PHARMAC
Pharmaceutical Management Agency

Year in review December 2015

KEY FIGURES: COMBINED PHARMACEUTICAL BUDGET AS AT 30 JUNE 2015

$795 MILLION
YEARLY DHBS' COMBINED
PHARMACEUTICAL EXPENDITURE
(ON BUDGET)

43.1 MILLION Rx
NUMBER OF FUNDED
PRESCRIPTION ITEMS FILLED
(3.2% INCREASE)

3.5 MILLION
NEW ZEALANDERS
RECEIVING FUNDED MEDICINES

70,685
NEW ZEALANDERS
BENEFIT FROM NEW FUNDING
DECISIONS

21 NEW MEDICINES FUNDED

AND

20 MEDICINES HAD FUNDED ACCESS WIDENED

$52.7 MILLION
IN SAVINGS ACHIEVED
AND REINVESTED

KEY FIGURES: HOSPITAL MEDICINES AS AT 30 JUNE 2015

$70.7 MILLION SAVINGS
TO VOTE HEALTH
OVER 5 YEARS AFTER COSTS OF NEW INVESTMENTS

$18.34 MILLION
FULL YEAR SAVINGS
TO DHB HOSPITALS
FROM HOSPITAL MEDICINES

$3.38 MILLION
THE COST OF NEW INVESTMENTS IN HOSPITAL MEDICINES

KEY FIGURES: HOSPITAL MEDICAL DEVICES AS AT 30 JUNE 2015

$13.2 MILLION SAVINGS
TO VOTE HEALTH
OVER 5 YEARS FROM NATIONAL CONTRACTS
NET OF DHB INVESTMENT

$2.94 MILLION
ANNUAL SAVINGS TO DHBS
FROM NATIONAL CONTRACTS

14,000
NUMBER OF LINE ITEMS ON THE PHARMACEUTICAL SCHEDULE UNDER NATIONAL CONTRACTS

TOP 20 THERAPEUTIC GROUPS (Gross cost $millions ex GST and rebates)

GROUP NAME	MAIN USE	2012	2013	2014	2015
Immunosuppressants	Organ transplants, arthritis	$114.35	$128.67	$140.33	**$154.54**
Vaccines	Vaccinations	-	$42.37	$42.57	**$66.45**
Chemotherapeutic agents	Cancer	$61.63	$67.86	$70.68	**$63.95**
Inhaled long-acting beta-adrenoceptor agonists	Asthma	$39.87	$43.48	$48.37	**$54.13**
Antithrombotic agents	Stopping blood clots	$26.55	$32.14	$41.48	**$50.88**
Diabetes	Diabetes	$35.85	$39.60	$43.07	**$46.99**
Antiepilepsy drugs	Epilepsy	$27.23	$28.63	$30.49	**$32.23**
Antipsychotics	Mental health (psychoses)	$32.87	$30.34	$32.89	**$31.33**
Antiretrovirals	HIV/AIDS, viral infections	$17.77	$21.04	$26.41	**$29.53**
Analgesics	Pain relief	$24.76	$24.99	$22.42	**$20.98**
Diabetes management	Blood glucose monitoring	$23.84	$23.12	$17.96	**$18.59**
Lipid-modifying agents	Raised cholesterol (cardiovascular risk)	$76.53	$30.08	$17.49	**$17.44**
Anticholinergic agents	Allergies	$14.76	$15.42	$16.45	**$17.23**
Antivirals	Viral infections	$15.18	$14.88	$14.96	**$16.64**
Treatments for substance dependence	Addiction	$24.93	$23.25	$16.84	**$15.66**
Antidepressants	Mental health (depression)	$26.63	$24.13	$16.76	**$15.21**
Beta adrenoceptor blockers	Heart disease	$18.53	$14.44	$14.73	**$14.14**
Trophic hormones	Hormone deficiency	$11.74	$12.38	$13.56	**$13.94**
Agents Affecting the renin-angiotensin system	Raised blood pressure (cardiovascular risk)	$31.66	$17.84	$14.71	**$13.42**
Antibacterials	Bacterial infections	$17.49	$14.46	$13.59	**$13.41**

CONTENTS

The success and sustainability of PHARMAC is built on the strength of its relationships. It goes without saying that PHARMAC wouldn't be able to work effectively without people knowing who we are and what we do, and without PHARMAC having an understanding of the people and issues across the health environment.

There's been a significant shift in the focus of PHARMAC's work over the past year. While our work to date has built on our legacy in primary care, the past year has seen our impact in hospitals grow rapidly. This has required a concerted effort to build relationships, get to know people and understand their views as our work has grown. If PHARMAC is to convert potential benefits into actual benefits to the sector from our hospitals work, then a deep and wide knowledge of the hospital sector, and strong relationships, will need to underpin that work.

Our Te Whaioranga Māori responsiveness strategy is also taking a new direction, and this will be based in the long term on the strong relationships being built in the community. Rather than developing and running programmes on our own, we've decided the best way forward is to work with health and community groups, providing resources to support programmes that they will decide on.

This approach requires a close relationship and clear understanding of the needs of each community. As a result PHARMAC has been working closely with Ngā Kaitiaki o te Puna Rongoā (Māori Pharmacists Association) and Whānau Ora collectives in the Bay of Plenty and Waikato. The programmes that result are important but they are only possible through our strong relationships. There's more about this new approach on pages 13-14.

PHARMAC's focus on strong relationships will be enhanced by the findings of our 2015 stakeholder survey

writes PHARMAC Board chair Stuart McLauchlan

FOUNDATIONS

Our work in hospitals is built on strong foundations forged in both the primary and secondary sectors. Our relationships in the primary sector have been built over many years, and these continue to be important. Indeed, PHARMAC has moved to strengthen these relationships in the past year with the appointment of a deputy medical director with a specific interest in primary care.

Work in hospital medicines and medical devices has seen a concerted effort to meet and hear the views of people working in hospitals, who could have an interest in PHARMAC's work. Within DHB hospitals, this goes from the executives making strategic decisions about the direction of their organisation, through to the purchasing and testing staff who deal with new technology, hospital pharmacists and the end-user clinicians and nursing staff. At all levels we have been working to understand views, listen to concerns and then think about how we can progress our work while being sympathetic to these views.

SURVEY

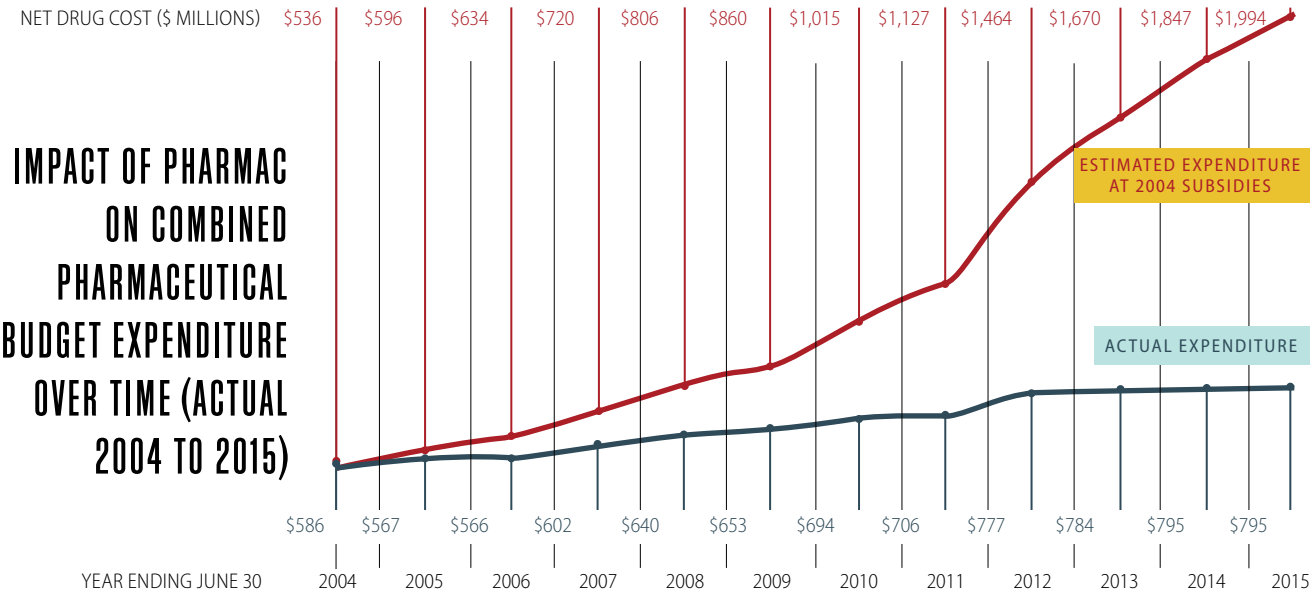
It's important for us to keep in touch with people's views to understand how our work might be affecting them, and to ask how we are doing. So in the past year PHARMAC ran a survey of our stakeholders to check in on how people perceived PHARMAC's performance, and how this could be further improved.

This was the first time since 2007 that PHARMAC had undertaken such an exercise. More than 800 people and organisations responded, which has provided a rich source of feedback on views around our work.

So what sort of things did people have to say?

1. Stakeholders perceive major improvements since 2007, including PHARMAC's approachability, transparency and relationships with suppliers, while a strong start has been made regarding devices

IMPACT OF PHARMAC ON COMBINED PHARMACEUTICAL BUDGET EXPENDITURE OVER TIME (ACTUAL 2004 TO 2015)



2. There is a desire for PHARMAC to balance its management of a fixed budget with a wider view of total sector costs and health outcomes – currently many stakeholders believe PHARMAC is more interested in medicine cost than quality
3. Perceived performance varies across stakeholder groups: central government, PHOs and DHBs have the most positive opinions, whereas suppliers, pharmacy and patient advocacy groups have the lowest opinions of PHARMAC
4. High levels of perceived performance regarding expert knowledge, handling of confidential information, objectivity and delivering to stated objectives; balanced against lower performance in timeliness of decision-making, taking opinions into account and understanding sector issues
5. Strong communication performance though with opportunities to improve further, including genuine listening in meetings, easier ways to sign up to multiple information streams, and developing future channels such as webinars, apps and mobile friendly website content

So, in short, people's views of PHARMAC have improved since 2007; we're seen to be doing better in some areas; but some frustrations and issues remain which is inevitable given the range of impacts PHARMAC's activities have on New Zealand. We need to better understand all our stakeholders' concerns.

We're really pleased with the feedback we received, which has given us a firm platform from which to further explore how best to work together.

The work that we do in future will be influenced by what we've heard through this survey and our other ongoing interactions with the community, and will help shape PHARMAC's interaction with the community over the coming years.

THE 2015 PHARMAC STAKEHOLDER SURVEY

- The 2015 Stakeholder Survey ran between February and March 2015
- The survey was run in two parts: an online quantitative survey followed by in-depth qualitative interviews
- 800 stakeholders completed the online survey. 22 in-depth interviews were conducted
- A wide range of stakeholders participated in the survey, including primary care health professionals, Māori stakeholders, suppliers, patient advocacy groups and central government
- The last stakeholder survey, which was qualitative only, was run in 2007

The same benefits PHARMAC has achieved through its pharmaceuticals work is now becoming available through hospital medical devices work

writes Chief Executive Steffan Crausaz

PHARMAC has a strong record of bringing better access to pharmaceuticals for New Zealanders, and making sure this is affordable and sustainable.

As in previous years, over the past year more New Zealanders have been accessing funded pharmaceuticals than ever before. This is the reason PHARMAC exists – to deliver better health outcomes from pharmaceuticals from within the available budget.

This driver is behind everything we do, be it investing in new medicines or work to save on existing ones. New medicines are often the public focus of our work, but our savings transactions also have implications for better medicines access. The savings produced give us greater options for investment, meaning we can fund medicines for less and create opportunities to fund new medicines.

We know in pharmaceuticals, our focus on getting objective clinical advice, economic assessment, negotiation, promoting competition and being careful in our product selection means New Zealand has surety of supply that enables us to access a broad range of modern medicines at some of the lowest prices in the world. This is the long-term benefit of the PHARMAC model that we want to see realised in hospital medical devices too.

MAJOR SHIFT

Over the past year we have seen our work in hospital medical devices gain some real traction. This is a major shift for PHARMAC, which now has feet firmly planted in both the primary and secondary care sectors of pharmaceutical and device procurement. The potential benefits to the country are huge for medical devices, with a national market of around $1 billion. Our work in the past year has given us greater confidence that the potential benefits from hospital medical devices can deliver real returns to the taxpayer and DHBs. This means PHARMAC is now delivering more to New Zealand than it previously did when its focus was on primary care.

There are now about 14,000 hospital medical devices line items listed on the Pharmaceutical Schedule, far outstripping the number of pharmaceuticals listed. Savings so far have been modest, although these haven't been the primary driver of our work. But this is set to change with a more rapid shift to promoting competition, starting with wound care products.

We've been focused in six areas – wound care, sutures, laparoscopic equipment, interventional cardiology, orthopaedic implants (spine and trauma) and sterile wraps. Initially our work has focused on negotiating national contracts that DHBs can use if they wish. DHBs can benefit by making savings on products they are already using, although in some cases it might mean needing to change suppliers.

COMPETITION

We've always intended that at some point we would introduce an element of competition into devices. Our work in wound care has progressed to the point that a more competitive approach is feasible. So we've begun a process to introduce market share procurement to a discrete group of wound care products, as the beginning of our competitive approach for devices.

Market share procurement is a similar approach to what we have in our tender for off-patent medicines. Offer a particular share of the overall market to a supplier for a specified period of time. In this way, we've been able to obtain significant savings through the tender over 18 years – more than $600 million.

I don't doubt that it will be a modest start to our hospital devices competitive process, but let's not forget that the community tender had small beginnings too – just one product and, curiously enough, it was a device (an asthma spacer).

We're continuing to think about the shape of our hospital devices work for the future – do we investigate contracting in other categories? Or do we go deeper into the categories where we have already made progress. Whichever way we decide to go, we'll be making sure we give people with an interest in our devices work plenty of opportunity to have their say, and adjust our work to suit.

INTERNATIONAL PRICING

I mentioned the long-term benefits of the PHARMAC model, and I believe we have seen this in other ways over the past year. There has been very strong international commentary about medicine pricing, particularly in international clinical journals and now the mainstream media.

Prices of new and even older medicines have been rising at unprecedented levels. In fact, some newcomer companies have built their business by buying up older drugs, then ratcheting up the price of them by several hundred percent.

It's been interesting to observe this debate from a distance. New Zealand is largely insulated because of a number of factors. Firstly, we're a small market and can often move swiftly to source alternative products, if prices rise. Secondly, we try to get as many products on the Pharmaceutical Schedule under contracts that lock in certainty of supply at a price that is appropriate for New Zealand. And if suppliers want to increase their prices, we always have the discretion

to decide whether to lift the subsidy to match the price.

But most tellingly, our work in promoting competition means that the trend we see for older medicines is falling prices, not rising. The leukaemia drug imatinib is a case in point. While the price in the US has more than doubled to about US$106,000 per year per person, thanks to a competitive process we ran last year there was an 85 percent price reduction that is now yielding savings of $12 million a year in New Zealand.

Another trend we continue to see is a weakening of the evidence base for new products, so we are being asked to make more difficult and expensive decisions based on evidence that is – at best – limited, and in some cases premature. The challenge is how we apply commercial principles to this changing dynamic and find solutions so New Zealanders can continue to gain access to new medicines.

RARE DISORDERS

Access to medicines for rare disorders has been an issue of concern in the community for some years. In consultation over our operating policies and procedures, we heard strongly held views that PHARMAC needed a different approach to solving this complex issue.

