zealanders were missing potential health gains from drugs funded in Australia.

The study shows that, broadly speaking, New Zealanders aren't missing significant opportunities for health gain from cancer medicines funded in Australia.

Of the medicines funded in Australia but not here, most do not offer health gains that would be considered clinically meaningful by international cancer specialists. Some of the medicines offer poorer health outcomes than the established NZ funded standard of care.

Like any study there some limitations, however the findings are important for illustrating the differences between cancer drug funding in NZ and Australia.

An updated analysis will soon be published which takes account of more recent decisions in both countries to improve medicines access.



OUT OF THE 35 CANCER MEDICINES NOT FUNDED IN NEW ZEALAND, ONLY THREE PROVIDE REAL, MEANINGFUL BENEFIT.

Case study 2 : **PD-1 inhibitor cancer treatments – evolution of evidence**

The funding of cancer medicines during the year was a story of how evidence and knowledge evolves. A class of medicines called Programme Cell death 1 (PD-1) inhibitors were a prominent issue during the year. PHARMAC initially reviewed a funding application for one of these drugs, pembrolizumab (Keytruda) for advanced melanoma in late 2015. At that time, the view of PHARMAC's clinical advisers was that the evidence of benefit merited a low funding priority for pembrolizumab.

In early 2016 PHARMAC reviewed another funding application for a different PD-1 inhibitor for advanced melanoma, nivolumab (Opdivo).

The quality of the data in the nivolumab application led PHARMAC to agreements, and nivolumab was funded from 1 July 2016. Further, the similarity of nivolumab and pembrolizumab, and a consensus statement from leading cancer doctors confirming their similarity, gave PHARMAC greater confidence in evidence for pembrolizumab. This led to a further funding proposal, and a decision to fund pembrolizumab from 1 September 2016.

Nivolumab and pembrolizumab remain expensive treatments, and PHARMAC is keeping a close eye on evidence around their wider use for other forms of cancer, including lung cancer.

Promoting research

PHARMAC partnered with the Health Research Council (HRC) to promote research into pharmaceutical use in New Zealand.

The partnership established a fund that provides more than $400,000 to researchers.

This is the first partnership between PHARMAC and the HRC, and is in line with one of PHARMAC's functions to promote research.

SEPTEMBER 2015

Funding application to fund pembrolizumab was received

Given a low funding priority by our clinical advisors

APRIL 2016

Funding application to fund a competitor product, nivolumab, was received

Higher quality evidence in view of our clinical advice

MAY 2016

Consulted on the funding of nivolumab

New clinical advice

Comfortable switching patients

JUNE 2016

Decision made on the funding of nivolumab from 1 July 2016

Evolution of evidence

Favourable commercial arrangement

Consulted on the funding of pembrolizumab based on new evidence

JULY 2016

Decision made on the funding of pembrolizumab from 1 September 2016

ENSURING GREAT

COMMUNITY ENGAGEMENT

> **"We've got an established relationship with the PHARMAC Board and a genuine report-back loop."**

CONSUMER ADVISORY COMMITTEE

Outgoing Chair of the Consumer Advisory Committee Shane Kawenata Bradbrook reflects on his six years supporting PHARMAC's consumer engagement.

Changes in the composition and role of the Consumer Advisory Committee are helping PHARMAC's credibility in its interactions with the community.

In the six years I was involved I've seen the Committee's role clarify and mature, while there is now greater cultural diversity and gender balance on the Committee. These changes have given the CAC a strong and genuine advocacy voice that's independent of the body it's advising – something many consumer committees don't have.

I think the CAC saw that when we had a visit from Grey Power. Not only did they see a group of people from the community around the table, not PHARMAC people, they even saw some who were members of Grey Power. We had a good talk with them and they went away thinking 'yep, these people have got our backs'.

We've got an established relationship with the PHARMAC Board and a genuine report-back loop. Having a member of the CAC at PHARMAC Board meetings is very powerful and sends a strong message about consumers having a voice that is genuinely being heard.

The other change I have seen has been in the cultural diversity on the Committee. I think that's a real plus. It means real representation and it's led to a definite culture shift. Cultural links are also strengthened through Te Rōpū Āwhina Māori, which brings together staff and advisers across PHARMAC, including members of the CAC.

It's also a plus to be able to go into the community and meet people with a real community focus. That's been important in many of the forums PHARMAC's run, and in its engagement with Māori and Pacific communities.

I think CAC has also influenced PHARMAC to become a little softer and more approachable – we see that in the way it now goes out to the community, and in the language used in its correspondence.

I have to give credit to the people that went before me on the committee in their leadership – people like Sandra Coney, Matiu Dickson and Kate Russell. They really laid the foundations for the position the Committee is in. But PHARMAC has shown openness and a willingness to give the CAC a role where it can have the influence it does.

Shane Kawenata Bradbrook was a member of CAC from 2010–2016, and Chair 2015–16.

NEW CONSUMER ADVISORY COMMITTEE MEMBERS IN 2016

Francesca Holloway

Francesca is Northern Regional Manager of Arthritis New Zealand.

Lisa Lawrence

Lisa (Ngāti Kahungunu, Ngāti Ruapani) lives in Whakatu and is Kaiwhakahaere of the Motueka Family Service Centre, providing health and social services to Māori and the wider community.

Te Ropu Poa

Te Ropu Poa (Ngāpuhi) is the General Manager of Te Hau Ora O Ngāpuhi, a Far North Māori health service provider and a subsidiary of Te Rūnanga-A-Iwi O Ngāpuhi, based in Kaikohe.

Chief Executive Steffan Crausaz and Rawiri Jansen, Chairperson, Māori Medical Practitioners Association, sign Memorandum of Agreement at Papakura Marae

REBECCA ELLIOTT

SENIOR POLICY ANALYST

Rebecca Elliott is managing to juggle two successful careers – one in policy at PHARMAC, and the other on the national triathlon circuit.

Rebecca is a senior policy analyst, leading PHARMAC's thinking around projects like the Factors for Consideration, and a review of the Named Patient Pharmaceutical Assessment policy.

