

New Zealand's Medicines Landscape

2018/19

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Medicines
New Zealand



Better health outcomes for New Zealanders

Message From the Chairman

Many comparable countries have access to breakthrough world class medicines and treatments, yet New Zealand's current funding model continues to deprive New Zealanders of publicly funded access to these medicines. **We are not a poor country and that should never be an excuse for the rationing of medicines.**

New Zealand's medicines funding model is now more than 25 years old. Medicines have changed, prescribing has changed, and this is best seen in the areas of personalised and precision medicine. This precision medicines approach is sometimes done in the private sector but not always available in the public sector. **Have we become a country where it is "survival of the richest"?**

When patients, some of whom are fighting for their lives, start protesting on the streets then I think we have an issue. Patients should be made the priority in the decision-making process to publicly fund medicines. **Increasing New Zealand's access to modern medicines can improve the well-being of patients and provide long-term cost-effective savings for our health system.**



Dr Lee Mathias - Board Chairman

New Zealand is not a poor country ¹

New Zealand ranks **28 out of 182** countries for its wealth, making us comparable to other OECD countries.



Finland



United Kingdom



France



New Zealand

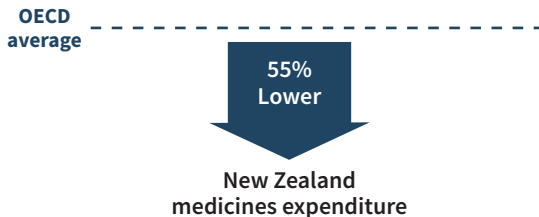


Italy



Spain

Yet our investment in modern medicines is lower than most countries ^{2,3}



New Zealand's medicines expenditure per capita is 2nd lowest in the OECD.

1. List of countries by GDP (PPP) per capita. (2019, March 06). Retrieved from [https://en.wikipedia.org/wiki/List_of_countries_by_GDP_\(PPP\)_per_capita](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP)_per_capita). **2.** Health at a Glance: OECD Indicators. (2017). Paris, France. **3.** OECD Health Statistics. (2018). Paris, France.

HEALTH INEQUITY IN NEW ZEALAND

Some of our cancer deaths are avoidable ¹

If treatment and therapies were the same as Australia



3631 deaths avoided over a 5 year period in New Zealand

Māori
2.1x
higher avoidable cancer death rates than non-Māori

Diabetes impacts our ethnic communities more significantly ^{2,3,4,5,6}

Currently
200,000



with type 2 diabetes

Nearly

40

diagnosed every day



1 in 5 Indian



1 in 9 Pasifika

These communities most affected

New Zealand is second to the United States in years of life lost to diabetes.

8 modern medicines publicly funded in other countries but not in New Zealand that can reduce ongoing complications.

Arthritis is a leading cause of disability and loss of wellbeing ^{7,8}

Currently
670,000



with arthritis

Expected to rise to **1 million**



by 2040

Māori men

1.4x

more likely to have arthritis than non-Māori men

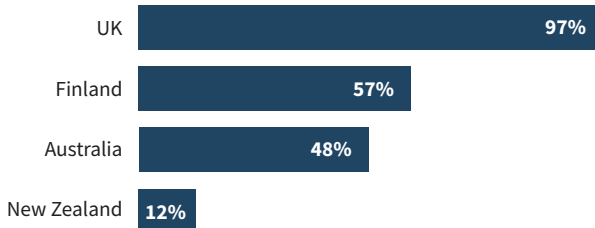
5 biologic medicines publicly funded in other countries but not in New Zealand that can reduce ongoing damage and 6 medicines that can treat personalised conditions.

1. Sandiford, R. et al. (2015) *Aust NZ J Public Health*. 2015; 39: 157-161. **2.** Type 2 diabetes - symptoms, diagnosis, treatment. (n.d.). Retrieved from <https://www.southerncross.co.nz/group/medical-library/type-2-diabetes-symptoms-diagnosis-treatment>. **3.** Ministry of Health. (2015). *Living Well with Diabetes: A plan for people at high risk of or living with diabetes, 2015-2020*. Wellington, New Zealand. **4.** Ministry of Health. (2016). *'Ala Mo'ui progress report*. Wellington, New Zealand. **5.** Statistics New Zealand. (2013). <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-culture-identity/asian.aspx> **6.** Danaei, G. et al. (2011) *Lancet*. 378: 31 – 40. **7.** *Arthritis New Zealand*. (2018). *The economic cost of arthritis in New Zealand in 2018*. Wellington, New Zealand. **8.** *Arthritis New Zealand*. (2017). *Taking the next steps for arthritis: an Arthritis New Zealand election manifesto*. Wellington, New Zealand.

