# Annual Report 2015

E11

Health Research Council of New Zealand
Te Kaunihera Rangahau Hauora o Aotearoa
www.hrc.govt.nz

Report of the

## Health Research Council of New Zealand

for the year ended 30 June 2015

Presented to the House of Representatives Pursuant to Section 38 of the Health Research Council Act 1990 and Section 150 of the Crown Entities Act 2004

*HRC: Discovering a healthier tomorrow*

New Zealand Government

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# Chairman's Report

This year marks the end of my second term as Chair of the Health Research Council. I am extremely pleased to see where the HRC is today, and think it will be in an even better place in a year or two when the 'Strategic Refresh' of the HRC yields the outcome that is warranted.

When I joined the HRC, it was one of many New Zealand organisations that were confronted with the need to become more efficient. We have worked hard to ensure this happened whilst ensuring the quality of what we do was not compromised. We have reduced the number of staff, and streamlined many processes, but no other research investment in health in NZ achieves the same quality of impacts as HRC funding. This is an impressive achievement when you consider increasing fiscal constraints in the face of growing expectations - that is our context.

My personal mission has been to ensure that HRC maintained and extended unbiased and transparent processes so that those who miss out on getting their grants in any one year would know that the process did not discriminate against them although I am sure it doesn't feel like that when people do miss out. My personal frustration is that every year we turn away excellent projects, from excellent teams whose work could add enormous value to New Zealand.

This doesn't happen because the work is flawed. It happens because our investment potential is now constrained to a point which I think unacceptable. Increasing pressure on the system means there is now very little difference between those projects that are funded and those which are next on the list - those that miss out. We draw a line on what is funded at a point where I know there are projects, programmes and teams who would do a great job for New Zealand - but we simply cannot fund them.

We have achieved much in areas that matter for New Zealand where disparities in health outcomes exist, for example in Māori and Pacific health, but we want and need to do more.

Whilst taxpayers can absolutely be sure that those who get grants are the very best - they must, I am afraid, also know that an increasing number of health research projects that have excellent potential are not funded. Of course, a number of projects submitted to the HRC are not yet ready for funding and these are rightly rejected. But increasingly, projects are rejected that I personally believe matter. To that end, it is gratifying to know that this year, health research investment has been recognised as being a priority. We are determined to ensure that the recognition becomes a reality.

Leading the Health Research Council has been a role in life that I have valued more than many things I have done, and I strive to ensure it is a stronger organisation when I leave than it was when I started. I know, and intend to ensure anyone who listens knows, that health research is fundamental to a secure future for the New Zealand population - for its health and for its wealth.

I have been fortunate as Chair to have had a Board that is very able and sees the big picture of how HRC might help meet the unique needs of the New Zealand people. It's a big mission that is not yet complete. Our Secretariat are tireless in working to deliver on this mission - to deliver a brighter future for those who aim to answer the big questions that confront us, and a healthier future for our children, our young people and our country.

**Sir Robert Stewart**
**KZNM**
**Chair**

# Chief Executive's Summary

I became Chief Executive of the Health Research Council in January of this year and the intervening months have been both exciting and challenging. This year marks our 25th anniversary of becoming the Health Research Council of New Zealand in 1990 from our previous incarnation, the Medical Research Council. As we celebrate this milestone, it is notable that many programmes of research we first supported a quarter of a century ago are still producing landmark achievements. This is a testament to the excellence of New Zealand's health research and the importance of sustained investment. These achievements are outlined in the Annual Report and elsewhere, but two of note include the development of a vaccine for cancer, and major breakthroughs in the understanding and treatment of previously untreatable diseases, like Huntington's disease. We have much yet to do but these are significant achievements that matter.

2015 brought a renewed focus on health research with the government's Strategic Refresh of the HRC. Whilst the Strategic Refresh has been a significant amount of work for us and our ministries (The Ministry of Health and the Ministry of Business, Innovation and Employment) – it has provided an excellent opportunity to gain feedback from our key stakeholders and encouraged us to look hard at what we are doing well, and what we could do better.

The results of the Refresh have been positive for the HRC and for health research generally, with the report to be released to the public in late October 2015. However, we are far from complacent. We need to increase the visibility of the HRC and the impact of our investment. We do more than simply fund the highest quality research projects, programmes and people. We fund the development of a knowledge network that brings enormous return on investment and is crucial to the future health and wealth of New Zealand, but this has not always been apparent to those who work outside the sector. We need to improve our measures of the return on investment (a key issue for all funding agencies here and internationally) and to tell the story of that return in ways that help New Zealanders see, hear, feel and experience the value and value-add of health research. We are progressing towards this but we have more to do. One marker of impact is in our recently completed study of New Zealand health research articles in the international literature. The results are extremely encouraging with the HRC punching above its weight in terms of the quality and reach of publications. Those from research we have funded are cited at double the world average in a number of fields. The data suggest that New Zealand's health research has a greater impact if the HRC is involved. This is no mean feat.

We rightly need to demonstrate excellent accountability if we are to be the government's lead agency for managing investment in health research. We need to maintain and grow our reputation for excellence and strengthen our ability to demonstrate impact. New regulations and standards bring the need for greater clarity and transparency on our own performance, and also from those we fund. There is no doubt that the health research ecosystem is complex. A key goal for us, and for others, is to achieve better co-ordination and communication across the many agencies that comprise the health research sector – clarity on intersection and points of difference. Over the past few months, I have met with many people who have shared their views and contributed to our thinking about the way forward and I will continue to do so.

I would like to acknowledge here the contribution and support of the HRC Board, and those who have led the HRC in the past - including Mr Lex Davidson who sadly passed away in December 2014. I am beyond grateful to the team here at the Health Research Council for their warm welcome to me earlier in the year, for their hard work, and their willingness to join me on the next phase of the HRC's development and contribution. We are dedicated to our mission of supporting discovery, innovation and knowledge translation to enhance the health and wellbeing of New Zealanders, and New Zealand.

**Kathryn McPherson**
**Chief Executive**

*Our vision: improved health and quality of life for all*

# About the HRC

## What we do

The Health Research Council of New Zealand is a **Crown agent** (since 2005) and the government's principal funder of health research. We are answerable to the Hon Jonathan Coleman - **Minister of Health, as our ownership minister**, and the Hon Steven Joyce - **Minister of Science and Innovation, who provides the majority of our funding**.

As a Crown agent, **we are required to give effect to the general policy of the Government in relation to health research when performing our role**. The HRC's relationships with the Minister of Health and Minister of Science and Innovation are addressed in a memorandum of understanding between the two Ministers, dated 30 August 2001.

We were created by the Health Research Council Act as a Crown Entity in 1990, which set out some clear functions for the HRC. Put simply, **our key functions** are:

1. To advise the Minister of health on **national health research policy and commission research to implement it**;
2. To **negotiate funding** for health research from the government every three years;
3. To **foster the national health research workforce**, recruiting, training and retaining researchers;
4. To **both support** researchers with good ideas **and initiate research** in areas considered high priority;
5. To **consult widely** when setting the priorities for health research, including with our Ministers, the District Health Boards, stakeholders and consumers, and
6. To ensure that all of our committees **use appropriate assessment standards**.

Appendix 1 provides the exact wording of our full functions under the Act.

The HRC has been operating for 25 years in 2015. We had our genesis in the Medical Research Council of New Zealand, which was established in 1951, and so **we have over 60 years of experience and skills to draw on and build upon.** We have built rigorous, robust and equitable investment processes over this time that ensure our taxpayers' dollars are well spent on the research and the people that will make a real difference to New Zealand. We regularly review and update our processes in light of evidence of how to do it better.

At any one time, **we manage in the region of 300 research contracts, and roughly a further 100 targeted on career development.** These contracts are mostly with universities, but also with non-government organisations, Māori and Pacific research organisations and communities, and private research institutes.

**We also have a role in maintaining a safe and ethical health research environment** in New Zealand, and advising the government on adopting new technologies and procedures.

## What we aim to achieve

The Health Research Council of New Zealand (HRC) is the Crown Entity with the primary responsibility for facilitating the Government's investment in health research.

Our primary objective is to provide a healthier future for New Zealanders. We need to garner the knowledge required to enable New Zealanders to live healthier lives and prevent disease, and to get the optimal, most cost-effective treatments when illness does affect us. Whilst thousands of people live with conditions for which there is currently no effective treatment or cure, we want to give them, and our society, hope that things will be different in the future - for their family/whanau – and our researchers are part of future solutions that will work for our people.

We want New Zealanders to understand and celebrate the skills and achievement of our health research community and support health research as a critical part of our future success.

We need to anticipate the knowledge needs of our stakeholders and work with them, so that we can provide the evidence needed to underpin sound policy development and strategic planning in both the government and non-government sectors.

We want to support our researchers to explore exciting innovations, even if this involves some degree of investment risk (see our Explorer Grants, p22), so that our population can be the first to benefit and our economy boosted by access to the global health market.

We aim to improve the quality of our healthcare system through embedding a research ethos in everyday practice and drawing our clinicians into multi-disciplinary teams that will find solutions to our specific national issues.

We work to do everything we can to ensure that our taxpayers' dollars support only the things that are most likely to make a positive difference, and so we will continue to put every effort into ensuring we have the processes in place to back the best. We also take every opportunity to partner with other funders to maximise the use of limited resources and share our investment processes and expertise for the best result possible.

We want to train, maintain and retain a research workforce with the skills and capability to address our current and future health challenges. To do this we must have a 'fit-for-purpose' career development programme and offer the range of research opportunities that will allow promising academics and clinicians to advance their careers in New Zealand.

We must build a system that 'plays the long game', because it often takes twenty years to realise the impact of our research investment. This has been the case with some of the recent landmark achievements arising from HRC funding, such as the development of a new vaccine for cancer and major breakthroughs in the treatment for heart failure.

## How we go about it

The majority of funding, for our operational costs and investments is provided by Vote Science and Innovation, with additional contributions made by Vote Health and stakeholders involved in the HRC's Partnership Programme.

Our funding allocations are divided into four Outputs, outlined below. These Outputs provide the framework for reporting in our Statement of Service Performance.

**Supporting NZ research:**
Output 1 – Health Research Contracts

**Building Research Careers:**
Output 2 – Career Development

**Partnering with stakeholders:**
Output 3 – Co-funding Relationships

**Keeping NZ health research ethical & safe:**
Output 4 – Policy, regulatory & Ethical Frameworks & Relationships

# The HRC at a glance

**Investing approx. $75M per annum in health research,** using stringent peer-review processes that maximise the value from the taxpayers' investment

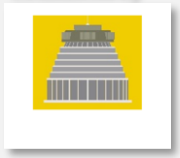
Attracting & retaining the best researchers & clinicians in New Zealand through our major programme of **career development awards**

Using the HRC's **Partnership Programme** to join with agencies nationally & internationally & maximise $, utility & reach of health research

**Māori investment processes, systems & committees** to support our portfolio of indigenous research, career development & capacity building

Targeting research towards the needs of our most **vulnerable populations**, & developing specialist capacity in **Māori, Pacific, children & youth, & older adults** research

Advising Government on health research priorities & new health technologies **(Gene Technology Advisory Committee)**



Continuously developing & refining **health research strategy for New Zealand**

Gathering **accurate data** on our investment, gaps, emerging issues, workforce & risks & running an **evaluation programme**, including a triennial bibliometric survey of NZ health research publications

Maintaining systems that contribute to an ethical & safe research environment **(HRC Ethics Committee, Standing Committee on Therapeutic Trials)**

**Communicating** the latest on health research in NZ with stakeholders & developing research **IT systems** for applicants to streamline processes & facilitate **data - sharing**

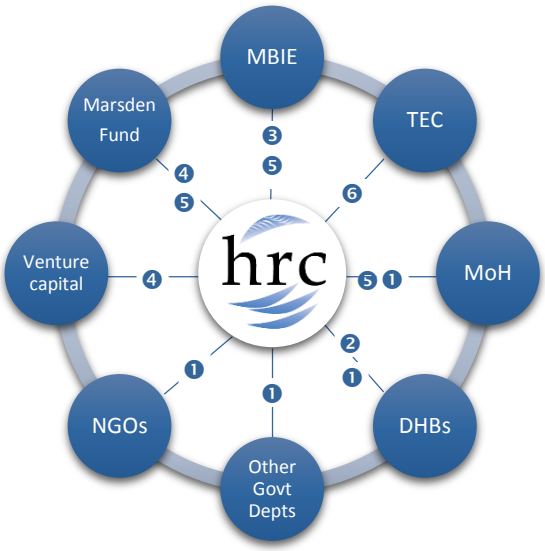
**Our mission:** Benefiting New Zealand through health research

Our core activity is to identify the research that will make the biggest impact on the health of New Zealanders, and support innovations that will boost the New Zealand economy. What is less widely known is that we have a crucial role in advising the Minister of Health on the uptake of new health technologies and ensuring the safety of large clinical trials. We are also recognised internationally as leaders in building indigenous health research capacity through the targeted processes we have developed to support Māori research paradigms.

We are the conduit that connects health research activity in New Zealand, working with other funders, charities and stakeholders. This is a role that we take very seriously and the need for better co-ordination and co-operation in the sector is increasingly shaping our strategic thinking.

Another major area of focus for the HRC is the translation of research findings into improvements in healthcare at every level. We do this by training and engaging clinicians in research, partnering with our stakeholders to involve them in designing knowledge solutions, and communicating our findings to our ultimate stakeholder – the New Zealand public.

**Figure 1: The health research funding community in New Zealand, showing how the HRC links and co-ordinates with other agencies.**




1. HRC Partnership Programme
2. Research Partnerships for NZ Health Delivery
3. National Science Challenges
4. Co-funding
5. Strategic alignment
6. University-based health research

## Our environment and drivers

While the HRC is the Government's principal funding agency for health research, significant public funds are also invested in health research through the Marsden Fund, the Science and Innovation Group within the Ministry of Business, Innovation and Employment, and the Tertiary Education Commission.

The relationship between the HRC and other agencies is shown in Figure 1. In 2015/16, we will be looking at further collaborative models for engagement with these agencies. We are heavily focused on working collaboratively wherever possible to maximise the resources available for health research and capacity building.

Figure 2, overleaf, is a graphic illustration of our drivers, our attributes, and the benefits of the work that we do. Our strategy is firmly rooted in the health needs of the New Zealand population, government priorities, the knowledge needs of our stakeholders and emerging threats.

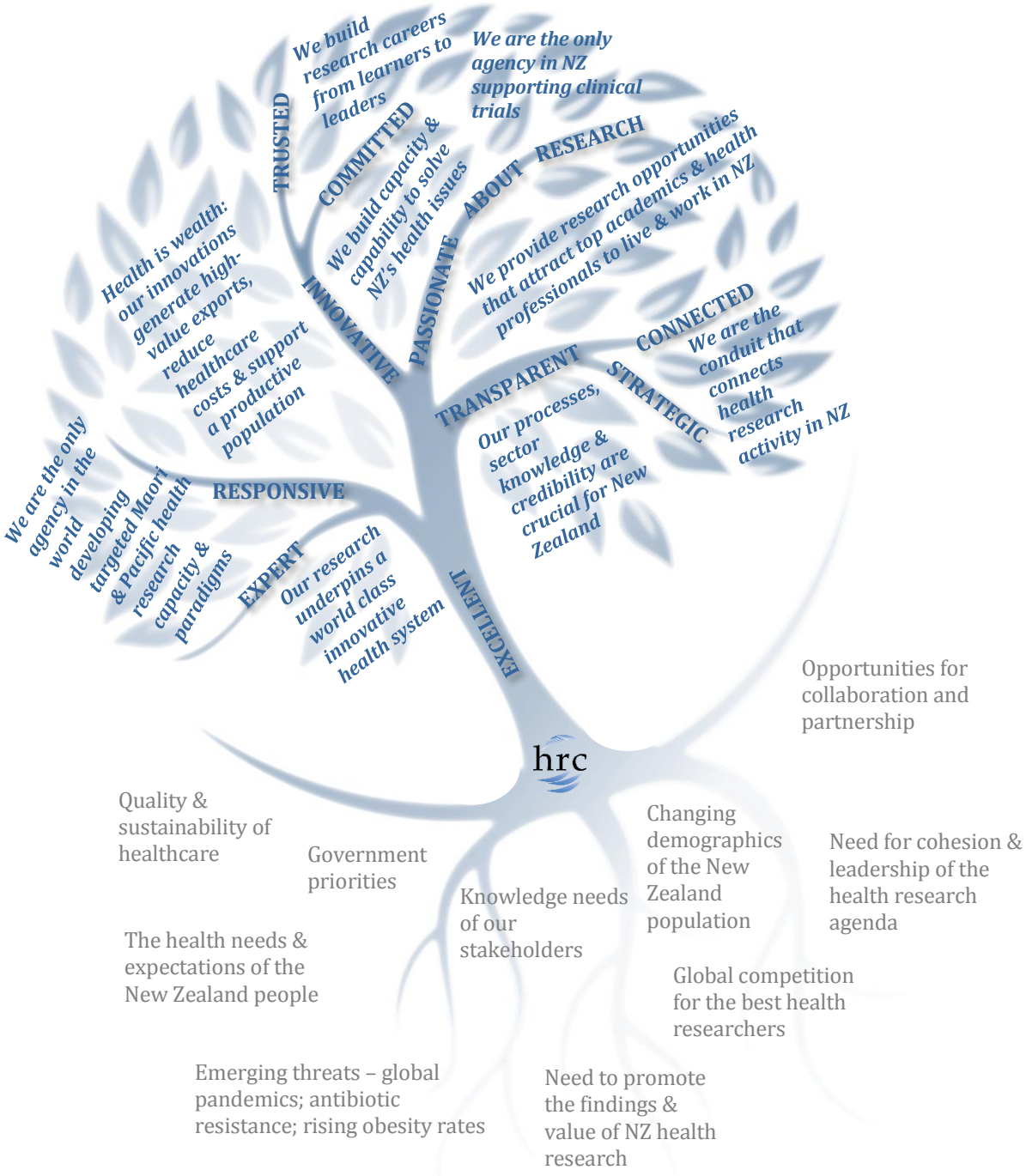
## Addressing government priorities

The overarching outcome that the HRC seeks to achieve is improved health and quality of life for all New Zealanders. Our efforts to meet this outcome ultimately contribute to New Zealand's two health and disability system outcomes:

- New Zealanders living longer, healthier and more independent lives, and
- the health system is cost-effective and supports a productive economy.

Health research creates new knowledge, solutions and innovations, and improves the quality and cost-effectiveness of the healthcare system. By keeping New Zealanders healthy and productive, we support economic growth. The HRC also funds innovative research that results in new products and processes with

**Figure 2.** A graphic depiction of the HRC's drivers (the earth), our attributes (the wood) and the benefits of what we do (the leaves).



commercial value. This is achieved by investing in a balanced combination of basic and applied research that ensures impact is achieved over the short and longer terms.

The Government has recognised the importance of health research in their recently launched National Statement of Science Investments (NSSI). The HRC works with the science and innovation sector to deliver research within the priority framework. Additionally, HRC continues to work to simplify the processes for researchers seeking funding to limit transaction costs and ensure value for money in the health research investment.

In the 2014/15 Letter of Expectations from the Minister of Health, particular emphasis was placed on the HRC's role in:

- providing research opportunities for frontline clinicians;
- support for research with the potential to improve value for money through improved health outcomes and service delivery;
- producing economic gain;
- encouraging knowledge transfer pathways to ensure research evidence informs the health and disability sector;
- working collaboratively with both the Ministry of Health (MoH) and the Ministry of Business, Innovation and Employment (MBIE) to maximise the benefits from New Zealand's investment in health research;
- and continuing to support improvement in the efficiency, consistency and transparency of the health and disability ethics committees (HDECs).

In early 2015, the Ministry of Health in conjunction with MBIE undertook a strategic Refresh of the HRC. This provided us with an excellent opportunity to look at what we do and how we fit within the health sector and science system, with a view to recognising what we are doing well and what we can do better. We have found the process very valuable and the input we have received will shape work going forward.

## Addressing our Minister's expectations

The Minister of Health's expectations are outlined in the schematic overleaf, together with some key activities that the HRC is currently undertaking in each area. Emphasis is placed on the importance of focusing on financial sustainability as the New Zealand Government works towards returning to surplus by 2015. All Crown Entity Boards are expected to lift productivity whilst continuing to provide high-quality services. We regularly review our services and funding opportunities to see how they can be improved and delivered more efficiently, without compromising the quality and robustness of our processes. Over the past 7 years, we have successfully driven down our operating costs as a percentage of Crown funds received, and reduced staff full-time equivalents (FTEs).

All Boards are expected to look for service improvements, and take opportunities to work with other entities to maximise system-wide efficiency and effectiveness. Our schematic shows that we are working hard to maximise opportunities to partner with our stakeholders and leverage maximum benefit from the research investment.

The Minister of Health has set the following health targets for the health sector in 2014:

- shorter stays in emergency departments;
- improved access to elective surgery;
- increased immunisation;
- better help for smokers to quit, and
- more heart and diabetes checks.

The HRC has funded research of relevance to all of these targets, and continues to look for high-quality proposals that will address knowledge gaps, create new systems and tools, and contribute to best-practice in these areas. HRC-funded research is also underpinning advances against the Government's Better Public Service Goals, in particular, supporting vulnerable children by increasing infant immunisation rates and reducing the incidence of rheumatic fever.

## The Minister of Health's four specific priorities for the HRC in 2014/15

**Priority:** Investigate knowledge transfer pathways that will ensure that relevant research results are adopted by the health and disability sector

- Our strong focus on the utility & uptake of research means we are funding an increasing amount of research conducted in partnership with health practitioners & stakeholders
  - The Research for NZ Health Delivery Research Investment Stream - research has an immediate impact on the health sector
  - The Partnership Programme - tailor-made research for stakeholders
  - The Research Partnerships for NZ Health Delivery scheme - 20 new contracts in the last 3 years; direct partnerships with DHBs
  - 69% of current contracts involve end-users and clinicians
- We have established an expert assessing committee for clinical trials to ensure high-quality studies are funded

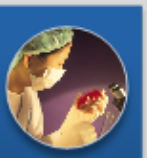
**Priority:** Continue to support funding of research within your existing scope that has the potential to improve value for money through improved health outcomes and service delivery, and produce economic gain

- We continue to target resources towards applied health research & put a strong emphasis on sustainable solutions & cost-effective interventions.
- Our NZ Health Delivery Investment Stream feeds findings directly to front-line clinicians & managers at DHBs - a fifth of new contracts focus on the clinical application of advances in prevention, detection, diagnosis or treatment
- A further 20% of new contracts focus ongenerating these advances through novel discoveries
- We created Explorer Grants to foster highly innovative ideas, with the potential to deliver 'game-changing' solutions

**Priority:** Continue to support opportunities for DHB front-line clinicians to be involved in meaningful clinical research, thereby enriching their education and encouraging retention of this workforce

- We have grown the clinical health-research workforce by over 20% in the last 8 years to ~ 40% of total positions
- We have created two training fellowships
  - The Clinical Research Training Fellowship
  - The Clinical Practitioner Research Fellowship
- We continue to target resources towards applied clinical research
- Over 40% of new contracts are led by practising clinicians

**Priority:** Strengthen the partnership approach with both the Ministry of Health and the Ministry of Business Innovation and Employment in terms of the funding, priority setting and development of health research. This will include supporting the health National Science Challenges to the extent that is compatible with the integrity of the HRC's processes.



- We have prioritized resources for the Health Innovation Partnership with the National Health Committee & research is now underway
- We have 12 active partnerships & support 33 research contracts through them.
- Research Partnerships for New Zealand Health Delivery is a vital adjunct to our translational, health-innovation investment stream (Research for NZ Health Delivery). Research teams negotiate direct partnerships with DHBs
- We have worked closely with MBIE to provide advice & support for the health-related National Science Challenges

Health research only benefits New Zealanders if the findings are valued, taken-up and used. Increasing the utility and uptake of health research is an enduring priority for the HRC. In addition to our other measures to directly involve end-users in research, we provide a range of regular publications for our research, policy, and Māori and Pacific stakeholders, and are currently updating our information systems to provide the additional resource of an online database of HRC-funded research and research teams.

## Tackling the areas of greatest need

The Ministry of Health produces a detailed analysis of the burden of disease in New Zealand in disability-adjusted life years (DALYs) - which integrate fatal and non-fatal impacts into a measure of health loss[1]. We aim to fund research in areas where burden of disease is greatest and where the best opportunities for impact lie for prevention and improving screening, diagnosis and treatment. This includes research to mitigate changes in New Zealand's burden of disease profile as our population changes (e.g. the increasing

[1] Ministry of Health. 2013. *Health Loss in New Zealand: A report from the New Zealand burden of diseases, Injuries and risk Factors Study, 2006-2016.* P12, Wellington: Ministry of Health.

incidence of non-communicable diseases and an ageing population).

**Table 1** shows that the HRC has invested most heavily in the conditions that are causing the greatest burden of disease for New Zealanders - cancer and cardiovascular disorders. While this reflects the directions we give to the research community through our Investment Signals, it also reflects the fact that the best researchers are tending to work in the areas where they can make the greatest difference.

