PHARMAC

Pharmaceutical Management Agency Ltd

Annual Review 2000

for the year ended 30 June

PHARMAC

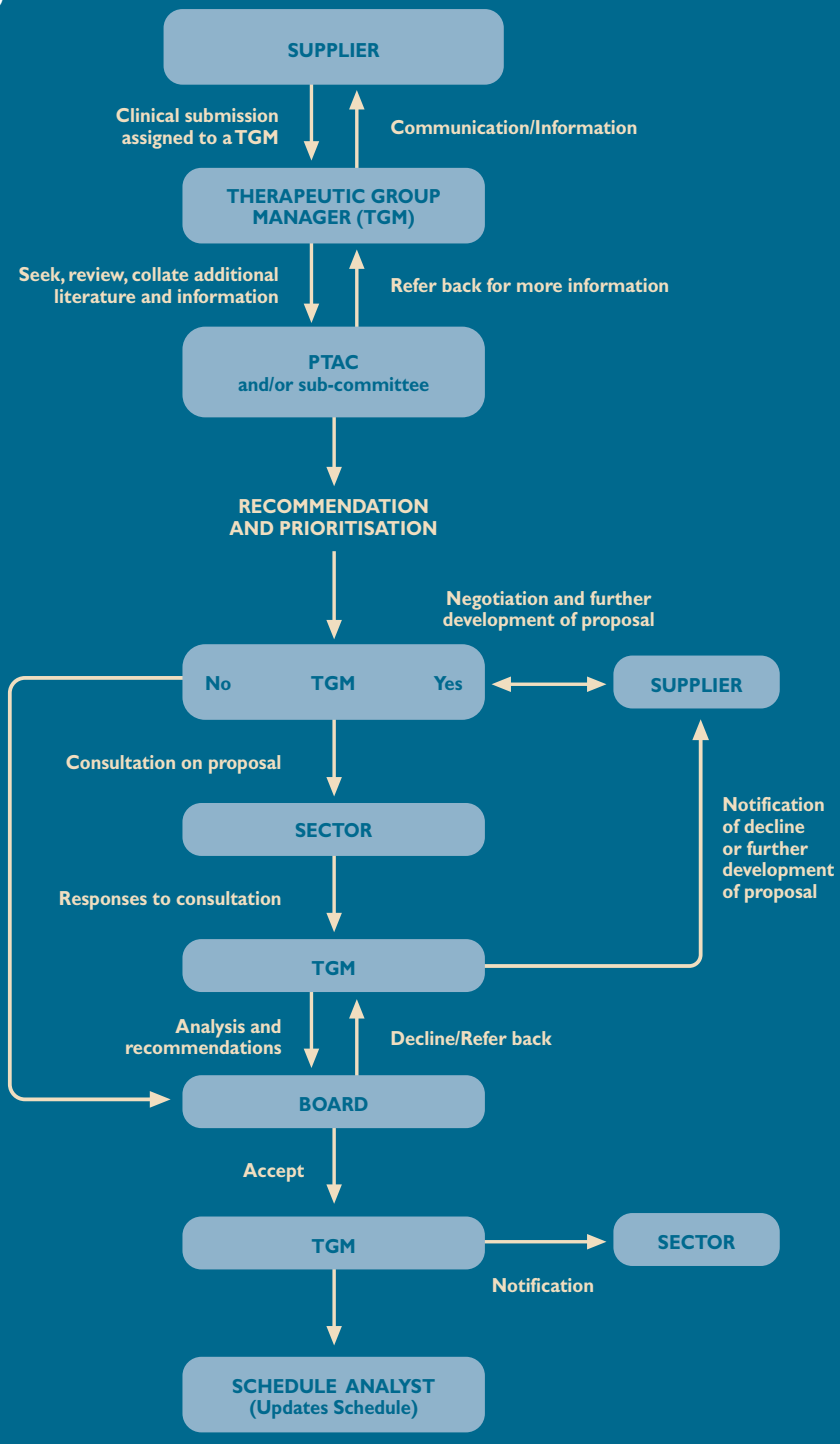
(the Pharmaceutical Management Agency Ltd) is a not-for-profit company owned by the Health Funding Authority (HFA). Its role is to manage the national Pharmaceutical Schedule on behalf of the HFA. The Schedule is a list, updated monthly, and reprinted three times a year, of over 3,000 subsidised prescription drugs and related products available in New Zealand.

The Schedule also records the price of each drug, the subsidy it receives from public funds and the guidelines or conditions under which it may be funded.

The PHARMAC Board makes the final decisions on subsidy levels and prescribing criteria and conditions with independent advice from medical experts on the Pharmacology and Therapeutics Advisory Committee (PTAC) and advice from its specialist sub-committees, and PHARMAC's managers and analysts.

In all its decisions PHARMAC seeks to balance out the needs of patients for equitable access to healthcare with the needs of taxpayers for responsible management of the costs they ultimately bear.

Process for listing a new pharmaceutical on the Pharmaceutical Schedule



The process set out in the diagram above is intended to be indicative of the process that may follow where a supplier wishes to list a new pharmaceutical on the Pharmaceutical Schedule. PHARMAC may, at its discretion, adopt a different process or variations of this process.

Inside

In this Review:

- *"Year" means year ending 30 June. For example: "this year" means the year ended 30 June 2000; "last year" means the year ended 30 June 1999, "next year" means the year ended 30 June 2001.*
- *Unless otherwise stated all values are in New Zealand dollars.*
- *Unless otherwise stated all references to expenditure are unadjusted for any rebates that may be due or paid by suppliers under risk sharing agreements.*

Highlights of 1999/00

We were pleased...

- to re-invest around $20 million of this year's savings in new pharmaceuticals
- by the impact of generic competition on large volume, high expenditure pharmaceuticals including co-amoxyclav, fluoxetine hydrochloride and isotretinoin
- with the direct effects of tendering and its spin-offs including multi-product proposals which contributed to this year's savings of $26.6 million
- PHARMAC has improved access to atypical anti-psychotic agents resulting in the number of patients exceeding Ministry of Health targets for the first time
- to demonstrate the positive effect of the antibiotic campaign on prescribing trends

…in the meantime…

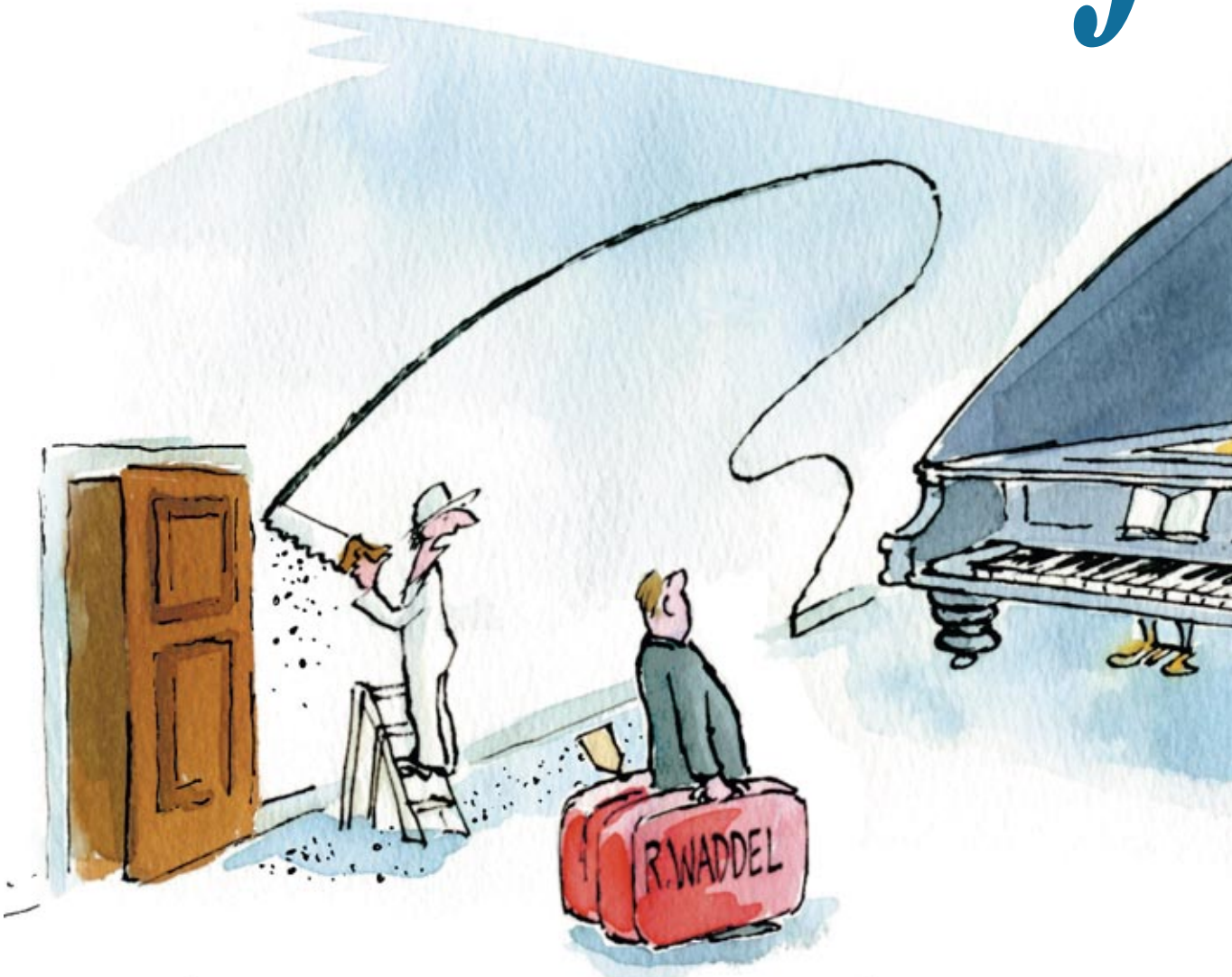
- we updated the Operating Policies and Procedures (OPP)
- our contracts withstood challenges from suppliers

…but it was a pity…

- we were unable to obtain full pharmaceutical industry participation in our OPP review

The end of

Departing PHARMAC Chairman reflects on his seven years on PHARMAC's Board of Directors.



"JUST ONE MORE THING TO SHIFT, MR WADDEL AND THE PLACE IS ALL YOURS"

an era

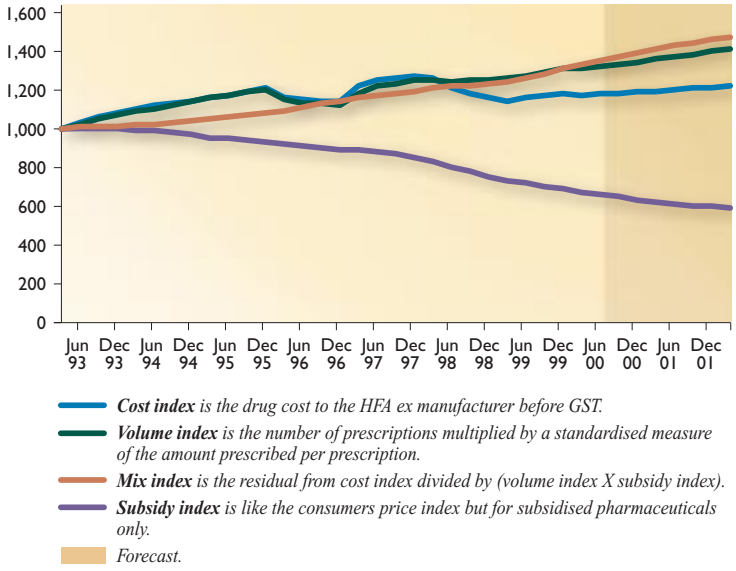
Perhaps it is something that comes with age and experience, but sometimes one looks back over what seems like years of total turbulence, only to realise some things are still the same. In my semi-retirement, I accepted a one-year appointment as Chairman of the PHARMAC Board, and it lasted seven years. PHARMAC's on-going battle to manage the Government's pharmaceutical spending has kept me busy during that time – the expectation my role would consume only a few hours each week was certainly short lived. It's satisfying, however, to look back over PHARMAC's achievements, which are the result of perseverance and consistent performance.

Reflections

The health sector is one thing that has provided plenty of change, with its constant restructuring. PHARMAC has operated under no less than six Ministers and three different Governments. Since its inception, PHARMAC has been owned jointly by the Regional Health Authorities (RHA), then solely by the Transitional Health Authority (THA) and then by the Health Funding Authority (HFA). Change is now again in the wind. In addition, PHARMAC has faced challenge after challenge – court cases brought by the pharmaceutical industry have been fought and won, unsuccessful media campaigns have been waged against us and PHARMAC's strategies have taken root amidst, at times, strong opposition. PHARMAC has undergone management changes and, in the last year, physical relocation. Yet, looking back, three significant factors have remained constant – PHARMAC's complete focus on its original objectives of managing the Government's pharmaceutical expenditure, multi-lateral political support for our work and the pharmaceutical industry's stance in opposing PHARMAC's strategies.

Subsidy, volume, mix and cost indices

Four-quarterly moving averages
Base: four quarters ending June 1993 = 1,000.