PHARMAC took these comments on board and applied some fresh thinking. The problem as PHARMAC saw it, was that most medicines for rare disorders aren't subject to the same competitive pressures as many other medicines, because often they are the only product available to treat the condition. This led to pricing that put medicines beyond our reach, or that showed significantly less benefit for the cost than other funding options. The fundamental issue was a lack of competition.

So PHARMAC decided to try a new approach, testing whether defining the characteristics of rare disorders and medicines to treat them, within a defined amount of money (up to $25 million over five years), would change the dynamic, reducing prices so we could provide funded access for people with rare disorders.

There's been a very positive response.

We received proposals for 28 medicines, many of them previously not seen in NZ before and from suppliers PHARMAC has not previously done business with. In August 2015 PHARMAC approved funding for the first medicine submitted through the process – icatibant (Firazyr) for the rare blood disorder hereditary angioedema. And we reached a provisional agreement for sodium phenylbutyrate granules, a treatment for urea cycle disorders, a type of metabolic disease.

Negotiations for other medicines are ongoing, and PHARMAC expects more agreements to follow.

It's still too early to say whether the approach overall has successful. That will become clear once PHARMAC has conducted an evaluation at the end of the process.

Any decision on whether we might run the process again would depend on the outcome of our evaluation.

GETTING BANG FOR THE BUCK

Most patients have their medicines funded with just a fraction of the Combined Pharmaceutical Budget (CPB). This means that last year medicines for 10% of all patients used $640 million (80%) of the $795 million budget. These are people with high health needs and PHARMAC provides them with access to the most effective yet expensive medicines.

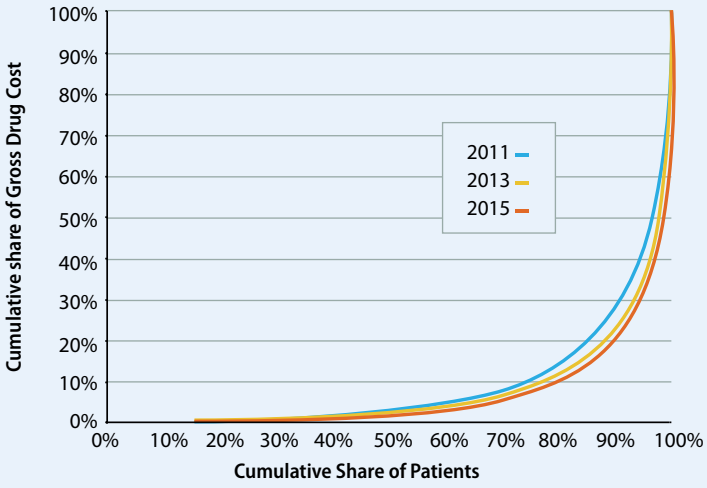
This is possible because nine out of 10 people have their medicine paid for from just 20 percent of the total budget. This extremely broad coverage is made possible by the low prices negotiated by PHARMAC. New Zealand enjoys some of the lowest medicine prices in the world, achieved through commercial negotiations and mechanisms such as the PHARMAC tender for off-patent medicines.

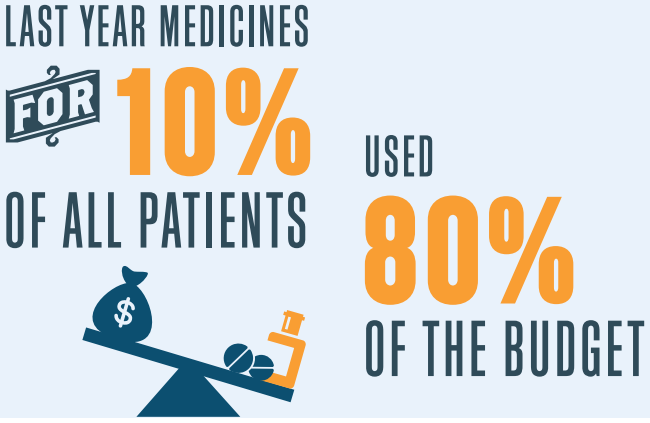
This efficient use of the budget means PHARMAC has more funding available for more highly-priced medicines.

The same analysis shows the very high budgetary impact of these largely new medicines, and the comparatively small patient numbers involved.

The chart below shows that over time, a decreasingly smaller group of people are using a greater proportion of the budget. In 2011, one in 10 patients used 70% of all funds, now they use 80%.

Medicine cost vs patient numbers





Getting ahead in HOSPITALS

PHARMAC has had a foot in the hospital door since 2002, when its annual tender began negotiating national contracts for off-patent medicines used in DHB hospitals. At that time PHARMAC also began assessments of new medicines being used in DHB hospitals.

But our activity in hospitals has accelerated in recent years and PHARMAC now plays a significant role in helping DHBs manage their spending on medical products used in hospitals.

In 2013 PHARMAC completed the shift to managing all medicines used in DHB hospitals, including determining which new medicines can be added to the Schedule for use in hospitals. The list of medicines used in hospitals is binding, and PHARMAC manages the listing of new medicines using savings it has made from existing hospital medicines. Although there isn't a national budget as yet, PHARMAC has taken steps towards that goal by working with DHB hospitals to improve the flow of data on hospital medicines.

Pace

And in the past year, PHARMAC's work in managing hospital medical devices has really gathered pace. From negotiating our first national contracts in early 2014, by October 2015 PHARMAC had listed more than 14,000 line items on the Pharmaceutical Schedule classified as hospital medical devices. The 15 national contracts cover approximately $43-47 million of annual expenditure, with savings to DHBs estimated at $13.2 million over 5 years. The savings arise from price concessions achieved through national contracts.

Along the way, we've been keeping in touch with the DHB staff responsible for assessing, managing and using medical devices. We've created new communication channels to update them on our work, been out visiting DHBs, attended conferences, and run workshops and Forums to give DHB staff and other stakeholders opportunities to hear about and comment on our work.

We're also providing regular updates to DHB senior executives, so they are aware of the value PHARMAC is providing through its work, which looks sure to increase as time goes by.

Categories

To date PHARMAC's work has focused on negotiating national contracts in six categories – wound care, sutures, disposable laparoscopic equipment, orthopaedic implants (spine, trauma and cranio-maxillofacial implants), interventional cardiology, and sterile wrap and consumables. Contracting work in these categories is continuing, with other categories being scoped including thermometers, disposable instruments, mechanical compression devices and consumables, surgical gloves, hand hygiene and anti-embolism compression hosiery.

In the context of PHARMAC's work with medicines, savings so far are modest. But the focus has been about building the foundations for future work where a greater emphasis on competition is anticipated to lead to greater price reductions, and savings to DHBs. By mid-2015 PHARMAC's work on wound care products – items like bandages and dressings – had progressed to the next phase. This introduces greater competition through market share procurement – a step change in national contracting of medical devices which until now have been optional for DHBs.

PROFILES

JACQUIE PILLAY

Medical device category manager

It's a long way from researching Australian pigs to helping New Zealanders with heart problems, but then again it's been a colourful path that has led Jacquie Pillay to PHARMAC.

Jacquie is one of PHARMAC's medical device category managers, part of the team that is spearheading PHARMAC's work in hospital medical devices.

A relative newcomer to PHARMAC, arriving in May 2015, Jacquie is looking after interventional cardiology products – anything from cardiac stents to guidewires.

It's fascinating work for Jacquie, a native of Alice Springs, Australia who now uses her background in health research, applied science and medical device sales to come up with creative answers to emerging work at PHARMAC.

"The great thing about my role is you get to see all sides, I find that fascinating. And it's not just about price, there are other benefits we can get."

Jacquie brings more than a decade of knowledge in medical devices sales to her PHARMAC role. Prior to that she'd worked in areas as diverse as vaccine manufacturing, quality control of mouthwash and household cleaning products manufacturing, and oncology research. The pig research came as part of work looking into the use of near-infrared spectroscopy, a method of analysing protein content in animal feed.

"I feel like I'm drawing a picture," she says. "We already have the outline, the sketch of what we want to achieve. My job is to put the colours on the page and fill in the lines, bring it to life."

Jacquie has called Wellington home for over a decade and loves the outdoor lifestyle, listing kayaking and surfcasting among her out-of-work pursuits.

"I love to get outdoors though I'm not as adventurous as some of the PHARMAC people. It's more middle-aged outdoors," she says with a laugh.

Hawke's Bay changes supplier of disposable laparoscopic trocars and instruments

Hawkes Bay DHB's (HBDHB) switch of supplier for disposable laparoscopic trocars and instruments had two benefits - better pricing and a reduction in the number of product lines being used, leading to reduced storage pressures.

Bronwyn Moon, Theatre Nurse for HBDHB, said to begin the evaluation, the supplier first spoke to all of HBDHB's surgeons and got their consent to proceed with the evaluation. While this process took about a month, Bronwyn said it was a good way to get the surgeons' support. "The first month was used to introduce the new product and the evaluation took place during the second month. This process worked well to iron out any initial reactions to the product change before starting the actual evaluation," said Bronwyn.

The supplier provided in-servicing for nurses and registrars during the evaluation period and ensured the evaluation forms were completed. They received around 160 forms during the evaluation and required 95 percent agreement to instigate permanent change. Bronwyn said that by having 95 percent of surgeons agreeing, it made her job much easier to get the rest to support the change. She also found it extremely helpful to have good data analysis from the evaluation forms, to support the decision to move to a new supplier.

Successful conversion

The evaluation took two months, giving time to get surgeons and other clinical staff on board and resulted in a successful conversion to the alternative product range. The new supplier was available over this time, to address any concerns or issues as they came up. To help with the evaluation, laminated product conversion charts were produced and stock was stickered with equivalent product codes. In the second month, a simple evaluation form was completed by all surgeons and the majority of nurses.

"Ensuring there are clear responsibilities for the coordination of any evaluation is essential, and our Project Coordinator, who was a nurse in the department, did an excellent job of liaising with all stakeholders to ensure any issues arising were resolved very quickly," says Jayne. "Another key aspect of a successful process is communication – not only with clinical staff, but also with the incumbent supplier, so that they are informed of the planned evaluation and the impact it will likely have on their forecasting and supply chain."

"One of the main lessons learnt from our perspective would be the importance of working on the assumption that the evaluation will be successful, and ensuring you have a tentative transition plan from project outset. This should minimise any disruption to the supply chain and reduce DHB liability of leftover stock."

Successful change at Invercargill hospital

Southern DHB Procurement Manager Jayne Ladbrook says recent PHARMAC-negotiated contracts gave Southern DHB an opportunity to unlock value where this had previously been difficult to achieve.

"Because the PHARMAC listings provide transparent pricing, we were able to undertake analysis in a product group due for review. This indicated an estimated potential saving of 15-20 percent annually in a high spend category," she said.

With support for the concept from the DHB's Directorate Senior Leadership Team, a project team (involving representatives from nursing, medical, procurement and supply chain) was pulled together and, with the supplier, an agreed evaluation plan and timeline was put in place to evaluate the alternative products.

"Getting clinicians on board is critical, so a range of activities were undertaken to ensure they were well aware of the plan and had access to the necessary information," said Jayne. "Resources included information posters, a portfolio of clinical studies, and personalised letters hand-delivered to all surgeons. We also had supplier presentations at clinical specialty meetings, "drop-in clinics" for staff to see and feel product, and nurse training sessions."

(approximate)*

Summary of hospital me

CATEGORY SUTURES

TOTAL ANNUAL DHB SPEND*
$12 MILLION

VALUE CONTRACTED
$1.5 MILLION

SUPPLIERS CONTRACTED
2

CONTRACTED SAVINGS (5 YEAR)
$190,000

The market for sutures is estimated at approximately $12 million per annum. We stitched up a national agreement with one of the main suppliers, Covidien in August 2015.

CATEGORY INTERVENTIONAL CARDIOLOGY

TOTAL ANNUAL DHB SPEND*
$15-20 MILLION

VALUE CONTRACTED
$7.8 MILLION

SUPPLIERS CONTRACTED
5

CONTRACTED SAVINGS (5 YEAR)
$3 MILLION

We issued a Registration of Interest for interventional cardiology products in early April 2014. It invited proposals for devices such as guide wires, catheters, stents, and balloons used in heart surgery. We have reached five agreements for interventional cardiology products, with the latest taking effect from 1 August 2015.

CATEGORY DISPOSABLE LAPAROSCOP DEVICES

TOTAL ANNUAL DHB SPEND*
$8 MILLION

The market for laparoscopic equipment is estimated at approximately $8 million per annum.

f our work in
dical devices

TOTAL ANNUAL DHB SPEND*
$32 MILLION

VALUE CONTRACTED
$31.3 MILLION

CATEGORY
WOUND CARE

Our activity has seen $31.3 million of the $32 million wound care market come under PHARMAC-negotiated contracts. We established the Wound Care Advisory Group, and are now moving towards introducing greater competition through market share procurement – offering a portion of the market to suppliers for a defined period of time.

SUPPLIERS CONTRACTED
9

CONTRACTED SAVINGS (5 YEAR)
$2.8 MILLION

PIC

VALUE CONTRACTED
$4.2 MILLION

SUPPLIERS CONTRACTED
2

CONTRACTED SAVINGS (5 YEAR)
$6.0 MILLION

TOTAL ANNUAL DHB SPEND*
$20-30 MILLION

VALUE CONTRACTED
$2.5 MILLION

CATEGORY
ORTHOPAEDICS SPINE AND TRAUMA

The market for Spine and Trauma Orthopaedics is estimated at approximately $20-30 million per annum. The agreement we reached with Stryker for a national contract included about 7000 line items, and offers savings of $190,000 based on current usage.

SUPPLIERS CONTRACTED
1

CONTRACTED SAVINGS (5 YEAR)
$0.7 MILLION

Are New Zealanders missing out on health gains from cancer medicines?

Over the years there have been numerous reports comparing New Zealanders' access to cancer medicines with people in other countries. PHARMAC wants to ensure the decisions it makes achieve the best health outcomes for New Zealanders. The interest in New Zealand's access to cancer medicines prompted PHARMAC to commission research assessing potential health gains achievable from cancer medicines currently funded in Australia but not in New Zealand.

Our analysis found that, overall, New Zealanders aren't missing significant opportunities to improve health through unfunded cancer medicines and that, on the whole, we fund most of the best treatments currently available.

WHAT DID WE FIND?

We found that in March 2015 when the analysis was concluded New Zealand funded 101 cancer medicines, and Australia funded 110.

This included 88 cancer medicines that New Zealand and Australia both funded. We also found that both countries funded cancer medicines that the other didn't: Australia funded 22 medicines that weren't funded in NZ, and NZ funded 13 medicines that weren't funded in Australia.

IS THERE A DIFFERENCE TO PEOPLE'S HEALTH?

Most of the additional medicines funded in Australia but not in New Zealand do not offer health gains that would be considered clinically meaningful[1] by international cancer specialists. Some of the medicines offer poorer health outcomes than the established NZ funded standard of care.

Few of the cancer medicines funded in Australia but not in NZ offer clinically meaningful gains for patients. PHARMAC has received funding applications for many (but not all) of these medicines, and they are undergoing assessment and consideration for funding alongside treatments for other conditions.

SHOULD NEW ZEALAND FUND THE SAME CANCER MEDICINES AS AUSTRALIA?

New Zealand spends $131 million annually (gross cost) on cancer medicines. Careful selection of these medicines has enabled us to avoid additional costs of at least NZ$80 million per annum, much of which would not help people with cancer any more than at present.

The report explains that, with one exception, those unfunded cancer medicines offer relatively low, or no evidence of, clinically meaningful benefit. PHARMAC routinely incorporates other important measures of health gains, harms and resource efficiencies into our overall measure of health gain in terms of Quality Adjusted Life Years. But where the evidence of survival gains are weak we take a cautious approach, especially where the asking price of a medicine is high.