"What I love about working at PHARMAC is feeling like you are part of an organisation that's really doing things that affect people's lives in a positive way," she says.

Solving problems and looking for ways to make the complex health system work better for people are what motivates Rebecca.

"We're always looking for ways to make the part of the system that we can influence work better for people, and listening to our external stakeholders is a big part of that. Going out to the community to meet with people and ask for their views directly is particularly rewarding."

She led policy work around PHARMAC's Factors for Consideration change, and is currently helping guide development of PHARMAC's Pacific Responsiveness Strategy.

It all seems a far cry from a physical education degree from Otago University, although Rebecca still indulges her passion for sport through her triathlon career. She's won the New Zealand Olympic distance triathlon title for the past two years, and last year won the Taupo 70.3 half ironman. This year she was ninth in her age group at the world 70.3 half ironman triathlon championships in Sunshine Coast, Queensland.

PARTNERSHIPS WITH MĀORI

Te Whaioranga provides a platform for PHARMAC to support Māori health and community organisations to improve the health of their communities. 2016 saw new partnerships with Māori health organisations both locally and nationally.

Over recent years PHARMAC has developed Memoranda of Agreement with Whānau Ora collectives, as these organisations are well positioned to deliver programmes specifically aimed at improving community health in ways that are suitable to their own needs and their iwi. Using the Te Whaioranga "Māori Health Areas of Focus" as a starting point, the Whānau Ora Collectives have delivered successful community health programmes on gout, mental health, childhood obesity, baby health and cardio-pulmonary disease.

PHARMAC is very happy to now have seven partnerships with collectives who will help PHARMAC focus on key areas of health care that reflect the needs of their specific communities.

We've also taken steps to further Māori health initiatives at a national level through agreements with three organisations; Te ORA, Māori Medical Practitioners Association, Nga Kaitiaki o Te Puna Rongoā o Āotearoa Māori Pharmacist Association, and Te Runanga o Āotearoa/NZNO (Māori Nurses Assoc).

Our wānanga aimed at Māori health providers, He Rongoa Pai He Oranga Whānau, has been rejuvenated and is being delivered to communities through our partnerships with the Māori Pharmacist Association as wānanga facilitators and our Whānau Ora Collective partners as wānanga hosts.

We have also expanded our support for Māori workforce development through continued support of the Hiwinui Heke Scholarships for Māori pharmacy students, and by partnering with Te ORA to develop Summer Student Internships and medical student awards for Māori medical students. The first of these awards will be made later in 2017.

PHARMAC is committed to improving community health in all areas. 2017 will see the development of bolder goals that address medicines access inequality. We are looking forward to working with our sector and community partners as we seek ways to make medicines more accessible to everyone in New Zealand, regardless of their circumstances.

Steffan signs a Memorandum of Agreement with Te Taiwhenua o Heretaunga WOC CE George Reedy

Matariki at PHARMAC

Waiora Wairarapa Ake (WaiWaiA) Whānau Ora Collective

Rāwiri Smith - Chair Te Hauora Runanga o Wairarapa Inc. Teresea Olsen - Chair Whaiora. Sarah Fitt, Acting CE PHARMAC.

PACIFIC RESPONSIVENESS STRATEGY

Strong relationships with the Pacific community the key to success for PHARMAC's Pacific Responsiveness Strategy, says David Lui

The relationships PHARMAC is establishing with the Pacific community will be a strong foundation for its Pacific Responsiveness Strategy.

PHARMAC's development of a new strategy addressing medicines access and use for Pacific people was very genuine. Pacific people often feel they are over consulted by government agencies and the outcome from the information they provide is not always acted upon or followed up.

> **"This is a great first step, but we need to continue the conversation and keep engaging with the Pacific community for this strategy to be effective."**
>
> Community feedback

PHARMAC's approach was different. PHARMAC staff created a series of fono (meetings) throughout the country which were attended and fronted by senior staff, including the Chief Executive. PHARMAC travelled to towns and places outside those traditionally visited by Government agencies, and they started by listening more than they talked.

People saw that PHARMAC was sincere in its efforts to establish a relationship, and that's an important first step.

As PHARMAC finalises its strategy and goes back out to the community with its action plan, the relationship that's been established with Pacific people will really grow. People are enthused about the engagement with PHARMAC, and more community leaders and influential Pacific people are now coming forward wanting to be a part of it.

PHARMAC's approach is being seen as a blueprint on how to work with Pacific people, because they took time to go out and really listen to people's views first and incorporated it into the strategy. I think the priority and commitment that PHARMAC has put on the strategy will also exceed the community's expectations.

Our Pacific CAC members were instrumental in ensuring these sessions were successful - they are leaders in their own communities, and could open doors for PHARMAC staff to have robust discussions. It is important for PHARMAC to keep the community informed on the progress of the strategy to continue to build integrity and true partnership.

The community will be closely watching the outcome of the strategy, and PHARMAC's response to the community needs identified during the community consultation. We are looking forward to responding to and working with PHARMAC on the resulting action plan to improve health outcomes for Pacific people.

David Lui is Senior Consultant for Focus on Pacific Ltd and is the Pacific representative on PHARMAC's Consumer Advisory Committee. He has been chair of the Committee since August 2016.

Pacific Responsiveness Strategy fono

TOP 20 MEDICINES BY PRESCRIPTIONS

CHEMICAL NAME	SCRIPTS	CURRENT RANKING
Paracetamol	**2,710,000**	1
Amoxicillin	**1,380,000**	2
Omeprazole	**1,310,000**	3
Aspirin	**1,290,000**	4
Atorvastatin	**1,180,000**	5
Ibuprofen	**1,060,000**	6
Metoprolol succinate	**970,000**	7
Salbutamol	**890,000**	8
Amoxicillin with clavulanic acid	**820,000**	9
Cilazapril	**760,000**	10
Colecalciferol	**730,000**	11
Influenza vaccine	**670,000**	12
Prednisone	**650,000**	13
Simvastatin	**650,000**	14
Metformin hydrochloride	**570,000**	15
Zopiclone	**560,000**	16
Loratadine	**540,000**	17
Diclofenac sodium	**500,000**	18
Codeine phosphate	**490,000**	19
Flucloxacillin	**470,000**	20