***Cost index** is the drug cost to the HFA ex manufacturer before GST.*

***Volume index** is the number of prescriptions multiplied by a standardised measure of the amount prescribed per prescription.*

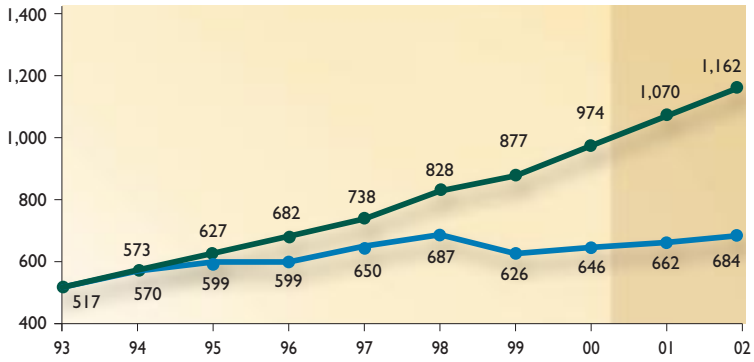
***Mix index** is the residual from cost index divided by (volume index X subsidy index).*

***Subsidy index** is like the consumers price index but for subsidised pharmaceuticals only.*

Forecast.

Effect of PHARMAC interventions

Total subsidised, non-hospital-funded, drug cost in $ millions (excluding GST), including distribution and dispensing fees, 30 June years.



Estimated expenditure without PHARMAC intervention

Actual and forecast expenditure with PHARMAC interventions only

Forecast.

Without PHARMAC interventions the drug subsidy bill this year would have been $328 million higher, rising to $408 million higher next year.

Taking up the challenge

One of the things, which set PHARMAC apart from the private sector companies where I have been a director, is its operating environment. The role of politicians, pressure from the medical profession and the general public plus the constant industry opposition (all so much part of PHARMAC's daily business) were all new to me when I joined. Before PHARMAC was established, drug companies were able to launch approved medicines and the Government paid for them. PHARMAC has certainly made it tougher for the industry, reducing annual expenditure growth of 10% growth per year (when PHARMAC began) to 3% now. With hindsight, it's hardly surprising the drug companies did not like the new environment. At the time, however, the strength of feeling was a bit unexpected. We'd hoped, initially, to avoid contentious issues with the industry but now understand the pressure they are under, from their multi-national owners, to increase their profits.

PHARMAC had about two months of settling in before the companies started exerting pressure. PHARMAC's survival throughout that period was in no small part due to David Moore's ability to rebut credibly and publicly the industry's arguments. The intellectual grunt of the PHARMAC team was, and remains, a huge factor. Once pressure from the drug companies built, and they started litigating, it became increasingly difficult for PHARMAC staff to focus on expenditure management. PHARMAC's perfect record of successes in all eight cases brought by the industry is a testimony to both the drive and determination of the staff and a remarkable endorsement of the quality of their work. Success at the Privy Council in 1998 in the Rulide case was perhaps the most significant confirmation our procedures are correct. More recently, PHARMAC faced a legal challenge to its commercial contracts, which it defended successfully this year.

The May Day campaign launched by the Researched Medicines Industry Association (RMI) in 1997 was a major watershed. After the campaign's failure, many of the major European pharmaceutical companies withdrew from the organisation. The RMI was left in disarray, searching for a new chief executive, and PHARMAC enjoyed a slight reprieve from drug company pressure. More significantly, the campaign opened the eyes of many, particularly the politicians, to the reality of drug company strategies. The courage of those companies, which stepped away from the RMI, must be acknowledged. Stepping aside from their peers, they took enormous risks to deal with us. Not all were clear sighted enough to see the benefits – or else they chose not to act. The RMI is up and running again, focusing on PHARMAC but with a slightly (and only slightly) softened image.

As Chairman, I have observed first hand the *seemingly* reasonable spin put on every issue by the drug companies but which, when scrutinised closely, is shown to be self-serving. Another year of mergers and acquisitions within the pharmaceutical industry illustrates this very point. Once again this year, PHARMAC has been blamed for shrinkage in pharmaceutical company representation in the New Zealand market. Amidst the noisy protests, the international corporate activity of head offices, which has the biggest impact on drug companies in New Zealand, is often completely ignored.

SERVING THE PUBLIC'S INTEREST?

A commercial perspective on the Official Information Act

One of PHARMAC's public law responsibilities is compliance with the Official Information Act 1982 (OIA). The OIA can be a very useful tool for the individual to employ in dealings with the Crown and Crown entities but has been increasingly used for commercial purposes – the pharmaceutical industry is no exception. As the Government's principal buyer of pharmaceuticals, PHARMAC must strike a balance between its OIA obligations and the commercial sensitivities of the industry – a challenge often complicated by the intense secrecy between pharmaceutical companies.

The OIA was established 18 years ago with the intention of promoting an open government. At that time, official information was handled under the Official Secrets Act, under the rule that information should not be disclosed without authorisation. The Danks Committee, which reviewed the workings of the Official Secrets Act, was instructed to make recommendations that would contribute to the aim of freedom of information whilst bearing in mind the need to safeguard national security, the public interest and individual privacy. Public bodies were directed that information should be withheld only if there is good reason for doing so – a reverse of the basis on which official information had previously been handled.

It is the definition of "good reason" that gives rise to issues for organisations like PHARMAC. While the definition may be clear for issues such as national security, there are other situations (including commercial negotiations) where the Act requires that reasons to withhold information must be weighed against other considerations. That can mean PHARMAC is left juggling its statutory function of managing pharmaceutical expenditure under Decision Criteria, which have specifically excluded consideration of any impact on suppliers, and the commercial interests of suppliers about which it holds information.

In its report the Danks Committee stated:

> "When Government itself engages in business a first few might hold that the conventions of confidentiality which are accepted for private commerce should equally apply to publicly operated activity. Where that activity can be readily related to commercial practice, as in buying and selling, it appears reasonable that Government should *"do and suffer"* on behalf of its taxpayer-shareholders, no less confidentiality than does the private sector."

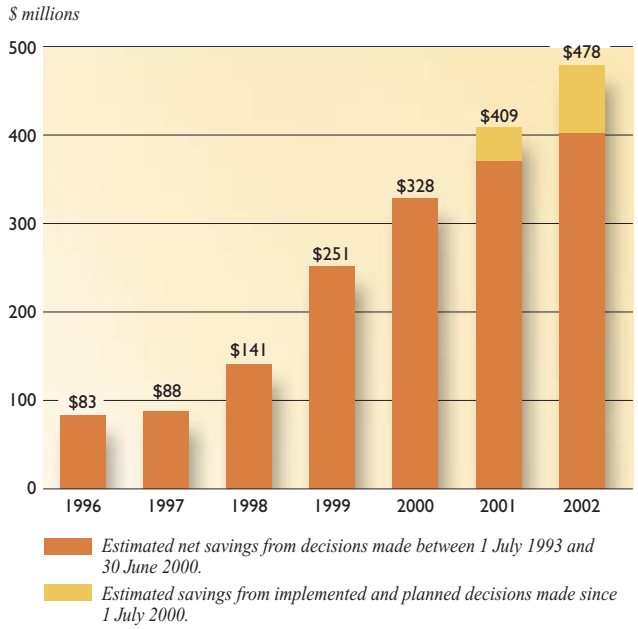
If the private sector subscribes to the philosophy of freedom of information at all, it is not recognised in the pharmaceutical industry. Patents, patent extensions, and law suits all over the world attest to the lengths drug companies will go to protect their own intellectual property, and acquire their competitors' knowledge. The numerous requests PHARMAC receives from suppliers for information about competitors' applications, and contracts suggest many companies regard the OIA as a very useful mechanism for acquiring information about their competitors. The time taken to process every individual request is significant and can be demanding for small organisations like PHARMAC. After consideration of the commercial interests of the relevant parties, contractual and public law obligations, it is sometimes difficult to determine when and if information should be withheld and whose interests are best served by that decision. Valid considerations from one perspective often completely contradict equally valid considerations from another.

It is not unusual for PHARMAC to receive OIA requests from suppliers who, on one hand, vigorously argue their own information must be withheld yet, on the other hand, request the same information about their competitors' contracts. Nor is it abundantly clear which of PHARMAC's public law responsibilities prevail - its responsibility to manage the pharmaceutical budget, and associated consultation obligations or its OIA obligations. Should PHARMAC withhold information under the OIA, at the expense of achieving savings?

The two principal purposes of the OIA are to enable the public's more effective participation in the making of administration of laws and policies and to promote the accountability of Ministers of the Crown and Officials. PHARMAC is sometimes left wondering whether in fulfilling its OIA obligations it serves these aims or simply the commercial interests of pharmaceutical companies who recognise an opportunity when they see one.

Total cumulative savings

Years ended 30 June



Company financials

As an accountant, I remain interested in the way drug companies report Research & Development (R&D) – expenditure (other than capital expenditure) is expensed annually. This means they receive the benefits of innovations immediately so, contrary to common belief, patents are not recouping R&D costs, they are paying for the next medicine. Despite my repeated requests, I am yet to see examples of non-expensed R&D in their balance sheets. Personally, I am happy drug companies use their patents to fund new drugs, but let this use of the patent protections be transparent. It's important also to remember, for every dollar spent on R&D, drug companies spend about two dollars on marketing.

I am intrigued drug companies cry poor when their balance sheets show Net Profit before interest and tax as 30% of sales. Many companies in other industries would be satisfied to show a Gross Profit to Sales of that magnitude. And I am still amazed by drug prices, which are shown in their true light by PHARMAC's frequent ability to get price reductions of 50-80%, and in one case 94%. While PHARMAC has had some success using me-toos to leverage prices down, often the large price reductions don't happen until patents expire. That's one of the reasons PHARMAC has focused on generic drugs – if doctors would only realise generics are just as good as the original patented drugs, it would save us all millions of dollars, money which could be redistributed to other health needs.

Managing pressure

Another of the defining differences between PHARMAC's operating environment and the private sector is the politics. The ministers under whom we have worked have been very supportive, but they are inevitably exposed to lobbying by pharmaceutical companies, medical and patient groups. Drug companies are highly sophisticated lobbyists, with their skills honed in much tougher political climates than New Zealand. Such lobbying creates pressure for PHARMAC and has been a constant feature of its existence. Dealing with those pressures requires a level of commitment and a toughness rarely seen in the private sector. PHARMAC's public law obligations create other demands on resources that are not faced in the private sector (refer to side box on the Official Information Act).

The Pharmacology and Therapeutics Advisory Committee (PTAC), headed by Dr John Hedley, has worked magnificently and is another key to PHARMAC's success. Members of PTAC also come under great pressure from both their medical colleagues and the drug industry, because they are included in PHARMAC's drive to get the best value for the taxpayers' dollars. Their workload is formidable. John Hedley has been diligent in protecting and defending PTAC, particularly over the really tough decisions. I have been reassured by the Government's support of PTAC's operations – despite intense pharmaceutical company lobbying.

Many challenges lie ahead. Volume continues to rise, with people's greater health expectations and access to new products. There will be increasing demands on the health budget, and PHARMAC has to maintain its drive to curb the rise in pharmaceutical expenditure. PHARMAC alone cannot control the growth, it's just a cog to assist – we need help from the prescribers and pharmacists. We are working to get this message across – not only to doctors, but also to medical students learning their profession. People are beginning to understand the unacceptability of medicalisation – turning ordinary life processes such as baldness into medical issues.

New Zealand subsidised pharmaceutical cost breakdown

For year ended 30 June 2000

	% total cost	Cost (excl. GST)
Drug cost (ex supplier (GST excl.))	72%	$521,168,714
Dispensing fees + mark-ups paid to pharmacists	29%	$205,100,779
Pharmacy mark-ups	5%	$33,907,945
Pharmacy dispensing fees	24%	$171,192,834
Total HFA cost (GST excl.)	90%	$654,120,161
Patient contribution	10%	$72,763,573
Total cost of pharmaceuticals		**$726,883,733**

Excludes compounded preparation and rebates.
Due to rounding percentages do not add to 100%.
This excludes manufacturers surcharges and prescriptions that receive no subsidy.

PHARMAC has matured well under the leadership of David Moore, Win Bennett and now Wayne McNee. I have enjoyed chairing its Board and am proud of its achievements. For a person like me, who has worked mainly in the private sector, the chance to participate in the public service by chairing the Board of an organisation such as PHARMAC, and influence the health and well being of all New Zealanders, has been a real privilege. I am confident PHARMAC will be around for many more years, something even the pharmaceutical industry is beginning to accept. I welcome Richard Waddel's appointment – I know him well from our close association in Ernst & Young and PHARMAC will be in safe hands. I would like to thank the PHARMAC team for their patience and support, particularly Wayne McNee in his more recent role as General Manager.

Denis Tait
Chairman
July 2000

New Horizons

A word from new Chairman Richard Waddel

I expect the challenges facing PHARMAC in the future will be subtly different from those faced in the past. The shift will be due to changes in the environment within which PHARMAC operates – caused by its change to a stand alone Crown Entity, the establishment of District Health Boards (DHBs), and, to some extent, its own success. There are limits to the extent PHARMAC's effective pricing strategies can keep in check the growth in the Government's expenditure on pharmaceuticals. We are going to have to develop further strategies to manage demand for pharmaceuticals to augment this approach. Providing access to the best new drug therapies within budget will remain a key aim. With little influence over the size of the pharmaceutical budget, our challenge will be to make sure the savings we make are reinvested wisely. We will need to listen to the sector's needs and balance those needs against pressure from pharmaceutical suppliers to create and/or access new markets. Balance will also be required for PHARMAC to maintain a nationally consistent Pharmaceutical Schedule while still responding to the needs of 21 DHBs.

