

“New Zealand’s peak body representing the entire health and medical research pipeline”

Case for increasing health research investment in the government’s 2022/23 budget

Recommendations

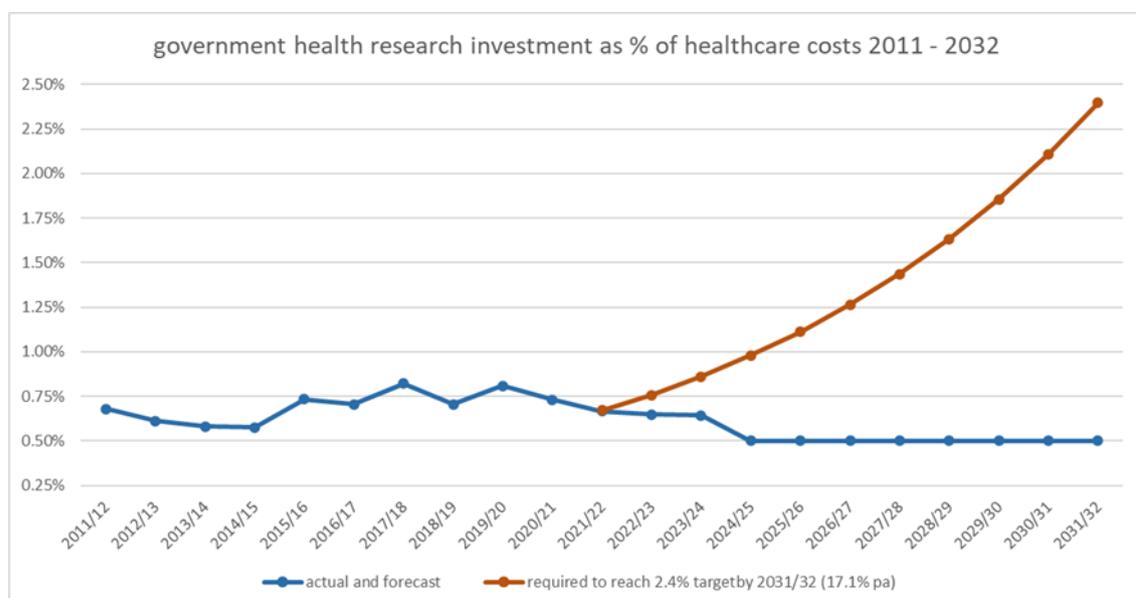
New Zealanders for Health Research (NZHR) recommends that MBIE:

1. allocates an additional \$26m of specific and exclusive new health research investment in the 2022/23 budget, with an emphasis on mental health research
2. commits in the 2022/23 budget to a three year investment trajectory comprising further year on year increases in specific and exclusive new health research funding of an additional \$30.4m in 2023/24, a further additional \$35.6m in 2024/25, and a further \$41.7 again in 2025/26.
3. strongly recommends to government formal adoption of a ten-year 2.4% of government healthcare costs health research investment trajectory, representing increases of 17.1% per year

Introduction

NZHR has over several years repeatedly called for government investment in health research to be substantially increased. However, as illustrated in the chart below, investment in health research as a percentage of health care costs has been falling over the last five years from 0.82% in 2017/18 to 0.67% in the current year 2021/22.

NZHR makes the case for increasing investment to 2.4% of health care costs, and, acknowledging that this will require time for health research workforce and facilities development to occur, argues that there should be a commitment to achieving the target over the course of the next decade. This would require an investment growth trajectory of 17.1% per annum.



Doing nothing is projected to result in investment of 0.5% of health care costs by 2024/25, which will prevail through to 2031/32. This projection assumes government healthcare cost increases of 3.044% per annum and (perhaps optimistically) increases in health research investment at a similar rate from 2025/26. It also assumes that investment in both the health-related national science challenges and the recently announced infectious diseases research platform will not be extended beyond 2023/24.