Greater investment is also seen in areas in which we have particular research strengths. The investment in neurosciences, reproductive and gestational disorders, and infant conditions reflects the fact that we have built world-class capacity in these areas (see the results of our Bibliometrics Study 2014, Outcome 1: performance indicator 3, p26). We also have a strong focus on infant and child health.

## How we balance our investment

One of the most complex issues we face is how to balance our investment across health needs, critical gaps, health disparities and vulnerable populations. Identifying where the best return on our investment can be achieved is a complex task and a core responsibility for the HRC. Determining the balance involves three sets of complimentary drivers.

1. **Where in the health and disability sector can we make the biggest difference** (spanning prevention, diagnosis, treatment, rehabilitation and service configuration)?
2. **Where does New Zealand have significant research capability**, or where can capability be swiftly generated?
3. Where does the health and disability system, or New Zealand more generally, have the **ability to capture and realise the value?**

Other considerations with respect to balance of the investment include:

- health *versus* economic benefits;
- the amount invested at each stage of the research continuum to best feed the innovation pipeline (basic through to experimental development);
- the relative levels of support for biomedical *versus* clinical, public health and health delivery research, and
- the balance of investment in internationally recognised areas of strength and unique capability *versus* core health and wellbeing needs and issues for New Zealand.

Human health is itself a very broad and complex domain. We also have to consider how much research should focus on particular health issues (e.g. diabetes *versus* cardiovascular disease) and how much to focus on prevention *versus* treatment. Demographics and the current and future health needs of our population - particularly children, older adults, Māori and Pacific - are also critical considerations.

**Table 1**. The ten conditions accounting for the greatest burden of disease in New Zealand by disability-adjusted life years (DALYs), showing HRC investment in relevant research over the past five years.

| Condition | DALYs | HRC Investment previous 5 years ($)[2] |
|---|---|---|
| Cancers | 167,149 | 52,522,538 |
| Vascular disorders | 166,863 | 48,277,053 |
| Mental health | 106,398 | 12,404,040 |
| Musculoskeletal disorders | 87,225 | 8,792,164 |
| Injury | 76,269 | 8,250,722 |
| Neurological disorders | 65,293 | 28,673,287[3] |
| Respiratory disorders | 60,276 | 12,722,251 |
| Infant conditions & birth defects | 50,338 | 29,599,228[4] |
| Endocrine disorders[5] | 38,780 | 8,594,768 |
| Reproductive & gestational disorders | 33,618 | 11,399,069 |

[2] Total investment from 2009-2014.

[3] HRC supports several top researchers in this area. The condition contains some contracts also related to infant conditions and injury.

## Factors HRC considers when balancing the research investment

There is also the question of what funding opportunities and processes help us to achieve the 'right' balance, the best value, and the most important outcomes. What should the balance be between short-, medium-, or long-term research contract opportunities? How much should we invest in top-down and bottom-up research, i.e. mission *versus* investigator-led?

How much of our investment should support research projects *versus* individuals, career development, international collaborations, partnerships with end-users etc.? What should the balance be between high-risk, potentially high-return and novel research, *versus* more conservative research that has a higher likelihood of achieving the stated aims? With respect to the sustainability of New Zealand's health research system, what should the balance be regarding senior, mid-career and emerging researchers?

There is also the wider environment and the work that needs to be done to ensure the right supports, drivers and incentives are in place (at a political, public, business and institutional level) to enable the strategy and the processes to be successful. Gathering all the information we need to guide decisions of balance is a constant process and means that the HRC has developed a wealth of information on New Zealand health research and the HRC-sponsored workforce.

A core principle for the HRC is to provide leadership, signal clear direction, and ensure stability in the sector so that strong research platforms and areas of core capability can perform at their best– *and* we work hard to ensure we are agile so we can effectively respond to emerging opportunities, proactively identify and target support to meet current and future priority health needs, and build capability where new evidence, skills and approaches are needed.

Getting the balance 'right' is a constant and ongoing challenge – one that involves continuous, incremental improvement.

## Continuous improvement in investment processes

### Gaining maximum impact for the taxpayer's research dollar

Ensuring that research proposal assessment and contracting is equitable, free from conflict of interest, and identifies the best ideas is key to maintaining the trust and support of the health research community and forms a major part of our work.

Assessment through the Annual Funding Round, takes about nine months in total, involves approximately 240 expert committee

IMPACT

### Improving primary care for older adults

The Improving Primary Care for Older Adults study undertaken by researchers at the University of Auckland, is predicated on the fact that healthcare interventions in aged-care residential facilities result in fewer hospitalisations for older adults.

**For residents of long-term care, hospitalisations can cause distress and disruption, and often result in further medical complications.** They are also a substantial and increasing cost to the health system.

The Aged Residential Care Healthcare Utilisation Study (ARHCUS) tested **a clinical package of known quality-improvement interventions using multidisciplinary teams to support those facilities and up-skill residential facility staff**.

**Results showed reduced hospitalisations for people with congestive heart failure, ischaemic heart disease, stroke, chronic obstructive pulmonary disorder and pneumonia.**

Development of ARCHUS is ongoing. The HRC is funding work to develop more refined interventions through the Aged Residential Care Healthcare Implementation Project.

members, and a further 450-500 specialist reviewers. Applications are assessed by expert peer-reviewers on scientific quality, the track record of the research team and the potential for impact. The impact criterion assesses the extent to which the proposed research meets the goals of the Investment Signal, the degree of health and economic benefit, and the planned pathway to ensure uptake of results.

**Our investment processes are regularly reviewed to ensure they are fit for purpose, efficient, and meet best-practice standards.** Process upgrades range from implementing new grant types to improving application and assessment processes. Options for change are identified from sources both internal and external to the HRC.

## Managing organisational health and capability

The HRC has a ten-member Board appointed by the Minister of Health with a range of expertise defined by the HRC Act 1990. Members of the Board Chair three of the HRC's four Statutory Committees (the Biomedical, Public Health and Māori Health Research Committees).

The HRC has five Standing Committees:

- the Pacific Health Research Committee;
- the Grant Approval Committee;
- the Risk Management Committee;
- the Standing Committee on Therapeutic Trials (SCOTT), and
- the Gene Technology Advisory Committee (GTAC).

The HRC's committees provide advice and recommendations on HRC policies and procedures and provide oversight of the peer-review processes used to assess research proposals and applications for career development awards.

## The HRC Secretariat

A strength of the HRC continues to be its highly skilled Secretariat staff, many of whom have post-graduate qualifications and research experience. This provides credibility with research providers and helps HRC shape, in a practical way, its investment processes and policy development. The organisation is committed to enhancing and making best use of the skills and strengths available, engaging Secretariat staff in achieving organisational goals. The HRC will continue to use a transparent and impartial employment process to guarantee that there is no barrier to employing the best people for the job, and offer flexible working practices to attract and retain a quality workforce.

The HRC is focused on acting with high standards of integrity, ensuring all outcomes are perceived as being fair, impartial, responsible and trustworthy. We employ a comprehensive induction process, and organisational policies and procedures in order that all staff meet and deliver on the State Services Commission Standards of Integrity and Conduct.

In 2015, the HRC has introduced a Conflicts of Interest Register for staff, in addition to the one that has always been kept for members of the HRC Board.

The Secretariat works closely with both the Board and the HRC's statutory and standing committees. Relationships between the Secretariat, MoH, MBIE and other funding agents are important. The Chief Executive and members of the management team participate in regular and productive meetings with MoH and MBIE at which matters germane to the health research environment are discussed. The HRC Board appointed Professor Kathryn McPherson as the new Chief Executive in January 2015, who has prioritized building strong relationships with all of our stakeholders.

## Accountability to our Ministries

### No surprises from the HRC

In addition to the specific reporting and accountability requirements, the Board, to the extent practicable, ensures that the Ministers are adequately warned in advance about any issue affecting the HRC that is likely to attract external attention or represent potential risk to the Government.

## Annual reports

The HRC provides the following documents as part of our monitoring, reporting and accountability agreements:

- An **Annual Report** – as per the Crown Entities Act 2004 requirements.
- The **Statement of Intent** – as per the Crown Entities Act 2004 requirements.
- The **Statement of Performance Expectations** – contains the annual forecast of performance and financial information as per the 2013 amendments to the Crown Entities Act 2004.
- **Investment Impact Report** – provided to MBIE and MoH, the purpose of which is to demonstrate the effectiveness of the investment made by the Council, and to provide advice on the future effectiveness of these investments.
- **A Data Information Report** provided to MBIE, for the purpose of monitoring the performance of Vote Science and Innovation's investment in research.

## Six-monthly and quarterly reports

- Exceptions-based, 6-monthly reports against the Statement of Performance Expectations and Output Agreements with the Ministry of Business, Innovation and Employment.
- Exceptions-based, quarterly reports against the Statement of Performance Expectations and Output Agreements with the Ministry of Health.

## Scope of the HRC's functions and intended operations

The framework for the HRC's work is provided by the Health Research Council Act 1990. The HRC undertakes two broad functions mandated by the Act.

1. Invest in high quality health research that will benefit New Zealand.

The HRC issues contracts for research proposals that are aligned with Council priorities that are published annually. The Universities of Auckland and Otago are the two major health research providers because of their scale and research strengths, but there is an increasing number of other organisations capable of delivering health research which have been supported by HRC. These include other universities, Crown Research Institutes, District Health Boards, health research institutes and a range of other public and private research providers. In 2014, more than 30 different organisations received HRC funding, ensuring that investment is directed

IMPACT

### NZ-CAREX

**The HRC supports vital resource for industry on occupational cancer**

The Centre for Public Health Research (CPHR) at Massey University has shown that **occupational cancer is a significant issue for New Zealand, accounting for 200-400 deaths per year.** They have proven that **occupational cancer risk is higher for meat workers, sawmill workers, joiners, furniture makers, cleaners, farmers, pesticide sprayers, and firefighters.**

For over 25 years, supported by the HRC and others, CPHR has undertaken research to help understand the incidence and causes of occupational cancer.

**Their ongoing HRC Programme 'Building Research in Occupational Health in New Zealand. ' has enabled them to build a NZ-specific information system on occupational exposure to carcinogens, NZ-CAREX, now available for use by industry**. An additional HRC Partnership Programme grant has enabled CPHR, ACC and the Department of Labour to work together to explore occupational risks and address gaps in what we currently know.

CPHR's knowledge is in significant demand by government and industry. They have provided advice to the Ministry of Health, Department of Labour, ACC, the Asthma and Respiratory Foundation of New Zealand, Marsden Fund, The Wellcome Trust, the Cancer Society of New Zealand, and the New Zealand Fire Service. **They have also undertaken research for the US National Institutes of Health and International Agency for Research on Cancer**.

to those best placed to conduct research in specific areas and apply research findings.

The HRC determines priorities for research investment to ensure that our funding has maximum impact. Priorities are determined in conjunction with a wide range of stakeholders and with regard to national and international trends. In 2010, a major adjustment of funding processes was undertaken to align our processes with our priorities. The changes simplified the funding process, increased transparency in decision making and reduced transaction costs for research providers.

The HRC uses a rigorous process of peer-review to ensure that funding is transparent and fair, and guarantee that contracted research is of high quality. A best-practice model is utilised that involves international peer-reviewers and expert committees comprising experienced New Zealand and Australian researchers. Scrupulous attention is paid to avoiding conflicts of interest during the process. Details of the HRC investment strategy and assessment processes are publicly available (www.hrc.govt.nz), and funding decisions are ultimately made by the HRC Board.

To ensure contracted research meets its objectives, funded researchers are required to report at least annually and progress towards outcomes is reviewed.

2. Support the recruitment, retention and training of the health research workforce.

Workforce support is provided through a variety of mechanisms. Salaries of researchers are paid as part of health research contracts, and there are specific schemes aimed to engage and support frontline clinicians and promising emerging researchers. The HRC also provides targeted scholarships and fellowships in areas where there is a demonstrable gap in capacity of the workforce, with the purpose of ensuring that New Zealand's health research sector is sustainable and can address the needs of our unique population.

## Our operating intentions

### How we have built our performance story

There is little doubt as to the value of health research for both the health and wealth of our nation. Health research underpins improvements in health outcomes and productivity; increases the quality and cost-effectiveness of healthcare delivery; and produces innovations that have commercial value. Yet it is extremely difficult to **quantify the impact of health research** in a reliable and meaningful way. Human health is affected by so many different and diverse factors that it is impossible to isolate health research discoveries and attribute observed improvements to research alone.

IMPACT

**HRC research team in record-breaking international asthma study**

ISACC, the International Study of Asthma and Allergies in Childhood, was formed in 1991 to research asthma, allergic rhinitis and eczema. The study has attracted massive worldwide interest and become the largest worldwide collaborative research project ever undertaken in children (achieving a Guinness World Record).

In its 21 years, **the ISACC programme has involved 306 centres in 105 countries - with nearly 2 million children**.

The World Allergy Organisation states that:
***"Studies such as ISAAC are a major step toward overcoming barriers to the worldwide diagnosis and treatment of asthma."***

The study has provided **evidence of New Zealand's high asthma rate** and has been **used to inform global health initiatives**, particularly by the World Health Organisation's NGO – Global Alliance against Chronic Respiratory Disease.

The research team have published over 500 articles in 100 Journals including the *Lancet* and the *British Medical Journal*.

The HRC-funded New Zealand team, based at the University of Auckland and led by Professor Innes Asher, have had invaluable experience of playing a leading role in a large international collaborative study.

For example, Christchurch is a major centre of world-class cardiovascular research and this is a key strength for New Zealand. However, cardiovascular morbidity and mortality rates in Christchurch have increased over the last 4 - 5 years. In all likelihood, this has nothing to do with the quality of the health research HRC funds and everything to do with the extreme stress, disruption and on-going uncertainty caused by frequent earthquakes in the region.

How do we quantify how much worse these increases would be if we didn't have cardiologists on the ground at the forefront of their field because of their research discoveries and international networks? How do we quantify the value of being the only country in the world able to accurately measure the impact of earthquakes on health because we have vast amounts of data on over 1,200 middle-aged residents who have been part of an HRC-funded trial since birth?

Capturing the breadth and diversity of health research outcomes is challenging. To address this we have developed an **outcome framework** for our Operating Intentions through which we can show our overall progress towards the outcomes we are trying to achieve. Many of our performance indicators are output, rather than outcome, measures. We have clustered them in such a way, that each group collectively provides a surrogate measure of our progress towards meeting our goals.

**Baseline** years identify the time when we first introduced and measured a particular performance indicator, and therefore vary. We update our baselines annually so that we can show a trend line over the last three financial years, where possible. In 2015, we undertook a ten-year review of our data for the HRC's Strategic Refresh. As part of this process changes were made to some historical data so that it aligned and could be compared with current definitions and assessment criteria. This has resulted in changes to some of the baselines previously reported.

Under each outcome, we have identified key **impacts** that we will track through our annual and medium-term **performance indicators**. These are set out under 'key impact, performance indicators and targets' at the end of each outcome section. We have given as much context around the measures chosen, and the levels that we expect to achieve, as practicable. Some of this discussion centres on the balance of our investments and what is the ideal mix. There is no 'right' answer, and there will always be trade-offs between desirable outcomes as we continue to refine our indicators and track our progress towards meeting our goals.

We have set **targets** that will challenge us but are achievable within the funding levels currently available. We have only set incremental targets in areas that we expect to change because of initiatives that we already have in place, or that we can influence through expectations set through our investment tools.

As costs continue to rise, absolute levels of investment will decrease and maintaining the current level of research outputs and outcomes will effectively mean improved performance. This is also true in light of the fact that the HRC has had no increase in operating budget (funds allocated to run the organisation) for the past 11 years.

## The HRC's outcome framework

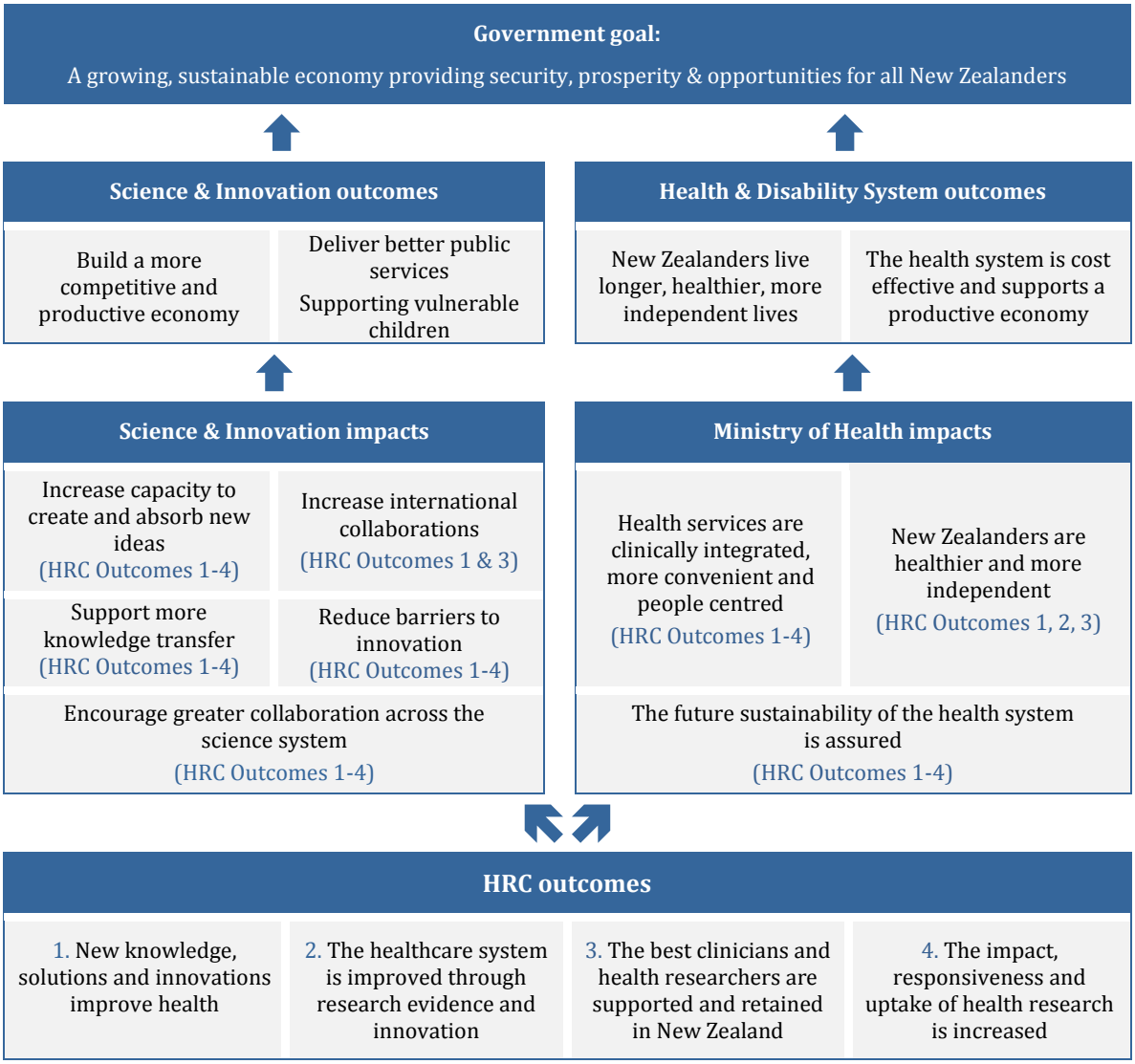
The schematic below shows how the HRC's four principal Outcomes contribute to government goals and priorities.

The schematic overleaf shows the HRC's Outcome Framework, and provides the structure for reporting our medium-term information and annual performance. The HRC has identified four outcomes it seeks to contribute to or influence in the medium-term. Intermediate impacts and outputs have been identified, and there is a clear depiction of the cause-and-effect relationship between the various levels. The four outcomes are: *new knowledge, solutions and innovations for health are created; the healthcare system is improved through research evidence and innovation; the best clinicians and health researchers are attracted, supported and retained in New Zealand; and the impact, responsiveness and uptake of health research is increased.*

Our four **Research Investment Streams (RIS)** are the mechanism through which we communicate our priorities to the research community. The RIS cover the entire spectrum of health research activity in New Zealand. Our funding framework is designed to capture bright, innovative ideas of high quality that will make both a national and international impact. Through the streams we prioritize research translation and uptake, with a strong

focus on our at-risk populations and the areas of greatest need. There is a different emphasis in each RIS – the key points of difference and the links between the RIS and our outcome framework are summarised in Appendix 2.

**How the HRC's four principle Outcomes contribute to the Government's goals and priorities**



## The HRC's Outcome Framework showing the specific contribution of the Research Investment Streams and other HRC systems

**HRC Mission:** Benefiting New Zealand through health research; **HRC Vision:** Improved health & quality of life for all

### Outcomes

- New knowledge, solutions & innovations improve health
- The healthcare system is improved through research evidence & innovation
- The best clinicians & health researchers are supported & retained in NZ
- The impact, responsiveness & uptake of health research is increased

### Research Impacts

**Building Research Capacity & Capability**

- Sustainable career pathways enhance the skills of researchers & clinicians
- Research opportunities for frontline clinicians are delivered

- High-quality, high-impact, original research is conducted
- International advances are adapted for NZ conditions
- High-quality research improves health & health equity
- More front-line clinicians are engaged in health research
- Promising emerging researchers gain valuable research experience
- NZ research contributes to national & international advances
- International advances are adapted to NZ conditions
- Encourage risk-taking by research teams
- Support unique & distinctive opportunities

- A strong research focus on keeping New Zealanders healthy & productive
- Innovative health technologies & therapies develop
- HRC research contributes to earlier diagnosis & better treatments for New Zealanders living with serious conditions
- Research that improves the quality, cost-effectiveness & sustainability of NZ's health system is prioritised
- HRC-funded research contributes to building & sustaining the body of Māori health knowledge & research expertise

### System Impacts

- Research is easily accessed, understood & applied by end-users
- Research continues to respect the rights of participants
- The ethical framework for reviewing new technologies & trials is sound
- NZ has a high-quality & consistent system of ethical review
- NZ has access to well-informed & independent ethical advice
- NZ has the research capacity to address the needs of our unique population
- The HRC works in partnership to ensure NZ's investment in health research meets sector needs & represents best value
- Strong leadership identifies enduring priorities & provides clear direction
- Knowledge transfer pathways ensure relevant research is adopted by the health & disability sector
- Strategic partnerships engage end-users, leverage benefit, & improve research uptake
- Researchers are encouraged to focus on improving health & health equity
- NZ has the ability to respond to urgent or emerging issues

### HRC's Research Investment Streams

**Health & Wellbeing in NZ**

Keeping people healthy & independent throughout life

**Improving Outcomes for Acute & Chronic Conditions in NZ**

Improving the understanding & management of disease & disability in NZ

**New Zealand Health Delivery**

Strengthening the use of evidence to inform decision-making in health practice or improve the health system

**Rangahau Hauora Māori**

Contributing to Māori health gains through Māori research that upholds rangatiratanga, & utilises & advances Māori knowledge, resources & people

### HRC Systems

These impacts are achieved through other HRC initiatives & the work of the HRC's Statutory & Standing Committees, including the HRC Ethics Committee, the Gene Technology Advisory Committee & the Standing Committee on Therapeutic Trials. The HRC's Partnership Programme research contracts are included in the investment reported by Research Investment Stream, but investment occurs throughout the year, as do continuous efforts to forge new national & international partnerships & maximise the returns on investment.

# Outcome 1: New knowledge, solutions and innovations for health are created

## Why is this important?

This outcome is about gaining the knowledge needed to keep people well, combat disease and create new tools to help us do this. Medical science has brought about such a knowledge revolution that it is easy to forget how complex the human body is, and how much of how it functions in health and disease is still poorly understood. We urgently need this knowledge to generate new approaches and treatment strategies. We need to know how our evolving environment, technologies and lifestyle impact on our physical and mental wellbeing and develop effective prevention strategies. We need to harness unprecedented technological advances that can revolutionise the way that healthcare is delivered. If we are successful in meeting this outcome, we will ultimately contribute to the economy through the creation of new medical technologies and a healthier, more productive population.

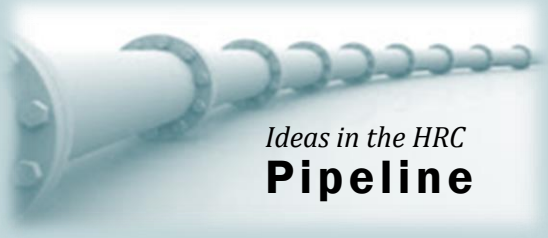
## What are we doing to achieve this?

### *We maintain a strong focus on keeping New Zealanders healthy and productive …*

One hundred percent of the research we fund contributes to our economic goal of supporting a healthy and productive New Zealand. To do this we focus a significant proportion of our funds on addressing New Zealand's top five health risk factors - diet, obesity, smoking, high blood pressure and physical inactivity. These risk factors account for about 40 per cent of the DALYs in New Zealand[6]. Our total investment in research in these areas was $42.5M in 2014.