I have no doubt PHARMAC has the skills and resources to adapt to these challenges and succeed. This year's review of PHARMAC's seven year old Operating Policies and Procedures (OPP) was a start. The lack of participation by the industry in our discussion forum was disappointing, but the response from the rest of the sector has been very encouraging. The OPP review process itself is now under independent review. We are willing to consider any recommendations for changes and improvements resulting from that review.

In my short time as Chairman I have already been impressed by PHARMAC's highly qualified staff – their dedication, enthusiasm and commitment to fairness. They give me great confidence PHARMAC can rise to the challenges ahead. With the exception of David Moore, all of PHARMAC's Board members – to whom I extend a warm welcome – are new to the PHARMAC scene. Their depth of experience in the health sector will be invaluable.

I look forward to my future involvement with PHARMAC – it is certainly going to be a challenge. Finally, I wish to congratulate Denis Tait and all previous PHARMAC Board members on their excellent results and performance.

Richard Waddel

Pow

PHARMAC's General Manager, Wayne McNee, compares local objectives with the global goals of the pharmaceutical industry.

er *play*

– global goals meet local forces

It's a common trait of New Zealanders to knock the successful. While disappointment in the performance of many of our sportsmen and women may have provoked more recent criticism than the tall-poppy syndrome, PHARMAC's consistent success has continued to make it a target for the condemnation of the pharmaceutical industry and some of the medical profession. The savings we make are often used in an attempt to convince the public our objective is to turn pharmaceutical suppliers into paupers. That is why it is essential to consider these results alongside the significant levels of new investment in pharmaceuticals. We are open about the fact we have to make savings in order to balance the needs of patients with the needs of taxpayers.

PHARMAC's mission is to secure for those in need of pharmaceuticals the best health, care and support that is reasonably achievable within the amount of funding provided. This is achieved by negotiation with the pharmaceutical industry, trying to pay the lowest subsidies possible, to make the Government's health dollars go further. We assess the value of new medicines using a form of cost benefit analysis, and we manage expenditure by using a range of tools including reference pricing, tendering and targeting subsidies to the patients most likely to benefit. Our approach relies on the co-operation of the health professions who are in direct contact with patients. It's a delicate balancing act but one which we believe we manage well. This year, New Zealanders gained wider or new access to 18 drugs representing annual expenditure of around $23 million per year. One way of quantifying the benefits gained from these investments is to consider the additional years of life accrued over the expected lifetime of patients who gain access to these treatments, which for this year equates to around 86 years. Savings – another $40 million this year – fund most of this new investment and help offset underlying growth in volume and mix.

Despite the suggestion of a similar balancing act in the mission statements of some of the bigger pharmaceutical companies, the primary objectives of the pharmaceutical industry are obvious. Investors in any private industry are only interested in innovations if they translate to dividends – pharmaceutical company shareholders are no different.

The mission statements from some of these companies spell it out:

MERCK & CO

> *"The Mission of Merck is to provide society with superior products and services – innovations and solutions to improve the quality of life and satisfy customer needs – to provide employees with meaningful work and advancement opportunities and investors with a superior rate of return[1]."*

BRISTOL-MYERS SQUIBB PLEDGE

> *"…We pledge excellence in everything we make and market, providing you with the safest, most effective and highest quality products. We promise to improve our products through innovation, diligent research and development, and an unyielding commitment to be the very best..."*

> *"...We pledge dedication to increasing shareholder value of our company based upon continued profitable growth, strong finances, high productivity and intensive research and development, leading to competitive superiority…[2]."*

The international concern over the funding of drugs for HIV/AIDS highlights the issue. In New Zealand, treatment for HIV/AIDS costs about US$10,000 per year per patient. Sub-Saharan African countries have the highest incidence of this disease, with an estimated 30 million carriers. These are some of the poorest countries in the world, so clearly cannot afford to fund the treatment. But the same drugs are available in generic form much more cheaply (about 70%[3]) from Brazil and India. The pharmaceutical industry has worked hard to ensure the World Trade Organisation (WTO) intellectual property rights have been applied, ensuring the less expensive AIDS treatments are not accessible by African countries. The latest proposal is to loan Sub-Saharan African countries US$1 billion specifically to buy US medicines for HIV patients. This is in addition to the US$15.2 billion debt currently owed by Sub-Saharan African countries. Oxfam has described the proposal as *"a debt tomorrow's AIDS orphans will be forced to pay"*.

Given their primarily profit-driven objectives, it isn't surprising pharmaceutical companies have launched new initiatives such as Direct-To-Consumer advertising in an effort to grow the market. Rationalisation of professional sponsorship and investment in research is also an expected consequence of a more competitive environment. What company in any industry carries an open chequebook these days? Other industry initiatives this year, however, are less understandable.

PHARMAC's activities were opposed by the industry from the outset. Over the years we have endeavoured to breakdown some of that negativity and nurture constructive dialogue. While we have established excellent working relationships with most of the companies individually, their collective stance has scarcely changed. Two events this year highlight this – the industry's refusal to meet with PHARMAC to discuss the Operating Policy and Procedures (OPP) review and its renewed efforts to exert diplomatic pressure on PHARMAC's operations.

PHARMAC attempted twice this year to meet with the industry to discuss our OPP. Generally, the industry chose to boycott those meetings, allegedly acting under legal advice. If, as they claim, their businesses are being adversely affected by PHARMAC's operations, it is difficult to comprehend why the local offices of so many multi-national companies chose to pass up an opportunity to enter into dialogue with their key customer in New Zealand.

It would seem their advisors suggested taking up the issue on an international scale. In its submission to the US Trade Representative in February this year, the Pharmaceutical Research and Manufacturers of America (PhRMA) said:

> *"PhRMA understands that the New Zealand government has expressed its interest in concluding a Free Trade Agreement with the United States that might or might not include other countries in the Asia-Pacific region. PhRMA cannot and will not support such an arrangement that includes New Zealand until the aforementioned severe problems the industry encounters in New Zealand are rectified.[4]"*

PHARMAC is a small organisation in a remote corner of the globe with New Zealand representing only about 0.5% of the world's medicine market. The international pharmaceutical industry is huge. The market value of many pharmaceutical companies is more than twice New Zealand's Gross Domestic Product (about $50 billion).[5] While PHARMAC has been very successful at managing spending in a market driven by increased demand and the industry quest for greater profits, it is hard to believe the industry is still worried other countries will follow New Zealand's lead.

The giants of the pharmaceutical industry appear to be intent on taking to PHARMAC with a sledgehammer regardless of our relatively small size. In some ways it's flattering the industry has attempted to use the political influence of one of the most powerful nations in the world to change the approach of an agency responsible for at most $600 million of pharmaceutical spending. But where does it lead them?

PHARMAC is unlikely to have any impact on the global pharmaceutical industry. We recognise pharmaceutical companies exist to make profits globally and locally. Surely the companies would have been better off to broach their concerns at a local level – and to utilise the opportunity PHARMAC presented to do so.

PHARMAC has spent seven years constructing a robust and successful framework for managing pharmaceutical expenditure. Local managers need a good understanding of that framework in order to get on with their business of making a profit. Had we been able to engage in dialogue, the OPP review might have given the industry's local managers a better understanding of our roles, objectives and functions and in turn, improved our understanding of the issues they face locally and globally. While some of our objectives may be in opposition to the industry's goals, we believe there is plenty of room for healthy competition within these objectives.

In the coming year, PHARMAC will again invite the industry to meet with us, collectively and individually. We don't expect them to lay down their arms and surrender but hope we can resume more constructive dialogue – at least at a local level.

1 Source: Annual Report 1998

2 Extracts from BMS website.

3 P.Chirac, T von Schoen-Angerer, T Kasper, N Ford, Health and human rights. AIDS: patient rights versus patient's rights, The Lancet, vol 356, August 5,200, 502.

4 **www.phrma.org** Submission of the pharmaceutical research and manufacturers of America (PhRMA). For the "special 301" report on intellectual property barriers 2000 February 18, 2000.

5 Department of Statistics, March 1999.

1999/00 Revenues and Profit[6] of the larger US pharmaceutical companies

Company	Net sales (US$ billion)	Profits (US$ billion)	Total return to Investors, 1989-99, annual rate %
Merck & Co[7]	32.7	5.8	21
Johnson & Johnson	27.4	4.1	22
Bristol-Myers Squibb	20.2	4.1	20
Pfizer	16.2	3.1	30
American Home Products[8]	13.5	–1.2	15
Abbott	13.1	2.4	18
Warner Lambert	12.9	1.7	27
Eli Lilly	10.0	2.7	18
Total	**146**	**22.7**	

6 Fortune 500, July 2000 (C) 2000 Time Inc. All rights reserved.

7 Known in New Zealand as Merck Sharp & Dohme.

8 Allowance made this year for payment of damages.

Common myths

There are a lot of misconceptions about PHARMAC and the pharmaceutical industry. Here's a small selection of them:

Myth 1 : ***PHARMAC determines which drugs are available for prescription in New Zealand.***

Truth 1 : PHARMAC decides which drugs are **subsidised**. Provided they are approved by the Ministry of Health via Medsafe, non-subsidised drugs can be prescribed and/or sold in New Zealand. Availability depends on Medsafe's assessment of safety and efficacy and on whether suppliers wish to launch a product in New Zealand.

Myth 2 : ***Generic drugs are inferior to original branded products in quality and efficacy.***

Truth 2 : All products approved by Medsafe for distribution in New Zealand meet the same standards for quality and efficacy.

Myth 3 : ***PHARMAC has made changes to the way pharmacists are remunerated.***

Truth 3 : Pharmacy contracts, which determine how and what pharmacists are paid are negotiated between the Health Funding Authority (HFA) and the Pharmacy Guild without PHARMAC's involvement.

Myth 4 : ***Gains from tendering will be short lived because prices will go up at the end of the tender period.***

Truth 4 : This has not been PHARMAC's experience so far. When paracetamol tablets were first tendered, the subsidy fell 40%. It was re-tendered this year resulting in a further 34% subsidy reduction.

Myth 5 : ***Spending money on pharmaceuticals saves money in other parts of the health system.***

Truth 5 : While this may be true in some cases, but it is seldom possible to recoup those savings and utilise them to fund other health interventions.

Myth 6 : ***Most pharmaceutical R&D is funded from pharmaceutical companies' profits.***

Truth 6 : A significant proportion of R&D is funded by government – particularly United States (US) Government-funded research.

Myth 7 : ***Patents are placed on new pharmaceuticals so companies can recoup R&D costs.***

Truth 7 : Patents last 20 years, R&D costs are usually recouped in less than a quarter of that time. Most companies expense R&D as it is undertaken.

Myth 8 : ***People aren't really influenced by Direct-To-Consumer advertising.***

Truth 8 : After a $500 million investment in advertising in the US, sales of an anti-allergy medicine went from $240 million to $5.6 **billion** per year.

Myth 9 : ***PHARMAC only considers its own budget when making decisions about subsidies for pharmaceuticals.***

Truth 9 : PHARMAC considers both the gross and net impact on the pharmaceutical budget **and** the net cost to the HFA as well as health need, clinical benefits, cost effectiveness, direct cost to patients etc.

Critical *in*

"THEY'LL HAVE THE SALMETEROL XINAFOATE IN THE CREAMY MICROCRYSTALLINE SUSPENSION - AND I'LL HAVE THE DIURETIC GUMBO... WITH FRIES"

fluence
– the impact of PTAC

John Hedley, Chairman of the Pharmacology and Therapeutics Advisory Committee (PTAC) reflects on the evolution of PTAC and its influence on pharmaceutical spending.

This year, the Pharmacology and Therapeutics Advisory Committee (PTAC) was reviewed by both the Ministry of Health (MOH) and the Ministry of Foreign Affairs and Trade (MFAT). The fact these reviews resulted in recommendations for only minor modifications to the appointment process strikes me as an endorsement of PTAC's processes.

PTAC has changed considerably – from the group of medical practitioners with an interest in pharmaceuticals and a willingness to devote time to the task of assessing medicines that existed before PHARMAC came into being, to an established and functional committee with a culture, a philosophy and a robust analytical approach to pharmaceutical management.

PTAC's first major challenge after PHARMAC's inception was to complete a review of those pharmaceuticals that were subsidised before PHARMAC came into being. Most of the pharmaceuticals had been listed on the Drug Tariff purely on clinical merits – with little consideration of relative costs or benefits, the sustainability of their impact on pharmaceutical spending or their relative value compared with other health interventions. Predictably, the review process created waves throughout the pharmaceutical industry and medical profession. But we simply could not have gone on the way we were. Political attention had turned towards rapid growth in pharmaceutical spending and, as advisors to the Government, PTAC was asked for a solution.

It's never easy to go back and objectively appraise historical decisions – especially one's own! But that is what we did. In the end, we provided a rationale for almost every subsidy and restriction on the Pharmaceutical Schedule, which has served as the basis for PHARMAC's future decisions.

PTAC was also instrumental in assigning specific criteria to the provisions of the Social Security Act allowing access to pharmaceutical subsidies, now known as Special Authority. Little thought had been given to the use of this mechanism as a means of ensuring particular medicines were targeted appropriately, before PTAC attached clinical criteria to this subsidy access.