TOP 20 MEDICINES BY COST

CHEMICAL NAME	COST	CURRENT RANKING
Adalimumab	**$73,900,000**	1
Dabigatran	**$46,980,000**	2
Trastuzumab	**$35,150,000**	3
Pneumococcal (PCV13) vaccine	**$34,610,000**	4
Fluticasone with salmeterol	**$33,120,000**	5
Etanercept	**$25,400,000**	6
Diphtheria, tetanus, pertussis, polio, hepatitis B and haemophilus influenzae type B vaccine	**$23,410,000**	7
Insulin glargine	**$22,110,000**	8
Budesonide with eformoterol	**$20,580,000**	9
Rituximab	**$16,990,000**	10
Abiraterone acetate	**$16,250,000**	11
Tiotropium bromide	**$14,260,000**	12
Lenalidomide	**$14,040,000**	13
Bortezomib	**$13,850,000**	14
Blood glucose diagnostic test strip	**$13,090,000**	15
Efavirenz with emtricitabine and tenofovir disoproxil fumarate	**$12,200,000**	16
Epoetin alfa [Erythropoietin alfa]	**$12,080,000**	17
Rotavirus live reassortant oral vaccine	**$12,000,000**	18
Fingolimod	**$10,530,000**	19
Octreotide LAR (somatostatin analogue)	**$10,300,000**	20

Gross cost excluding GST and rebates.

TOP 20 COMPANIES BY GROSS SPEND

	COMPANY NAME	DRUG COST EXGST
1	Abbvie	**$94,419,635.15**
2	Roche	**$92,489,966.83**
3	GlaxoSmithKline	**$68,347,457.23**
4	Pfizer	**$63,384,656.52**
5	Novartis Consumer	**$63,094,571.71**
6	Janssen	**$54,935,512.75**
7	Baxter Healthcare Ltd	**$54,436,424.01**
8	Sanofi-Aventis	**$49,000,745.95**
9	Mylan New Zealand Ltd	**$38,577,487.06**
10	AstraZeneca	**$31,339,191.36**

	COMPANY NAME	DRUG COST EXGST
11	Douglas Pharmaceuticals Ltd	**$30,996,631.77**
12	Gilead Sciences	**$25,017,288.67**
13	Pharmaco (NZ) Ltd	**$21,455,666.35**
14	Arrow Pharmaceuticals Ltd	**$21,435,168.94**
15	Bristol-Myers Squibb	**$18,015,430.28**
16	AFT	**$17,842,414.89**
17	Eli Lilly & Company (NZ) Limited	**$17,657,765.56**
18	Novo-Nordisk Pharmaceuticals Ltd	**$17,229,177.99**
19	Merck, Sharp & Dohme	**$17,170,417.95**
20	CSL Pharmaceuticals NZ Ltd	**$15,963,590.95**

Gross cost excluding GST and rebates.

RARE DISORDERS FUNDING PILOT

Funding approved for nine medicines

We ran a commercial process in 2014 and reached our first agreement in 2015. Icatibant (Firazyr) became the first medicine listed from this pilot from 1 January 2016.

The pilot attracted bids for medicines not previously seen in New Zealand, some of which are now available and funded for people with rare disorders.

Medicines approved

Icatibant (Firazyr) treats the rare blood disorder hereditary angioedema (HAE). It was approved for funding in late 2015 and listed on the Pharmaceutical Schedule from 1 January 2016, following approval by Medsafe.

Galsulfase (Naglazyme) treats the enzyme deficiency disorder Maroteaux-Lamy Syndrome (MPS VI), and is the second enzyme replacement therapy listed on the Schedule. Listed from 1 May 2016, following approval by Medsafe.

Siltuximab (Sylvant) treats a rare form of immune system disorder called HHV8-negative idiopathic multicentric Castleman's disease (iMCD). Listed on the Pharmaceutical Schedule from 1 June 2016.

Bedaquiline (Sirturo) is used to treat a rare extensively multi-drug resistant form of tuberculosis (XDR-TB). While XDR-TB is rare in New Zealand, there's a risk of it spreading into the community which can be reduced by using medicines like bedaquiline. Bedaquiline will be listed on the Schedule following Medsafe approval.

Sodium phenylbutyrate (Pheburane) treats the metabolic disorders known as urea cycle disorders, which can lead to a fatal build-up of nitrogen and ammonia in the body. Funded from 1 July 2016.

Cholic acid (Cholebiol) treats rare forms of bile acid synthesis disorders in infants with metabolic liver disease. To be listed once approved by Medsafe.

Alglucosidase alfa (Myozyme) for infantile-onset Pompe Disease, a rare enzyme-deficiency condition. Listed on the Schedule from 1 December 2016.

Idursulfase (Elaprase) for Hunter Syndrome (MPS II) to stabilise patients awaiting stem cell transplant. Listed on the Schedule from 1 December 2016.

Laronidase (Aldurazyme) for Hurler Syndrome (MPS 1-H) to stabilise patients awaiting stem cell transplant (to be listed once approved by Medsafe).

Next steps

PHARMAC will be evaluating the rare disorders funding pilot in the first half of 2017.