NZHR has in the past sought to address these concerns by engaging with the government's Finance and Expenditure Committee (FEC) annual Budget Policy Statement consultation processes both in writing and orally^{1 2}. However, it has become evident to us that this is too late to have any real prospects of influencing budget allocation outcomes. Indeed, in its April 2021 report³ to Parliament the FEC stated “we heard oral evidence from 21 submitters [including NZHR]⁴ at a hearing held on 31 March 2021 in Wellington. Given the time constraints we have not reported on the individual submissions we received”. This submission therefore represents a more timely and direct approach.

Allocate \$26m of new health research investment in the 2022/23 budget

NZHR recommends that MBIE allocates an additional \$26m of specific and exclusive new health research investment in the 2022/23 budget, with an emphasis on mental health research

In the first instance, this represents the amount of the first instalment of the ten-year investment trajectory required to reach a 2.4% of government health care costs target.

NZHR proposes that this could be allocated mostly or entirely to mental health research. Given that as at 29th June 2021 only \$24.9 million of the \$438.2 million in Budgets 2018 and 2019 allocated to mental health service improvements had actually been spent⁵, there would appear to be an opportunity to reallocate some of this money to mental health research. This is justified on the following grounds:

- Mental health disorders comprise the third leading cause of healthy life lost to diseases⁶
- There are significant mental health inequities for Māori. The Mental Health and Wellbeing Commission acknowledges that the roll out of Kaupapa Māori services is behind expectations⁷, Māori suicide rates are typically about twice those of non-Māori⁸, and the Office of the Director of Mental Health and Addiction Services reports⁹ that in 2019:
 - Māori made up approximately 17 percent of New Zealand's population, yet they accounted for 29 percent of all mental health service users
 - 6.6 percent of Māori accessed mental health and addiction services, compared with 3.2 percent of non-Māori

¹ NZHR. March 2021. Submission to Finance & Expenditure Committee on Budget Policy Statement (BPS) 2021.

<https://www.nz4healthresearch.org.nz/wp-content/uploads/2021/03/NZHR-submission-re-2021-budget-policy-statement-oral-written-310321.pdf>

² NZHR. January 2020. Submission to Finance & Expenditure Committee on Budget Policy Statement (BPS) 2020

<https://www.nz4healthresearch.org.nz/wp-content/uploads/2020/01/NZHR-submission-re-budget-policy-statement-240120.pdf>

³ Finance and Expenditure Committee. April 2021. Budget Policy Statement 2021 and Half Year Economic and Fiscal Update December 2020 [fb4ec6ce2ec448228a81f7c2d8a7202f6b213759](https://www.parliament.nz/bf4ec6ce2ec448228a81f7c2d8a7202f6b213759) (www.parliament.nz)

⁴ Text in parentheses inserted by NZHR

⁵ Hansard. 29th June 2021. https://www.parliament.nz/en/pb/hansard-debates/rhr/document/HansS_20210629_051600000/12-question-no-12-health

⁶ Health Loss in New Zealand - A report from the New Zealand Burden of Diseases, Injuries and Risk Factors Study, 2006–2016 (moh.govt.nz). Cited in AIA. October 2021. 5590+. The new health insight helping New Zealanders lead Healthier, Longer, Better Lives. [5590-report-2021.pdf](https://www.aia.co.nz/5590-report-2021.pdf) (aia.co.nz)

⁷ New Zealand Mental Health and Wellbeing Commission (2021). Access and Choice Programme: Report on the first two years – Te Hōtaka mō Ngā Whai Wāhitanga me Ngā Kōwhiringa: He purongo mo ngā rua tau tuatahi. [MHWC-Access-and-Choice-report-Final.pdf](https://www.mhwc.govt.nz/access-and-choice-report-final.pdf)

⁸ Office of the Chief Coroner and Ministry of Health. September 2021. Suicide Web Tool. <https://minhealthnz.shinyapps.io/suicide-web-tool/>

⁹ Ministry of Health. 2021. Office of the Director of Mental Health and Addiction Services Annual Report 2018 and 2019. Wellington: Ministry of Health. <https://www.health.govt.nz/publication/office-director-mental-health-and-addiction-services-annual-report-2018-and-2019>