These reviews, and the recommendations we have made since, have required consideration of the clinical and financial impact of each decision within the context of overall health spending. It's not enough to say a drug appears to have some commendable attributes and, therefore, should be funded. Those benefits must be measured against the benefits of existing therapies, and weighed up against the costs and benefits of other interventions on which the precious health dollars could be spent. The checks and balances we put in place through our recommendations have enabled PHARMAC to make new investments within sustainable limits.

We generally take a broad societal view of pharmaceutical applications, but we also recognise the need at times to seek specialist advice. Our specialist sub-committees provide valuable advice on particular issues relevant to their own specialities and, I like to think, the members benefit in return from insights into resource allocation.

I think it's important for medical professionals to have a say in what pharmaceuticals are funded and how. PTAC's formal processes are one means of ensuring that happens. But many doctors would be surprised to know PHARMAC is not totally driven by data analysis - clinical views are also directly represented at PHARMAC Board meetings, which I, and PHARMAC's medical director (Dr Peter Moodie) regularly attend. While we cannot vote, we have an opportunity to comment on PHARMAC's recommendations from a medical perspective. Our involvement with the Board ensures the debate is balanced and the needs of doctors and patients are emphasised. This functional relationship between committee and Board is unusual and should be valued.

PTAC's influence is sometimes even broader. For example, during our own review of access to quinolone antibiotics, we identified issues which led to our participation on the Ministry of Health's antibiotic resistance working group.

The processes by which PTAC arrives at its recommendations are sometimes a source of mystery to medical professionals and industry representatives. We recognise there is a need to formalise these processes in the interests of transparency and consistency. We have already made a start on an administration manual that will be published next year.

While I can also understand the concerns that gave rise to the recommendations of the reviews over the appointment process, and am happy to have them taken on board, I don't believe there was any cause for concern. With each new appointment to PTAC, the exposure to PTAC's philosophy, culture and processes has far greater influence on the member's contribution than the source of their nomination.

On that note, I would like to acknowledge the work of my fellow PTAC members and members of the various sub-committees this year. In particular, I would like to thank Peter Black and Allan Moffitt – who both left PTAC this year – for their valuable contributions on PTAC and some of its sub-committees.

Speciality interests

Wellington based psychiatrist, Prof Peter Ellis, is a member of the Mental Health sub-committee of the Pharmacology and Therapeutics Advisory Committee (PTAC).

PTAC is a committee of medical practitioners who were, until recently, nominated by professionals bodies such as the New Zealand Medical Association, medical colleges and societies. It meets quarterly and provides independent medical advice on subsidies for applications for new listings on the Pharmaceutical Schedule and also access to or subsidies for currently listed drugs. PTAC's membership comprises general practitioners, general physicians, pharmacologists and a paediatrician so it takes a general perspective on the relative benefits of treatments. This approach is fundamental to ensuring equity within and across disease states.

PTAC is supported by a dozen sub-committees, which are responsible for advising PTAC and PHARMAC on issues relating to their own areas of speciality. Peter Ellis, Chair of the Mental Health sub-committee presents some of his views about the tensions and inter-relationships between PHARMAC, PTAC and its sub-committees.

"PTAC sub-committees fulfil a number of roles for PHARMAC and PTAC. We provide expert comment on particular treatments in relation to the scientific evidence of health gains arising from a subsidy to the proposed medication. We also comment on particular funding strategies proposed by PHARMAC, possible clinical implications, appropriate guidelines and clinically sensible treatment of exceptional cases."

Recommendations made by PTAC's sub-committees are usually considered by PTAC before being referred to the PHARMAC Board. Both committees are asked to indicate the level of priority they consider should be attached to each issue or application. PHARMAC then analyses these recommendations with particular reference to its own decision criteria, negotiates with drug companies, contracts, and consults. At the end of that process a recommendation is put to the PHARMAC Board, which is responsible for the ultimate decision.

"From the perspective of a sub-committee member, the length of that process can be a source of frustration. We sometimes notice there is activity in relation to a drug in another speciality while perhaps one of our own priority recommendations has not been progressed. This may be due to limitations in PHARMAC's resources or its prioritisation mechanisms, which may be not as well developed as its pharmaco-economic study methods. As specialists, we could also provide clinical comment on early promising clinical trials data, and an overview of the limitations of existing treatments for conditions of particular concern, adding to PHARMAC's perception of relative importance of different agents.

We recognise the philosophy is to have PTAC largely composed of generalists so the discussions can avoid the turf wars that are likely with more sectional interests present. The role of PTAC's sub-committees is to establish the views of specialists so they can be considered in a more general context.

Clinicians get concerned with clinical need (and at times, doctor want) whereas it sometimes seems PHARMAC is content to await financial opportunity. There is a natural tension between doctors' desires to use the latest agents and PHARMAC's often-sceptical approach and budgetary constraints. It's an issue PTAC, its sub-committees and PHARMAC are constantly challenged with and which needs regular debate."

It's a kind *of magic*

PHARMAC medical director, Peter Moodie, takes a look at the effect of media on medical practice.

Everyone wants a magic bullet – to be fired against pestilence, plague and human suffering. Technological advance is bringing us ever closer to the belief we can not only conquer disease but also the natural ageing process. The media are quick to announce 'breakthroughs' – without necessarily checking their veracity. It doesn't matter if it's untrue – the news is beamed around the world. With this kind of exposure, we can be sure that when a genuine magic bullet is discovered, we will all hear about it. The question is, can we survive the blanks?

The media-driven approach, which has become even more widespread this year, is a great concern to me, both as a doctor and as a potential patient. It raises false expectations, particularly in the most vulnerable members of society. Coming to terms with any illness requires recognition of one's own mortality. The sudden mirage of a lifebelt can be unhelpful – to the patient and to their relatives. It can increase desperation as much as optimism.

Good health cannot be bought. If people want long and healthy lives, they have to take responsibility for themselves. It's common sense that exercise, good diet, safe sex, are all critical ingredients. It's more attractive to most of us to pop a pill.

PHARMAC spends millions of dollars on drugs to reduce cholesterol levels, but how many people could help themselves by increasing their daily exercise – walking up the office stairs, rather than taking the lift – or cutting down on fats in their diet? The television advertisements for these products show nice, middle-aged men taking pleasant strolls on beaches – not sweating it out in the gym! Green prescriptions, a Hillary Commission initiative that PHARMAC will fund next year, promote a positive message about taking responsibility for our own health. This is a very different message to the ones we are bombarded with through the media.

Take genital herpes, for example. This disease now affects one in seven New Zealanders – it's contagious. There are treatments that may suppress symptoms but they are not a cure and there is no evidence they prevent transmission of the disease. The television advertisements place much emphasis on the treatment – the magic bullet. Images of attractive young adults who can go back and join the party after treatment do little to promote the essential message of safe sex.

All drugs have side effects – some potentially dangerous. That's one of the reasons PHARMAC is concerned about Direct-to-Consumer advertising. We believe clinicians are the ones to advise people on appropriate medication, after all, they know the individual's circumstances and have spent years training to prescribe pharmaceuticals. Yet the media would have us take such advice from those who train for the sports field. If we are responsive to sports people telling us what chocolate bar to eat for maximum performance then we will pick up just as easily on their endorsements of drugs. Who do you think was most likely to pick up on the message sent by the Highlanders Super 12 team when they promoted a new arthritis drug this year – ageing arthritis patients or young athletes looking for the magic bullet to take them from injury to full performance?

PHARMAC has been concerned about a number of television advertisements and programmes this year. We complained to the Broadcasting Standards Authority over the Holmes programme on teenage acne. The programme was virtually an exclusive promotion of Roaccutane. It hardly mentioned other effective treatments and, despite interviewing a number of female teenage Roaccutane success stories, it never mentioned Roaccutane is teratogenic. Teenage acne is a problem but so is teenage pregnancy – and one is more likely to have lasting consequences.

There are plenty of statistics to show magic bullets are great for business. I can't recall exactly how many hundreds of thousands of dollars changed hands the weekend Lyprinol (claimed to be effective for the treatment of cancer) was launched on television but I am sure many pharmaceutical companies are beginning to feature on the best customer lists of our major broadcasters. It is possible doctors' practices are also benefiting from this phenomenon as patients flock to us for a prescription of the latest magic bullet. But is that really how we want to earn our keep – trying to instill a little science and rationality into the brains of patients crammed with media hype? Or are we also eager to accept the prospect of almost miraculous cures, despite years of training in objectivity?

Perhaps we too are a little inclined to believe what we read in medical publications without questioning. Perhaps we do overlook the authors' innocent conflict of interest. But I don't think the medical profession has been brain washed yet. On the other hand, we cannot afford to ignore what is going on or to be slow to take affirmative action. Someone needs to protect the public from false hopes and encourage them to question the one sided view they have from their armchairs. I have a feeling we are as well placed as anyone to do just that.

Annual review *by therapeutic group*

The activity of PHARMAC within each therapeutic group this year is another manifestation of the rigorous analysis and reviews that have characterised PHARMAC since its inception. Five years ago, in the first of what has since become an Annual Review, the concept of Therapeutic Group Management – the role of Therapeutic Group Managers (TGMs) and the techniques PHARMAC had only just begun to use to rein in pharmaceutical spending – was unveiled for the first time. Since then, the Pharmaceutical Schedule has been reviewed from cover to cover, and reference pricing has been established where appropriate. PHARMAC has made significant inroads into pharmaceutical pricing through a combination of strategies involving generic pharmaceuticals and innovative contracting. Those first steps, though bold and sometimes controversial, have resulted in a framework on which many decisions are still based. A closer look, however, reveals subtle strategic differences – a natural evolution of tried and true processes to manage expenditure building on the early work, and the development of new processes to deal with future investment in pharmaceuticals.

First steps – the introduction of reference pricing

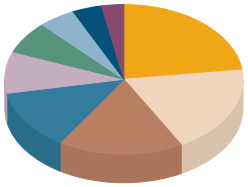
Therapeutic Group Managers were established as the focal point of all PHARMAC's negotiations and consultations with suppliers, prescribers, other health professionals and patient support groups. A key task following PHARMAC's establishment was the systematic review of drug subsidies in most therapeutic classes. This involved analysing the clinical evidence for drugs of a class, seeking PTAC's advice on the data, and consulting with the industry and medical profession. It resulted in reference pricing in major therapeutic groups. The review process also highlighted many anomalies in the way pharmaceuticals were used and subsidised. All of these issues were contributing to higher pharmaceutical expenditure than was necessary. Reference pricing not only rationalised spending, it established a framework for future negotiations and pricing.

Hidden opportunities – the advent of the cross-therapeutic deal

Suppliers soon realised reference pricing also presented opportunities for commercial negotiations. By introducing a me-too or generic at a lower price than the rest of the therapeutic sub-group, drug companies could produce much-needed savings. In exchange, they got listing or better access for a more strategically important drug in their portfolio. Many key cross-therapeutic deals of this type were done between 1996 and 1998. They have had a pronounced effect on both pharmaceutical expenditure and market dynamics. For example, in the ACE inhibitor market, a cross-therapeutic deal resulted in one product, Accupril (quinapril), which only had 2% (by volume) of the market before the deal, attracting 36% after 12 months at the expense of the previous market leaders.

Investment by Therapeutic Group

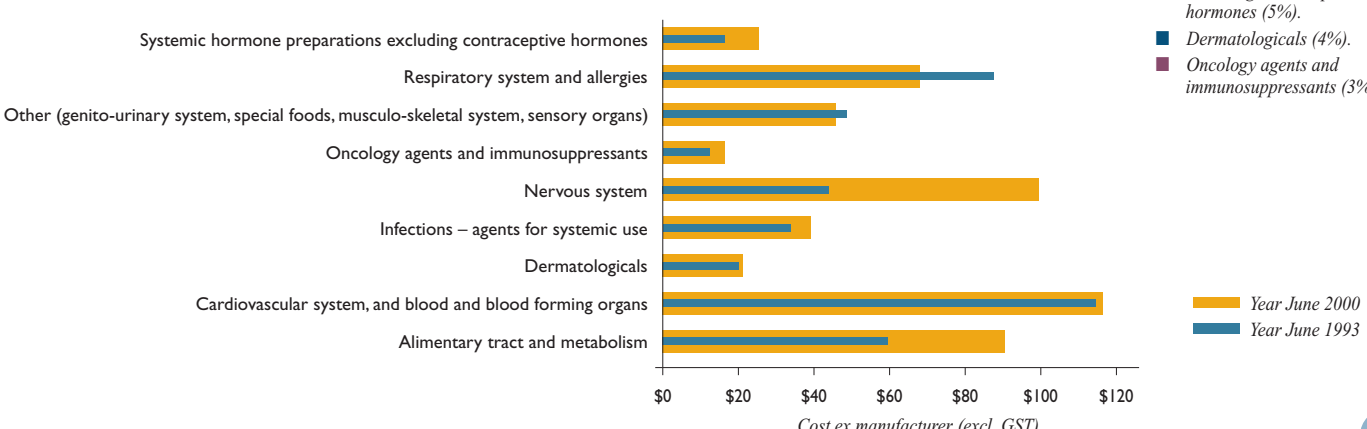
Year ended 30 June 2000



- *Cardiovascular system and blood and blood forming organs (23%).*
- *Nervous system (19%).*
- *Alimentary tract and metabolism (17%).*
- *Respiratory system and allergies (13%).*
- *Other (genito-urinary system, special foods, musculo-skeletal system, sensory organs) (9%).*
- *Infections – agents for systemic use (7%).*
- *Systemic hormone preparations excluding contraceptive hormones (5%).*
- *Dermatologicals (4%).*
- *Oncology agents and immunosuppressants (3%).*

Changes in Therapeutic Group expenditure

Spending in most areas has increased since PHARMAC's inception highlighting the need for continued management of pharmaceutical prices and prescribing.