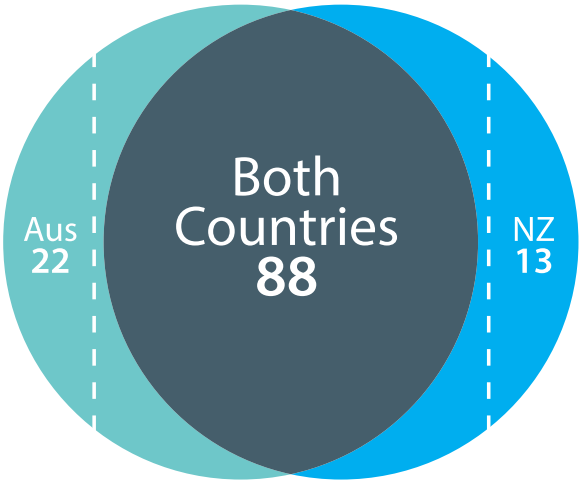
HOW MANY CANCER MEDICINES ARE FUNDED?

Australia funded 110 medicines for cancer and New Zealand funded 101 (as of 25 March 2015). In New Zealand funding for cancer medicines for named patients in exceptional circumstances is also managed by PHARMAC, but this funding was not included in the comparison.

Since the analysis was completed Australia has funded pertuzumab, trastuzumab emtansine, crizotinib, trametinib, pomalidomide and pembrolizumab; while New Zealand has added abiraterone. We will be updating the analysis to include these changes.

There are likely to always be differences between the two countries. PHARMAC works to a fixed budget which means we make careful choices to fund medicines providing the best health gain. Australia does not use a fixed medicines budget.

Figure 1 Number of cancer medicines funded in Australia and New Zealand, as at 25 March 2015

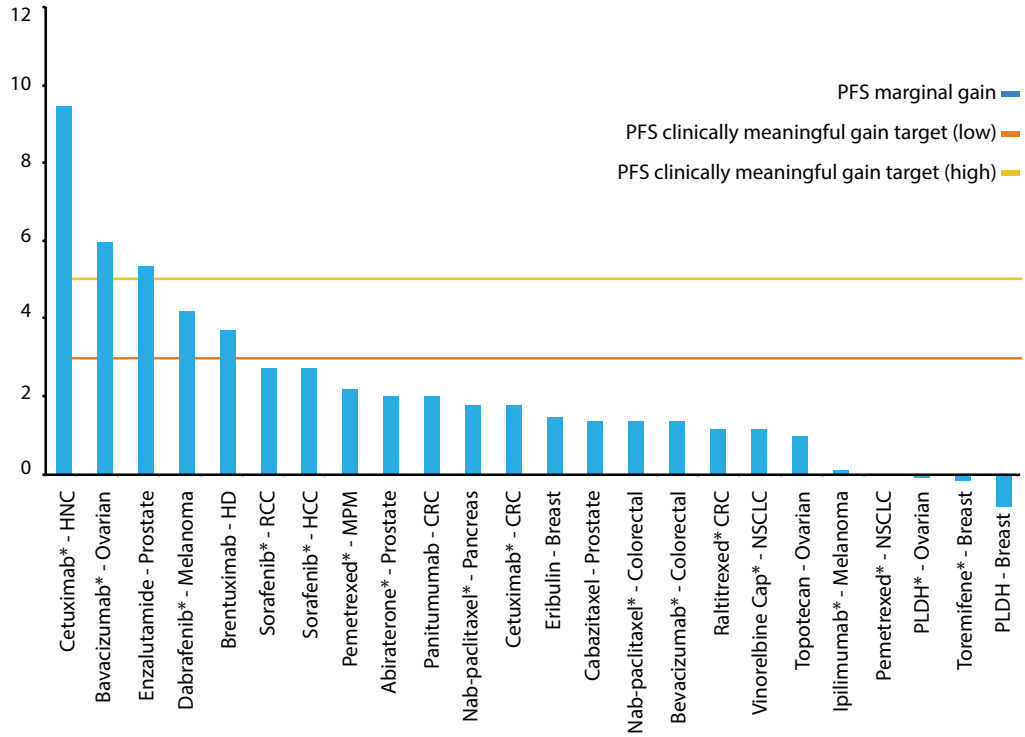


In New Zealand we are also careful to look at what alternative treatments are available. If a new medicine does not offer better health outcomes than what's already available it might not be approved for funding. Instead, the money is used to fund other medicines that offer more benefit.

Source: Australian Pharmaceutical Benefits Schedule and the New Zealand Pharmaceutical Schedule

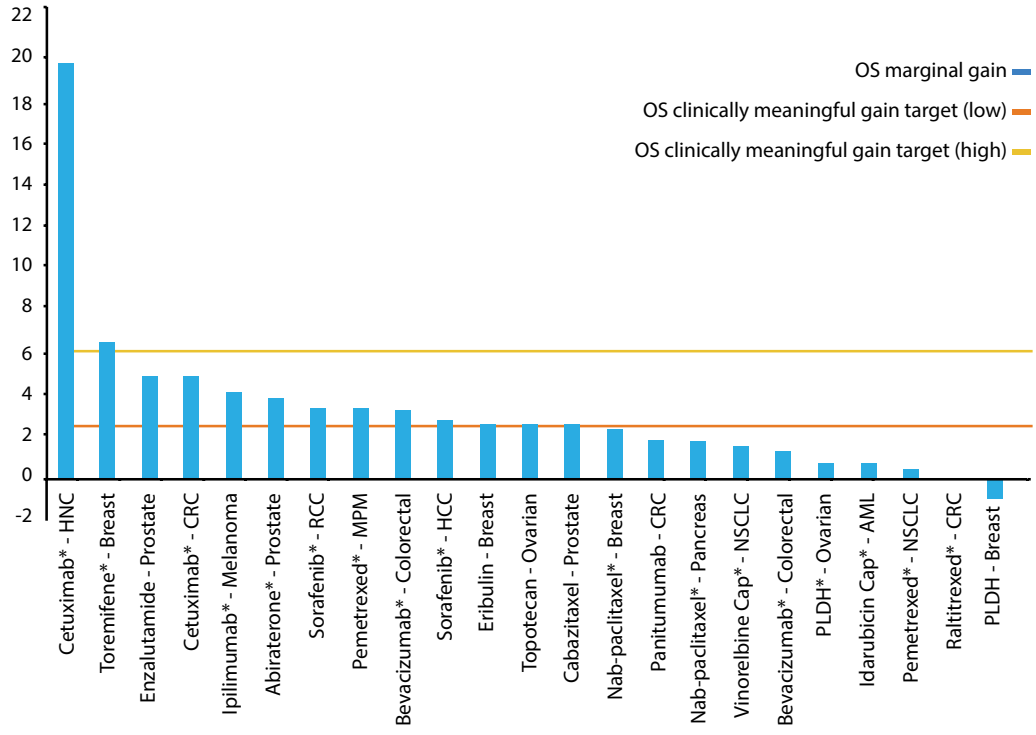
[1]Lee M. Ellis et al (2014) "American Society of Clinical Oncology Perspective: Raising the Bar for Clinical Trials by Defining Clinically Meaningful Outcomes" Journal of Clinical Oncology April 20, 2014 vol. 32 no. 12 1277-1280

Progression Free Survival marginal gain (months) at low and high clinically meaningful thresholds[2]:



*[2]Medicines marked * have been assessed and declined or remain under assessment for funding by PHARMAC*

Median Overall Survival marginal gain (months) at low and high clinically meaningful thresholds[4]:



*[4] Medicines marked * have been assessed and declined or remain under assessment for funding by PHARMAC*

HOW DID THE REPORT MEASURE THE DIFFERENCE TO PEOPLE'S HEALTH?

The report looked at how much benefit there would be for patients taking the medicines available in Australia, but not in New Zealand.

It used published research which measures progression-free survival (PFS) and median overall survival (OS) for each medicine.

The difference in these measures is important: the time you enjoy better health before the disease returns (PFS) might be superior, but you may die even earlier from the disease once it returns (OS). So it is important to understand both. There is an increasing trend in cancer research for studies to be stopped once PFS gains are shown, before the OS is known.

In a small number of cases there was no research available internationally to demonstrate any impact on people's health.

Factors for Consideration are coming

February 2016 –

Applications to be considered at the May 2016 PTAC meeting are to be submitted by February 2016 with reference to the updated Guidelines for Funding Applications to PHARMAC.

May 2016 –

PTAC will make its recommendations to PHARMAC using the Factors, rather than the Decision Criteria.

1 July 2016 –

Funding decisions made by PHARMAC will use the Factors for Consideration from this point on.

Foundation work continued towards adopting a new way of making funding decisions – the Factors for Consideration.

In late 2014 we announced the current nine Decision Criteria, which have served us well for 22 years, will be replaced by Factors for Consideration. Since then, PHARMAC has published a video and interactive diagram on its website, along with supporting information, to illustrate the different components of the Factors. The video and diagram were produced with input from the Consumer Advisory Committee, which was supportive of steps to create tools that helped people to understand the changes that were taking place.

In August 2015 PHARMAC held a workshop seminar for pharmaceutical suppliers that was well-attended. The seminar was an opportunity to find out in more depth about the Factors and what changes suppliers might need to make – or additional information they might need to provide – to support funding applications made under the Factors.

Another milestone came in August with release of an updated version of the Prescription for Pharmacoeconomic Analysis, PHARMAC's guide to how we do our economic assessment – one of the inputs into our decision-making process.

We also announced the 'go-live' date for the Factors – in effect the point from which all decisions will be made using the Factors. To enable us to make decisions from 1 July 2016 using these, we provided suppliers with a timeline (left) of steps towards that decision date.

Development of the Factors for Consideration reflects a sea change in how PHARMAC engages with its stakeholders

- says Kate Russell

For consultation to be meaningful, it has to be authentic. That's something PHARMAC does well and one of the positive changes I've seen during my time chairing the Consumer Advisory Committee.

PHARMAC has made a sea change in the way it engages with the community, both in how it does it and the tone of its communications. This was very much to the fore with the review of its nine Decision Criteria, a fundamentally important piece of public policymaking that impacts many New Zealanders.

All too often we hear people complaining that consultation, in one form or another, is nothing more than a tick-box exercise and that the views and needs of consumers are not being clearly reflected in the development of policy such as this. Continuing what I feel has been an exemplary journey toward genuine consultation, PHARMAC has, in the Factors for Consideration process, genuinely sought and heard the consumer voice.

They gave people time, which is very important for reaching communities who aren't traditionally involved in consultation. The Committee was able to help with this, providing the benefit of our extensive networks.

Bravery

Then PHARMAC showed extraordinary bravery in going out to the community in person, not being defensive and being prepared to answer difficult questions.

PHARMAC has honestly reflected on the feedback they were given, no small feat given the variety of responses received. I feel the sheer number of submitters to this important consultation is a true reflection of how far PHARMAC has come in its consumer engagement.

People responded because the engagement is genuine. No-one expects that every opinion will be implemented or ultimately acted on, but they can feel they have been listened to. It's important to complete the feedback loop and reflect back everything that's been heard. That's something PHARMAC does very well.

Clearly explained

I feel the most useful thing the Committee did in this process was not to try to influence the Factors themselves so much, but to ensure that once decided upon, those Factors were clearly explained, with interactive visuals, relatable explanations and a variety of ways in which consumers could find out what the new Factors were. Using the 'create once, share many times' principle, PHARMAC has been able to convey the new Factors in a way that most people can clearly understand.

Another positive change I have seen is in the tone of PHARMAC's written communications. PHARMAC isn't afraid now to acknowledge people's experiences, saying they understand or sympathise. It's humanising and validating your views even if you're not giving them what they want.

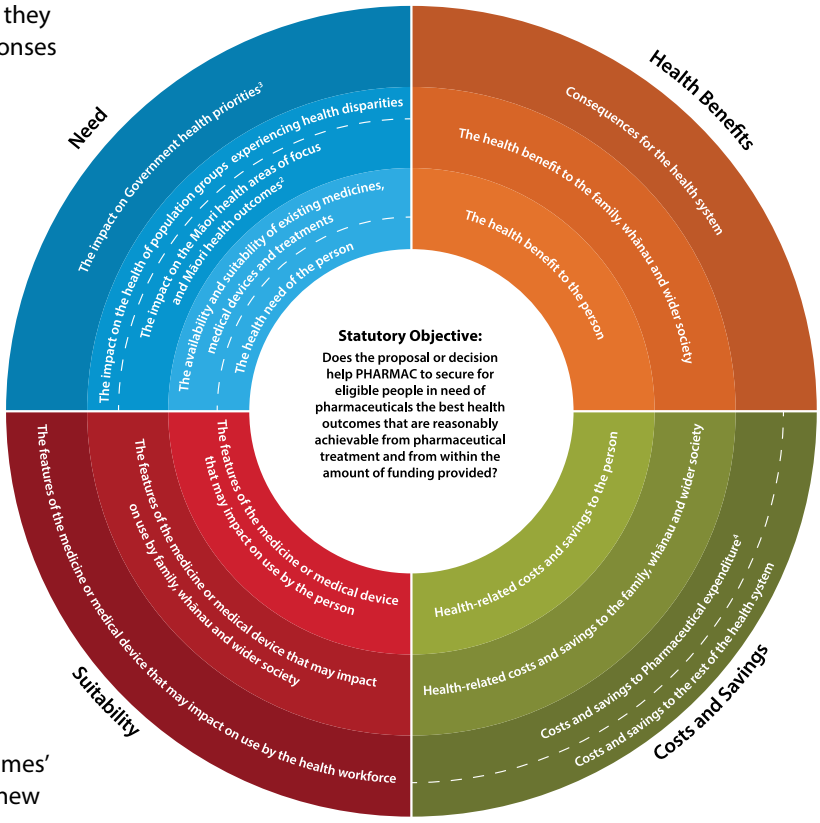
Different PHARMAC

In the past I was part of a group called the Access to Medicines Coalition, which was very critical of PHARMAC and how it interacted with the community. Now I see a very different PHARMAC.

I provide a prime example of someone who has seen an organisation in action close-up and been educated about how PHARMAC has highly skilled, heartfelt people who truly are motivated to do their best for New Zealanders.

The way PHARMAC engages the community now is a good example for other Government agencies. I would like to see other agencies attending a Committee meeting or two to see how it works and the benefits that can accrue from such genuine engagement.

Kate Russell is the former Chief Executive of Cystic Fibrosis NZ. She was a member of the PHARMAC Consumer Advisory Committee from 2009 and its Chair 2010-2015. She is currently Chief Executive of the Canterbury Medical Research Foundation and Commercial Director of the New Zealand Brain Research Institute.



Connecting with the community – Te Whaioranga

PHARMAC is supporting health programmes in communities through memoranda of agreement (MoA) with Whānau Ora collectives and the Māori Pharmacists Association (MPA).

The agreements are part of PHARMAC's implementation of Te Whaioranga, PHARMAC's Māori Responsiveness Strategy. Rather than developing and delivering programmes, PHARMAC's approach is now focused on enabling communities to determine their own pathways, developing programmes and services that meet the health needs of the community, with support from PHARMAC through the MoA.

"In this way PHARMAC is supporting tino rangatiratanga with communities, one of the pillars of Te Whaioranga," says Ātene Andrews, PHARMAC's Kaiwhakahaere Whakarata Māori (Manager, Māori Responsiveness).

The agreements signal PHARMAC's intention to be long-term partners with whānau for delivering health programmes to Māori, says Ātene.

