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IN INDUSTRY STUDIES**



# **Science for Life**

## **An Evaluation of New Zealand's Health Research Investment System based on International Benchmarks**

Executive Summary

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## Executive Summary

The New Zealand Ministry of Research, Science and Technology (MoRST) is committed to the evaluation of the effectiveness and efficiency of its contributions to the New Zealand research system. As part of this commitment MoRST has commissioned an evaluation of the *Health Research Output Class*, which is invested by the Health Research Council of New Zealand (HRC). The evaluation, reported here, relates to the *appropriateness* of the New Zealand Government's strategic investment in and management of health research generally (in all its aspects). The Australian Expert Group in Industry Studies (AEGIS) at the University of Western Sydney was commissioned to carry out a study covering six of the nine terms of reference for the evaluation (see Box 1.1 on page **Error! Bookmark not defined.**). Appendix 6 provides examples from the HRC's evaluations and ongoing work in the area of research uptake, and ensuring accessibility, as well as identifying current research capabilities and the existence of areas of international strength within the New Zealand health research system

The body of this report presents the findings of the AEGIS study. The objective of the evaluation was to contribute to a better understanding of the management of Health Research Output Class investments, and health research investment more broadly, in order to better inform future policy interventions. Analysis of the New Zealand system and international comparisons are used to identify areas in the current system where improvement can be usefully pursued. A benchmark of 'appropriateness' (both for level of investment and management models) is taken as 'comparable OECD countries'. The main countries selected for international benchmarks are Australia, Canada, Ireland, the Netherlands, Sweden and the United States.

The report is organised in three parts:

- *Current status of and environment for health research investment in New Zealand:* Chapters 1 and 2 provide an overview of the international environment for health research and the New Zealand health research policy and investment framework;
- *International benchmarks:* Chapters 3 and 4 review the health research systems in six other OECD countries and analyse international levels of health research investment, while Chapter 6 discusses New Zealand's specific commitment to developing Māori health research capability by comparison with health research programmes for aboriginal populations elsewhere; and
- *The future vision for health research investment:* Chapters 5, 7 and 8 discuss a number of issues that flow from the local and international experience in planning and managing health research investments and present recommendations for consideration and action. The report concludes with an estimate of the cost implications arising from the recommendations and a possible implementation timeline.

## Overview of findings

In terms of strategy and delivery of programs the New Zealand health research system stands up well against international experiences. The HRC has a world-class research

assessment process and the management of the Health Research Output Class is widely accepted across the system as operating at a high standard.

However, the evaluation identified growing tensions within the system associated with a contradiction between the ability to develop, assess and carry out high quality health research and the ability to deliver adequate funding to support such research.

Three main **observations** are made on the level of health research funding in New Zealand by comparison with the benchmark countries.

- New Zealand's current level of public investment in health research appears **substantially lower** than almost all the benchmark countries. Of these countries, only Ireland spends less, proportionally, on health research and development.
- Most of the benchmark countries are **increasing their investment** in health research – some by as much as 20 per cent per annum. By contrast, there is no evidence of sustained increase in health research investment in real terms in New Zealand in recent years. Indeed, national data on health research in the universities provide clear evidence of a **decline** in New Zealand's expenditure on health research, as a proportion of GDP.
- The **cost structures** of many of the comparator health research funding agencies are lower than those of the HRC, because HRC is expected to provide a high level of overhead costs on research grants. Given that the overall envelope of health research funding available to the HRC in New Zealand is already comparatively smaller than in most of these countries, the HRC's capacity to purchase high quality health research is all the more limited.

The report points to an urgent need to increase the present level of investment in health research. The level of funding available for health research in New Zealand has decreased over the past decade, is now well below international standards, and in serious danger of falling below a level necessary to sustain a functioning health research *system*. While the current level of funding has absorbed the implications of full cost funding for research grants, the overall support for health research has declined. This has placed further pressure on the system and, in particular, reduced the capacity of the system to support career structures through scholarships and fellowships.

We recognise the finite nature of funding resources. But New Zealand appears to marking time in terms of health research funding while other countries are developing bold plans for expanding investments. We also recognise that New Zealand has taken bold steps in terms of redesigning the funding framework. This includes implementing a clear and transparent mechanism for underwriting the full cost of health research, shifting from a disciplinary based funding system to a program and strategic objective system, and identifying and sustaining long term strategies for building a Māori research capacity.

In order to consolidate and take advantage from these developments we believe it is important to take immediate steps to introduce some additional funding to sustain the

top band of high quality health research capability in the country, and to provide more coherent support for collaborative health research centres and partnerships.

Our recommendations suggest that an increase in the budget available to HRC of \$20.1 million in 2005-06, rising to \$34.3 million in 2007-08, is necessary to absorb the total impact of full cost funding and allow for the appropriate level of growth required to achieve these strategic objectives for health research.