Cost ex manufacturer (excl. GST)

Many companies adopted a "do unto others only as you would have done to you" approach and were initially reluctant to enter into cross-therapeutic deals. This could be an indicator of pharmaceutical company tactics – to grow the size of the pie rather than compete properly for a bigger slice. Companies who adopted the cross-therapeutic deal strategy have gained greater market share, and higher sales volumes.

PHARMAC still frequently assesses proposals involving cross-therapeutic deals. Several were implemented this year:

- Pharmacia & Upjohn – the listing of Xalatan (latanoprost) eyedrops in exchange for a price reduction on Respax (salbutamol) nebules.

- GlaxoWellcome – agreement not to reference price Flixotide (fluticasone) multi-dose inhalers (MDIs) until October 2002 in exchange for price reductions on its range of inhaled corticosteroid metered dose inhalers.

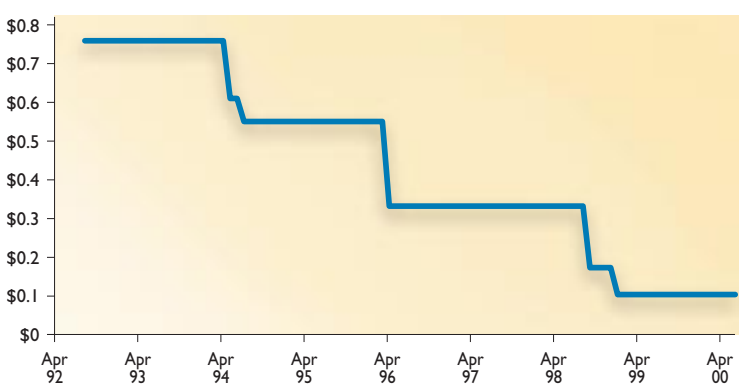
- Merck, Sharp and Dohme – effective removal of the manufacturer's surcharge on Zocor (simvastatin) and listing of two different strengths (5mg and 40mg) in exchange for price reductions for Renitec (enalapril), Prinivil (lisinopril) and Zocor.

- AstraZeneca – the listing of Atacand (candesartan) in exchange for price reductions on Betaloc (metoprolol succinate) and Plendil (felodipine).

- Schering (NZ) Ltd – the listing of Levlen ED (levonorgestrel 150mcg with ethinyloestradiol 30mcg), Triquilar ED (levonorgestrel 50mcg-125mcg with ethinyloestradiol 30mcg-40mcg) and Microgynon 50 ED (levonorgestrel 125mcg with ethinyloestradiol 50mcg) this year in exchange for the listing of Microgynon 20 ED (levonorgestrel 100mcg with ethinyloestradiol 20mcg) and Melodene (ethinyloestradiol 20mcg with gestodene 75mcg).

H_2 ANTOGONIST SUBSIDIES

Successive subsidy reductions on H_2 antagonist subsidies are a key factor in the $23 million fall in expenditure on these agents since 1993.



Encouraging generic competition

The establishment of therapeutic sub-groups has allowed PHARMAC to maximise savings gains from the introduction of generic pharmaceuticals. Many New Zealand prices for generics are now less than Australian prices. One apparent reason for this is the healthy competition from and between generic pharmaceutical suppliers. The magnitude of the price reductions associated with the introduction of generic pharmaceuticals appears to have increased with time. Initially, price reductions tended to be incremental, but more recently sharper falls immediately following patent expiry have become the norm. The H_2 antagonist market, illustrates this trend with incremental reduction evident until the expiry of the Zantac (ranitidine hydrochloride) patent and significant falls thereafter. This year, patents on two high volume drugs expired – Prozac 20 (fluoxetine hydrochloride) and Augmentin (co-amoxyclav). The subsidy for fluoxetine hydrochloride is now 60% less than it was at the start of this year and subsidies for co-amoxyclav have fallen by 42%.

Maximising the impact of healthy generic competition

Another reason for New Zealand's lower drug prices is that PHARMAC has found new ways to capitalise on generic competition to achieve lower prices. This year PHARMAC ran competitive tenders for preferred supplier and sole supplier status. These initiatives have triggered other deals involving multiple products where suppliers offer significant price reductions, in exchange for agreement not to tender. This year we considered such proposals from Pacific Pharmaceuticals, Douglas Pharmaceuticals, Roche Products, GlaxoWellcome, and PSM Healthcare.

The task of ensuring the lowest possible prices for off-patent drugs has become extremely efficient because of these regular competitive processes. PHARMAC's analysts now manage much of this work, leaving the TGMs to handle more complex savings and investment decisions. This year, PHARMAC implemented sole supply arrangements on 116 products, which are expected to yield savings of about $11 million in the next year.

Such efficiency has enabled PHARMAC to implement change at an impressive rate. But we recognise the rate of change impacts upon the rest of the sector.

Managing the rate of change

More can be done to manage changes in the health sector and the impact on patients – by PHARMAC, by doctors and by pharmacists. PHARMAC often handles enquiries from anxious or angry patients whose prescription charges have recently changed. Often the root of the problem is lack of explanation. Many are surprised to learn they could have had a fully subsidised medicine. These are explanations that would not be needed every time PHARMAC implemented a subsidy change if the public were more informed. PHARMAC's Demand-side team

works closely with organisations such as PreMeC (the Preferred Medicines Centre) and BPAC (the Best Practice Advocacy Centre) to promote these messages. Sometimes our efforts to work with other organisations have been hampered by professional sensitivities.

Future challenges

Maintaining a competitive environment, which fosters innovative contracting and continued savings is just one of the challenges that now faces PHARMAC. The environment in which we operate is characterised by drug company mergers changing the face of the companies with which we negotiate and, increasingly, prompting global rationalisation. New Zealand's distance from the corporate decision centres can be a disadvantage when decisions are made to discontinue older or less profitable products.

Having reviewed the basis of subsidies for drugs that were funded by the Government before PHARMAC was established, we recently turned to the task of ensuring future decisions – both for new listings on the Pharmaceutical Schedule and access to existing therapies – are subject to the same rigorous analysis. This need is highlighted by a high number of decisions this year that could result in additional expenditure totalling around $20 million per annum.

Responsible use of scarce health resources

The pharmaceutical budget is really an indicative target, set within total healthcare spending. Expenditure reductions, which would potentially take pharmaceutical spending below target are often PHARMAC's only source of discretionary spending for new pharmaceutical developments or widened access to existing ones. With a budget target of $665 million next year, PHARMAC will have to produce savings of $40 million to overcome the effect of volume and mix on this year's expenditure, before it has even $1 to spend on new drugs. Therefore, every decision we make which will increase expenditure on pharmaceutical spending takes into account how much health care we can purchase, as well as the quality of care and access to it. We aim to fund or widen access to drugs providing the best value for money, within the overall context of health need and funding availability. PHARMAC has developed a means of comparing the value of one potential new pharmaceutical investment against others.

Cost Utility Analysis helps decision-making

Cost utility analysis (CUA) can be used to express the costs and benefits (physical and emotional) of different treatments in different conditions in a single common and comparable unit – a quality adjusted life year (QALY). The ratio of cost to QALY takes into account the potential cost offsets affecting the health budget as a whole. One of the criticisms levelled at PHARMAC, particularly in the earlier years, is that our decisions would reduce pharmaceutical expenditure but then cause blow-outs elsewhere in the health budget. CUA helps assess the impact of pharmaceutical decisions on the rest of the health budget. It is, however, just one of eight criteria on which Pharmaceutical Schedule decisions are based. Pharmaceuticals associated with a high cost per QALY relative to other treatments in which the Government might otherwise invest, might still be funded if that funding can be justified under the other decision criteria.

CUA sometimes shows the cost per QALY of a drug varies depending on the characteristics of the patient treated (age, health, gender etc). It is used extensively, therefore, to determine whether funding for a drug should be targeted to particular patient groups.

This year, CUA was used to establish access criteria for Fosmax (alendronate) for osteoporosis and Paget's Disease, for Betaferon and Avonex (beta-interferon) for Multiple Sclerosis (MS), the widening of access to the atypical anti-psychotic, Zyprexa (olanzapine) and the funding of Zeffix (lamivudine) for chronic hepatitis B infection.

CUA estimates for new investments considered this year

Investment decision	Discounted net HFA $/QALY
Listing of alendronate for severe osteoporosis	$3,545
Listing of beta-interferon for multiple sclerosis	$80,700
Listing of lamivudine for chronic hepatitis B infection	$1,500
Widened access to olanzapine for de novo patients with schizophrenia	$27,467
Widened access to olanzapine for patients who fail to respond to or tolerate risperidone	–$5,748

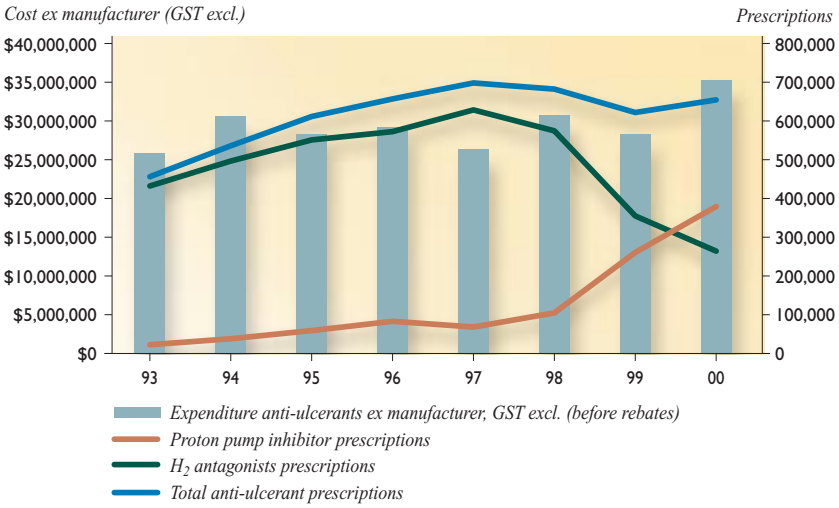
The top 20 expenditure groups

By therapeutic group 2 by claim date *$ millions, cost ex manufacturer, GST exclusive*	2000	1999	1998	1997	1996
Lipid Modifying Agents	**36.6**	22.3	13.4	19.9	15.6
Anti-ulcerants	**35.6**	27.9	31.3	27.1	29.9
Antidepressants	**28.3**	31.0	32.6	29.1	21.9
Agents affecting the Renin-Angiotensin system	**26.9**	25.6	50.5	47.2	42.8
Antipsychotics	**23.1**	9.8	4.7	4.5	4.6
Antibacterials	**23.0**	26.7	33.5	35.5	37.0
Inhaled corticosteroids – metered dose inhalers	**19.5**	24.1	21.3	17.4	16.9
Diabetes	**17.8**	16.6	15.7	15.0	13.1
Calcium Channel Blockers	**17.4**	23.9	27.1	27.2	26.6
Inhaled corticosteroids – breath activated devices	**15.4**	14.6	20.5	23.1	25.4
Anticonvulsants	**15.0**	13.0	11.0	9.9	8.7
Diabetes Management	**13.9**	11.7	10.8	9.9	8.3
Analgesics	**13.2**	13.0	13.4	13.5	12.3
Immunosuppressants	**11.8**	10.9	7.8	8.0	8.6
Beta Adrenoceptor Blockers	**8.9**	11.2	16.6	17.9	16.2
Antimigraine Preparations	**8.2**	6.7	4.5	4.5	4.2
Contraceptives – hormonal	**8.1**	8.9	9.2	9.2	9.1
Antidiarrhoeals	**7.5**	7.2	6.7	5.8	4.9
Corticosteroids Topical	**7.3**	6.9	7.5	8.1	7.9
Anti-inflammatory Non Steroidal Drugs (NSAIDs)	**7.2**	9.0	11.9	12.1	14.7

Perhaps most importantly, CUA helps to establish an evidence-based, economically sound evaluation against which to weigh public, political and medical pressure to fund new drugs. PHARMAC spent two years debating the value of beta-interferon for MS with the medical profession, politicians and patient groups. CUA indicated it was poor value for money. While those analyses indicated it might be more cost-effective in target populations, it was clear justification under other decision criteria would be critical. In the end, it became a political decision (a Ministerial Direction was issued in December 1999) but there is now widespread awareness of the issues. We operate in an environment with insufficient resources to fund every intervention (a worldwide trend, not limited to New Zealand). In this setting, the costs and benefits of a drug for one condition must be evaluated against the costs and benefits of other drugs for different conditions even where there is a clear, and unmet health need associated with the first condition. Similar debates will arise next year with decisions required over the widening of access to drugs already high on the agenda: long-acting beta agonists for asthma, AIDS treatments, low molecular weight heparin, statins, glaucoma, listing of COX 2 inhibitors and a number of other applications.