MEDICINES INEQUITY - THE GROWING GAP

Comparable countries have better access to modern medicines ¹

New Zealand ranks last out of 20 OECD countries for market access* to modern medicines.



*This measures the number of modern medicines registered, time it takes to access and how many are publicly funded.

Three times more modern medicines were publicly funded in Australia between 2011 and 2017 ²



Unique medicines publicly funded between 2011 and 2017 ²



Other countries invest more of their total health budget to publicly fund medicines ^{3,4,5,6,7}



1. Medicines Australia. (2018). Comparison of access and reimbursement environments (COMPARE) 4th edition. Canberra, Australia. 2. IQVIA (2018). Access to Medicines (AtOM) Report. Wellington New Zealand. Retrieved from https://www.medicinesnz.co.nz/fileadmin/user_upload/IQVIA_ATOM_Report_2018_FINAL_.pdf. 3. PHARMAC. (2018). Pharmac Budget 2018/2019. Wellington, New Zealand. Retrieved from <https://www.pharmac.govt.nz/news/media-2018-05-17-pharmac-budget-2018-19/> 4. National Institute For Health And Welfare. (2016). Health Expenditure and Financing 2016. 5. PHARMA. (2019). Prescription Medicines: Costs in Context. 6. Pocket Statistics: The Social Insurance Institution of Finland. (2017). 7. Treasury. (2018). Vote Health: the estimates of appropriations 2018/19. Wellington, New Zealand.

A CLOSER LOOK AT THE NEW ZEALAND FUNDING SYSTEM

Most common process for funding modern prescription medicines



The Pharmacology and Therapeutics Advisory Committee (PTAC) reviews funding applications for new medicines. PTAC makes recommendations on which medicines should be funded by PHARMAC. Until medicines are funded they remain on the Waiting List.

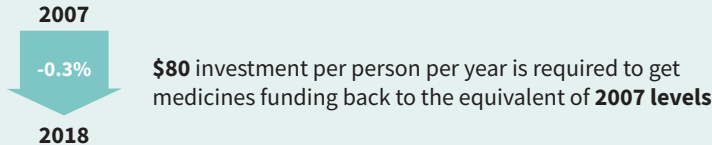
New Zealand takes 247 days longer than Australia to fund the same modern medicines ¹



80% of these public funding decisions were made faster in Australia. Some of these decisions were up to 9 times faster.

New Zealand's medicines budget has been significantly underfunded ²

Between 2007 and 2018 the medicines budget shrank in real terms by 0.3%.



While the total health budget has increased, the medicines budget has not kept up with population growth and inflation.

1. IQVIA (2018). Access to Medicines (AtoM) Report. Wellington New Zealand. Retrieved from https://www.medicinesnz.co.nz/fileadmin/user_upload/IQVIA_ATOM_Report_2018_FINAL_.pdf. 2. NZIER. (2018). Community Pharmaceuticals Expenditure Trends. Wellington, New Zealand. Retrieved from https://www.medicinesnz.co.nz/fileadmin/user_upload/Information_Leaflets/community_pharmaceutical_expenditure_nzier_to_medicines_nz_december_2018_update_final.pdf.

NEW ZEALAND'S FUNDING SYSTEM HAS IMPACTS ON PATIENTS

Doctors views on access to medicines in New Zealand ^{1,2}



71%

think the range of funded medicines may compromise patients' health outcomes



73%

think New Zealand takes too long to subsidise newer medicines

Cancer ³

Median survival for advanced breast cancer patients



16 months

New Zealand



32 months

Global

One of the contributing factors is better access to medicines overseas.

Mental Health ⁴

Changing the brand of funded antidepressant medicines



per year saved on the cost of the medicine

But:

142 side effect reports

1 suicide attempt reported

The impact of 1 suicide is estimated to cost New Zealand \$5.6 million.