These financial tensions appear to be exacerbated by structural features associated with organisational arrangements, coordination, and shared responsibilities for some elements of the health research investment system. New Zealand's arrangements seem more strongly compartmental than in the benchmark countries, in that there are not the strong cross cutting mechanisms evident in other systems. The comparatively small size of the New Zealand system presents an even stronger need for maximising coordination.

We do not consider that a substantially increased concentration of research funding through HRC would automatically produce benefits in terms of the coherence and coordination of health research. Rather the challenge is to make the various funding agents and policy departments (MoRST, Ministry of Health) work more effectively together within a plural system, as is the case in many of the benchmark countries. The evaluation draws attention to the need to enhance coordination between agencies, in terms of developing a published national health research strategy, implementation and evaluation.

Our main recommendation here is for an interagency coordinating committee for health research in which HRC would play a leading role.

The HRC approach to monitoring and evaluation is impressive by international standards and should provide the basis for systematic national health research evaluation and reporting. In particular, we propose a health research 'scorecard', of benefit to HRC, MoRST and the Ministry of Health, to provide an appropriate baseline against which New Zealand's health research investments and returns can be regularly assessed.

We believe that New Zealand is at the stage where an increased funding commitment, together with increased capacity for coordination, monitoring and evaluation will enhance return on investment in health research. Our recommendations for improvement to the health research investment system follow.

## Recommendations

### An appropriate policy and investment framework

1. We **consider** that the establishment of a single research agency, responsible for funding all health research, broadly defined, would *not* be in the best interests of the New Zealand research system overall. We **recommend** the maintenance of diversity in the funding base provided through different agencies. However, we also **propose** an enhanced role for HRC in steering research policy, coordination, and evaluation toward strategic national goals.
2. We **recommend** that MoRST establish an interdepartmental health research coordinating committee including the Ministries of Health and Education. The HRC should have a lead role in the committee.

### The future vision for health research

3. We **recommend** that HRC should instigate a consultative priority setting exercise for future Partnership/Joint Venture investments that involves a wide range of stakeholders including researchers, policy agencies, other potential funders and the health industry. The exercise should consider both the feasibility of research and the potential outputs and outcomes of the investment in the research.
4. We **recommend** that HRC should develop proposals for a National Health Research Centre grant scheme, complementary to those funded by CoRE and FRST, for consideration by MoRST. The adoption of this recommendation should be on the basis of HRC receiving additional funding and should not draw on existing funds.
5. We **recommend** that the government should accept the principle that the HRC should receive full budget supplementation for any increase in costs arising from the 'full cost funding' policy.
6. We **recommend** that the HRC should maintain discussions with the universities to ensure that full grant costs are effectively applied to the infrastructure and facilities required by health researchers. The universities should be obliged to report on their use of these funds, against agreed performance indicators.
7. We **recommend** that HRC should be provided with information to enable the Council to monitor the effect of the PBRF on health research funding and research groups.
8. We **recommend** that the HRC, in consultation with the proposed health research coordinating committee, establish a set of performance indicators for target population groups that, as far as possible, allow for international comparison.

9. There is clear benefit to New Zealand in the high standard of assessment and evaluation for health research set by HRC and we **recommend** that these processes should be maintained.
10. We **recommend** that HRC should give further consideration to the relationship between its project and programme funding, and between programme grants and the proposed National Health Research Centres scheme.
11. We **recommend** that HRC should coordinate the publication of a National Health Research Strategy (or Strategies) to complement the New Zealand Health Strategy and that the Council be adequately resourced for this task.
12. We **recommend** that HRC should collaborate with FRST to provide advance warning of those health researchers working on technologies or research outcomes with potential for commercial exploitation.
13. We **recommend** that HRC should instigate an international collaboration grant scheme for individual health researchers and teams to complement the support and grants offered by MoRST and the FRST. These could be targeted for HRC project and program grant holders or more widely. Funds from the new 'Developing International Linkages' output class should be made available for this purpose.
14. We **recommend** that MoRST review the procedures for reporting current health research expenditure data to the OECD and for ensuring that this data is presented in a manner that provides for international comparison of research effort.
15. We **recommend** that the coordinating committee proposed in Recommendation 2 should have a specific mandate to coordinate and develop a national health research reporting strategy and develop performance indicators for monitoring system wide outcomes and impact against national strategic objectives. The HRC should provide the lead in this activity.
16. We recommend that HRC be mandated to produce a New Zealand health research system **scorecard report** every three years.

### **The level of investment required**

17. We **recommend** that MoRST adopt a *target* budget for the HRC's Output Classes (the HROC + Māori OC [health] + SPI OC [health]) of a **real increase** of 0.01% of GDP **over the next four years**.