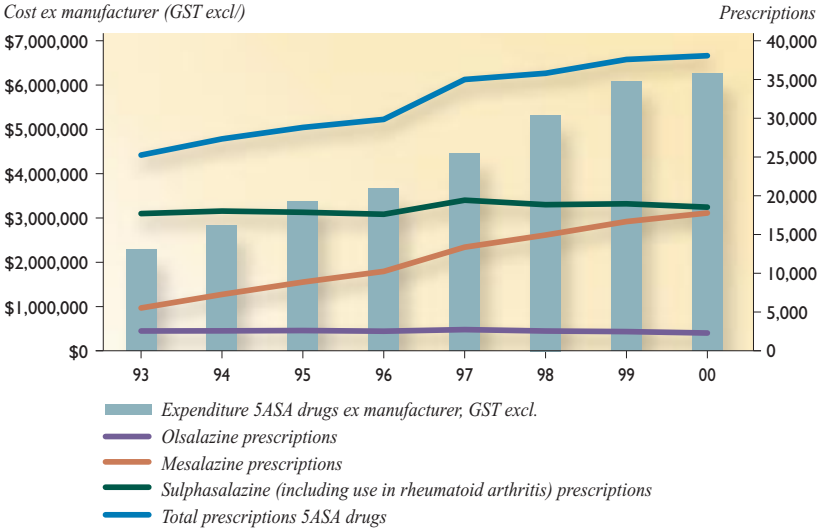
Anti-ulcerants

Despite subsidy reductions, anti-ulcerant expenditure is increasing because costly proton pump inhibitors are being prescribed instead of the less expensive H_2 antagonists.



Antidiarrhoeals

Use of newer, more expensive pharmaceuticals is driving up annual expenditure.



Highlights of this year's activities by therapeutic group

Alimentary tract and metabolism

There were a number of new listings in this section of the Schedule this year including Cerezyme (imiglucerase), sodium fluoride tablets, calciferol tablets, *Helicobacter pylori* eradication packs containing omperazole, amoxycillin and clarithromycin, and Glucobay (acarbose). Two key agreements with suppliers – one resulting in a 50% reduction in the subsidy for metformin tablets and another involving a rebate on expenditure for calcitriol – are expected to return savings of almost $4 million per annum. Continued growth in expenditure for anti-ulcerants and the oral rectal and colonic anti-inflammatories has contributed to high overall growth in this therapeutic group since 1993. In both cases growth appears to be driven by increased use of the more expensive treatment options.

Blood and blood forming organs

There were several relatively low-cost but clinically important decisions made in relation to this section of the Schedule this year. These were the listing of Konakion MM (phytomenadione injection), Ferrum H (iron polymaltose injections), widened access to Persantin (dipyridamole), and increasing the subsidy on Phosphate-Sandoz (potassium bicarbonate). The numbers of patients now accessing lipid modifying drugs, and statins in particular, has been increasing dramatically. In February 2000 as a result of a multi-product cross deal with MSD we began to fully fund Zocor (simvastatin) and listed two additional presentations. Expenditure on lipid modifying drugs is one of the highest areas of pharmaceutical expenditure. While the number of patients accessing subsidies for statins is increasing, it is still below the number eligible.

Cardiovascular system

Commercial agreements, including several sizeable price reductions (up to 23% off metoprolol succinate tablets, 42-45% off felodipine and 10-37% off enalapril and lisinopril) more than helped to offset the cost of two new listings, Cozaar (losartan) and Atacand (candesartan), this year. While there has been significant market shift from one dihydropyridine calcium channel blocker (DHP-CCB) to another, the overall number of patients on these agents has changed very little, despite concerns about the safety of these drugs.

Dermatogicals

This year progress was made in reducing expenditure on treatments for acne – one of the major growth areas associated with this section of the Schedule. This was due to the listing of generic isotretinoin at a lower price, resulting in a subsidy reduction of 35%, which is expected to yield gross savings of $2.4 per annum. Despite regular subsidy reductions, topical corticosteriods remain a significant area of expenditure.

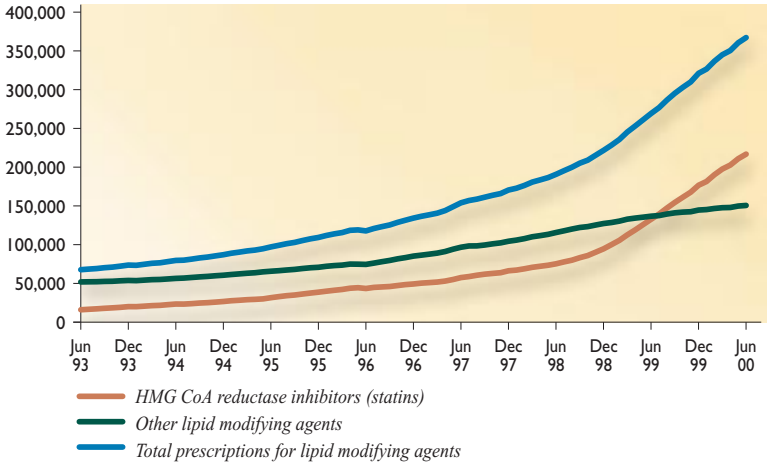
Genitourinary

The listing of Levlen ED (levonorgestrel 150mcg with ethinyloestradiol 30mcg), Triquilar ED (levonorgestrel 50mcg-125mcg with ethinyloestradiol 30mcg-40mcg) and Microgynon 50 ED (levonorgestrel 125mcg with ethinyloestradiol 50mcg) this year in exchange for the listing of Microgynon 20 ED (levonorgestrel 100mcg with ethinyloestradiol 20mcg) and Melodene (ethinyloestradiol 20mcg with gestodene 75mcg) increased the range of fully subsidised oral contraceptives and provided justification for revision to the existing Special Authority to waive any manufacturer's surcharge on oral contraceptives in some cases. This revision is expected to result in savings of about $200,000 per annum. Safety concerns, particularly in respect of the third generation oral contraceptives, also contributed significantly to reduced expenditure. The range of subsidised barrier contraceptives was also increased with the listing of several new brands of condoms. Savings of about $300,000 are expected to be generated from these decisions.

Lipid modifying agents

Use of statins is increasing but would be higher if they were regularly prescribed for all eligible patients.

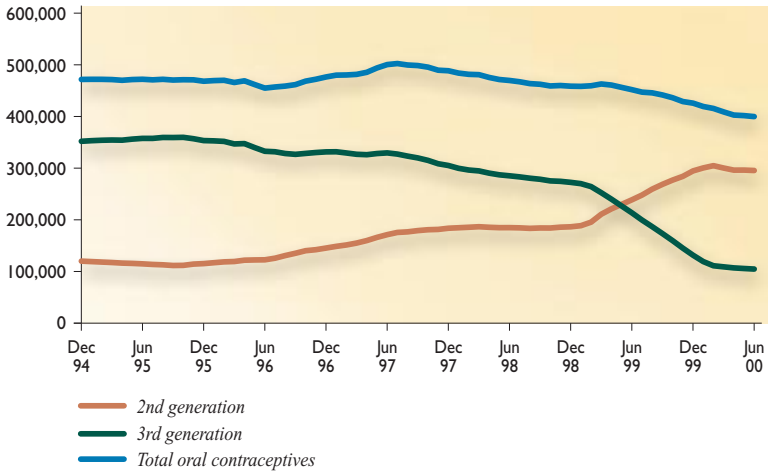
Prescriptions



Oral contraceptives

Safety concerns have resulted in a fall in the use of third generation oral contraceptives and total oral contraceptive use.

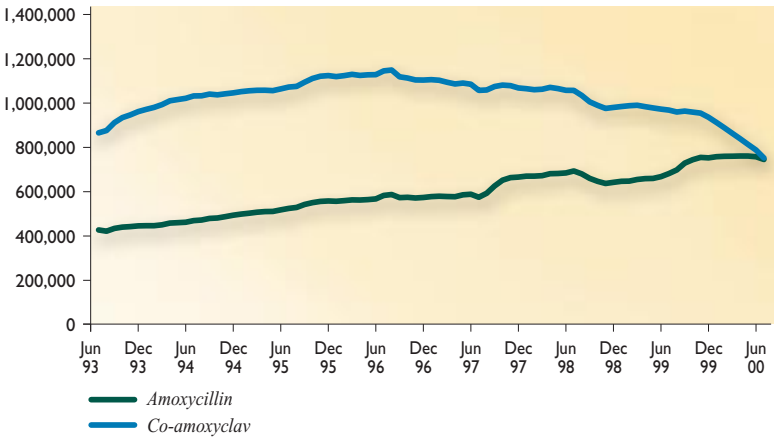
Prescriptions



Board vs narrow spectrum antibiotics

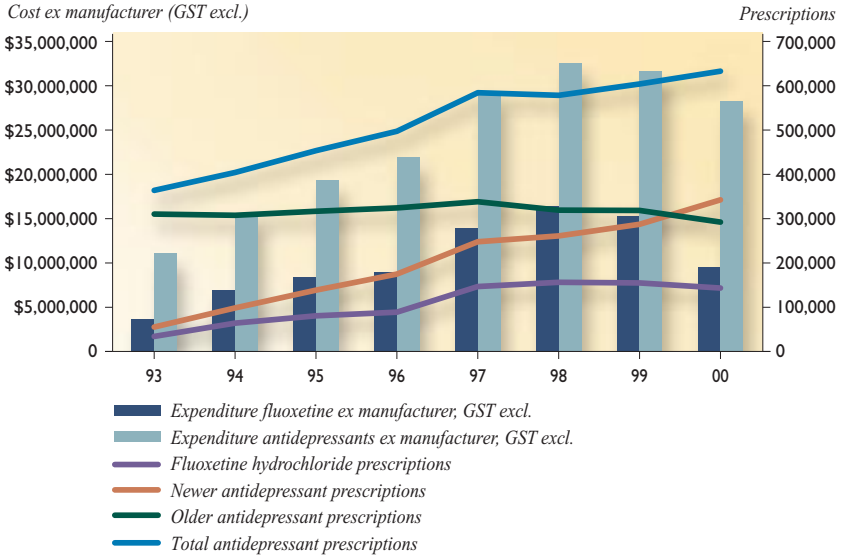
An awareness campaign over 2 years has resulted in a reduction in use of broad spectrum antibiotics such as co-amoxyclav.

Prescriptions



ANTIDEPRESSANTS

Subsidy reductions have compensated for a general increase in use of antidepressants, particularly newer, more expensive ones.



No. of Prescriptions for methylphenidate

Year ending 30 June	North	Midland	Central	Southern	**Total**
1993	713	394	702	1,097	**2,906**
1994	1,199	863	1,475	2,006	**5,543**
1995	2,365	2,151	2,715	4,989	**12,220**
1996	4,560	6,060	5,065	8,252	**23,937**
1997	4,754	8,509	7,567	10,390	**31,220**
1998	9,423	10,126	9,865	12,821	**42,235**
1999	11,548	10,820	12,083	14,788	**49,239**
2000	11,718	10,367	12,558	14,631	**49,274**

Expenditure (ex manufacturer, GST excl.) on methylphenidate

Year ending 30 June	North	Midland	Central	Southern	**Total**
1993	$26,389	$11,120	$22,497	$35,664	**$95,670**
1994	$41,807	$25,557	$48,005	$66,002	**$181,372**
1995	$73,229	$63,640	$92,886	$176,977	**$406,732**
1996	$150,463	$249,248	$188,615	$340,093	**$928,419**
1997	$167,233	$400,042	$297,905	$453,354	**$1,318,534**
1998	$352,878	$479,062	$386,328	$583,592	**$1,801,860**
1999	$443,294	$502,477	$492,760	$670,181	**$2,108,712**
2000	$466,824	$483,018	$525,355	$680,934	**$2,156,131**

Hormones

The main development in this section of the Schedule this year was the listing of Fosamax 40mg (alendronate) for Paget's Disease and later Fosamax 10mg, under specific access criteria, for the treatment of osteoporosis. Expenditure for this product is expected to rise to about $1.5 million per annum. This listing in part addresses the concerns of endocrinologists who have also called for wider access to etidronate as an alternative to calcitriol. Meanwhile, a 10% price and subsidy increase for Didronel (etidronate) this year will increase annual expenditure by a further $300,000.

Infections – agents for systemic use

A tender for the sole supply of co-amoxyclav tablets and oral liquids resulted in subsidy reductions of 42% and is expected to reduce expenditure by about $5 million per year. A steady reduction in the overall use of antibiotics, and in particular use of broad-spectrum antibiotics was observed following a repeated awareness campaign to promote the appropriate use of antibiotics. Zeffix (lamivudine) for the treatment of hepatitis B was listed on the Pharmaceutical Schedule in June. Its availability complements the national screening programme established earlier this year. Subsidies for lamivudine are expected to cost the HFA around $2 million per year. PHARMAC also responded to a call for access to cefuroxime, clarithromycin, gentamicin and vancomycin for the prophylaxis of endocarditis and azithromycin for sexual abuse care with additional funding and widened access.

Musculo-skeletal system

In common with trends in past years, PHARMAC continued to reduce the subsidies on NSAIDs – this time with subsidy reductions on diclofenac which are expected to reduce expenditure by $2 million per annum.

Nervous System

There was significant pressure to widen access to the anti-psychotic drug Zyprexa (olanzapine) and to fund beta-interferon for MS. The decision to widen access to olanzapine, at an expected additional cost of up to $9 million per year, contributed to the improved access to atypical anti-psychotic agents since PHARMAC assumed responsibility for them in February 1999. For the first time since these agents were funded in 1996, the number of patients accessing them is above targets set by the Ministry of Health.