- Māori were 3.8 times more likely than non-Māori to be subject to a community treatment order, 2.9 times more likely to be subject to an indefinite community treatment order; 3.6 times more likely to be subject to an inpatient treatment order; and 2.7 times more likely to be subject to an indefinite inpatient treatment order
- The number of adult Māori patients secluded increased by 35 percent from 2017 to 2019, compared to a 20 percent increase for the total number of patients over the same period; Māori were five times more likely to be secluded in adult inpatient services than people from other ethnic groups and had more seclusion events and longer periods of seclusion on average than non-Māori.
- Outputs from more mental health research will assist in addressing these inequities and will enable the Mental Health and Wellbeing Commission to do its job effectively. The Mental Health and Wellbeing Commission Act (2020)¹⁰ requires the Commission to have regard to “available evidence” when performing its functions (clause 11 (3)(a)). Yet most of the recommendations of He Ara Oranga: Report of the Government Inquiry into Mental Health and Addiction¹¹, although representing a credible response to the identified issues, actually lack a clearly researched evidential base to demonstrate that they will in fact result in better mental health outcomes. Given that the Commission has embarked on a work programme¹² to give effect to He Ara Oranga’s recommendations, determining their validity could be usefully included in the programme of work for new mental health research
- There is very recent evidence of increased levels of stress, anxiety and worry associated with the current lockdown period compared with a year ago when NZ was in Alert Level 1¹³, but the impact of Covid 19 on New Zealanders’ mental health now and in the future, and effective mitigation interventions, are yet to be adequately understood and identified. Internationally, first global estimates of the impact of the COVID-19 pandemic on mental health suggest an additional 53 million (28%) cases of major depressive disorder and 76 million (26%) cases of anxiety disorders were due to the pandemic¹⁴.
- He Ara Oranga¹⁵ states that public spending on mental health and addiction services in the (then) last year amounted to \$1.4b. The report also indicates that the Health Research Council had allocated an average of \$7m per year to mental health and addiction research over the past twelve years, or about 0.5% of mental health care costs. Additional investment \$26m per year of would lift this to something approaching 2.4%, at least in the first year.
- The annual cost of the burden of serious mental illness, including addiction, in New Zealand is an estimated \$12 billion or 5% of gross domestic product¹⁶.
- The precedent for this approach has already been established with the recent reallocation of \$36m of Covid recovery funds to an infectious disease research platform¹⁷.

Commit to a three year 2023/24 - 2025/26 investment trajectory

NZHR recommends that MBIE commits in the 2022/23 budget to a three year investment trajectory comprising further year on year increases in specific and exclusive new health

¹⁰ Mental Health and Wellbeing Commission Act (2020). <https://www.legislation.govt.nz/act/public/2020/0032/latest/whole.html>

¹¹ November 2018. Government Inquiry into Mental Health and Addiction. He Ara Oranga. <https://mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf>

¹² New Zealand Mental Health and Wellbeing Commission (2021). Access and Choice Programme: Report on the first two years – Te Hōtaka mō Ngā Whai Wāhitanga me Ngā Kōwhiringa: He purongo mo ngā rua tau tuatahi. [MHWC-Access-and-Choice-report-Final.pdf](https://www.mhwc.govt.nz/assets/Access-and-Choice-report-Final.pdf)

¹³ Ministry of Health. October 2021. COVID-19 Health and Wellbeing Survey. <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-resources-and-tools/covid-19-health-and-wellbeing-survey>

¹⁴ The Lancet. October 2021. [Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic - The Lancet](https://www.thelancet.com/publications/2021-10-01)

¹⁵ November 2018. Government Inquiry into Mental Health and Addiction. He Ara Oranga. <https://mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf>

¹⁶ November 2018. Government Inquiry into Mental Health and Addiction. He Ara Oranga. <https://mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf>

¹⁷ NZ Government. September 2021. [Government funding to fight infectious diseases | Beehive.govt.nz](https://www.beehive.govt.nz/news/government-funding-to-fight-infectious-diseases)