THERAPEUTIC GROUP SUMMARIES

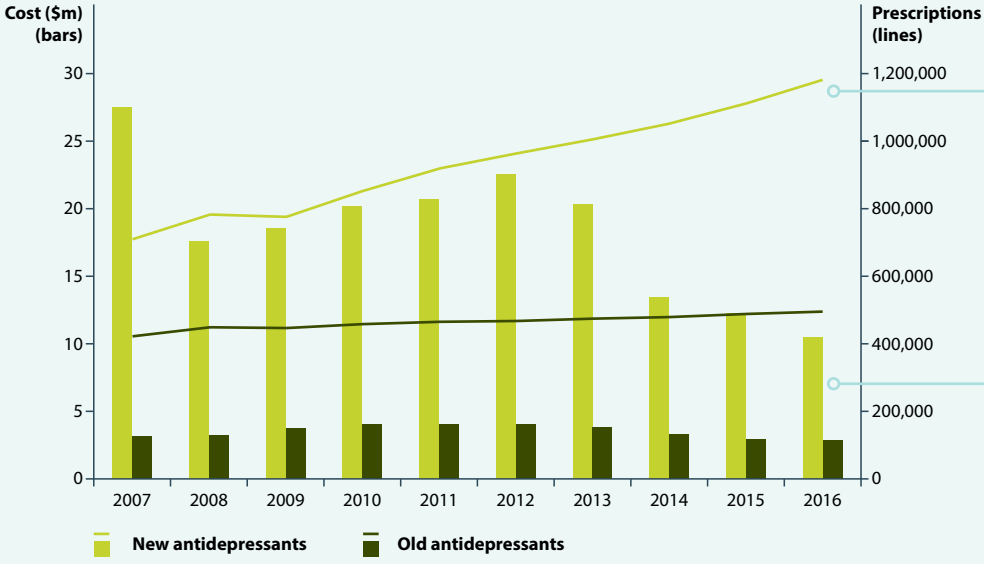
MENTAL HEALTH

Antidepressants

Ran a competitive process for venlafaxine in 2016. Selected Enlafax XR (Mylan) as the sole subsidised brand. This decision, which will save $15 million over five years, will be implemented during 2017.

SPENDING 12%

USAGE 5.9%



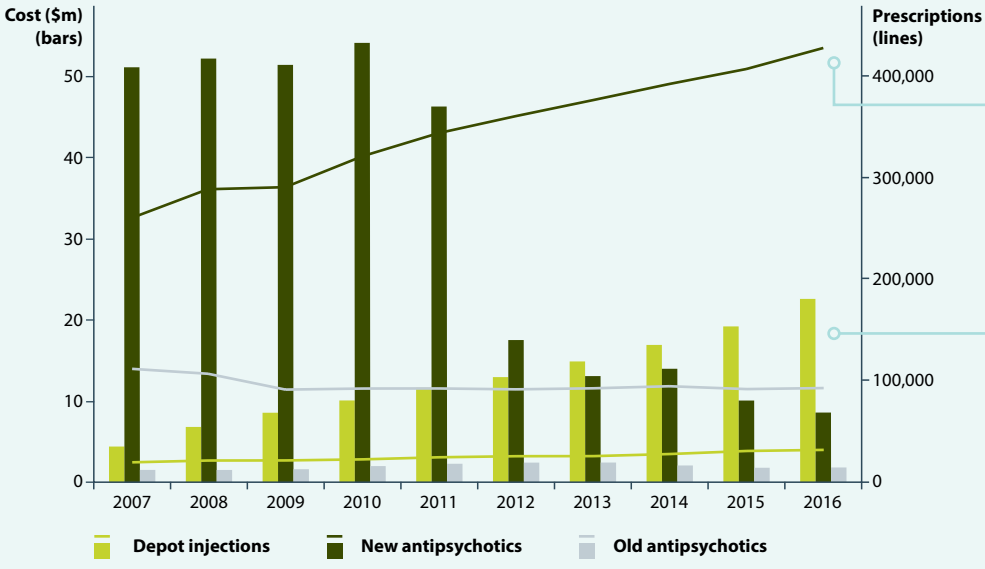
Continued growth in antidepressant prescribing – up by 70,000 prescriptions (5.9% increase)

Spending is declining, due to price reduction from competition and PHARMAC tendering

Antipsychotics

SPENDING 5.8%

USAGE 4.2%



Continued strong growth in prescribing – up by 21,000 prescriptions (4.2% increase)

Long-acting injections now the highest-expenditure type of antipsychotic medicine ($22 million)

All spending amounts are gross spending. All figures are excluding GST, for the year to June.

THERAPEUTIC GROUP SUMMARIES

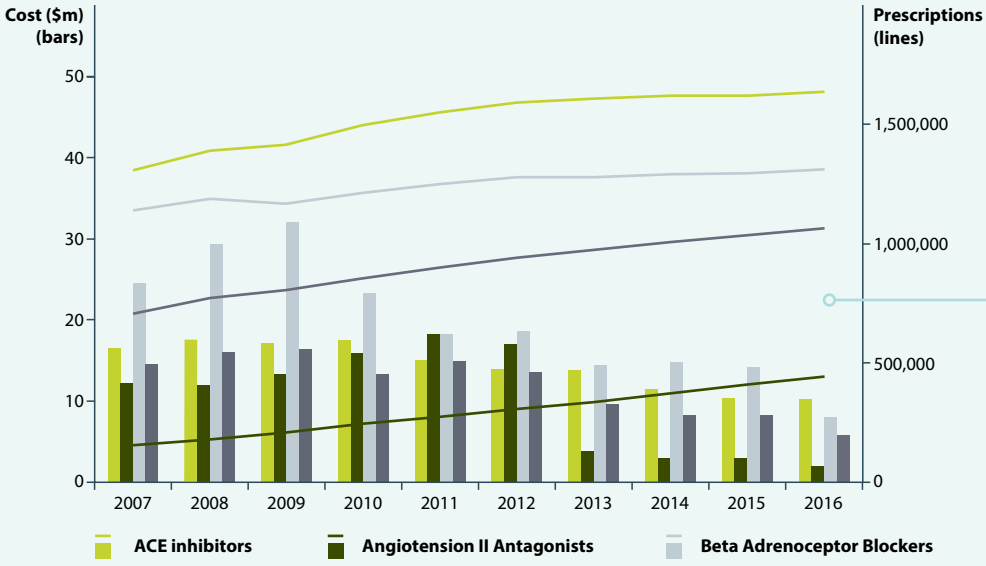
CARDIOVASCULAR

Blood pressure management

SPENDING 23%

USAGE 2.1%

A manufacturing issue saw PHARMAC list several brands and introduce monthly dispensing of metoprolol succinate tablets. This helped to maintain availability of this important medicine used by approximately 200,000 New Zealanders (8th on the most-prescribed medicines list).