Over the past 8 years we have invested $47.5M to prevent obesity, diabetes and cardiovascular disease, and $24.9M to improve physical exercise, nutrition and built environments. Our current portfolio of research is making a critical impact where New Zealand's burden of disease is greatest and where the best opportunities for impact lie in terms of prevention and improving screening, diagnosis and treatment.

**Cancer** is now the single biggest cause of health loss (mortality and morbidity) in New Zealand. The health, social and economic burden of cancer is enormous because it




- **Improved diagnosis & treatment of distressing stomach disorders** is on the way with testing of a laparoscopic prototype device to identify and record dysrhythmias in stomach wave contractions. Patents have been acquired for mapping technology and a partnership formed with Access Point Technologies, a commercial electrophysiology prototyping firm, to develop the device.
- **Better management of hydrocephalus could reduce shunt failure by 50 percent and save lives.** Testing has begun of the platform technologies for a wireless implantable device for the measurement of intracranial pressure, brain temperature and shunt flow. The work will culminate in the creation of a medical device with commercial potential.
- **Reduced surgery & improved safety in treatment of fractures of the head and face** will result from development of a degradable metallic mini-plate and screw system. The growth of new bone will be enhanced and a second operation to remove the system when the fractures heal will not be necessary. There is likely to be great commercial interest in this technology.

National Science Challenges

All relevant to MBIE's 'Science for Technological Innovation' National Science Challenge

[6] http://www.healthmetricsandevaluation.org GBD Profile: New Zealand.

[9] Before 2011 contracts were not tagged to the health and wellbeing RIS. Therefore, only 2011 and later contracts are included in this analysis.

affects so many people, has such a significant impact on their lives and requires expensive drugs and treatments. HRC funds more research on cancer than any other single health issue. Our biggest area of research is on treating cancer. We also have a number of research partnerships, including primary cancer prevention, managing breast, bowel and prostate cancer, and assessing cancer testing technology.

In terms of potential new treatments, our research teams working on cancer have achieved some significant results in the past year including:

- 2 US Patents awarded for drug development;
- progress on a new, improved cancer vaccine for clinical trial; and
- an experimental drug now in clinical trials.

New Zealand also has a high burden of **cardiovascular disease**, which leads to a significant individual and societal impact in terms of morbidity and mortality. HRC therefore makes a significant investment in research in this field. Between 2006 and 2014, we invested over $100M in improving understanding, prevention and treatment of heart conditions[7].

Our research teams are internationally recognised for the advances they have made, particularly in the areas of diagnostics and prognostic markers, computer modelling of heart function and new technology in heart failure. In the past year, 23 research collaborations were formed, 12 of them international (with clinicians and scientists in Singapore, the US, the UK, Ireland, Sweden and Australia).

Also, our sustained investment in **children and youth health** has achieved the following major outcomes in recent years:

- the **successful trial of a new rotavirus vaccine** has the potential to reduce hospitalisations and save newborn lives in New Zealand and worldwide;
- **classroom support tools for the 25 per cent of Pacific 11-year-olds with hearing impairment** have been developed;
- road safety research has supported an **increase in the legal driving age and the Safe Teen Driving campaigns**;
- the **identification of target levels of oxygen saturation to improve survival of pre-term babies**, and
- a breakthrough **treatment for amblyopia/lazy eye**.

### *... support high quality research that improves the health and health equity of our communities ...*

Half of our investment is focused on research on the needs of our people, which cannot be undertaken overseas.

The HRC has awarded contracts for a number of studies focused on **child wellbeing and health equity**. In particular, one HRC-funded study will examine how scientific research can be transformed into equitable 'real world' healthcare for Māori tamariki and whānau. Other research includes an examination of how health and developmental disparities emerge over the pre-school years and the development of a Community Child Well-being Tool - a framework to empower communities to use child health and development indicators to create innovative sustainable local solutions.

Supporting the **mental health** of New Zealanders is a Government priority, and the HRC funds a range of research with a focus on maintaining mental health and managing mental health issues (particularly amongst vulnerable populations). In the past year research was funded on maintaining mental wellbeing, suicide prevention, and the development of evidence based mental health treatments and toolkits to help patients living with neurological conditions.

[7] Includes research on nutrition, physical activity and obesity.

### *... support high quality, high-impact original research ...*

There are many benefits of investing in health research. However, none of these benefits will accrue from research that is not well-designed and conducted. A taxpayer dollar invested in such research is a dollar wasted. This is why we put such major emphasis on ensuring that our investment processes are robust, fair and transparent. All applications are assessed by national and international experts in the field (peer review) using contestable funding processes.

One indicator of the quality, utility and reach of the research we fund is publication of the work in a 'peer-reviewed journal', i.e. one that uses expert reviewers to determine what is accepted. HRC research has always done well on this indicator, and this year is no exception **with a total of 586 peer-reviewed publications**.

Our recent bibliometric evaluation of all NZ health research publications from 2005 - 2009 clearly demonstrates that we are backing the best. The HRC has built **world-class capacity in Paediatrics & Reproductive Medicine; Genetics; Immunology; and Clinical Sciences.** HRC articles were cited at **or above the world average in every field**, and the HRC was the only sector to achieve 20 per cent of articles ranked in the top 20 per cent for impact worldwide in any of the fields measured.

While peer-reviewed journal articles are an essential tool for researchers to advance the body of knowledge in their field, it is also important for research findings to be disseminated to the public and to health practitioners so that they are taken up and used. In the past year **HRC funded researchers engaged in over 700 dissemination activities**, ranging from presentations and workshops/hui, through to media articles, events and technical reports.

### *... contribute to national and international research advances ...*

In the past year our researchers have been involved in **263 collaborations (165 international and 98 national)**. These collaborations illustrate that our teams are both contributing to and benefiting from the global efforts. This level of international collaboration helps to ensure effective knowledge transfer and uptake and increases New Zealand's access to world-wide medical advances. It is also a mark of the quality of New Zealand's health research and researchers.

Some examples of HRC-funded international research collaborations that New Zealanders will benefit from include:

- Researchers from New Zealand, the United Kingdom and Denmark have joined forces to use country-specific databases to develop personalised approaches for predicting, preventing or managing CVD. The longer term vision is to **enable New Zealand to engage in the rapidly growing field of linked 'big-data' in health.** The increasing availability of linkable electronic health records has the potential to revolutionise research.

- Researchers from New Zealand and Belgium are collaborating to develop a real-time, beat-to-beat measurement of ventricular stroke-volume (SV) with the aim **of enabling optimal titration of treatments and personalised care for cardiac patients in intensive care.** The collaboration with Belgium provides our researchers with the ability to perform complex cardiovascular animal trials for which there is no equivalent capability or experience in New Zealand.
- **Researchers from New Zealand and Europe are collaborating to conduct a genome-wide association study** (GWAS) for genes that cause gout, including a focus on pathways driving co-morbidities (e.g. diabetes, heart and kidney disease) and to study gene-environment interactions. The collaboration enables our top New Zealand researchers to combine their expertise with others in this specialist field.
- A major collaboration between researchers from New Zealand and China is allowing us to develop new classes of anti-cancer drugs

by **combining New Zealand assays, cancer biology and drug development skills with a drug library of nearly 700,000 compounds and high throughput screening capabilities in China.** The work will generate intellectual property and *increase* **New Zealand's access to the $80 billion p.a. worldwide anticancer drug market.**

- **Patients in 100 Intensive Care Units (ICUs) across four countries (3 ICUs in New Zealand) will participate in a trial to establish whether or not selective digestive decontamination (SDD) reduces mortality risk for patients who require life support** with a breathing machine in an Intensive Care Unit (ICU). SDD involves antibiotic treatments, hygiene protocols and the monitoring of swabs to target colonies of the harmful pathogens that most commonly cause life-threatening infections in ICU - and that tend to proliferate when the balance of flora in the body is disturbed by serious illness.

In recent years, our researchers, and the international partnerships they have been involved in, have achieved significant results that will influence not only the healthcare system in New Zealand, but worldwide:

- A clinical trial collaboration between the University of Otago and the Murdoch Children's' Research Institute (University of Melbourne) showing that a **new rotavirus vaccine** is effective in 90 per cent of babies treated and has the **potential to save over**

**half a million lives worldwide *each year.***

- Professor Sir Peter Gluckman, of The Liggins Institute, and his international collaborators have provided important insights into the physiological basis of malnutrition phenotypes**,** highlighting the effects of the *in-utero* environment in determining growth trajectories - **how nutrition in pregnancy affects the future expression of genes in the child and their subsequent growth.**
- Dr Lynette Sadlier, University of Otago, with the support of collaborators in Australia and the United States, has **discovered two new genes responsible for a severe type of epilepsy.** This finding provides a definitive diagnosis and is a step towards developing targeted therapies.
- Professor Brian Darlow, University of Otago, has led the New Zealand wing of a randomised controlled trial to test what the optimum oxygen saturation target range is for very pre-term babies. New Zealand data, combined with data from the UK and Australia **provided evidence to support switching to higher oxygen levels to improve pre-term baby survival rates.** The results provide evidence for oxygen saturation targets and are **likely to change clinical practice worldwide.**
- Associate Professor Cameron Grant, in collaboration with researchers at the University of Oxford, has **shown that fewer than half of children admitted to Starship Children's Hospital had received antibiotics in primary care.** The study highlights the need to improve diagnosis of acute illness caused by infection in children presenting to a GP.

### *... focus on opportunities that are unique and distinctive, and encourage innovation ...*

Our innovative Explorer Grants encourage health scientists to push the boundaries of science and provide us with their most exciting ideas. We launched them in 2012 to address the concern that assessing committees were risk-averse in making funding recommendations, meaning that truly innovative and ground-breaking opportunities were being missed. We now supply specific funding opportunities for research at an early stage that is transformative, innovative, exploratory or unconventional – and has the potential for major impact. The six proposals supported to date have involved some truly visionary science, tackling antibiotic resistance, a **revolutionary treatment for Parkinson's disease and a radical new approach to controlling tumour growth**. It is too soon to tell how successful these grants will be, but the projects funded give a glimpse of health innovations to come.

***… and support researchers that develop innovative health technologies and therapies.***

HRC has a crucial role in delivering the full innovation value chain from improved health and social outcomes to high value exports for New Zealand. Not only does our research benefit the nation by keeping our population healthier, happier and more productive, it underpins a more efficient and cost-effective health system and generates direct economic returns through commercialisation of discoveries.

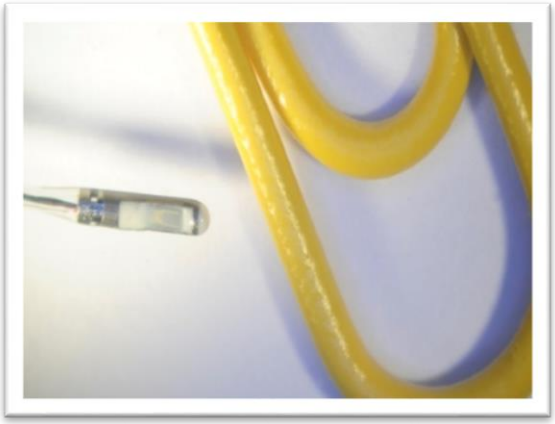
**Nineteen percent of the health research HRC supported this year is expected to generate value through intellectual property and innovation**, while our investment produced **4 new patents in 2014**.

Sustained support of top teams since our inception in 1990 has meant we have taken fundamental discoveries all the way from patent to patient – and we have many more exciting innovations in our discovery pipeline that will feed New Zealand's future successes in the global health market, as well making a real difference to patients and their families. Telemetry Research is a good example. Professor Simon Malpas's research career began in cardiovascular physiology but has evolved to see him leading a start-up R&D company that uses innovative wireless technology to develop medical devices for the worldwide market. The **impetus for the start-up came from a 1998 HRC grant that he received to study hypertension**, when he found that he was unable to buy the instrumentation needed for physiological measurements of animals in a free-roaming, rather than anaesthetised, state.

The wireless technology company has experienced a rapid rise in fortune, becoming profitable within two years and receiving an assortment of honours including Finalist in NZ International Business Awards 2010 for best use of intellectual property**. Products are now sold in over 30 countries**.

## How have we measured our success?

One of the most important actions that we have taken to support this Outcome is to ascertain whether the focus on prevention in our investments under Output 1 actually translates to effective, workable programmes



*The tip of the device developed to monitor animals in free-roaming conditions in relation to a paper clip.*

to improve the health of New Zealanders. We are also tracking not just the proportion of our investment that is likely to lead to innovations and new technologies, but also how well our investments generate commercialisation opportunities for MBIE that will benefit our nation in terms of health and economic gain.

Using our main metric for health research excellence – peer-reviewed publications – we can monitor and measure the return on our investment, through cost per publication. The greater the number of publications in international journals, the greater the global profile of our researchers. This gives us confidence that we are funding the very best health research, and the people that will take their novel findings into the global arena. Similarly, being able to measure the extent of our researchers' national and international collaborations and networks, gives us a good understanding of the strength of our researchers profile and influence in the health research arena. It is also an indication of the extent of less tangible benefits associated with collaboration, such as access to expertise, additional funds and state of the art research facilities and equipment.

**Note:** As costs continue to rise, absolute levels of investment have decreased and as such, maintaining the current level of research outcomes effectively signifies improved performance. *Baseline years identify the time when we first introduced and measured a particular performance indicator and therefore do vary.*

## Are we on track to achieve this outcome?

The targets that we set for 2014/15 have all been achieved. This gives us real confidence that we are on track to achieve our medium term-indicators and our higher-level outcome of creating new knowledge, solutions and innovations for health. Meeting our targets in relation to this outcome shows that we are actively tracking public health contracts that we believe will result in successful interventions. Our measures show that we are also funding research and researchers whose work is being recognised in the global arena and is contributing to medical and technological advances on a global scale. This degree of research quality, innovation and international linkages keeps us at the forefront of medical advances, provides us with new knowledge which better enables us to combat disease and keep New Zealanders well. It also creates new medical technologies and products. All of which supports and encourages a healthy and productive population, and a strong sustainable economy.

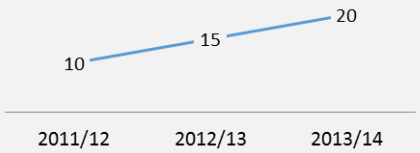
Warm Up New Zealand: Healthy Homes
EECA energywise

IMPACT

### HRC-funded public health intervention achieves national impact – The Warm Up New Zealand Study

The Warm Up New Zealand programme was launched after the HRC funded 2 large trials; the Housing Insulation and Health Study and the Housing Heating and Health study. This research underpinned the New Zealand Insulation Fund (NZIF), which was introduced by the New Zealand Government in its 2009 Budget to subsidise the costs to homeowners of retrofitting insulation and installing clean heat devices. The subsidies were designed to encourage homeowners to raise the comfort (higher heat levels and lower humidity) and the energy efficiency of their homes, and provides home owners up to $1,300 (or 33%) towards the cost of retrofitting insulation and $500 towards the cost of an efficient clean heating source.

## Outcome 1: Key impacts, performance indicators and targets

| Annual performance indicator | Baseline | Actual 2014/15 | Target 2014/15 |
|---|---|---|---|
| *Medium-term indicator, 2017:* **New Zealanders benefit from HRC's focus on prevention research**<br>*Target:* A public-health intervention (see Glossary, p91) is implemented across multiple centres as a result of HRC-funded research | | | |
| **1. Number of public-health intervention contracts tracked by the HRC** |  | 15 | 15 |

Impact

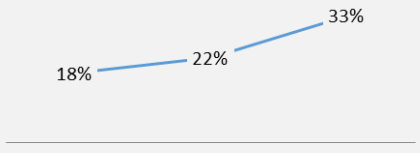
**Maintain a strong research focus on keeping NZers healthy & productive**

***Performance: Achieved***

In early 2015, we conducted a survey of the outcomes of 12 of the public health interventions that we were tracking post-completion. This showed that we have already achieved our medium-term indicator for 2017 (*see* the impact of the Warm Up New Zealand Study, on the previous page). It also led us to modify our criteria for identifying interventions to track, as not all of the interventions we had identified for tracking were actually suitable for implementation across multiple centres. This is why we are now tracking fewer interventions in the 2014/15 financial year.

***About the indicator***

*In 2011, the HRC started dynamically tracking public health research that was likely to make a substantial impact on the health of New Zealanders or on New Zealand health policy. Tracking continues beyond the end of the research contract. This enables us to gain a better picture of the true impact of the applied research we fund. We have prioritized resources to increase the number of projects that we track in this way over the next three years.*

| Annual performance indicator | Baseline | Actual 2014/15 | Target 2014/15 |
|---|---|---|---|
| *Medium-term indicator, 2017:* **'Cross-pollination' of innovative research between HRC & MBIE**<br>*Target:* 8 MBIE contracts underpinned by HRC-funded research since 2011/2012 (raised from previous target of 3, as 2012/13 figures suggest we can increase our goal)<br>*(Link to Statement of Performance Expectations – Annual indicator under Output 1, number of patents filed/granted)* | | | |
| **2. Percentage of new HRC contracts focused on discovery/development for improved detection, screening, diagnosis & treatment** |  | 33% | 18% |

Impact

**Support researchers to discover & develop innovative technologies & therapies**

*(Continued on next page)*

***Performance: Achieved***

We are satisfied with this result, as we have maintained our investment in contracts focused on discovery/development at around one third. See 'Ideas in the HRC pipeline' on page 19 for examples of the innovative research we support.

***About the indicator***

*HRC investment in innovative biomedical research leads to the creation of new products, diagnostics & treatments. MBIE has the relevant investment tools to commercialise this research & create economic benefits for New Zealand. Our role is to support the ground-breaking research that will change the way that medicine is practiced in the future & identify potential new tools & treatments that MBIE can pick up and support through to the development phase. We are satisfied with the current funding rate & balance of investments and so wish to maintain our targets at the current level.*

*Medium-term indicator, 2017:* **HRC-funded researchers maintain a high international profile**

*Target:* Average number of citations per HRC-funded publication exceeds the world average & the average for other NZ university-based health research by at least 30% (55% in 2001/02)

*(Link to Statement of Performance Expectations – Annual indicator under Output 1, number of peer-reviewed publications)*

| | | | |
|---|---|---|---|
| **3. Average citations per publication for HRC-funded research** | 14.5 in 2014<br>6.7 in 2001/02 | Triennial measure | 6.0 |

***Performance: Reported in the 2014 Annual Report***

We reported this result in the 2014 Annual Report and in the intervening year have published the full results of this major study. Our 2014 bibliometric analysis showed that in comparison to New Zealand health research articles with no HRC support, international researchers quoted HRC-supported articles more in the majority of fields. Articles based on HRC-supported research were quoted at twice the world average in key areas such as Paediatrics and Reproductive Medicine, Clinical Sciences, Genetics, and Public Health and Health Services. We were also pleased to see that, of the four funding sectors studied, the HRC sector was the only one to achieve 20 per cent of publications ranked in the top 20$^{th}$ percentile worldwide. The full report is published on the HRC website: www.hrc.govt.nz.

***About the indicator***

*We purchased data on New Zealand health research publications between 2005 & 2009 from Thomson Reuters Web of Science, and undertook a bibliometric study to calculate this indicator. This was last done in 2006 (for 1994-2001 contracts). The return on investment for the cost is invaluable in providing national & international benchmarks for the quality & impact of HRC-funded research.*

# Outcome 2: The healthcare system is improved through research evidence and innovation

## Why is this important?

Health research has a critical role in ensuring that our healthcare services are informed and of the highest quality. We know that the quality of healthcare and healthcare delivery is largely determined by the extent to which they are underpinned by research evidence. We also know that providing clinicians with the opportunity to engage in research has a positive impact on their practice, and that being a research-active country means that New Zealanders have early access to world-wide medical advances (new treatments, technologies and innovations). Health research also has a key part to play in improving the efficiency, cost-effectiveness and sustainability of our healthcare system – a role that is becoming increasingly important in light of our ageing population and the escalation of chronic conditions, such as diabetes, obesity, cardiovascular disease and cancer.

## What are we doing to achieve this?

### *We prioritize research that increases the cost-effectiveness and sustainability of New Zealand's healthcare system …*

New Zealand's health expenditure (as a proportion of GDP) is expected to rise from 9.4 per cent in 2006 to almost 16 per cent by 2026, which would account for approximately 40 per cent of core government spending. Health research has a critical part to play in 'bending the curve' in health expenditure. As such, we place significant emphasis on funding research that contributes to a more efficient, cost-effective health system. In 2014, **67%** of our available research funds supported research that **is expected to improve efficiency, reduce costs, or create savings**.

Impacts with cost-benefits range from generating evidence to improve clinical best-practice (diagnosis, treatment and management), to reducing patient recovery time and related service utilisation, and increasing the quality, productivity and efficiency of health services delivered with existing resources.

Advances in identifying the right *and* most cost-effective treatment saves the New Zealand tax payer considerably, such as the cost-effective gel treatment to prevent

IMPACT

**HRC study provides $2 treatment to prevent low blood sugar in newborns**

***Revolutionising management of neonatal hypoglycaemia around the world.***

Professor Harding a neonatal paediatrician and Dean of Research at the University of Auckland, has provided the first evidence-based strategy to treat neonatal hypoglycaemia, a common metabolic condition that affects up to 15 per cent of otherwise healthy babies.

Neonatal hypoglycaemia poses a significant burden on the health system as it frequently leads to neonatal intensive care unit (NICU) admission and may cause long-term brain damage.

The research team showed *that* **oral dextrose gel massaged into the inside of the baby's cheek is effective in reversing hypoglycaemia, halving NICU admissions and improving rates of breast-feeding. The treatment is cheap and easy to administer, costing roughly $2 per baby.**

A randomised controlled trial investigating the efficacy and cost-effectiveness of dextrose gel for prevention of hypoglycaemia and its consequences is now being undertaken.

hypoglycaemia that keeps newborns out of the neonatal intensive care units (*see* impact story on the previous page). Another HRC-funded research programme identified that prescribing calcium supplements to prevent osteoporosis increased the rate of cardiovascular events in older women. This finding both improved the safety of clinical practice but also had a significant economic impact. The subsequent **66 per cent reduction in calcium supplements prescribed translated into $3.9M in savings over 5 years**, with the annual savings likely to accrue into the foreseeable future (Gray, 2014)[8].

***… help ensure research is easily accessed, understood and applied by actively involving end-users, health-managers and decision-makers in health research …***

The HRC also has a crucial role in ensuring that our health services are informed and of the highest quality. Our processes ensure that research evidence is robust and all the health delivery research we fund is commissioned in conjunction with clinicians and end-users, often in partnership with DHBs. This approach provides mutual benefits - the researcher has a clear pathway for the uptake of their findings

IMPACT

## PREDICT

### Decision support for clinicians

The HRC has invested over a decade of funding into the development of algorithms and software to be used to prevent cardiovascular disease (CVD) - PREDICT, developed by Professor Rod Jackson and his team at the School of Population Health, University of Auckland.

PREDICT CVD Risk Assessment is a web-based decision support system, designed to help primary care practitioners evaluate patient CVD risk. The system extracts information from a patient's medical record, uses it to estimate CVD risk then provides personalised risk-reduction recommendations for the patient.

PREDICT simultaneously captures the patient data in an anonymised format for research purposes and **now contains over 150,000 individuals who are taking party in an international study of CVD risk**. Consequently, **PREDICT is becoming one of the world's largest CVD cohort studies**.

**The PREDICT system is now used by 80 per cent of Auckland and Northland PHOs** and has been adopted in other areas of New Zealand and internationally.

PREDICT allows clinicians and hospitals to target limited resources to the right patients, preventing 30 per cent of cardiac events occurring compared to standard practice. This leads to a significant reduction in healthcare costs including hospital and post-hospital care**. Auckland District Health Board estimate cost-savings of between $10M and $20M a year** – extrapolated across all the DHBs adopting PREDICT, **this could save our health system $300M a year.**

In a few years, it will be possible to develop a risk profile on over a third of New Zealand adults, as well as up-to-date information on their management.

"*The easiest way to make research relevant to practice is to generate research from within everyday practice. That's what I have been doing for the last 10 years and is what makes PREDICT unique.*"

Professor Rod Jackson

[8] Andrew Gray 'Translation of research into clinical practice: a case study of calcium supplement prescribing in New Zealand'. NZMJ Vol 127 No 1401: 29 Aug 2014.

and **health organisations have an opportunity to establish and develop a research culture that supports knowledge translation.** In the past year we have invested $11.5M in 46 research teams who will help us to achieve this goal.