Compared with Canada, New Zealand has worse health outcomes for a range of diseases ⁵



30% higher

New Zealand mortality rates

- COPD/asthma
- Arthritis
- Stroke
- Heart attack



30% higher

New Zealand hospitalisation rates

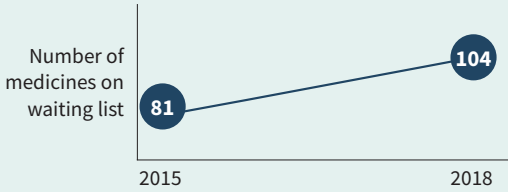
- Stroke
- Arthritis
- Cancer
- Diabetes

These poorer health outcomes are linked to having a smaller number of funded medicines.

1. IMS NZ fax poll: Results presentation for Medicines New Zealand. (2016). New Zealand. **2.** The University of Auckland. (2015). Pharmaceutical policies in Australia and New Zealand. 3rd International PPRI Conference: Pharmaceutical Pricing and Reimbursement Policies: Challenges beyond the Financial Crises. Vienna, Austria. **3.** Breast Cancer Foundation NZ. (2018). "I'm still here": Insights into living - and dying - with Advanced Breast Cancer in New Zealand. Wellington, New Zealand. **4.** NZIER. (2018). PHARMAC economic analysis and "savings" claims. Wellington New Zealand. Retrieved from https://nzier.org.nz/static/media/filer_public/a0/e1/a0e1043d-93dd-491c-b8fe-f3f474acbce0/pharmac_savings_background_note.pdf. **5.** Rawson, N. S. B. (2016). Can. Health Policy. Canadian Health Policy Institute. Toronto, Canada. Retrieved from: <https://www.canadianhealthpolicy.com/products/fewer-treatment-options-for-patients-if-canada-adopts-new-zealand--s-prescription-drug-policies-.html>

MEDICINES WAITING LIST

More medicines wait to be funded ¹



Including:

- Mental health/dementia: 6
- Arthritis: 5
- Cancer: 18
- Diabetes: 9
- Rare disorders: 5
- Heart disease: 9



Medicines recommended for funding but sitting on waiting list



Waiting up to 13.92 years

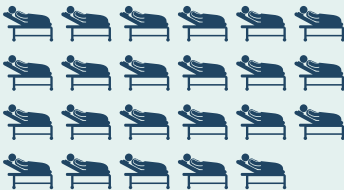


16 PTAC high priority recommendations



Waiting up to 5.92 years

A growing number of patients wait for access to these medicines ²



For only 1/3 of medicines on the waiting list...

250,000+

patients are waiting for access.

This is more than the population of Otago!

These medicines are already publicly available in over 45 other countries including: ^{2,3}



Finland



Estonia



Greece



Kazakhstan



Latvia



Peru



Mexico

¹. Della Barca, C. (2018). *Funding medicines in New Zealand: Revision of the Medicines Waiting List*. Auckland, New Zealand. Retrieved from https://www.medicinesnz.co.nz/fileadmin/user_upload/Information_Leaflets/New-Zealands-Medicines-Waiting-List-July-2018.pdf ². MNZ Member survey responses. (2018). Wellington New Zealand. ³. PTAC minutes. (2004-2018).

BENEFITS OF MODERN MEDICINES

Modern medicines help patients get back to work, education and training ^{1,2}

Migraine

1 in 5 migraine patients are affected by migraines for more than 15 days per month.

Modern medicines



Can prevent migraines

Cut the number of days with a migraine in half

Improve quality of life

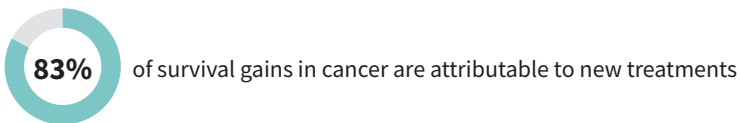
Increase productivity

Cancer

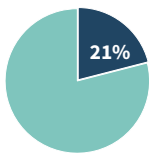


4 out of 5 cancer patients around the world are returning to work following diagnosis due to modern therapies

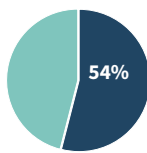
Modern medicines increase survival ^{3,4}



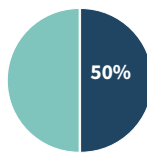
5 year survival rates have been increasing since 1975