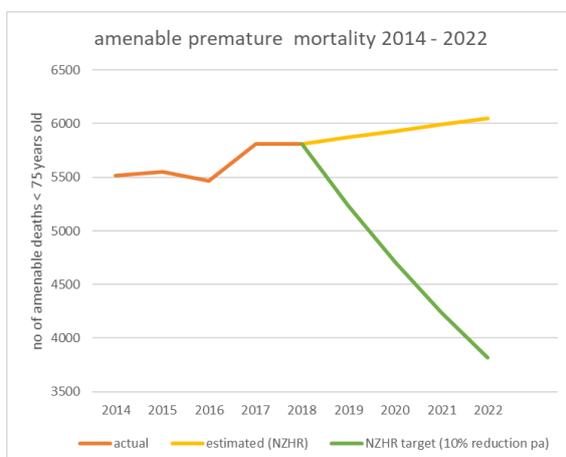
research funding of an additional \$30.4m in 2023/24, a further additional \$35.6m in 2024/25, and a further additional \$41.7 again in 2025/26.

These figures represent the amount of three further instalments required for a ten-year investment trajectory aimed at reaching a 2.4% of government health care costs target.

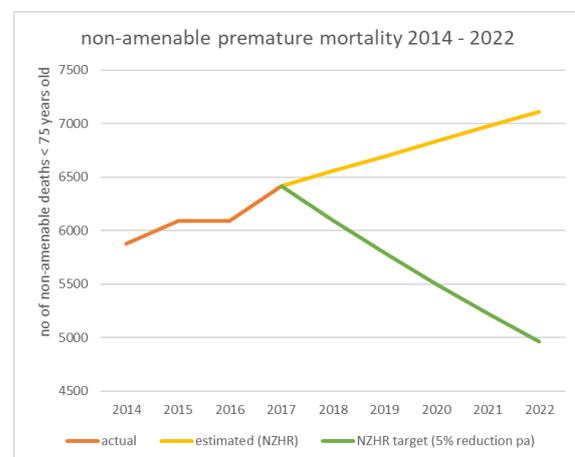
This recommendation is justified on the basis that New Zealand performs poorly when it comes to saving lives and improving health outcomes, including equity of outcomes. As illustrated in the charts on the next page over 13,000 (and increasing) New Zealanders are estimated to be dying prematurely, comprising approximately 6000+ New Zealanders per year who are dying prematurely and unnecessarily, and 7000+ who are dying prematurely because we haven't invested in and undertaken the health research to know how to effectively treat them. This is in addition to the huge underlying iceberg of antecedent morbidity (and human suffering) of which these mortality figures are just the tip, and premature mortality rates for Māori and Pacific people which are double those of non-Māori/Pacific.

For instance the five leading causes of healthy life lost to diseases comprise: cancer (17.5%); cardiovascular and blood disorders (17.5%); mental ill health disorders (11%); musculoskeletal disorders (9%); and injuries (8%)¹⁸. Furthermore New Zealand's leading causes of mortality (both amenable and non-amenable) comprise respiratory disease, heart disease, diabetes, cancer, and mental unwellness¹⁹.

Premature amenable mortality²⁰



Premature non-amenable mortality²¹



Health research is the single most important way in which we improve our health and healthcare - by identifying the best means to prevent, diagnose and treat conditions. Yet, as we argue in the next section, New Zealand's investment in health research is significantly less than what it should be, and our health system falls short when it comes to translating the results of health research into practice, policy and better health outcomes.

NZHR believes that New Zealand should be investing in and actively applying the results of health research to ameliorate these statistics, with an initial focus on gaining a better understanding of, and how to address, the barriers to applying the knowledge we have already acquired from past health research. Although we know what we *should* be doing to improve premature amenable

¹⁸ Health Loss in New Zealand - A report from the New Zealand Burden of Diseases, Injuries and Risk Factors Study, 2006–2016 (moh.govt.nz). Cited in AIA. October 2021. 5590+. The new health insight helping New Zealanders lead Healthier, Longer, Better Lives. [5590-report-2021.pdf \(aia.co.nz\)](#)

¹⁹AIA. October 2021. 5590+. The new health insight helping New Zealanders lead Healthier, Longer, Better Lives. [5590-report-2021.pdf \(aia.co.nz\)](#)

²⁰ [amenablemortality_2016_dhb_ethnicity_years_rates_summary_202106.xlsx \(live.com\)](#)

²¹ <https://www.health.govt.nz/publication/mortality-2017-data-tables> and earlier tables

mortality we have insufficient understanding of what's stopping us from putting that knowledge into effective action.