PHARMAC now has agreements with Ngā Mataapuna Oranga Whānau Ora Collective in Tauranga, Te Ao Mārama Whānau Ora Collective Trust in Opotiki, and with the Te Arawa

TE WHAIORANGA IS BUILT ON FIVE PILLARS:

1 Advance Tino Rangatiratanga with whānau through health interventions

Te Whaioranga recognises the desire by Māori to have control over their own health and wellbeing, and seeks to support Māori through encouragement; empowerment, facilitation and service based on respect, trust and shared mutual purposes.

2 Establish and maintain authentic strategic connections

Strategic stakeholder engagement and authentic communication is core to what we do. We will work with partners in pursuit of mutual purposes. Our strength is our ability to make linkages between different groups in the health sector, across sectors and with various community groups. Current programmes such as One Heart Many Lives and He Rongoā Pai, He Oranga Whānau are examples of communities in action. We will invest in strengthening communities through encouraging flexibility, creativity and innovation. This will enable us to do more in an enhanced way.

3 Champion evidence based Māori medicine management

Strengthening the evidence base relating to Māori use of medicines is a way that PHARMAC can make a positive contribution to Māori health. By prioritising key Māori health priority areas ensures that the area of greatest need is appropriately targeted.

4 Support and engage in indigenous research and development about pharmaceutical management

PHARMAC has contributed to empowering Māori communities through the transfer of knowledge that is meaningful to communities. There is potential to further explore research and development opportunities in understanding pharmaceutical management and to share this.

5 Enhance and enable internal expertise and capability in te ao Māori

PHARMAC staff must have the competence to work in both worlds – te ao Māori and te ao Pākehā. A unique skill set is required in order to advance tino rangatiratanga with whānau. This unique skill set needs to be supported with on-going professional development and support in both worlds.

Whānau Ora Collective in Rotorua.

An agreement with the Māori Pharmacists Association also saw PHARMAC working in partnership with the MPA, delivering health checks at the annual Ratana Pa celebrations in January 2015.

"We want to be working alongside whānau in the community so that programmes are delivered effectively," says Ātene. "We know the Whānau Ora collectives are the people best placed to understand the health needs of their community, and have programmes in place. By supporting these programmes, we think this is an effective way for whānau to better access health information and health services."

Agreements with Whānau Ora collectives are open ended.

A Memorandum of Agreement with PHARMAC has been the catalyst for a Bay of Plenty whānau ora collective to deliver better health services to Māori.

PHARMAC wasn't even on Janice Kuka's radar before the agency came knocking in 2014.

But it didn't take long before she realised this was an organisation she could do business with.

Janice is the Chief Executive of Ngā Mataapuna Oranga, a Māori primary health organisation and Whānau Ora collective, combining health and social services under one banner. It serves an enrolled population of 11,800 mainly high-needs Māori in the western Bay of Plenty.

"When you think about PHARMAC you think about pharmaceuticals. Our only relationship with PHARMAC then was collecting our prescriptions at the local chemist. So we never really took notice of them," says Janice.

Then came a call from PHARMAC, and a meeting with Ātene Andrews, PHARMAC's Kaiwhakahaere Whakarata Māori, and that all changed.

"When I met with Ātene he explained Te Whaioranga (PHARMAC's Māori responsiveness strategy). He outlined PHARMAC's commitment to improving whānau ora and Māori health by supporting and working alongside Whānau Ora providers, and I thought I can relate to that."

"It's hard to relate to PHARMAC at a high level but when they are talking about self-empowerment and whanaungatanga, that means something to our people and they can see the link. You can relate at a personal level to what PHARMAC's intentions are."

Through Te Whaioranga it was clear that "we had similar values so I thought yes, there's a potential for a relationship here."

Signing a Memorandum of Agreement with PHARMAC provided a springboard for the PHO to organise wānanga aimed at empowering the local health workforce and improving health literacy.

The first was held on the grounds of a local hauora adjacent to Paparoa Marae in Te Puna. The wānanga, focused on respiratory health, was "an outstanding success," says Janice.

"A group of participants was so motivated following the hui they have established a reference group to continue putting in place actions resulting from the two-day event."

The second wānanga which focused on mental health was held in the countryside outside Tauranga. Again this was well attended by the Māori community workers. Two further wānanga are planned for the New Year.

Janice describes the relationship with PHARMAC as a partnership.

"PHARMAC assists with funding but it was up to us to determine what we actually wanted to do. PHARMAC, the PHO and other community organisations all contributed resources and funding.

"We chose respiratory disease and mental health because both affected such a cross-section of our community and we were seeing the results in our clinics. Ngā Mataapuna Oranga Clinical Board made the decision on those two priority areas which was then endorsed by the Whānau Ora providers, that is why there was such good buy-in."

Janice sees the relationship with PHARMAC continuing to develop because the formal agreement is supported by personal relationships.

"PHARMAC has taken that step at an organisational level with its strategy of Te Whaioranga, but they have also established strong personal relationships along the way, which is very important."

Ātene Andrews (L), Steffan Crausaz and Janice Kuka sign the MoA with Ngā Mataapuna Oranga Whānau Ora collective

TACROLIMUS BRAND CHANGE

A WORLD FIRST

New Zealand has become the first country in the world to shift virtually all transplant patients to a generic form of the immunosuppressant tacrolimus.

Tacrolimus is an important treatment for organ transplant recipients. It helps prevent the body's immune system from mounting a response and potentially rejecting transplanted organs (including liver, kidney, pancreas, lung, heart, intestinal and bone marrow transplants).

Given what's at stake, PHARMAC took a careful approach, seeking expert clinical advice over a long period of time, talking with transplant experts in New Zealand and overseas, and then working closely alongside transplant centres to implement the change.

Transplant centres in other countries had successfully changed to generic tacrolimus – but this had never been done at a national level.

With a few exceptions, all of the roughly 1300 New Zealand transplant patients have now changed to the Tacrolimus Sandoz brand. What this means for the health system is a $4 million per year saving – an important efficiency that means funding is available for other purposes while those same patients continue receiving quality treatment.

COMPLEX

PHARMAC had been looking at the possibility of a tacrolimus brand change since 2009, and been through two rounds of consultation before a decision was made. PHARMAC's main clinical committee PTAC and the Transplant Immunosuppressant Subcommittee considered tacrolimus numerous times. And PHARMAC went further, seeking tests and data to check clinical issues raised to ensure these were taken on board and thought through carefully.

As part of the change organ transplant patients required additional blood tests to ensure their blood levels of tacrolimus remained within therapeutic levels, when they changed brands. This was important to ensure the clinical success of the Prograf to Tacrolimus Sandoz brand change and to ensure that patient safety wasn't compromised.

Because of this clinical complexity and the additional testing needed, the tacrolimus brand change was managed by hospital-based transplant services rather than community pharmacies or GPs. These are the experts in managing transplant patients, and the people who could be on the lookout to ensure the change went smoothly and was closely monitored.

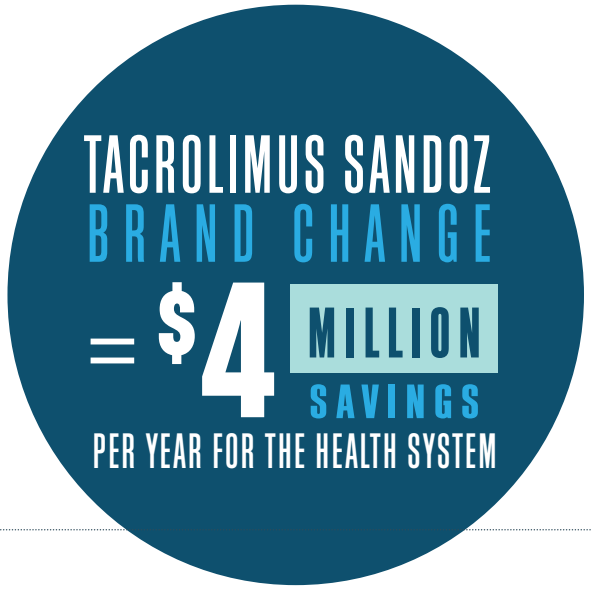
IMPLEMENTATION

PHARMAC worked closely with transplant services before, during and after the brand change including initially seeking their views to design the level and type of support required.
Implementation activities included

- general brand change guidelines and information for clinicians, pharmacists and patients
- a workshop for transplant coordinators
- patient and transplant service resources including a pharmacy notification card, posters and letter templates
- community pharmacy practice software included an alert about the brand change to ensure no unplanned substitution was made
- close monitoring with regular reporting by the transplant services, and the progress of patients tracked by analysts at PHARMAC.

In general, we have had positive feedback from transplant services about the change. We've also held a debrief workshop with transplant coordinators, clinicians and pharmacists giving them an opportunity to feed back on the change.

The lessons learned, as well as feedback from the Transplant subcommittee about their experience of the brand change, will be invaluable when we're considering implementing future complex changes.



National roadshow a success for liver unit

Changing hundreds of liver transplant patients across the country to a generic brand of tacrolimus was a challenge smoothly managed by staff from the New Zealand liver transplant unit (NZLTU).

Nurse practitioner Margaret Johnston said staff at the liver unit agreed that a co-ordinated, closely managed programme would be needed to implement the change.

"We understood where PHARMAC was coming from as far as funding goes," said Margaret. "We thought yes we can do this but it will have to be very controlled and well-managed, and there would have to be monitoring."

When PHARMAC indicated funding support would be available for transplant centres to help switch patients, the NZLTU decided the best way to manage the change was a nationwide roadshow of clinics.

"We said to people we'll be coming to you. We had clinics from Whangarei to Invercargill, Gisborne, Palmerston North, Wellington, Christchurch, Taranaki, Hawkes Bay – all throughout the country. Patients were to have a blood test prior to the clinic. We explained the switch to them and gave them a new script for the medicine. They were to start the new tacrolimus straight away and then have another blood test 4-7 days after the switch. It was quite a bit of work."

"We had a really good response and I think we saw nearly all the adult liver transplant patients. We even saw people who hadn't been to clinics for some time, which was great."

"Patients had 15 minute appointments, they appreciated the time sitting down and talking and when they heard how many millions were being saved they understood the rationale for the switch. They also appreciated that they were being monitored throughout the switch."

PHARMAC had also produced folders for each patient which contained information about the change, and the liver unit supplemented these with copies of each person's blood test forms, and a repeat prescription.

Overall, Margaret said, the change went smoothly.

"ONE OF THE THINGS THAT CAME OUT WAS THAT THE SWITCH WAS REASONABLY EASY FOR PEOPLE. WE HAD A FEW WHO REPORTED SIDE EFFECTS, BUT THEY MAY NOT HAVE BEEN RELATED TO THE MEDICINE."

PROFILES

CAROLINE DE LUCA

Senior therapeutic group manager

A love of hospital pharmacy and working with sick children is still being put to good use for Caroline De Luca, but in a different way at PHARMAC.

Caroline is one of PHARMACs' senior therapeutic group managers, or TGMs, who manage medicine funding applications. The role is demanding and complex, combining a detailed knowledge of pharmaceuticals and clinical information and working with pharmaceutical companies to reach national agreements.

A Hamilton native, Caroline decided early on that hospital pharmacy was for her, eventually specialising in paediatrics at Auckland's Starship Children's hospital. Along the way she had a stint in London's Chelsea and Westminster Hospital, and also found the time to become a qualified winemaker after studying the art of winemaking – oenology – through Napier's EIT.

Then came PHARMAC.

"I loved my job at Starship but it's not something I felt I could do forever because it was very intense. The emotional side of seeing very sick children was part of it – that can be hard but it can also make it very rewarding."

Arriving at PHARMAC had a strange familiarity for Caroline. Not only did she find herself working under her former boss at Auckland DHB – Sarah Fitt – but on her second day she was asked to pick up a proposed change for the transplant medicine tacrolimus; something she had already been involved with in her Starship role.

"I was thrown in at the deep end, but it was great to be able to find my feet with a clinical topic I knew well. I had been providing feedback to PHARMAC from my old role, now I was the one seeking and receiving that feedback."

Two years in, Caroline is one of 11 pharmacists on PHARMAC's staff and loves the role, which has a national aspect as well as making decisions that affect individual people.

"It is different but you do see where you are directly helping people, like through the Exceptional Circumstances process, NPPA. You don't see the patient but you are still doing something for an individual person."

"What I enjoy the most is seeing the difference you can make at a national level. You still need to maintain relationships with clinicians and patient groups, and you get to see the commercial side too. I really enjoy that because you're seeing things from all angles."

TOP 20 MEDICINES BY PRESCRIPTIONS

CHEMICAL NAME	SCRIPTS	CURRENT RANKING
Paracetamol	**2,570,000**	1
Aspirin	**1,320,000**	2
Omeprazole	**1,260,000**	3
Amoxicillin	**1,230,000**	4
Atorvastatin	**1,100,000**	5
Ibuprofen	**970,000**	6
Metoprolol succinate	**960,000**	7
Salbutamol	**870,000**	8
Amoxicillin with clavulanic acid	**780,000**	9
Cilazapril	**730,000**	10
Simvastatin	**730,000**	11
Cholecalciferol	**710,000**	12
Prednisone	**620,000**	13
Metformin hydrochloride	**540,000**	14
Zopiclone	**540,000**	16
Loratadine	**510,000**	17
Diclofenac sodium	**500,000**	18
Codeine phosphate	**460,000**	19
Felodipine	**460,000**	20

PROFILES

HAYDEN HOLMES
Health economist

Hayden Holmes is onto his second career and enjoying every minute of his opportunities at PHARMAC.

Hayden works as a health economist at PHARMAC. It's highly technical work, using commercial, public health and economics analytical models to work out how much extra health a medicine can provide, and how much that benefit might cost New Zealand.

It's been an unusual path into the health workforce. Hayden's first career was in the Defence Force, as an NCO in the RNZAF's logistics section. The Air Force took Hayden to Blenheim, Auckland, Antarctica and Little Rock, Arkansas, as well as a stint in the peacekeeping force on the Pacific Island of Bougainville.

But growing disillusionment with the impact the military could have on societies led Hayden to investigate study in health economics.

"The military by its nature is reactive," he explains. "But what it can't do is fix the underlying policy or economics issues that cause problems."

"So I became interested in the field of developmental economics, looking at why some countries are developed and others are developing, and the differences between them. And when you look at it you see the impact health has on developing countries. So that led me into studying health economics."

Hayden targeted working at PHARMAC in particular, and arrived five years ago. It's given him a chance to combine his interest in health economics, public health, and health policy. As well as assessing new medicines, Hayden's in the thick of policy work, being involved in the setting up of PHARMAC's medical devices work, the development of the Factors for Consideration, and now leading the review of the Prescription for Pharmacoeconomic Analysis, an important foundation document that defines PHARMAC's approach to assessing costs and benefits of medicines.

"One of the things I like about PHARMAC is our agility and flexibility in our policy work. It's full of quite passionate people trying to get things moving quickly. We get things done a lot quicker than some other agencies in the sector."

"I like the robust nature of it in terms of how our decisions have an evidence-based approach. We have a lot of power with the budget we have and we need to make good decisions – and I think we do."

"I see us as world leaders in making good decisions, and from where I sit you can really see how the work PHARMAC does benefits the health system."