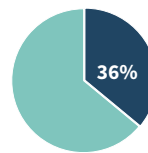
Breast cancer



Lung cancer



Prostate cancer



Colon cancer

Cancer treatments are now moving from life-extending to curative ¹

1. IQVIA (2018). Pipeline Review of Innovative Therapies. Brussels, Belgium. 2. Amir, Z. & Brocky, J. (2009). Occup. Med. 59:373-377. 3. Sun, E. et al. (2008). The determinants of recent gains in cancer survival: an analysis of surveillance, epidemiology and end results SEER database: J. Clin. Oncol suppl. 66:16. 4. PhRMA. (2014). Five Facts About the Value of Innovative Cancer Medicines. Retrieved from <https://catalyst.phrma.org/five-facts-about-the-value-of-innovative-cancer-medicines>

MODERN MEDICINES ARE A COST-SAVING SOLUTION

Modern medicines can save on downstream costs to the health system^{1,2,3}



\$1 spent on
cancer medicines



\$1 saved in New
Zealand health system



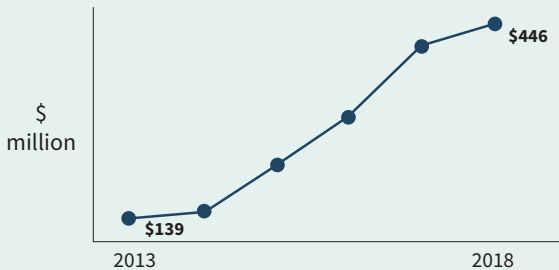
\$3 - \$10 saved

Every dollar spent on modern medicines **saves \$3 to \$10** on hospitalisations from congestive heart failure, high blood pressure, diabetes and high cholesterol for adhering patients



Seasonal flu vaccinations in Europe **save \$330 million each year** on averted GP visits, sick days and hospitalisations

New Zealand saves on the cost of modern medicines when they are publicly funded^{4,5}



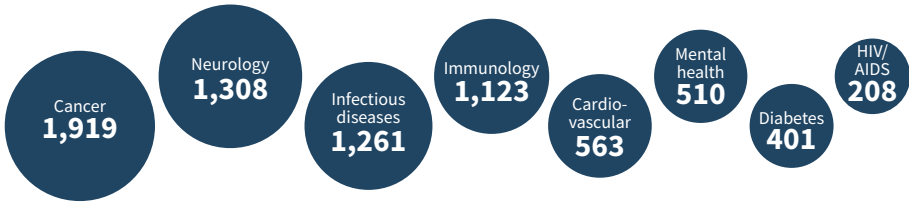
In 2018, **\$446 million of price reductions** on publicly funded medicines were provided by rebates from pharmaceutical companies

The average rebate on a modern medicine has increased from 31% in 2013 to 52% in 2018.

1. Lichtenburg, F., Williams Spence, J. (2016). *The impact of pharmaceutical innovation on the longevity and hospitalisation of New Zealand cancer patients*. New York: Columbia University, National Bureau of Economic Research. **2.** Roebuck, C. et al. (2011). *Health Affairs*, 30: 91-99. **3.** Lichtenburg, F. (2017). *Econ. Record*. 93: 353-378. **4.** PHARMAC Official Information Act (OIA) response to Medicines New Zealand: 12 October 2018 **5.** NZIER. (2018). *Community Pharmaceutical Expenditure Trends*. Wellington, New Zealand. Retrieved from https://www.medicinesnz.co.nz/fileadmin/user_upload/Information_Leaflets/community_pharmaceutical_expenditure_nzier_to_medicines_nz_december_2018_update_final.pdf

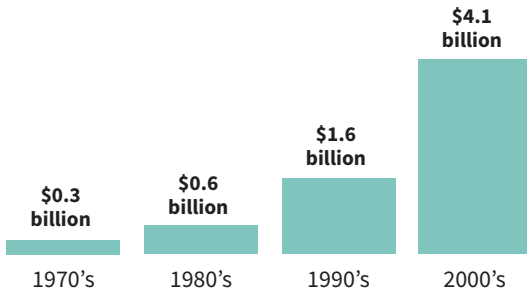
INVESTING IN THE FUTURE OF HEALTH

7000 modern medicines in development around the world ¹



It takes on average 12 years to develop a modern medicine.

The cost to develop a modern medicine is increasing ^{2,3}

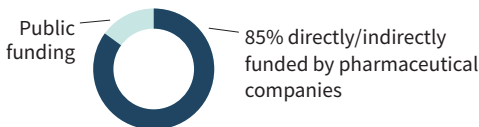


Key drivers include:

- Increased complexity of medicines
- Increased cost of clinical trials
- Higher medicine failure rates during development.