We also know that these conditions disproportionately affect Māori and Pacific people, and achieving equity of outcomes for them would have a significant positive impact on New Zealand's overall premature mortality figures. NZHR believes that a targeted approach to a better understanding of how to ameliorate these conditions, including through a Te Ao Māori lens, would be a good, life saving, use of the additional research investment we recommend for 2024 - 2026 (and also for 2022/23 if MBIE doesn't see itself clear to allocate the recommended \$26m to mental health research exclusively).

We believe that it is entirely possible to bend the premature mortality curves presented above, and that additional health research investment is the principal means for achieving this.

NZHR understands that the legally required triennial review of Health Research Council (HRC) funding was last undertaken in 2016 and is now at least two years overdue. Although we are not necessarily advocating for our recommended investment increases to be specifically allocated to the HRC we believe that if the next triennial review were to occur as part of the 2022/23 budget setting process this would provide the ideal pretext for incorporating NZHR's recommendations, both for 2022/23 and beyond.

However the investment allocation occurs it is imperative that both discovery and translational health research are appropriately funded and that currently competing disciplines are not missing out solely because overall investment levels are too low.

Formally adopt a ten-year health research investment trajectory

NZHR recommends that MBIE strongly recommends to government formal adoption of a ten-year 2.4% of government healthcare costs health research investment trajectory, representing increases of 17.1% per year

This recommendation is based on evidence that the 2.4% target is far more consistent with international norms than is New Zealand's current investment levels of 0.6% - 0.8%. This is an important consideration not only for ensuring that New Zealand invests enough to significantly bend its premature mortality curves, but also for developing a reputation as a country which pulls its weight in the global health research community.

This in turn enhances opportunities for global collaboration, and assists in health research (and indeed health service) workforce development as New Zealand becomes an attractive career choice internationally for reputable top flight health and medical researchers.

The recommendation is also based on evidence that investment in health research results in significant economic returns nationally.

This recommendation also represents a contribution to the intent of the government's research, science and innovation Green Paper²² for New Zealand's research system to be optimally positioned for the future. In the context of the government's overall aspirational R&D target of 2.0% of GDP by 2027, we note that NZHR's proposed ten year 17.1% p.a. trajectory would result in direct government investment in health R&D being a comparatively modest 1.4% of government health care costs.

²² Ministry of Business, Innovation and Employment. October 2021. Research Science and Innovation. Te Ara Paerangi Future Pathways Green Paper. [Future Pathways Green Paper \(mbie.govt.nz\)](https://www.mbie.govt.nz/future-pathways-green-paper)

Consistency with international norms

An analysis of data presented by Reid et al (2014)²³ indicates that a four-fold increase in per capita government expenditure on health research in 2012 would have been required to bring New Zealand up to parity with Australia and the UK. This would have equated to 2.7% of health costs for that year.

NZHR has also taken note of OECD statistics which indicate that global average gross domestic spending on R&D as a percentage of GDP is just under 2.4%²⁴. We believe that New Zealand should be aspiring to achieve at least this figure for the economy generally as well as for the health sector.

NZHR acknowledges that its approach to establishing the 2.4% government investment target could be viewed as being overly narrow. Costs of ill health are born by government agencies other than the Ministry of Health, by non-government entities, and also by society at large. Furthermore, government investment in health research is not confined to allocations to the Health Research Council and the health related national science challenges, and both the commercial and philanthropic sectors also invest in health research.