MEDICINES BY COST

CHEMICAL NAME	COST	CURRENT RANKING
Adalimumab	**$70,860,000**	1
Dabigatran	**$35,250,000**	2
Fluticasone with salmeterol	**$31,470,000**	3
Trastuzumab	**$30,870,000**	4
Etanercept	**$24,930,000**	5
Budesonide with eformoterol	**$21,170,000**	6
Insulin glargine	**$18,920,000**	7
Rituximab	**$17,090,000**	8
Tiotropium bromide	**$13,750,000**	9
Bortezomib	**$13,440,000**	10
Blood glucose diagnostic test strip	**$12,740,000**	11
Efavirenz with emtricitabine and tenofovir disoproxil fumarate	**$11,230,000**	12
Sodium valproate	**$9,900,000**	13
Octreotide LAR (somatostatin analogue)	**$9,450,000**	14
Lamotrigine	**$9,190,000**	16
Mesalazine	**$8,600,000**	17
Varenicline tartrate	**$8,580,000**	18
Venlafaxine	**$8,380,000**	19
Dasatinib	**$8,070,000**	20

by ex manufacturer cost (ex GST and rebates) excludes vaccines

PROFILES

CHLOE DIMOCK
Procurement manager

PHARMAC runs a tender for off-patent medicines each year, and it's a big process. Typically it's 400-500 line items of products, some involving multiple offers which have to be individually analysed. It's important for PHARMAC, yielding savings that the agency can then redirect into other new medicines.

Chloe Dimock has been at the centre of the tender process for two years as a PHARMAC tender analyst. The tender analyst manages the process throughout, working across the PHARMAC team.

She describes it as "making sure the process is commercially and legally robust", combining work from multiple people including external advisers on the Tender Medical Subcommittee.

"That's the thing that I love – you get to work pretty much with everyone at PHARMAC as well as a lot of contact with stakeholders and I really enjoy that."

Chloe also led work identifying improvements in the process which has led to another project around labelling preferences - to let suppliers know what PHARMAC takes into account in the tender assessment process.

"It's something that will help resolve some common issues, and will help make our process more transparent to suppliers. It makes them aware of the things we consider."

These days Chloe calls central Wellington home but she grew up in Masterton to parents who emigrated from South Africa when she was very small. Having an anaesthetist father also meant that health sector issues – including PHARMAC – were often discussed in the Dimock household.

Her pathway to PHARMAC included studies in nutrition at Otago University, leading to a graduate diploma in pharmacology.

After two years running the tender Chloe's now moving into a slightly different role as a procurement manager, which will involve commercial processes across both medicines and medical devices used in either the community or hospitals.

PHARMAC, she says, is "a great group of people to work with – driven, passionate people who really do care for the wellbeing of New Zealanders. It's a really welcoming environment, that's what I found and is still the comment I hear from new people who have started. It's the people who make the place."

THERAPEUTIC GROUP REVIEW

PHARMAC made 41 investments in medicines during the year, including 21 medicines previously not funded.

It was a breakthrough year in hospital medical devices as the groundwork PHARMAC had done in recent years expanded the number and range of national contracts. By year-end, PHARMAC had negotiated contracts for 14,000 hospital medical devices in five categories. PHARMAC's hospital medical devices work has been at the national contracting level as it works towards the next procurement phase of market share procurement.

Management of the Combined Pharmaceutical Budget (CPB) has expanded over recent years to include hospital pharmaceutical cancer treatments, National Immunisation Schedule vaccines and haemophilia treatments.

Overall, pharmaceutical spending was $795 million (on budget). This included a $46.8 million net spending increase from changing volumes of subsidised pharmaceuticals and $19.5 million ($48.8 million full-year impact) net expenditure on new investments and increased access to medicines this financial year.

PHARMAC's work in hospital medicines and medical devices also produced measurable results. Decisions on hospital medicines led to full year savings of $18.3 million which PHARMAC was able to reinvest $3.38 million in new hospital medicines. Over five years the net effect of PHARMAC's work in 2014/15 alone will be savings of $70.7 million.

In hospital medical devices, PHARMAC negotiated contracts for an additional 10,965 line items, and achieved $2.94 million in potential annual savings for DHB hospitals. That equates to $13.2 million over five years.

Since PHARMAC began managing hospital medicines and medical devices two years ago, it has secured a total of $96.7 million savings after deducting the cost of investments. Decisions made in 2014/15 alone amount to $83.9 million before investments of $3.38 million

Savings programmes continue to be important for PHARMAC, to release funds that are locked into long-term funding arrangements. By promoting competition PHARMAC achieves savings that can then be reinvested in new medicines, or widening funded access to medicines. PHARMAC's annual tender is one of the strategies we use to create savings by promoting competition.

Promoting competition is a central to PHARMAC's activity. Making the most of competition between pharmaceutical suppliers is the main way PHARMAC improves the volume and mix of pharmaceuticals New Zealand can subsidise. PHARMAC uses a number of commercial strategies to secure price reductions on existing funded medicines in order to release funds to invest in new medicines. One such strategy is negotiating multi-product agreements (or 'bundling'). Many pharmaceutical companies supply a number of different products and can offer price reductions on older medicines in return for a new product being subsidised. Bundling products together in this way allows us to subsidise those that wouldn't otherwise be affordable.

In October 2014, PHARMAC approved the funding of a multi-product agreement with Novartis which included listing of nine new products and amendments to the listing of seven other products. This was the largest multi-product agreement in PHARMAC's history.

PHARMAC'S ANNUAL MULTI-PRODUCT TENDER

In 2014/15, PHARMAC received approximately 2600 competitive bids from suppliers during its tender process.

PHARMAC has awarded 218 contracts for sole subsidised supply from this tender process to date, which has resulted in savings of more than $38 million over three years. So every year there's around $30 million of savings from current and past tenders being reused to buy more medicines for more people.

Tender contracts are important to secure supply of medicines for New Zealanders, and enable suppliers and PHARMAC to take action if supply issues arise. This close management of supply means that New Zealand continues to have fewer stock shortages than other countries.

The tender and other competitive processes can lead to New Zealanders having to change their brand of medicine to remain on a funded treatment. PHARMAC supports these brand changes by providing information for consumers and health professionals or by working closely with health professionals to help people adjust to new brands. Significant changes PHARMAC has assisted with in the past year included a number of antipsychotic medicines moved to sole supply from 1 December 2014. These brand changes occurred over a six month period and involved a lot of information to support the change.

OUR IMPACT IN HOSPITALS

$83.9 MILLION

SAVINGS OVER FIVE YEARS

KEY DECISIONS

Abiraterone

a newly funded treatment for advanced prostate cancer.

Azacitidine

Newly funded to treat the blood disorders known as myelodysplastic syndromes.

Fingolimod

a new-generation treatment for multiple sclerosis. PHARMAC also changed the access criteria for other funded multiple sclerosis treatments, so they can be given earlier in the disease.

Natalizumab

a new-generation treatment for multiple sclerosis. PHARMAC also changed the access criteria for other funded multiple sclerosis treatments, so they can be given earlier in the disease.

Lenalidomide

A newly funded second and third line treatment for the blood disorder multiple myeloma.

Nilotinib

A further treatment for chronic myeloid leukaemia.

Varicella vaccine

Newly funded vaccine for immune compromised people and some household contacts.

Rotavirus vaccine

A newly funded vaccine to protect children from a serious from a serious gastric infection.

THERAPEUTIC GROUP SUMMARIES

CANCER AND IMMUNOSUPPRESSANTS (INCLUDING MONOCLONAL ANTIBODIES)

Main changes

- Abiraterone – newly funded treatment for an advanced form of prostate cancer
- Lenalidomide – access to newly funded treatment for multiple myeloma
- Etanercept and adalimumab – widened funded access to include treatment of pyoderma gangrenosum and adult onset Still's disease
- Everolimus – newly funded treatment for patients with subependymal giant cell astrocytomas (a form of brain tumour)
- Azacitidine – a newly funded treatment for myelodysplastic syndromes (a group of blood disorders)
- Nilotinib – a newly funded treatment for chronic myeloid leukaemia
- Completed the brand change for the immunosuppressant tacrolimus

Prostate cancer treatments

PHARMAC funded abiraterone, a new treatment for a type of prostate cancer from 1 May 2015, potentially benefiting up to 1000 men annually.

Prostate cancer is the most commonly-diagnosed form of cancer among New Zealand men. Funding for abiraterone is for men with the advanced form of prostate cancer called metastatic castration-resistant prostate cancer.

Abiraterone is a tablet, which means men with this form of prostate cancer don't need to go to hospital to receive their treatment. Men can receive funded abiraterone tablets either before or after chemotherapy.

Clinical trials show abiraterone significantly improves the quality of life for men with advanced prostate cancer and extends life by around five months.

Abiraterone is a significant new investment for PHARMAC; however, PHARMAC negotiated a reduced price through confidential rebates with the supplier, Janssen, and also negotiated savings on other Janssen products for Attention Deficit Hyperactivity Disorder (ADHD) and epilepsy as part of a multi-product agreement.

Access to bicalutamide, another prostate cancer treatment was also widened from 1 October 2014.

Everolimus

From 1 November 2014, PHARMAC funded everolimus, a new treatment for a form of brain tumour associated with tuberous sclerosis complex, called a sub-ependymal giant cell astrocytoma (SEGA). These tumours mainly affect children.

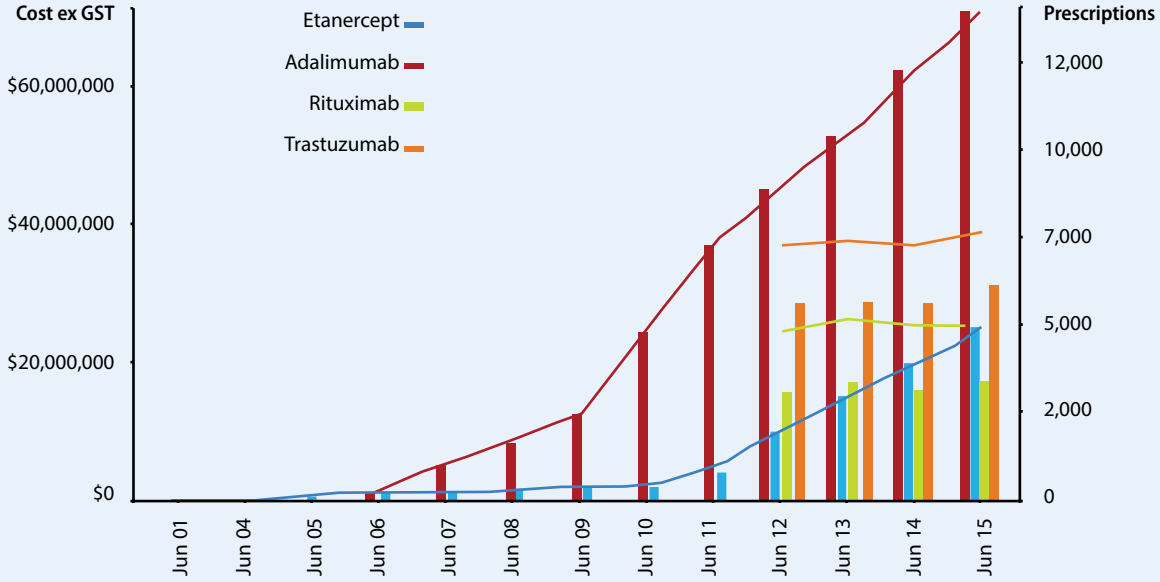
To date surgery has been the only way to reduce the size and growth rate of these tumours. Funding everolimus adds a non-invasive treatment option for these patients. While everolimus is aimed at treating a small patient population, it is an important option for them. PHARMAC estimates up to 11 people might benefit from this treatment over five years.

Lenalidomide

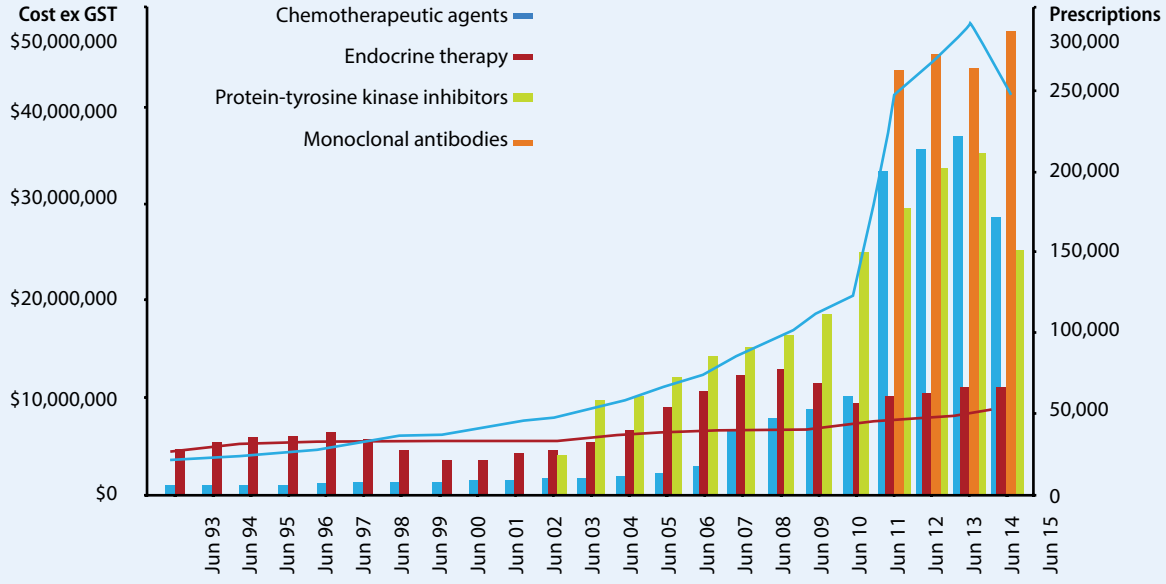
A new treatment, lenalidomide, became funded from 1 September 2014, for the treatment of multiple myeloma, a type of blood cancer. It is an alternative to the currently funded treatments bortezomib and thalidomide, and funded for use in patients if these treatments fail.

The trials show that lenalidomide is effective in patients whose disease has progressed after receiving previous treatments. It also doesn't have some of the side effects of the other funded treatments, which can be debilitating for patients. The funding of lenalidomide will provide an additional treatment for haematologists to use and should lead to patients living longer.

Fusion proteins and monoclonal antibodies



Oncology agents



THERAPEUTIC GROUP SUMMARIES

NEUROLOGY

Main changes

- Fingolimod - a new treatment for multiple sclerosis.
- Natalizumab - a new treatment for multiple sclerosis
- Changes to the access criteria for other funded multiple sclerosis treatments (interferons/ glatiramer), so they can be given earlier in the disease.

Two new medicines, fingolimod (Gilenya) and natalizumab (Tysabri) became funded for multiple sclerosis from 1 November 2014. The funding of natalizumab was part of PHARMAC's largest ever multi-product agreement which it entered into with Novartis.

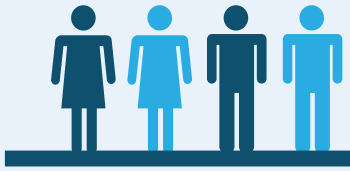
Multiple sclerosis (MS) is a progressive neurological condition which leads to increasing levels of disability. Pharmaceutical treatments are funded for a particular type of MS, called relapsing-remitting multiple sclerosis.

As well as funding two new medicines, PHARMAC also changed the way MS treatments are funded. From 1 November 2014 all treatments were funded from first diagnosis of definitive relapsing-remitting multiple sclerosis, for patients who meet the funding criteria. The Kurtzke Expanded Disability Status Scale (EDSS) is a method of quantifying disability in MS and is used to measure and assess disability and disease progression in MS. Treatments are now available for people with MS who have an EDSS score of 0 - 4.0. PHARMAC has taken extensive clinical advice from neurologists with expertise in treating MS to ensure that treatments continue to be targeted to people with the greatest capacity to benefit.

Based on the evidence to date, these new treatments appear to be more effective than the interferons/glatiramer acetate treatments for multiple sclerosis, and are most likely to be more effective at preventing progression of disease if used at earlier stages of disease.