Only 1 in 6,000 compounds make it through the process.

Investment in New Zealand clinical trials ⁴



2018 Value of Medicines Award winner - Research set to impact opioid crisis



Middlemore anaesthetist Dr Nicholas Lightfoot won the Award for his clinical research into pain management for knee replacement surgery.

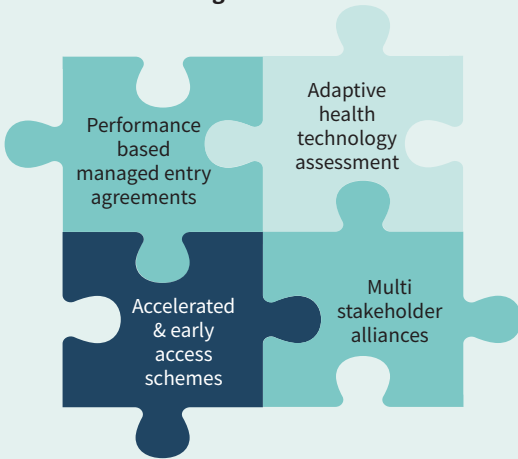
His research limits the need to use opioids by utilising the medicine ropivacaine and a technique called local infiltrative analgesia. **This improves patients recovery time and mobility, leading to overall better health outcomes.**

Dr Lightfoot received a \$20,000 grant to further this research. Medicines New Zealand has been rewarding influential research through its annual Award since 2011.

1. IFPMA. (2017). *The Pharmaceutical Industry and Global Health. Facts and Figures*. Genève, Switzerland. 2. Di Masi, J. A. et al. (2016). *J. Health Econ.* 47: 20-23. 3. Di Masi, J. A. et al. (2014). *Tufts Center for the Study of Drug Development. Innovation in the Pharmaceutical Industry: New Estimates of R&D Costs*. Boston, Massachusetts. 4. Dixon et al. (2019). *Impact of pharmaceutical clinical trials in New Zealand*. Manuscript in preparation.

SOLUTIONS

Other countries are using novel solutions to improve patient access to modern medicines including: ^{1,2,3,4}



Benefits of these approaches:

- ✓ Less stakeholder risk
- ✓ Faster and targeted access for patients
- ✓ Optimised collaboration
- ✓ Patient-centric focus

Australian National Oncology Alliance - an example of a multi-stakeholder solution

The 2018 Parliamentary Dinner was addressed by two speakers from the Australian National Oncology Alliance (NOA), a multi-stakeholder collective, focused on finding innovative solutions to improve patient access to cancer medicines in an economically responsible way.



Professor John Zalcborg

The NOA is co-chaired by one of Australia’s top Medical Oncologists, Professor John Zalcborg and cancer patient advocate Mr Richard Vines. The NOA has more than 100 members, including patients and patient groups, clinicians, the pharmaceutical industry, and the Australian Federal government. **It believes that change comes through collaboration.** The NOA advocates for a health system that keeps up with science, so that patients can access the treatments they deserve.

Professor Zalcborg was asked about New Zealand’s high cancer rates and whether its poorer outcomes compared to Australia were in part due to medicines access. He noted **“Recent studies show that the lives of thousands of New Zealanders could have been saved or extended if they could access these new medicines [that are publicly available in Australia]. This isn’t fair.”**



Mr Richard Vines

Mr Vines said **the NOA is “... this really incredible simple idea that we get everybody together sitting in a room talking about the same problems [and] building solutions.”** Clinicians have the passion to change lives, industry input is key to having the latest treatments at an affordable price and Government and patient voices are critical to find solutions for the future.

The annual Medicines New Zealand Parliamentary Dinner brings top international speakers to New Zealand to provide perspective on international standards, treatments, collaborations and advancements in health.

1. Carlson, J. J. et al. (2017). *Pharmacoeconomics*. 35(10): 1063-1072. 2. Kanavos, P. et al. (2017). *Managing Risk and Uncertainty in Health Technology Introduction: The Role of Managed Entry Agreements*. *Global Policy*, 8, 84-92. 3. Koehane, N., & Petrie, K. (2017). *Outcomes-based reimbursement of medicines*. The Social Market Foundation. London, UK. 4. Dunlop, W. C. N. et al. (2018). *Health Policy*. 122: 528-532.