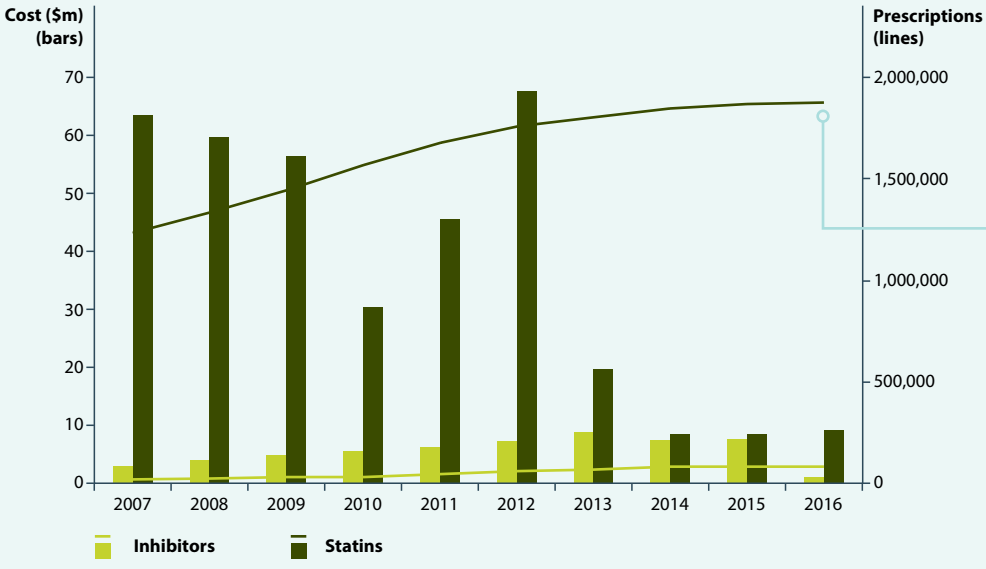


Overall use of heart disease treatments continues to rise, although the cost is falling. This is due to generic competition leading to continued price reductions for the most-used heart drugs

Cholesterol management

SPENDING 8.2%

USAGE <1%



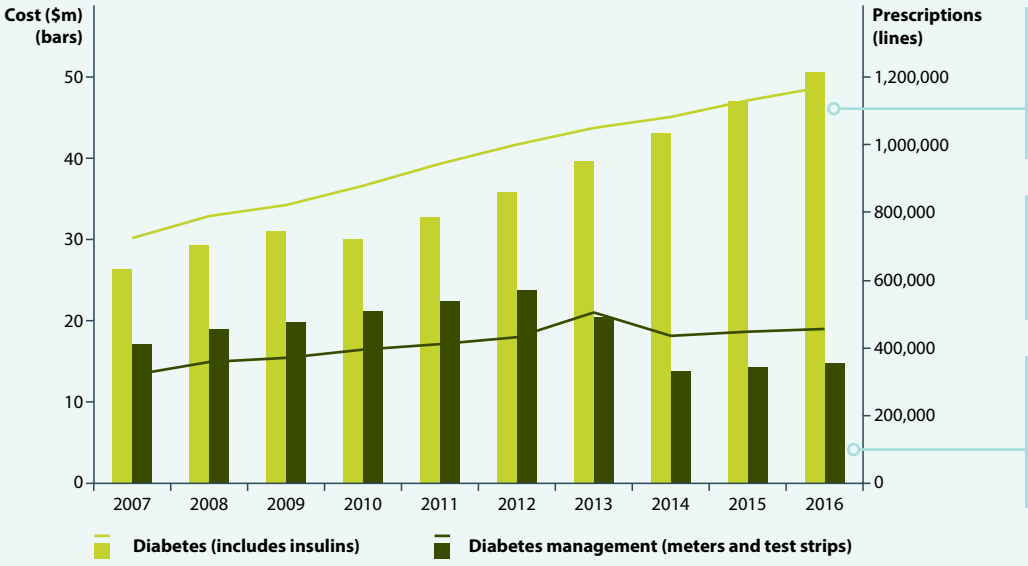
Statins continue to be very widely prescribed – atorvastatin 1.2 million prescriptions (6th-most prescribed medicine), simvastatin 650,000 prescriptions

DIABETES

Our procurement process for the supply of diabetes management products is in progress. This is a carefully considered three stage process which started in March 2015, with a multiple steps and consultation and engagement with stakeholders throughout each stage of the process. We are currently evaluating bids and the next stage in the process is consumer testing.

SPENDING 6.7%

USAGE 3.4%



Of the $50.6 million spent on diabetes treatments, $22 million was on insulin glargine (Lantus)

Metformin is the most-used diabetes treatment – 520,000 prescriptions

Blood glucose test strips continue to be widely used – $13 million of spending last year

THERAPEUTIC GROUP SUMMARIES

RESPIRATORY

New medicines

SPENDING <1%

USAGE 2.3%

Five new medicines funded for people with Chronic Obstructive Pulmonary Disease (COPD).

- tiotropium bromide solution for inhalation (Spiriva Respimat)
- umeclidinium powder for inhalation (Incruse Ellipta)
- tiotropium bromide with olodaterol solution for inhalation (Spiolto Respimat)
- umeclidinium with vilanterol powder for inhalation (Anoro Ellipta)
- glycopyrronium with indacaterol powder for inhalation (Ultibro Breezhaler)