About 600 people were receiving funded MS treatments prior to the changes. PHARMAC estimates this could grow by about 400 over the next few years, with the change in criteria and improved choice of treatments.

This is the most significant change in the funding of MS treatments in 15 years.



IN THE 8 MONTH PERIOD FROM
1 NOVEMBER 2014
TO 30 JUNE 2015

207 NEW PEOPLE HAD THEIR FUNDING FOR TREATMENTS APPROVED

56% of these (116) have been for fingolimod
36% (75) have been for natalizumab
8% (16) have been for the interferon/ glatiramer treatments3
78% of people initiated on treatment since 1 November 2014 had an EDSS score of <3.0

Engagement over MS treatments has positive outcome

PHARMAC has gone the extra mile with changes to funding of multiple sclerosis drugs, and now has a positive working relationship with Multiple Sclerosis NZ. That's the view of Neil Woodhams, vice-president of MSNZ, who led the organisation's engagement with PHARMAC over the 2014 funding decision to fund two new multiple sclerosis drugs.

Until last year people in New Zealand had limited access to three medicines. MSNZ wasn't happy with that especially as it knew of people who were able to travel to Australia for treatment that New Zealanders couldn't get.

"People here couldn't get access and that was the frustration at that stage," says Neil. "Then last year we had some meetings with PHARMAC, which indicated there was a change in their approach and that the involvement of groups like ours was welcomed."

In mid-2014 PHARMAC began moves towards a funding proposal for natalizumab (Tysabri) and fingolimod (Gilenya). MSNZ was only too keen to take part in consultation on a funding proposal.

"What we were particularly pleased about was that as a result of this consultation, the response from us and other submissions, PHARMAC made changes to their decision which were unexpected, but were practical and sensible."

"For example they changed their proposal so that people who were already receiving treatment could continue to have that treatment – they didn't have to change."

But it didn't stop there. Neil says that at MSNZ's request PHARMAC was also prepared to fund a day-long meeting of MSNZ field workers, to help them prepare for the introduction of the two new medicines. And PHARMAC also attended the MSNZ annual meeting in Christchurch in October 2014, along with representatives of all 18 MS societies from throughout New Zealand.

MSNZ still has some issues with PHARMAC, but overall sees that PHARMAC is committed to a positive working relationship, he says.

"We've gone from being quite frustrated to a place where we feel like we can call on PHARMAC on a regular basis. We now have some personal contacts in PHARMAC if there were specific things we wanted to discuss.

"I'd encourage other organisations to have and to maintain the sort of relationship we now have with PHARMAC."

Neil Woodhams was appointed to PHARMAC's Consumer Advisory Committee from 1 August 2015.

PROFILES

BRYAN BETTY

Deputy Medical Director Primary Care

It's important for PHARMAC to stay in touch with developments in clinical practice, and that's exactly what Bryan Betty's role seeks to achieve.

Dr Betty joined PHARMAC in 2015 as Deputy Medical Director Primary Care. It's an important link keeping PHARMAC in touch with issues in primary care.

PHARMAC shares Dr Betty with his job as a GP practicing in the Porirua suburb of Cannons Creek. It's a busy practice in one of Wellington's most deprived communities, a place where Dr Betty stays grounded and motivated.

"Equity and equity issues and things like access to healthcare for all people have been big motivators through my career."

A graduate of Otago University Medical School, Dr Betty's interest in the needs of deprived communities developed during his time practicing in a small mining community in South Australia.

Returning to New Zealand, he saw even greater need across the country.

"You get into these issues facing deprived communities – respiratory illness, high levels of heart disease, and particularly diabetes. When I started practicing in Cannons Creek I saw that we have this huge clinical tsunami hitting the nation at pace. If a Pacific man can have a 50 percent chance of developing diabetes in his lifetime, that's a huge issue for New Zealand."

He joined PHARMAC because it shares his interest in equity and broad access to care, so there's a natural synergy.

Dr Betty describes his role as having three parts – external relations with the primary care community; making sure primary care issues are thought about within PHARMAC; and providing a clinical eye over operational decisions.

Both he and Medical Director John Wyeth continue to practice, something Dr Betty thinks is essential for the role.

"It's really important to have someone at PHARMAC maintaining on-the-ground clinical practice. It helps the organisation to understand what is really happening and is very important for our credibility."

Outside of practicing medicine, Dr Betty has also run a corporate improvisational theatre company in Australia, that ended up morphing into a company working with pharmaceutical companies.

"It gave me a huge insight into those companies and how they operate, how they develop and deliver messages that resonate with doctors. It was a great insight into seeing how marketing works from the other side."

THERAPEUTIC GROUP SUMMARIES

MENTAL HEALTH

- Rivastigmine patches – a newly funded treatment for dementia
- Brand changes for a number of antipsychotic medicines

Dementia

A new formulation of treatment for dementia, rivastigmine patches, became funded from 1 November 2014. One treatment is already funded specifically for dementia, donepezil, which is a tablet patients swallow. Rivastigmine is in the same class of treatments as donepezil but the patches deliver the medicine through a patch that sticks on the skin, so it provides a different route of administration for people who experience gastrointestinal side effects from swallowing donepezil pills.

In PHARMAC's clinical advisors' view, if people have trouble tolerating the gastrointestinal side effects donepezil tablets, they would likely have similar trouble taking other oral Alzheimer's treatments, so a patch would be a useful treatment alternative.

PHARMAC estimates that about 1400 people will use rivastigmine patches over five years.

Antipsychotic medicines

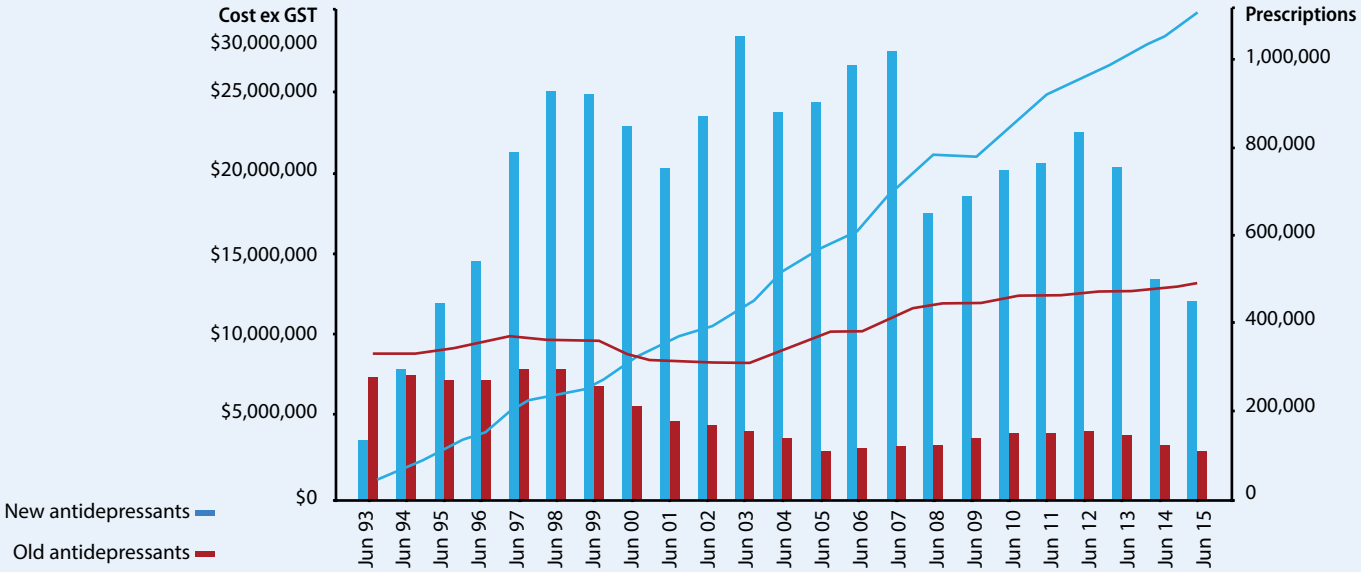
A number of antipsychotic medicines changed to sole subsidised supply during the year. This means that instead of having several funded brands of the same medicine, there is only one funded brand for each medicine. The medicines that changed to sole subsidised supply were olanzapine tablets, olanzapine orodispersible tablets, quetiapine tablets and risperidone oral liquid. PHARMAC consulted publicly and received a wide range of clinical advice before making these changes. These changes are expected to save approximately $10 million over the sole supply periods (to 30 June 2017). These savings can be used to fund other medicines.

Antidepressant prescribing

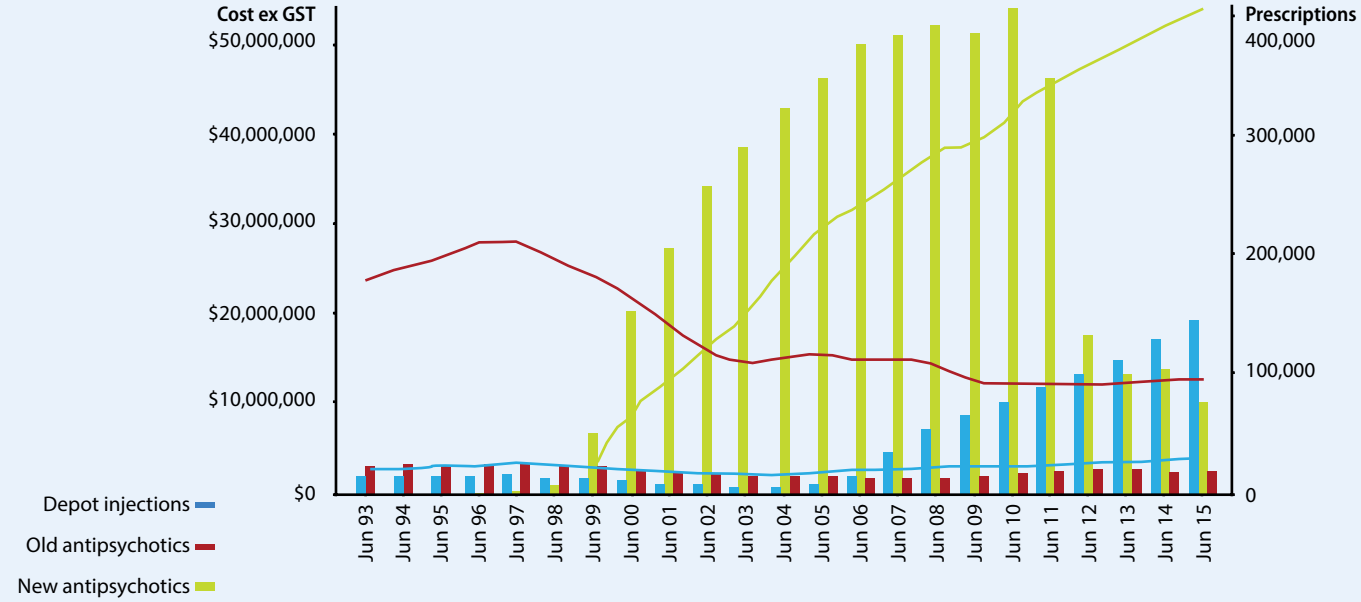
PHARMAC has a role in ensuring the responsible use of medicines. On a regular basis, PHARMAC provides information on medicine usage to the Mental Health Subcommittee of PTAC, a clinical advisory committee made up of doctors specialising in treating mental health disorders. The data provided to the Subcommittee shows the pattern of antidepressant and antipsychotic prescribing.

As part of its role, PHARMAC contracts with a third party to distribute medicine information to doctors via a hard copy journal publication and online resources. The information is on the best practice in healthcare treatments, and focuses on appropriate circumstances for diagnosing and prescribing. Reports of individual prescriber behaviour against sector norms are also available.

Antidepressants



Antipsychotics



THERAPEUTIC GROUP SUMMARIES

RHEUMATOLOGY

Main changes

- Price changes for etanercept and adalimumab

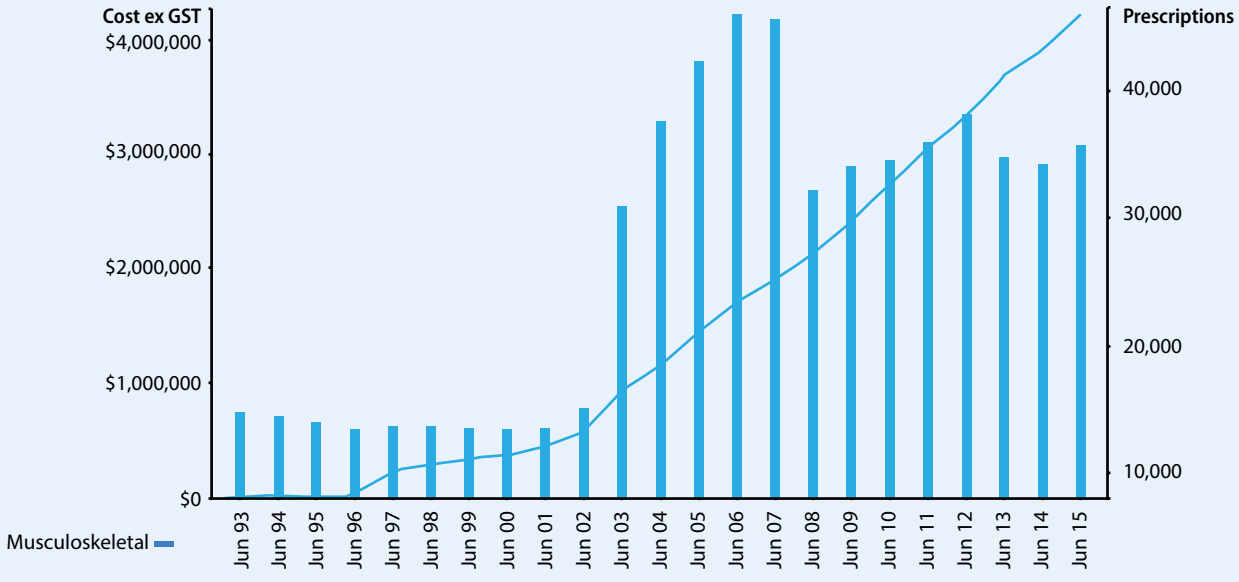
TNF-inhibitors

PHARMAC has created significant savings in the market for two of New Zealand's most costly medicines. Adalimumab (Humira) and etanercept (Enbrel) are biologic medicines used to treat a number of autoimmune and immune-mediated conditions, including rheumatoid arthritis. With current annual expenditure on TNF inhibitors in excess of $80 million, there was significant potential to secure lower valuable savings for these medicines.

PHARMAC has promoted competition in this market to successfully generate savings of more than $20 million over 5 years.

Promoting competition is a central philosophy to PHARMAC's activity and this was key in achieving these price reductions. The savings can be reinvested into funding of other medicines.

Antirheumatoid agents



AVERAGE DAILY COSTS OF RHEUMATOLOGY TREATMENTS IN 2015

*The average daily costs are based on the rheumatoid arthritis indications from the Medsafe datasheets.

THERAPEUTIC GROUP SUMMARIES

BLOOD AND BLOOD FORMING ORGANS

Main changes

- Changes to the funding of haemophilia treatments

Haemophilia treatments

PHARMAC has budget management responsibilities for the recombinant factors currently listed in the Pharmaceutical Schedule including VIIa (rFVIIa), VIII (rFVIII) and IX (rFIX) and factor eight inhibitor bypassing agent.

From 1 September 2015, PHARMAC began implementing changes to the way brands of rFVIII are funded so these treatments can continue to be available for people that need them. As the result of a competitive process run by PHARMAC, Xyntha became the preferred brand of rFVIII. The other two brands will continue to be funded for people, via application to a Haemophilia Treatments Panel administered by PHARMAC.