After nearly 12 months of rigorous analysis, PHARMAC was directed by the Minister of Health, the Hon. Annette King, to fund beta-interferon. A specialist committee (the MS Treatments Assessment Committee), was established and is expected to approve subsidies for up to 180 patients.

Subsidies for the anti-depressant fluoxetine fell sharply as a consequence of generic listings following expiry of the patent for the original brand, Prozac 20. Savings are expected to total about $8 million per annum.

A Special Authority, aimed at ensuring appropriate prescribing, was put in place for access to subsidies for dexamphetamine and methylphenidate this year. Its implementation was delayed last year due to constraints on processing existing patients caused by a national shortage of psychiatrists. It is too soon to see what effect the Special Authority will have on the trend towards increased numbers of prescriptions and increased costs per prescription in all localities.

Oncology and Immunosuppressants

In recognition of the need for continuous immuno-suppression, the Special Authority for cyclosporin A was amended this year to enable organ transplant patients lifetime access to this pharmaceutical. The Ministry of Health's on-going review of funding for oncology treatments is considering possible changes in access to oncology treatments through the Pharmaceutical Schedule next year.

Respiratory System and Allergies

PHARMAC accepted a proposal from GlaxoWellcome following a competitive commercial process, which resulted in subsidy reductions across a range of corticosteroid MDIs. This agreement was significant, not only because it is expected to produce savings of about $11 million per annum but because it included agreement not to reduce the subsidies for the newer products (containing fluticasone) for three years.

Sensory Organs

The range of treatments for glaucoma was increased this year with the addition of Xalatan (latanoprost) eyedrops to the Pharmaceutical Schedule. Strong uptake of latanoprost is a concern because of its relatively high cost compared with the other subsidised newer agent, Trusopt (dorzolamide). A further subsidy reduction for timolol maleate eyedrops continued a steady trend from last year.

PHARMAC's Decision Criteria

Seeking best health value for the pharmaceutical dollar

PHARMAC seeks to operate in an open, transparent and accountable way. Its reviews and changes to the Pharmaceutical Schedule are governed by its Operating Policies and Procedures – a public document developed in consultation with the pharmaceutical industry. The document emphasises the importance of basing decisions on the latest research-based clinical information, and it sets out criteria to be taken into account in decisions about the Schedule. These criteria are:

- the health needs of all New Zealanders,
- the availability and suitability of existing medicines, therapeutic medical devices or related products to meet health needs,
- the clinical benefits, risks and costs of new medicines, therapeutic devices or related products,
- the cost-effectiveness of meeting health needs by purchasing pharmaceutical services rather than by purchasing other health care and disability services,
- the overall budgetary impact of any changes to the Pharmaceutical Schedule,
- the direct cost of pharmaceuticals to users,
- any recommendations on core health and disability services made by the National Health Committee (previously known as the Core Services Committee), and
- any other matters that PHARMAC sees fit.

No. of patients on atypical anti-psychotic agents

Year ending 30 June:	1999	2000
Clozapine	1,175	1,723
Olanzapine	1,083	1,659
Quetiapine	43	57
Risperidone	4,120	6,259
TOTAL Patients	**6,421**	**9,698**
Ministry of Health targets	7,450	7,950

Economics in healthcare sector

Health economist, Brian Easton, discusses the contribution of economic modelling to the health funding debate.

It is increasingly common for an economist to be approached by some group lobbying for the introduction of a new therapy, or perhaps by the Government who wants guidance. The therapy is expensive, and so the question of whether it can be used involves issues of costs and benefits. Answering that question – or, more precisely, making an economic contribution to answering that question – is rarely easy, yet the welfare of patients depends on it. Not only the welfare of those who may be treated but, given the overall budget constraint, diverting resources to the treatment of one disease will leave others without treatment or on a waiting list.

While in practice there has to be some restraint on the amount a nation spends on health, a further complication arises when someone other than the sick or their families pay for the care. The 'other' may be the public purse or a private medical insurance, but in either case there is a separation between the consumer of the treatment and the funder. Medical insurance may pass the additional costs onto the pool of insured, driving up insurance premiums. The Government may pass the additional costs on as higher taxation. Eventually there is resistance to the higher premiums or taxes.

It is possible to ameliorate this impasse by ensuring the treatment is effective, relative to its cost. This is easier said than done. In principle there is surprisingly little information on the detailed effects of many new therapies (and, indeed, many well established ones). This is partly a consequence of the difficulties of accumulating good scientific evidence, but it also reflects a willingness to market a therapy as early as possible. Delaying until a full understanding is obtained might mean some sufferers will miss out, and the profit to the supplier is reduced. Identifying all the consequences of a therapy, good and bad, may literally take generations.

Even where there is sufficient information there is still the problem of measuring the benefits and costs. The best available method involves evaluating the quality adjusted life years (QALYs) gained per dollar outlaid. However , QALYs are difficult to measure and it is not obvious which costs should be included (those to the health budgets, to the entire government budget, to the nation as a whole, including or excluding the costs to the individual and family)?

The New Zealand public health system, including PHARMAC, has been exploring the use of the technique. In practice this means a medication is more likely to be approved if its dollar cost per QALY gained is below some set threshold, but the decision is supplemented by other criteria and common sense. Currently, the main effect of the measure is to discard some very inefficient therapies. As a result there is more to spend on successful ones. Eventually the measure may give guidance on the right size of the PHARMAC budget. I wouldn't be surprised if it is larger than the current one, but we do not have the information yet to guide the political decision.

There is an ethical issue here. It would be unacceptable if economists, say, were to determine medical treatment. That is the clinicians' job. We have a model to help resolve the tension. Hospitals have 'preferred drugs lists' which restrict the use of pharmaceuticals unless they are on the list, or unless senior colleagues approve. PHARMAC has, in effect, done the same at the national level by deciding which are government funded and which are not. Their decisions should not merely be the expert judgements of PHARMAC's staff, consultants and Board. The clinicians using the therapies, in addition to those who participate on PTAC and its sub-committees, have to be involved too, and committed to a strategy of ensuring the therapies they use are not only clinically effective but are also cost effective. Otherwise economists and accountants will make the decisions for them, because the cost dimension cannot be ignored.

That is one reason why there must be a public discussion of the resource issues in medical care, and the need to allocate – intelligently, humanely and ethically – the available funds to get a maximum return for patients and the nation as a whole.

Brian Easton

The operations of PHARMAC

Financial Impact of PHARMAC's decisions

Most people understand the finite public resources available for health. Every dollar is under increasing pressure from our ageing population's increasing expectation of medical and pharmaceutical intervention. For pharmaceuticals this is manifested by a steady increase in the number of prescriptions being subsidised and a shift towards the use of newer, more expensive formulations. As a consequence, there is underlying growth in pharmaceutical expenditure of 8% per year. Consequently, to have new medicines and stay within a budget that doesn't allow for much growth, we need to make savings.

Since it began PHARMAC has yielded savings to the taxpayer of $328 million, listed 569 drugs and widened access to 118 drugs. Next year it expects to consider a number of other new investments and will need to make savings of $40 million before it can afford any of them.

Staff

Our staff are highly qualified, but relatively young, so it's hardly surprising some move abroad, others have babies and, regrettably, some leave to pursue other opportunities. Consequently, at times this year we were understaffed, particularly amongst the therapeutic group managers and the Demand-side team. Because of the high workload, the recruitment of suitable staff has been an on-going priority. Being a small organisation, it is important to maintain a balance between cohesion of personalities and a broad perspective of views. PHARMAC is also demanding of its staff, so it's not always easy to find suitable candidates. We look for people with experience in both the health and commercial sectors, as well as a toughness required to survive in the public service, which limits the pool of talent.

We finished the year with a full complement of staff, with additions to the team including two pharmacists, two scientists and a doctor. Comparing this year's staff list to last years suggests an increase in staff numbers. This largely reflects growth in the number of part-time staff or the conversion of contractors to full time staff members with the exception of an addition to the Demand-side team.

Listing changes to the Pharmaceutical Schedule[1]

Year ended 30 June Number	**2000**	1999	1998	1997	1996	**Total since 1994**
New chemical entities listed	**18**	32 (4)	14	11	7	**101**
New presentations listed	**21**	40	33	24	23	**175**
New products listed	**39**	56	53	20	32	**286**
Total new listings[2]	**78**	**128**	**100**	**55**	**62**	**569**
Derestrictions or expanded access[3]	**17**	34	14	10	13	**118**
Changes that restrict or limit access	**6**	3	7	6	4	**30**
De-listing	**362** (5)	51	106	14	0	**533**

In seven years, 569 new or enhanced products have been listed, access has been widened for a further 118 and 563 products have either been restricted or de-listed.

1. *Based on the date on which decisions are implemented.*
2. *Does not represent the total number of products added to the Schedule, since the listing of one new chemical entity can result in the listing of more than one presentation.*
3. *By decision, not necessarily the number of chemical entities affected.*
4. *A higher than usual number of new chemical entities were listed last year. This was, in part, due to the completion of a review of Special Foods that resulted in 13 new listings.*
5. *A higher than usual number of products were de-listed this year due to sole supply arrangements and the completion of the review of Extemporaneously Compounded Products.*

Given the difficulties in recruiting suitable staff, we have done our best to enable staff whose circumstances have changed to stay with us. We are also keen for our staff to maintain and upgrade their skills. For some this has meant completing university courses while others have undertaken other training.

New staff have brought fresh perspectives. Often our internal debates have mirrored those we have with external parties with an interest in PHARMAC's activities: What is the role of evidence in our decisions? How much weight should we place on clinical judgement compared with clinical trials? There are no right answers to these questions, but the process of discussing them is healthy and interesting.

The PHARMAC Board

The Board remained unchanged with the majority of members coming from the HFA, but complemented with external directors. Together they brought a mix of perspectives to the process of making decisions affecting the Pharmaceutical Schedule. At the end of the year changes were signaled, with the majority of directors to be replaced. We are grateful for their significant contribution to both these and decisions affecting the administration of PHARMAC.

Applications declined by PHARMAC Board[1]

Years ended 30 June Number	**2000**	1999	1998	1997	1996	**Total since 1994**
New chemical entities	**1**	20 [(2)]	2	14	5	**65**
New presentations	**2**	0	10	3	8	**31**
New products	**0**	0	2	11	9	**31**
Derestrictions	**0**	3	1	1	1	**11**
Totals	**3**	23	15	29	21	**138**

This year, the PHARMAC Board considered 81 applications for subsidy for 81 products of which 78 were listed, and 3 declined. The acceptance rate, therefore, was 96 percent.

1. *Based on the date on which decisions are implemented.*
2. *A higher than usual number of declined applications for new chemical entities is due mainly to the Special Foods review which resulted in 18 declines.*

Communication

During the year, our offices were relocated (but still in central Wellington) to become physically part of the HFA. We were nicknamed 'Fortress PHARMAC' because of the high levels of security implemented to protect the commercially sensitive information we handle. Although we put up physical walls, in many other ways we have tried to remove barriers to make PHARMAC more accessible to others. This effort was spearheaded by the Demand-side Team which has focused on explaining what we do, and why. But all the PHARMAC team demonstrate a keen responsibility for improving the public's understanding of our role.

Practical steps we have taken to improve that understanding include:

- making our business plan available via our website (**www.pharmac.govt.nz**);
- providing responses more regularly to submissions we receive via our consultation process;
- attendance at 10 medical conferences this year (and accepting invitations to present at 7 of these);
- media releases issued by PHARMAC this year (mostly to explain new listings or subsidy changes).

We often receive requests data about pharmaceutical expenditure. While we try to respond to these requests, they can consume a significant amount of time and put further pressure on our small staff. This year's annual review includes specific data on a number of frequently asked questions.

PHARMAC has continued its proactive approach with politicians, maintaining our 'no surprises' policy. We appreciate some of our decisions are initially unpopular with the public (dislike of change is part of the human condition), but public acceptance of our activities has been helped by the support received from politicians across the political spectrum.

0800 line

PHARMAC continued to provide an 0800 number and freepost service. The information line is available toll-free between 9.00 and 4.00 pm weekdays – though it sometimes rings at weekends when staff are often in the office working to meet deadlines! We aim to respond to calls within 24 hours.

This year, we received 4,635 calls on the 0800 number from a variety of sources – patients, students, pharmacists, doctors, nurses, dieticians, health educators and Members of Parliament.

www.pharmac.govt.nz

Our website contains detailed information about PHARMAC's role, activities and how it makes drug subsidy decisions. Most of PHARMAC's publications can be viewed, including the Pharmaceutical Schedule and monthly Updates, the Operating Policies and Procedures, press releases and Annual Review. The website features a calculator which enables visitors to calculate the cost of their prescription to the Government and themselves.

Electronic Claiming

After many years of talk and planning, pharmacists are now finally able to claim for reimbursement of subsidised pharmaceuticals electronically. It has been a major exercise, orchestrated by the HFA and with substantial input from the stakeholder group, including Health Benefits Ltd (HBL), the Pharmacy Guild, pharmacy software vendors and PHARMAC – chaired by Wayne McNee. Working with other parties has occasionally been frustrating but more often rewarding. We have developed a much better understanding of each other's roles and priorities which enabled more constructive communication.

PHARMAC's primary role in this project has been the preparation of an electronic version of the Pharmaceutical Schedule, which is sent monthly to pharmacy software vendors (who transmit it to pharmacists), and simultaneously to HBL (for processing pharmacists' claims).