New asthma treatment funded –

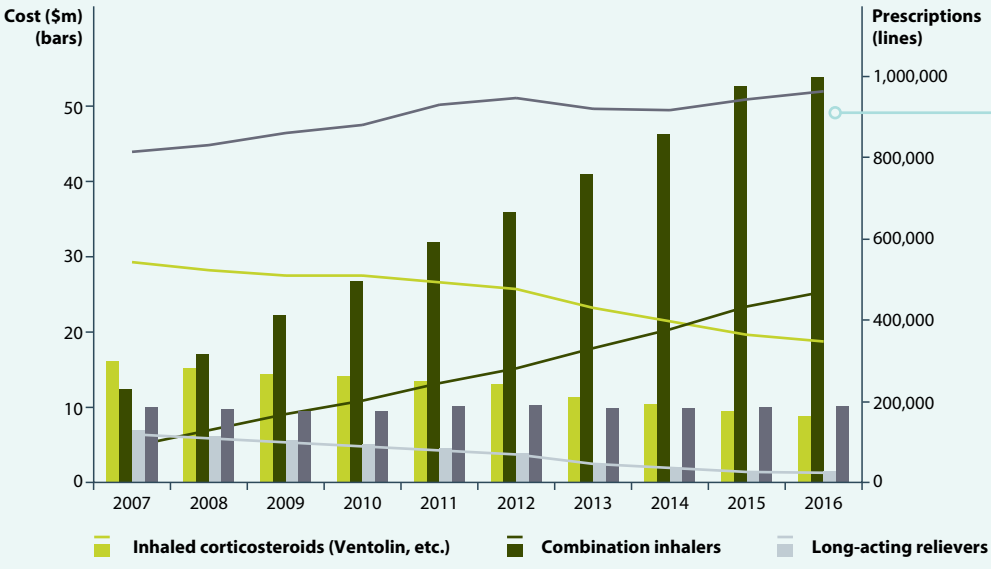
- fluticasone furoate with vilanterol powder for inhalation (Breo Ellipta).

Widened funded access to other products so they will be available to more people. Included allowing prescribing by qualified nurse prescribers

22,000 people using COPD treatments – expected to double within five years

Changes cover $61 million in gross expenditure, provide savings of approximately $27 million over five years, and will benefit more than 23,000 New Zealanders.

Asthma



Continued shift of prescribing to combination asthma inhalers is the main driver of expenditure growth

> "It's great news that PHARMAC is funding new medications to treat this debilitating disease. These medications will widen the treatment options available to doctors. People with COPD will now have other treatments available to relieve their symptoms, making day-to-day living a little easier. COPD is often undiagnosed, and for this reason at least 200,000 (or 15%) of the adult population may be affected."

Teresa Demetriou, National Education Services Manager, Asthma and Respiratory Foundation of New Zealand

NEUROLOGY

Multiple sclerosis

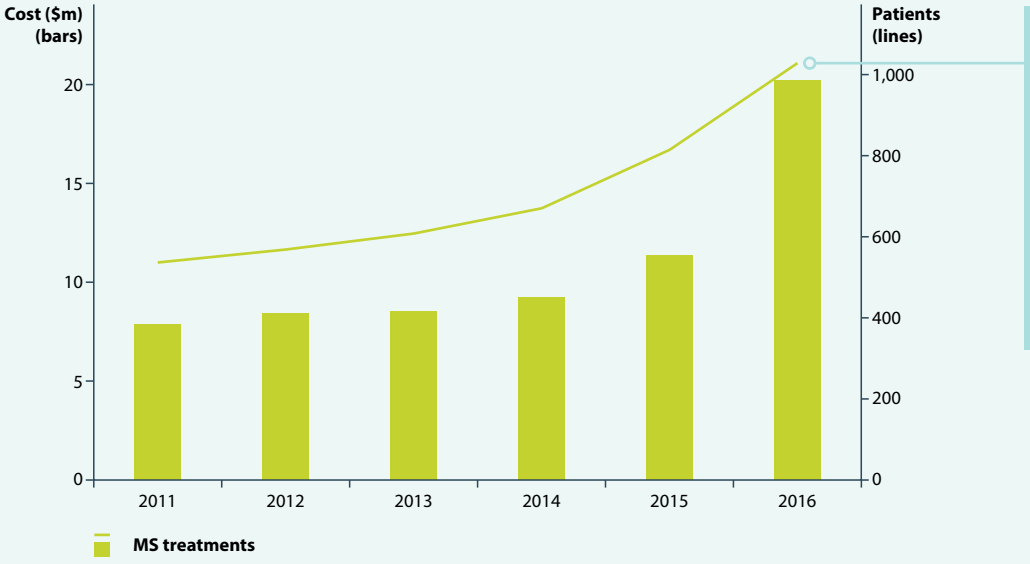
SPENDING 77%

USAGE 30%

Two new medicines funded for multiple sclerosis – dimethyl fumarate (Tecfidera) and teriflunomide (Aubagio).

Seven treatment options now available for people with relapsing-remitting multiple sclerosis (MS) who meet the criteria.

Natalizumab and fingolimod listed in November 2014, along with funding criteria changes that enabled funding for a wider group of people.



About 1000 people currently receive funded MS treatments in New Zealand. This is nearly double the number of patients receiving funded treatment in 2011. Financial impact managed through confidential rebates PHARMAC has negotiated with suppliers