There are about 600 people in New Zealand with haemophilia. About 230 of them use Factor VIII each year and around half of these people may be required to participate in a clinician-managed brand change. PHARMAC is working with the New Zealand Haemophilia Treaters Group, haemophilia treatment centres, the Haemophilia Foundation and pharmaceutical suppliers to ensure adequate support and resources are in place for clinicians, patients and their families during the change.

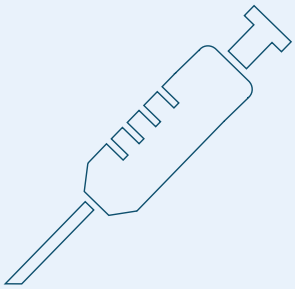
This approach is similar to those used in other countries, including the UK and Australia. However it is the first time such a brand change has taken place in New Zealand for haemophilia treatments.

In the year prior to this change, approximately $25 million was spent on recombinant haemophilia treatments in New Zealand, including $18 million on Factor VIII. The substantial savings that will be achieved will be reinvested by PHARMAC in funding of new medicines or widening access of already funded medicines.

VACCINES

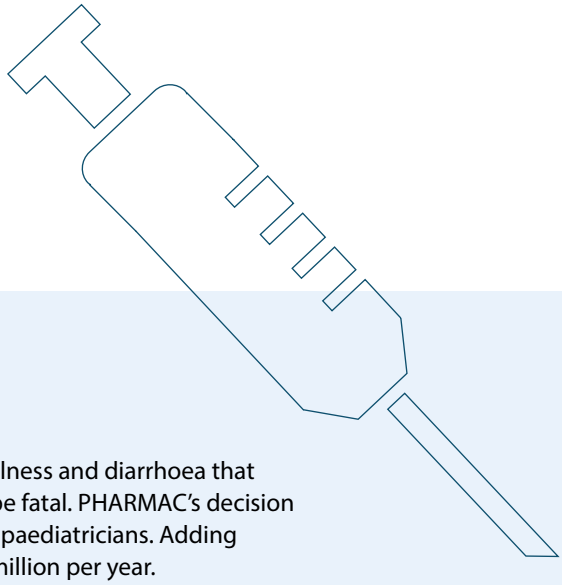
Main changes

- Varicella vaccine – a newly funded vaccine for immune compromised people and some household contacts.
- Rotavirus vaccine - a newly funded vaccine to protect children from a serious from a serious gastric infection.
- Hepatitis A vaccine – widened funded access to prevent hepatitis A in high-risk patients
- Meningococcal C vaccine – a newly funded vaccine to prevent meningococcal C in high-risk patients



Varicella and rotavirus vaccines

From 1 July 2014, the rotavirus and varicella vaccines were added to the national immunisation schedule, and access was widened to other vaccines listed on the schedule.



Rotavirus is a gastric infection mainly affecting children, causing illness and diarrhoea that can lead to hospital admission. In severe cases, the infection can be fatal. PHARMAC's decision recognised that a universally funded vaccine had been sought by paediatricians. Adding rotavirus to the immunisation schedule is estimated to cost $6.3 million per year.

As well as reducing the risk of rotavirus infection for children and parents, the immunisation programme is likely to reduce demand for acute admissions to hospitals.

PHARMAC estimates that, nationwide, up to 1200 hospital admissions per year could be avoided through rotavirus vaccination.

The rotavirus vaccine is given while babies are very young – within the first eight months – and is an oral liquid that is easily administered to infants.

Varicella (chickenpox) vaccine also became funded from 1 July 2014, to protect the most at-risk patients – children with reduced immune systems (for example, because of chemotherapy). It is also funded for people in direct contact with these children, a practice known as `cocooning'.

The previous pneumococcal conjugate vaccine, Synflorix, has been replaced by Prevenar 13 for all eligible patients. Prevenar 13 offers protection against an additional three strains of invasive pneumococcal disease over its predecessor.

Meningococcal C and HPV vaccines

PHARMAC follows a robust process involving clinical advice and assessment prior to making its funding decisions. The Immunisation Subcommittee of the Pharmacological and Therapeutic Advisory Committee (PTAC) has discussed universal immunisation against meningococcal C disease several times and recommended funding for several high risk groups. This recommendation resulted in a conjugated meningococcal C vaccine and a conjugated quadrivalent meningococcal A,C,Y,W-135 vaccine being funded from 1 July 2014 for at-risk patients and close contacts of meningococcal cases. The Subcommittee has also recommended further analysis be undertaken on an initial universal vaccination at 12 years for meningococcal C plus an additional dose.

Human papillomavirus (HPV) vaccine (Gardasil) is fully funded for girls in New Zealand. While the Gardasil vaccine can be given to both males and females, its main benefit is the prevention of cervical cancer in women. Almost all (99 percent) cervical cancer is caused by HPV infection. Additionally, Gardasil does offer herd immunity. Herd immunity occurs when the vaccination of a significant proportion of people provides a measure of protection for individuals who have not been vaccinated.

PHARMAC initiated an application for funding HPV vaccination in males and has sought clinical advice from PTAC and its Immunisation Subcommittee. PTAC made a positive recommendation for funding with high priority for some groups of males, and with low priority for all males.

While PHARMAC is unable to provide a definitive timeframe on if or when a positive funding decision may be made in relation to these vaccines, the option of investing in them remains under consideration.

Influenza vaccine

For the third year in a row, more than 1.2 million doses of influenza vaccine were distributed across the country, reaching the Government immunisation target.estimated to cover approximately 27 percent of the population.

THERAPEUTIC GROUP SUMMARIES

RESPIRATORY

Main changes

- Glycopyrronium – a newly funded treatment for chronic obstructive pulmonary disease
- Indacaterol - a newly funded treatment for chronic obstructive pulmonary disorder
- Omalizumab – a newly funded treatment for severe allergic asthma
- Tobramycin – a newly funded inhalation for cystic fibrosis

Four new treatments for respiratory conditions became funded from 1 November 2014. These included two medicines, glycopyrronium and indacaterol for chronic obstructive pulmonary disease (COPD), omalizumab for severe allergic asthma, and an inhalation form of the antibiotic tobramycin for cystic fibrosis.

Omalizumab is a new generation treatment for asthma. It's an injection that's shown to be particularly effective in allergic asthma, and would likely help patients with the most severe forms better control their symptoms and avoid regular hospital treatment. About 180 patients over five years are likely to use funded omalizumab.

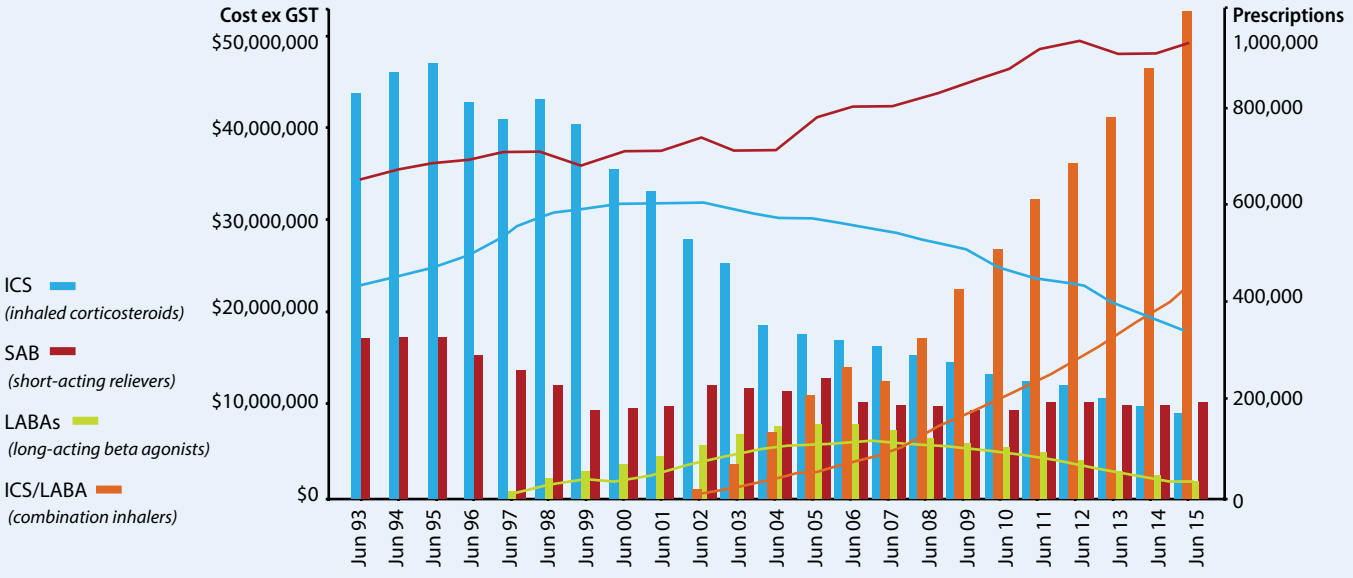
Previously, only one medicine – tiotropium – was funded specifically for COPD. Having two further funded medicines specifically registered for the treatment of COPD symptoms provides greater choice for clinicians and patients to tailor their treatment.

PHARMAC estimates about 10,000 patients could benefit from these new COPD medicines over five years.

The inhalation form of tobramycin contains no preservatives and is specifically formulated for inhalation, which makes it more suitable for patients.

All of the medicines were funded as part of the multi-product agreement with pharmaceutical company Novartis mentioned on page 19.

Asthma



CARDIOVASCULAR

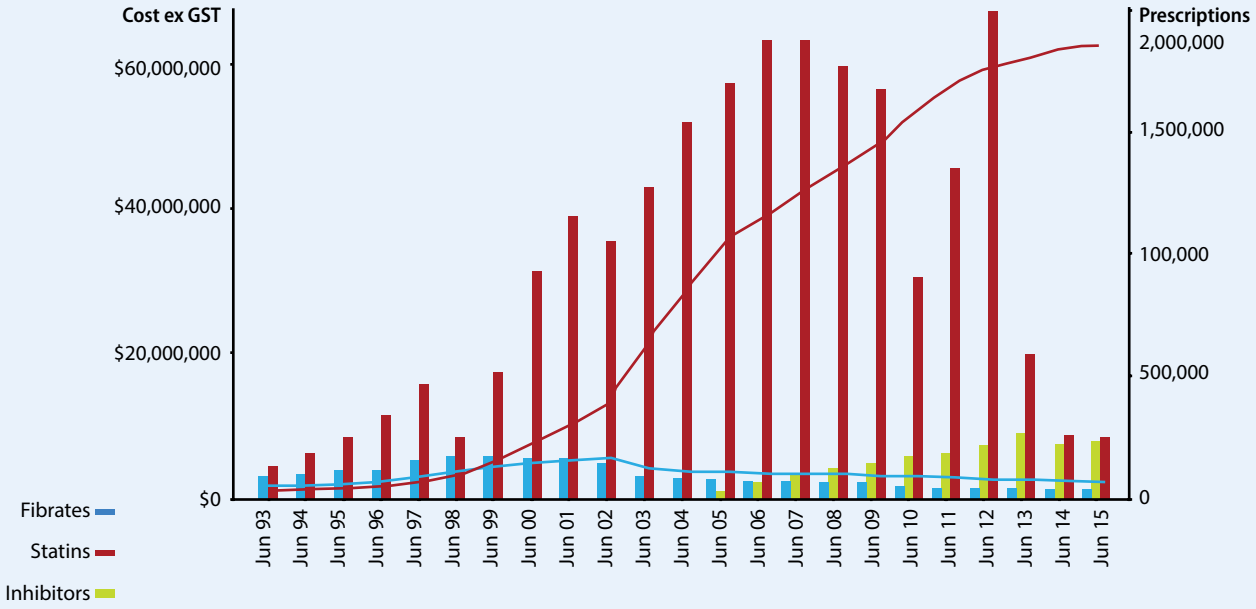
Main changes

- Midodrine – funded access widened to included treatment for orthostatic hypotension (low blood pressure)
- Nicorandil – funded access widened to include angina treatment
- Perhexilene maleate – funded access widened to include angina treatment
- Glyceryl trinitrate – new presentation for treatment of angina

From 1 October 2014, funded access for two treatments – nicorandil and perhexilene maleate – was widened to include treatment for angina. Additionally, a new presentation of glyceryl trinitrate oral spray (Nitrolingual Pump Spray) became funded for angina from 1 May 2015. A different brand of glyceryl trinitrate (Glytrin) was already funded however; the two brands offer different usability features. As it is used to treat angina attacks, people are able to choose the brand which best suits their needs for use in the event of an attack.

Statins are a group of medicines typically prescribed to treat high cholesterol. High cholesterol is associated with cardiovascular disease. Statins continue to be a highly prescribed group of medicines in New Zealand, with more than 2 million funded prescriptions.

Cholesterol management



THERAPEUTIC GROUP SUMMARIES

INFECTIONS

Main changes

- Changes to anti-infective access restrictions in DHB hospitals
- Ceftaroline fosamil – new treatment for use in DHB hospitals

PHARMAC acknowledges concerns over antibiotic resistance and has been taking steps to protect the effectiveness of currently funded antibiotic treatments. PHARMAC has placed prescribing restrictions on approximately 90% of the funded antimicrobial medicines in public hospitals. This means funded access to these medicines is restricted to specific specialists (such as clinical microbiologists or infectious disease specialists). These restrictions were put in place to help reduce over-prescribing of antibiotics. PHARMAC is continuing this work in relation to antibiotics used in the community.

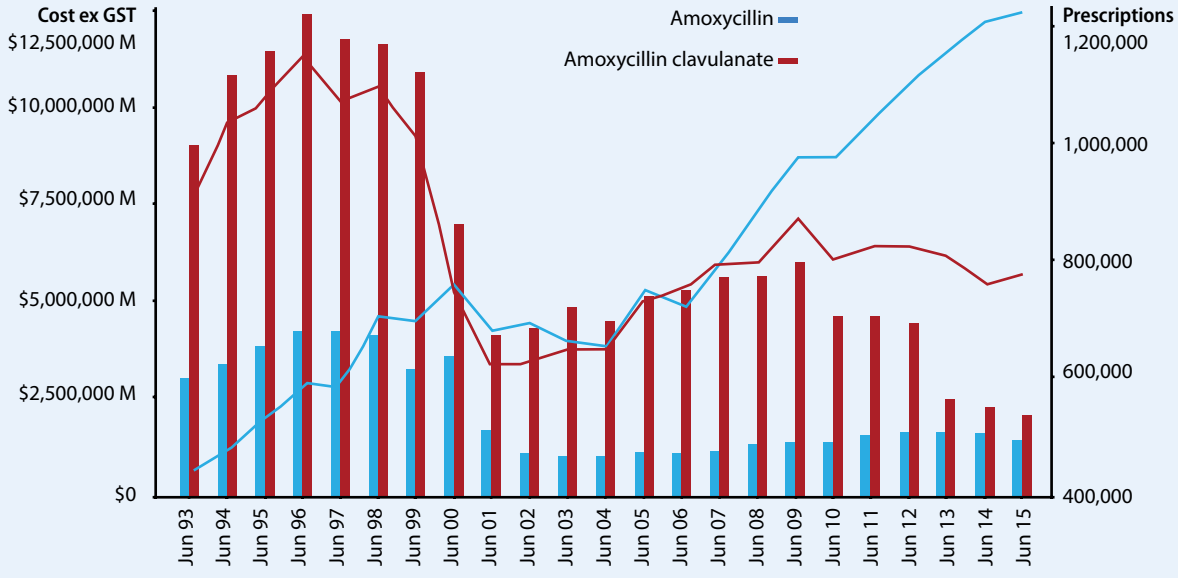
PHARMAC works closely with the Ministry of Health, Environmental Science and Research (ESR) and other stakeholders in the infectious disease area to support antibiotic stewardship.