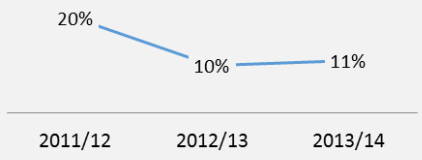
By working with healthcare providers and end-users our researchers have achieved some outstanding results. Below are just a few examples of where HRC-funded research has been translated into tangible gains for our health system:

- A new **'fast-track' pathway for patients presenting with chest pain in ED** *has been developed*. Based on a blood test procedure, the new process has enabled 1 in 5 patients to be discharged within 2 hours, **avoiding unnecessary admissions** and reducing stress to families.
- A **new electronic transient ischaemic attack/stroke decision support tool** for general practitioners is already proving valuable. Using the tool was shown to **reduce unnecessary treatment.**
- A **refined model of care, co-ordinating health and social services**, for high-intensity health service users has been implemented at Counties Manukau DHB - **relieving pressure on urgent care services** (the model now has long-term DHB funding).
- A new **training intervention for Clinician Performed Ultrasound practitioners** to provide skills to support rural patients and **reduce hospital admission numbers** will help **address some of the issues faced by patients and clinicians in rural communities**.
- A **new Joint Clinic for Osteoarthritis** has been developed in collaboration with Southern DHB, funded by the National Health Board. **The focus is on optimising treatment effectiveness and cost-effectiveness.**

## How have we measured our success?

We have measured improvement in the healthcare system through indicators of the uptake of research evidence to inform national policies and clinical guidelines, and through the creation of new health technologies and innovations. An evidence-based, innovative culture in the health and disability sector benefits patients through improved service, consistency across practice, and access to the best quality, empirically-supported treatments and technology.

## Outcome 2: Key impacts, performance indicators and targets

| Annual Performance Indicator | Baseline 2013/14 | Actual 2014/15 | Target 2014/15 | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **HRC-funded research contributes to improved clinical practice, decision-making & healthcare policy in New Zealand**<br>*Target:* 10 new clinical guidelines or policies based on HRC-funded research since 2010/11 (currently 7). | | | | |
| **1. Percentage of the HRC's annual investment under NZHD and RPNZHD** |  | 13% | 11% | Impact<br>**Research that improves the quality, cost-effectiveness & sustainability of NZ's health system is prioritized** |

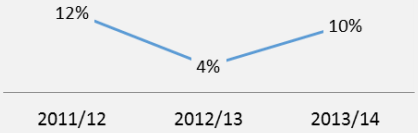
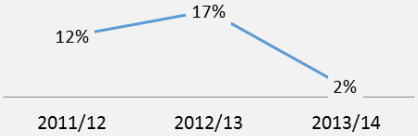
***Performance: Achieved***
The value has increased on the previous year, partly because the RPNZHD scheme is gaining momentum and the number of applications is increasing. We are pleased with this result. We are hoping to see a gradual increase in this indicator as clinical researchers based in health institutions gain more research experience, and this translates into better design of the research proposals that we receive. The indications are hopeful that this is occurring, and we continue to invest in clinical research training through our career development awards for clinicians.

***About this indicator***
*These two investment tools are very recent. The ability of the research sector to respond to the Investment Signals will gradually increase the longer they are in place. We want to grow the investment in high-quality research that makes an immediate contribution to our health system through these tools, but this is highly dependent on the quality & utility of applications received. As a result, we have only projected gradual growth through our targets.*

| | | | | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **HRC engages with the health sector to deliver solutions**<br>*Target:* 35% of new contracts are led by a principal investigator engaged in health delivery (currently 24%) | | | | |
| **2. Percentage of current contracts with a named investigator based at a DHB or PHO** | 23% in 2012/13<br>34% in 2013/14<br>*(Data available for two years only)* | 48% | 20% | Impact<br>**Actively involve end-users, health-managers & decision-makers in research** |

***Performance: Achieved***
The result this year has again exceeded our target, and this reflects our strong focus on engaging clinicians in research through our targeted training fellowships and health delivery focused investment opportunities (Research for New Zealand Health Delivery and Research Partnerships for New Zealand Health Delivery).

***About this indicator***
*We specifically want to increase the level of research activity at DHBs and PHOs & need to know how many of our research contracts provide research opportunities for front-line staff. We prioritized such research through our Investment Signals and need to track the impact of these messages. We have extended this measure to include all current contracts & not just new contracts. As this is a new measure, we have been conservative with our targets until we can establish more baseline measures.*

| Annual Performance Indicator | Baseline 2013/14 | Actual 2014/15 | Target 2014/15 | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **HRC research underpins the creation of new health technologies & innovations**<br>*Target:* 1 new health technology & 3 new clinical innovations/decision-making tools arise from HRC-funded research | | | | |
| **3. Percentage of new contracts focused on clinical application of innovations for improved prevention, detection, screening, diagnosis or treatment** |  | 19% | 20% | Impact<br>**Application & improvement of innovations, treatments & technologies that will advance health delivery & bring economic benefits to NZ** |
| **4. Percentage of new contracts focused on innovative clinical decision-making tools & models of care** |  | 4% | 12% | **Application & improvement of innovations, treatments & technologies that will advance health delivery & bring economic benefits to NZ** |

***Performance: Not achieved***
We set an ambitious target of approximately one-fifth of new contracts meeting this criterion and we all but reached this.

***About this indicator***
*This was a new measure in 2011, designed to monitor the level of HRC support for applied health technologies & help us to better track their development & impact. Our target is for one-fifth of new contracts to be in this area, & we will seek to maintain this level.*

***Performance: Not achieved***
The last 2 years identify a drop in the percentage of contracts we fund with a focus on innovative clinical decision-making tools and models of care. This may well reflect the fact that we have simply received fewer applications with this focus. It is also possible there may have been some impact from the change in the way that we assess clinical trials. We have introduced an expert committee with specific expertise in clinical trial design to determine what we should be funding. This has resulted in a higher bar for applicants and we are funding trials with stronger trial designs as a result.

***About this indicator***
*This was a new measure in 2011, designed to monitor the extent to which research is being used to test & implement systems for streamlined, efficient management of health conditions at the patient or organisational level. We hope this figure will increase through our efforts to grow clinical research capacity & planned investment in co-funding relationships.*

# Outcome 3: The best clinicians and health researchers are attracted, supported and retained in New Zealand

## Why is this important?

A strong health research sector depends on a highly-skilled, experienced workforce which can deliver quality research and drive innovation. By targeting support to front-line clinicians and the most promising emerging researchers in priority health areas, we ensure that the research workforce has the capacity to meet the needs of the healthcare system and our unique population, both now and into the future.

## What are we doing to achieve this?

**We target approximately 20 per cent of funds into identifying and growing emerging research talent**, bridging vulnerable stages in research career paths, training and engaging clinicians and decision-makers in research, and ensuring we have the capacity and capability for Māori and Pacific peoples to identify and address health priorities and issues within their own communities.

HRC currently supports **2857 research positions, we provide 43 researchers with career development awards,** and support **165 post-doctoral researchers** across all of our research funding opportunities.

### *We deliver research training opportunities for front-line clinicians ...*

We have invested considerable effort in recent years to encourage clinicians to become engaged in research, including initiating new Career Development Awards.

Because practising clinicians are often best placed to identify research questions and apply research findings, we provide research opportunities for clinicians and involve them in academic research teams, bridging the gap between discovery and delivery. Offering research opportunities for clinicians not only improves the design and uptake of research, but is a vital tool in attracting the best practitioners to our health institutions and universities.

The success of these initiatives is evidenced by our growing clinical research workforce:

- **43%** of researchers named on contracts **are clinically trained** and **57%** of these clinicians **are practising**
- **82% hold a joint appointment** between a university and a healthcare provider

This provides a high degree of end-user involvement in research, a key factor in promoting the translation and uptake of research evidence.

### *... ensure NZ has the research capacity to address the needs of our unique population ...*

HRC has an excellent track record of successful approaches to developing health research capacity for Māori health researchers and, indeed, what we do in building health research capacity for Māori is unique internationally. Through sustained investment in targeted career development awards that span

### Rising stars: Alana McCambridge
**University of Auckland**

***Developing novel stroke rehabilitation techniques***

A HRC Pacific Health Research PhD Scholarship is enabling Alana McCambridge to study the rehabilitation benefits of transcranial direct current stimulation (tDCS) for stroke rehabilitation.

**Perhaps the first Pacific, clinical neuroscience researcher, Alana has already achieved several publications in the prestigious *Journal of Neurophysiology*, having showed for the first time that tDCS can improve selective muscle activation in the upper arm**.

Her research with stroke patients involves direct collaboration with the Neurology Research Unit and Brain Research Clinic at the University of Auckland as well as Auckland City Hospital. If successful, **her findings have the potential to greatly improve physical therapy treatments after stroke**.

Summer Studentships through to prestigious post-doctoral fellowships, we have built and established a health research workforce able to address the health needs of their communities.

Our capacity-building programme for Māori health researchers has been particularly successful, with **12 percent of individuals** we support on research contracts **identifying as Māori**, of whom nearly half are senior researchers, with a further 22 percent categorised as emerging. In 2014, 36 Māori CDA recipients were allocated $6M.

Progress in building a sustainable health research workforce for Pacific has been more challenging. HRC introduced career development opportunities for Pacific peoples wanting to pursue careers in health research in 2002. Currently **Pacific health researchers hold 67 research positions**, making up 3 percent of our workforce. Almost half are Emerging Researchers, one third are Researchers, and only 8 are classified as Senior Researchers. In 2014, 22 Pacific CDA recipients were awarded $3.9M.

To support the development and retention of Pacific health researchers, we implemented *the **'Sir Thomas Davis Te Patu Kite Rangi Ariki Health Research Fellowship'*** in 2014. The fellowship supports high-quality Pacific research. It provides up to three years' support for a researcher whose field has the potential to contribute to both the health and economic gains for New Zealand.

### *... and support promising emerging researchers to gain valuable research experience.*

We build key capacity and capability through targeted support for emerging researchers. Our career development awards, the Sir Charles Hercus Postdoctoral Fellowships and Emerging Researcher First Grants, play a critical role in helping to retain promising researchers in New Zealand and form a vital part of our efforts to foster the health research workforce in New Zealand.

Almost one fifth of our researchers are emerging. Investment at this point in the career trajectory is essential to the future sustainability of health research in New Zealand. Of real importance is the success our emerging research opportunities have had in not only retaining our up and coming researchers, but helping them to launch successful careers in a highly competitive research funding environment**. 57 percent of our Emerging First Research Grant Recipients are retained on subsequent contracts** – a real achievement in light of an overall funding success rate for an HRC grant in 2014 of 13.4 percent.

Emerging researchers are not only tomorrow's leaders, they also bring innovative and creative ideas to health research. Through our role in attracting and retaining critical research capability, and creating attractive career paths, we have supported many

## Rising stars: Elizabeth Forbes-Blom

**Malaghan Research Centre**

***Reaping health and commercial gains for New Zealand***

Dr Forbes-Blom's research career has taken her from science undergraduate to Senior Research Fellow at the prestigious Malaghan Institute of Medical Research, where she investigates strategies for preventing and treating food allergies.

It was whilst at the Australian National University on a summer scholarship that Dr Forbes-Blom discovered her passion for medical research. She then studied for her PhD and was later awarded a Fulbright Scholarship to study at the Cincinnati Children's Hospital Medical Centre in the United States.
The HRC has supported her through the critical early stage of her research career with an **Emerging Research First Grant**.

At the Malaghan Institute, **she is part of the team that was awarded a nearly $5M HRC grant in 2014 to investigate the immunological mechanisms of allergies**. She has also been awarded **$400,000 from MBIE as part of a joint New Zealand and Japan research programme** investigating the use of prebiotic and probiotic (synbiotic) foods to strengthen the immune system.

researchers who are going on to forge promising careers. Just a few examples of the successes achieved are given below.

- A total of **101 peer-reviewed publications**, highlighting the quality of their research.
- One researcher was presented with an Auckland DHB **Healthcare Excellence Award** for work in paediatric emergency medicine.
- Another achieved a **Fulbright New Zealand Visiting Scholar Award.**
- A **provisional patent** for MicroRNAs as diagnostic and prognostic biomarkers for atherosclerotic conditions was awarded to a Sir Charles Hercus Fellowship holder.

## How have we measured our success?

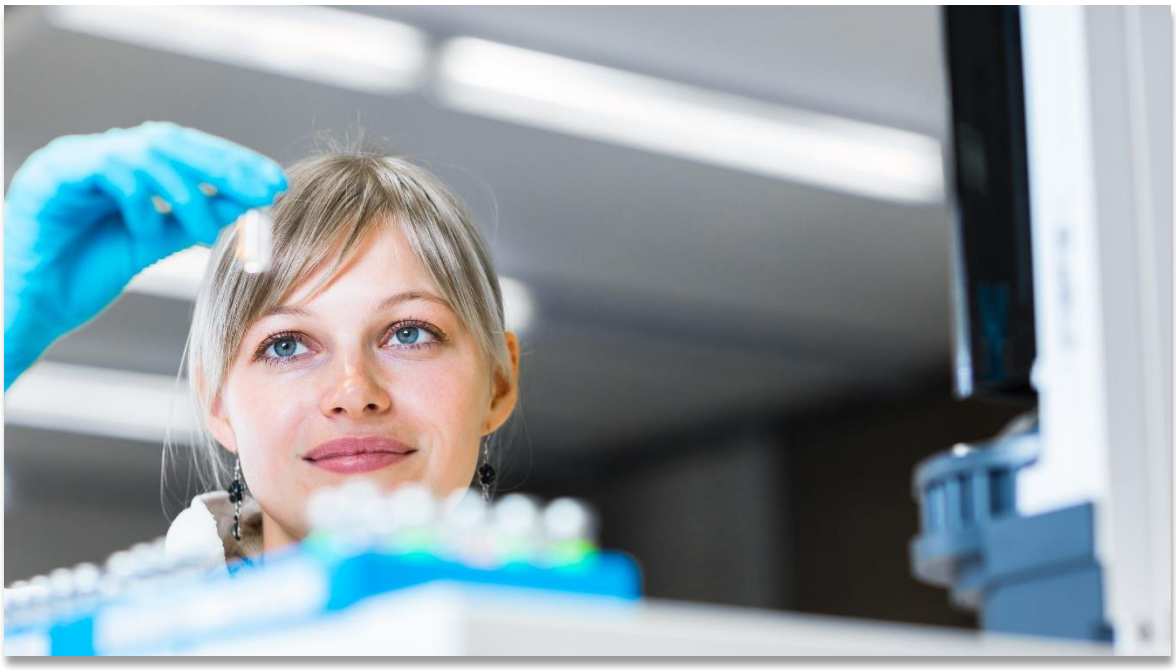
The key impacts that contribute to achieving this outcome are supporting, training and retaining the next generation of research leaders, and ensuring that we have the capacity to address the needs of our unique population. We need to monitor whether we are on track with respect to building and retaining the health research capacity needed to address Māori health.

Our measures in this section also focus on the retention of career development award recipients in the health research sector. The number of career development awardees who stay engaged in health research is a critical measure of the success of our career development opportunities. Retention of emerging researchers in the health research sector (recipients of the Sir Charles Hercus Fellowship) demonstrates that the HRC is sustaining the research workforce and selecting individuals with the skills and expertise to successfully gain funding in a very competitive field.

## Are we on track to achieve this outcome?

The targets we set for 2014/15 have all been achieved. This demonstrates that we are successfully identifying and supporting the next generation of research leaders, a targeted measure we hope will ensure our medium-term outcome of keeping our best and brightest engaged in health research over the long-term, by providing critical support at a vulnerable time in the career path of emerging researchers.

The HRC is continuing to provide critical support and develop the valuable capacity and capability needed to improve health outcomes for Māori. We are already well on our way to meeting our 2017 medium-term targets for composition of the Māori workforce.



## Outcome 3: Key Impacts, performance indicators and targets

| Annual Performance Indicator | Baseline | Actual 2014/15 | Target 2014/15 | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **The HRC nurtures new research talent**<br>*Target:* 100% of former Sir Charles Hercus Fellowship recipients retained in research (currently 100%)<br>*(Link to Statement of Performance Expectations – Annual indicator under Output 2, average number of subsequent research contracts awarded to Sir Charles Hercus Postdoctoral Fellowship award recipients)* | | | | |
| **1. Percentage of former Sir Charles Hercus Fellowship recipients named on current HRC contracts** | 56% in 2012/13<br>71% in 2013/14 | 57% | 55% | **Supporting promising emerging researchers to gain valuable research experience** — Impact |

***Performance: Achieved***
We are reassured by the continued high percentage of former Fellows named on current contracts.

***About this indicator***
*This fellowship is aimed at identifying future research leaders, & is a prestigious award. If we have identified them correctly, they should compete successfully in future HRC funding rounds.*

| | | | | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **The HRC supports Māori to develop the workforce & skills needed to address indigenous health issues**<br>*Target:* (1) 18% of Māori researchers on HRC contracts are Senior Researchers with a PhD (currently 23%); (2) 18% are classified as Emerging Researchers (currently 44%) & (3) 25% of Principal Investigators identify as Māori (currently 17%) | | | | |
| **2. Percentage of named researchers on current HRC contracts who identify as Māori** | 17% in 2011/12 data<br>12% in 2012/13 data | 12% | 12% | **NZ has the capacity to address the needs of our unique population** — Impact |

***Performance: Achieved***
We are meeting our target for support of Māori researchers on current contracts and have already exceeded our medium-term targets for 2017 for composition of the Māori workforce, with the exception of the proportion of Māori principal investigators, which is still lower than we would like.

***About this indicator***
*Through investing in a broad range of Māori research opportunities, including career-development awards, community research contracts, projects & programmes, we seek to reach our medium-term goal for composition of the Māori workforce by 2017.*

# Outcome 4: The impact, responsiveness & uptake of health research is increased

## Why is this important?

It is important that New Zealand derives health, social and economic gains from our investment in health research. HRC strives to maximise the benefit and to add further value by:

- focusing the research effort in areas of specific priority, strength and opportunity;
- developing mechanisms and running processes that ensure the relevance, responsiveness and quality of the research we fund;
- working across sectors to develop health research and ensure New Zealand's investment meets sector needs and represents best value;
- partnering with our stakeholders to deliver the evidence needed for policy and practice and to leverage benefit;
- working to improve the relevance, impact, translation and uptake of health research, and
- being effective, efficient and accountable in what we do.

## What are we doing to achieve this?

The HRC is dedicated to making a meaningful difference to the health and wellbeing of New Zealanders, our healthcare system, and our economy. Our core role is to target investment to create the maximum value to meet the country's current and future health needs. We pride ourselves on the efficiency and cost-effectiveness of the work we do on behalf of the New Zealand taxpayer. Despite no increase in operating costs for more than a decade, the HRC has managed to maintain and grow the number of funding opportunities and services we offer. Importantly, we have managed to achieve this without compromising the quality of the work we do, or the quality of the research and research teams we support.

### *We work in partnership to ensure NZ's investment in health research meets sector best value …*

We achieve the greatest impact, value and benefit when we work with others. The HRC regularly partners to meet sector needs. We have over 30 partners spanning health care providers such as DHBs, government ministries, charities, and non-government organisations. Given our relatively limited funds, we have become skilled in making creative use of funding partnerships and innovative funding mechanisms to efficiently address each of our partners' evidence needs. Current partnerships in key priority areas for New Zealand include:

- **Increasing infant immunisation rates** with two partnership projects with the MoH on whooping cough vaccine for pregnant women.
- **Reducing the incidence of rheumatic fever** – a partnership with MoH, Heart Foundation, CureKids & Te Puni Kōkiri on the detection of rheumatic heart disease by echocardiography ***and*** a trans-tasman partnership to develop **a rheumatic fever vaccine**.

IMPACT

### There's no place like home – shortening hospital stays for the elderly

**The HRC partnered with Waikato DHB** to evaluate the effectiveness of a community based Discharge Team that supports the transition from hospital to home. **The research showed that the scheme meant older patients could spend more time in their own homes, which also significantly reduced the cost of their care by over a third.** The 198 elderly patients that were discharged with the care of the Team spend on average 4.5 days less in hospital. Over the next six months, they spend an average of six days less in hospital for re-admissions. **The findings meant that the DHB could confidently support full roll out of the service across the region and confirm on-going funding of the model.**

- Better help for smokers to quit – a 5 year partnership with MoH to reduce smoking-related harm, with the aim of halving smoking by 2020.

By working in partnership, the HRC is currently **leveraging an additional $3.91 for every dollar we invest.**

### *… identify enduring priorities and set clear direction …*

HRC's primary objective is to invest in the health research that matters to New Zealand and makes the biggest difference to our health and wellbeing. To do this we need an investment framework that encourages research of the highest relevance, and we need investment processes that are robust and identify research of the highest quality.

The results of our bibliometric evaluation emphatically tell us that we are funding the best. Perhaps one of the clearest indicators that we are also funding the highest priority research is the fact that **65 percent of our research contracts align with one or more of the government's National Science Challenges** – research areas identified by New Zealand as critical to our current and future needs and success.

### *… focus research effort on improving health and health equity …*

New Zealand has a unique and diverse population and our geographic and demographic characteristics present us with challenges that mean **we cannot rely solely on health research conducted in other countries** to meet our needs. A cornerstone of our funding strategy has been to build capacity for, and invest in, quality local research that addresses health challenges in our priority populations: Māori, Pacific peoples, older adults, and children and youth. Our investment in our priority populations is significant.

Between 2006 and 2014, **$284M** has been spent on research **to improve health outcomes and health equity for our priority population groups.**

To address New Zealand's greatest health challenges HRC has engaged and worked with communities. We have provided support for iwi, hapū and Māori communities to address community-identified health needs through a specific funding opportunity – *Ngā Kanohi Kitea* – the purpose of which is to develop the capacity of communities to engage in research in order to better address their health needs.

We make a significant investment in Pacific health research. **Between 2006 and 2014, we invested $81M in 66 Pacific health research contracts**.

In November 2014, HRC hosted the inaugural International Pacific Health Conference (November 2014). The theme of the conference was Pacific Health Solutions through Research and Practice.

The conference focused on the **key issues facing Pacific peoples at a national and global level**, including the high incidence, prevalence and economic cost associated with non-communicable diseases such as **obesity**; the high chronic disease burden, particularly **cardiovascular disease and type 2 diabetes**; the growing health inequities in the Pacific region; and the greater prevalence of **mental health disorders**, suicide attempts, **tobacco and alcohol use** among Pacific youth.

### The key to keeping our vulnerable children healthy may lie in the NEST

This programme of interventions is aimed at protecting our most vulnerable citizens. The NEST trial will insulate the homes of new-born babies and provide them with feather duvets. The SHELTER trial will provide wrap-around housing and welfare services for children who have been hospitalised. ROADS will measure indoor air equality and possible health effects on children living beside arterial roads, whilst the EASy modelling study will optimise energy interventions for different housing sectors where vulnerable children live. Finally SPACE will estimate the effects of household overcrowding on children's health and consider optimal interventions.

*Professor Philippa Howden-Chapman: He Kainga Oranga: translating housing research to practice for children's health*


This was a significant opportunity to convene over 300 Pacific health policy-makers, philanthropic leaders, researchers and students from New Zealand, Australia, the Pacific Islands, the United States, and beyond.

### *... facilitate & promote knowledge transfer ...*

Ensuring that the best value is gained from the knowledge and products produced through our funded research is a key priority. We expect researchers to justify their knowledge translation approach in proposals. They need to demonstrate understanding of their end-user audience and how best to tailor communication to their needs.

In areas where we know integrated knowledge translation is required, we are proactive in ensuring that research users are fully engaged in the research process. We regularly build requirements into Requests for Proposals and assessment criteria for stakeholder engagement, multidisciplinary teams, rolling dissemination plans and governance/expert advisory committees (often including national-level decision-makers and end-users). End-users are often part of our application assessing committees. Our New Zealand Health Delivery research is a noteworthy example of our proactive knowledge translation approach. To be funded, researchers must demonstrate:

- a focus on identifying opportunities for improvements in health delivery;
- service-user, clinical, health provider, support worker, community or population collaboration/partnership throughout the research, and
- strong collaborative and strategic alliances with health service providers.

**In the 2014 year, 44 percent of our on-going contracts were translational – up from 18 percent in 2008.** Of these, 64 per cent involved the experimental development of products, systems or services.

Three recent examples of how our researchers have translated their findings into practical improvements in health service delivery are:

- the development of **training for health practitioners on comorbidity and cancer** and how to manage this to achieve healthcare-delivery outcomes;
- a **redesign of diabetes services in the Capital and Coast District Health Board (CCDHB)** through the Integrated Care Collaborative process - the new model of care has been incorporated into the Diabetes Care Improvement Plan approved by CCDHB and associated Public Health Organisation Boards and the Ministry of Health, and
- **evaluation of Waikato District Health Board's, Supported Transfer and Accelerated Rehabilitation Team (START) programme showing it achieved reduced hospital stays and risk of re-admission -** increased time spent rehabilitating at home through START reduced costs for DHBs over six months.

