New Zealanders for
HEALTH RESEARCH

Ngā Tāngata o Aotearoa
mō te Rangahau Hauora

Government health research investment trajectories 2007 - 2031

June 2019

Contents

Cover photos:

1. *Stock photo*
2. *Malaghan Institute of Medical Research translational immunology researchers Olivier Gasser and Anna Mooney*

Overview

- The New Zealand government should be actively committed to a health research investment target of 2.4% of health care costs, to be achieved within the timeframe of the New Zealand Health Research Strategy 2017-2027
- Achievement of this 2.4% target requires an annual investment of 18.6% per year
- Actual investment is conservatively forecast to fall from the current 0.78% indicated by the 2019/20 budget to 0.6% by 2027
- Implications include compromised health outcomes, compromises to the effectiveness and efficiency of health service delivery, loss of economic opportunities, degradation of research capacity and capability, and eroding of New Zealand's international reputation for health research.

New Zealanders for Health Research (NZHR) position

NZHR maintains that the best way of assessing the adequacy of government ringfenced investment in health research is to consider it as the R&D component of government health services expenditure.

The government's recently developed investment strategy has established an overall aspirational ten year R&D target of 2%. NZHR's submission on the investment strategy consultation document advocated for an aspirational target of 3.3% (which would make New Zealand consistent with other similar sized modern economies)[1]. NZHR therefore maintains that a health research investment target of 2.0% is too low.

NZHR's position is that the government should be actively seeking to achieve an investment target 2.4% of health care costs by 2027, which reflects the time timeframe of the government's Health Research Strategy[2]. We have taken our cues from OECD statistics which indicate that global average gross domestic spending on R&D as a percentage of GDP is just under 2.4%[3] and from an analysis of data presented by Reid et al (2014)[4] which 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 believes therefore that a 2027 2.4% government investment target is a reasonable, albeit somewhat conservative, advocacy position.

Our position is corroborated by the results of successive opinion polls where over 75% of respondents agreed that the government should increase its investment in health research (86% in 2019). Moreover, in 2019, 74% of respondents specifically said that they believed that the then current investment of $125m for the year was too low.[5] [6]

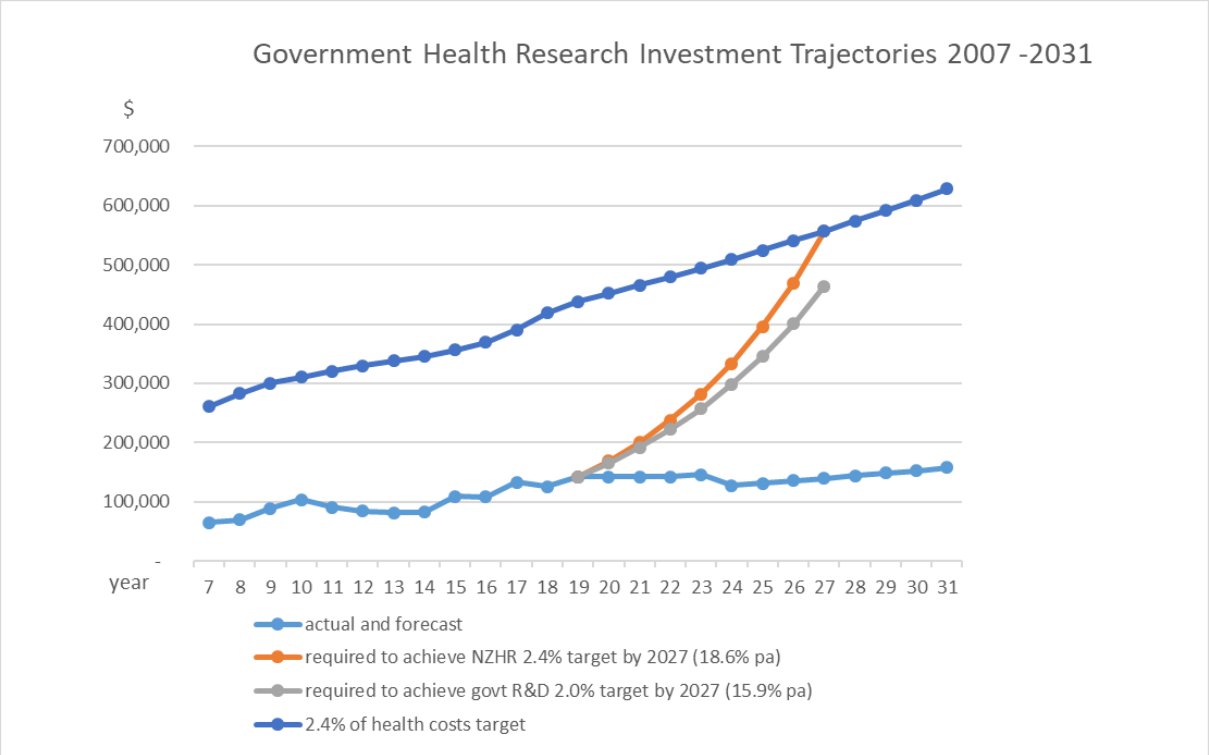
[1] NZHR submission on the government discussion paper "A Research and Development Tax Incentive for New Zealand". June 2018.
[2] New Zealand Health Research Strategy 2017 – 2027. Ministry of Health and Ministry of Business Innovation and Employment. June 2017. https://www.health.govt.nz/system/files/documents/publications/nz-health-research-strategy-jun17.pdf
[3] https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm
[4] 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
[5] New Zealand Speaks. 2018 Roy Morgan Research NZHR opinion poll. Members edition.
[6] New Zealand Speaks. 2019 Roy Morgan Research NZHR opinion poll. In preparation.