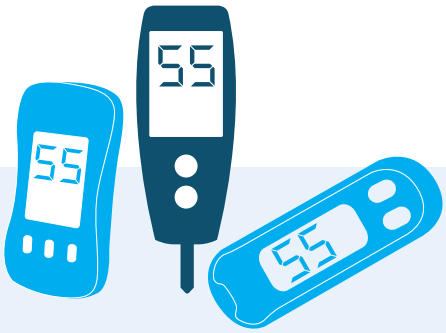
Ceftaroline fosamil

From 1 November 2014, PHARMAC added ceftaroline fosamil to the list of medicines funded in DHB hospitals to strengthen their options to defend against multi-resistant bacterial infections. Ceftaroline is a fifth-generation cephalosporin, an updated version of a long line of effective anti-bacterials. It is particularly targeted at people exposed to multi-resistant strains of bacterial infections, more commonly referred to as `superbugs'.

The addition of this medicine continues our work in ensuring clinicians have access to effective pharmaceutical tools to deal with multi-resistant bacteria.

Antibiotics





DIABETES

Main changes

- Insulin pumps and consumables – funded access widened to include cystic-fibrosis related diabetes

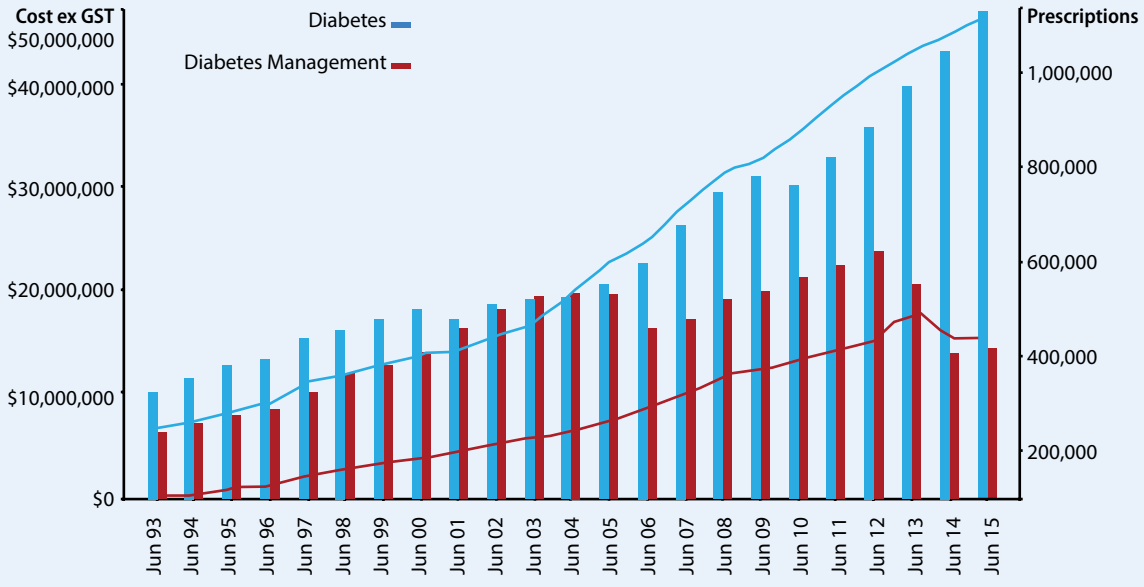
The CareSens brand of blood glucose meters and test strips became the sole subsidised brand from 1 March 2013. The sole supply contract for the CareSens brand ended on 30 June 2015. In light of this, PHARMAC began public consultation on the future funding approach to blood glucose meters and test strips, in March 2015. PHARMAC received 313 individual responses to the consultation from consumers, consumer groups, health professionals and suppliers of blood glucose meters and test strips. These provided input into PHARMAC's thinking around the future funding of blood glucose meters.

Following this consultation, PHARMAC began its procurement process by seeking Expressions of Interest (EOI) from suppliers of meters and test strips. This enables suppliers to let PHARMAC know they are interested in having their products funded in the future.

With the closure of the EOI, laboratory testing and initial end-user testing will follow as part of PHARMAC's first stage evaluation of the diabetes management products.

Until any decisions are made, the CareSens brand of meters and test strips will continue to be funded.

Diabetes



PHARMAC DIRECTORY

The PHARMAC Board

Chair

Stuart McLauchlan BCom, FCA(PP), AF InstD

Board Members

Nicole Anderson DipAcc, DipBus, DipMgt, PGDPH

Dr David W Kerr MBChB, FRNZCGP (Dist), FNZMA

Prof Jens Mueller JurDr, LLM, MBA, MSAM

Dr Jan White MBBS, MHP, FRACMA, FNZIM

PHARMAC's Senior Leadership Team

(L to R) Jude Urlich, Mark Woodard, Dr John Wyeth, Steffan Crausaz, Sarah Fitt.

Chief Executive

Steffan Crausaz *BPharm, MSc, MRPharmS*

Steffan trained as a pharmacist in the UK, and worked in the pharmaceutical industry (branded and generic) while undertaking his Masters in pharmacoeconomics and pharmaceutical policy. He joined PHARMAC in 2003, led PHARMAC's commercial and health technology assessment activities as Manager of Funding and Procurement before taking up the Chief Executive position in an interim capacity in 2011. He was appointed Chief Executive in July 2012.

Director of Operations

Sarah Fitt *BPharm, Dip Mgt*

Sarah joined the PHARMAC leadership team in April 2013. Sarah brings a breadth of experience and sector knowledge to PHARMAC having spent 12 years as Chief Pharmacist at Auckland DHB. As Director of Operations, Sarah oversees the team that manages medicines and medical devices procurement, PHARMAC's funding process and the health economics team.

Director of Engagement and Implementation

Jude Urlich *MPP(Dist), BA, DipBsStd(PR), APR*

With a background in the state sector and in running her own consultancy, Jude brings a wide range of organisational experience to PHARMAC's senior leadership team. She has worked extensively in public affairs, communications and social marketing, and held functional leadership roles in the public service, tertiary education and wider state sector. Since joining PHARMAC in early 2010, Jude has managed corporate services and external relations activities. The Engagement and Implementation Directorate includes the Policy, Communications, Implementation and Māori Responsiveness Teams.

Director of Corporate Services/CFO

Mark Woodard *BA, MBA*

Mark joined PHARMAC in 2014, to lead the Corporate Services directorate. Mark's career has included time as CEO of Presbyterian Support and he has also been CFO for various organisations including in the health sector. He has an MBA from Wharton and a BA from Cornell University in the United States. As Director of Corporate Services/CFO, Mark oversees the Legal, Finance, Analysis, Human Resources, Information Communications Technology, and Business Services Teams.

Medical Director

Dr John Wyeth M*BChB, MD, FRACP, FRCP (London)*

John was appointed Medical Director in 2013, and leads the team that provides clinical input to PHARMAC, including through the Pharmacology and Therapeutics Advisory Committee. The team interacts with clinicians across both the primary and secondary care sectors. He joined PHARMAC in 2012 as a deputy medical director with particular responsibility for secondary care, leading PHARMAC's clinical interactions around hospital medicines and hospital medical devices.

PHARMAC's Advisory Committees

Pharmacology and Therapeutics Advisory Committee (PTAC)

Chair

Sisira Jayathissa (Chair) MMedSc (Clin Epi) MBBS, MD, MRCP (UK), FRCP (Edin), FRACP, FAFPHM, Dip Clin Epi, Dip OHP, Dip HSM, MBS

Deputy Chair – vacant at present

Melissa Copland PhD, BPharm(Hons), FNZCP, MCAPA, MPS, PharmReg

Stuart Dalziel MBChB, PhD, FRACP

Sean Hanna MBChB, FRNZCGP, FRACGP, PGDipGP (Dist), PGCertClinEd

Ian Hosford MBChB, FRANZCP, psychiatrist

George Laking MD, PhD, FRACP

Graham Mills MBChB, MTropHlth, MD, FRACP

Mark Weatherall BA, MBChB, MApplStats, FRACP

Marius Rademaker MRCP (UK), JCHMT,DM,FRCP, FRACP

Jane Thomas MBCHB, FANZCA, FFPMANZCA, MMed (Pain Mgt) University of Sydney

PTAC Sub-committees

Analgesic

Dr Jane Thomas (PTAC, Chair, paediatric anaesthetist), Dr Rick Acland (rehabilitation specialist), Dr Jonathan Adler (SMO palliative medicine), Prof Brian Anderson (paediatric anaesthetist/intensivist), Dr Kieran Davis (anaesthetist), Dr Bruce Foggo (palliative medicine consultant), Dr Ian Hosford (psychogeriatrician), 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 (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 Sisira Jayathissa (PTAC, Chair, physician), Dr Scott Babington (radiation oncologist), Dr Peter Ganly (haematologist), Dr Vernon Harvey (oncologist), Dr Tim Hawkins (haematologist), Dr George Laking (PTAC, oncologist), Dr Anne O'Donnell (oncologist), Dr Robert Strother (medical oncologist), Dr Lochie Teague (paediatric haematologist/oncologist).

Cardiovascular

Prof Jennifer Martin (PTAC, Chair, clinical pharmacologist), Dr John Elliott (cardiologist), Dr Richard Medlicott (general practitioner), Dr Clare O'Donnell (paediatric congenital cardiologist), Dr Mark Simmonds (cardiologist), Dr Martin Stiles (cardiologist), Assoc. Prof Mark Weatherall (PTAC, geriatrician), Prof Mark Webster (consultant cardiologist).

Dermatology

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

Diabetes

Dr George Laking (PTAC, Chair, oncologist), Dr Nick Crook (diabetologist), Dr Graham Mills (infectious disease physician), Dr Peter Moore (diabetologist), Dr Brandon Orr-Walker (endocrinologist), Dr Bruce Small (general practitioner), Ms Kate Smallman (diabetes nurse specialist/ prescriber), Dr Esko Wiltshire (paediatric endocrinologist).

Endocrinology

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

Gastrointestinal

Dr Sean Hanna (PTAC, Chair, general practitioner), Prof Murray Barclay (gastroenterologist, clinical pharmacologist), Dr Simon Chin (paediatric gastroenterologist), Assoc Prof Alan Fraser (gastroenterologist), Dr Ian Hosford (psychogeriatrician), Dr Russell Walmsley (gastroenterologist).

Haematology

Assoc Prof Mark Weatherall (PTAC, Chair, geriatrician), Assoc 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 Tim Blackmore (infectious diseases specialist/microbiologist), Dr Cameron Grant (assoc prof in paediatrics), Dr Sean Hanna (PTAC, general practitioner), Prof Karen Hoare (nurse practitioner), Dr Caroline McElnay (general practitioner), Dr David Murdoch (Head of Pathology), Dr Patricia Priest (epidemiologist), Dr Gary Reynolds (general practitioner), Dr Nikki Turner (Director of Immunisation), Dr Tony Walls (paediatric infectious diseases specialist), Dr Elizabeth Wilson (paediatric infectious diseases specialist).

Mental health

Dr Sean Hanna (PTAC, Chair, general practitioner), Dr Matthew Eggleston (paediatric psychiatrist), Dr Ian Hosford (psychogeriatrician), Dr Verity Humberstone (psychiatrist), Dr Gavin Lobo (general practitioner), Dr David Menkes (psychiatrist).

Nephrology

Dr Jane Thomas (PTAC, Chair, paediatric anaesthetist), Assoc. Prof. John Collins (renal physician), Dr Malcolm Dyer (general practitioner), Dr Tonya Kara (renal paediatrician), Assoc Prof. Helen Pilmore (renal physician), Dr Richard Robson (nephrologist), Dr William Wong (paediatric nephrologist).

Neurological

Assoc Prof Mark Weatherall (PTAC, Chair, geriatrician), Dr John Fink (neurologist), Dr Richard Hornabrook (general practitioner), Dr Ian Hosford (psychogeriatrician), Dr Jim Lello (general practitioner), Dr John Mottershead (neurologist), Dr Ian Rosemergy (neurologist), Dr Jane Thomas (paediatric anaesthetist), Dr Paul Timmings (neurologist).

Ophthalmology

Dr Marius Rademaker (PTAC, Chair, dermatologist), Dr Rose Dodd (general practitioner), Mr Peter Grimmer (optometrist), Dr Steve Guest (vitreoretinal surgeon), Dr Malcolm McKellar (ophthalmologist), Dr Joanne Sims (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 McLure (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), Dr Michael Corkill (rheumatologist), Dr Andrew Harrison (rheumatologist), Sisira Jayathissa (physician), 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), Kim Herbison (paediatric dietician), Dr Alan Jenner (geriatrician), Kerry McIlroy (charge dietician), Dr Jan Sinclair (paediatric allergy and clinical immunologist), Moira Styles (community dietician), Dr Russell Walmsley (gastroenterologist), Victoria Woollett (community dietician).

Tender medical

Dr Graham Mills (PTAC, Chair, infectious disease physician), William (Billy) Allan (pharmacist), Dr Melissa Copland (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), Lorraine Welman (chief pharmacist/President NZHPA).

Transplant Immunosuppressant

Dr Marius Rademaker (PTAC, Chair, dermatologist), Dr Priscilla Campbell-Stokes (paediatrician and paediatric rheumatologist), Dr Peter Ganly (haematologist), Dr Tanya McWilliams (respiratory physician), Dr Stephen Munn (transplant surgeon), Dr Richard Robson (Executive Director, Christchurch Clinical Studies Trust), Dr Peter Ruygrok (cardiologist).

Consumer Advisory Committee (CAC)

Chair

Kate Russell – Chief Executive Canterbury Medical Research Foundation, Christchurch (until July 2015).

Deputy Chair

Shane Bradbrook – tobacco control advocate, Wellington.

Members

Stephanie Clare – National clinical leader, Parkinson's NZ (appointed from August 2015)

Key Frost – mental health advocate, Invercargill

Maurice Gianotti – retired, Taupo (until July 2015).

Barbara Greer – psychiatric nurse, life member Māori Women's Welfare League, Hokitika.

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

Katerina Pihera – member of the Māori Public Health Leadership Group, Lakes DHB, Rotorua.

Tuiloma Lina Samu – health researcher, Auckland

Adrienne von Tunzelmann – Board member Age Concern NZ and Osteoporosis NZ (appointed from August 2015)

Neil Woodhams – vice president, Multiple Sclerosis NZ (appointed from August 2015)

Panels

NPPA

Dr Howard Wilson (Chair, general practitioner/ pharmacologist), Dr Andrew Herbert (consultant gastroenterologist), Dr Sharon Kletchko (specialist physician), Dr George Laking (oncologist), Prof Carl Burgess (Professor of Medicine/pharmacologist), Dr Christina Cameron (general physician/pharmacologist), Dr Rachel Webb (paediatric infectious disease physician)

Cystic Fibrosis Advisory Panel

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

Gaucher Treatment Panel

Dr Ian Hosford (Chair, psychiatrist), Dr Timothy Hawkins (haematologist), Dr Callum Wilson (metabolic consultant), Dr Mark Coates (radiologist).

Insulin Pump Panel

Dr George Laking (Chair, oncologist), Dr Nic Crook (consultant endocrinologist), Bridget Lydon (clinical nurse specialist – diabetes), Jenny Rayns (diabetes nurse specialist), Dr Janet Titchener (clinical director – GPSI Diabetes).

Multiple Sclerosis Treatment Assessment Committee

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

Pulmonary Arterial Hypertension Panel

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

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