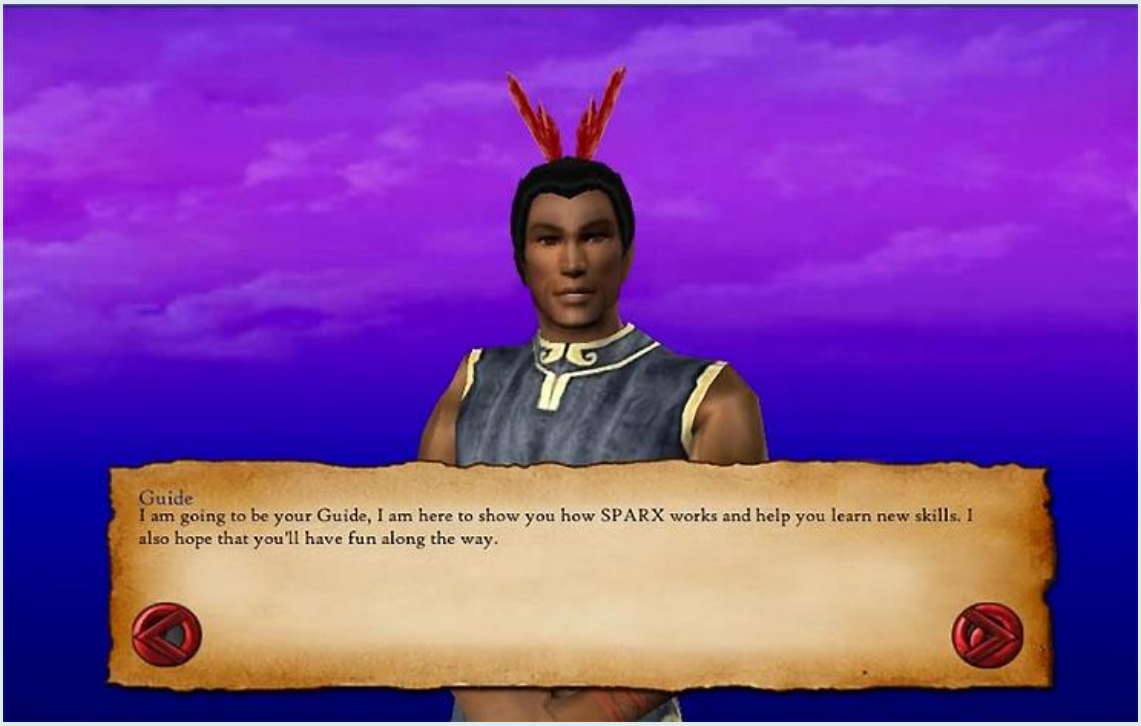
### *... support strategic partnerships and engage end-users to improve research uptake ...*

Engaging stakeholders and increasing the utility and uptake of health research are enduring priorities for the HRC. That is why **69% of our contracts involve end-users**. Two of our funding opportunities – New Zealand Health Delivery and Research Partnerships for New Zealand Health Delivery were created to encourage greater participation of clinicians and decision-makers and improve the influence and uptake of research evidence in real healthcare delivery settings.

### Fantasy game helps depressed youth play their way to better mental health

**The HRC partnered with Kapiti Youth Support** to provide supporting evidence of the value of an innovative video game in treating young people with the depression. **SPARX is a fantasy game that lets young people learn skills in a virtual world and apply them in real settings** (see screen below). The research team managed to link the game electronically with primary care clinicians, so that they can monitor the young person's progress. **Young people can contact their clinician and ask for support through the game** as well. This pilot study showed that the intervention could be delivered effectively on-line, with young people rating it highly in terms of their satisfaction with the system. Young people taking part in the trial showed improvement.

**SPARX was officially launched by the Prime Minister in 2014 and it will now be implemented nationally through the Prime Minister's Youth Mental Health Project**, in collaboration with the National Institute of Health Innovation (University of Auckland) and the Ministry of Health. The research team will continue their valuable contribution through work on the implementation and monitoring of SPARX.




### *... and respond to urgent or emerging issues.*

We have developed flexible processes that allow for the immediate commissioning of research and can respond swiftly to urgent and emerging issues by employing fast-track processes, as we did for the **H1N1 Virus** and the **Christchurch earthquakes**.

## How have we measured our success?

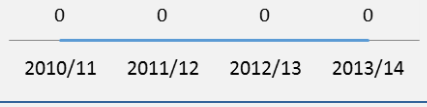
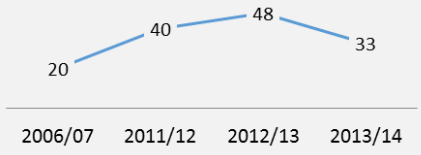
The performance indicators that we have set for this outcome relate to the HRC's role in running robust assessment processes that are trusted and successful in identifying the highest quality research with the greatest potential to improve health outcomes; our engagement with end-users; and our capacity to leverage greater investment in health research through the development of relationships with strategic partners. The performance indicators we track and measure are dependent on the HRC performing well. We aim to provide the best possible environment for New Zealand health researchers to conduct the best possible research.

## Are we on track to achieve this outcome?

Most of our targets for 2014/15 have been met. This provides assurance that we are largely on track to achieve our medium-term indicators and our higher-level outcome of increasing the impact, responsiveness and uptake of health research. Meeting our targets

for this outcome indicates that we are maintaining high-quality, transparent and trusted assessment processes which allow us to identify and fund the best and most impactful research and research teams, and a high level of engagement with the health and science and innovation sectors where we partner to jointly commission research that will meet end-user needs.

## Outcome 4: Key impacts, performance indicators and targets

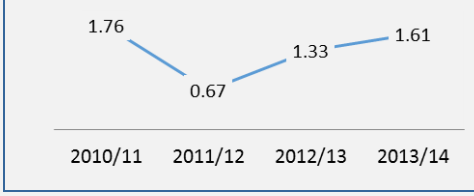
| Annual performance indicator | Baseline | Actual 2014/15 | Target 2014/15 | |
|---|---|---|---|---|
| *Medium-term indicator, 2017:* **The HRC continues to attract the number & quality of experts needed to run a best-practice, peer-reviewed funding process**<br>*Target:* Zero appeals against HRC funding decisions<br>*(Link to Statement of Performance Expectations – no corresponding Output)* | | | | |
| **1. Number of appeals for reconsideration of an HRC funding decision by the Board** |  | 0 | 0 | Impact<br>**Health-research funding environment is transparent, fair & ensures quality research** |
| ***Performance: Achieved***<br>There have been no appeals for reconsideration of a funding decision by the Board.<br>***About this indicator***<br>*This is a surrogate measure of the level of trust and confidence HRC applicants have in an assessment process that is based upon the review of their peers. Despite a low success rate in the previous round, the HRC Board received no complaints about the process.* | | | | |
| *Medium-term indicator, 2017:* **HRC forms strategic partnerships to maximise the utility & benefit of health research**<br>*Target:* (1) 2 new partnerships with end-users; (2) 2 new health technologies/treatments implemented as a result of research funded in partnership with the National Health Committee<br>*(Link to Statement of Performance Expectations – Annual indicators under Output 3, number of RPNZHD contracts and dollar value of investment leveraged from funding partners for every dollar of HRC investment.)* | | | | |
| **2. Number of active research partnerships with end-users & providers** |  | 30 | 40 | Impact<br>**Strategic partnerships engage end-users, leverage benefit & improve research uptake** |

*(Continued on the next page)*

| Annual performance indicator | Baseline | Actual 2014/15 | Target 2014/15 | |
|---|---|---|---|---|
| | | | | Strategic partnerships engage end-users, leverage benefit & improve research uptake |

***Performance: Not achieved***
The number of active partnerships has fallen over the last three financial years. This is partly because departmental budgets for research are very tight, and this has made it more challenging to get new initiatives off the ground. It is also partly because we now have some long-running partnerships that have grown in size and are requiring more time and resources to maintain. We believe that 30 active partnerships is a good result, given the comparatively low level of investment.

***About this measure:***
*Through this measure, we monitor the HRC's level of engagement in strategic partnerships that involve & respond to the needs of our end-users. The HRC has set a higher target than indicated by the baseline because this is a key priority for us. Maintaining a high number of partnerships at a time when many in the sector are reviewing their research budgets is challenging. We aim to work closely with partners to identify ways of strengthening strategic investment and grow opportunities to partner.*

| | | | | |
|---|---|---|---|---|
| **3. Dollar value of co-funding leveraged through the Partnership Programme** |   | $3.91 | $1.00 | Strategic partnerships engage end-users, leverage benefit & improve research uptake — Impact |

***Performance: Achieved***
The HRC aims for a 'dollar-for-dollar' leverage model and so this result exceeds our expectations. In 2014/15, the HRC received $3.175M from funding partners and invested a total of $811K.

***About this indicator:***
*One of the goals of the Partnership Programme is to leverage HRC funds to gain greater funding, collaboration and support for high-quality health research that addresses specific national knowledge needs. The ratio of HRC investment to our partners' investment is an indicator of how successful the Programme has been.*

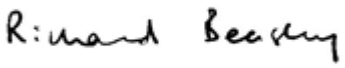
# Statement of responsibility

For the year ended 30 June 2015

In terms of the Crown Entities Act 2004, we hereby certify that:

- We have been responsible for the preparation of these financial statements and statement of service performance and the judgements used therein.
- We have been responsible for establishing and maintaining a system of internal control designed to provide reasonable assurance as to the integrity and reliability of financial reporting.
- We are responsible for any end-of-year performance information provided by the Health Research Council of New Zealand under section 19A of the Public Finance Act 1989.
- We are of the opinion that these financial statements and statement of service performance fairly reflect the financial position and operations of this Crown Entity for the year ended 30 June 2015.

**Chair**
Sir Robert Stewart, KNZM
Date: 31 October 2015



**Deputy Chair**
Professor Richard Beasley, CNZM
Date: 31 October 2015

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

## Independent Auditor's Report

### To the readers of
### The Health Research Council of New Zealand's financial statements and performance information for the year ended 30 June 2015

The Auditor-General is the auditor of the Health Research Council of New Zealand (the Council). The Auditor-General has appointed me, J R Smaill, using the staff and resources of Audit New Zealand, to carry out the audit of the financial statements and the performance information, including the performance information for appropriations, of the Council on her behalf.

### Opinion on the financial statements and the performance information

We have audited:

- the financial statements of the Council on pages 65 to 85, that comprise the statement of financial position as at 30 June 2015, the statement of comprehensive revenue and expense, statement of changes in equity and statement of cash flows for the year ended on that date and the notes to the financial statements that include accounting policies and other explanatory information; and
- the performance information of the Council on pages 21to 43 and 48 to 64.

In our opinion:

- the financial statements of the Council:
    - present fairly, in all material respects:
        - its financial position as at 30 June 2015;
        - its financial performance and cash flows for the year then ended; and
    - comply with generally accepted accounting practice in New Zealand and have been prepared in accordance with Public Benefit Entity Standards.
- the performance information:
    - presents fairly, in all material respects, the Council's performance for the year ended 30 June 2015, including:
        - for each class of reportable outputs:
            - its standards of performance achieved as compared with forecasts included in the statement of performance expectations for the financial year;

- its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year;
- what has been achieved with the appropriations;
- the actual expenses or capital expenditure incurred compared with the appropriated or forecast expenses or capital expenditure; and

- complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 27 October 2015. This is the date at which our opinion is expressed.

The basis of our opinion is explained below. In addition, we outline the responsibilities of the Council and our responsibilities, and explain our independence.

## Basis of opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the International Standards on Auditing (New Zealand). Those standards require that we comply with ethical requirements and plan and carry out our audit to obtain reasonable assurance about whether the financial statements and the performance information are free from material misstatement.

Material misstatements are differences or omissions of amounts and disclosures that, in our judgement, are likely to influence readers' overall understanding of the financial statements and the performance information. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

An audit involves carrying out procedures to obtain audit evidence about the amounts and disclosures in the financial statements and the performance information. The procedures selected depend on our judgement, including our assessment of risks of material misstatement of the financial statements and the performance information, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the preparation of the Council's financial statements and performance information in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Council's internal control.

An audit also involves evaluating:

- the appropriateness of accounting policies used and whether they have been consistently applied;
- the reasonableness of the significant accounting estimates and judgements made by the Council;
- the appropriateness of the reported performance information within the Council's framework for reporting performance;
- the adequacy of the disclosures in the financial statements and the performance information; and
- the overall presentation of the financial statements and the performance information.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements and the performance information. Also, we did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

We believe we have obtained sufficient and appropriate audit evidence to provide a basis for our audit opinion.

## Responsibilities of the Council

The Council is responsible for preparing financial statements and performance information that:

- comply with generally accepted accounting practice in New Zealand;
- present fairly the Council's financial position, financial performance and cash flows; and
- present fairly the Council's performance.

The Council's responsibilities arise from the Crown Entities Act 2004 and the Health Research Act 1990.

The Council is responsible for such internal control as it determines is necessary to enable the preparation of financial statements and performance information that are free from material misstatement, whether due to fraud or error. The Council is also responsible for the publication of the financial statements and the performance information, whether in printed or electronic form.

## Responsibilities of the Auditor

We are responsible for expressing an independent opinion on the financial statements and the performance information and reporting that opinion to you based on our audit. Our responsibility arises from the Public Audit Act 2001.

## Independence

When carrying out the audit, we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting Board.

Other than the audit, we have no relationship with or interests in the Council.

J R Smaill
Audit New Zealand
On behalf of the Auditor-General
Auckland, New Zealand

# Statement of objectives and service performance

For the year ended 30 June 2015

© Paparico | Dreamstime.com - 3 Feathers Photo

# Funding appropriations supporting the HRC

## Vote Science and Innovation: Health and Society Research

### What is intended to be achieved with this appropriation

This appropriation is intended to improve the health and social well-being of New Zealanders through research, contributing to improved business capability and higher levels of innovation; and productive and successful people, communities and regions.

***Health & Society Research***

| | 2014/15 ($000s) |
|---|---|
| Original estimate of appropriation | 82,586 |
| Further appropriations during the year | – |
| Total appropriation | 82,586 |
| The HRC portion of the appropriation | 77,175 |
| The HRC expenditure against the appropriation | 79,497 |

***International Relationships***

| | 2014/15 ($000s) |
|---|---|
| Original estimate of appropriation | 9,451 |
| Further appropriations during the year | – |
| Total appropriation | 9,451 |
| The HRC portion of the appropriation | 680 |
| The HRC expenditure against the appropriation | 179 |

***Research Contract Management***

| | 2014/15 ($000s) |
|---|---|
| Original estimate of appropriation | 6,227 |
| Further appropriations during the year | – |
| Total appropriation | 6,227 |
| The HRC portion of the appropriation | 3,225 |
| The HRC expenditure against the appropriation | 4,073 |

***Vision Mātauranga***

| | 2014/15 ($000s) |
|---|---|
| Original estimate of appropriation | 6,567 |
| Further appropriations during the year | – |
| Total appropriation | 6,567 |
| The HRC portion of the appropriation | 1,982 |
| The HRC expenditure against the appropriation | 1,285 |

End of year performance reporting: Vote Science and Innovation non-departmental output performance measures delivered by the HRC are reported on in MBIE's Annual Report as specified in the Estimates of Appropriation.

## Vote Health: National Contracted Services (Other)

### What is intended to be achieved with this appropriation

This appropriation is intended to achieve the following: to provide health-related services that align with Government priorities or the strategic direction for health services (see the Ministry of Health's Statement of Intent) but are out of scope for other national services appropriations in Vote Health. Examples include: funding for the basic operating costs of PHARMAC and the Health Research Council.

| | 2014/15 ($000s) |
|---|---|
| Original estimate of appropriation | 23,897 |
| Further appropriations during the year | – |
| Total appropriation | 23,897 |
| The HRC portion of the appropriation | 285 |
| The HRC expenditure against the appropriation | 217 |

End of year performance reporting: Vote Health non-departmental output performance measures delivered by HRC are reported on under Output 4 of the HRC's Annual Report.

# HRC Outputs

## Introduction

The funding the HRC receives from Government to achieve our Outcomes, is administered through four Outputs. These Outputs provide the framework for reporting in our Statement of Service Performance. The first output incorporates the research contracts we support; the second our career development opportunities; the third our co-funding relationships with stakeholders, and the fourth covers the role HRC has in health research ethics.

In the following section we describe the four Outputs, what the HRC has delivered, and measure our performance in reaching our targets.

# Output 1: Health research contracts

| Cost 2014/15 | Actual 2015 $(000) | Budget 2015 $(000) | Actual 2014 $(000) |
|---|---|---|---|
| Funding from Crown | 73,048 | 73,030 | 73,029 |
| Interest Received | 662 | 401 | 434 |
| Other | 513 | 459 | 976 |
| Total Revenue | 74,223 | 73,890 | 74,439 |
| Cost of Output | 76,661 | 72,200 | 68,907 |
| Surplus (Deficit) | (2,437) | 1,690 | 5,532 |

## What we fund under this Output

The HRC invests in health research contracts through contestable funding rounds and co-funding partnerships. This output covers the research contracted through our Annual Funding Rounds.

## Our Annual Funding Round

The annual funding round is our major opportunity to support the best ideas of our research community. Ensuring that the assessment and contracting processes for research are equitable, free from conflict of interest and identifying the best ideas is a major part of the work of the HRC. The process of assessment, leading to funding decisions, takes about six months in total and involves approximately 240 expert committee members and a further 450-500 specialist reviewers.

The HRC supports four different contract types through the annual funding round, see Table 2.

**Table 2**. HRC research contract types offered through Output 1.

| Contract type | Duration | Value |
|---|---|---|
| Projects (AFR) | Up to 3 years | $1.2M max |
| Programmes (AFR) | Up to 5 years | $5.0M max |
| Feasibility Studies (AFR) | 1 year | $150K max |
| Emerging Researcher First Grants (AFR) | Up to 3 years | $150K max |
| Explorer Grants | Up to 2 years | $150K max |

All new contracts are selected using our international best-practice method of peer review and are subject to ongoing monitoring to ensure delivery of contracted outcomes *(Note: the HRC is not obligated to pay the full value of the contract as payment is made in accordance with satisfactory progress).*

Historically, a one-stage application process was used, with applicants spending considerable time preparing research proposals. More than 80% of proposals, however, did not receive funding. In order to reduce the transaction costs for researchers, HRC moved to a two-stage process in 2009. This requires researchers to submit a brief Expression of Interest (EoI) reducing time spent developing a full application. The EoIs are assessed by committees of experts and only if the EoI is accepted do the team then go on to prepare a full application.

The number of EoIs invited to full application is regulated so the success rate is higher for those submitting a full application. This approach both reduces transaction costs for most applicants and the HRC has fewer full applications to process and review, reducing the pressure on expert peer-reviewers.

Applicants apply to one of four different Research Investment Streams. These represent broad priority areas for HRC's research investment, and reflect our drive to deliver greater value for money by ensuring that investment is directed to areas of greatest research need and opportunity. The four Research Investment Streams, and the indicative proportion of new investment, are:

- **New Zealand Health Delivery (approximately 20%)**
  Research will impact on the health system and service delivery in the short-term, to contribute to services being delivered more effectively.

- **Improving Outcomes for Acute and Chronic Conditions in NZ (approximately 35-40%)**
  Research supported in this stream will contribute to the understanding, prevention, diagnosis and management of non-communicable conditions.
- **Rangahau Hauora Māori (approximately 10%)**
  The stream will support Māori health research improving Māori health outcomes, and quality of life.
- **Health and Wellbeing in NZ (approximately 30-35%)**
  Research funded through this stream will contribute to health and wellbeing throughout the life-course. The stream recognises that enhancing health and wellbeing is the best long-term strategy to reduce demand on the health system.

The HRC introduced Explorer Grants as part of the 2013 Annual Funding Round. The aim of Explorer Grants is to provide seed-support enabling researchers to explore transformative research ideas at an early stage, ahead of an application for greater investment through standard funding mechanisms.

## Ngā Kanohi Kitea

HRC supports iwi, hapū and Māori community groups to address community-identified health needs through a specific funding opportunity. Funding will be derived from the Vision Mātauranga Capability Fund. An important component of the scheme will be the development of capacity to engage in research.

## Alignment with HRC's outcome framework

Health research contracted through this output delivers to the following outcomes:

- Outcome 1: New knowledge, solutions and innovations for health are created.
- Outcome 2: The healthcare system is improved through research evidence.

## Performance indicators

The key performance indicators for this output relate to the quality and priority focus of HRC-funded research, as well as the role HRC research funding plays in sustaining a fit-for-purpose health research workforce. High-quality research that responds to health sector needs and is balanced across medium and longer term goals is needed to underpin health gains and innovation, and to improve the quality and efficiency of health and disability services. The specific performance indicators, baselines and targets are listed below.

IMPACT

### Bones: Bench to Bedside

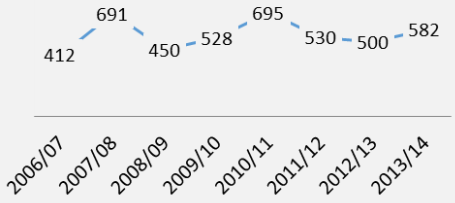
Osteoporosis affects 50% of women and 30% of men over 60 years. Currently more than 1.2M New Zealanders suffer from Osteoporosis.

HRC-funded research by the Bone Research Group has both increased our understanding of bone disease and **resulted in the development and patenting of a new drug, 10,000 times more potent than those previously available**.

The multidisciplinary team's research ranges from molecular studies of bone growth and animal models of disease to drug development and clinical trials of treatments. Their research has increased our understanding of bone-cell biology and **this knowledge has led to ground breaking treatment approaches to protect the skeleton**.

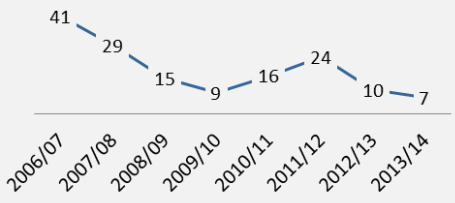
Through these trials they also made another important discovery, that **calcium supplements, a common treatment, increase the risk of heart attack by 27%**. This has had a significant impact on clinical treatment.

## Performance indicators for Output 1: Health research contracts

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target |
|---|---|---|---|
| **Outcome: New knowledge solutions and innovations improve health** | | | |
| **1. Number of peer-reviewed publications** |  | 586 | 500 |

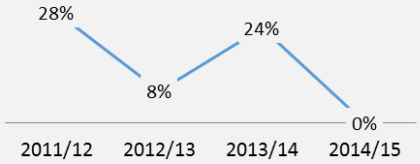
***Performance: Achieved***
Our researchers have continued to achieve a high publication rate, exceeding our target. The HRC is satisfied with the annual publication rate.

***About this indicator***
*There is great competition to publish in respected journals, so such articles indicate excellent research and novel findings. The publication rate varies considerably from year to year (see graph) for a number of reasons, but partly because the number of contracts that we support also varies considerably depending on the amount available for investment.*
*(Link to HRC Statement of Intent 2014–2018 Outcome 1, number of citations per publication.)*

| | | | |
|---|---|---|---|
| **2. Number of patents pending or awarded** |  | 4 | 15 |

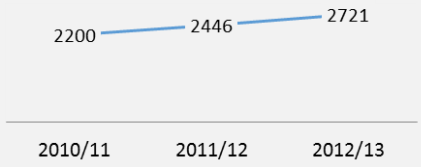
***Performance: Not achieved***
The number of patents arising from HRC contracts has not met our target. We believe that this is due to a combination of factors. Firstly, there has been a decline in investment in what we think of as 'discovery' research, in favour of investment at the more applied and translational end of the research spectrum. This will have undoubtedly affected the number of patents generated from the investment. We have reviewed the collective data to ensure that there has been no double-counting across years (see revised baseline graph) and removed ten that appeared to have been double-reported. Thirdly, we have concerns that researchers may not be reporting all of the outputs. We are re-developing our on-line reporting system in 2015 to better capture all research outputs and make reporting less onerous for our research teams.

***About this indicator***
*Patents indicate innovation and commercial outcomes. The number of patents filed varies considerably from year to year, according to the mix of research investments and the amount available for new biomedical contracts. The HRC hopes to achieve around 15 patents registered/granted per year and maintain this rate despite increasing fiscal restraints.*

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target | |
|---|---|---|---|---|
| **Outcome: The healthcare system is improved through research evidence & innovation** | | | | |
| **3. Percentage of NZHD contracts involving cost-effectiveness or economic analyses** |  | 0% | 10% | Impact<br>**Research improves the quality, cost-effectiveness & sustainability of the health system** |

***Performance: Not achieved***
Only three NZHD contracts were funded in the 2015 round, and none of them involved a specific cost-effectiveness analysis. Fewer applications were funded because there were not enough applications that were sufficiently well-designed and robust to gain HRC support and our assessing committee of experts recommended that no more be supported.

***About this indicator***
*Research in this RIS is designed to feed directly into policy and clinical decision-making. The cost-effectiveness of new and existing treatments and interventions is vital information that must be formally addressed through study design, and usually involvement of a health economist. The HRC actively prioritizes and tracks such research. We want a significant proportion of contracts in this RIS to have a cost-effectiveness component, but the number of health economists in our workforce is currently low (we monitor this). We have taken this into account when setting our future target. (Link to HRC Statement of Intent 2014–2018 Outcome 2 for indicators on translational research and involvement of practicing clinicians in research.)*

| | | | | |
|---|---|---|---|---|
| **Outcome: The best clinicians & health researchers are supported & retained in NZ** | | | | |
| **4. Number of salaried research positions on HRC contracts** |  | 2857 | 2000 | Impact<br>**Sustainable career pathways enhance the skills of researchers & clinicians** |

***Performance: Achieved***
We have exceeded our target for the number of people that are gaining valuable research experience through support on HRC contracts, with the collective contribution of this workforce being equivalent to 628 full-time roles.