Switching from manual to electronic claiming required a review of all the restrictions within the Schedule to ensure they would work in the electronic form. Roll out of electronic claiming began in March, and the steady increase in pharmacists switching to the new system is testament to the careful planning preceding its implementation.

Financial Performance

The annual cost of running PHARMAC fell this year again to its lowest level since 1996. The fall is mostly due to decreased spending on consultants. Higher than usual recruitment costs contributed to increased staff costs. Office costs increased as a consequence of relocation. Costs associated with litigation, which rose this year, resulted from mainly action brought against PHARMAC in respect of its contracts.

The annual cost of PHARMAC

Derived from audited figures for years ended 30 June

$ 000s	**2000**	1999	1998	1997	1996
Staff costs *(includes Directors' and professional fees)*	**1,598**	1,539	1,440	1,245	1,170
Office costs *(includes depreciation, rent, phones, library, purchase of data, ordinary legal costs)*	**1,744**	1,701	1,176	855	925
Consulting services *(includes PTAC, PR, general consulting, audit fees, HRM and accounting)*	**695**	1,215	1,409	1,517	1,408
Schedule production *(printing and postage only)*	**464**	424	479	345	338
Costs associated with litigation	**736**	594	1,039	1,607	680
Total cost	**$5,237**	$5,473	$5,543	$5,569	$4,521

At balance date, fixed assets comprised $125,000 of office and computer equipment, furniture and fittings.

Increases of more than $500,000 in year ending 30 June 2000

By therapeutic group 2 & 3 *$ millions, ex manufacturer* *GST exclusive*	Dollar change 2000 over 1999	Percentage change 2000 over 1999	Percentage change 2000 over 1993
Inhaled corticosteroids – metered dose inhalers – Very high dose	0.50	0.07	N/A
Inhaled corticosteroids – breath activated devices – Very high dose	0.55	0.08	–0.32
Corticosteroids – Injectibles – Corticosteroids – Injectibles	0.60	0.77	0.38
Oral Supplements/Complete Diet (nasogastric/ gastronomy tube feed) – Oral Supplements/ Complete Diet (nasogastric/gastronomy tube feed)	0.61	0.29	10.39
Agents affecting the Renin-Angiotensin system – ACE Inhibitors with Diuretics	0.64	0.50	–0.68
Calcium Homeostasis – Calcium Homeostasis	0.70	0.42	4.26
Antiretrovirals – Nucleosides reverse transcriptase inhibitors	0.75	0.35	2.60
Metabolic Disorder Agents – Gaucher's Disease	0.78	N/A	N/A
Diabetes – Insulin: Intermediate and Long-acting Preparations	0.78	0.10	0.90
Diabetes – Insulin: Rapid acting insulin analogues	0.79	63.61	N/A
Trophic Hormones – GnRH Analogues	0.83	0.54	2.37
Calcium Channel Blockers – Other Calcium Channel Blockers	0.91	0.12	–0.15
Anticonvulsants – New Antiepileptics	0.91	0.27	N/A
Alpha Adrenoceptor Blockers – Alpha Adrenoceptor Blockers	0.95	0.19	1.50
Inhaled beta-adrenoceptor agonists – breath activated devices – High dose	1.00	1.11	–0.53
Trophic Hormones – Trophic Hormones	1.02	0.37	–0.39
Antianaemics – Hypoplastic and Haemolytic	1.12	0.52	1.54
Antifungals – Antifungals	1.12	0.23	2.12
Anticonvulsants – Control of Epilepsy	1.14	0.12	0.53
Antimigraine Preparations – Acute Migraine Treatment	1.43	0.24	6.34
Immunosuppressants – Immunosuppressants	1.92	0.28	0.55
Diabetes Management – Glucose/Blood Testing	2.16	0.19	0.97
Nutrient Modules – Carbohydrate	3.38	1.45	41.37
Anti-ulcerants – Proton Pump Inhibitors	10.58	0.51	7.32
Antipsychotics – General	13.41	1.60	1.99
Lipid Modifying Agents – HMG CoA Reductase Inhibitors (statins)	14.60	0.90	2.84

Decreases of more than $200,000 in year ending 30 June 2000

By therapeutic group 2 & 3 *$ millions, ex manufacturer* *GST exclusive*	Dollar change 2000 over 1999	Percentage change 2000 over 1999	Percentage change 2000 over 1993
Nedocromil – Nedocromil	–0.21	–0.23	N/A
Gynaecological anti-infectives – Gynaecological anti-infectives	–0.22	–0.45	–0.67
Pregnancy tests – HCG urine – Pregnancy tests – HCG urine	–0.22	–0.25	–0.23
Extemporaneously Compounded Preparations & Galenicals – Extemporaneously Compounded Preparations & Galenicals	–0.22	–0.85	–0.81
Antivirals – Recurrent episodes of genital herpes	–0.23	–0.12	–0.06
Inhaled corticosteroids – metered dose inhalers – Low dose	–0.23	–0.28	0.22
Antitrichomonal Agents – Antitrichomonal Agents	–0.23	–0.33	–0.16
Lipid Modifying Agents – Fibrates	–0.24	–0.04	1.01
Diabetes – Oral Hypoglycaemic Agents	–0.25	–0.04	0.40
Antibacterials – Other Antibiotics	–0.26	–0.06	0.71
Inhaled beta-adrenoceptor agonists – nebuliser solutions – High dose	–0.26	–0.25	–0.22
Antibacterials – Cephalosporins and Cephamycins	–0.29	–0.10	–0.26
Sedatives and Hypnotics – Sedatives and Hypnotics	–0.31	–0.22	–0.04
Sodium cromoglycate – Sodium cromoglycate	–0.33	–0.34	–0.65
Corticosteroids and Related Agents for Systemic Use – Corticosteroids and Related Agents for Systemic Use	–0.34	–0.20	0.19
Scalp Preparations – Scalp Preparations	–0.35	–0.36	–0.04
Gluten Free Foods – Bread and Bake Mixes	–0.38	–0.77	6.00
Fluids and Electrolytes – Intravenous Administration	–0.39	–0.23	–0.65
Urinary Agents – Other Urinary Agents	–0.43	–0.44	0.23
Metabolic Disorder Agents – Other Metabolic Disorder Agents	–0.55	–0.97	N/A
Inhaled anticholinergic agents – nebuliser solutions – High dose	–0.57	–0.41	–0.09
Antibacterials – Macrolides	–0.69	–0.30	–0.39
Antivirals – First episode genital herpes	–0.77	–0.69	N/A
Antidepressants – Cyclic and Related Agents	–0.84	–0.21	–0.23
Immunosuppressants – Cytotoxic Immunosuppressants	–0.94	–0.45	1.02
Contraceptives – hormonal – Combined oral contraceptives	–1.10	–0.16	–0.16
Endocrine Therapy – Hormones and Related Agents	–1.22	–0.31	–0.17
Anti-acne Preparations – Anti-acne Preparations	–1.49	–0.18	0.95
Antidepressants – Selective Serotonin Reuptake Inhibitors	–1.62	–0.07	5.76
Anti-inflammatory Non Steroidal Drugs (NSAIDs) – Anti-inflammatory Non Steroidal Drugs (NSAIDs)	–1.71	–0.20	–0.49
Inhaled beta-adrenoceptor agonists – breath activated devices – Terbutaline 500 ug	–1.88	–0.59	–0.11
Inhaled corticosteroids – metered dose inhalers – Medium dose	–2.20	–0.36	–0.18
Beta Adrenoceptor Blockers – Beta Adrenoceptor Blockers	–2.37	–0.21	–0.32
Antibacterials – Penicillins	–2.48	–0.15	0.07
Inhaled corticosteroids – metered dose inhalers – High dose	–2.61	–0.27	–0.11
Anti-ulcerants – H_2 Antagonists	–3.12	–0.48	–0.72
Calcium Channel Blockers – Dihydropyridine Calcium Channel Blockers (DHP CCBs)	–7.43	–0.45	0.09

Directory

PHARMAC Board

Directors to 30 June 2000

Denis Tait *(Chairman)*
David Moore *(HFA)*
Peter Wilson *(Independent)*
Kath Fox *(HFA)*
Gabrielle Collison *(HFA)*

Alternate Directors

Michael Sewell *(Independent)*
Win Bennett *(HFA)*

New Directors for the year ending 30 June 2001

Richard A Waddel, BCom, FCA, *(Chairman)*
David Moore, MCom, Dip Health Ec, CA
Ross Black, BCom
Liz Coutts, BMS, CA
Gregor Coster, MSc, MBChB, FRNZCGP
Karen Guilliland, Dip Nursing, MA

Alternate New Director for the year ending 30 June 2001

Peter Hughes, BA, Dip Bus Admin, M Public Admin

Pharmacology and Therapeutics Advisory Committee (PTAC)

John Hedley, MBChB, FRACP, FACCP, Member Thoracic, Cardiac and Gastroenterology Societies of Australia and New Zealand, Chairman

Robin Briant, MD, FRACP, physician and pharmacologist

Bruce Foggo, MBChB, Dip Obst, FRNZCGP, general practitioner

Allan Moffitt, BHB, MBChB, Dip Obs, general practitioner (Resigned Feb 00)

Peter Pillans, MBChB, FCP, FRACP, pharmacologist

Tom Thompson, MBChB, FRACP, physician

Paul Tomlinson, MBChB, MD, MRCP, FRACP, BSc, paediatrician

PTAC sub-committees

Asthma

John Hedley (PTAC), Chair
Innes Asher, paediatrician
Carl Burgess, clinical pharmacologist
Julian Crane, respiratory physician
Les Toop, general practitioner
Ian Town, respiratory physician

Mental Health

Robin Briant (PTAC)
Peter Ellis, psychiatrist, Chair
Carl Burgess, clinical pharmacologist
John Hopkins, psychiatrist
Anne Walsh, psychiatrist
Janet Holmes, general practitioner

Antibiotics

John Hedley (PTAC), Chair
Robin Briant (PTAC)
Bruce Foggo (PTAC)
Sandy Smith, microbiologist
Paul Tomlinson (PTAC)
Mark Thomas, infectious diseases specialist

Special Foods

Paul Tomlinson (PTAC), Chair
Kerry McIlroy, dietician
Jo Stewart, dietician
John Wyeth, gastroenterologist

Cardiovascular

John Hedley (PTAC), Chair
Alan Moffitt (PTAC)
Gary Gordon, cardiologist
Lannes Johnson, general practitioner
Miles Williams, cardiologist
Peter Pillans (PTAC)

Hormonal Contraceptives

Bruce Foggo (PTAC)
Sharon Kletchko, physician, Chair
Frances McClure, general practitioner
Christine Roke, general practitioner
John Hutton, reproductive endocrinologist

Diabetes

Tom Thompson (PTAC), Chair
Pat Carlton, diabetes nurse specialist
Paul Drury, diabetologist
Tim Kenealy, general practitioner
Peter Moore, diabetologist

Neurological

Tom Thompson (PTAC), Chair
Alistair Dunn, general practitioner
Lindsay Haas, neurologist
John Hedley (PTAC)
William Wallis, neurologist

Nucleosides

John Hedley (PTAC), Chair
Evan Begg, clinical pharmacologist
Stephen Chambers, infectious diseases specialist
Richard Meech, physician
Mark Thomas, infectious diseases specialist
Paul Tomlinson, (PTAC)

Osteoporosis

John Hedley (PTAC), Chair
Peter Black, physician and clinical pharmacologist
Anna Fenton, endocrinologist
Ian Reid, endocrinologist
Richard Sainsbury, geriatrician
Les Toop, general practitioner

CNS Stimulants

John Hedley (PTAC), Chair
Paul Tomlinson (PTAC)
Allan Moffitt (PTAC)
Martin Pollock, neurologist
John Werry, psychiatrist

Extemporaneously Compounded Preparations (ECP)

Allan Moffitt (PTAC), Chair
Sue Peacock, pharmacist
Brian Walker, pharmacist
David Woods, pharmacist
Bruce Taylor, dermatologist

The PHARMAC team

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Jason Arnold, BSc, PG Dip Stats, *forecast analyst*
Richard Braae, BCom (Hons), MA, *strategic development manager*
Matthew Brougham, MSc (Hons), Dip Health Econ, *senior analyst*
Ruth Casalvolone, BPharm, MBA, *demand side manager* (Resigned Nov 99)
Mary Chesterfield, *receptionist (part time)*
Cristine Della Barca, Dip Pharm, Dip Bus Admin, MPS, *therapeutic group manager*
Jan Edwards, *office manager*
Ursula Egan, Dip Pharm, MPS, *schedule analyst (part time)*
John Geering, BA, BSc, *programmer/analyst*
Kyle Jones, BA BSc (Hons), *transactions manager*
Luca Li Bassi, Medical Doctor, Dip Mgt, *therapeutic group manager*
Jan McNee, BPharm, MPS, *schedule assistant (part time)*
Lele Ma'auga, *therapeutic group assistant*
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Jan Quin, RCpN, *project manager (part time)*
Maureen Narayan-Ram, MPharm, MPS, *demand-side manager*
Dilky Rasiah, MBChB, DPH, *therapeutic group manager (maternity leave Feb 00)*
Sarah Schmitt, BSc, *therapeutic group manager*
Rico Schoeler, Diplom – Volkswirt, Dip Econ, *analyst*
Glenda Stewart, *receptionist*
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