NEW HOPE FOR MS SUFFERERS

PHARMAC AGREES TO FUNDING FOR DRUG THAT STALLS PROGRESSION OF THE DISEASE

HAMILTON NEWS - 05 FEB 2016

MS TREATMENT FUNDING HAILED

THE STAR, DUNEDIN - 11 FEB 2016

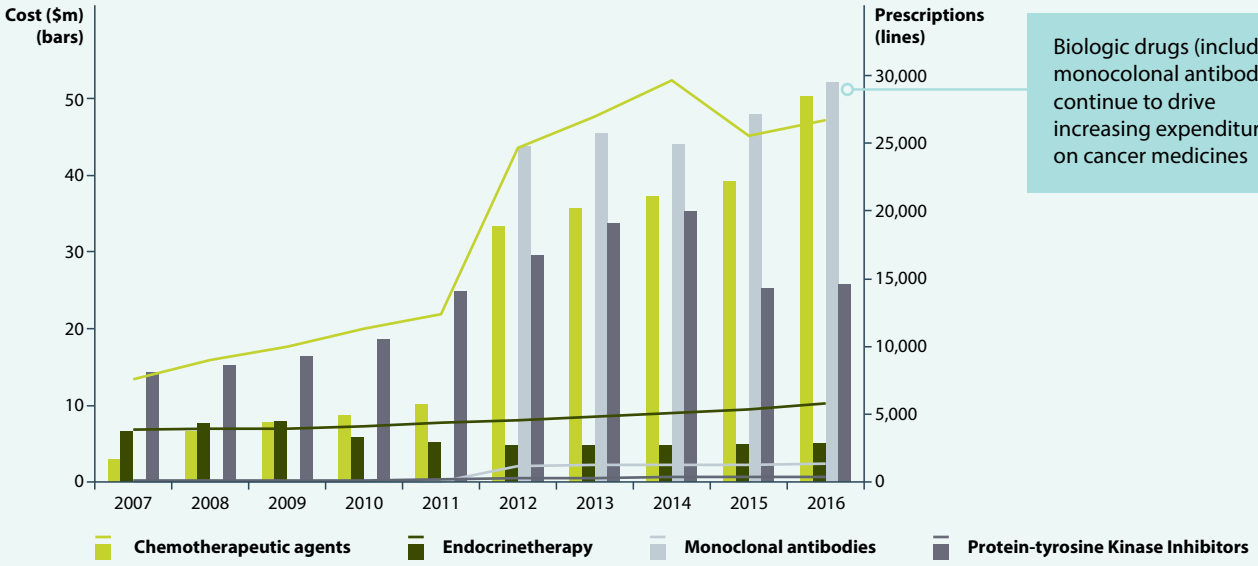
CANCER

Two new-generation melanoma treatments, nivolumab (Opdivo) and pembrolizumab (Keytruda) approved for funding.

A reduced price resulting from a tender decision meant PHARMAC was able to widen funded access to temozolomide for types of brain tumours and other types of neuroendocrine tumours. The decision means temozolomide can now be used to treat high-grade gliomas and neuroendocrine tumours for a longer duration of treatment.

SPENDING 13%

USAGE 5%



Biologic drugs (including monocolonal antibodies) continue to drive increasing expenditure on cancer medicines

> "We now have two effective funded therapies available, which is a huge improvement on chemotherapy, which really has never been that effective. So it really is a breakthrough, it will save lives, and there will be many many satisfied patients out there."

Melanoma NZ CEO Linda Flay welcomes funding for melanoma treatments nivolumab and pembrolizumab.

VACCINES

Decisions made that will lead to 100,000 extra people receiving funded vaccines

From 1 January 2017

- Human papillomavirus (HPV) vaccine to be funded for all children and adults up to 26. Boys will be included in the HPV school vaccination programme. For 14 and under, a two-dose regimen will be used. 15 and over will remain three-dose.

These decisions take effect 1 July 2017

- Varicella (chickenpox) vaccine to be funded for all children
- The pneumococcal vaccine will change from a 13 strain (Prevenar) to a 10 strain version (Synflorix)
- The rotavirus vaccine will change brand and move to a two-dose regimen
- The measles, mumps and rubella (MMR) and haemophilus influenza type b (Hib) vaccines will move to new brands.

Significant steps to improve the health of New Zealanders, made possible by our constructive negotiations with suppliers that have also created significant savings.

1.2 million doses of influenza vaccine funded – covering about a quarter of all New Zealanders.

> "...the real winners here are the NZ public. I am not seeing much of a downside for the people, it seems all gain to me."
>
> **Dr Helen Petousis-Harris, Immunisation Advisory Centre on PHARMAC's 2016 changes to vaccine funding.**

THERAPEUTIC GROUP SUMMARIES

INFECTIONS

Hepatitis C treatments

Government decision to add $39m to the CPB created the opportunity to fund new-generation hepatitis C treatments.

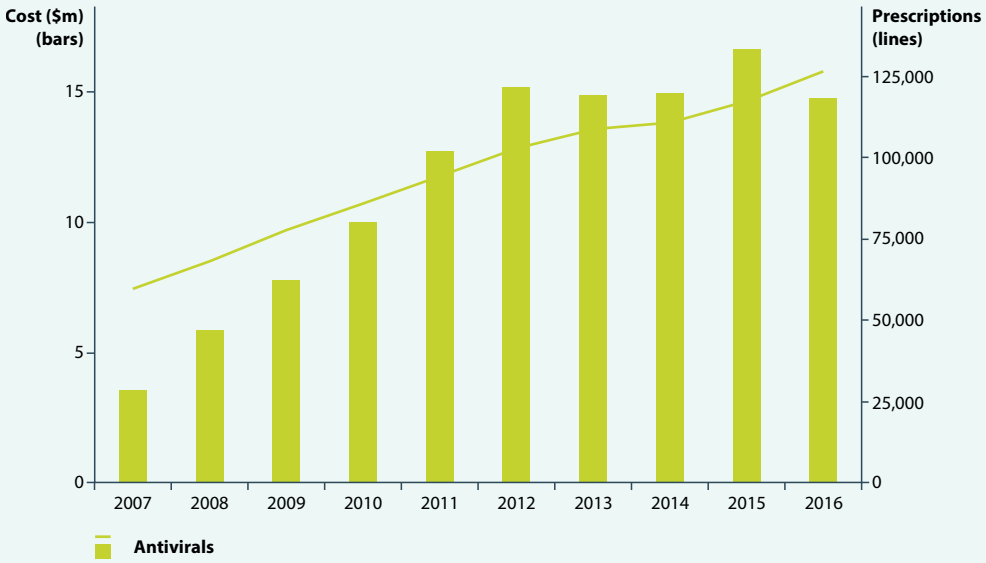
- Harvoni and Viekira Pak funded from 1 July 2016 for hepatitis C infection. Major advances in hepatitis C treatment, with cure rates of over 90%
- Significantly expensive, made affordable through PHARMAC's constructive negotiations with suppliers.
- Decisions made the new treatments available for about 25,000 people.
- We changed our proposal after listening to feedback. General practice said they would need time to adjust to the change, so we put in place a staged approach. Specialists could prescribe the medicines from 1 July, GPs from 1 October. This meant that people could have funded access to the medicines while general practice came up to speed.

Access widened to valaciclovir for infections caused by the herpes virus – now can be used by nearly 34,000 more people.