***About this indicator***
*The HRC has a critical role in supporting and building the health research workforce in New Zealand. Our goal is to support approximately 2000 positions on contracts at any given time. (Link to HRC Statement of Intent 2014–2018 Outcome 2 for clinical workforce & Outcome 3 for an indicator on Māori workforce.)*

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target |
|---|---|---|---|
| **5. Percentage of current contracts involving end-users & clinicians** | 67% in 2012/13<br>48% in 2013/14 | 50% | 60% |



***Performance: Not achieved***

There has been a drop in the proportion of the HRC research workforce that is clinically qualified in the last year. We believe this is because we funded fewer clinical trials in the last two funding rounds – after introducing a specialist assessing committee for clinical trials. This move eliminated concerns about the design of trials in some of the proposals we were receiving, but also meant that fewer trials met the criteria for funding and this has impacted on our performance indicator. However, we still consider this level of end-user involvement in our research to be a good result.

***About this indicator***

*End-user engagement is essential to increase the utility and uptake of research. However, we must balance investment with support for pre-clinical research, a vital driver of innovation, which traditionally has not involved clinicians and end-users in the early stages.*

*(Link to HRC Statement of Intent 2014–2018 Outcome 2 for clinical workforce and translational research.)*

# Output 2: Career development contracts

| Cost 2014/15 | Actual 2015 $(000) | Budget 2015 $(000) | Actual 2014 $(000) |
|---|---|---|---|
| Funding from Crown | 5,899 | 5,910 | 5,907 |
| Interest Received | 316 | 28 | 262 |
| Other | 41 | 32 | 74 |
| Total Revenue | 6,256 | 5,970 | 6,242 |
| Cost of Output | 6,715 | 6,330 | 6,568 |
| Surplus (Deficit) | (459) | (360) | (325) |

## Scope of the Output

The HRC offers a programme of career development awards, each aimed at addressing a gap in the health research workforce and building vital capacity. In the period ending July 2015, there were 128 active career development contracts, some of which had been initiated up to four years previously.

Thirty awards were offered in the areas of Māori, Pacific and clinical health research, to support a mixture of Masters, PhD and post-doctoral researchers. Two prestigious Sir Charles Hercus Health Research Fellowships were offered. These Fellowships aim to build future capability to conduct world-class research in New Zealand. These advanced post-doctoral fellowships support an outstanding emerging researcher (4-8 years post PhD) who wishes to establish a career in health research in New Zealand – this includes those returning to New Zealand from overseas. All career development awards are chosen on the basis of expert review of the proposed research and the potential and record of the applicant.

## Alignment with the HRC's outcome framework

Career development contracts awarded through this Output deliver to the following outcomes:

- Outcome 1: New knowledge, solutions and innovations for health are created.
- Outcome 2: The healthcare system is improved through research evidence.
- Outcome 3: The best clinicians and health researchers are attracted, supported and retained in New Zealand.

IMPACT

**Savings of $700 per patient for obesity surgery**

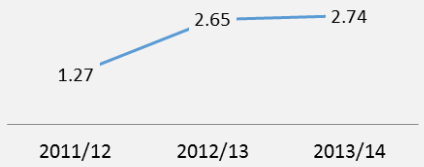
With the support of a **HRC Clinical Research Training Fellowship**, house surgeon Dr Daniel Lemanu showed that **optimised care protocols for bariatric surgery reduced hospital stays to just one day with no increase in complications, saving around $700 per patient.**

Dr Lemanu has published his findings in the ***British Journal of Surgery***, and the protocol has now been **implemented as part of standard care at Manukau Surgery Centre (Counties Manukau DHB).**

## Performance Indicators

Key performance indicators identified for this Output are those that enable us to capture the gaps the HRC is targeting in the health research workforce, and to determine whether the career development opportunities the HRC offers are creating an effective career pathway that results in successful retention of this vital capacity and capability.

## Performance indicators for Output 2: Career development contracts

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target |
|---|---|---|---|
| **Outcome: The best clinicians & health researchers are supported & retained in NZ** | | | |
| **Sustained investment in clinical research training & career development** |  | $2.21M | $2.65M |

Impact

**Research opportunities for front-line clinicians are delivered**

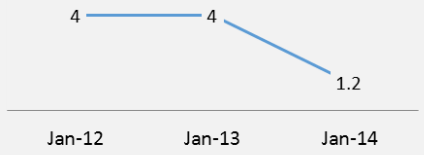
***Performance: Not achieved***

We fell short of our investment target in 2014/15 because we were only able to fund one Clinical Practitioner Fellowship, instead of the usual two. Although the HRC received four applications in the 2014/15 round, only one was recommended for funding.

***About this indicator***

*This indicator reflects the investment in the HRC's Clinical Training Fellowship and Clinical Practitioner Fellowships, launched in 2012. These awards are a priority for investment and we want to maintain the current level of support until new funds become available. See also Output 1 for the indicator on clinical workforce.*

*(Link to HRC Statement of Intent 2014–2018 Outcome 2 for clinical workforce and Outcome 3 for an indicator on Māori workforce.)*

| | | | |
|---|---|---|---|
| **Average number of HRC Project or Programme contracts awarded to Sir Charles Hercus Postdoctoral Fellowship (SCHPF) award recipients** |  | 4<br>Jan 2015 | 1.0 |

Impact

**Promising emerging researchers gain valuable research experience**

***Performance: Achieved***

It is reassuring that the individuals that we have picked as future research leaders are competing successfully in our Annual Funding Round after completing their Fellowship.

***About this indicator***

*The SCHPF is awarded to future research leaders, some repatriated from overseas. Once we have identified these individuals, we track their research careers to see if they remain in health research (see performance indicators for Outcome 3, HRC's Statement of Intent 2014–2018). One measure of whether we have correctly identified strong candidates is whether they are able to successfully compete in future HRC funding rounds. The award has only been offered for 11 years, and so the number of previous awardees included in the analysis is relatively small (14 in 2014/15). The analysis is done in the first half of the year, and so the baseline does not correspond to a financial year.*

# Output 3: Co-funding relationships

| Cost 2014/15 | Actual 2015 $(000) | Budget 2015 $(000) | Actual 2014 $(000) |
|---|---|---|---|
| Funding from Crown | 4,115 | 3,770 | 3,606 |
| Interest Received | 105 | 201 | 75 |
| Other | 29 | 229 | 44 |
| Total Revenue | 4,249 | 4,200 | 3,725 |
| Cost of Output | 1,658 | 3,800 | 4,180 |
| Surplus (Deficit) | 2,591 | 400 | (455) |

## Scope of the Output

Through research co-funding relationships, the HRC can maximise the investment in health research. By using Vote Science and Innovation funding to leverage additional investment from other agencies (both public and private sector), not only can more significant pieces of research be funded than the individual agencies alone could support, but there is increased co-ordination of research across agencies. Additionally, co-funding is a useful tool to promote the 'ownership' of health research outcomes by other agencies, thereby increasing the likelihood that there will be transfer of research knowledge and translation into tangible change in policy or practice. The HRC invests in co-funding relationships through the Partnership Programme and the International Relationships Fund.

In 2014/15, HRC and partners supported research in areas as diverse as rheumatic fever; breast cancer; respiratory disease and pertussis.

## The Partnership Programme

The HRC established the Partnership Programme in 2000 to deliver research that more effectively meets the knowledge needs of policy-makers, planners and those involved in healthcare delivery. In addition, we have used this model as a means of leveraging funding, making it possible to commission larger, more significant pieces of research than each funding partner alone could afford to support. Through the programme, the HRC partners directly with stakeholders to commission research that is needed for the purposes of planning or policy. Since the inception of the scheme, we have entered into funding agreements with a wide range of partners – both Government and non-Government agencies. Use of the HRC's expertise and processes for commissioning research is a prerequisite in all funding agreements. We also commission health research on behalf of other funders who wish to take advantage of these processes, but do not require co-funding from the HRC.

## International Relationships Fund

The International Relationships Fund (IRF) has been created to foster international collaboration for science and technology-linked activities which advance New Zealand's national interests. The work plan for the IRF has been determined by the outcomes of the Joint Science and Technology Cooperation meetings held between New Zealand (via MBIE) and overseas governments, where an overarching agreement has been formed with the United States, the European Union and China to undertake work with a focus on non-communicable diseases (NCDs).

In 2014/15, MBIE provided the HRC with further funds to invest in the e-Asia JRP scheme ($450,000 over three years for allocation to one new research project). The new project will focus on either infectious diseases or cancer research. We also confirmed our successful provider for the 2014 round (*see* 'New battle, old disease' on the next page).

## The Human Frontier Science Program (HFSP)

The Human Frontier Science Program is a program of funding for frontier research in the life sciences. It is implemented by the International Human Frontier Science Program Organization (HFSPO) with its office in Strasbourg. The members of the HFSPO, the Management Supporting Parties (MSPs), are the contributing countries and the European

Union, which contributes on behalf of the non-G7 EU members.

The current MSPs are Australia, Canada, France, Germany, India, Italy, Japan, Republic of Korea, Norway, New Zealand, Singapore, Switzerland, the United Kingdom, the United States of America and the European Union.

New Zealand's membership of HFSP is via the HRC, with funding support from MBIE. New Zealand was admitted as a member in 2006. In March 2013, MBIE approved continued investment in this area for a further three years. The HRC's current Output Agreement for the 15/16 financial year provides funding support for another year.

HFSP rounds continue to attract increasing numbers of applicants to what is a very competitive process, which emphasises excellence and proposals that are in the 'frontier' of research in the life sciences. There are high levels of interest in the HFSP programmes by New Zealand researchers, a number of which are encouraged to make full applications. However, there were no successful New Zealand researchers in any of the award categories in 2014. In 2015, a collaborative team involving a researcher from New Zealand in partnership with collaborators in the Netherlands, France and Israel were successful in receiving an HFSP research grant. A new round is currently underway.

The HRC has discussed HFSP with the science and innovation representatives based overseas (Micaela Buckley Counsellor, USA and Canada and Bruce McCallum Counsellor, European Union) as part of on-going efforts to support collaborative research bids involving New Zealand scientists and communicate the opportunities presented by the Human Frontier Science Program.

### E-Asia

The E-ASIA programme is a multilateral funding scheme designed to support joint research projects amongst the ASEAN +8 countries. The programme pursues scientific/technological fields prioritized by its members, as well as solutions to common environmental and societal challenges in the region. The programme also aims at raising the collective level of science and technology capabilities and capacity in the East and South East Asian regions.

### New battle, old disease: combating resistance to tuberculosis treatments


The growing number of tuberculosis (TB) infections that are resistance to every drug in our arsenal against the disease means that **TB is again become a major health issue for developed nations** – as it has always been in developing countries. Fortunately, medical science has advanced considerably since this was last the case. In 2014/15, **the HRC used renewed funding from MBIE to support an exciting collaborative study with Myanmar and Indonesia** (two countries with a high TB burden) through which **NZ scientists will introduce the latest techniques in whole-genome sequencing to search TB genes for susceptibility to drugs**. One of the longer term aims of the project is to **enable NZ researchers to participate in a world-wide network of experts working in the rapidly growing field of 'linked big data'**. The increasing availability of linkable electronic health records on millions of people has the potential to revolutionise research methods and will be key in our battle against this ancient foe.

*Professor Gregory Cook, Whole genome sequencing of drug-resistant Mycobacterium tuberculosis strains, $450K, HRC reference: 15/648*

At present, the programme has five research themes: nanotechnology and materials; disaster prevention; health (comprising both infectious diseases and cancer research); biomass and plant sciences; and advanced interdisciplinary research towards innovation. The HRC is a Member Organisation of the E-Asia programme, representing New Zealand as a Member Country. This role includes

administering a recent round focusing on infectious diseases research (*see* 'New battle, old disease: combating resistance to tuberculosis treatments on the previous page).

The submission of four New Zealand-led proposals with the participation of five other member countries, illustrates that New Zealand has both the capacity and the international linkages in the region to contribute to E-ASIA. Further enhancement of both capacity and linkages can be expected through our on-going participation. These significant outcomes will add to the benefits New Zealand gains through improved health outcomes.

The programme has been expanded to include cancer research in addition to infectious diseases research, and this provides even greater opportunities for us to participate. HRC is currently preparing for an upcoming E-ASIA board meeting in Yangon, Myanmar on 12 August 2015. There will be an "Infectious Diseases and Malignancies" workshop directly after the board meeting, to help facilitate the next Call for Proposals in the field of health research.

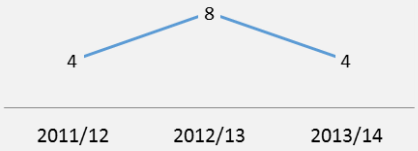
No new calls were issued for the EU, US or China collaborations. However, the existing projects continue to progress. We received new funding at the end of the 2014/15 year for investment into the activities arising from the most recent Joint Commission Meetings for the US and China. For China, we are continuing to invest in non-communicable diseases – building on our existing two projects. We have a further $400,000 from MBIE to allocate to a new project in this area. We also prepared a bid for HRC participation in a major EU scheme – the European Joint Programming Initiative – A Healthy Diet for a Healthy Life.

Health research contracts awarded through this output deliver to the following outcomes:

- Outcome 1: New knowledge, solutions and innovations for health are created.
- Outcome 2: The healthcare system is improved through research evidence.
- Outcome 5: The relevance, responsiveness and robustness of health research is improved.

## Performance indicators for Output 3: Co-funding relationships

The performance indicators relate to our ability to develop strategic partnerships with other agencies in the health research sector, and the benefit leveraged from these partnerships.

| Annual Performance Indicator | Baseline | 2014/15 Actual | 2014/15 Target | |
|---|---|---|---|---|
| **Outcome: The healthcare system is improved through research evidence & innovation** | | | | |
| **Number of Research Partnerships for NZ Health Delivery (RPNZHD) contracts awarded** |   | 5 | 6 | Impact: **Research is easily accessed & understood & applied by end-users** |

***Performance: Not achieved***

We are satisfied with our investment in this area, which is starting to generate real impacts (see examples, on p37 and 40).

***About this indicator***

*These partnerships deliver research that is needed by the health sector for planning, service delivery or patient care. Researchers team with health-sector stakeholders to increase the utility of the research. These projects are a key part of our strategy to achieve this outcome and so we will continue to fund at least four new projects per year.*

| | | | | |
|---|---|---|---|---|
| **Outcome: The healthcare system is improved through research evidence & innovation** | | | | |
| **Number of new contracts supported through the Health Innovation Partnership fund** | 2 in 2013/14 | 7 | 2 | Impact: **Strategic partnerships engage end-users & leverage benefit** |

***Performance: Achieved***

We are pleased with the number of contracts awarded. The HRC has kept this fund going despite reprioritization of MoH funds to support other operational imperatives – as a temporary measure.

***About this indicator***

*This joint initiative between the HRC and the National Health Committee was launched in 2012 and the first contracts were funded in the 2013/14 financial year. This partnership will directly contribute to our impact through providing much needed evidence on the utility and cost-effectiveness of health technologies.*

# Output 4: Contribution to policy, regulatory and ethical frameworks

| Cost 2014/15 | Actual 2015 $(000) | Budget 2015 $(000) | Actual 2014 $(000) |
|---|---|---|---|
| Funding from Crown | 285 | 290 | 285 |
| Interest Received | 0 | | 0 |
| Other | 0 | | 10 |
| Total Revenue | 285 | 290 | 295 |
| Cost of Output | 217 | 310 | 300 |
| Surplus (Deficit) | 68 | (20) | (5) |

## Scope of the Output

Under this output, the HRC undertakes regulatory activities and safety monitoring, and provides strategic advice on health research issues. These activities are provided primarily through the work of several HRC committees, which are listed below with their key functions.

- **HRC Ethics Committee:** Provides **independent ethical advice on health research of national importance or great complexity**, **accredits all health and disability and institutional ethics committees in New Zealand**, provides **second opinions** on disputed decisions for research involving human participants and on the ethics of introducing innovative practices, and produces **guidelines** on ethical research conduct. The Ethics Committee also administers the Data Monitoring Core Committee.
- **Data Monitoring Core Committee (DMCC):** Provides objective, independent **monitoring of clinical trials in New Zealand**. Primarily, large-scale clinical trials initiated by New Zealand researchers relating to life-threatening diseases, or diseases which cause irreversible morbidity or where there are special concerns regarding patient safety, where the study investigators are inexperienced, or where study integrity could be enhanced by the independence of the DMCC.
- **Gene Technology Advisory Committee (GTAC):** Assesses the **scientific merit of New Zealand applications to produce new medical therapies through the transfer of genes from another species to humans, and between species**. If necessary, GTAC will advise the Minister of Health that such trials should not be allowed to proceed.
- **Standing Committee on Therapeutic Trials (SCOTT):** When requested by the HRC Board, **SCOTT will assess whether or not the proposed clinical trial of a medicine will provide clinically and scientifically useful information**, particularly in relation to the safety and efficacy of the agent.

Part of the HRC's contribution to an ethical health research environment is ensuring that health research in New Zealand is conducted in a way that is culturally appropriate and responsive to the needs of our diverse population. To this end, **HRC provides guidelines on the conduct of Māori health research and Pacific health research** and requires that applicants formally address responsiveness to Māori in research proposals. Following the Report of the Health Committee on its Inquiry into 'Improving New Zealand's Environment to Support Innovation through Clinical Trials in June 2011, the government responded by recommending improvements be made with respect to the efficiency, consistency and transparency of the Health and Disability Ethics Committees (HDECs). **HRC's role in supporting this process of improvement is to continue to review and approve HDECs when they meet the international standard for ethical review**.

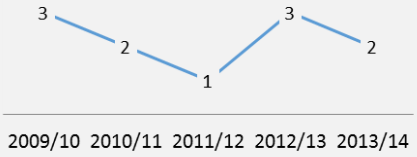
## Alignment with HRC Outcomes Framework

Outcome 4: Health research in New Zealand is ethical and safe.

## Performance Indicators

The performance indicators relate to the HRC's regular communication of ethics issues to the research community, our capacity to provide advice and assistance when new medical therapies and clinical trials require ethical review, and our continued support of the ethical review and approval of New Zealand's Health and Disability Ethics Committees (HDECs).

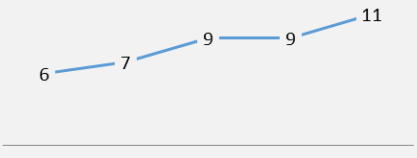
## Performance indicators for Output 4: contribution to policy, regulatory and ethical frameworks

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target |
|---|---|---|---|
| **Outcome: Health research in NZ is ethical and safe** | | | |
| **Number of *Ethics Notes* published to inform researchers of issues on ethics in health research** |  | 2 | 2 |

Impact: **NZ has access to well-informed, independent ethical advice**

***Performance: Achieved***
We are satisfied that a biannual publication is sufficient to meet the needs of the research community, and will continue to evaluate how we can best deliver this service.

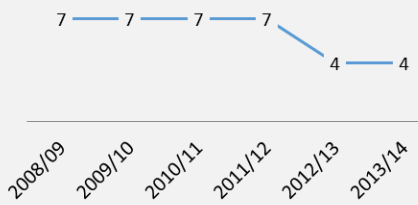
***About this indicator***
*These notes are an important tool for reaching the health research community and so we have used their publication as a metric for disseminating key information and advice.*

| | | | |
|---|---|---|---|
| **Number of HRC-funded clinical trials monitored by the Data Monitoring Core Committee (DMCC)** |  | 10 | 5 |

Impact: **NZ has a high-quality & consistent system of ethical review**

***Performance: Achieved***
We have exceeded the target for this measure, highlighting the need for this important service.

***About this indicator***
*As the DMCC monitors large-scale clinical trials into life-threatening and/or debilitating diseases, the number of trials monitored indicates that health researchers are undertaking work likely to have a major impact for our population and that this work is being closely monitored because of the seriousness of the health condition and the potential outcomes. The number of large clinical trials varies considerably from year to year, and so we have set a target that accounts for this, while setting a significant goal for engagement of the DMCC.*

| Annual performance indicator | Baseline | 2014/15 Actual | 2014/15 Target |
|---|---|---|---|
| **Outcome: Health research in NZ is ethical and safe** | | | |
| **Number of HDECs reviewed & approved by HRC annually** |  | 4 | 4 |



***Performance: Achieved***
Approving HDECs is an important role for the HRC and so we continue to set targets for performance.

***About this indicator***
*To create greater efficiency in the ethical review system, the Government implemented a recommendation to reduce the number of HDECs from seven to four in 2012. The target has been lowered because of the number of HDECs, and not because the HRC has reduced its input.*

## Statement of Comprehensive Revenue and Expense

for the year ended 30 June 2015

| | Note | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| **Revenue** | | | | |
| Funding from the Crown | 2 | 83,347 | 82,992 | 82,827 |
| Interest Revenue | | 1,083 | 630 | 771 |
| Other | 3 | 583 | 720 | 1,101 |
| **Total Revenue** | | 85,013 | 84,342 | 84,699 |
| | | | | |
| **Expenditure** | | | | |
| Research Grant expenditure | 4 | 80,960 | 78,112 | 75,411 |
| Secretariat costs | | | | |
| Assessment and Council Committee costs | 5 | 890 | 924 | 848 |
| Personnel costs | 6 | 2,628 | 2,810 | 2,771 |
| Depreciation and amortisation expense | | 49 | 60 | 28 |
| Other | 7 | 723 | 726 | 896 |
| | | 4,290 | 4,520 | 4,543 |
| **Total Expenditure** | | **85,250** | **82,632** | **79,954** |
| | | | | |
| **Total Comprehensive revenue and expense** | | **(237)** | **1,710** | **4,745** |

## Statement of Changes in Equity

for the year ended 30 June 2015

| | Note | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| **Equity at the beginning of the year** | 14 | 14,572 | 14,560 | 9,827 |
| Total comprehensive revenue and expense for the year | | (237) | 1,710 | 4,745 |
| **Equity at the end of the year** | | **14,335** | **16,270** | **14,572** |
| | | | | |
| **Represented By** | | | | |
| General Funds | | 12,478 | 14,570 | 12,795 |
| Foxley Reserve Fund | | 1,857 | 1,700 | 1,777 |
| **Total Equity at 30 June** | | **14,335** | **16,270** | **14,572** |

Explanation of major variances to the Budget are provided in Note 24. The accompanying accounting policies and notes form part of these financial statements

## Statement of Financial Position

as at 30 June 2015

| | Note | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| **Assets** | | | | |
| **Current Assets** | | | | |
| Cash and cash equivalents | | 1,112 | 1,710 | 607 |
| Short Term Deposits | 8 | 15,782 | 14,720 | 15,357 |
| Funds held on behalf of – Other Agencies | | 18,363 | 20,730 | 21,813 |
| Funds held on behalf of – Foxley Estate | | 1,857 | 1,700 | 1,777 |
| Receivables and Prepayments | 9 | 545 | 500 | 327 |
| **Total Current Assets** | | **37,659** | **39,360** | **39,881** |
| **Non-Current Assets** | | | | |
| Property Plant and Equipment | 12 | 42 | 160 | 53 |
| Intangible Assets | 13 | 113 | 0 | 0 |
| **Total Non-Current Assets** | | **155** | **160** | **53** |
| **Total Assets** | | **37,814** | **39,520** | **39,934** |
| **Liabilities** | | | | |
| **Current Liabilities** | | | | |
| Payables | 10 | 513 | 500 | 797 |
| Contract Retentions | | 3,611 | 1,770 | 2,470 |
| Employee Entitlements | | 174 | 250 | 282 |
| Unearned Management Fees | | 603 | 545 | 544 |
| Funds held on behalf of other agencies | | 5,827 | 20,185 | 6,813 |
| **Total Current Liabilities** | | **10,728** | **23,250** | **10,906** |
| **Non-Current Liabilities** | | | | |
| Funds held on behalf of other agencies | | 12,751 | 0 | 14,456 |
| **Total Non-Current Liabilities** | | **12,751** | **0** | **14,456** |
| **Total Liabilities** | | 23,479 | 23,250 | 25,362 |
| **Net Assets** | | **14,335** | **16,270** | **14,572** |

| | Note | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| **Equity** | | 12,478 | 14,570 | 12,795 |
| General Funds | | 1,857 | 1,700 | 1,777 |
| **Total Equity** | 14 | **14,335** | **16,270** | **14,572** |

Explanation of major variances to the Budget are provided in Note 24.The accompanying accounting policies and notes form part of these financial statements
Please refer to Note 11 for further information on *'funds held on behalf of other agencies.'*

## Statement of Cash Flows

for the year ended 30 June 2015

| | | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| **Cash flows from operating activities** | | | | |
| Receipts from the Crown | | 83,347 | 83,000 | 82,858 |
| Interest | | 1,124 | 630 | 701 |
| Other Revenue | | 384 | 720 | 1,102 |
| | | 84,855 | 84,350 | 84,661 |
| Payments to suppliers | | (82,028) | (79,820) | (76,083) |
| Payments to employees | | (2,335) | (2,740) | (2,671) |
| GST (Net) | | (91) | 0 | 0 |
| | | (84,454) | (82,560) | (78,754) |
| ***Net cash flow from operating activities*** | 15 | **401** | **1,790** | **5,907** |
| **Cash flows from Investing activities** | | | | |
| Receipts from Funds held on behalf of other agencies | | 5,176 | 0 | 8,378 |
| Receipts from Maturing Term Deposits | | 118,559 | 0 | 87,734 |
| | | 123,735 | 0 | 96,112 |
| Funds paid on behalf of other agencies | | (7,866) | 0 | (6,887) |
| Reinvestment of Term Deposits | | (115,614) | 0 | (95,189) |
| Purchase of Property Plant Equipment & Intangibles | | (151) | (20) | (18) |
| | | (123,631) | (20) | (102,094) |
| ***Net cash flow from (applied to) investing activities*** | | **104** | **(20)** | **(5,982)** |
| ***Net increase (decrease) in cash and cash equivalents*** | | **505** | **1,770** | **(75)** |

| | Note | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|---|
| Cash and cash equivalents at the beginning of year | | 607 | (60) | 682 |
| **Cash and cash equivalents at the end of year** | | **1,112** | **1,710** | **607** |

Explanation of major variances to the Budget are provided in Note 24. The accompanying accounting policies and notes form part of these financial statements

**Notes to the Financial Statements**
For the year ended 30 June 2015

**Note 1 - Statement of accounting policies**

**Reporting Entity**
Health Research Council of New Zealand (HRC) is a Crown entity as defined by the Crown Entities Act 2004 and is domiciled and operates in New Zealand. The relevant legislation governing HRC's operations includes the Crown Entities Act 2004 and the Health Research Council Act 1990. HRC's ultimate parent is the New Zealand Crown.