To test the continuing appropriateness of the 2.4% investment target NZHR has undertaken an additional “snapshot” analysis as presented in our 2020 briefing²⁵ to incoming ministers of Health and Research Science and Innovation. This analysis supports the imperative to increase direct ringfenced government investment in health research to 2.4% of government health care costs.

As a footnote MBIE, the Ministry of Health and the Health Research Council collectively acknowledge that New Zealand underinvests in health research²⁶, and 57% of the 2020 Kantar NZHR opinion poll respondents said that the 2020/21 budgeted allocation of \$140m was too low²⁷.

Financial returns on investing in health research

Although we have been unable to identify research which demonstrate the financial returns from investing in health research in New Zealand, there are several studies which have done this for overseas jurisdictions, and which are indicative of the potential returns for New Zealand investment.

Frank and Nason (2009) cite a number of papers which demonstrate the importance of investing in health research, including a 2008 Australian Access Economics paper²⁸ which demonstrated that each dollar invested in Australian health research and development returned \$2.17 in health benefits on average, and a US study²⁹ which found that a \$25b investment contributed \$500b in estimated health improvement. A 2018 Australian KPMG paper³⁰ states that medical research from 1990 to 2004 has delivered net present gains of \$78 billion from a net present cost of \$20 billion, returning a benefit cost ratio of 3.9.

²³ Reid I et al. Government funding of health research in New Zealand. NZMJ. Vol 127 No 1389: 14 Feb 2014. <https://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2014/vol-127-no.-1389/5992>

²⁴ <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>

²⁵ NZHR. November 2020. Briefing Paper for the incoming Ministers of Health and Science, Research and Innovation. <https://www.nz4healthresearch.org.nz/nzhr-briefing-paper-for-incoming-ministers-november-2020/>

²⁶ The New Zealand Health Research Prioritisation Framework. Dec 2019. p 19. https://www.hrc.govt.nz/sites/default/files/2020-01/NZ%20Prioritisation-Framework-FA-web_0.pdf

²⁷ NZHR. 2020. New Zealand Speaks! 2020 Kantar NZHR Opinion Poll. https://www.nz4healthresearch.org.nz/wp-content/uploads/2020/08/NZHR-Report-2020-GENERAL-EDITION-PRINT_newlogos-final.pdf

²⁸ Access Economics. Exceptional returns: The value of investing in health R&D in Australia II. Canberra (Australia): Australian Society for Medical Research; 2008.

²⁹ Funding First. *Exceptional returns: the economic value of America's investment in medical research*. New York (NY): The Lasker Foundation; 2000.

³⁰ KPMG. Economic Impact of Medical Research in Australia: A report prepared for the Association of Australian Medical research Institutes. October 2018.

Furthermore, it has been recently reported that clinical trials involving Irish patients have saved the health service thirteen million euros over two years, according to Clinical Research Development Ireland (CRDI). According to the report, each patient participating in a clinical trial, on average, will generate a benefit of €13,500 to the economy as well as health service benefits from medicines worth an average of €5,899 per patient for those participating in trials.³¹

The value of clinical research to the NHS, the UK economy and jobs market has been valued at £383.6 million in a report³², produced by KPMG UK, which provides an assessment of the economic impact of the National Institute for Health Research Clinical Research Network's activities to support clinical research in England.

NZHR constituency

New Zealanders for Health Research (NZHR) was established in November 2015 to bring about increased investment in health research from government, industry and philanthropy. We believe that health research has the potential to both save and improve peoples' lives. We are therefore committed to ensuring that the results of health research are translated into policy, practice and individual decision making, and for there to be a level of investment in health research to enable this to happen as optimally as possible.

In developing this submission we have consulted with our Platinum to Bronze partners and members as set out below (and from whom we derive 100% of our funding).



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29th October 2021

NZHR partners and members



³¹ <https://www.thejournal.ie/clinical-trials-4643965-May2019/?amp=1>

³² KPMG UK. July 2019. Impact and value of the NIHR Clinical Research Network. https://www.nihr.ac.uk/documents/partners-and-industry/NIHR_Impact_and_Value_report_ACCESSIBLE_VERSION.pdf