Antivirals

SPENDING 11%

USAGE 7.6%



HIV/AIDS

SPENDING 9.4%

USAGE 7%

Antibiotics

SPENDING 15%

USAGE 9.8%

DIRECTORY OF COMMITTEES

Pharmacology and Therapeutics Advisory Committee (PTAC)

Chair

Mark Weatherall (Chair) BA, MBChB, MApplStats, FRACP

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

Stuart Dalziel MBChB, PhD, FRACP

Alan Fraser MB, ChB, MD, FRACP

Sean Hanna MB ChB, FRNZCGP, FRACGP, PGDipGP, PGCertClinEd

Jennifer Martin MBChB, MA(Oxon.), FRACP, PhD

Stephen Munn MB, ChB, FRACS, FACS

Giles Newton-Howes BA, BSc, MBChB, MRCPsych, PostDip BD, FRANZCP

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

Tim Stokes MA, MB, ChB, MPH, PhD, FRCP, FRCGP, FRNZCGP

Matthew Strother MD (USA), FRACP

Jane Thomas MB ChB, FANZCA, FFPMANZCA

Simon Wynn Thomas 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), Dr Jonathan Adler (SMO Palliative Medicine), Prof Brian Anderson (Paediatric Anaesthetist / Intensivist), Dr Bruce Foggo (Palliative Medicine Consultant, Dr Christopher Jephcott (Anaesthetist), Dr Howard Wilson (General Practitioner / Pharmacologist).

Anti-infective

Dr Graham Mills (PTAC, Chair, Infectious Disease Physician), 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 Sean Hanna (PTAC, General Practitioner) 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).

Cancer treatments (CaTSoP)

Dr Marius Rademaker (Interim Chair, PTAC, Dermatologist), Dr Scott Babington (Radiation Oncologist), Dr Peter Ganly (Haematologist), Dr Vernon Harvey (Oncologist), Dr Tim Hawkins (Haematologist), Dr Richard Isaacs (Medical Oncologist), Dr Anne O'Donnell (Oncologist), Dr Robert Strother (Medical Oncologist), Dr Lochie Teague (Paediatric Haematologist / Oncologist).

Cardiovascular

Prof Mark Weatherall (Chair, PTAC, Geriatrician), 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 Nic Crook (Diabetologist), Dr Graham Mills (PTAC, Infectious Disease Physician), Dr Peter Moore (Diabetologist), Dr Brandon Orr-Walker (Endocrinologist), Dr Bruce Small (General Practitioner), Ms Kate Smallman (Diabetes Nurse Specialist / Presciber), Dr Esko Wiltshire (Paediatric Endocrinologist).

Endocrinology

Dr Simon Wynn Thomas (PTAC, Chair, General Practitioner), Dr Anna Fenton (Endocrinologist), Dr 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), 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 Cameron Grant (Assoc. Prof. in Paediatrics), Dr Sean Hanna (PTAC, General Practitioner), Prof Karen Hoare (Nurse Practitioner / Senior Lecturer), Dr Caroline McElnay (Public health medicine specialist / Medical Officer of Health), Dr Gary Reynolds (General Practitioner), Dr Nikki Turner (Director of Immunisation), Dr Ayesha Verrall (Adult Infectious Diseases), Dr Tony Walls (Paediatrician / Infectious Diseases Specialist), Dr Elizabeth Wilson (Paediatric Infectious Diseases Specialist).

Neurological

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 (General 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 Maggie Fisher (Specialist / Renal Physician), Dr Colin Hutchison (Nephrologist), Dr Tonya Kara (Renal Paediatrician), Assoc Prof Helen Pilmore (Nephrologist), Dr Richard Robson (Nephrologist), Dr William Wong (Paediatric Nephrologist).

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).

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), 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), Dr Andrew Harrison (Rheumatologist), Dr Sy Roberton (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 McIlroy (Charge Dietitian), Dr Jan Sinclair (Paediatric Allergy and Clinical Immunologist), Ms Moira Styles (Community Dietitian), Dr Russell Walmsley (Gastroenterologist), Ms Victoria Woollett (nee Logan) (Community Dietitian).

Tender Medical

Dr Graham Mills (PTAC, Chair, Infectious Disease Physician), Mr William (Billy) Allan (Pharmacist), Dr Melissa Copland (PTAC, Pharmacist), Dr Ben Hudson (General Practitioner), Mr Craig MacKenzie (Hospital Pharmacist), Dr John McDougall (Anaesthetist), Ms Clare Randall (Palliative Care Clinical Pharmacist), Mr Geoff Savell (Pharmacist), Mr John Savory (Pharmacist), Dr David Simpson (Haematologist), Ms Lorraine Welman (Chief Pharmacist / President NZHPA).

Transplant Immunosuppressant

Dr Marius Rademaker (PTAC, Chair, Dermatologist), Dr Priscilla Campbell-Stokes (Paediatrician/Paediatric Rheumatologist), 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

Interventional Cardiology

Dr Gerry Wilkins, Interventional Cardiologist, Southern DHB, Dr David Smyth, Structural Interventional Cardiologist, Canterbury DHB, Dr Scott Harding, Interventional Cardiologist, Capital and Coast DHB, Dr Rajesh Nair, Structural Interventional Cardiologist, Waikato DHB, Dr Madhav Menon, Interventional Cardiologist, Waikato DHB, Dr Seif El-Jack, Interventional Cardiologist, Waitemata DHB, Dr Mark Webster, Structural Interventionalist, Auckland DHB, Dr Nigel Wilson, Paediatric Cardiologist, Auckland DHB, Dr Barry Kneale, Interventional Cardiologist, Bay of Plenty DHB, Sandi Graham, Cardiology Interventional Nurse Rep, Counties-Manukau DHB.

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 – National clinical leader, Parkinson's NZ

Key Frost – mental health advocate, Invercargill

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

Neil Woodhams – vice president, Multiple Sclerosis NZ

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

Lisa Lawrence – is Kaiwhakahaere of the Motueka Family Service Centre

Te Ropu Poa – Te Ropu Poa (Ngāpuhi) is the General Manager of Te Hau Ora O Ngāpuhi

Tuiloma Lina Samu – health researcher, Auckland.

Panels

Named Patient Pharmaceutical Assessment Advisory Panel

Cystic Fibrosis Panel

Gaucher Treatment Panel

Haemophilia Treatments Panel

Hepatitis C Treatment Panel

Multiple Sclerosis Treatment Assessment Panel

Pulmonary Arterial Hypertension Panel

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