HRC's primary objective is to benefit New Zealand through health research. HRC does not operate to make a financial return.

HRC has designated itself as a public benefit entity (PBE) for financial reporting purposes.

The financial statements for HRC are for the year ended 30 June 2015, and were approved by the Board on 27/10/15.

**Basis of preparation**
The financial statements have been prepared on a going concern basis, and the accounting policies have been applied consistently throughout the period.

**Statement of compliance**
The financial statements of HRC have been prepared in accordance with the requirements of the Crown Entities Act 2004, which includes the requirement to comply with generally accepted accounting practice in New Zealand (NZ GAAP).

The financial statements have been prepared in accordance with Tier 1 PBE accounting standards.

These financial statements comply with PBE accounting standards.

These financial statements are the first financial statements presented in accordance with the new PBE accounting standards. There were no material adjustments arising on transition to the new PBE accounting standards.

**Presentation currency and rounding**
The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars ($000).

**Standards issued and not yet effective and not early adopted**
In May 2013, the External Reporting Board issued a new suite of PBE accounting standards for application by public sector entities for reporting periods beginning on or after 1 July 2014. HRC has applied these standards in preparing the 30 June 2015 financial statement.

In October 2014, the PBE suite of accounting standards was updated to incorporate requirements and guidance for the not-for-profit sector. These updated standards apply to PBEs with reporting periods beginning on or after 1 April 2015. HRC will apply these updated standards in preparing its 30 June 2016 financial statements. HRC expects there will be minimal or no change in applying these updated accounting standards.

**Summary of Significant Accounting Policies**

**Revenue**

The specific accounting policies for significant revenue items are explained below:

*Funding from the Crown*
HRC is a Crown Agency and is primarily funded by the Crown. This funding is restricted in its use for the purpose of HRC meeting the objectives specified in its founding legislation and the scope of the relevant appropriations of the funder.

HRC considers there are no conditions attached to the funding and it is recognised as revenue at the point of entitlement.

The fair value of revenue from the Crown has been determined to be equivalent to the amounts due in the funding arrangements.

*Grants Received*
Grants are recognised as revenue when they become receivable unless there is an obligation in substance to return the funds if the conditions of the grant are not met. If there is such an obligation the grants are initially recorded as grants received in advance and recognised as revenue when conditions of the grants are satisfied.

*Interest Income*
Interest income is recognised using the effective interest method.

*Provision of services*
Services provided to third parties on commercial terms are exchange transactions. Revenue from these services is recognised in proportion to the stage of completion at balance date.

*Donated assets*
Where a physical asset is gifted to or acquired by the HRC for nil or at a subsidised cost, the asset is recognised at fair value and the difference between the consideration provided and fair value of the asset is recognised as revenue. The fair value of donated assets is determined as follows:

- For new assets, fair value is usually determined by reference to the retail price of the same or similar assets at the time the asset was received.
- For used assets, fair value is usually determined by reference to the market information for assets of a similar type, condition and age.

Such assets are recognised as income when control over the asset is obtained.

**Expenditure**

*Research Grant expenditure*
The HRC has no obligation to award grants on receipt of the grant application. The commitment to expenditure is discretionary and only recognised when approval is given by the Grants Approval Committee and Board. Approval is communicated to the applicant and a formal contract for research is agreed. Expenditure is recognised as the obligations under the contract are performed. Provision is made for any retentions held at the end of the contract pending a final research report.

*Operating leases*
An operating lease is a lease that does not transfer substantially all the risk and rewards incidental to ownership of an asset to the lessee. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Lease incentives received are recognised in the surplus or deficit as a reduction of rental expense over the lease term.

*Capital Charge*
Any Capital Charge is recognised as an expense in the financial year which the capital charge relates to.

**Cash and cash equivalents**
Cash and cash equivalents include cash on hand, deposits held on call with banks, and other short-term highly liquid investments with original maturities of three months or less.

**Receivables**
Short-term receivables are recorded at their face value, less any provision for impairment.

A receivable is considered impaired when there is evidence that HRC will not be able to collect the amount due. The amount of the impairment is the difference between the carrying amount of the receivable and the present value of the amounts expected to be collected.

**Property, plant and equipment**
Property, plant and equipment consists of the following asset classes': leasehold improvements, office and computer equipment.

*Additions*
The cost of an item of property, plant and equipment is recognised as an asset only when it is probable that future economic benefits or service potential associated with the item will flow to HRC and the cost of the item can be measured reliably.

Work in progress is recognised at cost less impairment and is not depreciated.

In most instances, an item of property, plant and equipment is initially recognised at its cost. Where an asset is acquired through a non-exchange transaction, it is recognised at its fair value as at the date of acquisition.

*Disposals*
Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of the asset. Gains and losses on disposals are reported net in the surplus or deficit.

*Subsequent costs*
Costs incurred subsequent to initial acquisition are capitalised only when it is probable that future economic benefits or service potential associated with the item will flow to HRC and the cost of the item can be measured reliably.

The costs of day-to-day servicing of property, plant and equipment are recognised in the surplus or deficit as they are incurred.

*Depreciation*
Depreciation is provided on a straight-line basis on all property, plant and equipment at rates that will write-off the cost (or valuation) of the assets to their estimated residual values over their useful lives. The useful lives and associated depreciation rates of major classes of property, plant and equipment have been estimated as follows:

| | | |
|---|---|---|
| Office and computer equipment | 3 to 5 years | 20 – 33% |
| Leasehold improvements | 5 years | 20% |

Leasehold improvements are depreciated over the unexpired period of the lease or the estimated remaining useful lives of the improvements, whichever is the shorter.

The residual value and useful life of an asset is reviewed, and adjusted if applicable, at each financial year end.

**Intangible assets**
*Software acquisition and development*
Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

Costs that are directly associated with the development of software for internal use are recognised as an intangible asset. Direct costs include software development employee costs and an appropriate portion of relevant overheads.

Staff training costs are recognised as an expense when incurred.

Costs associated with maintaining computer software are recognised as an expense when incurred.

Costs associated with development and maintenance of HRC's website are recognised as an expense when incurred.

The carrying value of an intangible asset with a finite life is amortised on a straight-line basis over its useful life. Amortisation begins when the asset is available for use and ceases at the date that the asset is derecognised. The amortisation charge for each financial year is recognised in the surplus or deficit.

The useful lives and associated amortisation rates of major classes of intangible assets have been estimated as follows:

- Acquired computer software 3 years 33%
- Developed computer software 5 years 20%

**Impairment of property, plant and equipment and intangible assets**
HRC does not hold any cash-generating assets. Assets are considered cash-generating where their primary objective is to generate a commercial return.

*Non-cash-generating assets*
Property, plant and equipment and intangible assets held at cost that have a finite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable service amount. The recoverable service amount is the higher of an asset's fair value less costs to sell and value in use.

Value in use is determined using an approach based on either a depreciated replacement cost approach, restoration cost approach, or a service units approach. The most appropriate approach used to measure value in use depends on the nature of the impairment and availability of information.

If an asset's carrying amount exceeds its recoverable service amount, the asset is regarded as impaired and the carrying amount is written-down to the recoverable amount. The total impairment loss is recognised in the surplus or deficit.

**Payables**
Short-term payables are recorded at their face value.

**Employee entitlements**

*Short-term employee entitlements*

Employee benefits that are due to be settled within 12 months after the end of the period in which the employee renders the related service are measured based on accrued entitlements at current rates of pay.

These include salaries and wages accrued up to balance date, annual leave earned but not yet taken at balance date, and sick leave.

A liability for sick leave is recognised to the extent that absences in the coming year are expected to be greater than the sick leave entitlements earned in the coming year. The amount is calculated based on the unused sick leave entitlement that can be carried forward at balance date, to the extent that it will be used by staff to cover those future absences.

A liability and an expense are recognised for bonuses where there is a contractual obligation or where there is a past practise that has created a constructive obligation and a reliable estimate of the obligation can be made

*Long-term employee entitlements*

Employee benefits that are due to be settled beyond 12 months after the end of period in which the employee renders the related service, such as long service leave and retirement gratuities, have been calculated on an actuarial basis. The calculations are based on:

- Likely future entitlements accruing to staff, based on years of service, years to entitlement, the likelihood that staff will reach the point of entitlement, contractual entitlement information, and
- The present value of estimated future cash flows

*Presentation of employee entitlements*

Sick leave, annual leave and vested long service are classified as a current liability. Non-vested long service leave and retirement gratuities expected to be settled within 12 months of balance date are classified as a current liability. All other employee entitlements are classified as a non-current liability.

**Superannuation schemes**

*Defined contribution schemes*

Obligations for contributions to Kiwi Saver and the Government Superannuation Fund are accounted for as defined contribution superannuation schemes and are recognised as an expense in the surplus or deficit as incurred.

**Equity**

Equity is measured as the difference between total assets and total liabilities. Equity is disaggregated and classified into the following components.

- Accumulated surplus/(deficit);
- Foxley Estate Reserve Fund.

The Foxley Estate Reserve Fund relates to the assets bequeathed to the HRC. Interest received on these assets is credited to the reserve. Grants made for research sabbaticals are charged against the reserve.

**Goods and services tax**
All items in the financial statements are presented exclusive of GST, except for receivables and payables, which are presented on a GST-inclusive basis. Where GST is not recoverable as input tax, it is recognised as part of the related asset or expense.

The net amount of GST recoverable from, or payable to, the Inland Revenue Department (IRD) is included as part of receivables or payables in the statement of financial position.

The net GST paid to, or received from, the IRD, including GST relating to investing and financing activities, is classified as a net operating cash flow in the statement of cash flows.

Commitments and contingencies are disclosed exclusive of GST.

**Income Tax**
HRC is a public authority and consequently is exempt from the payment of income tax. Accordingly, no provision has been made for income tax.

**Budget figures**
The budget figures are derived from the statement of performance expectations as approved by the Board at the beginning of the financial year. The budget figures have been prepared in accordance with NZ GAAP, using accounting policies that are consistent with those adopted by the Board in preparing these financial statements.

**Cost allocation**
HRC has determined the cost of outputs using the cost allocation system outlined below.

Direct costs are those costs directly attributed to an output. Indirect costs are those costs that cannot be identified in an economically feasible manner with a specific output.

Direct costs are charged directly to outputs. Indirect costs are charged to outputs based on cost drivers and related activity or usage information. Depreciation is charged on the basis of asset utilisation. Personnel costs are charged on the basis of actual time incurred. Property and other premises costs, such as maintenance, are charged on the basis of floor area occupied for the production of each output. Other indirect costs are assigned to outputs based on the proportion of direct staff costs for each output.

There have been no changes to the cost allocation methodology since the date of the last audited financial statements.

**Critical accounting estimates and assumptions**
In preparing these financial statements, HRC has made estimates and assumptions concerning the future. These estimates and assumptions may differ from the subsequent actual results. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

**Critical judgements in applying accounting policies**
Management has exercised the following critical judgments in applying accounting policies:

*Leases classification*
Determining whether a lease agreement is a finance or an operating lease requires judgement as to whether the agreement transfers substantially all the risks and rewards of ownership to the HRC.

Judgement is required on various aspects that include, but are not limited to, the fair value of the leased asset, the economic life of the leased asset, whether or not to include renewal options in the lease term and determining an appropriate discount rate to calculate the present value of the minimum lease payments.

Classification as a finance lease means the asset is recognised in the statement of financial position as property, plant and equipment whereas for an operating lease no such asset is recognised.

The HRC has exercised its judgement on the appropriate classifications of leases and have determined no lease arrangements are finance leases.

*Research Grant Expenditure*
For purposes of making payments HRC applies judgement during the year when determining whether an appropriate level of progress and quality has been achieved. It also ensures that no other change events have occurred which might affect payment.

| | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|
| **Note 2 - Revenue from the Crown** | | | |
| **Non-Exchange Transactions** | | | |
| Grants from Ministry of Business, Innovation and Employment | 83,062 | 82,707 | 82,542 |
| Grants from Ministry of Health | 285 | 285 | 285 |
| | **83,347** | **82,992** | **82,827** |

The HRC has been provided with funding from the Crown for the specific purposes of the HRC as set out in its Output Agreement with MBIE and MoH. Apart from these general restrictions, there are no unfulfilled conditions or contingencies attached to government funding (2014 nil).

| **Note 3 - Other Income** | **Actual 2015 $000** | **Budget 2015 $000** | **Actual 2014 $000** |
|---|---|---|---|
| **Non Exchange Transactions** | | | |
| Bequests and Donations received | 10 | 20 | 106 |
| **Exchange Transactions** | | | |
| Joint Venture Management and Other Committee Fees | 573 | 700 | 995 |
| | **583** | **720** | **1,101** |

| **Note 4 Research Grant Expenditure** | | | |
|---|---|---|---|
| Health Research Contracts | 72,382 | 66,492 | 64,184 |
| Co-funding Relationships | 811 | 3,300 | 2,845 |
| Career Development Contracts | 6,303 | 6,000 | 6,274 |
| Vision Matauranga | 1,285 | 1,980 | 1,886 |
| International Relationships | 179 | 340 | 222 |
| | **80,960** | **78,112** | **75,411** |

| **Note 5 - Assessment and Council Committee Costs** | | | |
|---|---|---|---|
| Meetings & Committee Costs | 459 | 450 | 379 |
| Council Costs | 431 | 474 | 469 |
| | **890** | **924** | **848** |

| **Note 6 - Secretariat Personnel Costs** | | | |
|---|---|---|---|
| Salaries | 2,352 | 2,472 | 2,449 |
| Employer contributions to defined contribution plans | 175 | 0 | 258 |
| Other personnel costs | 101 | 338 | 64 |
| Total Personnel Costs | **2,628** | **2,810** | **2,771** |

| | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|
| **Note 7 - Secretariat Other Costs** | | | |
| Property Costs | 296 | 319 | 298 |
| Fees to Audit New Zealand for audit of financial statements | 59 | 65 | 59 |
| Other | 368 | 342 | 539 |
| | **723** | **726** | **896** |

**Note 8 - Cash and Short term deposits**

| | | | |
|---|---|---|---|
| Cash and cash equivalents | 1,112 | 1,710 | 607 |
| Short Term Deposits | | | |
| Term deposits | 15,782 | 14,720 | 15,357 |
| Term deposits held on behalf of other agencies | 18,363 | 20,730 | 21,813 |
| Term deposits Foxley Estate fund | 1,857 | 1,700 | 1,777 |
| | 36,002 | 37,150 | 38,947 |
| **Total Cash and Short Term Deposits** | **37,114** | **38,860** | **39,554** |

The carrying value of short term deposits which are invested with maturity dates of four months or less approximates their fair value. The effective interest rates on deposited funds ranged from 3.45% pa to 4.63% pa. (2014 4.00% pa to 4.47% pa). Funds are held on behalf of the other agencies pending the release of those funds to research projects that will be approved jointly by HRC and the partner.

| **Note 9 – Receivables** | Actual 2015 $000 | Budget 2015 $000 | Actual 2014 $000 |
|---|---|---|---|
| Interest Accrued | 211 | 0 | 251 |
| Prepayments | 16 | 0 | 1 |
| Other Receivables | 318 | 500 | 75 |
| | **545** | **500** | **327** |
| Receivables from the sale of goods and services (exchange transactions) | 545 | 500 | 327 |
| Receivables from grants (non-exchange transactions) | 0 | 0 | 0 |

The carrying value of receivables approximates their fair value. As at 30 June 2015 and 2014, all receivables have been assessed for impairment, there is no impairment. There were no past due receivables (2014 nil).

| **Note 10 – Payables** | **Actual 2015 $000** | **Budget 2015 $000** | **Actual 2014 $000** |
|---|---|---|---|
| **Current** | | | |
| Cost shares received in advance | 217 | 0 | 417 |
| Accrued costs | 59 | 0 | 39 |
| GST | 14 | 42 | 132 |
| Other payables | 223 | 458 | 209 |
| | **513** | **500** | **797** |

| **Note 11 - Funds held on behalf of other agencies** | **Actual 2015 $000** | **Budget 2015 $000** | **Actual 2014 $000** |
|---|---|---|---|
| Current | 5,827 | 20,186 | 6,813 |
| Non - Current | 12,751 | 0 | 14,456 |
| | **18,578** | **20,186** | **21,269** |

Funds held on behalf of other agencies are interest bearing. Where funds have been committed to research contracts, payment terms are dependent on the individual underlying contracts. Uncommitted funds are held with no payment terms.

| **Note 12 - Property, Plant and Equipment** | **Office & Computer Equipment $000** | **Leasehold Improvements $000** | **Total $000** |
|---|---|---|---|
| **Cost** | | | |
| Balance at 1 July 2013 | 327 | 111 | 438 |
| Additions | 18 | 0 | 18 |
| Disposals | (9) | 0 | (9) |
| Balance at 30 June 2014 | 336 | 111 | 447 |
| | | | |
| Balance at 1 July 2014 | 336 | 111 | 447 |
| Additions | 16 | 0 | 16 |
| Disposals | (125) | 0 | (125) |
| **Balance at 30 June 2015** | **227** | **111** | **338** |

| | | | |
|---|---|---|---|
| **Accumulated Depreciation** | | | |
| Balance at 1 July 2013 | (268) | (107) | (375) |
| Depreciation expense | (27) | (1) | (28) |
| Disposals | 9 | 0 | 9 |
| Balance at 30 June 2014 | (286) | (108) | (394) |
| | | | |
| Balance at 1 July 2014 | (286) | (108) | (394) |
| Depreciation expense | (25) | (2) | (27) |
| Disposals | 125 | 0 | 125 |
| **Balance at 30 June 2015** | **(186)** | **(110)** | **(296)** |
| | | | |
| **Carrying Value** | | | |
| At 30 June 2014 | 50 | 3 | 53 |
| **At 30 June 2015** | **41** | **1** | **42** |

| **Note 13 - Intangible Assets** | **Internally Generated Software $000** | **Total $000** |
|---|---|---|
| **Cost** | | |
| Balance at 1 July 2013 | 0 | 0 |
| Additions | 0 | 0 |
| Disposals | 0 | 0 |
| Balance at 30 June 2014 | 0 | 0 |
| | | |
| Balance at 1 July 2014 | 0 | 0 |
| Additions | 135 | 135 |
| Disposals | 0 | 0 |
| **Balance at 30 June 2015** | **135** | **135** |

| **Note 13 - Intangible Assets** | **Internally Generated Software $000** | **Total $000** |
|---|---|---|
| **Accumulated Amortisation** | | |
| Balance at 1 July 2013 | 0 | 0 |
| Amortisation expense | 0 | 0 |
| Disposals | 0 | 0 |
| Balance at 30 June 2014 | 0 | 0 |
| | | |
| Balance at 1 July 2014 | 0 | 0 |
| Amortisation expense | (23) | (23) |
| Disposals | 0 | 0 |
| **Balance at 30 June 2015** | **(23)** | **(23)** |
| | | |
| Carrying Value | | |
| At 30 June 2014 | 0 | 0 |
| **At 30 June 2015** | **113** | **113** |

| **Note 14 – Equity** | **Actual 2015 $000** | **Budget 2015 $000** | **Actual 2014 $000** |
|---|---|---|---|
| **Accumulated surplus/deficit** | | | |
| Balance 1 July | 12,795 | 12,860 | 8,121 |
| Surplus/(deficit) for the year | (237) | 1,710 | 4,745 |
| Transfer of Net Income to Foxley Reserve Fund | (80) | 0 | (71) |
| Balance 30 June | 12,478 | 14,570 | 12,795 |
| | | | |
| **Foxley Reserve Fund** | | | |
| Balance 1 July | 1,777 | 1,700 | 1,706 |
| Transfer from Accumulated surplus/deficit | 80 | 0 | 71 |
| Balance 30 June | 1,857 | 1,700 | 1,777 |
| | | | |
| **Total Equity at 30 June** | **14,335** | **16,270** | **14,572** |

The Foxley Reserve fund is a bequest received by the Council in 1998. The Council resolved to hold the bequest funds as the "Foxley Reserve Fund" and to support the Foxley Fellowship from the interest earned by the fund. Income from interest earned by the fund was previously recorded through the Statement of Changes in Equity. In the current year this income has been recorded through the Statement of Comprehensive Revenue and Expense. Comparative figures for the prior year have been restated accordingly.

| **Note 15 - Reconciliation of Operating surplus(deficit) to net cash flow from operating activities** | **Actual 2015 $000** | **Budget 2015 $000** | **Actual 2014 $000** |
|---|---|---|---|
| Surplus/(deficit) for year | (237) | 1,710 | 4,745 |
| *Add non-cash items* | | | |
| Depreciation and Amortisation expense | 49 | 60 | 28 |
| *Add/(Deduct) movements in working capital items* | | | |
| Receivables increase/(decrease) | (217) | 20 | (9) |
| Payables increase/(decrease) | 806 | 0 | 1,143 |
| **Net cash flow from operating activities** | **401** | **1,790** | **5,907** |

**Note 16 - Operating Leases**

| *Operating Leases as lessee* | **2015 $000** | **2014 $000** |
|---|---|---|
| Not later than one year | 248 | 210 |
| later than one year and not later than five years | 993 | 840 |
| later than five years | 124 | 105 |
| **Total non-cancellable operating leases** | **1,365** | **1,155** |

No restrictions are placed on HRC by any of its leasing arrangements.

| **Note 17 - Categories of financial assets and liabilities** | **2015 $000** | **2014 $000** |
|---|---|---|
| Loans and Receivables | | |
| Cash and short term deposits | 37,114 | 39,554 |
| Receivables | 545 | 327 |
| Total loans and receivables | **37,659** | **39,881** |
| *Financial Liabilities measured at amortised cost* | | |
| Payables | 23,478 | 25,362 |
| **Total financial assets and liabilities** | **14,181** | **14,519** |

**Note 18 – Contingencies**

As at 30 June 2015 the HRC has no contingent assets. (2014 nil)

As at 30 June 2015 the HRC has no contingent liabilities. (2014 nil)

**Note 19 - Financial Instruments Risk**

**Market risk**
The interest rates on the HRC's cash and cash equivalents are disclosed in note 8.

*Fair value interest rate risk*
Fair value interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. The HRC's exposure to fair value interest rate risk is limited to its short term deposits (part of note 8 cash and short term deposits) which are held at fixed rates of interest. The HRC does not actively manage its exposure to fair value interest rate risk.

*Cash flow interest rate risk*
Cash flow interest rate risk is the risk that the cash flows from a financial instrument will fluctuate because of changes in market interest rates. The HRC's Investments are issued at fixed interest rates for fixed terms. HRC is exposed to cash flow interest rate risk when investments mature and are reissued. The HRC does not actively manage its exposure to cash flow interest rate risk.

The HRC currently has no variable interest rate investments.

*Currency risk*
Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in foreign exchange rates. HRC does not enter into transactions in foreign currency and does not hold any assets or liabilities denominate in foreign currency. HRC is not exposed to currency risk.

**Credit risk**
Credit risk is the risk that a third party will default on its obligation to the HRC, causing the HRC to incur a loss.

The HRC's maximum credit exposure for each class of financial instrument is represented by the total carrying amount of cash and cash equivalents (note 8) and debtors (note 9). There is no collateral held as security or other credit enhancement in respect of these amounts. None of these financial instruments are past due or impaired.

The HRC has no significant concentrations of credit risk, as it has a small number of credit customers and only invests funds with registered banks with a Standard and Poor's credit ratings of at least AA-.