Government health research investment trajectories 2007 – 2031

NZHR analysis of Treasury estimates of appropriations for both the health and economic development and infrastructure sectors illustrates that for every one of the last ten years government health research investment has been less than 1% of government health care expenditure. The worst years were 2013/14 and 2014/15 when the figures stood at just 0.58% and 0.57% respectively, falling from a previous high point of 0.8% in 2010/11. The increased funding to the Health Research Council from 2017/18, combined with the impact of funding for health related national science challenges, had the effect of restoring investment to its previous levels, with the result that figure peaked at 0.82% in 2017/18.

Our analysis of the 2019/20 budget estimates suggests that the investment level will have fallen to 0.78% in 2019/20 and will gradually fall away to 0.60% by 2026/27. Details of our analysis are presented in Appendix A.

The extent of the problem is illustrated in the following chart which indicates that achievement of NZHR's 2.4% health research investment target by 2027 will require annual increases of 18.6% from 2020/21. Similar analysis undertaken in June 2018 demonstrated that annual increases of 16.7% would have been required[7], which indicates that ground is being lost.



Furthermore in order to meet the government's own aspirational R&D target of 2% within a similar timeframe, annual increases of 15.9% would be required.

[7] New Zealand Speaks. 2018 Roy Morgan Research NZHR opinion poll. https://www.nz4healthresearch.org.nz/wp-content/uploads/2018/11/NZHR-Report-2018-GENERAL-EDITION-FINAL.pdf

Implications

Implications of government underinvestment in health research include:

- New Zealanders not having the full range of opportunities to experience improved health outcomes
- The New Zealand economy not optimally benefiting from commercial opportunities generated by health research investment
- New Zealanders experiencing poor or negative health outcomes as a result of inadequately researched therapies and interventions
- Compromised effectiveness and efficiency of health service delivery
- Comprised development of health research capacity and capability
- Compromised international reputation and ability to attract world class health researchers to New Zealand

Sources and assumptions

NZHR's analysis of government health research investment trajectories is based on the following sources and assumptions:

- Expenditure figures for each of the years 2007/8 to 2018/19 were sourced from Supplementary Estimates of Appropriations for each year, for both Vote Business, Science and Innovation[8] and Vote Health[9]
- Estimated expenditure figures for 2019/20 were sourced from *The Estimates of Appropriations for the Government of New Zealand for the Year Ending 30 June 2020*, again for both Vote Business, Science and Innovation[10] and Vote Health[11]
- Health expenditure forecasts from 2020/21 assume increases of 3.044% per annum; this is a conservative assumption based on an average of the relatively modest increases that occurred from 2010 – 2016. Health expenditure categories included in the analysis were those which were directly related to provision and support of health care delivery and comprise: health sector information systems; managing the purchase of services; payment services; regulatory and enforcement services; sector planning and performance; health and disability system leadership and planning; health and disability system performance monitoring and service delivery; strategy, policy and system performance; funding and performance of crown entities; non-departmental output expenses; provider development; and equity support for DHB deficits
- Health research investment forecasts through to 2022/23 were sourced from The Estimates of Appropriations the Year Ending 30 June 2020 for Vote Business, Science and Innovation; thereafter they were based on an assumption of annual increases of 3.044%.
- Health research investment figures relate to investment categories which were specifically health research related comprising in various years: Science and Innovation: Health and Society Research; Science and Innovation: Genomics Research Infrastructure; Science and Innovation: Health Research Fund; Science and Innovation: Improving the health and well being of New Zealanders; Health Research; Social Research; and Primary Health Research
- Health research investment figures also include allocations for the health related National Science Challenges, comprising high value nutrition; aging well; better start;

[8] For example https://treasury.govt.nz/sites/default/files/2019-05/suppest19buscin.pdf
[9] For example https://treasury.govt.nz/sites/default/files/2019-05/suppest19health.pdf
[10] https://treasury.govt.nz/sites/default/files/2019-05/est19-v1-buscin.pdf
[11] https://treasury.govt.nz/sites/default/files/2019-05/est19-v6-health.pdf

and healthier lives. Figures for the years 2019/20 through to 2023/24 (which is the final year of funding) assume that an allocation of $111.5[12] will be spread evenly over the next five year second period of funding

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[12] https://www.mbie.govt.nz/assets/e7c91ccacc/science-board-decisions-on-second-period-funding-2018.pdf

Appendix A

Table 1: Government health research investment as a percentage of government health expenditure for years ending 30th June 2009/10 – 2026/27

	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Health services ($b)	12.5	12.9	13.3	13.7	14.1	14.4	14.8	15.4	16.3	17.4	18.3	18.8	19.4	20.0	20.6	21.2	22.5	23.2
Health research ($m)	88.8	103.1	90.6	83.9	81.9	82.7	96.0	87.2	95.2	103.2	120.2	120.2	120.2	120.2	123.8	127.6	135.5	139.6
HRNSC ($m)[13]							12.7	21.4	38.2	22.0	22.3	22.3	22.3	22.3	22.3			
Total health research ($m)	88.8	103.1	90.6	83.9	81.9	82.7	108.7	108.6	133.4	125.2	142.5	142.5	142.5	142.5	146.2	127.6	135.5	139.6
R&D %	0.71	0.80	0.68	0.61	0.58	0.57	0.73	0.71	0.82	0.72	0.78	0.76	0.73	0.71	0.71	0.60	0.60	0.60

[13] Health related national science challenges (high value nutrition; aging well; better start; healthier lives).