**Liquidity risk**

Liquidity risk is the risk that the HRC will encounter difficulty raising liquid funds to meet commitments as they fall due. Prudent liquidity risk management implies maintaining sufficient cash and cash equivalents and the availability of funding. HRC's annual revenue from the Crown (note 2) is known at the start for each financial year. Commitments are controlled and limited to this known level and timing of revenue and available cash reserves. In the event that Government funding is not continued, or the progress and or quality of research expected is not achieved then HRC may discontinue contracts at its discretion.

The table below analyses payables (not including employee entitlements) and contract retentions into relevant maturity groupings based on the remaining period at balance date to the contractual maturity date.

| | Carrying Amount $000 | Contractual Cash flows $000 | Less than 6 months $000 |
|---|---|---|---|
| **2014** | | | |
| Payables | 797 | 797 | 797 |
| Contract Retentions | 2,470 | 2,470 | 2,470 |
| **Total** | **3,267** | **3,267** | **3,267** |
| | | | |
| **2015** | | | |
| Payables | 513 | 513 | 513 |
| Contract Retentions | 3,611 | 3,611 | 3,611 |
| **Total** | **4,124** | **4,124** | **4,124** |

**Note 20 Employee Remuneration**

| **Employees receiving over $100,000** | **Actual 2015 No. of Staff** | **Actual 2014 No. of Staff** |
|---|---|---|
| 100,000 to 109,999 | 1 | 1 |
| 110,000 to 119,999 | | 1 |
| 120,000 to 129,999 | 2 | 1 |
| 130,000 to 139,999 | 1 | |
| 140,000 to 149,999 | 3 | 3 |
| 150,000 to 159,999 | 1 | |
| 160,000 to 169,999 | | - |
| 350,000 to 360,000 | | 1 |

| **Councillors' Fees** | Appointed | Retired | **Actual 2015 $** | **Actual 2014 $** |
|---|---|---|---|---|
| Sir R Stewart, KNZM | Sept 09 | | 24,000 | 24,000 |
| Professor R Beasley, CNZM | Sept 09 | | 15,000 | 15,000 |
| Dr M Harwood | Sept 09 | | 12,000 | 12,000 |
| Ms E Ludemann | Sept 09 | | 12,000 | 12,000 |
| Professor L McCowan, ONZM | Feb 14 | | 12,000 | 5,000 |
| Professor A Mercer | Nov 12 | | 15,000 | 15,000 |
| Dr C Powell | Sept 09 | | 12,000 | 12,000 |
| Professor A Richardson | Aug 11 | | 12,500 | 15,000 |
| Ms S Snively, ONZM | Dec 10 | | 12,000 | 12,000 |
| Professor S Stott | Jan 08 | Jan 14 | 0 | 7,000 |
| Professor L Tuhiwai Smith, CNZM | Aug 08 | | 15,000 | 15,000 |
| | | | **141,500** | **144,000** |

**Note 21 Related party information and key management personnel**

The Health Research Council is a crown entity. The Government influences the roles of the Health Research Council as well as being its major source of revenue.

Funding revenue has been received from MBIE and MoH, which have the same ultimate parent as HRC. This funding has been declared in note 2.

**Key Management personnel compensation**

| | 2015 $000 | 2014 $000 |
|---|---|---|
| **Board Members** | | |
| Remuneration | 142 | 144 |
| Full-time equivalent members | 0.73 | 0.73 |
| | | |
| **Leadership Team** | | |
| Remuneration | 1,141 | 1,139 |
| Full-time equivalent members | 7.50 | 7.00 |
| | | |
| **Total Key Management Personnel Remuneration** | **1,283** | **1,283** |
| **Total Full Time Equivalent Personnel** | **8.23** | **7.73** |

Key management personnel include all Council members, the Chief Executive, and members of the Leadership Team.

**Note 22 Post Balance Date Events**

There have been no post balance date events that could impact the financial statements for the year ended 30 June 2015. (2014: Nil)

**Note 23 Capital management**

The HRC's capital is its equity, which comprises accumulated funds and other reserves. Equity is represented by net assets.

The HRC is subject to the financial management and accountability provisions of the Crown Entities Act 2004, which impose restrictions in relation to borrowings, acquisition of securities, issuing guarantees and indemnities and the use of derivatives.

The HRC manages its equity as a by-product of prudently managing revenues, expenses, assets, liabilities, investments, and general financial dealings to ensure the HRC effectively achieves its objectives and purpose, whilst remaining a going concern.

**Note 24 Explanation of major variances against budget $000**

**Statement of comprehensive revenue and expense**

*Revenue*
Revenue is above budget primarily driven by additional Co-funding Relationship funding provided by MBIE in late June 2015 $380 and additional interest received from short term deposits $373

*Expenditure*
The cost of producing outputs is above budget $2,618 or 3.2% driven by a decision to increase investment in Research Grant Expenditure after the budget was set as part of a deliberate strategy to promote greater research activity and reduce HRC Equity balances.

**Statement of financial position**

*Current assets*
The reduction in current assets is primarily driven by reduced amounts of funding received from and held on behalf of other agencies, such as the Ministry of Health, for co-funding of research projects.

*Total liabilities*
Total liabilities were $23,478M vs budget $23,250. There is, however, a significant over budget variance in contract retentions $1,841 driven by a greater level of final research contract reports outstanding

than assumed in budget. Offsetting this is a reduced amounts of funding received from and held on behalf of other agencies $1,608

**Statement of Cash flows**
Operating cash flows $321 were lower than budget $1,710 driven by a decision to increase investment in Research Grant Expenditure after the budget was set.

## Statement of resources

As at 30 June 2015

**Operating Resources**
Computer systems
Photocopying machines
Furniture and fittings

**Accommodation**
The Secretariat occupies the 3rd floor of 110 Stanley Street, Auckland.

The lease expires on 31 December 2020. Rights of renewal with two further terms of three years.

The annual rental cost is $0.25M including operating costs.

The Research Staff occupy space at the University of Otago in Dunedin.

**Staff Resources**

| | FTEs 2015 | FTEs 2014 |
|---|---|---|
| **Secretariat** | | |
| Chief Executive (vacant) | 1.0 | - |
| Senior Managers | 7.0 | 5.8 |
| Manager Pacific Health Research | 0.8 | 0.8 |
| Support staff | 16.6 | 19.3 |
| | 25.4 | 26.3 |
| **Research staff** | | |
| Senior research staff | 1 | 1 |
| Other research staff | 2 | 2 |
| | 3 | 3 |

Note: An FTE is a full-time equivalent employee.

**Insurance Cover in respect of Board Members and Employees**

The HRC has in place the following Insurance Policies

1. An Income protection policy in respect of named employees in the event of death by injury
2. An Employer's Liability policy to cover any event in which the HRC becomes legally liable to pay costs in respect of all employees who sustain injury

# Organisational information

The Health Research Council of New Zealand aims to be an Employer of Choice. To that end, a range of strategic and operational procedures are in place as described below. Our leadership team and Board regularly review our performance according to the key elements recognised as being required to be a good employer.

## Our workplace profile

Employee numbers at the Health Research Council have stayed relatively steady with 25.4 FTE at the end June of 2015. The organisation employs 31 staff members with 13 of these working part-time (a number of staff having returned to the workforce after parental leave and or managing other external responsibilities).

We have 25 female staff and six male staff. Managerial positions are in similar proportions with five female managers and two male. Our Secretariat represents a range of nationalities, including Māori and Pacific people and employees across a wide age range. We have some members of staff with specific health needs across a range of conditions (some health conditions and disabilities are not disclosed as is a person's right). We have one staff member who plays a key role in one of our teams who has disclosed their disability to the Council. We have initiated contact with an independent organisation (Be Accessible) to identify future steps to facilitating disabled people into working with our organisation. Our work site is accessible to people with mobility impairment (such as wheelchair use). Our health and safety committee regularly reviews aspects of the workplace that might impact on those members of staff and visitors with specific needs, as well as more generally.

As might be expected given our mandate, we have a number of staff with doctoral qualifications and a number of others with degree-level and professional qualifications.

The Health Research Council has undergone much change during the year, including the resignation of the previous Chief Executive and the death of a senior member of staff. As a result, there are two new senior appointments as noted below. Further, a Strategic Refresh was initiated by the Ministry of Health and the Ministry of Business, Innovation Employment to review our performance and to identify areas for development. The Refresh report is due to be released in the second part of 2015 and may have implications for the role of the Health Research Council going forward. These changes have been challenging for the organisation but have also required and allowed transparency and a revised approach to the organisation's internal and external communications strategy.

### Leadership, accountability and culture

The Health Research Council has undergone significant change in the past 12 months, with the replacement of two senior leadership positions in the early part of 2015 (the Chief Executive and the Finance Manager). The Chief Executive brings significant experience from the health, education and research sectors, as well as governance experience from contributions in a range of private sector as well as government boards. She is ably supported by a senior leadership team who drive the core areas of the business: investment in research, policy and business-related operations and support services.

Leaders of each portfolio of work meet weekly to identify key areas of opportunity, issues of concern and priority initiatives. Information about key activities and priorities is shared with all staff via reporting lines to ensure clarity and transparency. Staff have opportunities to feedback via a monthly meeting of all staff and through intermittent surveys of staff opinion regarding ideas for development, and feedback about the Council as a place to work.

We have a very active Board who monitor performance, challenge the leadership team and provide a key role in ensuring accountability within the organisation. Representation on our Board is diverse in relation to gender, background and ethnicity.

We adopt a constant quality-improvement approach to facilitating development of the organisation and to ensuring we are responding to the needs of our many stakeholders, as well as having a positive influence upon the system within which we work. The culture of the organisation is open and friendly with a clear focus on achieving our mandate. The leadership model is one of inclusivity and transparency in order to support and encourage all staff to perform at their optimum.

## Recruitment, selection and induction

Our emphasis is always on recruitment of the best person to do the job regardless of gender, nationality, disability or age. We receive human resources support from the Ministry of Health, to enable us to ensure impartial and transparent employment processes that guarantee there is no barrier to employing the best people for the job. The Council has a comprehensive induction and on-boarding process which provides operational and support information. New employees are individually talked through the organisation's policies and procedures, which are reviewed and updated on a regular and scheduled basis that is monitored by the office of the Chief Executive.

## Employee development, promotion and exit

All staff members are encouraged to explore development opportunities throughout the year to enable them to build on their skills, enhance qualifications and strengthen organisational knowledge. There is a formalised annual performance review system which is intended to enable staff to reach the goals and objectives identified for them whilst identifying opportunities for their development within the organization. Employees are proactively encouraged to develop their skills and knowledge through attending in-house and external training courses and attending conferences in their field of expertise. A positive, equitable approach to staff development is achieved through producing an annual plan of relevant activity for each staff member and developing a culture of constant learning. Employees are encouraged to initiate and take part in development and social opportunities in team building. In the last 12 months, employees have taken part in a range of activities to celebrate both Māori language week and Pacific cultural awareness activities.

As we are a comparatively small, and very stable workplace, opportunities for promotion are somewhat limited. In view of this, a review of opportunities for advancement is being undertaken by a newly formed 'The Capability and Remuneration Committee'. In lieu of opportunities for promotion, the leadership team approach is to encourage and facilitate autonomy and to acknowledge success and achievement.

We have extremely high staff retention rates. However, on occasions where staff do resign or retire, our policy is for the reporting manager to ensure the appropriate actions are undertaken to manage the exit, support the staff member who is leaving and address needs that arise for other staff and for the organisation. On occasions where exit issues arise that are out of the ordinary, we utilise the support of our human resources team.

## Flexibility and work design

The organisation offers a flexible approach to personal circumstance through flexible hours; glide time; opportunities for part-time employment to facilitate return for people on parental leave and those with other commitments, and an Employee Assistance programme. Staff can also request to work from home in special circumstances. Work flow is monitored by managers to ensure appropriate support is given to staff at times of high pressure. Although we have multiple streams of work, we have a 'one HRC' approach so that there is cross portfolio working and collaboration on new initiatives.

## Remuneration, recognition and conditions

The organisation takes part in regular national salary surveys to ensure its salaries are benchmarked against a range of public and private organisations. In 2015, we initiated a new sub-committee of the Board to monitor the organisation's capability and remuneration to ensure we offer appropriate and competitive salaries and appropriate recognition of performance. We have initiated a review of all positions to inform development of a Remuneration Strategy to guide changes in remuneration (we have engaged the support of an external organisation to assist in this process).

We have a comprehensive set of policies regarding conditions of employment that are regularly updated and reviewed as noted in other parts of this section of the Annual Report.

## Harassment and bullying prevention

Clear policies concerning harassment and bullying prevention are in place, are regularly discussed within the organisation at both the Secretariat and Board levels and are regularly reviewed. Our primary prevention strategies are to have a very clear principle of 'zero

tolerance', to have an agreed set of values and principles by which staff work, and having a clear and transparent communication approach about new initiatives or change. On occasions where a behaviour observed by any member of staff is perceived to be a potential precursor to harassment or bullying (such as short temper or anxiety), discussion with the staff members concerned is enacted (by their line manager or Chief Executive) to address the cause of the issue and make appropriate referral (for example to the Employee Assistance Programme). In cases of bullying or harassment, the policy is adhered to and human resources expertise engaged. All staff and Board members are reminded of the policy and the organisation's zero tolerance.

The Council has recently reviewed its harassment and bullying policy, following the recent completion and dissemination of best-practice sexual harassment policy guidelines by the State Services Commission.

### A Safe and healthy environment

There is an active Health and Safety Committee which meets regularly to ensure a safe and healthy environment. Each member of the Committee has a specific responsibility, including a specific portfolio for 'health and wellbeing at work'. We encourage reporting of any issues of concern and a register of these is kept along with the Committee's response or recommendation. These reports are provided to the Chief Executive.

There is a review of health and safety at the start of each Board meeting and the Risk and Assurance Sub-committee of the Board considers health and safety in detail including a comprehensive site visit each year and a meeting with the Health and Safety Committee. We provide access for staff to an Employee Assistance Programme with regular updates on that service circulated generally. Specific advice or referral is provided to staff on occasions where a manager feels this is warranted. The organisation provides a number of health and wellbeing supports to staff including ergonomic work station assessment for new staff, or if discomfort is reported, and free flu inoculations are available to all staff at the beginning of winter.

## Permission to Act Disclosure of the Council – Crown Entities Act 2004 section 68(6)

| Interest/Specified class of interest to which permission relates | Who gave permission to act and date | Permission to act | Conditions |
|---|---|---|---|
| Employment at the institution in the same department of a First Named Investigator *submitting an application for funding* | G Fraser, Chair, HRC Board<br>14 June 2006 | Remain in the room but not participate in the discussion | As long as minimum interest and not in an administrative role |
| Employment at the institution which is *the subject of an application for funding* | G Fraser, Chair, HRC Board<br>14 June 2006 | Take part in discussion relating to the matter | Comment on fact only |
| Employment at the institution which is *the subject of an application for funding* whose involvement is deemed to be helpful | G Fraser, Chair, HRC Board<br>14 June 2006 | Remain in the room and participate in the discussion but not in the decision | Particular situation noted in the minutes |

None of the permissions were amended or revoked.

## Membership of Council and statutory committees

As at 30 June 2014

### Council

| | |
|---|---|
| Sir Robert Stewart, KNZM (Chair) | Director, Christchurch |
| Professor Richard Beasley, CNZM (Deputy Chair) | Director, Medical Research Institute of New Zealand, Wellington |
| Dr Matire Harwood | Research Fellow and Clinical Director, National Hauora Coalition, Auckland |
| Ms Elspeth Ludemann | Partner, Oamaru |
| Professor Lesley McCowan, ONZM | Head of Department, Department of Obstetrics & Gynaecology , The University of Auckland, Auckland |
| Professor Andrew Mercer | Director, Virus Research Unit, Department of Microbiology and Immunology, University of Otago, Dunedin |
| Dr Conway Powell | Consultant, Dunedin |
| Professor Ann Richardson | Professor of Cancer Epidemiology, Health Sciences Centre, University of Canterbury, Christchurch |
| Ms Suzanne Snively, ONZM | Economic and business entrepreneurialism strategist, Wellington |
| Associate Professor Suzanne Pitama | Associate Dean Māori, MIHI (Māori/Indigenous Health Institute), The University of Otago Christchurch |

### Biomedical Research Committee

| | |
|---|---|
| Professor Laura Bennet (Co-opted) | Department of Physiology, Faculty of Medical and Health Sciences, The University of Auckland, Auckland |
| Professor Mike Berridge | The Malaghan Institute of Medical Research, Wellington |
| Associate Professor Bronwen Connor (Co-opted) | Centre for Brain Research, Faculty of Medical and Health Sciences, The University of Auckland, Auckland |
| Professor John Kolbe | Department of Medicine, Faculty of Medical and Health Sciences, The University of Auckland, Auckland |
| Associate Professor Patrick Manning | Dunedin Hospital, Dunedin |
| Associate Professor Sally McCormick | Department of Biochemistry, University of Otago, Dunedin |
| Associate Professor Mark McKeage | Department of Pharmacology and Clinical Pharmacology, Faculty of Medical and Health Sciences, The University of Auckland, Auckland |
| Associate Professor Alexander McLellan | Department of Microbiology & Immunology, Otago School of Medical Sciences , University of Otago, Dunedin |
| Professor Andrew Mercer, (Chair) | Department of Microbiology and Immunology, University of Otago, Dunedin |

**Public Health Research Committee**

| | |
|---|---|
| Associate Professor Jacqueline Cumming | Health Services Research Centre School of Government , Victoria University of Wellington, Wellington |
| Professor Jeroen Douwes (acting Chair) | Centre for Public Health Research, Massey University, Wellington |
| Dr Hinemoa Elder | Māori health, Auckland |
| Professor Merryn Gott | School of Nursing, The University of Auckland, Auckland |
| Associate Professor Patricia Priest | Department of Preventive & Social Medicine, Dunedin School of Medicine, University of Otago, Dunedin |
| Professor Grant Schofield | Human Potential Centre, Auckland University of Technology, Auckland |
| Professor Robert Scragg | Section of Epidemiology and Biostatistics, School of Population Health, The University of Auckland, Auckland |
| Professor Mark Weatherall | Department of Medicine, University of Otago, Wellington |

**Māori Health Committee**

| | |
|---|---|
| Dr Amohia Boulton | Whakauae Research Services, Te Maru o Ruahine Trust, Whanganui |
| Dr Matire Harwood | Research Fellow and Clinical Director, National Hauora Coalition, Auckland |
| Dr Kahu McClintock | Nursing, education, mental health, Hamilton |
| Dr Helen Moewaka Barnes | Director, Whariki Research Group, Massey University Albany Campus, Auckland |
| Ms Suzanne Pitama | Māori Indigenous Health Institute, University of Otago, Christchurch |
| Professor Linda Tuhiwai Smith, CNZM (Chair) | Pro-Vice Chancellor Māori, Waikato University, Hamilton |
| Mr Paul White | Consultant, Torea Tai Consultants Ltd, Northland |

**Ethics Committee**

| | |
|---|---|
| Dr Lynley Anderson | Bioethics Centre, Medical and Surgical Sciences, Dunedin School of Medicine, University of Otago, Dunedin |
| Professor Richard Beasley, CNZM | Director, Medical Research Institute of New Zealand, Wellington |
| Professor Lesley McCowan, ONZM | Head of Department, Department of Obstetrics & Gynaecology , The University of Auckland, Auckland |
| Professor Graham Mellsop | Professor of Psychiatry, Waikato Clinical School, Peter Rothwell Academic Centre, Hamilton |
| Ms Catherine Ryan | Lawyer, Auckland |
| Dr Barry Smith (Chair) | Lakes District Health Board, Rotorua |
| Associate Professor Huia Tomlins Jahnke | Māori Education, Te Uru Maraurau, School of Māori and Multicultural Education, Massey University, Palmerston North |

# Appendix 1: The HRC's functions under the Health Research Council Act 1990

a) To advise the Minister on national health research policy.

b) To administer funds granted to the Council for the purpose of implementing national health research policy.

c) To negotiate, once every three years, the bulk funding allocations that may be made to the Council by the Government for the funding of health research.

d) To foster the recruitment, education, training, and retention of those engaged in health research in New Zealand.

e) To initiate and support health research.

f) To encourage initiatives into health research by soliciting research proposals and applications, particularly in areas considered by the Council to have a high priority.

g) To consult, for the purpose of establishing priorities in relation to health research, with:

(i) the Minister of Health;
(ii) the Ministry of Health;
(iii) District Health Boards;
(iv) other persons who fund or produce research, whether in the public sector or the private sector, and
(v) persons who have knowledge of health issues from the consumer perspective.

h) To promote and disseminate the results of health research in ways that will be most effective in encouraging their contribution to health science, health policy, and health care delivery.

i) To advertise actively for applications for grants to support proposals or personal awards in relation to health research.

j) To appoint the members of the Biomedical Research Committee, the Public Health Research Committee, the Māori Health Committee and the Ethics Committee.

k) To ensure the development and application of appropriate assessment standards by committees or subcommittees that assess health research proposals.

l) To administer any additional funds that may be made available to the Council from either public or private sources for the support of health research.

# Appendix 2: Key focus of the HRC's Research Investment Streams & their relationship to the outcome framework

| Research Investment Stream | Key Impacts | Outcomes |
|---|---|---|
| **Health & Wellbeing in New Zealand:** Understanding the human body and preventing disease | • A strong research focus on keeping New Zealanders healthy & productive<br>• High-impact, original research is conducted & translated across the research pipeline<br>• Expertise is harnessed to create local solutions to global health challenges<br>• NZ research contributes to international advances | 1. New knowledge, solutions & innovations for health are created<br>2. The healthcare system is improved through research evidence & innovation |
| **Improving Outcomes for Acute and Chronic Conditions in New Zealand:** Better diagnosis, treatment and end-of-life care | • High-impact, original research is conducted & translated across the research pipeline<br>• Expertise is harnessed to create local solutions to global health challenges<br>• NZ research contributes to international advances<br>• Innovative health technologies & therapies develop | 1. New knowledge, solutions & innovations for health are created<br>2. The healthcare system is improved through research evidence & innovation |
| **New Zealand Health Delivery:** Building a better, more efficient & cost-effective health system through research evidence | • More front-line clinicians are engaged in health research<br>• Research is easily accessed, understood & applied by end-users<br>• Research increasingly guides policy & informs decisions<br>• Overseas research is adapted for NZ conditions<br>• New Zealanders have access to new treatments, technologies & improved services that meet their needs<br>• The cost-effectiveness & sustainability of NZ's health system is improved through research | 1. New knowledge, solutions & innovations for health are created<br>2. The healthcare system is improved through research evidence & innovation<br>3. The impact responsiveness & uptake of health research is increased |
| **Rangahau Hauora Māori:** Addressing Māori health issues & building the capacity & capability of the Māori workforce | • High-impact, original research is conducted & translated across the research pipeline<br>• NZ has the research capacity to address the needs of our unique population<br>• Promising emerging researchers gain valuable research experience<br>• Sustainable career pathways enhance the skills of researchers & clinicians | 1. New knowledge, solutions & innovations for health are created<br>3. The impact responsiveness & uptake of health research is increased |

# Glossary of abbreviations and terms

**Bibliometrics:** the study of the influence that scientific publications have in a given field. A number of measures are used that include the relative impact factors of scientific journals, the number of times an article is cited in other publications and the expected number of citations, based on the world average for a particular discipline. Comparisons are made across countries and institutional funders, but never across disciplines.

**DHB:** District Health Board.

**HWNZ:** Health and Wellbeing in New Zealand Research Investment Stream.

**HRC:** The Health Research Council of New Zealand.

**Impacts:** these are the impacts of our activities under our various Outputs, against which we have designed performance indicators to measure our progress towards our stated Outcomes.

**IOACC:** Improving Outcomes for Acute and Chronic Conditions Research Investment Stream.

**MBIE:** Ministry of Business, Innovation and Employment.

**MoH:** Ministry of Health.

**MSI:** Ministry of Science and Innovation.

**NZHD:** New Zealand Health Delivery Research Investment Stream.

**Outcomes:** the benefits that our Impacts will ultimately bring for New Zealand society. These are not directly measurable and so we track our progress through surrogate measures against our Impacts.

**Outputs:** The principal services that we provide and the functions we fulfil, through which we will achieve our impacts.

**Peer review:** Assessment by experts in the field in question – literally, the scientific 'peers' of the applicant.

**Peer-reviewed publications:** Articles published in journals that employ a peer-review process for selection, meaning that the article is thoroughly checked and challenged by scientists in the same field (peers) before publication. There is great competition for publications space in most peer-reviewed journals and only the best research is published. Consequently, peer-reviewed publications are a good metric for research quality.

**PHO:** Public health organisation

**Public Health Intervention:** A programme that has been designed to improve public health, and shown to be effective by sound research evidence. Examples include programmes to help people stop smoking, or those aimed at preventing youth suicide.

**RHM**: Rangahau Hauora Māori Research Investment Stream.

**Research Investment Streams (RIS):** we have four RIS that collectively reflect the full spectrum of possible health research activities in New Zealand that HRC may support. We use these streams to signal our priorities to the research community.

**RIS:** Research Investment Stream(s).

**RPNZHD:** Research Partnerships for New Zealand Health Delivery.

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